

## HANDBOOK OF THE LEICA SYSTEM

PHOTOGRAPHY PROJECTION ENLARGING OBSERVATION



# Handbook of the Leica System

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Leica Camera GmbH Oskar-Barnack-Strasse 11	LEICA R Lenses	2
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The names used in this catalog and those used in conjunction with goods that can be acquired from Leica:

COLORPLAN ELMAR ELMARIT ELMARON EPNOR FOCOMAT FOCOTAR GEOVID HEKTOR HOLOGON LEITZ LEICA LEICAVISION MINILUX NOCTILUX PHOTAR PRADO PRADOLUX PRADOVIT REPROVIT SUMMARIT SUMMICRON SUMMILUX TELEVID TELYT TRINOVID

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Cover page photo. Strombolt /Italy Leica R LPU MACRO-PLMARUT-R L258/400 ann Blandrik Hofel

LEICA Slide Projector LEICA Dissolve Units

LEICA Binoculars LEICA Spotting score

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## Photography



LEICA R7 SUMMICRON-R f/2/90 mm Antonius

### Photography

# **LEICA R Models**

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Alternative dual exposure metering through the lens:

- selective metering
- full-field integral metering

Multi-mode programs:

- aperture priority
- shutter priority
- variable automatic program

Manual setting of shutter speed and aperture.

TTL flash metering with system-compatible flash units (SCA 351/551); depending on program, includes fill-in flash.

Supplementary viewfinder light, mirror lock-up, DX-coding, built-in diopter compensation.

Available as accessories: Interchangeable focusing screens, data back, rapid motor wind, angle view finder, eyecup, additional diopter correction lenses.

Detailed product description on page 1-19.

Use of earlier LEICA R-lenses All LEICA R-lenses can be used on the R 7 without modification.

LEICAFLEX lenses cannot be mounted on the LEICA R7 as this could damage the camera. For use with LEICA R cameras, they must be fitted with a control cam. Modified lenses can be used on both LEICA R and LEICAFLEX cameras. LEICA R Models

## LEICA R7

Multi-Mode System. Compact, single-lens microprocessorcontrolled 35 mm reflex camera

#### LEICA R7

black chrome finish complete with carrying strap, body cap, batteries<sup>1)</sup> and baseplate cover Order No. **10068** 

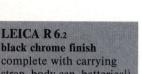
#### LEICA R7

silver chrome finish complete with carrying strap, body cap, batteries<sup>1)</sup> and baseplate cover Order No. **10067** 

 <sup>1)</sup> 6 V (4 silver oxide button cells 1,5 V or 2 lithium cells 3 V, Ø 11,6 mm)

## LEICA R 6.2

Compact, 35 mm single-lens reflex camera with mechanically controlled shutter



strap, body cap, batteries<sup>1)</sup> and baseplate cover Order No. **10074** 

#### LEICA R 6.2 silver chrome finish complete with carrying strap, body cap, batteries<sup>1)</sup> and base plate cover Order No. **10073**



Alternative dual exposure metering through the lens:

- selective metering
- full-field integral metering.

Manual setting of shutter speed and aperture.

TTL flash exposure measurement with systemcompatible flash units and the SCA 351/551 adapters.

Available as accessories: interchangeable focusing screens, data-back, rapid motor wind.

Detailed product description on page 1-23.

#### Use of earlier LEICA R lenses

All lenses of the LEICA R models range can be used on the LEICA R 6.2 without modification.

Lenses of the LEICAFLEX models must not be used on the LEICA R 6.2 as this may lead to damage. For use on the LEICA R cameras, they must be fitted with a control cam, with which they will be suitable for use on both the LEICAFLEX and the LEICA R models.

 <sup>1)</sup> 3 V (2 silver oxide button cells 1,5 V or 1 lithium cell 3 V, Ø 11,6 mm)

## Accessories

Interchangeable focusing screens

Order No. 14303

Order No. 14304

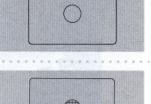
Order No. 14305



Universal screen (replacement) in container with dust brush and tweezers

Uniform ground-glass screen in container with dust brush and tweezers

Microprism screen in container with dust brush and tweezers



Uniform ground-glass screen with grid divisions and TV marks in container with dust brush and tweezers

Clearglass screen with crosslines in container with dust brush and tweezers



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Order No. 14 306 \_\_\_\_\_



## Accessories

Evecup R

Order No. 14215

Angle viewfinder R



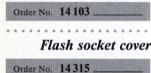


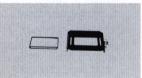
Order No. 14300 \_\_\_\_\_

Correction lenses R

	Order No.
+ 0,5	14 330
+1,0	14 331
+ 1,5	14 332
+ 2,0	14 333
+3,0	14334
-0,5	14 335
- 1,0	14336
- 1,5	14 337
- 2,0	14 338
- 3.0	14 339

Camera body cover





**Eyecup R,** can be locked in place <sup>1)</sup>, can also be used with correction lenses

Angle viewfinder R with single and double magnification for viewing from above, also for candid photography "round the corner" or over the heads of a crowd.

Angle viewfinder R 90°, can be locked in place, vertically and laterally correct image, adjustable eyepiece, switch for single/double magnification.

**Correction lenses R** with adapter (spherical), can be locked in place  $^{1)}$ .

Attachment possible with eyecup 14 215 (see page 1-5)

<sup>1)</sup> The Leica Camera Service Center can fit a locking catch on the eyepiece mount of any LEICA R 4 with a serial number below 1662952 and of LEICA R 4 s. R correction lenses and eyecups may be used without modification of the eyepiece mount.

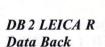
**Camera body cover** R bayonet for all R cameras (replacement)

. . . . . . . . . .

Flash socket cover for LEICA R models (replacement)

Supur





Accessories



DB2 LEICA R Data Back for LEICA R models <sup>1)</sup> The DB2 LEICA R is a camera back for printing data onto the film. Replaces the back of the camera.

Detailed description page 1-27.

Order No. 14216 \_\_\_\_

<sup>1)</sup> not for LEICA R3/R4 models (see page 11-3).



Camera back R for LEICA R cameras (not for LEICA R 3 / R 3 Mot) Camera back R with thumbhold

Order No. 14411



Ever Ready Cases for LEICA R models<sup>2)</sup> (without Motor-Winder, Motor-Drive or Data Back)

Ever Ready Case with standard front for LEICA R models<sup>3)</sup> Order No. 14510

Ever Ready Case with standard front for LEICA R 7 Order No. 14518



#### **Ever Ready Case**

black leather with standard front for the following lenses: f/4/21 mm<sup>1)</sup>, f/2.8/24 mm<sup>1)</sup>, f/2.8/28 mm<sup>1)</sup>, f/2.8/35 mm, f/4/35 mm<sup>1)</sup>, f/1.4/50 mm<sup>1)</sup>, f/2/50 mm

Ever Ready Case with large front for LEICA R models<sup>3)</sup> Order No. 14515

Ever Ready Case with large front for LEICA R 7 Order No. 14517

Ever Ready Case for all LEICA R models

Order No. 14 520 \_\_\_\_





#### **Ever Ready Case**

black leather with large front for the following lenses: f/2.8/16 mm, f/2.8/19 mm <sup>1)</sup>, f/4/21 mm <sup>1)</sup>, f/2.8/24 mm <sup>1)</sup>, f/2.8/28 mm, f/1.4/35 mm, f/2/35 mm, f/2.8/35 mm, f/4/35 mm, f/1.4/50 mm, f/2/50 mm, f/2.8/60 mm, f/1.4/80 mm, f/2.90 mm, f/2.8/90 mm and f/3.5/35-70 mm

Ever Ready Case black leather for LEICA R with VARIO-ELMAR-R f/3.5-4.5/28-70 mm

 without lens hood/without screw-in filter

2) not for LEICA R3

<sup>3)</sup> not for R7

## Accessories

Small combination bag R (compact version)

Small combination bag R black leather Order No. 14843 \_\_\_\_\_

Coupling ring (replacement) Order No. 14836

Large combination bag R (standard version)

Large combination bag R black leather Order No. 14844 \_\_\_\_\_

Coupling ring (replacement) Order No. 14836

Small combination bag R for LEICA R models<sup>1)</sup> (without Motor-Winder / Motor-Drive) holding: 1 LEICA R camera with mounted lens and up to 3 additional lenses.

**Bag** (approx.  $25 \times 14 \times 19$  cm or  $9.8 \times 5.5 \times 7.5$  in) with

- coupling ring to fasten 2 lenses together
- adjustable carrying strap with anti-slip pad
- · front pocket for accessories

Large combination bag R for LEICA R models <sup>1)</sup> with Motor-Winder / Motor-Drive, holding: 1 LEICA R model with Motor-Winder / Motor-Drive, handgrip and lens attached as well as up to 3 other lenses.

**Bag** (about  $31 \times 18 \times 23$  cm or  $12.2 \times 7 \times 9$  in) with

- coupling ring to fasten 2 lenses together
- adjustable carrying strap with anti-slip pad
- · front pocket for accessories





## Accessories

Hold-all R

Hold-all R black leather

Coupling ring (replacement) Order No. 14836.

Reporter's bag without compartments



#### Hold-all R

for LEICA R models<sup>1)</sup> with or without Motor-Winder / Motor-Drive holding: 2 cameras and up to 6 lenses

#### Hold-all R

(external dimensions approx.  $36 \times 21 \times 24$  cm or  $14.2 \times 8.3 \times 9.4$  in) with

- coupling ring to fasten 2 lenses together
- adjustable carrying strap with anti-slip pad
- front pocket for accessories

#### Reporter's bag

External measurements: approx. 38 x 21 x 30 cm or 14.9 x 8.3 x 11.8 in black leather with two additional outer pockets

Order No. 14830 \_\_\_\_

**Ball-and-socket head** 



Large ball-and-socket head with tripod thread A <sup>1</sup>/<sub>4</sub>, DIN 4503 (<sup>1</sup>/<sub>4</sub> in)

Order No. 14110 \_\_\_\_

Photography

DIN 4:

## Accessories

Tabletop tripod

1

**Tableton** tripod with folding legs, tripod thread A 1/4 DIN 4503 (1/4 in)

Cable releases for all camera models with conical thread

Mirror lock-up release R for separate attachment below the lens bayonet lock for LEICA R6, R6.2 and R7

Carrying strap with antislip pad (replacement)

Wide carrying strap with antislip pad for heavy equipment. Width: 30 mm





### Cable releases

Cable release length 25 cm. with clamping screw Order No. 14067

Cable release length 50 cm. with clamping screw Order No. 14076

### Mirror lock-up release

Order No. 14087 **Carrying** straps

Order No. 14235

Order No. 14312

1

## Accessories

**Carrying** straps



#### Neopren carrying strap

And Andrews

### Universal handgrip

42 162

Order No.



shoulder stock adjustable in all directions and therefore individually adaptable by the user. Can also be used as a small tripod. Thread A <sup>1</sup>/<sub>4</sub>, DIN 4503 (<sup>1</sup>/<sub>4</sub> in), for attaching the carrying strap 14 130.

Universal handgrip with

Detailed description page 1-29



Order No. 14239 \_

Order No. 14167

Adapter

#### Adapter

for the use of VISOFLEX 2/3 lenses from the LEICA M range on the LEICA R (at working aperture)

. . . . . . . . . . .

Compact, handy motorwinder for film transport and shutter wind, for LEICA R models (except LEICA R3/R3 mot). Extremely quiet operation through patented, low-noise gear system with loadcontrolled force locking. Single-frame and continuous releases. Frame frequency for continuous release up to 2 fps.

Sturdy, practical design with two conveniently located buttons for continuous shutter release (vertical and horizontal formats), adjustable leather loop, screw with coin slot for attaching the handgrip to the MOTOR-WINDER R or MOTOR-DRIVE R.

 the 5-pin coupling plug 302-013.154-004 is suitable, available from Leica Camera Service Center. Functional handgrip with two buttons for continuous release as accessory.

Socket <sup>1)</sup> for the RC LEICA R Electronic Control Unit and other electrical releases (see accessory range).

Easy and quick interchangeable housing for six regular or rechargeable NiCd batteries.

Detailed description page 1-30.

MOTOR-WINDER R with cover Order No. 14208

Handgrip R/R7 for hand-held exposures

<sup>2)</sup> for MOTOR-WINDER R which has 3 contacts on the contact plate on the face side.

# MOTOR-WINDER R



Handgrip R<sup>2</sup>) Order No. 14308 \_\_\_\_\_ Handgrip R 7<sup>2</sup>) Order No. 14317 \_\_\_\_\_

## Accessories

for MOTOR-WINDER R

> RC LEICA R Electronic Control Unit



Remote-Control LEICA R (RC LEICA R) Order No. 14277 \_\_\_\_\_

Holder for the MW-R battery housing



MW-R battery housing



RC LEICA R

Electronic control unit for remote release. Timing pulse generator for

Timing pulse generator for automatic release built in. Seven integrated circuits (IC) in CMOS technology. Digital display of the exposure through feedback from the camera. Connecting cable permanently attached to the instrument, length 2 m or 6' 6".

Exclusively for the LEICA R with motorized film transport.

Detailed description page 1-34.

Holder for the MW-R battery housing

with connecting sockets marked "+" and "-" for the battery charger, 50 mA, for instance Uni 1 charger by Varta AG; for charging the six NiCd batteries, for instance 501 RS, by Varta AG in the battery housing MW-R.

**MW-R battery housing** for the MOTOR-WINDER R, as replacement. For heavyduty operation (prolonged use, low temperatures, expeditions) a second housing, loaded with new or recharged batteries, offers additional reliability.

Single action change within seconds.

Order No. 14280

Accessories

### Tripod holder R

Tripod holder R

with thread A <sup>1</sup>/<sub>4</sub>, DIN 4503 (<sup>1</sup>/<sub>4</sub> in) for photographic tripods.

For the use of the LEICA R models <sup>1)</sup> combination with long-focal-length lenses on a photographic tripod or for the attachment of the universal camera holder for the REPROVIT IIa and the REPROVIT-R. The universal handgrip can also be attached for horizontal

Electric Release Switch R with trigger switch for switching on the LEICA R models<sup>2)</sup> for the universal handgrip with cable, length 30 cm or 11.8 in, and screw-on coupling plug:

Practical accessory for photography with long-focallength lenses such as the 250 mm-f/4, 280 mm-f/2.8, 350 mm-f/4.8, 400 mm-f/6.8 and 560 mm-f/6.8. When inserted in the universal handgrip (14 239), the trigger

**Electric cable release R** for remote release, with cable, length 5 m or 16' 5", and screw-on coupling plug.

**25 m extension cable** (for electric remote release) with coupling screw plugs.

 not for LEICA R 3
 not for LEICA R 3 models.
 Storing of the measuring values (selective) only through camera release.



pictures. Sturdy design with two conveniently-located screws for the tripod threads of the MOTOR-WINDER R or MOTOR-DRIVE R.



switch can be directly connected with the screw-on coupling plug to the MOTOR-WINDER R or MOTOR-DRIVE R through the 30 cm cable.

In conjunction with 25 m or 82 ft extension cables (14 274) for electric remote release up to 100 m or 328 ft. 

 Electric cable release R

 Order No.

 14 238

 25 m extension cable

 Order No.

 14 274

Order No. 14237

Electric release

Order No. 14284

## MOTOR-DRIVE R



Compact, handy motordrive for film transport and shutter wind, for LEICA R models.<sup>1)</sup>

Quiet running due to special gear system.

Continuous release of 4 fps, 2 fps, and single-frame release, adjustable.

Ergonomic handgrip with two release buttons as accessory.

Socket <sup>2)</sup> for RC LEICA R Electronic Control Unit and other electric releases (see accessory range).

Easy and quick interchangeable housing for 10 regular or rechargeable NiCd batteries.

Detailed description page 1-32.

.......

Sturdy, practical design with two conveniently located buttons for continuous shutter release (vertical and horizontal formats) adjustable leather loop, screw with coin slot for attaching the handgrip to the MOTOR-WINDER R or MOTOR-DRIVE R.

<sup>3)</sup> for MOTOR DRIVE R with 3 contacts on the contact plate (face side). The Leica Service Center can modify MOTOR DRIVE R 4 from serial number 63 000 for use with

Handgrip R.

MOTOR-DRIVE R with cover Order No. 14310

Handgrip R/R7 for hand-held exposures

Handgrip R <sup>3)</sup>
Order No. 14308
Handgrip R 7 <sup>3)</sup>
Order No. 14317



 not for LEICA R 3.
 the 5-pin coupling for single connection plug 302-013.154-004 is suitable. Available from Leica Camera Service Center.

1

#### RC LEICA R

Electronic control unit for remote release.

Timing pulse generator for automatic release built in. Seven integrated circuits (IC) in C-MOS technology. Digital display of the exposure through feedback from the camera.

Connecting cable permanently attached to the instrument, length 2 m or 6' 6".

Exclusively for the LEICA R with motor film transport

Detailed description

**Battery housing MD-R** for the MOTOR-DRIVE R as replacement.

For heavy-duty operation (prolonged use, low temperatures, expeditions) a second housing, loaded with new or recharged batteries, offers additional reliability. Single-action change within seconds.

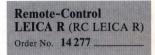
The battery housing MD-R has sockets for the connection of a battery charger, for instance uni 1 charger of Varta AG; for the recharging of the 10 NiCd batteries, for instance 501 RS of Varta AG.



### Accessories

for MOTOR-DRIVE R

RC LEICA R Electronic Control Unit



Battery housing MD-R



Order No. 14322

### Accessories

Tripod holder R



**Tripod holder R** with thread A <sup>1</sup>/<sub>4</sub>, DIN 4503 (<sup>1</sup>/<sub>4</sub> in) for photographic tripods. For the use on the LEICA R<sup>2</sup>) in combination with MOTOR-DRIVE R and longfocal-length lenses on a photographic tripod or for the attachment to the universal camera holder for the REPROVIT IIa and on the REPROVIT-R. The universal handgrip can also be attached for horizontal pictures. Sturdy design with two conveniently-located screws for the tripod threads of MOTOR-WINDER R or MOTOR-DRIVE R.

handgrip with 30 cm or 11.8 in cable and screw-on coupling plug:

When inserted in the universal handgrip (14239), the trigger switch can be directly connected with the screw-on coupling plug to the MOTOR-WINDER or MOTOR-DRIVE through the 30 cm cable.

Order No. 14284 \_\_\_\_

Order No. 14237

Electric release switch R



**Electric Release Switch R** with trigger switch for switching on the LEICA R models <sup>1)2)</sup> for the universal

Electric cable release R

Order No. 14238 \_\_\_\_\_ 25 m extension cable Order No. 14274 \_\_\_\_ **Electric Cable Release R** for remote release, with 5 m cable and screw-on coupling plug. In conjunction with

**25 m extension cable** (for electric remote release) with coupling plugs. 25 m extension cables (14274) for electric remote release up to 100 m.

- <sup>1)</sup> Storing of the metering values with LEICA R4/R5, R7 and R-E (selective) only through camera release.
- 2) not for LEICA R 3

### Specifications and Technical Data

### **LEICA R Models**



#### **Camera type:**

Microprocessor-controlled 35 mm single-lens reflex camera with electronic multi-blade focal plane shutter and multi-mode automatic functions.

#### Lens mount:

LEICA R-Bayonet.

#### Lenses:

More than thirty LEICA R-Lenses with focal lengths from 15 mm to 800 mm.

#### Switching on the camera:

Turn shutter speed dial from "OFF" position and either slightly press shutter release button or mode selector button. With shutter cocked, the viewfinder LEDs remain lit for about 12 s after you release whichever button had been pressed to switch on the camera.

#### **Exposure meter:**

Selective and integral through-the-lens modes, combined with camera modes to form programs. Exposure meter works at full aperture with LEICA Rlenses with automatic spring-back diaphragm, and at working aperture with lenses and accessories without automatic diaphragm.

Selective exposure metering: Measuring field 7 mm diameter (approx. 4.5% of 35 mm format), marked in viewfinder.

**Integral exposure metering:** Center-weighted full-field integral metering.

#### **Program modes:**

Set via program selector:

- Manual setting of shutter speed and aperture, selective metering.
- Aperture Priority, selective metering.
- A Aperture Priority, fullfield integral metering.
- ☐ Shutter Priority, fullfield integral metering.
- Variable automatic program mode with fullfield integral metering.

**Exposure metering memory:** in aperture priority mode with selective metering, by

## LEICA R7

### S Specifications and Technical Data

oeranhv

#### finger is held in position. Exposure override:

From + 3 to - 3 exposure values, with half value click stops.

pressing shutter release

button to pressure point.

memory active as long as

#### Film speed range:

manual setting: from ISO 6/9° to ISO 12800/42°; DX coding: from ISO 25/15° to ISO 5000/38°.

#### **Photocell:**

Silicium photodiode, protected from stray light in lower part of camera. In selective mode, the program selector automatically places a condenser lens in front of the photodiode.

#### **Metering range:**

with selective metering from  $0.5 \text{ cd/m}^2$  to  $125000 \text{ cd/m}^2$  at f/1.4, i. e. from Ev + 2 to + 20 for ISO 100/21° film or from 1/2 s at f/1.4 to 1/2000 s at f/22.

With integral metering from 0.125 cd/m<sup>2</sup> to 125 000 cd/m<sup>2</sup> at f/1.4, i. e. from Ev 0 to +20 for ISO 100/21° film, or from 2 s at f/1.4 to 1/2000 s at f/22.

#### **Power supply:**

6 volt. 2 lithium cells (Ø 11.6 mm x 10.8 mm) à 3 V, or four silver oxide button cells (Ø 11.6 mm x 5.4 mm) à 1.5 V.

#### **Battery check:**

Automatic display in viewfinder.

#### **Viewfinder system:**

Built-in pentaprism. 5 interchangeable focusing screens.

#### Viewfinder eyepiece:

Setting ring for adjustment from + 2 to - 2 diopters. Built-in eyepiece curtain. Eyepiece mount for supplementary correction lenses, eyecup, and 90° angle finder attachment.

Viewfinder field: 23 x 34.6 mm, i. e. 92 % of frame size.

### Viewfinder magnification:

0.8 x at 0 diopter with 50 mm lens.

#### LED displays in viewfinder:

- program symbols,
- automatically set or manually set shutter speed (7 segment display).
- automatically set aperture for shutter priority and automatic program modes,
- flash readiness and flash exposure control with system-compatible flash equipment,
- · fill-in flash indicator,
- activation of exposure metering memory, in aperture priority mode with selective metering, the symbol goes out and the stored metered value continues to be displayed,
- light-balancing meter for setting manual exposure.

# Automatic brightness adjustment:

of all LED displays.

#### **Data reflected into viewfinder:** set lens aperture.

## Supplementary viewfinder light:

for illuminating lens aperture scale.

# LED-warning indicators in viewfinder:

- plus/minus exposure override,
- · low light warning,
- over- or underexposure,
- limited aperture range in automatic program and shutter priority (lens aperture not set to smallest value),
- correction of preset shutter speed in shutter priority,
- discrepancy between manually set and DX-coded film speed.
- in DX-setting with non-DX coded film or no film (additional warning symbol via external LED next to film speed dial).
- low battery warning.

#### **Flash connection:**

standard X coaxial contact socket adjacent to prism housing, for bulb and electronic flash units. Central X hot-shoe contact.

# TTL flash exposure metering control:

with system SCA 300 or 500 dedicated flash units and SCA 351 or 551 adapters.

## Specifications and Technical Data LEICA R Models

#### Flash as main light source:

in manual mode: all shutter speeds from 4 s to 1/90 s, with faster shutter speeds, automatic switchover to 1/100 s. In aperture priority mode: automatic switchover to 1/100 s.

In "B" and "100 ∉" settings.

#### Flash as fill-in:

In shutter priority: all shutter speeds from 4 s to 1/90 s, with faster shutter speeds automatic switchover to 1/100 s.

#### Automatic switchover between flash as main light source and fill-in flash:

In automatic program mode: automatic switchover to 1/100 s. Flash intensity dosaged via TTL flash exposure metering, depending on ambient light (flash as main light source, fill-in flash or no flash effect).

## Flash exposure metering method:

center-weighted, integral.

# Photocell for TTL-flash exposure metering:

Silicium photodiode, next to exposure meter, photocell protected from stray light in lower part of camera.

Film speed range for TTL flash exposure metering: ISO 12/12° to ISO 3200/36°.

# Exposure override for flash exposure metering:

plus/minus 3 Ev in halfvalues (restrictions to the limit of the ISO setting range).

#### Shutter:

Electronically controlled focal-plane blade shutter, vertical action.

#### Shutter speed dial:

easy-reach 6.5 mm height; centrally positioned exposure release button.

## Electronically computed shutter speeds:

for automatic programs, continuous from 16 s to 1/2000 s. Manual settings from 4 s to 1/2000 s in half values.

## Mechanical shutter-speed settings:

" $100 \notin$ " = 1/100 s flash synchronization, or in case of battery failure. "B" for time exposure of any length. (Exposures in "B" setting electronically controlled when using drive in 4 fps setting).

#### Swing mirror system:

Semi-transparent, swing mirror, reflects 70% and transmits 30% light, backed by Fresnel reflector (1345 micro-reflectors) to concentrate light on exposure meter's photocell).

#### Film transport:

single-movement quickwind lever (130° movement) optional MOTOR-WINDER-R (2 fps) or MOTOR-DRIVE-R (single frame, 2 fps, 4 fps).

#### Frame counter:

frame count in ascending values. Automatic reset to "0" when camera back is opened. Built-in reading magnifyer.

#### Multiple exposures:

press rewind locking button. Automatic reset when shutter is cocked; exposure counter does not move forward. Any number of exposure possible. Multiple exposures also possible with motorized film advance units. 7

hotography

#### Film rewind:

via hinged crank lever at top left of camera.

#### Shutter release:

Shutter release button with standard thread for cable release. Press down 0.3 mm to first pressure point to switch on (viewfinder LEDs light up, exposure meter switched on). Press down approx. 0.9 mm to second pressure point to activate memory for exposure metering value. Press down approx, 1.35 mm for electromagnetic shutter release for electronically computed exposures. Press down approx. 2 mm for mechanical release ("B" and "100 ∉").

#### **Mirror lock-up:**

via separate cable-release connection.

#### Self-timer:

approx. 10 s countdown; flashing red LED on front of camera indicates that self-timer is set. Repeat countdown by pressing exposure release button again; cancel by turning self-timer dial.

#### LEICA R Models Specifications and Technical Data

#### Film plane: Mark on top of camera

#### Camera housing:

Body: Die-cast aluminium Camera top: 1mm die-cast zinc. Base plate: 0.8 mm brass, Black or silver chrome finish

#### Camera back:

with thumb grip and film cartridge window; interchangeable with Data Back

#### Depth of field lever:

to the right of lens bayonet. enables visible assessment of depth of field

Tripod thread: A 1/4 (1/4", according to DIN 4503)

Standard thread for cable release connection. for cable release and independent mirror release.

#### **Dimensions and weight** (without lens):

Height: 94.8 mm or 3.73 in. Length: 138.5 mm or 5.45 in. Total depth: 62.2 mm or 2.45 in (depth of camera housing only: 32.2 mm or 1.27 in) Weight: 670 g (23 oz).

## Specifications and Technical Data LEICA R Models



#### **Camera type:**

35 mm single-lens reflex camera with mechanical shutter release and through-the-lens exposure metering.

Lens attachment: LEICA R bayonet.

#### Lenses:

Choice of more than thirty LEICA R lenses with focal lengths from 15 mm to 800 mm

#### Shutter:

Mechanically controlled metal-blade focal-plane shutter, vertical action, compact design.

#### Shutter speeds:

Setting ring, click-stop settings for B and from 1 s to  $\frac{1}{2000}$  s; X =  $\frac{1}{100}$  s for electronic flash synchronization.

Shutter-speed setting ring: Projects 6.5 mm for positive grip, central release button.

#### Shutter release:

Two-stage release button with standard socket thread for cable release. Switches on exposure meter at pressure point after 0.3 mm. releases shutter after 1.6 mm.

#### Swing-mirror system:

Semi-transparent swing mirror coated 17 lavers by vacuum deposition, reflects 70% and transmits 30% light, backed by Fresnel reflector for selective and integral metering: Frensnel reflector consists of 1345 micro-reflectors that concentrate light on exposure meter's photocell. Vibration-free mirror action.

#### Independent mirror release:

Special cable-release socket for hinging up mirror without releasing shutter, also sets diaphragm of lens used to selected stop. Shutter controlled by main shutter-release button, with or without cable release.

#### **Electromagnetic self-timer:**

About 9s delay; flashing red LED on front of camera indicates that self-timer is set

## LEICA R62

### LEICA R Models Specifications and Technical Data

#### Film transport:

Single-movement quickwind lever (130° movement), optional MOTOR-WINDER R (2 fps) or MOTOR-DRIVE R (single frame, 2 fps, 4 fps).

#### Film plane:

Mark at top of camera.

#### **Exposure counter:**

At top of camera. Counts forward from start at S (frame - 2) to 36; film length for 20, 24, and 36 exposures marked in red. Automatic reset when camera back is opened.

#### **Multiple exposures:**

Press rewind locking button. Automatic reset when shutter is cocked; exposure counter does not move on. Any number of exposures possible. Multiple exposures also possible with motor winder / drive.

#### **Rewind lever:**

Hinged crank at top left of camera.

#### **Exposure meter:**

Selective and integral through-the-lens metering. Selector switch below shutter-setting ring. Metering at full aperture with LEICA R lenses with automatic diaphragm, at working aperture with lenses and accessories without automatic diaphragm.

#### **Photocell:**

Silicium photodiode, protected from stray light in lower part of camera. For selective metering, the selector switch automatically places a collector lens in front of photodiode.

#### Selective metering:

Measuring field 7 mm diameter, visible in viewfinder.

Integral metering: Centre-weighted average of full-field measurement.

# Measuring range of exposure meter:

Selective metering from  $0.25 \text{ cd/m}^2$  to  $125\,000 \text{ cd/m}^2$ at f/1.4, i. e. from EV + 1 to + 20 at ISO ISO 100/21°, or 1 s at f/1.4 to f/22 at  $\frac{1}{2000}$  s. Integral metering from  $0.063 \text{ cd/m}^2$  to  $125\,000 \text{ cd/m}^2$ at f/1.4, i. e. from EV - 1 to + 20 at ISO 100/21°, or 4 s at f/1.4 to f/22 at  $\frac{1}{2000}$  s.

Film-speed range: ISO 12/12° to ISO 3200/36°.

#### **Power supply:**

Two silver oxide button cells or lithium battery. Press test button to check battery voltage.

#### **Battery life:**

About 2500 exposures at 12 s for each exposuremeter reading, i. e. about 70 films of 36 exposures each.

#### Switch on exposure meter:

After selection of metering method: by light touch on shutter release; by pressing stop button on selector switch; by light touch on release button of MOTOR-WINDER R or MOTOR-DRIVE R; or by pressing test button for battery check fully home.

With shutter cocked, the viewfinder display remains lit for about 12 s after release of button or switch used to activate.

## Display of metering method selected:

By symbol in window next to shutter-setting ring, and in viewfinder.

**Display of shutter / aperture balance** in viewfinder.

# Balancing shutter and aperture:

Set manually by selecting aperture and turning shutter-setting ring or by selecting shutter and turning aperture-setting ring until central, circular LED of shutter/aperture balance in the viewfinder shows them balanced. The two triangular LEDs, either alone or together with the central LED, indicate overor underexposure and the direction in which to turn the setting ring concerned.

### Specifications and Technical Data

### **LEICA R Models**

#### Switching off exposure meter:

By setting the selector switch to "selective", pressing the locking button again and switching the selector switch to "OFF".

#### **Viewfinder system:**

Built-in pentaprism. Five interchangeable focusing screens: No. 1 universal screen (included with delivery), No. 2 uniform ground-glass screen, No. 3 microprism screen, No. 4 uniform ground-glass screen with grid divisions and TV markings, No. 5 clear glass screen with crosslines.

#### Viewfinder eyepiece:

Setting ring for adjustment from + 2 to - 2 diopters. Built-in eyepiece diaphragm. Eyepiece mount with retaining ring for holder of supplementary correction lenses, eyecup, and 90° viewfinder attachment.

#### **Viewfinder field:**

34.6 mm x 23 mm, i. e. 92 % of frame size.

**Viewfinder magnification:** 0.8 x at 0 diopter with 50 mm lens.

### Viewfinder display:

in lower margin of viewfinder image.

## Data projected into viewfinder:

Aperture setting, shutterspeed setting (1 s to 1/2000 s, B, X).

# LED displays when exposure meter is activated:

Symbols indicate metering mode selected, shutter / aperture balance; flashing flash symbol indicates 'flash ready' and exposure check.

#### **LED warning indicators:** Low-light warning, over- and underexposure override.

#### Supplementary light:

may be switched on in poor ambient light for projected data of shutter speed and stop; activated only when exposure meter is ON.

# Electronic flash synchronization:

Standard X contact socket for bulb and electronic flash units adjacent to prism housing. Central accessory shoe contact.

#### TTL flash-exposure metering:

Flash exposure measured through camera lens for electronic flash units designed for System-Camera-Adaptation 300 or 500, i. e. dedicated flash units SCA 300 or SCA 500 using SCA 351 or SCA 551 adapters.

#### Shutter settings for flash:

"X" =  $\frac{1}{100}$  s, all speeds from 1 s to  $\frac{1}{60}$  s and "B".

### Override for TTL

flash-exposure metering:  $\pm$  two stops in steps of one-third, simple one-hand control.

#### Photocell for TTL flash-exposure metering: Silicium photodiode, next to photocell of exposure meter, protected from stray light in lower part of camera.

**Film-speed range for TTL flash-exposure metering:** ISO 12/12° to ISO 3200/36°.

### LEICA R Models Specifications and Technical Data

#### Camera body:

Die-cast aluminium, camera top 1 mm die-cast zinc. base plate 0.8 mm brass Camera back with righthand thumbhold and filmcartridge window (shows type and speed of film in use), interchangeable with databack. Electric contacts for LEICA R DB2 databack Lever at right of lens attachment for visual check of depth of field. Standard 1/4" A thread for tripod screw. Evelets at sides for carrying strap. Mechanical contact for MOTOR-WINDER R or MOTOR-DRIVE R. Black or silver chromium finish.

#### Carrying straps:

Made of black perlon fabric with an anti-slip pad. If an ever-ready case is used, the carrying straps stay on the camera.

# Dimensions and weight (excl. lens):

89.1 mm (3 <sup>1</sup>/<sub>2</sub>") high, 138.5 mm (5 <sup>1</sup>/<sub>2</sub>") long; overall depth 63.5 mm (2 <sup>1</sup>/<sub>2</sub>"); weight 625 g (1 lb 6 oz).

### Specifications and Technical Data



The DB2 LEICA R is a quartz- and microprocessorcontrolled camera back for printing data on the film during exposure, without cable, for the LEICA R models.<sup>1)</sup>

Useful for film numbering, marking of single or serial exposures and noting the date.

#### Input and indication:

The data can be entered with the use of the three buttons (MODE, ADJ. and SET) and is indicated on a liquid crystal display.

#### Data printing:

- 1. Day, hour and minute (24 hour display): with an accuracy of  $\pm$  15 s/month at medium temperatures.
- 2. Date:

day – month – year, or year – month – day, or month – day – year. Automatic calendar from 1st Januar 1982 to 31st December 2099.

- 3. Any numbers up to 99 99 99; each pair can be replaced by dashes or empty spaces.
- 4. Picture numbering: in increasing or decreasing or decreasing order.

When printing is completed, the word "PRINT" appears on the display. When in the "OFF" position, no printing occurs.

The clock, the automatic calendar and the counter keep on working even without printing.

## **LEICA R Models**

## DB 2 LEICA R Data Back

### Specifications and Technical Data

#### Data area size on the film:

The whole field is 0.65 x 4.6 mm and appears on the lower right corner of the exposure (for horizontal format). The six numbers are arranged into three groups.

#### **Printing method:**

Snap switch for three illumination intensity modes. The data is printed onto the film from behind by means of a liquid crystal device (LCD). Depending on the antihalation layer of the film, the data are sometimes very faint with some low-speed films, such as the Kodachrome 25, Kodachrome 64, and Polaroid.

#### **Current supply:**

By two adjacent silver oxide button cells (as for LEICA R), sufficient for more than 100 films. Warning signal on the display when battery is too weak.

#### Miscellaneous:

Film cartridge viewing window.

**Dimensions and weight:** approx.  $138.5 \times 54 \times 29.5$  mm or  $5.45 \times 2 \times 1$  in; approx. 60 g without batteries.

#### Specifications and Technical Data

### **LEICA R Models**



The universal handgrip with shoulder stock makes it easier to hold the camera steady and can be used as a small tripod. It is part of the standard equipment of the 400 mm TELYT-R f/6.8.

It is recommended also in conjunction with the 250 mm TELYT-R f/4, the 280 mm APO-TELYT-R f/2.8, the 350 mm TELYT-R f/2.8, and the Focusing Bellows R, both with and without the Motor-Winder or Motor-Drive rapid winders.

With motorized operation of the LEICA R models<sup>1)</sup> the electric release switch (Code No. 14237), available as an accessory, facilitates operation. The camera is then released on the handgrip. With a twin cable release (Order No. 16494) the preset automatic diaphragm is also operated in the Focusing Bellows R.

For transport the universal handgrip with shoulder stock can be folded to form a compact, easily stored unit.

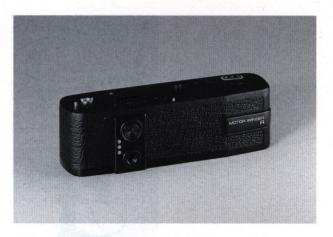
Universal handgrip and shoulder stock are adjustable to produce a comfortable fit.

The shoulder stock can be detached and fixed to the handgrip to form a mini-tripod.

Universal handgrip with shoulder stock

<sup>o</sup>hotography

# MOTOR-WINDER R



#### **Type of instrument:**

Compact motor winder for film transport and shutter wind. Extremely quiet operation through low-noise unwinding gear with loadcontrolled force locking.

#### Frame frequency:

Up to two frames per second.

#### For use on:

LEICA R models<sup>1)</sup>. The motor winder automatically takes over the current supply of the camera (camera batteries must remain in the camera).<sup>2)</sup> The motor-winder can be used with all programs.

#### **Current supply:**

By six commercially available 1.5 v alkali manganese batteries or 6 NiCd rechargeable batteries, e.g. 501 RS of Varta AG in an easily interchangeable battery housing. Capacity: about 150 films of 36 exposures at 20 °C. During recharging, the batteries remain in the battery housing with the holder for the MW-R battery housing (see Page 14).

#### **Operation:**

The camera / motor-winder combination is switched on either by pressing the camera release button or by tapping the release switch on the motor winder. Operation is made easier by a practical handgrip with two release buttons, available as an accessory.

**Important:** When the winder is in operation, the rapidwind lever of the camera must be in the parked position.

### Specifications and Technical Data LEICA R Models

# Release possibilities on the MOTOR-WINDER:

Series release with release switch on MOTOR-WINDER, with handgrip or via socket for remote release. Series exposures are made as long as the abovementioned release buttons are being pressed, or control pulses transmitted.

## Release possibilities on the camera:

Single-frame release or single-frame exposures with measured value storage with selective measurement. When the finger is taken off the release button after the exposure, the film will automatically be transported and the shutter wound. Intermediate camera release and manual winding are still possible when the motorwinder is attached.

#### **Possible shutter speeds:**

All automatically computed or manually set shutter speeds and the "X" and "100" settings.

#### **Multiple exposures:**

Possible with single-frame or series release. Acoustic warning signal against inadvertent multiple exposures.

#### <sup>1)</sup> The 5-pin coupling plug 302-013.154-004 is suitable, available from Leica Camera Service Center.

#### Automatic switch-off:

When the required battery performance is no longer sufficient or when the frame counter is at 36 (end of film). Film transport and shutter wind can be carried out with the rapid wind lever.

#### Winder body:

Die-cast magnesium. The coupling and connecting elements between the camera and the winder are covered or protected on the bottom of the camera and the top of the winder. Locating pins simplify attachment to the bottom of the camera. Winder connected via a screw with a hinged toggle with the tripod bush of the camera. Exact orientation for attachable handgrip. Contact strip for release via handgrin. DC micro-motor drive with air-core motor. Electronic control: Hybrid integrated Circuit (HIC) in CMOS technology. Electric release switch with protective ring on the front of the winder Convenient rapid change with locking button for battery housing. Two A<sup>1/4</sup> tripod threads, chiefly for attaching the tripod holder 14284 (accessory). Button for multiple exposures and for releasing the rewind. Socket<sup>1)</sup> for RC LEICA R electronic control unit and other electric releases (see range of accessories).

#### Weights and dimensions:

Height 40 mm or  $1\frac{1}{2}$  in, length 140 mm or  $5\frac{1}{2}$  in, depth 50 mm or 2 in (depth of housing alone 46 mm or 1.8 in). Weight without batteries 0.225 kg, with batteries 0.400 kg.

### LEICA R Models Specifications and Technical Data

## MOTOR-DRIVE R



#### Type of instrument:

Compact motor-drive for film transport and shutter wind. Quiet operation through special gear construction.

#### Frame frequencies:

Series releases of 4 fps, 2 fps and single-frame release, switchable.

#### For use on:

LEICA R models<sup>1)</sup>. The MOTOR-DRIVE automatically takes over the current supply of the camera (batteries must remain in the camera).<sup>2)</sup> The MOTOR-DRIVE can be used with all programs.

#### **Current supply:**

By ten commercially available 1.5 v alkali manganese batteries or 10 NiCd rechargeable batteries, e. g. 501 RS of Varta AG in an easily interchangeable battery housing. Capacity: about 150 films with 36 exposures at 20 °C. During recharging, the batteries remain in the battery housing, which has sockets for the connection of a charger (see Page 1-17).

#### **Operation:**

The camera / MOTOR-DRIVE combination is switched on either by pressing the camera release button or by tapping the release switch on the MOTOR-DRIVE.

Operation is made easier by a practical handgrip with two release buttons, available as an accessory. The MOTOR-DRIVE is switched to 4 fps and 2 fps series releases and singleframe release with a slider. This can also be done during exposure.

### Specifications and Technical Data LEICA R Models

**Important:** When the Drive is in operation, the rapidwind lever of the camera must be in the parked position.

## Release possibilities on the MOTOR-DRIVE:

Series and single-frame release with release switch on MOTOR-DRIVE, with handgrip or via socket for remote release. Series exposures are made as long as the above-mentioned release buttons are being pressed, or control pulses transmitted.

# Release possibilities on the camera:

Single-frame release or single-frame exposures with measured value storage with selective measurement. When the finger is taken off the release button after the exposure, the film will automatically be transported and the shutter wound. Intermediate camera release and manual winding are still possible when the Motor-Drive is attached.

#### **Possible shutter speeds:**

All automatically computed or manually set shutter speeds and the "X" and "100" settings.

#### The 5-pin coupling plug 302-013.154-004 is suitable, available from Leica Camera Service Center.

#### Multiple exposures:

Possible with single-frame or series release. Acoustic warning signal against inadvertent multiple exposures.

#### Automatic switch-off:

When the required battery performance is no longer reached or when the frame counter is at 36 (end of film). Film transport and shutter wind can be carried out with the rapid wind lever.

#### Drive body:

Die-cast magnesium. The coupling and connecting elements between the camera and the Drive are covered or protected on the bottom of the camera and the top of the Drive. Locating pins simplify attachment to the bottom of the camera. Drive connected via a screw with a hinged toggle with the tripod bush of the camera. Exact orientation for attachable handgrip. Contact strip for release via handgrip. DC micro-motor drive with air-core rotor. Electronic control: Hybrid Integrated Circuit (HIC) in CMOS technology. Electric release switch with protective ring on the front of the Drive. Convenient rapid change with locking button for battery housing. Two A<sup>1/4</sup> tripod threads, (1/4") chiefly for attaching the tripod holder 14284 (accessory).

Button for multiple exposures and for releasing the rewind. Easy-operation slider on the front of the drive, switches to 4 fps, 2 fps or single-frame. Socket <sup>1)</sup> for RC LEICA R electronic control unit and other electric releases (see range of accessories).

#### Weights and dimensions:

Height 45 mm or 1.8 in, length 140 mm or 5.5 in, depth 61 mm or 2.4 in (depth of housing alone 55.5 mm or 2.2 in). Weight without batteries 0.320 kg, with batteries 0.620 kg.

### LEICA R Models Specifications and Technical Data

## RC LEICA R Electronic Control Unit



#### **Type of instrument:**

Electronic control unit for remote release. Built-in timing pulse generator for automatic releases. Seven integrated circuits (IC) in C-MOS technology. Digital display after the exposure through feedback from the camera. Exclusively for the LEICA R with motorized film transport.

#### Housing:

Bolted plastic moulded parts. All controls and function displays are easily accessible and lucidly arranged on the top. Appliance cable, length 2 m, with screw-on coupling plug for the socket on the MOTOR-WINDER R / MOTOR-DRIVE R. Brief instructions on the back of the instrument.

#### Functions:

Digital display of the exposures made through 9 mm high, 2-digit, 7-segment display in red. The segments light up for about 2 seconds after each exposure.

Reading key  $(\perp)$  for indicating the number of exposures made at any time. After a touch, the digital display lights up for about two seconds.

Input key  $(\perp)$  for correction of the digital displays, if some exposures have already been made without the RC LEICA R (only when the slider switch is set at "TEST"). The digital display is zeroed

by simultaneous operation of the reading and input keys  $(\perp + \perp)$ .

Rotary interval switch for automatic single-frame releases at variable time intervals.

### Specifications and Technical Data LEICA R Models

Operation display through decimal point of the digital lighting up on the left. Slider switch "x1/x10" for 2 interval ranges: The switchover to "x1" and "x10" is digital and therefore highly accurate: Position "x1"  $= 1 \exp(0.5 \sec)$ about 1 exposure/1 min. Position "x10" = about 1 exposure/5 sec. about 1 exposure/10 min. Slider switch "LEICA/ TEST" for various functions Position "LEICA" = camera is released with push-button or interval switch Position "TEST" = release functions blocked The interval can be programmed with the aid of a rotary switch. The release pulse is signalled by the lighting up to the righthand decimal point of the digital display, but the camera is not being released. Time intervals can thereby be determined accurately. After the switchover from "TEST" to "LEICA" the camera will be released at the preselected interval. Range with extension cables (14274): up to 100 m or 328 ft.

#### Dimensions and weight:

Height 120 mm or 4.7 in, width 60 mm or 2.4 in, depth 30 mm or 1.2 in, weight including cable 220 g. 1

Product range, Specifications and Technical Data

SUPER-ELMAR-R	f/3.
FISHEYE-ELMARIT-R	f/2.
ELMARIT-R	f/2.
ELMARIT-R	f/2.
ELMARIT-R	f/2.
PC-SUPER-ANGULON-R	f/2.
SUMMILUX-R	f/1.
SUMMICRON-R	f/2/
ELMARIT-R	f/2.
PA-CURTAGON-R	f/4
SUMMILUX-R	f/1.
SUMMICRON-R	f/2
MACRO-ELMARIT-R	f/2.
SUMMILUX-R	f/1
SUMMICRON-R	f/2
ELMARIT-R	f/2
APO-MACRO-ELMARIT-R	f/2
ELMARIT-R	f/2
APO-SUMMICRON-R	f/2
ELMARIT-R	f/2
APO-TELYT-R	f/3
ELMAR-R	f/4
APO-TELYT-R	f/2
APO-TELYT-R	f/4
APO-TELYT-R	f/2
TELYT-R	f/6
TELYT-R (NOVOFLEX Syst.)	f/6
MR-TELYT-R	f/8
TELYT-R (NOVOFLEX Syst.)	f/6
TELYT-S	f/6
VARIO-ELMAR-R	f/3
VARIO-ELMAR-R	f/3
VARIO-ELMAR-R	f/4
APO-EXTENDER-R	
Accessories for LEICA R lense	s
Letter to have a fease	

1/3.3/13 mm	2-5	-
f/2.8/16 mm	2-6	2
	2-7	
f/2.8/24 mm	2-8	hy
f/2.8/28 mm	2-9	grap
f/2.8/28 mm	2-10	hoto
f/1.4/35 mm		P
f/2/35 mm	2-12	
f/2.8/35 mm	2-13	
f/4/35 mm	2-14	
f/1.4/50 mm		
f/2/50 mm		
f/2.8/60 mm		
f/1.4/80 mm	2-18	
f/2/90 mm	2-19	
f/2.8/90 mm	2-20	
f/2.8/100 mm	2-21	
	2-22	
f/2/180 mm	2-23	
f/2.8/180 mm	2-24	
f/3.4/180 mm	2-25	
f/4/180 mm	2-26	
f/2.8/280 mm		
f/4/280 mm	2-28	
f/2.8/400 mm	2-29	
f/6.8/400 mm	2-30	I .,
.) f/6.8/400 mm		
f/8/500 mm		
.) f/6.8/560 mm	2-33	
f/6.3/800 mm	2-34	
f/3.5-4.5/28-70 mm	2-35	
f/3.5/35-70 mm		
f/4/70-210 mm		
	2-38	
ses	2-40	

### The range of LEICA R lenses

Description	Speed	Focal length (in mm)	Angel of view (Ø)	Filter (Ø)	Order No.
SUPER-ELMAR-R	f/3.5	15	110	built-in	11213
FISHEYE-ELMARIT-R	f/2.8	16	180	built-in	11 222
ELMARIT-R	f/2.8	19	96	built-in	11 258
ELMARIT-R	f/2.8	24	84	S 8	11257
ELMARIT-R	f/2.8	28	76	E 55	11 2 5 9
PC-SUPER-ANGULON-R	f/2.8	28	73/93	67 EW	11 812
SUMMILUX-R	f/1.4	35	64	E 67	11 144
SUMMICRON-R	f/2	35	64	E 55	11 115
ELMARIT-R	f/2.8	35	64	E 55	11 2 5 1
PA-CURTAGON-R	f/4	35	64/78	S 8	11 202
SUMMILUX-R	f/1.4	50	45	E 55	11777
SUMMICRON-R	f/2	50	45	E 55	11216
MACRO-ELMARIT-R	f/2.8	60	39	E 55	11253
SUMMILUX-R	f/1.4	80	30	E 67	11 881
SUMMICRON-R	f/2	90	27	E 55	11254
ELMARIT-R	f/2.8	90	27	E 55	11 154
APO-MACRO-ELMARIT-R	f/2.8	100	25	E 60	11210
MACRO-ELMAR-R	f/4	100	25	E 55	11 232
MACRO-ELMAR <sup>1)</sup>	f/4	100	25	E 55	11230
ELMARIT-R	f/2.8	135	18	E 55	11211
APO-SUMMICRON-R	f/2	180	14	E 100, S 6	11271
ELMARIT-R	f/2.8	180	14	E 67	11 923
APO-TELYT-R	f/3.4	180	14	E 60	11242
ELMAR-R	f/4	180	14	E 55	11 922
APO-TELYT-R	f/2.8	280	8,5	E 112, S 5.5	11 263
APO-TELYT-R	f/4	280	8,5	S 5.5	11 261
APO-TELYT-R	f/2.8	400	6	S 5.5	11260
TELYT-R	f/6.8	400	6	S 7	11953
TELYT-R (NOVOFLEX Syst.)	f/6.8	400	6	3)	11926
MR-TELYT-R	f/8	500	• 5	E 77 <sup>2)</sup>	11243
TELYT-R (NOVOFLEX Syst.)	f/6.8	560	4,3	3)	11927
TELYT-S	f/6.3	800	3	S 7	11921
VARIO-ELMAR-R	f/3.5-4.5	28 - 70	76-34	E 60	11 265
VARIO-ELMAR-R	f/3.5	35 - 70	64-34	E 67	11 2 4 8
VARIO-ELMAR-R	f/4	70-210	35-12	E 60	11 2 4 6

Extender **R** Accessories for LEICA R lenses Filters, lens hoods

for Focusing Bellows R BR 2 only
 5 special filters from part of the outfit.
 Special NOVOFLEX and HELIOPAN filters

- Angle of view: 110°
- Number of elements: 13 (12 components)
- Floating elements correct optical aberrations
- Built-in turret with four filters: UVa, yellow, orange, blue (conversion filter)
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 0.16 m (6 in)
- Smallest object field: 70 x 106 mm (2.7 x 4.2 in) (about 1:3)
- Rubber-covered focusing ring
- Parallel guided focusing mount
- LEICA R quick change bayonet
- Black anodized finish
- Built-in lens hood
- Lens cap diameter: 83.5 mm (3.3 in)
- Length from bayonet flange: 92.5 mm (3.6 in)
- Diameter: 83.5 mm (3.3 in)
- Weight: 0.910 kg



High speed, ultra wide angle lens

### **LEICA R lenses**

## SUPER-ELMAR-R f/3.5/15 mm

for LEICA R models (all modes) LEICAFLEX SL 2 models

SUPER-ELMAR-R f/3.5/15 mm In a soft leather case, with lens cap and rear cover

(Replacement soft leather case and lens cap, see page 2-42) Order No. **11213** 

hotography

## FISHEYE-ELMARIT-R f/2.8/16 mm

for LEICA R models (preferably with aperture priority and manual mode)<sup>1)</sup> LEICAFLEX SL 2 models



Fisheye lens for special imaging effects

• Angle of view: 180°

- Number of elements: 11 (8 components)
- Built-in turret with 4 filters: UVa, yellow, orange, blue 80 B (conversion)
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 0.30 m (12 in)
- Smallest object field: 401 x 601 mm (15.8 x 23.8 in) (about 1 : 16.7)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- · Black anodized finish
- Built-in lens hood
- Lens cap diameter: 65 mm (2.6 in)
- Length from bayonet flange: 60 mm (2.4 in)
- Diameter: 71 mm (2.8 in)
- Weight: 0.460 kg

<sup>1)</sup> In LEICA R cameras with shutter priority and automatic program mode, the viewfinder symbols for these two modes may continue to flash even when the 16 mm Fisheye-Elmarit-R f/2.8 is set to its smallest aperture of f/16. This does not affect the camera functions, but is due to the camera's design. We therefore recommend using aperture priority and setting the shutter speed manually.

#### FISHEYE-ELMARIT-R f/2.8/16 mm In a soft leather case, with lens cap and rear cover

(Replacement soft leather case and lens cap, see page 2-42)

Order No. 11222

hotography

- Angle of view: 96°
- Number of elements: 12 (10 components)
- Built-in filter turret with 4 filters: ND x 1 (neutral density filter) yellow, orange and blue (conversion filter KB 12)
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 0.30 m (12 in)
- Smallest object field: 264 x 396 (10.4 x 15.5 in) (about 1:11)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- · Black anodized finish
- Lockable lens hood
- Lens cap diameter: 68 mm (2.7 in)
- Length from bayonet flange: 60 mm (2.4 in)
- Diameter: 71 mm (2.8 in)
- Weight: 0.560 kg



High speed ultra-wide-angle

lens

## ELMARIT-R f/2.8/19 mm

LEICA R lenses

for LEICA R models (all modes) LEICAFLEX SL 2

hotography

#### ELMARIT-R f/2.8/19 mm

In a soft leather case, with lens hood, lens cap and rear cover

(Replacement soft leather case, lens hood, lens cap, rear cover, and accessories: see page 2-42 to 44)

Order No. 11258

## ELMARIT-R f/2.8/24 mm

for LEICA R models (all modes)<sup>1)</sup>



Lens of very wide angle of view

• Angle of view: 84°

- Number of elements: 9 (7 components)
- Floating elements correct optical aberrations
- Filter size: series 8 (attached with lens hood)
- Internal thread: M 60 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 0.30 m (12 in)
- Parallel guided focusing mount
- Smallest object field: 250 x 374 mm (10 x 15 in) (about 1:10.5)
- LEICA R quick change bayonet
- · Black anodized finish
- Lens hood lockable, also adapter for Series 8 filters
- Lens cap diameter: 63.7 mm (2.5 in)
- Length from bayonet flange: 48.5 mm (1.9 in)
- Diameter: 67 mm (2.6 in)
- Weight: 0.400 kg

<sup>1)</sup> The Leica Camera Service Center or authorized workshop of any Leica Camera agency can modify this lens for use also on all LEICAFLEX models.

#### ELMARIT-R f/2.8/24 mm

In a soft leather case, with lens hood, lens cap and rear cover

(Replacement soft leather case, lens hood, lens cap, rear cap, and accessories see from page 2-42 to 44)

Order No. 11257\_

- Angle of view: 76°
- Number of elements: 8 (7 components)
- Filter size: E 55
- Internal thread: M 55 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/22
- Combined metre/
- feet scale
- Focusing range: ∞ to 0.30 m (12 in)
- Parallel guided focusing mount
- Smallest object field: 192 x 288 mm (7.5 x 11.3 in) (about 1:8)
- LEICA R quick change bayonet
- · Black anodized finish
- Built-in telescopic lens hood
- Lens cap dimensions: 65 x 74 mm (2.6 x 3 in)
- Length from bayonet flange: 48 mm (1.9 in)
- Diameter: 67.5 mm (2.7 in)
- Weight: 0.435 kg



Wide-angle lens

### **LEICA R lenses**

## ELMARIT-R f/2.8/28 mm

for LEICA R models (all modes) LEICAFLEX SL 2

2

#### ELMARIT-R f/2.8/28 mm

In a soft leather case, with lens cap and rear cover

(Replacement soft leather case, lens cap, rear cover and accessories see page 2-42 to 44)

Order No. 11259

## PC-SUPER-ANGULON-R f/2.8/28 mm

for LEICA R models (preferably with aperture priority and manual mode) LEICAFLEX SL/SL 2 models



Wide-angle lens for perspective correction without automatic diaphragm • Offset of optical axis:

- 11 mm horizontally and 9,5 mm diagonally or vertically
- Radial adjustment clickstops at 45° intervals
- Image angle: 73° to 93°
- Number of lenses: 12 elements (10 components)
- Aberration correction: By floating elements
- Filter size: 67 EW (filter glass for special angled filter holder and lens hood available from B + W Filterfabrik, Postfach 24 63, D-55513 Bad Kreuznach, and its distributors)
- Internal thread: M 67 x 0.75
- Aperture setting ring with clickstops (including half values)
- · Aperture preselector
- Smallest stop: f/22
- Combined meter / feet scale
- Focusing range: 0.30 m (1 ft) to ∞
- Smallest object field: 146 mm x 219 mm (5.7 x 8.6 in) (about 1:6)
- Parallel guided focusing mount
- LEICA R quick-change bayonet
- · Lens barrel: Black anodized
- Lens hood: Screw-in type, also doubles as special 67 EW filter holder
- Front lens diameter: 70 mm (2.8 in)
- Length to bayonet flange: 84 mm (3.3 in)
- Maximum diameter: 75 mm (3 in)
- Weight: 0.600 kg

#### PC-SUPER-ANGULON-R f/2.8/28 mm

In a soft leather case, with lens hood, lens cap and rear cover

(soft leather case, lens hood, lens cap and rear cover as replacement, see page 2-42 to 44)

Order No. 11812

Photography

- Angle of view: 64°
- Number of elements: 10 (9 components)
- Floating elements correct optical aberrations
- Filter size: E 67
- Internal thread: M 67 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 0.50 m (20 in)
- Smallest object field: 266 x 399 mm (10.4 x 15.7 in) (about 1:11)
- Rubber-armored focusing ring
- Parallel guided focusing mount
- LEICA R quick change bayonet
- Black anodized finish
- Built-in, telescopic lens hood
- Lens cap diameter: 75 mm (3 in)
- Length from bayonet flange: 76 mm (3 in)
- Diameter: 75 mm (3 in)
- Weight: 0.685 kg



Ultra-high-speed wide-angle lens

### **LEICA R lenses**

## SUMMILUX-R f/1.4/35 mm

for LEICA R models (all modes)

SUMMILUX-R f/1.4/35 mm In a soft leather case, with lens cap and rear cover

(Replacement soft leather case, lens cap, rear cover and accessories see page 2-42 to 44)

Order No. 11144.

2

## SUMMICRON-R f/2/35 mm

for LEICA R models (all modes)



High-speed wide-angle lens

• Angle of view: 64°

- Number of elements: 6 (6 components)
- Filter size: E 55
- Internal thread: M 55 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 0.30 m (12 in)
- Smallest object field: 140 x 210 mm (5.5 x 8.3 in) (about 1:6)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- Black anodized finish
- Built-in, telescopic lens hood
- Lens cap diameter: 63 mm (2.5 in)
- Length from bayonet flange: 54 mm (2.1 in)
- Diameter: 66 mm (2.6 in)
- Weight: 0.430 kg

### SUMMICRON-R f/2/35 mm

In a soft leather case, with lens cap and rear cover

(Replacement soft leather case, lens cap, rear cover, and accessories see page 2-42 to 44)

Order No. 11115 \_

- Angle of view: 64°
- Number of elements: 7 (6 components)
- Filter size: E 55
- Internal thread: M 55 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/
- feet scale
- Focusing range: ∞ to
   0.30 m (12 in)
- Smallest object field: 140 x 210 mm (5 <sup>1</sup>/<sub>4</sub> x 8 <sup>1</sup>/<sub>2</sub> in) (ca. 1:6)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- · Black anodized finish
- Built-in, telescopic lens hood
- Lens cap diameter: 63 mm (2.5 in)
- Length from bayonet flange: 41.5 mm (1.6 in)
- Diameter: 66 mm (2.6 in)

<sup>1)</sup> The Leica Camera Service Center or the authorized workshop of any Leica Camera agency can modify this lens for use on all LEICAFLEX models.

• Weight: 0.310 kg



#### Wide-angle lens

### **LEICA R lenses**

## ELMARIT-R f/2.8/35 mm

for LEICA R models (all modes)<sup>1)</sup>

aperare prority **and** manual mode) LEICAFLEX SL/SE **3** 

#### ELMARIT-R f/2.8/35 mm In a soft leather case, with lens hood, lens cap and rear cover

(Replacement soft leather case, lens cap and rear cover see page 2-42 to 44)

Order No. 11251

## **PA-CURTAGON** -R f/4/35 mm

for LEICA R models (preferably with aperture priority and manual mode) LEICAFLEX SL/SL 2 models

Wide-angle lens without preset diaphragm with perspective compensation

- Displacement from the optical axis: 7 mm in each direction
- Radial adjustment: clickstops at 90° intervals
- Angle of view: 64° 78°
- Number of elements: 7 (6 components)
- Filter size: 8, attachment through lens hood
- Internal thread: M 60 x 0.75
- · Aperture setting ring with clickstops
- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 0.30 m (12 in)
- Smallest object field: 140 x 210 mm (5.5 x 8.3 in) (about 1:6)
- · Parallel guided focusing mount
- LEICA R quick change bayonet
- Black anodized finish. with bright decorative ring
- · Locking lens hood, also as adapter for Series 8 filters
- Lens cap diameter: 63.7 mm (2.5 in)
- · Length from bayonet flange: 51 mm (2 in)
- Diameter: 70 mm (2.8 in)
- Weight: 0.330 kg

with lens hood, lens cap and rear cover

cap rear cover, and accessories see page 2-42 to 44)

Order No. 11202

(Replacement lens hood, lens

- Angle of view: 45°
- Number of elements: 7 (6 components)
- Filter size: E 55
- Internal thread: M 55 x 0.75
- Fully automatic spring back with clickstops (including half values)
- Aperture setting ring
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 0.50 m (20 in)
- Smallest object field: 180 x 270 mm (7.1 x 10.6 in) (about 1:7.5)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- · Black anodized finish
- Built-in, telescopic lens hood
- Lens cap diameter: 63 mm (2.5 in)
- Length from bayonet flange: 50.6 mm (2 in)
- Diameter: 66.5 mm (2.6 in)
- Weight: 0.400 kg



#### Ultra-high-speed lens

### **LEICA R lenses**

## SUMMILUX-R f/1.4/50 mm

for LEICA R models (all modes)<sup>1)</sup>

2

#### SUMMILUX-R f/1.4/50 mm In a soft leather case, with long and rough

with lens cap and rear cover

(Replacement soft leather case, lens cap, rear cover and accessories see page 2-42 to 44)

Order No. 11777.

<sup>1)</sup> The Leica Camera Service Center or the authorized workshop of any Leica Camera agency can modify this lens for use on all LEICAFLEX cameras.

## SUMMICRON-R f/2/50 mm

for LEICA R models (all modes)<sup>1)</sup>



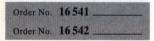
High-speed universal lens

- Angle of view: 45°
- Number of elements: 6 (4 components)
- Filter size: E 55
- Internal thread: M 55 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)

- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 0.50 m (20 in)
- Smallest object field: 180 x 270 mm (7.5 x 10.75 in) (about 1 : 7.5)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- · Black anodized finish
- Built-in, telescopic lens hood
- Lens cap diameter: 63 mm (2.5 in)
- Length from bayonet flange: 41 mm (1.6 in)
- Diameter: 66 mm (2.6 in)
- Weight: 0.290 kg

<sup>1)</sup> The Leica Camera Service Centre or the authorized workshop of any Leica Camera agency can modify this lens for use on all LEICAFLEX models.

### ELPRO achromats near-focusing attachment



SUMMICRON-R

In a soft leather case

with lens cap and rear

(Replacement soft leather case,

accessories see page 2-42 to 44)

lens cap, rear cover and

Order No. 11216

f/2/50 mm

cover

### ELPRO 1 ELPRO 2

Order No. 16553

Leather case for 1 nearfocusing attachment

Lens	ELPRO	Distance scale at	Distan object to film	ce in cm   object to   front lens	Object field size in mm	Repro- duction scale ratio
SUMMICRON-R f/2/50 mm	1	∞	50	41	184 x 276	1:7.7
		0.5	31	21	91 x 137	1:3.8
		∞	30	21	94 x 141	1:3.9
	2	0.5	24	14	62 x 93	1:2.6

All values rounded off.

hotography

Universal lens for photography in the range from  $\infty$  to 1:1 reproduction scale

- Angle of view: 39°
- Number of elements: 6 (5 components)
- Filter size: E 55
- Internal thread: M 55 x 0.75
- Fully automatic springback diaphragm, also with MACRO-Adapter-R
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/feet scale, reproduction scale also engraved
- Focusing range: ∞ to 27 cm (10.8 in) free working distance:
  15 cm (6 in) with MACRO-ADAPTER-R:
  27 to 24 cm (10.8 to 9.5 in) free working distance:
  15 to 10 cm (6 to 4 in)
- Smallest object field: 48 x 72 mm (1.9 x 2.9 in) (1:2)

#### **MACRO-ADAPTER-R**

for use with aperture priority and manual setting of shutter speed and aperture on LEICA R cameras Length: 30 mm Diameter: 62 mm Weight: 0,13 kg

Covers for the MACRO-ADAPTER-R:



- (1:1)
  Parallel guided focusing
- mount • LEICA R quick change
- bayonet
- Black anodized finish
- · Built-in, lens hood
- Lens cap diameter: 63 mm (2.5 in)
- Length from bayonet flange: 62.3 mm (2.5 in)
- Diameter: 67.5 mm (2.7 in)
- Weight: 0.400 kg

. . . . . . . . . . . . . . . . . . .



Front cover (camera body cover) Rear cover (same as for lenses)

### **LEICA R lenses**

## MACRO-ELMARIT-R f/2.8/60 mm

for LEICA R models (all modes)<sup>1)</sup>

<sup>1)</sup> The Leica Camera Service Center or the authorized workshop of any Leica Camera agency can modify this lens for use on all LEICAFLEX models.

MACRO-ELMARIT-R f/2.8/60 mm

In a soft leather case, with lens cap and rear cover

(Replacement soft leather case, lens cap, rear cover and accessories see page 2-42 to 44)

Order No. 11253

### MACRO-ADAPTER-R<sup>2)</sup>

<sup>2)</sup> MACRO-ADAPTER-R cannot be modified for use on LEICAFLEX / SL / SL 2 cameras.

-	Order No.	14 256 _	
			 6.0
-	Order No.	14 103 _	<u></u>
1	Order No.	14162 _	

2

## SUMMILUX-R f/1.4/80 mm

for LEICA R models (all modes)<sup>1)</sup>



## Ultra-high-speed lens of long focal length

SUMMILUX-R f/1.4/80 mm In a soft leather case, with lens cap and rear cover

(Replacement soft leather case, lens cap, rear cover and accessories see page 2-42 to 44)

Order No. 11881

• Angle of view: 30°

- Number of elements: 7 (5 components)
- Filter size: E 67
- Internal thread: M 67 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 0.80 m (31 in)
- Smallest object field: 192 x 288 mm (4.4 x 7.6 in) (about 1:8)
- Rubber-armored focusing
   mount
- Parallel guided focusing mount
- LEICA R quick change bayonet
- · Black anodized finish
- Built-in, telescopic lens hood
- Lens cap diameter: 75 mm (3 in)
- Length from bayonet flange: 69 mm (2.7 in)
- Diameter: 75 mm (3 in)
- Weight: 0.700 kg

1) Cannot be modified.

High-speed reportage lens

- Angle of view: 27°
- Number of elements: 5 (4 components)
- Filter size: E 55
- Internal thread: M 55 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 0.70 m (28 in)
- Smallest object field: 140 x 210 mm (5.5 x 8.3 in) (about 1:6)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- · Black anodized finish



- Built-in, telescopic lens hood
- Lens cap diameter: 67 mm (2.6 in)
- Length from bayonet flange: 61 mm (2.4 in)
- Diameter: 69 mm (2.7 in)
- Weight: 0.520 kg

## **LEICA R lenses**

## SUMMICRON-R f/2/90 mm

for LEICA R models (all modes)<sup>1)</sup>

2

#### SUMMICRON-R f/2/90 mm In a soft leather case, with lens cap, and rear cover

(Replacement soft leather case, lens cap, rear cover and accessories see page 2-42 to 44)

#### Order No. 11254 .

ELPRO (achromatic) near-focusing attachment

#### ELPRO 3

Leather case for nearfocusing attachment

Order No. 14553

Order No. 16543

Lens	ELPRO	Distance scale at	Distan object to film	ce in cm object to front lens	Object field size in mm	Repro- duction scale ratio
SUMMICRON-R f/2/90 mm		∞	74	61	161 x 241	1:6.7
	3	0.7	44	30	72 x 108	1:3.0

All values rounded off.

<sup>1)</sup> The Leica Camera Service Center or the authorized workshop of any Leica Camera agency can modify this lens for use on all LEICAFLEX models.

## ELMARIT-R f/2.8/90 mm

for LEICA R models (all modes)<sup>1)</sup>

#### ELMARIT-R f/2.8/90 mm In a soft leather case,

with lens cap and rear cover

(Replacement soft leather case, lens cap, rear cover and accessories see page 2-42 to 44)

Order No. 11154

### ELPRO (achromat) near-focusing attachment

Order No. 16543

Order No. 14553

#### ELPRO 3

Leather case for nearfocusing attachment

Lens	ELPRO	ELPRO Distance		Distance in cm		Repro-
		scale at	object to film	object to front lens	Object field size in mm	duction scale ratio
ELMARIT-R	2	∞	74	61	161 x 241	1:6.7
f/2.8/90 mm	3	0.7	44	30	72 x 108	1:3.0

All values rounded off.

back diaphragm
Aperture setting ring with clickstops (including half values)

• Angle of view: 27°

(4 components)

• Filter size: E 55

- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 0.70 m (28 in)
- Smallest object field: 140 x 210 mm (5.5 x 8.3 in) (about 1:6)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- Black anodized finish
- Built-in, telescopic lens hood
- Lens cap diameter: 63 mm (2.5 in)
- Length from bayonet flange: 57 mm (2.2 in)
- Diameter: 67 mm (2.6 in)
- Weight: 0.450 kg
- <sup>1)</sup> The Leica Camera Service Center or the authorized workshop of any Leica Camera agency can modify this lens for use on LEICAFLEX SL and SL2 models.



Universal lens of medium

• Number of elements: 4

• Internal thread: M 55 x 0.75

· Fully automatic spring-

focal length

hotograph

Multi-purpose lens of medium focal length for photography from  $\infty$  to the macro range (1:2) and corrected for extended spectral range

- Angle of view: 25°
- Number of elements: 8 (6 components)
- Filter size: E 60
- Internal thread: M 60 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/22
  Combined meter/ feet scale up to 0.7 m reproduction ratios
- engraved from 1:5 to 1:2
  Focusing range: ∞ to 0.45 m free working distance: (repr. ratio 1:2) = 22 cm with ELPRO 1:2-1:1 (as accessory): free working distance:

(repr. ratio 1.1 : 1) = 7.2 cm • Smallest object field:

48 x 72 mm (about 1:2) with ELPRO 1:2-1:1 (as accessory): 22 x 33 mm (1.1:1)

APO-EXTENDER-R 2 x for LEICA R models (with aperture priority and manual modes)

ELPRO 1:2-1:1 macro lens for APO-MACRO-ELMARIT-R f/2.8/100 mm

ELPRO 1:2-1:1 with lens hood, lens cap and rear cover

STA 1 tripod adapter for attaching the APO-MACRO-ELMARIT-R



- Parallel guided focusing mount
- LEICA R quick change bayonet
- Black anodized finish
- Built-in, telescopic lens hood
- Front lens diameter: 68 mm (2.7 in)
- Length from bayonet flange: 104.5 mm (4.1 in)
- Widest diameter: 73 mm (2.9 in)
- Weight: 0.760 kg

(further details on page 2-38)

replacement lens hood replacement lens cap replacement rear cover

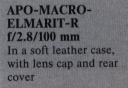
f/2.8/100 mm to a tripod or to the universal handgrip

### **LEICA R lenses**

## APO-MACRO-ELMARIT-R f/2.8/100 mm

for LEICA R models (all modes) LEICAFLEX SL/SL 2 models 2

Photography



(Replacement soft leather case, lens cap, rear cover and accessories see page 2-42 to 44)

Order No. 11210 \_

### APO-EXTENDER-R 2 x

with protective covers Order No. 11262

### ELPRO 1:2-1:1

Order No.	16 545
Order No.	12 528
Order No.	14 290
Order No.	14 251

STA 1 tripod adapter

Order No. 14636

## ELMARIT-R f/2.8/135 mm

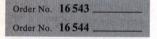
for LEICA R models (all modes) LEICAFLEX models

#### Telephoto lens

- Angle of view: 18°
- Number of elements: 5 (4 components)
- Filter size: E 55
- Internal thread: M 55 x 0.75<sup>1)</sup>

- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 1.50 m (5 ft)
- Smallest object field: 220 x 330 mm (8.7 x 13.0 in) (about 1:9)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- Black anodized finish
- Built-in, telescopic lens hood
- Lens cap diameter: 65 mm (2.6 in)
- Length from bayonet flange: 93 mm (3.7 in)
- Diameter: 67 mm (2.6 in)
- Weight: 0.730 kg

ELPRO (achromatic) near-focusing attachments



Order No. 14553

### ELPRO 3 ELPRO 4

Leather case for nearfocusing attachment

Lens	ELPRO	Distance scale at	Distan object to film	ce in cm object to front lens	Object field size in mm	Repro- duction scale ratio
ELMARIT-R f/2.8/135 mm	4	∞	150	135	237 x 355	1:9.9
	4	1.5	84	68	106 x 159	1:4.4
	2	∞	76	61	107 x 160	1:4.5
	3	1.5	58	42	66 x 99	1:2.8

All values rounded off.

#### <sup>1)</sup> up to No. 2772618 internal thread of lens M 54 x 0.75

.

## Order No. 11211 ELPRO (ac

cover

ELMARIT-R

f/2.8/135 mm

In a soft leather case,

with lens cap and rear

(Replacement soft leather case.

accessories see page 2-42 to 44)

lens cap, rear cover and

- Angle of view: 14°
- Number of elements: 9 (6 components)
- Filter size: series 6 (in filter drawer)
- Filter thread (front): E 100 x 1
- Built-in protection filter in front of the front lens
- Fully automatic spring back diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/feet scale
- Focusing range: ∞ to 1,5 m (4 ft. 11 in)
- Can be focused beyond ∞
- Can be used for infrared exposures without focusing correction
- Smallest object field: 160 x 240 mm (6.3 x 9.4 in) (about 1:6.7)
- LEICA R quick change bayonet
- · Black anodized finish
- Built-in, rubber-armored, telescopic lens hood
- Eyelets for attachment of carrying strap
- Tripod thread: A 1/4, DIN 4503 (1/4"), tilting for vertical and horizontal pictures, with clickstops

APO-EXTENDER-R for LEICA R models

(further details on page 2-38)



High speed telephoto lens with internal focusing and apochromatic correction for extended spectral range

- Front lens diameter: 116 mm (4.6 in)
- Length from bayonet flange: 176 mm (6.9 in)
- Diameter: 116 mm (4.6 in)
- Weight: approx. 2.500 kg

## **LEICA R lenses**

## APO-SUMMICRON-R f/2/180 mm

for LEICA R models (all modes)

APO-SUMMICRON-R f/2/180 mm

In a hard leather case, with lens cap and rear cover, filter drawer with 6 ND x 1series filter, carrying straps (Replacement hard leather case,

lens cap, rear cover and carrying straps see page 2-42 - 44) Order No. **11 271** 

### APO-EXTENDER-R

APO-EXTENDER-R 1.4x (all modes) with protective covers Order No. 11249

APO-EXTENDER-R 2 x (with aperture priority and manual modes) with protective covers Order No. 11 262

## ELMARIT-R f/2.8/180 mm

for LEICA R models (all modes) LEICAFLEX models

#### ELMARIT-R f/2.8/180 mm In a soft leather case, with lens cap and rear cover

(Replacement soft leather case, lens cap, rear cover and accessories see page 2-42 to 44)

Order No. 11923



3447561

E 67

#### High-speed telephoto lens

- Angle of view: 14°
- Number of elements: 5 (4 components)
- Filter size: E 67
- Internal thread: M 67 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: 22
- Combined meter/ feet scale
- Focusing range: ∞ to 1.80 m (6 ft)
- Smallest object field: 193 x 290 mm (7.6 x 11.4 in) (about 1:8)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- Black anodized finish
- Built-in, telescopic lens hood
- Lens cap diameter: 75 mm (3 in)
- Length from bayonet flange: 121 mm (4.8 in)
- Diameter: 75 mm (3 in)
- Weight: 0.810 kg

- Angle of view: 14°
- Number of elements: 7 (4 components)
- Filter size: E 60
- Internal thread: M 60 x 0.75<sup>1</sup>
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 2.50 m (8 ft 4 in)
- Smallest object field: 276 x 414 mm (10.9 x 16.3 in) (about 1:11.5)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- Black anodized finish
- Built-in, telescopic lens hood
- Front lens diameter: 66 mm (2.6 in)
- Length from bayonet flange: 135 mm (5.3 in)
- Diameter: 68 mm (2.7 in)
- Weight: 0.750 kg

# APO-EXTENDER-R 2 x

for LEICA R models (with aperture priority and manual modes) (further details on page 2-39)



High-speed telephoto lens

### **LEICA R lenses**

## APO-TELYT-R f/3.4/180 mm

for LEICA R models (all modes) LEICAFLEX models

2

#### APO-TELYT-R f/3.4/180 mm In a soft leather case, with lens cap and rear cover

(Replacement soft leather case, lens cap, rear cover and accessories see page 2-42 to 44)

Order No. 11242 \_

### APO-EXTENDER-R 2 x

APO-EXTENDER-R 2x with protective covers Order No. 11262

<sup>1)</sup> up to Serial No. 2947023 internal thread M 59 x 0.75

## ELMAR-R f/4/180 mm

for LEICA R models (all modes) LEICAFLEX models



Handy telephoto lens

• Angle of view: 14°

- Number of elements: 5 (4 components)
- Filter size: E 55
- Internal thread: M 55 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 1.80 m (6 ft)
- Smallest object field: 175 x 262 mm (6.9 x 10.3 in) (about 1:7)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- · Black anodized finish
- Built-in, telescopic lens hood
- Lens cap diameter: 65 mm (2.6 in)
- Length from bayonet flange: 100 mm (3.9 in)
- Diameter: 65.5 mm (2.6 in)
- Weight: 0.540 kg

### ELMAR-R f/4/180 mm

In a soft leather case, with lens cap and rear cover

(Replacement soft leather case, lens cap, rear cover and accessories see page 2-42 to 44)

Order No. 11922.

- Angle of view: 8.8°
- Number of elements: 8 (7 components)
- Filter size: series 55 (in filter drawer) and E 112
- Internal thread: M 112 x 1.5
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values except between f/2.8 and f/4)
- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 2.5 m (8.2 ft)
- Can be focused beyond ∞
- Can be used for infrared exposures without focusing correction
- Smallest object field: 195 x 293 mm (7.7 x 11.5 in) (approx. 1:8)
- LEICA R quick change bayonet
- Black anodized finish
- Built-in telescopic lens hood with edge protection
- Eyelets for attachment of carrying strap
- Tripod thread: A <sup>1</sup>/<sub>4</sub>, DIN 4503, (<sup>1</sup>/<sub>4</sub> in), tilting for vertical and horizontal pictures, with clickstops
- Pistol stock
- Filter ND x 1 with edge protection
- Filter drawer with series 5.5 ND x 1

APO-EXTENDER-R for LEICA R models

(further details on page 2-38)



High-speed telephoto lens with internal focusing and apochromatic correction for extended spectral range

- Carrying strap
- Case with attachable carrying strap
- Front lens diameter: 125 mm (4.9 in)
- Length from bayonet flange: 261 mm (10.3 in)
- Widest diameter: 125 mm (4.9 in)
- Weight: 2.800 kg

### **LEICA R lenses**

## APO-TELYT-R f/2.8/280 mm

for LEICA R models (all modes) LEICAFLEX SL/SL 2 models

2

#### APO-TELYT-R f/2.8/280 mm

with lens cap and rear cover, filter drawer with series 5.5 ND x 1, pistol stock, ND x 1 protection filter, carrying strap, and case

(Replacement lens cap, rear cover, pistol stock, filter, carrying strap see page 2-42 to 44)

Order No. 11263

### APO-EXTENDER-R

APO-EXTENDER-R 1,4x (all modes) with protective covers Order No. 11249

APO-EXTENDER-R 2 x (with aperture priority and manual modes) with protective covers Order No. 11262

## APO-TELYT-R f/4/280 mm

for LEICA R models (all modes)

### APO-TELYT-R f/4/280 mm

In a leather case, with lens cap and rear cover, filter drawer with 5.5 ND x 1 series filter, carrying straps

(Replacement leather case, lens cap, rear cover and carrying straps see page 2-42 to 44)

Order No. 11261.

APO-EXTENDER-R

APO-EXTENDER-R 1.4x (all modes) with protective covers Order No. 11 249 \_\_\_\_\_

APO-EXTENDER-R 2 x (with aperture priority and manual modes) with protective covers Order No. 11262



Telephoto lens with internal focusing and apochromatic correction for extended spectral range (IR-range)

- Angle of view: 8,8°
- Number of elements: 7 (6 components)
- Filter size: series 5.5 (in filter drawer)
- Filter thread (front): E 77

- Built-in protection filter in front of the front lens
- Fully automatic spring back diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/feet scale
- Focusing range: ∞ to 1,7 m (5 ft 7 in)
- Can be focused beyond ∞
- Can be used for infrared exposures without focusing correction
- Smallest object field: 120 x 180 mm (4.7 x 7.1 in) (about 1:5)
- LEICA R quick change bayonet
- Black anodized finish
- Built-in, rubber-armoured, telescopic lens hood
- Eyelets for attachment of carrying strap
- Tripod thread: A ¼, DIN 4503, (¼"), tilting for vertical and horizontal pictures, with clickstops
- Diameter: 90 mm (3.5 in)
- Length from bayonet flange: 208 mm (8.2 in)
- Height over tripod support: 97.5 mm (3.8 in)
- Weight: 1,875 kg

APO-EXTENDER-R for LEICA R models

(further details on page 2-38)



High-speed telephoto lens with internal focusing and apochromatic correction for extended spectral range (IR-range)

- Angle of view: 6°
- Number of elements: 11 (9 components)
- Filter size: series 5.5 (in filter drawer)
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values, except between f/2.8 and f/4)
- Smallest aperture: 22
- Combined meter/feet scale
- Focusing range: ∞ to 4.70 m (15.4 ft)
- Can be focused beyond ∞
- Suitable for exposures in IR-range without focus adjustment
- Smallest object field: 28 cm x 42 cm (11 x16.5 in) (approx. 1 : 11.5)

### (all modes) with protective covers

#### (with aperture priority and manual modes) with protective covers

- Pre-setting of shortest focusing distance possible from 4.70 m to ∞
- LEICA R quick-change bayonet
- Lens black anodized/ silver lacquer
- Lens hood: detachable, with rim guard (can be locked in two positions)
- Carrying handle with attachments for carrying strap
- Tripod attachment: A 1/4 and A 3/6, DIN 4503 (1/4" and 3/8"), rotatable for vertical and horizontal formats, with click stops
- Front lens diameter: 166 mm (6.5 in) (with lens hood)
- Length to bayonet flange: with lens hood, in transport setting: 365 mm (14.4 in) without lens hood: 350 mm (13.8 in)
- Weight: 5.50 kg (with lens hood)

APO-EXTENDER-R 1,4 x

**APO-EXTENDER-R 2 x** 

### **LEICA R lenses**

## APO-TELYT-R f/2.8/400 mm

for LEICA R models (all modes) LEICAFLEX SL/SL 2 models

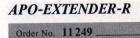
### APO-TELYT-R

**f/2.8/400 mm** with lens hood, lens cap and rear cover, filter drawer, series filter 5.5 ND x 1, with carrying strap and case

(Lens hood, lens cap and rear cover, filter turret, series filter 5.5 ND x l, carrying strap and case as replacement, as well as accessories, see page 2-42-44)

Order No. 11260.

Order No. 11262



## TELYT-R f/6.8/400 mm

for LEICA R models (preferably with aperture priority and manual mode) LEICAFLEX SL/SL 2 models

#### TELYT-R f/6.8/400 mm.

complete, with lens covers

(Replacement lens covers and accessories see page 2-42 to 44)

Order No. 11953

consisting of

Lens unit

Order No. 11903

Lens tube Order No. 11906

Universal handgrip with

shoulder stock Order No. 14239

Leather case Order No. 14582

Accessories



Follow-focus lens of long focal length

- Angle of view: 6°
- Number of elements: 2 (1 component)
- Filter size: Series 7 (in filter slot)
- Internal thread: M 72 x 0.75
- Aperture setting ring with clickstops (including half values between f/8 and f/16)
- Smallest aperture: f/32
- Focusing range: ∞ to 3.60 m (12 ft)
- From Serial No. 3 066 826 can be focused beyond ∞
- Follow-focus device (adjustable front part of lens with parallel guide, push-button to release the focusing mechanism)
- Smallest object field: 158 x 236 mm (6.2 x 9.3 in) (about 1:6.5)

#### **Extension tube**

(60 mm) for the TELYT-R f/6.8/400 mm lens also suitable for the TELYT-R f/6.8/ 560 mm) to extend the operating range (near focusing).

#### **Electric cable release**

for insertion in the universal handgrip for LEICA R

- Built-in, telescopic lens hood
- Rotatable swivelling device for upright and horizontal format with clickstops
- Lens can be dismantled for convenient transport
- LEICA R quick change bayonet
- Slot with cover for Series 7 filters
- Black anodized finish
- Tripod thread: A <sup>1</sup>/<sub>4</sub> and A <sup>3</sup>/<sub>8</sub>, DIN 4503 (<sup>1</sup>/<sub>4</sub> + <sup>3</sup>/<sub>8</sub> in)
- Universal handgrip with shoulder stock, detachable, can be used as mini tripod
- Leather case
- Lens cap diameter: 89 mm (3.7 in)
- Length from bayonet flange: 384 mm (15.1 in)
- Diameter: 89 mm (3.7 in)
- Weight: 1.830 kg (complete)

Focusing range (with one

extension tube): 353 - 226cm (11 ft 7 in x 7 ft 5 in). Smallest object field (with one intermediate tube):  $8 \times 12$  cm (3.1 x 4.7 in)

#### models with MOTOR-WINDER R/MOTOR-DRIVE R.

Order No. 14237



Lens of long focal length. Focusing mechanism with rapid follow-focus grip and integrated close-focusing tube.

- Angle of view: 6°
- Number of elements: 2 (1 component)
- Filter slot for special Novoflex and Heliopan filters
- Aperture setting ring with clickstops
- Smallest aperture: f/32
- Focusing range: with rapid follow-focus grip approx. 7.5 m (25 ft) -∞ with near-focusing tube approx. 2.40 m (7.9 ft)
- Smallest object fields: with rapid follow-focus grip 377 x 566 mm (14.8 x 22.3 in) reproduction scale approx. 1:16 with close-focusing tube

90 x 135 mm (3.5 x 5.3 in) repoduction scale approx. 1:3.8

- Built-in telescopic lens hood
- Rotatable swivelling device for upright and horizontal format, with clickstops
- LEICA R quick-change bayonet
- Black anodized finish
- Tripod thread A <sup>1</sup>/4", DIN 4503 (<sup>1</sup>/4")
- Universal stock, adaptable as chest- or shoulder stock, detachable
- Lens cap diameter: 89 mm (3.5 in)
- Length to bayonet flange: 406 mm (16 in)
- Height with rapid followfocus grip: 200 mm (7.9 in)
- Weight: 2.930 kg (complete)

### **LEICA R lenses**

## TELYT-R f/6.8/400 mm with NOVOFLEX Rapid Follow-Focus Grip

for LEICA R models (preferably with aperture priority and manual mode) LEICAFLEX SL/SL 2 models

TELYT-R f/6.8/400 mm with NOVOFLEX Rapid Follow-Focus Grip Order No. 11926 \_\_\_\_\_\_ consisting of: TELYT-R f/6.8/400 mm lens unit complete with lens hood, lens cap and rear cover, universal stock, carrying strap and cable release (Replacement lens covers and accessories see page 2-42 to 44

**TELYT-R f/6.8/400 mm** lens unit Order No. 11970

#### Accessories

Order No. 14589

#### Leather sheath

Electric cable release for LEICA R models with motorized film advance

Order No. 14085

2

## MR-TELYT-R f/8/500 mm

for LEICA R models (preferably with aperture priority and manual mode) LEICAFLEX SL/SL 2 models



Catadioptric telephoto lens (reflecting-lens construction)

#### MR-TELYT-R f/8/500 mm

with lens hood, lens cap and rear cover, as well as five special filters and leather case

(Replacement lens cap, rear cover, special filters, leather case see page 2-42 to 44)

Order No. 11243.

• Angle of view: 5°

- Number of elements: 5; 2 of them back mirror coated, with one special filter
- Filter size on the front ring of the lens: E 77
- Internal thread: M 77 x 0.75
- Combined meter/ feet scale
- Focusing range: ∞ to 4 m (13 ft 4 in)
- Can be focused beyond ∞
- Smallest object field: 180 x 270 mm (7.1 x 10.6 in) (about 1:7,5)
- Covered helical focusing mount for hand support
- Rubber-armoured focusing ring
- LEICA R quick change bayonet
- Black anodized finish
- · Screw-in lens hood
- Four further special screwin filters M 32 x 0.5: UVa, neutral density 4 x, yellow, orange (to be screwed into the rear mount of the lens)
- Leather case
- Lens cap diameter: 83.5 mm (3.3 in)
- Length from bayonet flange: 121 mm (4.8 in)
- Diameter: 87 mm (3.4 in)
- Weight: 0.750 kg

2



Lens of long focal length. Focusing mechanism with rapid follow-focus grip and integrated close-focusing tube.

- Angle of view: 4.3°
- Number of elements: 2 (1 component)
- Filter slot for special Novoflex and Heliopan filters
- Aperture setting ring with clickstops
- Smallest aperture: f/32
- Focusing range: with rapid follow-focus grip approx. 13 m (43 ft) -∞ with close-focusing tube approx. 4.15 m (13,6 ft)
- Smallest object fields: with rapid follow-focus grip 512 x 768 mm (20.3 x 30.2 inches) with close-focusing tube

#### Leather sheath

..........

Electric cable release for LEICA R models with motorized film advance 124 x 187 mm (4.9 x 7.4 inches) reproduction scale approx. 1:5.2

- Built-in telescopic lens hood
- Rotatable swivelling device for upright and horizontal format, with clickstops
- LEICA R quick-change bayonet
- · Black anodized finish
- Tripod thread A <sup>1</sup>/<sub>4</sub>, DIN 4503 (<sup>1</sup>/<sub>4</sub>")
- Universal stock, adaptable as chest- or shoulder stock, detachable
- Lens cap diameter: 98 mm (3.9 in)
- Length to bayonet flange: 534 mm (2.1 in)
- Height with rapid followfocus grip: 205 mm (8 in)
- Weight: 3.2 kg (complete)

### **LEICA R lenses**

## TELYT-R f/6.8/560 mm with NOVOFLEX Rapid Follow-Focus Grip

for LEICA R models (preferably with aperture priority and manual mode) LEICAFLEX SL/SL 2 models

TELYT-R f/6.8/560 mm with NOVOFLEX Rapid Follow-Focus Grip Order No. 11927 \_\_\_\_\_\_ consisting of: TELYT-R f/6.8/560 mm lens unit complete with lens cap and rear cover, universal stock, carrying strap and cable release (Replacement lens covers and

(Replacement lens covers and accessories see page 2-42 to 44

TELYT-R f/6.8/560 mm lens unit Order No. 11971 \_\_\_\_\_

#### Accessories

Order No. 14589

Other No. 14085

2



## TELYT-S f/6.3/800 mm

for LEICA R models (preferably with aperture priority and manual mode) LEICAFLEX SL/SL 2 models

TELYT-S f/6.3/800 mm,

complete with special metal carrying case

Order No. 11921.

Extreme telephoto lens with Leica special glasses for maximum optical performance

- Angle of view: 3°
- Number of elements: 3
- Filter size: Series 7 (in filter slot)
- Aperture setting ring with clickstops (including half values between f/6.3 and 22)
- Aperture preselection
- Smallest aperture: f/32
- Focusing range: ∞ to 12.50 m (41 ft)
- Smallest object field: 320 x 480 mm (1 ft 0.6 in – 1 ft 7 in) (about 1:13)
- Rapid focusing by means of an easy-grip rotary knob and parallel guide
- Lens can be dismantled into 5 parts for transport in a special metal case
- Assembly and dismantling by means of bayonet and marked locking rings with lever
- Sturdy carrying handle for assembled lens

- Lining-up device in the shape of a sports finder with rear and front sight and field-of-view orientating device for upright and horizontal format, protected against damage by integration with the carrying handle
- Detachable and lockable lens hood
- Slot with cover for Series 7 filters
- Tripod thread A 1/4 and A 3/8, DIN 4503, (1/4 and 3/8 in) for sturdy tripods
- Support ring, rotatable with tripod thread A <sup>1</sup>/<sub>4</sub> DIN 4503 (<sup>1</sup>/<sub>4</sub> in) for additional monopod
- · Black anodized finish
- LEICA R quick change bayonet
- Rotatable swivelling device for upright and horizontal format with clickstops
- Lens cap diameter: 152 mm (6 in)
- Length from bayonet flange: 790 mm (31 in)
- Diameter: 152 mm (6 in)
- Weight: 6.860 kg

- Angular field: 76° to 34°
- Number of elements: 11 (8 components)
- Filter size: E 60
- Inside thread: M 60 x 0.75 mm
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 0.5 m
- Smallest object field: 28 mm focal length: 336 mm x 504 mm (13.2 x 19.8 in) (image scale about 1:14) 70 mm focal length: 144 mm x 216 mm (5.7 x 8.5 in) (image scale about 1:6)
- Separate setting ring for focal length
- LEICA R quick-change bayonet
- Black anodized finish
- Lens hood: built-in, telescopic
- Lens-cap diameter: 74.5 mm (2.9 in)
- Length to bayonet flange: 84 mm (3.3 in)
- Diameter: 74.8 mm (2.9 in)
- Weight: 0.465 kg

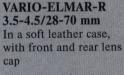


Lens of variable focal length

## **LEICA R lenses**

## VARIO-ELMAR-R 3.5-4.5/28-70 mm

for LEICA R models (all modes) LEICAFLEX SL/SL 2 models 2



(Replacement soft leather case, lens cap, rear cover and accessories: see page 2-42 to 44)

Order No. 11265

## VARIO-ELMAR-R f/3.5/35-70 mm

for LEICA R models (all modes) LEICAFLEX SL/SL 2 models



Lens of variable focal length

VARIO-ELMAR-R f/3.5/35-70 mm In a soft leather case, with front and rear lens cap

(Replacement soft leather case, lens cap, rear cover and accessories: see page 2-45)

Order No. 11248

- Angle of view: 64° 35°
- Number of elements: 8 (7 components)
- Filter size: E 67
- Internal thread: M 67 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: 22
- Combined meter / feet scale
- Focusing range: ∞ 1 m
- Smallest object field: 35 mm focal length: 632 x 947 mm (24.9 x 37.3 in) (about 1:26) 70 mm focal length: 338 x 507 mm (13.3 x 20 in) (about 1:14)
- Parallel guided focusing mount
- LEICA R quick change bayonet
- · Lens anodized in black
- Lens hood: built-in, telescopic
- Front lens diameter: 75 mm (3 in)
- Length to bayonet flange: 66.5 mm (2.6 in)
- Maximum diameter: 76.5 mm (3 in)
- Weight: 0.450 kg

2 - 36

Photography

- Angle of view: 35° 12°
- Number of elements: 12 (9 components)
- Filter size: E 60
- Internal thread: M 60 x 0.75
- Fully automatic springback diaphragm
- Aperture setting ring with clickstops (including half values except between f/4 and f/5.6)
- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 1.10 m
- Smallest object field: 70 mm length: 264 x 396 mm (10.4 x 15.6 in) (about 1 : 11) 210 mm length: 96 x 144 mm (3.8 x 5.7 in) (about 1 : 4)
- Rubber-armoured focusing mount for focusing and zooming
- LEICA R quick change bayonet
- Black anodized finish
- Built-in, telescopic lens hood
- Lens cap diameter: 73.5 mm (3 in)
- Length from bayonet flange: 157 mm (6.2 in)
- Diameter: 73.5 mm (3 in)
- Weight: 0.720 kg



Zoom lens

### **LEICA R lenses**

# VARIO-ELMAR-R f/4/70-210 mm

for LEICA R models (all modes) LEICAFLEX SL/SL 2 models 2

#### VARIO-ELMAR-R f/4/70-210 mm In a soft leather case, with lens cap and rear cover

(Replacement soft leather case, lens cap, rear cover and accessories see page 2-42 to 44)

Order No. 11246

### APO-EXTENDER-R 1.4 x

for LEICA R models (all modes)

APO-EXTENDER-R 1.4 x In a soft leather case, with protective covers Order No. 11 249 \_\_\_\_\_\_ Replacement soft leather case: Order No. 14 792 \_\_\_\_\_\_ Replacement covers: Rear cover (lens rear cover) Order No. 14 162 \_\_\_\_\_\_ Front cover Order No. 14 252 \_\_\_\_\_



Focal length extending lens attachment

- Focal length extension: 1.4 x
- For LEICA R lens compatibility: see table page 2 - 40
- Aperture reduction: 1f-stop
- Number of elements: 5 (4 components)
- Aperture range: f/2.8 to f/22
- Fully automatic springback diaphragm
- LEICA R quick change bayonet
- Black anodized finish
- Length from bayonet flange: 36 mm (1.4 in)
- Diameter: 62 mm (2.4 in)
- Weight: 0.220 kg

APO-EXTENDER-R 2 x for LEICA R models (preferably with aperture priority and manual)

APO-EXTENDER-R 2 x In a soft leather case, with protective covers Order No. 11262

Replacement soft leather case: Order No. 14793

Replacement covers: Rear cover (lens rear cover) Order No. 14162 \_\_\_\_\_

Front cover (camera body cover) Order No. 14103 \_\_\_\_\_



Focal length extending lens attachment

- Focal length extension: 2 x
- For LEICA R lens compatibility see table on page 2-40
- Aperture reduction: 2 f-stops
- Number of elements: 7 (5 components)
- Aperture range: from f/2
- Fully automatic springback diaphragm for aperture priority and manual setting of shutter speed and aperture
- Suitable for use with focal lengths of 50 mm and longer
- LEICA R quick change bayonet
- Black anodized finish
- Length from bayonet flange: 35.4 mm (1.4 in)
- Widest diameter: 62 mm (2.4 in)
- Weight: 0.245 kg

### LEICA R lens data when used in conjunction with APO-EXTENDER-R 2 x APO-EXTENDER-R 1.4 x

		A NEW YORK A STATE OF
Compatible LEICA R lenses	With APO- EXTENDER-R 2 x	With APO- EXTENDER-R 1.4 x
f/2/50 mm	f/4/100 mm	and the second se
f/2.8/60 mm	f/5.6/120 mm	The second second
f/2/90 mm	f/4/180 mm	
f/2.8/90 mm	f/5.6/180 mm	-
f/4/100 mm	f/8/200 mm	f/5.6/140 mm
f/2.8/100 mm APO	f/5.6/200 mm APO	- 743
f/2.8/135 mm	f/5.6/270 mm	
f/2/180 mm APO	f/4/360 mm APO	f/2.8/250 mm APO *)
f/2.8/180 mm	f/5.6/360 mm	f/4/250 mm
f/3.4/180 mm APO	f/6.8/360 mm APO	
f/4/180 mm	f/8/360 mm	-
f/4/250 mm	f/8/500 mm	-
f/2.8/280 mm APO	f/5.6/560 mm APO	f/4/400 mm APO
f/4/280 mm APO	f/8/560 mm APO	f/5.6/400 mm APO
f/4.8/350 mm	f/9.6/700 mm	
f/2.8/400 mm APO	f/5.6/800 mm APO	f/4/560 mm APO
f/8/500 mm	f/16/1000 mm	-
f/6.3/800 mm	f/12.6/1600 mm	f/8.8/1120 mm
f/3.5/35-70 mm	f/7/70-140 mm	

\*) Since the APO-Extender-R 1.4 x is constructed for lenses from speed 1:2,8, the SUMMICRON-R 1:2/180 mm must be stopped down 1-2 steps.

# Accessories

Telescope Ocular LEICA TO-R for LEICA R lenses



#### LEICA TO-R

with protective covers and nappa leather case Order No. 14234

Adapter for use with VISOFLEX, VISOFLEX 2 and 3 lenses Order No. 14167

Nappa leather case (replacement) Order No. **14797** 

Lens tube cover (replacement) Order No. 14103 \_

Eyepiece protective cover (replacement) Order No. 14678 R-lens accessory for observation

- Number of elements: 3 (2 components)
- Ocular focal length: 12.5 mm
- Ocular magnification: 20 x
- Roof prism system: Schmidt-Pechan
- Diopter correction: ± 3 diopters
- Exit pupil diameter: dependent on the set lens aperture and the limitation of the prism system: maximum diameter 3.78 mm

- Exit pupil diameter: 12.7 mm (slight limitation for eyeglass wearers)
- Diameter of the field of view opening: 12 mm
- Fold-down rubber eyecups
- Black anodized metal housing
- LEICA R quick-change bayonet
- Overall length: 57 mm (2.2 in) (50 mm with rubber eyecups folded down)
- Diameter: 62 mm (2.4 in)
- Weight: 0.136 kg (approx. 4.8 oz.)
- Lens table on page 2-41

### Accessories

LEICA R lens Data in Conjunction with the LEICA TO-R

LEICA R lenses	<b>Telescope</b> <sup>1)</sup> Magnification x Lens Diameter (mm)	Exit Pupil (mm)	Twilight Factor	Field of View at 1000 m
SUMMILUX-R f/1.4/50 mm SUMMICRON-R f/2/50 mm	4 x 15	3.8	7.8	240 m
MACRO-ELMARIT-R f/2.8/60 mm	4.8 x 18	3.8	9.3	200 m
SUMMILUX-R f/1.4/80 mm	6.4 x 24	3.8	12.5	150 m
SUMMICRON-R f/2/90 mm ELMARIT-R f/2.8/90 mm	7.2 x 27	3.8	14	133 m
APO-MACRO-ELMARIT-R f/2.8/100 mm	8 x 30	3.8	15.5	120 m
MACRO-ELMAR-R f/4/100 mm	8 x 25	3.1	14	120 m
ELMARIT-R f/2.8/135 mm	11 x 41	3.8	21	89 m
APO-SUMMICRON-R f/2/180 mm ELMARIT-R f/2.8/180 mm APO-TELYT-R f/3.4/180 mm	14.5 x 55	3.8	28	67 m
ELMAR-R f/4/180 mm	14.5 x 45	3.1	25.5	67 m
APO-TELYT-R f/2.8/280 mm	22.5 x 85	3.8	44	43 m
APO-TELYT-R f/4/280 mm	22.5 x 70	3.1	40	43 m
APO-TELYT-R f/2.8/400 mm	32 x 120	3.8	62	30 m
TELYT-R f/6.8/400 mm	32 x 59	1.8	43	30 m
MR-TELYT-R f/8/500 mm	40 x 63	1.6	50	24 m
TELYT-R f/6.8/560 mm	45 x 82	1.8	61	21 m
TELYT-S f/6.3/800 mm	64 x 127	2.0	90	15 m
VARIO-ELMAR-R f/3.5-4.5/28-70 mm	2.2 x 8 - 5.6 x 15.5	3.6-2.8	4.2 - 9.3	430 - 171 m
VARIO-ELMAR-R f/3.5-4.5/35-70 mm	2.8 x 10 - 5.6 x 20	3.6	5.3 - 10.6	343 - 171 m
VARIO-ELMAR-R f/3.5-4.5/70-210 mm	5.6 x 17.5 - 17 x 52.5	3.1	10-30	171 - 57 m

<sup>1)</sup> Widest usable aperture opening with high-speed lenses: f/3.3

All values rounded-off.

Leica R-lens	Order-no.	A Ø in mm	Lenshood <sup>10)</sup> "-" = built-in	Lenshood cover <sup>10)</sup>	Front lens cover <sup>10)</sup>	Filter size <sup>1)</sup>
3.5/15	11213	83.5	-	-	14 294	-
2.8/16	11 222	65	Charles - Margaret		14 089	-
2.8/19	11 258	68	12 546	14 302	14 301	
2.8/24	11257	63.7	12 523		14 290	Series 8
2.8/28 form no. 3 664 831	11 2 5 9	67.5	1	-	14 289	E 55
PC 2.8/28	11812	70	12 540	-	14 232	67 EW <sup>8)</sup>
1.4/35	11 144	75	-	<b>_</b>	14 291	E 67
2/35 from no. 2791417	11115	63		-	14 289	E 55
2.8/35 from no. 2928901	11251	63			14 289	E 55
PA 4/35	11 202	63.7	12 5 1 4	- 169	14 290	Series 8
1.4/50 from no. 2 806 501	11 777	63	-	-	14 289	E 55
2/50 from no. 2777651	11216	63	16 1 = 0	-	14 289	E 55
2.8/60 from no. 3 013 651	11 253	63	19		14 289	E 55
1.4/80	11 881	75		_	14 291	E 67
2/90 from no. 3 381 677	11 254	67	Q2 x -8		14289	E 55
2.8/90 from no. 3 260 101	11 154	63	82 x <sup>01</sup> 8	- FM	14 289	E 55
2.8/100	11 2 10	68	4b .x _11		14 290	E 60
4/100 for R BR2	11 270	65	alcopepts: 3	_ma_12	14 289	E 55
2.8/135 from no. 2772619	11211	65	nts)	V1d0	14 289	E 55
2/180	11271	116	Real Fig. Fi	_* 101	14 298	S6+E100
2.8/180 from no. 2939701	11 923	75	22.5 7 2.55 The Provide Report Office		14 291	E 67
3.4/180 from no. 2947024	11242	66	ALVEL TA		14 290	E 60
4/180	11922	65	(1) - m		14 289	E 55
2.8/280	11 263	125	6 2-01	003	14012	S 5.5 + E 112
4/280	11 261	90	58. 3 1A.		14319	S 5.5 + E 77
2.8/400	11 260	166	12 5 4 5	14 086	100 L 100 . 1	Series 5.5
6.8/400	11953	89	the -period		14 152 4)	Series 7 <sup>5)</sup>
6.8/400 (NOVOFLEX system)	11 926	89	310 -0778	tour or Will	14 670	Series 8.5 9)
8/500	11 243	83.5	x (1 - 5 ( x 0.8	Som VICON	14 294	E 77 <sup>6)</sup>
6.8/560 (NOVOFLEX system)	11927	98	VI reso-of boog	daid Biw gill	14 295	Series 8.5 <sup>9)</sup>
6.3/800	11921	152	-		7)	Series 7
3.5-4.5/28-70	11 265	74.5	-	-	14 233	E 60
3.5/35-70 from no. 3 393 301	11 248	75	-	-	14 291	E 67
4/70-210	11246	73.5	-	_	14 290	E 60

 Filter see chart on page 2-44
 Instead of the recommended screw-in filter, it is also possible to use series filters that are held to the lens with an adapter.

3) Also see page 3-4

<sup>4)</sup> The rear cover for the lens head no. 028-861.017 and the front cover for the lens tube no. 028-861.049 can be obtained front cover for the lens tube no. 028-861.049 can be obtained from the customer service of Leica Camera GmbH. <sup>5)</sup> or series 8 with adapter 14 165

Photography

(D)rawer/ (A)dapter <sup>2)</sup> for series filter (L)enshood serves as adapter	ELPRO <sup>3)</sup> near focusing attachments	Leather cases: SLC = soft leather $case^{10}$ $LCA = leather case^{10}$ LCO = leather cover $CAS = case^{10}$	Carrying straps <sup>10)</sup>	A Ø in mm	Order- No.	LEICA R-Lens
- 600	o na 🖬	SLC, 14725		83.5	11 213	3.5/15
	o <sup>2</sup> tea <del>n</del> tsäällä	SLC, 14727	-	65	11 222	2.8/16
ost-includ	guin-Hart	SLC, 14729	-	68	11 258	2.8/19
(L)	Uset d'arte	SLC, 14733	-	63.7	11 257	2.8/24
-	-	SLC, 14736	-	67.5	11 259	2.8/28 from no. 3 664 831
-	-	SLC, 14738		70	11 812	PC 2.8/28
(A) 14 264 S8	- *	SLC, 14740	-	75	11 144	1.4/35
(A) 14 225 S7	-	SLC, 14742		63	11 115	2/35 from no. 2791417
(A) 14225 S7	8 8 m d 1 m d 1	SLC, 14744	on the P	63	11 251	2.8/35 from no. 2928901
(L)	-	SLC, (upon request)	and Taker	63.7	11202	PA 4/35
(A) 14 225 S7	EATRI-04	SCL, 14747	-	63	11777	1.4/50 from no. 2806501
(A) 14 225 S7	16541/-42	SLC, 14749		63	11216	2/50 from no. 2777651
(A) 14 225 S7	-	SLC, 14751	-	63	11253	2.8/60 from no. 3 013 651
(A) 14264S8	1	SLC, 14753	-	75	11 881	1.4/80
(A) 14 225 S7	16 5 4 3	SLC, 14755	-	67	11254	2/90 from no. 3 381 677
(A) 14225 S7	16 5 4 3	SLC, 14756	-	63	11154	2.8/90 from no. 3 260 101
(A) 14263 S7.5	16 5 4 5	SLC, 14758	eve. <u>o</u> .ae	68	11210	2.8/100
(A) 14 225 S7	rian <del>t</del> ion	SLC, 14756	- 101	65	11 270	4/100 for R BR2
(A) 14 225 S7	15 543/-44	SLC, 14762	-	65	11211	2.8/135 from no. 2772619
(S) 14 592 S6	- 200	LCA, 14594	14312	116	11 271	2/180
(A) 14264S8		SLC, 14764	_	75	11 923	2.8/180 from no. 2939701
(A) 14263 S7.5		SLC, 14766	-	66	11242	3.4/180 from no. 2947 024
(A) 14225 S7	-	SLC, 14768		65	11922	4/180
(S) 14 591 S5.5	1108	CAS, 14 595	14312	125	11 263	2.8/280
(S) 14 591 S5.5		LCA, 14 597		90	11 261	4/280
(S) 14 591 S5.5	.5	CAS, 14584	1431111)	166	11260	2.8/400
(S), built-in	-	LCO, 14582	1. 1 T	89	11 953	6.8/400
	-	LCO, 14589		89	11 926	6.8/400 (NOVOFLEX system)
(L)	-	LCA, 14559	-	83.5	11 243	8/500
	-	LCO, 14 589	-	98	11 927	6.8/560 (NOVOFLEX system)
(S), built-in	1990-1999	CAS (upon request)	-	152	11 921	6.3/800
(A) 14263 S7.5	1 1700	SLC, 14780	-woll5y]	74.5	11 265	3.5-4.5/28-70
(A) 14 264 S8	-	SLC, 14783	-	75	11248	3.5/35-70 from no. 3 393 301
(A) 14 263 S7.5	S destruction	SLC, 14786		73.5	11246	4/70-210

<sup>6)</sup> 5 special filters M 32 x 0,5 are included in the package

(can be screwed into the rear lens mount) <sup>7)</sup> Available from the customer service of Leica Camera GmbH

Filter glass  $\emptyset$  74 mm for special wide-angle holder with diaphragm and pol.filter 67 EW; available from B + W.

<sup>9</sup> Built-in filter drawer for filters from the companies NOVOFLEX and HELIOPLAN 10) Replacement

11) Replacement,

suitable for both the lens and the case

Photography

### Accessories

**Tripod** Adapter

Pistol Stock\*

2

Photography



STA 1 for R f/2.8/100 mm for an optimal, secure mount of a long telephoto lens on a tripod

#### for APO-TELYT-R f/2.8/280 mm

 Lens covers \*

 Order No.
 14 162 \_\_\_\_\_\_

 Order No.
 14 671 \_\_\_\_\_\_

 Order No.
 14 672 \_\_\_\_\_\_

Order No. 14636

Order No. 14632

#### Rear cover Rear cover for lens heads: f/6.8/400 mm Lens tube cover

#### for LEICA R lenses

and 6.8/560 mm (NOVOFLEX system) for Rapid-Follow Focus Grip (NOVOFLEX system) \* replacement

### Filters / Filter adaptation

Screw-in filters	UVa	Circular polarizing	Yellow	Yellow-green	Orange	ND x1	Neutral grey 4x
E 32 <sup>1)</sup>	13 400		13 403	name-della	13 402		13 405
E 55	13 373	13 335	Para Car	13 391	13312	anne-coner	
E 55	13 373	13 335	1 KR 2 14	13 391	13 312		11 1897928 12
E 60	13 381	13 406	1221	13 392	13 383		
E 67	13 386	13 407	10-2-11	13 393	13 388	-	110
E 77	13 337	13 336	9 88 9 <u>1</u> 14	13 333	10.12		Section 2
E 112	ALXINZ !!		1 52 6 52 1		CAS (appare	13 003	horaits(?
Series filters <sup>2)</sup>	UVa	Circular polarizing	Yellow	Yellow-green	Orange	ND x1	Filter (d)rawer/ (a)dapter
5,5	41.00000 44 00000	13 3383)	10 <u> 1</u> 1			13 0264)	(s)14 591 <sup>4)</sup>
6	13 012	13 340 <sup>3)</sup>	13 013	13 014	13 011	13 0284)	(s)14 592 <sup>4)</sup>
7	13 007	13 370	- Hd	13 007	13 008	auraio te sa saria	(a)14225
7,5	at -s sets both the le	nit oldebug	-	All of Bancol	artheological and Article area arth		(a)14263
8	13 018	13 372	-	13 021	13 017	-	(a)14264
8,5			-	_	-	-	-

 Replacement for MR TELYT-R f/8/500 mm
 Filter attachment see page 2-43 <sup>3)</sup> In a filter holder with rotating device. Slides in, in place of the filter drawer

4) Replacement

# LEICA R Close-Focus

Product Range, Specifications and	ELPRO close-focus attachments for LEICA R lenses . MACRO-ADAPTER-R	3-3
Technical Data	Ring combination for the close-focus range	3-6
	Focusing Bellows-R BR 2	3-7
	100 mm MACRO-ELMAR f/4	3-8
	PHOTAR lenses for the Focusing Bellows-R BR 2 _	3-8
	R-lenses on the Focusing Bellows-R BR 2	3-9
	Angle viewfinder	3-10

Photography

Thread measurements External thread for screwing the ELPRO on the lens: in ELPRO 1 and 2: M 55 x 0.75 and M 44 x 0.75 in ELPRO 3 and 4: M 55 x 0.75

Internal thread for mounting filters and attachments in ELPRO 1, 2, 3 and 4: M 55 x 0.75



Close-Focus Equipment for the LEICA R System ELPRO closefocus attachments

for LEICA R lenses

ELPRO close-focus attachments (achromatic) Order No. ELPRO 1 16 541 ELPRO 2 16 542 ELPRO 3 16 543 ELPRO 4 16 544

-

3

photography

Leather case for one close-focus attachment

Order No. 14553 \_

ELPRO 1:2-1:1

for 100 mm APO-MACRO-ELMARIT-R f/2.8

ELPRO 1:2-1:1 in a soft leather case with lens hood, front and rear cover Order No. 16545

Lens hood (spare) Order No. 12 528 \_\_\_\_

Front cover (spare) Order No. 14290

Rear cover (spare) Order No. 14251 \_\_\_\_

Soft leather case (spare) Order No. 14799

for extending the focusing range from 1:2 to 1.1:1

- Smallest object field: 22 x 33 mm
- Free working distance: front edge ELPRO to object: approx. 10 cm front edge lens hood to object: approx. 7.5 cm
- Filter size: E 60 (M 60 x 0.75)
- Length for transport: 45 mm (1.8 in)
- Length during exposure: 56 mm (2.2 in)
- When screwed in, extends the lens by approx. 36 mm (1.4 in)
- Diameter: 68 mm (2.7 in)
- Weight: 0.190 kg



### **Close-Focus Equipment for the LEICA R System**

Lens	ELPRO	Distance	Distan	ce in cm	Object	Repro-
	Order No.	scale at	Object to film	Object to front lens	field in mm	duction scale ratio
SUMMICRON-R f/2/50 mm from Serial	1 16541	∞ 0.5	50 31	41 21	184 x 276 91 x 137	1: 7.7 1: 3.8
No. 2 777 651 <sup>1</sup> ) (E 55)	2 16542	∞ 0.5	30 24	21 14	94 x 141 62 x 93	1: 3.9 1: 2.6
SUMMICRON-R f/2/90 mm from Serial No. 2 770 951 <sup>1</sup> ) (E 55)	3 16 543	∞ 0.7	74 44	61 30	161 x 241 72 x 108	1: 6.7 1: 3.0
ELMARIT-R f/2.8/90 mm from Serial No. 2 809 001 <sup>1</sup> ) (E 55)	- 3 16 543	∞ 0.7	74 44	61 30	161 x 241 72 x 108	1: 6.7 1: 3.0
MACRO- ELMAR-R	3 16 543	∞ 0.6	75.5 41.6	61 24	145 x 218 48 x 72	1: 6 1: 2
f/4/100 mm (E 55)	+ MACRO- ADAPTER-R 14256	∞ 0.6	42 37.4	24 17	49 x 73 29 x 44	1: 2 1: 1.2
	4 16 544	∞ 0.6	150.5 48.6	136 31	323 x 484 61 x 92	1:13 1: 2.5
	+ MACRO- ADAPTER-R 14256	∞ 0.6	48.8 40.4	31 20	63 x 94 34 x 51	1: 2.6 1: 1.4
APO-MACRO- ELMARIT-R f/2.8/100 mm	16 545	∞ 1:2	35.4 30.5	16 10	49 x 73 22 x 33	1: 2 1.1: 1
ELMARIT-R f/2.8/135 mm	3 16 543	∞ 1,5	76 58	61 42	107 x 160 66 x 99	1: 4.5 1: 2.8
from Serial No. 2 772 619 <sup>1</sup> ) (E 55)	4 16 544	∞ 1.5	150 84	135 68	237 x 355 106 x 159	1: 9.9 1: 4.4

All values rounded off.

<sup>1</sup>) ELPRO near-focusing attachments for earlier LEICA R lenses see page 11-9.

Photography

For LEICA R lenses with fully automatic spring-back diaphragm transfer for aperture priority and manual setting of shutter speed and aperture.

- Length from bayonet flange: 30 mm (1.7 in)
- Diameter: 62 mm (2.4 in)
- Weight: 0.130 kg



## Close-Focus Equipment for the LEICA R System MACRO-ADAPTER-R

for LEICA R models (preferably with aperture priority and manual mode)

3

Photography

MACRO-ADAPTER-R Order No. 14256 \_\_\_\_\_\_ Covers for the Macro-Adapter-R: Front cover (= camera body cover) Order No. 14103 \_\_\_\_\_ Rear cover (= rear lens cover) Order No. 14162 \_\_\_\_\_

Lens	Distance scale	Distance	Repro-	Object
	at (m or repro-	Object to front	duction scale	field
	duction scale)	lens in cm	ratio	in mm
SUMMICRON-R	∞	11.6	1: 1.75	42 x 63
f/2/50 mm	0.5	9.9	1: 1.42	34 x 51
MACRO-ELMARIT-R	∞	16	1:2	48 x 72
f/2.8/60 mm	1:2	9.7	1:1	24 x 36
SUMMICRON-R f/2/90 mm ELMARIT-R f/2.8/90 mm	∞ 0.7	32 23	1: 3 1: 2	72 x 108 48 x 72
MACRO-ELMAR-R	∞	42	1: 3.3	80 x 120
f/4/100 mm	0.6	25	1: 1.6	39 x 59
ELMARIT-R	∞	75	1: 4.5	108 x 162
f/2.8/135 mm	1.5	55	1: 3	72 x 108
ELMARIT-R	∞	124	1: 6	144 x 216
f/2.8/180 mm	1.8	78.4	1: 3.4	82 x 123
APO-TELYT-R	∞	133	1: 6	144 x 216
f/3.4/180 mm	2.5	95.6	1: 3.9	95 x 142
TELYT-R	∞	256	1: 8.4	202 x 303
f/4/250 mm	1.7	99.1	1: 2.9	70 x 105
TELYT-R	∞	477	1:11.6	278 x 417
f/4.8/350 mm	3.0	178	1:4.1	97 x 146

All values rounded off.

Close-Focus Equipment for the LEICA R System Ring Combination for the Close-Focus Range

for LEICA R models (preferably with aperture priority and manual mode)<sup>1)</sup> LEICAFLEX SL/SL 2 models

Ring combination for the close-focus range Two-part ring (height 25 mm or 1 in) Order No. 14158

(height 25 mm or 1 in) to increase the reproduc

Combination complete weight: 0.175 kg Order No. 14 159 \_\_\_\_\_\_ Twin cable release Order No. 16 494 \_\_\_\_\_

Centre ring

tion scale Order No. 14135



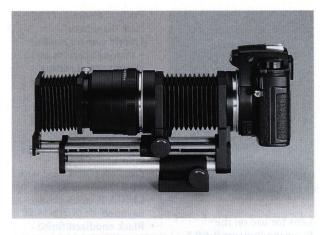
Ring combination for the close-focus range with semi-automatic spring-back diaphragm

- <sup>1)</sup> Earlier models without R-controlcam on bayonet inside can be modified by Leica Camera's Service Center.
   <sup>2)</sup> Ring combination: 2 = 2-part (height 25 mm or 1 in, 14158) 3 = 3-part
  - (height 50 mm or 2 in, 14159)

Lens	Dis- tance scale at	Ring combination <sup>2)</sup>	Distance Object – front lens cm	Repro- duction scale ratio	Object- field mm
SUMMICRON-R	∞	2	13.5 11.2	$1: 2.1 \\ 1: 1.6$	50 x 75 38 x 58
f/2/50 mm	0.5	3	8.1 7.5	1:1.04 1.09:1	25 x 3 22 x 3
SUMMICRON-R f/2/90 mm	∞	2	37.6 25.2	1: 3.6 1: 2.2	86 x 130 53 x 79
ELMARIT-R f/2.8/90 mm	0.7	3	21.4 17.6	$1: 1.8 \\ 1: 1.4$	43 x 63 34 x 50
ELMARIT-R	∞	2	87.2 59.7	1: 5.4 1: 3.4	130 x 19: 81 x 12
f/2.8/135 mm	1.5	3	50.7 42.3	1: 2.7 1: 2.1	65 x 9' 50 x 7:
ELMARIT-R	∞	2	146 84.9	1: 7.2 1: 3.8	172 x 25 91 x 13
f/2.8/180 mm	1.8	3	81.2 61.3	1: 3.6 1: 2.5	86 x 129 60 x 90
APO-TELYT-R	∞	2	154 104	1: 7.2 1: 4.4	172 x 258 106 x 159
f/3.4/180 mm	2.5	3	89.4 74.0	1: 3.6 1: 2.7	86 x 129 66 x 99
TELYT-R	∞	2	299 104	1:10.1 1: 3.2	242 x 363 76 x 114
f/4/250 mm	1.7	3	172 85.8	$1: 5.0 \\ 1: 2.3$	121 x 181 55 x 82
TELYT-R	∞	2	558 187	1:13.9 1:4.4	334 x 50 105 x 15
f/4.8/350 mm	3.0	3	316 153	1:7.0 1:3.2	167 x 250 76 x 114

All values rounded off.

3



Variable extension for continuous adjustment of the reproduction ratio.

- Camera connection: LEICA R-bayonet
- Lens connection: LEICA R-bayonet (Special PHOTAR lenses via adapter ring, Order No. 14259)
- · Automatic diaphragm
- Usable camera programs:
   manual setting of shutter speed and aperture
   aperture priority
- Shortest bellows extension (basic setting): 54 mm (2.1 in)
- Longest bellows extension: 164 mm (6.5 in)
- Variable extension drive: 110 mm (4.3 in)
- Millimeter scale for extension drive
- · Focusing rack: integrated

- Compendium: attachable for stray light protection
- Tripod thread: A <sup>1</sup>/<sub>4</sub> and A <sup>3</sup>/<sub>8</sub> (DIN 4503, <sup>1</sup>/<sub>4</sub>" and <sup>3</sup>/<sub>8</sub>")
- Weight: 570 g (without compendium) 650 g (with compendium)

## Close-Focus Equipment for the LEICA R System Focusing Bellows-R BR 2

for all LEICA R models (aperture priority and manual)

#### Focusing Bellows-R BR 2

with compendium, compendium connecting ring, front and rear caps Order No. 16880

Special MACRO-ELMAR f/4/100 mm for focusing distances from  $\infty$  to a reproduction ratio of 1.1 : 1 (see page 3-8) Order No. 11 270

Universal Handgrip with shoulder stock for handheld photography with the Focusing Bellows-R BR 2 (see page 1-12) Order No. 14239 3

hotography

Close-Focus Equipment for the LEICA R System MACRO-ELMAR f/4/100 mm

Photography

MACRO-ELMAR f/4/100 mm in a soft leather case, with lens cap and rear cover Order No. 11270
Lens cap (spare) Order No. 14 289
Rear cover (spare) Order No. 14318
Soft leather case (spare) Order No. 14289



Lens for use on the Focusing Bellows-R BR 2

- Angle of view: 25° (at ∞ setting)
- Number of elements: 4 (3 components)
- Filter size: E 55
- Internal thread: M 55 x 0.75

- Fully automatic spring back diaphragm
- Usable camera modes:
   manual aperture and shutter speed setting
   aperture priority
- Aperture clickstops (including half values)
- Smallest aperture: f/22
- Focusing range with Focusing Bellows-R BR 2: ∞ to 1.1:1
- Smallest object field with BR 2: 22 mm x 33 mm
- LEICA R quick change bayonet
- Black anodized finish
- Lens hood: built-in
- Front lens diameter: 63 mm
- Diameter: 66 mm
- Length from bayonet flange: 48.5 mm
- Weight: 0.290 kg

Special lenses which can be used with the Focusing Bellows-R BR 2

PHOTAR Lenses for the Focusing Bellows-R BR 2

PHOTAR adapter to attach PHOTAR lenses (thread: W 0.8" x 1/36") onto the Focusing Bellows-R BR 2



Lens Smallest Reproduction Distance object to Order No. front lens element ratio aperture (in cm) PHOTAR f/2.4/12.5 mm 5.6 8.5:1 - 17.5:1 0.9 - 0.8549 025 PHOTAR f/2/25 mm 11 3.5:1 - 7.5:1 2.0 - 1.5549 026 PHOTAR f/4/50 mm 22 1.4:1 - 3.4:18.1 - 6.0549 027

All values rounded off.

Order No. 14259

Close-Focus Equipment for the LEICA R System Combination possibilites with LEICA R-lenses on the Focusing Bellows-R BR 2

Photography

Lens	Reproduction ratio	Distance: object – front lens element in cm	Object field in mm
SUMMICRON-R f/2/50 mm		6.0 - 2.4	24 x 36 - 7.5 x 11.3
MACRO-ELMARIT-R f/2.8/60 mm	1:1.2-3.2:1	7.2 - 2.2	29 x 43 - 7.5 x 11.3
SUMMICRON-R f/2/90 mm ELMARIT-R f/2.8/90 mm	1:1.7-2:1	21 - 10	41 x 61 - 12 x 18
MACRO-ELMAR f/4/100 mm (lens head)	1:∞-1.1:1	∞-15	∞ – 22 x 33
ELMARIT-R f/2.8/135 mm	1:2.6-1.3:1	48 - 23	$62 \times 94 - 18 \times 28$
ELMARIT-R f/2.8/180 mm	1:3.4-1:1	77 - 33	82 x 122 - 24 x 36
APO-TELYT-R f/3.4/180 mm	1:3.4-1:1	86 - 43	82 x 122 - 24 x 36

All values rounded off.

LEICA M-lenses can be used in the extreme closeup range with adapter No. 14167. Close-Focus Equipment for the LEICA R System Angle Viewfinder R

for LEICA R models / LEICAFLEX SL2 models with 1 x and 2 x magnification

3

Angle viewfinder R can be clamped in position, right way-round, up-right image, focusing eyepiece, switchable to 1 x or 2 x magnification Order No. 14300 (see also page 1-6)



For viewing from above and for photography "round the corner" or above the heads of a crowd.

3 - 10

9/95

### Photography

# LEICA M Models

Product Range	LEICA M 6	4-3
	Accessories for LEICA M models	4-4
	LEICA winder M	
	Correction lenses	
	Cases	
	Table-top tripod	
	Ball-and-socket head	
	Other accessories	
Specifications and	LEICA M 6	4-8
Technical Data	LEICA winder M	4-11



Selective exposure metering through the lens (TTL). Interchangeable lenses from 21 to 135 mm focal length. Rangefinder with bright-line frames for the focal lengths 28<sup>1)</sup> and 90 mm, 35 and 135 mm, 50 and 75 mm, split-image and coincidentimage rangefinder.

Available as an accessory: The LEICA WINDER M motorized winding mechanism (LEICA WINDERs M 4-P and M 4-2 from Serial No. 10350 can also be used on the LEICA M 6).

Detailed description on page 4-8.

# Use of earlier LEICA M lenses

All LEICA M lenses can be used without restriction, but the following are unsuitable for exposure measurement: HOLOGON f/8/15 mm, SUPER-ANGULON-M f/4/21 mm, SUPER-ANGULON-M f/3.4/21 mm, ELMARIT-M f/2.8/28 mm to Serial No. 2314921.

SUMMICRON f/2/50 mm with close focusing device must be set to infinity when the lens is changed.

### **LEICA M Models**

### LEICA M 6

35 mm rangefinder system camera

#### LEICA M 6

black chrome finish complete with camera body cap, carrying strap and batteries<sup>2)</sup> Order No. **10404** 

#### LEICA M6

silver chrome finish complete with camera body cap, carrying strap and batteries<sup>2)</sup> Order No. **10414** 

#### LEICA M 6 titanium finish complete with camera body cap, carrying strap and batteries<sup>2)</sup> Order No. **10412**

 28 mm lenses from Serial No. 2 411 001.

 <sup>2)</sup> 3 V (2 silver oxide button cells 1.5 V or 1 lithium cell 3 V, Ø 11.6 mm)

### **LEICA M Models**

### Accessories

LEICA winder M for LEICA M6, LEICA M4-P, LEICA M4-2, LEICA MD-2



LEICA winder M Order No. 14403 \_\_\_\_\_\_ Housing for regular and rechargeable batteries (replacement) Order No. 14402

#### **Correction lenses M**

	Order No.	
+ 0,5	14350	_
+ 1,0	14351	-
+ 1,5	14 352	-
+ 2,0	14 353	
+ 3,0	14354	-
- 0,5	14 355	
- 1,0	14356	
- 1,5	14357	
- 2,0	14 358	
- 3.0	14 359	

Compact, handy winder. Release via the camera shutter release button. Frame frequency up to 3 fps. Extremely quiet running. Detailed description see page 4-11.

Correction lenses M

For astigmatism we supply suitable correction lens mounts through our Service Department (Item No. 042-253.008). Production and mounting of the lens to be done by an optician.

#### Carrying straps

Carrying strap with anti-slip pad (replacement) Order No. 14312

Neoprene carrying strap Order No. 42162



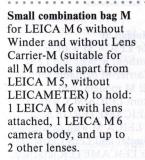
Neoprene carrying strap

Camera body cap M-bayonet (replacement)

Flash socket cover for LEICA M models (replacement)

. . . . . . . . . .

**Ever ready case** black leather for 21, 28, 35, 50 f/2 or 50 f/1.4 lenses



**Bag** (external dimensions approx.  $22 \times 11 \times 18$  cm,  $8 \times 4 \times 7$  in) with

- coupling ring to lock two lenses together
- adjustable carrying strap with anti-slip pad
- front compartment for accessories



### **LEICA M Models**

### Accessories

Camera body cap

Order No. 14195

Flash socket cover

#### Order No. 15 526 \_\_

Ever ready case for LEICA M 6 (without LEICA winder)

Order No. 14 505 \_\_\_\_

Small combination bag M (compact version)

Small combination bag M black leather (cowhide) Order No. 14845

Coupling ring (replacement) Order No. 14838

### **LEICA M Models**

### Accessories

Large combination bag M (standard version)



Large combination bag M for LEICA M 6 with or without Winder and Lens Carrier-M (suitable for all M models apart from LEICA M 5, without LEICAMETER) to hold: 1 LEICA M 6 with or without Winder and Lens Carrier-M, with lens attached and up to 4 other lenses.

**Bag** (external dimensions approx.  $25 \times 14 \times 19$  cm,  $10 \times 5 \frac{1}{2} \times 7 \frac{1}{2}$  in) with

- coupling ring to lock two lenses together
- adjustable carrying strap with anti-slip pad
- front compartment for accessories

Holdall M

for LEICA M with or without winder and Lens Carrier-M (suitable for all M models apart from LEICA M 5, with LEICAMETER) to hold: 1 LEICA M with or without winder and Lens Carrier-M or LEICAMETER attached, with lens attached, as well as up to 4 other lenses.

Holdall (external dimensions approx.  $31 \times 18 \times 23$  cm,  $12 \times 7 \times 9$  in) with

- coupling ring to lock two lenses together
- adjustable carrying strap with anti-slip pad
- front compartment for accessories

Large combination bag M in black leather Order No. 14842 \_\_\_\_\_

Coupling ring (replacement) Order No. 14838

Holdall M



Holdall

in black leather (cowhide) Order No. 14827

Coupling ring (replacement) Order No. 14838 \_

### **LEICA M Models**

Accessories

Tabletop tripod

Order No. 14100

**Ball-and-socket head** 

Tabletop tripodwith three foldings legs,tripod thread A 1/4,DIN 4503 (1/4 in)

**Ball-and-socket head** with tripod thread A <sup>1</sup>/<sub>4</sub>, DIN 4503 (<sup>1</sup>/<sub>4</sub> in)





Order No. 14110 \_\_\_\_\_

Lens carrier-M Fitted to the baseplate of the camera; enables you to carry a handy equipment

set including two lenses.

..........

Cable releases for all camera models with conical thread



centra top and 0.8 mill<sup>17</sup> in a consequence filter, when denome or filtantian finish, sampelinder ofteninges steel deriving evidence of and sampelinder ofteninges at ea and tarkenstering wind. Standard terpod thread A 'w gen for houses for a difference of the samp filter filter of the steel of the other frame selector in the filter frame selector for the filter Accessory filt in the filter frame selector were no camera top of da min the filter frame might Order No. 14 404 \_\_\_\_\_

### Cable releases

Cable release, length 25 cm, (10 in.), with arresting screw Order No. 14067

Cable release, length 50 cm, (20 in.), with arresting screw Order No. 14076

#### Specifications and Technical Data

# LEICA M 6



#### Type of camera:

35 mm rangefinder system camera. Selective exposure metering through the lens (TTL). Interchangeable lenses. Motorized rapid wind through attachable LEICA winder M or LEICA winder M 4-P or LEICA winder M 4-2 (from serial no. 10 350 onwards).

#### **Camera body:**

Compact all-metal body, with hinged back, covered with easy-grip textured PVC. 0.8 mm zinc diecast camera top and 0.8 mm brass baseplate. Black, silver chrome or titanium finish. Rangefinder. Stainless-steel carrying evelets on both sides. Mechanical connection for motorized wind. Standard tripod thread A 1/4 (<sup>1</sup>/<sub>4</sub> in). Quick change bayonet for LEICA M lenses and accessories. Accessory hotshoe with central contact. Field of view frame selector. For the LEICA M6 titanium version: camera top of 0.8 mm brass, housing covered with leather (Emu-print).

#### Lens system:

LEICA M lenses with quick change bayonet from 21 to 135 mm focal length. With VISOFLEX attachment (discontinued) from 65 to 800 mm.

#### **Rangefinder:**

 Bright high-contrast viewfinder image with brightline frames for: 28 mm and 90 mm or 35 mm and 135 mm or 50 mm and 75 mm with automatic parallax compensation. When a lens is being inserted the associated image frame is automatically blended in<sup>1)</sup>. With the aid of the field-of-view selector any required pair of frames can be preselected. The image field corresponds to that of the lens at a short focusing distance. Even spectacle wearers are able to survey the field of view fully. Correction lenses, of which ten are available

 <sup>28</sup> mm lenses from Serial No. 2 411 001

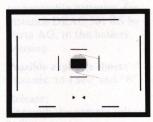
from +3 to -3 diopters, can be fitted.

- · Split-image and coincident-image rangefinder with bright-line frames in the center of the viewfinder image. Long effective measuring base of 49.9 mm (measuring base 69.25 mm x 0.72 viewfinder magnification). This ensures quick, reliable focusing even in poor lighting conditions with all lenses of up to 135 mm focal length.
- · Exposure meter display by light balance (two LEDs) at the bottom edge of the viewfinder image when the exposure meter is switched on.

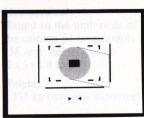
#### **Exposure metering:**

Selective metering. The measuring element is a silicium photodiode in the top part of the camera interior. For optimum utilisation of the incident light. the photodiode is fitted with a collecting lens. The metering field consists of a 12 mm Ø white patch in the center of the shutter curtain. The measurement takes place with shutter cocked.

The size of the metering field in the viewfinder is about 23% of the viewfinder field of the lens in use. The field measured corresponds to a circle of a diameter two thirds of the short side of the picture area of the lens in the camera: e.g.:



#### 135 mm



50 mm

#### Measuring range of exposure meter:

0.063 cd/sq.m to 125.000 cd/ sq.m at f/1. For the 50 mm NOCTILUX-M f/1 this produces a working range from -1 to +20 exposure values at ISO 100/21° (ASA 100/21 DIN), corresponding to aperture/shutter speed combinations from f/1 2 sec. to f/32/1/1000 sec.

#### Film speed range:

Film speed selector on the back of the camera. Range: ISO 6/9° to ISO 6,400/39° (ASA 6/9 DIN to ASA 6,400/39 DIN). Clickstops in 1/3 aperture steps.

#### **Batteries:**

Two 1.5 v silver oxide button cells, size: Ø 11.6 mm, height 5.4 mm, or 1 lithium battery, size Ø 11.6, height 10.8 mm (replacement batteries see Technical Information).

### Shutter:

Horizontal-action rubbercloth focal-plane shutter, whisper-quiet action. Mechanically produced speeds: 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/50 (4), 1/60, 1/125, 1/250, 1/500,  $\frac{1}{1000}$  sec. and B = time exposure of any duration.

#### **Release:**

Smooth shutter release. International conical thread in the release button for cable release.

### LEICA M Models Specifications and Technical Data

#### Flash synchronisation:

Synchronisation for electronic flash (X contact) from "B" to  $\frac{1}{50}$  sec. (4). Standard X contact as well as separate center contact (X) in the accessory shoe. Two flash units can be fired simultaneously through the two contacts.

Flash table see "Technical Information".

#### Film insertion:

Remove the baseplate and turn up the centre part of the camera back. Rapid film changing system for all commercially available 35 mm films and for LEICA cassettes.

#### Film transport:

Angled rapid winding lever with movable end-piece for film transport and shutter wind. Its stand-by position makes it convenient for the photographers using their left eye for the viewfinder. Winding angle of the rapid winding lever 120°. Interval winding possible. Doubleexposure lock.

Forward counting automatic film counter under a magnifier. Automatic reset to start (-2 frames) when the camera is opened. Lever for film rewinding release with automatic reset when the shutter wind is operated. Angled, hinged crank handle for convenient and rapid film rewind.

#### Carrying strap:

Black perlon, length adjustable; soft and pliable at any temperature and in any weather. Anti-slip pad. When the ever ready case is used, the carrying strap remains on the camera.

#### **Dimensions:**

Height: 77 mm, length: 138 mm, depth: 38 mm (3 x 5 x 1.5 in.)

#### Weight:

Camera body without lens: 0.560 kg Camera body with SUMMICRON-M f/2/50 mm: 0.755 kg

Photography

### Specifications and Technical Data LEICA M Models



#### Type of instrument: Winder

Compact, handy winder. Single-frame release through the camera release button. Series exposures are possible. Consecutive exposures with normal continual pressure on the release button. Frequency up to 3 fps. Extremely quiet gearing and motor action.

#### **Body:**

Sturdy, fibreglass-reinforced plastic body, easy-grip covered with textured PVC. Driven by DC micromotor with air-core rotor. The winder is attached to the scenere in place of the

the camera in place of the baseplate. It is mechanically controlled exclusively by the camera.

The battery housing is attached to the underside of the winder. Tripod thread A <sup>1</sup>/<sub>4</sub> (<sup>1</sup>/<sub>4</sub> in).

#### **Power supply through:**

Four 1.5 v alkaline-manganese batteries in the battery housing. Capacity according to Leica test conditions: about 150 36-exposure films at 20 °C or four NiCd rechargeable batteries, for instance DEAC 501 RS by Varta AG, in the battery housing.

**Possible exposure times:** 1/1000 sec. to 1 sec. and "B".

#### **Release:**

Through the camera release button.

#### **Measurement:**

Height to the underside of the camera 60 mm, length 138 mm, depth 35 mm. (2 x 5 x 1.4 in.)

#### Weight:

0.330 kg (without batteries)

# LEICA WINDER M

for LEICA M6, LEICA M4-P, LEICA M4-2, LEICA MD-2

Product Range, Specifications and Technical Data

ELMARIT-M
ELMARIT-M
SUMMILUX-M ASPH.
SUMMILUX-M
SUMMICRON-M
NOCTILUX-M
SUMMILUX-M
SUMMICRON-M
ELMAR-M
SUMMILUX-M
SUMMICRON-M
ELMARIT-M
ELMARIT-M
TELE-ELMAR

Accessories for M lenses Brilliant finders Lens hoods Screw-in and series filters

f/2.8/21 mm	5-4
f/2.8/28 mm	5-5
f/1.4/35 mm	5-6
f/1.4/35 mm	5-7
f/2/35 mm	5-8
f/1/50 mm	5-9
f/1.4/50 mm	5-10
f/2/50 mm	5-11
f/2.8/50 mm	5-12
f/1.4/75 mm	5-13
f/2/90 mm	5-14
f/2.8/90 mm	5-15
f/2.8/135 mm	5-16
f/4/135 mm	5-17

Photography

5-18

5-1

### The Range of LEICA M lenses

Designation of lens	Speed	Focal length mm	Image angle (°)	Filter dia.	Order No.
ELMARIT-M	f/2.8	21	92	E 60	11 134
ELMARIT-M	f/2.8	28	76	E 46	11 809
SUMMILUX-M ASPH.	f/1.4	35	64	E 46	11874
SUMMILUX-M	f/1.4	35	64	S 7	11870/-601
SUMMICRON-M	f/2	35	64	E 39	11310/-112
NOCTILUX-M	f/1	50	45	E 60	11 822
SUMMILUX-M	f/1.4	50	45	E 46	11 868/- 69 1
SUMMICRON-M	f/2	50	45	E 39	11 826/- 162
ELMAR-M	f/2.8	50	45	E 39	11 831/-232
SUMMILUX-M	f/1.4	75	31	E 60	11 815
SUMMICRON-M	f/2	90	27	E 55	11 136/- 37 2
ELMARIT-M	f/2.8	90	27	E 46	11 807
ELMARIT-M	f/2.8	135	18	E 55	11 829
TELE-ELMAR-M	f/4	135	18	E 46	11 861

Second Order No.: titanium finish
 Second Order No.: silver chrome finish

Photography

# ELMARIT-M f/2.8/21 mm

for all LEICA M models



ELMARIT-M f/2.8/21 mm In a soft leather case, with lens hood, lens cap, and rear cover Order No. 11134 \_\_\_\_\_

Brilliant finder with case Order No. 12008

Replacement case Order No. 14628

(Spare lens cap, rear cover, lens hood, soft leather case and accessories see page 5-18)



Lens of extremely wide angle

- Angle of view: 92°
- Number of elements: 8 (6 components)
- Filter size: E 60
- Internal thread: M 60 x 0.75
- Clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/feet scale
- Focusing range:
   ∞ to 0.70 m (28 in)
- Smallest object field: 705 x 1058 mm (28 x 42 in) (about 1:30)
- Parallel guided focusing mount
- Separate brilliant finder
- LEICA M quick change bayonet
- Black anodized finish
- Push-on lens hood
- Front lens diameter: 62 mm (2.4 in)
- Length from bayonet flange: 46.5 mm (1.8 in)
- Diameter: 62 mm (2.4 in)
- Weight: 0.290 kg

- Angle of view: 76°
- Number of elements: 8 (7 components)
- Filter size: E 46
- Internal thread: M 46 x 0.75
- Clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/feet scale
- Focusing range:
   ∞ to 0.70 m (28 in)
- Smallest object field: 533 x 800 mm (21 x 31 in) (approx. 1:22)
- Parallel guided focusing mount
- Viewfinder: camera viewfinder with the LEICA M 6 and the LEICA M 4-P (from serial No. 2411001)<sup>1)</sup>
- LEICA M quick change bayonet
- Black anodized finish
- Push-on lens hood
- Front lens diameter: 48 mm (1.9 in)
- Length from bayonet flange: 41.4 mm (1.6 in)
- Largest diameter: 53 mm (2.1 in)
- Weight: 0.260 kg



#### Wide-angle lens

### **LEICA M lenses**

# ELMARIT-M f/2.8/28 mm

for all LEICA M models

#### ELMARIT-M f/2.8/28 mm In a soft leather case, with lens hood lens c

with lens hood, lens cap and rear cover Order No. **11809** 

Brilliant finder with case<sup>2)</sup> Order No. 12009

Replacement case Order No. 14628 \_\_\_\_

(Replacement soft leather case, lens cap, rear cover, lens hood, and accessories see page 5-18) Photography

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- <sup>1)</sup> All LEICA M-Cameras, except the LEICA M3 and LEICA MP, can be equipped with the 28 and 75 mm bright-line frames by the Leica Service Department.
- <sup>2)</sup> Brillant finder not required with LEICA M6 and LEICA M4-P.

## SUMMILUX-M f/1.4/35 mm ASPH.

for all LEICA M models



Ultra-high-speed wide-angle lens with aspherical lens surfaces for exceptional optical performance • Angle of view: 64°

- Number of elements: 9 (5 components, 1 aspherical lens surfaces)
- Filter size: E 46
- Internal thread: M 46 x 0,75
- Clickstops (including half values)
- Smallest aperture: f/16
- Combined metre/feet scale
- Focusing range: ∞ to 0.7 m (28 in)
- Smallest object field: 420 x 630 mm (16.5 x 25 in) (about 1 : 17.5)
- Parallel guided focusing mount
- Camera view finder
- LEICA M quick change bayonet
- Black anodized finish
- Push-on lens hood
- Front lens diameter: 48 mm (1.9 in)
- Length from bayonet flange: 46.2 mm (1.8 in)
- Diameter: 53 mm (2.1 in)
- Weight: 0.310 kg

SUMMILUX-M f/1.4/35 mm ASPH. black anodized finish In a soft leather case, with lens hood, lens cap and rear cover

(Spare lens cap, rear cover, lens hood, soft leather case and accessories see page 5-18) Order No. **11 874** 

- Angle of view: 64°
- Number of elements: 7 (5 components)
- Filter size: Series 7, for insertion into the lens hood, which can be dismantled
- Clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 1 m (40 in)
- Smallest object field: 630 x 950 mm (25 x 37.5 in) (approx. 1:26)
- Parallel guided focusing mount
- Camera viewfinder<sup>1)</sup>
- LEICA M quick change bayonet
- Black anodized or titanium finish
- Lens hood designed as a filter holder, can be dismantled for accepting the Series 7 filters
- Front lens diameter: 48 mm (1.9 in)
- Length from bayonet flange: 28 mm (1.1 in)
- Diameter: 53 mm (2.1 in)
- Weight: 0.195 kg



Ultra-high-speed wide-angle lens

# SUMMILUX-M f/1.4/35 mm

for all LEICA M models

SUMMILUX-M f/1.4/35 mm In a soft leather case, with lens hood, lens cap and rear cover black anodized finish Order No. 11870 titanium finish

Order No. 11860

(Replacement soft leather case, lens cap, rear cover, lens hood, and accessories see page 5-18) hotography

5

 In the LEICA M 3, the 135 mm bright-line frame is reflected into the viewfinder.

# SUMMICRON-M f/2/35 mm

for all LEICA M models



High-speed wide-angle lens

- Angle of view: 64°
- Number of elements: 7 (5 components)
- Filter size: E 39
- Internal thread: M 39 x 0.5
- Clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 0.70 m (28 in)
- Smallest object field: 430 x 640 mm (17 x 25 in) (approx. 1 : 18)
- Parallel guided focusing mount
- Camera viewfinder<sup>1)</sup>
- LEICA M quick change bayonet
- Black anodized or silver chrome finish
- Push-on lens hood
- Front lens diameter: 42 mm (1.7 in)
- Length from bayonet flange: 26 mm (1 in)
- Diameter: 52 mm (2 in)
- Weight: 0.160 kg/0.250 kg<sup>2)</sup>

#### SUMMICRON-M f/2/35 mm

In a soft leather case, with lens hood, lens cap and rear cover

black anodized finish Order No. 11310

silver chrome finish Order No. 11311

(Replacement soft leather case, lens cap, rear cover, lens hood, and accessories see page 5-18)

- <sup>1)</sup> In the LEICA M 3, the 135 mm bright-line frame is reflected into the viewfinder.
- 2) black anodized finish / silver chrome finish.

- Angle of view: 45°
- Number of elements: 7 (6 components)
- Filter size: E 60
- Internal thread: M 60 x 0.75
- Clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 1 m (40 in)
- Smallest object field: 410 x 620 mm (16 x 24 in) (about 1:17)
- Parallel guided focusing mount
- Camera viewfinder
- LEICA M quick change bayonet
- Black anodized finish
- Retractable lens hood
- Front lens: rectangular 71.5 x 68 mm (2.8 x 2.7 in)
- Length from bayonet flange: 62 mm (2.4 in)
- Diameter: 69 mm (2.7 in)
- Weight: 0.630 kg



High-performance lens of extreme speed

### **LEICA M lenses**

# NOCTILUX-M f/1/50 mm

for all LEICA M models

#### NOCTILUX-M f/1/50 mm In a soft leather case, with lens cap and rear

cover

(Spare lens cap, rear cover, soft leather case and accessories see page 5-18)

Order No. 11822

5

# SUMMILUX-M f/1.4/50 mm

for all LEICA M models



Ultra-high-speed lens

• Angle of view: 45°

- Number of elements: 7 (5 components)
- Filter size: E 46
- Internal thread: M 46 x 0.75
- Aperture setting ring with clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 0.70 m (27.5 in)
- Smallest object field: 277 x 416 mm (11 x 16.3 in) (about 1:11.5)
- Parallel guided focusing mount
- Camera viewfinder
- LEICA M quick change bayonet
- Black anodized finish / Titanium finish
- Built in, telecopic lens hood
- Front lens diameter: 53.5 mm (2.1 in)
- Length from bayonet flange: 46.7 mm (1.8 in)
- Diameter: 54.5 mm (2.1 in)
- Weight: 0.275 kg / 0.380 kg<sup>1)</sup>

5

#### SUMMILUX-M f/1.4/50 mm

In a soft leather case, with lens cap and rear cover

black anodized finish Order No. 11868 \_\_\_\_\_

titanium finish Order No. 11869.

(Spare lens cap, rear cover, lens hood, and accessories see page 5-18)

> \*) Black anodized finish / titanium finish

- Angle of view: 45°
- Number of elements: 6 (4 components)
- Filter size: E 39
- Internal thread: M 39 x 0.5
- Clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 0.70 m (28 in)
- Smallest object field: 277 x 416 mm (11 x 16.4 in) (approx. 1 : 11.5)
- Parallel guided focusing mount
- Camera viewfinder
- LEICA M quick change bayonet
- Black anodized or silver chrome finish
- Retractable lens hood
- Front lens diameter: 47,5 mm (1.9 in)
- Length from bayonet flange: 43,5 mm (1.7 in)
- Diameter: 53 mm (2.1 in)
- Weight: 0.240 kg / 0.335 kg<sup>1)</sup>



High-speed universal lens

# **LEICA M lenses**

# SUMMICRON-M f/2/50 mm

for all LEICA M models

### SUMMICRON-M f/2/50 mm

In a soft leather case, with lens hood, lens cap and rear cover

black anodized finish Order No. 11826

silver chrome finish Order No. 11816

(Replacement soft leather case, lens cap, rear cover and accessories see page 5-18)

 black anodized finish /silver chrome finish

# **LEICA M lenses**

# ELMAR-M f/2.8/50 mm

for all LEICA M models



Universal lens, collapsible into the camera body

• Angle of view: 45°

- Number of elements: 4 (3 components)
- Filter size: E 39
- Internal thread: M 39 x 0.5
- Clickstops (including whole values, from f/stop 8 in half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 0.70 m (28 in)
- Smallest object field: 274 x 411 mm (10.7 x 16.1 in) (approx. 1 : 11.4)
- Parallel guided focusing mount
- Camera viewfinder
- LEICA M quick change bayonet
- Black anodized<sup>2)</sup> or silver chrome finish
- Lens hood: with screw mount M 39
- Front lens diameter: 42 mm (1.6 in)
- Length from bayonet flange (without lenshood): pulled out: 37.6 mm (1.5 in) retracted: 21.6 mm (0.8 in)
- Diameter: 52 mm (2.0 in)
- Weight: 0.170 kg / 0.245 kg<sup>1)</sup>

Photography

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### ELMAR-M f/2.8/50 mm

In a soft leather case, with lens hood, lens cap and rear cover

black anodized finish Order No. 11831

silver chrome finish Order No. 11823

(Replacement lens cap, rear cover, lens hood, and accessories see page 5-18)

> \*) Black anodized finish / silver chrome finish

<sup>2)</sup> Tube: Brass, silver chrome finish

- Angle of view: 31°
- Number of elements: 7 (5 components)
- Filter size: E 60
- Internal thread: M 60 x 0.75
- Clickstops (from serial No. 2 048 701 onwards including half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 0.75 m (29 in)
- Smallest object field: 192 x 288 mm (8 x 11 in) (about 1:8)
- Parallel guided focusing
   mount
- Camera viewfinder 1)
- LEICA M quick change bayonet
- Black anodized finish
- Built-in telescopic lens hood
- Front lens diameter: 62 mm (2.4 in)
- Length from bayonet flange: 80 mm (3.1 in)
- Diameter: 68 mm (2.7 in)
- Weight: 0.600 kg



Ultra-high-speed, medium focal-length lens

# **LEICA M lenses**

# SUMMILUX-M f/1.4/75 mm

for all LEICA M models

### SUMMILUX-M f/1.4/75 mm In a soft leather case, with lens cap and rear cover

Order No. 11815 \_

(Spare lens cap, rear cover, soft leather case and accessories see page 5-18) 5

<sup>1)</sup> All LEICA M-cameras, except the LEICA M3 and LEICA MP, can be equipped with the 28 and 75 mm bright line frames key the Leica Service Department.

# **LEICA M lenses**

# SUMMICRON-M f/2/90 mm

for all LEICA M models



High-speed lens for photojournalism and reportages

- Angle of view: 27°
- Number of elements: 5 (4 components)
- Filter size: E 55
- Internal thread: M 55 x 0.75
- Clickstops (including half values)
- Smallest aperture: f/16
- Combined meter/ feet scale
- Focusing range: ∞ to 1 m (40 in)
- Smallest object field: 220 x 330 mm (8.7 x 13 in) (approx. 1:9)
- Parallel guided focusing mount
- LEICA M quick change bayonet
- Black anodized or silver chrome finish
- Built-in telescopic lens
   hood
- Front lens diameter: 62.5 mm (2.5 in)
- Length from bayonet flange: 77 mm (3 in)
- Diameter: 62.5 mm (2.5 in)
- Weight: 0.475 kg / 0.690 kg <sup>1</sup>)

SUMMICRON-M f/2/90 mm In a soft leather case, with lens cap and rear cover

black anodized finish Order No. 11136

silver chrome finish Order No. 11137

(Replacement soft leather case, lens cap, rear cover and accessories see page 5-18)

> black anodized finish / silver chrome finish

- Angle of view: 27°
- Number of elements: 4 (4 components)
- Filter size: E 46
- Internal thread: M 46 x 0.75
- Clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 1 m (40 in)
- Smallest object field: 220 x 330 mm (8.7 x 13 in) (about 1:9)
- Parallel guided focusing mount
- Camera viewfinder
- LEICA M quick change bayonet
- Black anodized finish
- Built-in telescopic lens
   hood
- Front lens diameter: 54 mm (2.1 in)
- Length from bayonet flange: 76 mm (3 in)
- Diameter: 56.5 mm (2.2 in)
- Weight: 0.410 kg



Universal lens of medium focal length

# **LEICA M lenses**

# ELMARIT-M f/2.8/90 mm

for all LEICA M models

### ELMARIT-M f/2.8/90 mm In a soft leather case,

with lens cap and rear cover

(Spare lens cap, rear cover, soft leather case and accessories see page 5-18)

Order No. 11807 \_

# **LEICA M lenses**

# ELMARIT-M f/2.8/135 mm

with viewfinder front attachment for all LEICA M models



High-speed telephoto lens

• Angle of view: 18°

- Number of elements: 5 (4 components)
- Filter size: E 55
- Internal thread: M 55 x 0.75
- Clickstops (including half values)
- Smallest aperture: f/32
- Combined meter/ feet scale
- Focusing range: ∞ to 1.50 m (5 ft)
- Smallest object field: 220 x 330 mm (8.7 x 13 in) (about 1:9)
- Parallel guided focusing mount
- Camera viewfinder
- LEICA M quick change bayonet
- Black anodized finish
- Lens unit can be unscrewed
- Built-in telescopic lens hood
- Front lens diameter: 63.7 mm (2.5 in)
- Length from bayonet flange: 114 mm (4.5 in)
- Diameter: 66 mm (2.6 in)
- Weight: 0.780 kg

### ELMARIT-M f/2.8/135 mm

In a soft leather case, with lens cap and rear cover

(Spare soft leather case, lens cap, rear cover and accessories see page 5-18)

Order No. 11829

- Angle of view: 18°
- Number of elements: 5 (3 components)
- Filter size: E 46
- Internal thread: M 46 x 0.75
- Clickstops (including half values)
- Smallest aperture: f/22
- Combined meter/ feet scale
- Focusing range: ∞ to 1.50 m (5 ft.)
- Smallest object field: 220 x 330 mm (8.7 x 13 in) (approx. 1:9)
- Parallel guided focusing mount
- · Camera viewfinder
- LEICA M quick change bayonet
- Black anodized finish
- Lens hood: built-in
- Front lens diameter: 56 mm (2.2 in)
- Length from bayonet flange: 107 mm (4.2 in)
- Diameter: 57.5 mm (2.3 in)
- Weight: 0.550 kg



Telephoto lens

# **LEICA M lenses**

# TELE-ELMAR-M f/4/135 mm

for all LEICA M models \*)

### TELE-ELMAR-M f/4/135 mm In a soft leather case, with lens cap and rear cover

(Replacement soft leather case, lens cap, rear cover and accessories see page 5-18)

Order No. 11861.

Photography

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\*) Except LEICA M 2: adaptation of the viewfinder possible by the Leica Service Department.

# **LEICA M lenses**

# Accessories

LEICA M lens	No. No black silv	Order	No. No. silver titanium	Dia- meter in mm	Lens hood (re- place- ment)	Lens hood cover (replace- ment)	Lens cap (re- place- ment)	Rear cover (re- place- ment)	Soft leather case <sup>2)</sup>	Filter size screw-in or series <sup>1)</sup>
		10 S								
f/2.8/21 mm from No. 3 363 300	11 134	11 - 🖉	-	62	12 543	-	14 290	14269	14 682	E 60
f/2.8/28 mm from No. 3 585 865	11 809	48 <b>-</b> 11	-	48	12 547	14013	14 23 1	14 269	14 686	E 46
f/1.4/35 ASPH.	11 874	-	-	49	12 588	14 039	14 23 1	14269	14 688	E 46
f/1.4/35 mm from No. 2 166 701	11 870	-	11 860	42	12 504	-	14 268	14 269	14 690	Series 7 <sup>3)</sup>
f/2/35 mm from No. 2974251	11310	11311		42	12 524	-	14268	14 269	14 692	E 39
f/1/50 from No. 3 220 709	11 822	-		62	built in		14 290	14 269	14 695	E 60
f/1.4/50 mm	11 686	-	11 869	45	built in	-	14 23 1	14 269	14 700	E 43
f/2/50 mm from No. 3 649 976	11 826	11 816	-	47.5	built in	-	14 038	14269	14700	E 39
f/2.8/50 mm	11 831	11 823	10月三回日	52	12 550 12 549	14285 14321	14 321	14 269	14701	E 39
f/1.4/75 mm from No. 3 223 301	11815	-	-	62	built in	-	14 2 90	14 269	14 703	E 60
f/2/90 mm from No. 3 177 201	11 136	11 137	-	62.5	built in	Telep	14 289	14 269	14705	E 55
f/2.8/90 mm from No. 3 462 071	11 807	-	-	54	built in	-	14231	14269	14 707	E 46
f/2.8/135 mm from No. 2788927	11 829	-	_	63.7	built in		14289	14 269	14 709	E 55
f/4/135 mm from No. 3 595 960	11 861	-	-	57.5	built in	-	14231	14269	14711	E 46

<sup>1)</sup> as assessory <sup>2)</sup> replacement

<sup>3)</sup> adaptation with lens hood

### **Brilliant finders** and cases

**Brilliant** viewfinder for 21 mm lenses with case Order No. 12008 \_ **Case** (replacement) Order No. 14628

**Brilliant viewfinder** for 28 mm lenses with case Order No. 12009 Case (replacement) Order No. 14628 \_



**Brilliant viewfinder** for 21 mm lenses Upright, brilliant image. Superimposed bright picture frame.

Reproduction scale 0.3. with parallax compensation markings below 2 m, with case.

### **Brilliant** viewfinder for 28 mm lenses Reproduction scale 0.5 with line marking for parallax compensation below approx. 2 m (6 ft 8 in), with case.



# **LEICA M lenses**

# Accessories

Filters

Filter	Screw-in filter						Series filter
	E 39	E 43	E 46	E 49	E 55	E 60	7
UVa	13 131	13 206	13 004	13 328	13 373	13 381	13 009
Yellow-green	_	Toopers		-	13 391	13 392	13 007
Orange		-	_	1	13 3 12	13 383	13 008
Polarizing filter	13 352 A 42	Ω4C4	mhh <u>ill</u> is	_		_	are the

Photography

# Photography

# **LEICA Compact Cameras**

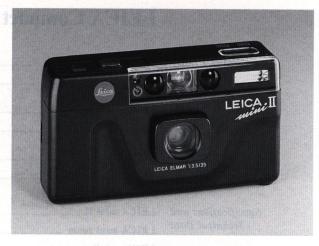
Product range	LEICA mini II	6-2
	Accessories	6-2
	LEICA mini zoom	6-3
	Accessories	6-3
	LEICA minilux	6-4
	Accessories	6-5
ecifications and	LEICA mini II	6-6
Technical Data	LEICA mini zoom	6-9
	LEICA minilux	6-12

**Photography** 

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Spe

# LEICA **Compact Cameras LEICA** mini II



# Photography

### LEICA mini II\* Order No. 18013 Leica mini II\* with Data Back

(As LEICA mini II, but with Data Back for imprinting day and time, or date onto the film

Order No. 18014

\* incl. battery 3 V CR 123 A. carrying strap and wrist strap

Super compact, fully automatic 35 mm range finder camera with LEICA ELMAR f/3.5/35 mm lens. UVa protection filter built-in. Infrared autofocus with focus memory. Adjustable infinity setting. Centerweighted integral metering. Automatic exposure program with memory. Manual exposure correction +2 Ev. Built-in flash unit with rapid flash sequence; automatic

flash activation in poor lighting conditions. Manual on/off flash setting possible. Pre-flash for reducing the red eye effect is possible. Long time exposure "B" up to 5 s. Automatic film speed setting (DX-code) and loading; motorized film transport. Series frame release.

Detailed description on page 6-6.

# Accessories

Order No.	18 503
Order No.	18 516
Order No.	18 517

Ever ready case for LEICA mini II Carrying strap for LEICA mini II (replacement) Wrist strap for LEICA mini II (replacement)



Mini tripod with ball and socket joint.

Order No. 14320



### Super compact, fully automatic 35 mm range finder camera with LEICA VARIO-ELMAR f/4 - 7.6/35 - 70 mmlens. Automatic lens cover. Infrared autofocus with focus memory. Adjustable infinity setting. Center-weighted integral metering. Automatic exposure program with memory. Manual exposure correction +2 Ev. Built-in flash unit with rapid flash sequence; automatic flash activation in poor lighting conditions. Manual on/off

flash setting possible. Preflash for reducing the red eye effect is possible. Unrestricted long time exposures "B". Automatic film speed setting (DX-code) and loading; motorized film transport and automatic rewind. Series frame release. Panorama adapter available as accessory.

Detailed description on page 6-9.

# LEICA Compact Cameras LEICA mini zoom

LEICA mini zoom \* Order No. 18004 \_\_\_\_\_\_ LEICA mini zoom \* with Data Back (As LEICA mini zoom, but with

Data Back for imprinting day and time, or date onto the film Order No. 18005

\* incl. battery 3 V CR 123 A, carrying strap and wrist strap

### Accessories

Order No.	18 505
Order No.	18 510
Order No.	18 516
Order No.	18 517

Ever ready case for LEICA mini zoom Panorama-Adapter Carrying strap for LEICA mini zoom (replacement) Wrist strap for LEICA mini zoom (replacement)



### Mini tripod with ball and socket joint.

Photography

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Order No. 14320 \_

# LEICA Compact Cameras LEICA minilux



High quality, compact 35 mm range finder camera with high speed LEICA SUMMARIT f/2.4/40 mm lens. Elegant titanium housing with partial leather covering. Automatic program mode as well as aperture priority (pre-selected aperture), both of which can be combined with auto or manual focus. Active infrared autofocus. Center weighted integral metering with exposure and autofocus measurement storage. Clearly arrange viewfinder. Illuminated LCD data field. True time release (minimal time parallax between shutter release and actual photograph). Exposure override

button from +2 to -2 EV in half values. Option of automatic or manual flash-on or flash-off. Pre-flash to reduce the "red-eye" effect.

"SLOW" functions for longtime combination with flash and pre-flash. Long-time exposure with "B" up to 99 s. Precise film guide made of metal. Automatic film speed setting (DX coding) and film loading, motorized film transport with automatic rewind. Cable remote control and panorama adapter as accessories. Series frame function.

Detailed product description on page 6-12

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LEICA minilux with wrist strap and 3 V battery (Type CR 123 A) Order No. 18006 Data back with film cartridge window (can be attached in place of the regular back cover).

. . . . . . . . . . . . . . . .

**Soft leather case** with belt strap and additional pocket for the panorama adapter and brief instructions.



**Ever-ready case** of sturdy leather (with removable front)



Carrying strap (length approx. 50 cm, 20 in.)

Wrist strap (replacement)

Viewfinder correction lenses: + 1 dptr. - 1 dptr.

Electric cable release

Mini tripod with ball and socket joint

Liss opposite Alternation Alt

Shatter speeds: Ve to Vese s; in "I up to 5 seconds

# R

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Active initiated autometric autovated from pressure on immediately sets the focus Thus, the time-parallax between the first touch to the shutter release and actual photograph is minimized.

### Accessories

compact Camera

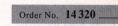
Order No. 18525

Order No. 18 507 \_\_\_\_\_

Order No. 18 506 \_\_\_\_

Order No.	18 5 11 _	
Order No.	18 518 _	
Order No.	18 519 _	
Order No.	18 530 _	
Order No.	18 531 _	
Order No.	18 540	

6



matically goes into the universal program with externatic thish activation

# LEICA Compact Cameras LEICA mini II

### Specifications and Technical Data



### Type:

Ultra-compact, fully automatic 35 mm rangefinder camera with autofocus, automatic program mode and automatic flash.

### Lens:

LEICA ELMAR f/3.5/35 mm (4 lens elements in 3 groups). UVa protection filter built onto front lens element.

### Focus range:

From 65 cm (25 in) to infinity. Separate "fixed infinity" setting.

**Smallest object field:** 440 x 660 mm (17.3 x 26.0 in) - approx. 1 : 18.

### Autofocus system:

Active infrared autofocus activated from pressure on the shutter release which immediately sets the focus. Thus, the time-parallax between the first touch to the shutter release and actual photograph is minimized.

### **Exposure control:**

Automatic program mode, center weighted integral metering with automatic flash activation.

### **Memory:**

Of autofocus and exposure metering values; activated by light pressure on the exposure release button.

### **Exposure override:**

+2 EV, in manual and fixed infinity modes.

### Metering range:

From 8  $cd/m^2$  to 125 000  $cd/m^2$ .

# Meter working range:

With ISO 100/21° from exposure value EV 6 ( $\frac{1}{5}$  s and f/3.5) to EV 16 ( $\frac{1}{250}$  s and f/16). Automatic flash activation with exposure values of less than EV 10.

### Shutter speeds:

 $\frac{1}{5}$  to  $\frac{1}{250}$  s; in "B" setting – up to 5 seconds.

### Specifications and Technical Data

### Film speed setting:

Automatic film speed setting for DX-coded films with ISO 50/18°, 100/21°, 200/24°, 400/27°, 800/30°, 1000/31°. Films without DX-coding are set to ISO 100/21°.

### Automatic flash:

In poor lighting conditions, the flash is automatically activated. Manual on/off flash is possible at any time. Pre-flash to reduce the red eye effect can be switched on both in the automatic and manual settings.

### Flash range:

With ISO 100/21° from 0.65 m to 4.0 m (2.9 to 13 ft). With ISO 400/27° from 0.65 m to 8.0 m (2.1 to 26 ft).

### Viewfinder:

Telescopic viewfinder (Galilei) with autofocus measuring field and markings for close range. Confirmation and flash mode indicated by green light diode (LED).

### Viewfinder magnification:

0.45 x, equivalent to 85 % of the film format.

### Film transport:

Automatic film threading and advance to first frame. Motorized film transport after each exposure. Series exposures when the release button is pressed and held down. Motorized rewind occurs automatically at the end of the film. The film is rewound into the cartridge completely. Rewinding a partially exposed film is also possible.

### Data field:

LCD (liquid crystal) displays symbols for battery status, frame count, flash activation and fixed infinity setting.

### Self-timer

10 second countdown; flashing red LED on the front of the camera indicates when the countdown is running. Release via a separate switch on the camera top.

### **Power supply:**

Long lasting 3 V (CR 123 A) lithium battery.

Switching the camera on/off: With the main switch on the top of the camera. Lens moves into ready or transportation position. The flash electronics switch off automatically after about 5 minutes when not in use (Sleep mode). Activate anew by pressing the release button.

# LEICA Compact Cameras

### Mode control:

Universal program with automatic flash activation

- # = Universal program with automatic flash and pre-flash activation
- + EV = Universal program with automatic flash activation and exposure correction + 2 EV
- # ON = Manual flash activation with pre-flash
- ✔ OFF = Manual flash activation. For exposure times longer than ½ s, the camera automatically switches over to long time exposure "B". Long time exposures are possible for a max. of 5 seconds
  - Photography

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= Focusing distance is fixed at infinity

00

+ EV is fixed at infinity with exposure correction

The chosen modes remain activated until another is chosen or the camera is switched back on, it automatically goes into the universal program with automatic flash activation.

# LEICA

### **Compact Cameras**

### Housing:

Closed camera body in elegant LEICA design. Noose on the side of the camera to attach the carrying strap or wrist strap. Tripod thread A <sup>1</sup>/<sub>4</sub> DIN 4503 (<sup>1</sup>/<sub>4</sub>").

### Data back:

Optionally with or without data back. For printing the day and time or date on the film. Quartz controlled clock and automatic calendar to the year 2019. Imprint intensity controlled by the camera's automatic film speed setting.

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### Intel exposition at possible for a miniof 5 seconds Focusing distance of the distance

 Procusing distance is liked at milinity with exposence correction

The chosen modes remain activated until anuther is chosen or the cumeri is switched back on, it automatically goes into the universal program with automatic flash activation

### Specifications and Technical Data

### **Dimensions:**

Without data back approx.: length 118 mm / height 65 mm / Width 38.5 mm (4.6/2.6/1.5 in). With data back approx.: length 118 mm / height 65 mm / width 41 mm (4.6/2.6/1.6 in).

### Weight:

Without data back 160 g (without batteries) With data back 175 g (without batteries)

### Accessories:

Ever-ready case (Order No. 18 503) Mini tripod (Order No. 14 320)

Number of a contract of all With the main switch, the fold of the canters. To as moves into reach or traits portations at site of a contract estactronce switch of autosing the static of a conchiractes who and in use minutes who and in use the or and all Activate the or and a contract of an and the section contract and a contract restants of an anot port and an and the orther approximation of an anot port and an and the orther approximation of an anot port and an and the orther approximation of an anot port and an and the orther approximation of an anot port and an and the orther approximation of an anot port and an and the orther approximation of

### Specifications and Technical Data



### **Camera type:**

Very compact 35 mm range finder camera with autofocus, automatic program and built-in flash.

### Lens:

LEICA VARIO-ELMAR f/4 - 7.6/35 - 70 mm (7 lenses in 6 components).

### Focusing range:

From infinity to 60 cm (23.6 in). Separate "infinity"setting e. g. for landscape pictures and pictures taken through glass.

### Autofocus system:

Active infrared autofocus which measures and focuses when the release is pressed.

### **Exposure control:**

Automatic program mode, with automatic flash activation.

**Exposure metering:** Integral-center weighted.

### Memory:

The storage of focus and exposure values occurs when the release button is pressed.

### Working range:

(All values for ISO 100/21°). For the control modes: universal program and universal program with pre-flash as well as for the infinity setting and exposure correction:

For 35 mm focal length setting:

From Ev 9 (1/30 s and f/4) to Ev 17 (1/300 s and f/20). For 70 mm focal length. From Ev 11,6 (1/50 s and f/7,6) to Ev 17 (1/200 s and f/25).

For values below Ev 9 (35 mm) or Ev 11 (70 mm), the flash is activated automatically when in the universal program.

For the control modes: manual flash activation, manual flash activation with pre-flash and manual flash-off:

For 35 mm focal length setting:

From Ev 6 (1/4 s and f/4) to Ev 17 (1/300 s and f/20). For 70 mm focal length. From Ev 7,9 (1/4 s and f/7,6) to Ev 17 (1/200 s and f/25).

# LEICA Compact Cameras LEICA mini zoom

z "posare unes: 1/4 to 1/200 seconds, manus auto (lose exposures in die \*B\* beijing

> 2. Ev. manuality also adjostable in the infinity mode.

Attainable flash: In poor highing conditions the flash is automatically activated Manual oo/off flash a possible at any finit Pro-flash to reduce the red cap effect can be switched on both in the automatic and manual serrings

Tash rangat (ISO 100/21) For 35 mm from 0.56 m u 12 m (23.6 m to 15.5 feet) For 14 mm from 0.60 m u 52 m (23.6 in to 11 feet)

Photogra

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Elash loading time: With fresh isutories, app 5 seconds

Film speed setting: Automatic film speed setting for DX coded film with ISO 20/18° 100/29° 200/21° 309/27° 800/20° 1600/21° 20'9/36° Films without DX coding are se to ISO 100/29°

### ViewEnder:

Albady viewinder with an alocus measuring field and mariangs for close range and panoraph piccures. Flash confirmation miticaled by a red light for anotocus and exposur for anotocus and exposur measuring indexted by a

# LEICA **Compact Cameras**

For values below Ev 9 (35 mm) or Ev 11 (70 mm), the flash is activated automatically when in the universal program.

### Exposure times:

1/4 to 1/300 seconds, manual long time exposures in the "B" setting.

### **Exposure correction:**

+2 Ev, manually, also adjustable in the infinity mode.

### Automatic flash:

In poor lighting conditions, the flash is automatically activated. Manual on/off flash is possible at any time. Pre-flash to reduce the red eve effect can be switched on both in the automatic and manual settings.

Flash range: (ISO 100/21°): For 35 mm from 0.60 m to 4.7 m (23.6 in to 15.5 feet). For 70 mm from 0.60 m to 3.3 m (23.6 in to 11 feet).

### Flash loading time:

With fresh batteries, approx. 5 seconds.

### Film speed setting:

Automatic film speed setting for DX-coded films with ISO 50/18°, 100/21°, 200/24°, 400/27°, 800/30°, 1600/33°, 3200/36°. Films without DX-coding are set to ISO 100/21°.

### Viewfinder:

Albada viewfinder with autofocus measuring field and markings for close range and panorama pictures. Flash confirmation indicated by a red light diode (LED), confirmation for autofocus and exposure metering indicated by a green light diode (LED).

### Specifications and Technical Data

### Viewfinder magnification:

0.33 x for 35 mm focal length, 0.61 x for 70 mm focal length, equivalent to 85% of the film format

### **Film transport:**

Automatic film threading and advance to first frame when the rear cover is closed after inserting the film cartridge. Motorized film transport after each exposure. Automatic framecounter, ascending, in the display. Series exposures when the release button is pressed and held down. Motorized rewind occurs automatically at the end of the film. The film is rewound into the cartridge completely. Rewinding a partially exposed film is also possible.

### Data field:

LCD (liquid crystal) displays symbols for battery status, frame count, Ev exposure correction, long time exposure, self-timer, film insertion and rewind. flash and pre-flash activation, flash-off and fixed infinity setting. Display remains on for approximately 60 seconds after battery removal.

### Self-timer:

10 second countdown; flashing red LED on the front of the camera indicates when the camera is running. Release via a separate switch.

### **Power supply:**

Long lasting 3 V (CR 123 A) lithium battery.

### Switching the camera on/off:

With the main switch on the top of the camera. Lens moves into ready or tranportation position. The flash electronics and the displays switch off automatically after about 5 minutes when not in use (Stand-by mode). Activate anew by pressing the release button.

### Mode control:

Universal program with automatic flash activation

± <b>‡</b>	Universal program with automatic flash and pre-flash activation
+ EV	Universal program with automatic flash activation and exposure correction + 2 EV
# ON	Manual flash activation
44 ON	Manual flash activation with pre-flash
# OFF	Manual flash-off
∞ ∳ OFF	Fixed infinity setting with manual flash-off
∞ EV ≰ OFF	Fixed infinity setting with expo- sure correction and manual flash-off
B ∉ OFF	Long time expo- sure "B" with manual flash-off

### Specifications and Technical Data

The chosen modes remain activated until another is chosen or the camera is switched off.

### **Housing:**

Closed camera body in elegant LEICA design. Noose on the side of the camera to attach the carrying strap or wrist strap. Tripod thread A 1/4 DIN 4503 (1/4").

### **Rear cover:**

Available with or without data print out.

### Data back:

For printing the day and time or date on the film. Quartz controlled clock and automatic calendar to the year 2019. Imprint intensity controlled by the camera's automatic film speed setting. **Dimensions:** 

With and without data back: length 123 mm / height 71.5 mm / width 43 mm (4.8/2.8/1.7 in).

### Weight:

approx. 230 g (without batteries).

### Accessories:

Leather ever-ready case (Order No. 18 505), Mini tripod (Order No. 14 320), Panorama adapter (Order No. 18 510).

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Autolocus system: Active infrared autofocus.

### Apertare system:

Automatic program control with automatic aperture control and flash activation as well as

*agerture provin*e (manual sperture selection) with sutomatic-flash activation

# LEICA Compact Cameras

6-11

# LEICA Compact Cameras LEICA minilux

### Specifications and Technical Data



### Type:

Compact autofocus 35 mm range finder camera with high speed lens.

Film format: 24 x 36 mm

### Lens:

LEICA SUMMARIT f/2.4/40 mm (6 lenses in 4 components).

Focusing range: Automatic and manual focusing from 70 cm (28 in.) to infinity.

**Smallest object field:** 377 x 566 mm (15 x 22 in.) (approx. 1 : 15.7).

Autofocus system: Active infrared autofocus.

### Aperture system:

Automatic program control with automatic aperture control and flash activation as well as *aperture priority* (manual aperture selection) with automatic flash activation. **Exposure metering:** Integral, center-weighted .

Measured value storage: The storage of the range and exposure values occurs by pressure point on the shutter release.

Working range of the exposure meter system: (With ISO 100/21°). For the operation modes AUTO 4, AUTO 14. # ON, # ON: from exposure value Ev 8.5 (1/60 s and f/2.4) to Ev 16.5 (1/400 s and f/16). For the operation modes SLOW ON, SLOW HON, ∉ OFF, ∉ OFF B: from exposure value Ev 2.5 (1 s and f/2.4) to Ev 16.5 (1/400 s and f/16). For exposure values below EV 8.5 the flash is activated automatically in the universal AUTO mode.

### Specifications and Technical Data

### Shutter speeds:

1 to 1/400 s, "B" setting for exposure times longer than 1 s in the operation modes SLOW \$\$\vert\$ ON, SLOW \$\$\vert\$ ON, \$\$\vert\$ OFF, \$\$\vert\$ OFF B.

### **Exposure override:**

From +2 EV to -2 EV in half values.

# Flash automatic and manual flash on and off:

In poor light conditions, the flash is automatically activated.

Manual flash on and off is possible at any time. Preflash to reduce the red-eye effect can be activated in both the automatic and manual settings. Long exposure times can be combined with the flash.

### Flash range:

(ISO 100/21°) from 0.7 m to 7.2 m (2.3 to 23 ft.).

### Flash reloading time:

Approximately 5 seconds with fresh batteries.

### Film speed setting:

Automatic film speed setting for DX coded films from 25 to 5000 ASA. Films without DX coding are set to ISO  $100/21^{\circ}$ .

### Viewfinder:

True viewfinder with markings for the autofocus measuring field, for close-up and panorama photographs. Flash confirmation signal is a red light diode (LED). Confirmation signal for autofocus and exposure measurement is a green light diode (LED).

### Viewfinder magnification:

0.35 x, equivalent to 85% of the film format.

### Film transport:

Automatic film threading and advance to the first frame when the rear cover is closed after inserting the film cartridge. Motorized film transport after each exposure. Automatic rewind occurs at the end of the film. The film is rewound completely into the cartridge. It is also possible to rewind a partially exposed film.

### Data field:

Liquid crystal display (LCD) shows symbols for: battery status, frame count, long exposure times ("SLOW" and "B"), self-timer, film insertion and rewind, flash on, exposure override, shutter speed and aperture. Automatic field-illumination in low ambient light.

# LEICA Compact Cameras

### Self-timer:

10 second countdown, flashing light diode on the front of the camera and a countdown display in the data field signalize that the self timer is activated.

### **Power supply:**

Long lasting 3V lithium battery (CR 123 A).

### Switching the camera on/off:

With the main switch on the top of the camera. Lens moves into the ready or transport position. The flash and electronics switch off automatically after about 5 minutes when not in use (stand-by mode).

### **Exposure program modes:**

Automatic program mode and aperture priority (aperture pre-selection). 6

# Flash and long exposure time modes:

- Universal mode with automatic flash activation AUTO f
- Universal mode with automatic flash and pre-flash activation AUTO <sup>1</sup>/<sub>4</sub>
- Manual flash activation \$ ON
- Manual flash and pre-flash activation # ON

# LEICA Compact Cameras

- Manual flash activation and long exposure time (SLOW \$ ON)
- Manual flash and pre-flash activation with long exposure time (SLOW <sup>1</sup>/<sub>2</sub> ON)
- Manual flash off (# OFF)
- Manual flash off (# OFF) and long exposure time B The selected flash modes remain activated until another is chosen or until the camera is switched off.

### Housing: Selected to got and

Outer housing is solid and extremely durable titanium in an ergonomical LEICA design. Grip surfaces are leather covered. Metal precision film guide. Rear cover with film cartridge window, interchangeable for a data back with film cartridge window. Side attachment for carrying or wrist strap. Tripod thread: A 1/4 DIN 4503 (1/4").

AUTO & Universel mode with aux matic flash and pre-flash activation AUTO # Manual flash activation & GN

Manual flash and pre-flash activation & ON

### Specifications and Technical Data

Data back (accessory): Prints the day with time or date on the film. Quartz controlled clock and automatic calendar up to the year 2019. Imprint intensity is controlled by the camera's automatic film speed setting.

### **Overall dimensions:**

With and without data back: length 124 mm / height 69 mm / width 39 mm (4.8/2.7/1.5 in.).

### Weight:

approx. 330 g (without battery).

thin tensportables shall only exposure. Automatic rewind occurs at the endpitible wir film. The film is terroted 4 completely into the cartridge the is also possible to rewinds a partially assessed Blata 174 beit assend to an 044 b. D Data field. (Streamodure Liquid crystal display (LCD triquid crystal display (LCD expressive infest (SLQ) Who status frame and matters insertion and rewind, flash on, expective orgenticouter insertion and rewind, flash and "B"), self-timetrifilme on, expective orgenticouter insertion and rewind, flash and the total and the status insertion and rewind, flash and the total and the total insertion of an another total and the total and the post and the total and the total tion to tota and term and the total and total and the total and the total and the total and the total and the

ternare gesten: Automate program control with automate aperture opterni and flash activation is well as operate priority (manual aperture selection) with aperture selection) with

### Accessories:

Data back for the LEICA minilux (order no. 18525)

Carrying strap, length approx. 50 cm (19.7 in.) (order no. 18 518)

Wrist strap (included – replacement) (order no. 18519)

Soft leather case with belt strap and additional inner compartment for panorama adapter and brief instructions (order no. 18 507)

Ever-ready case of leather with removable front and carrying strap with non-slip pad

(order no. 18 506)

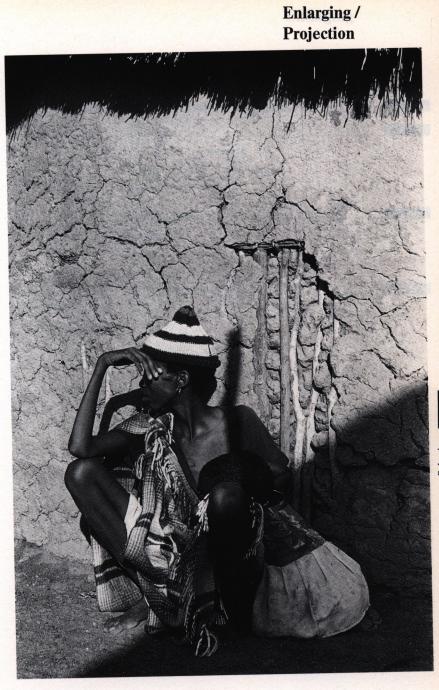
Mini tripod that is easy to stow away (order no. 14320)

Panorama adapter (order no. 18511)

Viewfinder correction lens + 1 dpt. (order no. 18 530)

Viewfinder correction lens -1 dpt. (order no. 18531)

Electric cable release - length approx. 30 cm, 11.8 in. (order no. 18540).



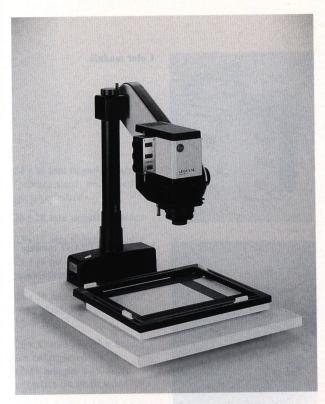
LEICA M 6 SUMMICRON-M f/2/35 mm Axel Nordmeier

roduct range	LEICA FOCOMAT V 35 Autofocus	7-3
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fications and	LEICA FOCOMAT V 35	7-7

Specifications and Technical Data

de reformatio 24 x 36 mm. .

Pr



Compact enlarger for color and black and white with automatic focusing and 40 mm WA-FOCOTAR f/2.8 wide-angle lens, for: Negative formats 24 x 36 mm, 28 x 28 mm, 13 x 17 mm, 35 mm slides (external format 50 x 50 mm) with 12 v/75 W tungsten halogen lamp with cold-light mirror.

Extremely long, automatic enlarging range 3 to 16x with the 40 mm WA-FOCOTAR f/2.8.

30% more enlargement and 70% more picture area (compared with a 50 mm lens).

### **LEICA FOCOMAT V 35**

complete with built-in transformer, mains cable, 12 v/75 W tungsten halogen lamp, cold-light mirror, 24 x 36 mm negative holder, adjusted lens, interchangeable module.

Detailed description see page 7-7.

# **LEICA Enlarger**

# LEICA FOCOMAT V 35

### LEICA FOCOMAT V 35 with LEICA WA-Focotar f/2.8/40 mm

Color version 110 - 250 v (with module) Order No. 17 411 \_\_\_\_\_

Black-and-white version 110 - 250 v (with black and white module) Order No. 17 407

VARIOCONTRAST version 110 - 250 v (with VARIOCONTRAST module) Order No. 17 412

Mains cable (replacement) Order No. 37 644

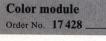
# Accessories

LEICA FOCOMAT V35 **Conversion** modules



**Color module** 

### VARIOCONTRAST module





VARIOCONTRAST module Order No. 17441

**Black-and-white module** Order No. 17 427



Black-and-white module



# Accessories

Negative holders / Slide holder Film trays Diffusion disc

Order No.	17 003
Order No.	17 007
Order No.	17 424
Order No.	17 009
Order No.	17 002
Order No.	17 012

Order No. 17419 \_\_\_\_

Order No. 17 425

Diffusion disc Order No. 17 430 Enlarging

24 x 36 mm negative holder (replacement, one-sided glass pressure)

28 x 28 mm negative holder

13 x 17 mm negative holder

24 x 36 mm glassless negative holder

24 x 36 mm negative holder with glass-pressure on both sides

25 x 37 mm negative holder for enlargements with black margin with glass pressure on both sides

### Holder

for 35 mm slide (external format 50 x 50 mm)

Two **film trays** for the enlargement of uncut films

### **Diffusion disc**

Diffusion disk for integral light metering, swivelled into position in front of lens before measurement.



# Accessories

Masking frames

Film rays

**Red** filter

24 x 30 cm (10 x 12 in) universal masking frame (height 25 mm or 1 in) with 4 adjustable masking strips, combined foot/ metre scale

Order No. 17584 \_

Order No. 17440

Order No. 17 429





**Red filter** (to be swivelled in front of the lens, can also be used together with the diffusion disk)

**Dust cover** for the enlarger

### Intermediate ring

for 1:1.3 reproduction scale (8 mm) (up to three intermediate rings can be combined, reproduction scale up to 1.15:1)

**Footswitch** for FOCOMETER

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Dust cover

Intermediate ring

Order No.	17 439
	Footswitch

### Specifications and Technical Data



### Type of instrument:

Compact enlarger for color and black-and-white with automatic focusing and 40 mm WA-FOCOTAR f/2.8 wide-angle lens for: Negative formats 24 x 36 mm, 28 x 28 mm, 13 x 17 mm, 35 mm slides (external format 50 x 50 mm) with 12 v/75 W tungsten halogen lamp with coldlight mirror.

Extremely large automatic enlarging range 3-16 x with the 40 mm WA-FOCOTAR f/2.8 30% more enlargement and 70% more picture area is offered by the 40 mm WA-FOCOTAR compared with a 50 mm lens at the same working distance from the baseboard.

### Negative stage:

for negative holder with glassless support exerting one-sided glass pressure (with anti-Newton surface) interchangeable for the formats: 24 x 36 mm \* (contained in the basic outfit), 28 x 28 mm, 13 x 17 mm, 25 x 37 mm

# LEICA FOCOMAT V 35



# LEICA Enlarger Specifications and Technical Data

for the 24 x 36 mm glassless negative holder

for the 24 x 36 mm glass negative holder (glass pressure on both sides)

for holder for 35 mm slides (external format 50 x 50 mm) for convenient, rapid color slide enlargement. After initial focusing automatic focusing within the enlargement range from 3-16 x. Screw-on film trays.

# Technical description of the film stage:

The cast part is screwed on to the chassis of the enlarger head. Film stage aligned parallel to the baseboard at right angles to the optical axis.

Maximum transmission 28 x 36 mm (1.1 x 1.4 in). Swinging pressure plate exerts spring pressure on the negative or slide holder. Rapid and easy insertion of the negative or slide holders in the lamp housing when the pressure plate is raised. The pressure plate is raised for effortless movement of the inserted film strips to the next frame. Convenient arrangement of the controls on the left and right. Integrated format masking, continuously adjustable with rotary knobs on the front. Adjustment facility: from about 37 mm to 3 mm in the x-direction and from about 28 mm to 6 mm in the y-direction.

The negative strips of the various formats can be inserted and fixed in position without risk of damage. Single negatives, too, are effectively positioned in the holder. If the anti-Newton disc is damaged the upper pressure plate can be easily exchanged.

### **Precision autofocusing:**

Precise durable Autofocus device. Automatic mechanism prevents wrong/ inaccurate focusing. Rapid continuous focusing within the automatic enlargement range without manual refocusing. Long Autofocus range with the 40 mm WA-FOCOTAR f/2.8 for enlargements from 72 x 108 mm to 384 x 576 mm (2.8 x 4.3 to 15.1 x 22.7 in), i. e. focusing range with 3 x to 16 x enlargement. Fibre-optics-illuminated enlargement indication between the swivelling arm and lamp housing. Can be switched for separate indication of the enlarging ratios of 40 or 50 mm lenses. Convenient arrangement of this indication permits reading of the enlarging scale also from a sitting position.

Adjustment range of the focal plane from 0 to 60 mm, for the adaption of the automatic focusing mechanism to different heights of masking frames. Raising of the column to 60 mm (2.4 in) = 17.5 x enlargement (manual on the baseboard). Large baseboard area permits easy and convenient adjustment of the masking frame. "Giant enlargement" when the column is swivelled (floor projection). The autofocus device saves time and material. Ideal for croppings. Adjustment of the lens in the enlarger through a factoryadjusted stainless steel precision cam.

# WA-FOCOTAR f/2.8/40 mm enlarging lens:

High-performance wideangle enlarging lens in the top class (WA = wide angle). Enlarging lens of the worldfamous FOCOTAR series specially computed for the LEICA FOCOMAT V35, with use of highly refractive glasses. Number of elements: 5. modified Gauss type. Apertures f/2.8 - f/16, with clickstops for full aperture values, can be switched to continuous adjustment. Illuminated aperture scale can be read from the front. High contrast, high resolving power, very good illumination and excellent color differentiation ensure brilliant reproduction. Optimum correction up to 11 x magnification. Optimum reproduction already from f/5.6 means shorter exposure times and reduced risk of vibration when making giant enlargements. Helical focusing mount on the instrument ensures easy focusing outside the automatic range:

# Specifications and Technical Data LEICA Enlarger

### Lamp housing:

Illuminating system developed according to the latest illuminating techniques. Light deflection according to the principle of Ulbricht's sphere in the mixing chamber made of neutral-color polvalkene foam guarantees: high light utilization, optimum illumination, unsurpassed homogeneity of colors. The diffuse illuminating system gives soft light, which makes it eminently suitable for black and white and color work.

# Modules for color and black-and-white:

In the black-and-white version of the LEICA FOCOMAT V 35 the red filter is part of the module, which is inserted in the lamp housing between the lamp and the light chamber.

The red filter can be swivelled into and out of the optical path with a rotary knob. Rapid and simple exchange of the black-and-white module against the color module.

Color module with camcontrolled dichroic filters. The subtractive color correction filters can be continuously adjusted. All three filters (Y, M, C) can be swivelled from the optical path simultaneously with preservation of the programmed filter values, and, of course, be swivelled back into it in the programmed state.

The filter density range for Y, M and C extends from

0 to 200 densitometric filter values (this corresponds to 288 Kodak CC densities or 400 Agfa densities).

Control knobs with indicator scale for density values of the dichroic filters are also part of the color module. The scales are color-coded, illuminated and arranged in the sequence Y, M, C from bottom to top. When the color module is inserted the control knobs are on the left of the lamp housing. Convenient opera

housing. Convenient operation from a sitting position. High linearity of the density curves permits accurate dosage of the filter values throughout the entire range. Variocontrast module for working with multigrade contrast paper. Gradation adjustment from extra soft to extra hard. Easy-to-operate "single-button" for gradation change.

### **Excellent cooling system:** The cold-light mirror of the horizontally mounted tungsten halogen lamp deflects the heat rays to

the rear.

In addition, optimum heat dissipation already at the lamp base through special dissipation principle (cooling ring).

This cooling ring prolongs the life of the lamp.

Additional infra-red suppression filter on the front of the mixing chamber – reflects heat rays. The IR suppression filter is matched for the spectral sensitivity of the color materials and suppresses only radiation in the infrared region.

A deflecting baffle (DBGM design registered) on the outside of the mixing chamber additionally removes heat from the chamber.

### Great stability:

Robust steel column, circular cross section, in reflection-reducing black chromium finish rotatably mounted in the large foot of the instrument. Diameter 60 mm (2.4 in). Total height baseboard to swivelling arm 600 mm (23.6 in).

Asymmetrically arranged vertical-adjustment arm, aluminium diecast, rotates on the column in a needle bearing.

Lamp housing rotates on the vertical-adjustment arm. Vertical-adjustment arm fully screened, with rollingband mechanism and diagonal spring. This ensures rigid parallel guidance of the lamp housing and weight compensation during vertical adjustment throughout the entire range.

A brake, also integrated in the arm, is operated by release or tightening of the handgrip. After release of the handgrip rapid and positive adjustment of the vertical-adjustment arm. After arrest of the clamping knob the lamp housing remains absolutely rigid in the chosen position without any vibration.

### LEICA Enlarger Specifications and Technical Data

Diecast column foot: The foot of the column contains the transformer, fuse, on/off switch, voltage selector, mains plug and the mechanism for the vertical adjustment. The column can be raised continuously up to 60 mm (2.4 in). Setting by means of a scale.

Large, rigid baseboard: Professional baseboard with effective white area of 540 x 590 mm (1' 9" x 1' 11"). Shock-absorbing 4-point support.

Additional stabilization of the baseboard through profile steel on the underside. Space for a large package of enlarging paper under the baseboard.

### Electrical data / safety:

All electrical cables are wired inside the instrument and fully protected. The only cable outside the instrument is the mains cable. Low-voltage transformer built into the foot of the enlarger, hence no separate part to be set up. Transformer input maximum: 100 W Input voltage / frequency: 110/220 v / 50 - 60 HzFuses: T 630 mA Tungsten halogen lamp: 12 v / 75 W with cold-light mirror. Test symbols: VDE-GS,

CSA, DEMKO, NEMKO, SEMKO and SEV safety symbol. **Dimensions and weights:** Height: 600 mm (23.6 in) Width: 540 mm (21.3 in) Depth: 700 mm (27.6 in) LEICA FOCOMAT V 35 Autofocus = 21.8 kg Color module = 0.475 kg

# Projection

# LEICA Projectors and Dissolve-Control Units

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Projection

# **LEICA Projectors**

# LEICA PRADOVIT P150 models

LEICA PRADOVIT P 150 (Cableremote control)





LEICA PRADOVIT P 150 IR (Infraredremote control)

8

Projection



LEICA PRADOVIT P 150 DU-Set (for dissolve projection)

# **LEICA Projectors**



# LEICA PRADOVIT P150

Automatic 35 mm-slide projector in modern design for three different types of basic slide magazine system:

- LKM-magazine (compact, spill-proof) for 60 or 80\* slides.
- Standard magazines for 36 or 50\* slides.

• CS magazines for 40 or 100 slides.

Cable remote-control, integrated in projector housing, detachable (cable length approx. 1.65 m, 5' 5"). Slide change: 1.5 s. Autofocus with manual override via remote-control. Single-slide projection facility. Slide preview editing panel. Appliance (mains) cable (attached), length approx. 1.5 m (4' 11"). High optical performance with projection lens COLORPLAN-P 2 f/2.5/90 mm. Accessories from page 8-6 Detailed description page 8-27

LEICA P 150 with autofocus (220 V / 50 Hz) complete with 24 V / 150 W halogen lamp, cable remote-control and lens:

ELMARIT-P2	f/2.8/60 mm	230 V / 50 Hz	Order No. 30 499
HEKTOR-P2	f/2.8/85 mm	230 V/50 Hz	Order No. 30 421
		240 V / 50 Hz 120 V / 60 Hz	Order No. 30 453
		115 V / 60 Hz	Order No. 30913
COLORPLAN-P 2	f/2.5/90 mm	230 V / 50 Hz	Order No. 30 422
COLORPLAN-P2 CF	f/2.5/90 mm	230 V / 50 Hz	Order No. 30 423
Projector, complete wit and cable remote-contr		230 V / 50 Hz	Order No. 30 420
* Not suitable with the ELMARIT-P 2 f/2.8/60 mm		240 V / 50 Hz 120 V / 60 Hz	Order No. 30 452 Order No. 30 497
(Projection lenses marked "P2 compatible with LEICA P 153 or any earlier Pradovit project	/ P 253 / P 2000	115 V/60 Hz	Order No. 30 912

## LEICA PRADOVIT P 150 IR



Technical outfit is the same as PRADOVIT P 150 except: • with additional IR remote control (integrated into

the housing)

• without manual focus override via the IR or cable remote control Accessories from page 8-6

Detailed description page 8-27

**LEICA P 150 IR** with autofocus, complete with 24V/150W lamp, cable and IR remote controls (without 9V block alkali manganese battery), with lens.

Order No.	30 841
Order No.	30 842
Order No.	30 911
Order No.	30 915
Order No.	30 843
Order No.	30 844

230 V/50 Hz 230 V/50 Hz 240 V/50 Hz 115 V/60 Hz 230 V/50 Hz

230 V/50 Hz

ELMARIT P2 f/2.8/60 mm HEKTOR P2 f/2.8/85 mm HEKTOR P2 f/2.8/85 mm HEKTOR P2 f/2.8/85 mm COLORPLAN P2 f/2.5/90 mm COLORPLAN P2 CF f/2.5/90 mm

Projector, complete with lamp, cable and IR remote controls (without battery), without lens

Order No.	30 840
Order No.	30 910
Order No.	30 914

230 V/50 Hz 240 V/50 Hz 115 V/50 Hz

> ("P 2" lenses do not fit on PRADOVIT 153 / 253, P 2002 or any previous Pradovit projector



LEICA PRADOVIT P 150 DU-Set\*)

Technical outfit of both projectors is the same as PRADOVIT P 150 except:

- with additional DU (Dissolve Unit) connection socket for dissolve projection
- without manual focus override via the cable remote control\*)

- with LEICA DU-24 M2 dissolve control unit for manual dissolve projection with the slider

- with **dissolve console** for stacking the projectors on top of each other Accessories from page 8-6

Detailed description page 8-27

\*) LEICA PRADOVIT P 150 DU projectors are only available in the set!

#### LEICA PRADOVIT P 150 DU-Set, consists of:

2 LEICA PRADOVIT P 150 units with autofocus and connection socket for dissolve projection, complete with 2 24 V/150 W lamps, with HEKTOR P2 f/2.8/85 mm lenses,

1 LEICA DU-24 M2 dissolve control unit;

1 dissolve console in a handy box set.

230 V / 50 Hz 240 V / 50 Hz 115 V / 60 Hz

Order No.	30 852
Order No.	30 854
Order No.	30 853

("P2" lenses do not fit on PRADOVIT 153 / 253, P 2002 or on any of the previous projectors!) Projection

Accessories

Case



#### (PRADOVIT P 150 models)

for dust-free storage of projector and lens

Light pointer\*)

Order No. 37310 \_ **Replacement** bulb for light-pointer

Order No. 37 304 .

Order No. 37 321



attachable to cable remotecontrol unit; power supply via projector.

\*) not for LEICA PRADOVIT P 150 IR

for slide viewing in daylight. Universally suitable for all common projectors. (picture  $23 \times 23$  cm,  $9 \times 9$  in)



Order No. 37 331

Monitor

### **Projection lenses**

Order No. 37 511 \_ Order No. 37 511 \_\_\_\_ Order No. 37 512 \_ Order No. 37 513 \_\_\_\_

Projection

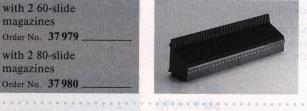
8

Slide-magazines

with 2 60-slide magazines Order No. 37979 with 2 80-slide magazines Order No. 37 980

with 2 36-slide standard magazines Order No. 37844 \_ with 2 50-slide standard magazines Order No. 37855 \_\_\_\_

**ELMARIT-P2 HEKTOR-P2** COLORPLAN-P2 COLORPLAN-P2 CF f/2.8/60 mm f/2.8/85 mm f/2.5/90 mm f/2.5/90 mm



LKM-stacking box



Stacking box (standard magazines)





LEICA PRADOVIT P 300 models

LEICA PRADOVIT P 300 (Cable remote control)



Automatic 35 mm slide projector in modern design for three different magazine systems:

- LKM magazines (compact, spill-proof) for 60 or 80\* slides.
- Standard magazines for 36 or 50\* slides.
- CS magazines for 40 or 100 slides.

Integrated remote control with light pointer. Rapid slide change: 1.3 s auto focus with manual override via remote control. Equipped for Dissolve-Control unit via built in TRIAC. Swing-out single slide mechanism. Slide pre-viewing. Socket for a reading lamp. Integrated appliance (mains) cable approx. 2 m (6 ft 6 in) long. Fold-out carrying handle. High optical performance with:

- SUPER-COLORPLAN-P2 2.5/90 mm
- COLORPLAN-P2 2.5/ 90 mm
- COLORPLAN-P2 CF
   2.5/90 mm
- Projection lenses with focal lengths from 85 to 200 mm
- Zoom projection lens 70 – 120 mm.

FWU approved, GS and international examination symbols.

### LEICA PRADOVIT P 300 IR (Infrared remote control)

Detailed product description on page 8-31

\* Not suitabe with the ELMARIT-P2 f/2.8/60 mm

LEICA PRADOVIT P 300 comfort projector, with autofocus, built-in TRIAC, cable remote control, lamp 24 V/250 W.

#### LEICA PRADOVIT P 300 IR

P 300 IR comfort projector with autofocus, built-in TRIAC, infrared remote control (without battery 9 V IEC 6 F 22), with lamp 24 V/250 W.

## LEICA PRADOVIT P 300



Comfort projector with autofocus, built-in TRIAC,

cable remote control, lamp 24 V/250 W.

**LEICA PRADOVIT P 300** with autofocus (230 V/50 Hz) complete with lamp 24 V/250 W, cable remote control and lens:

ELMARIT-P2	f/2.8/ 60 mm
HEKTOR-P2	f/2.8/ 85 mm
COLORPLAN-P 2	f/2.5/ 90 mm
COLORPLAN-P2 CF	f/2.5/ 90 mm
SUPER-COLORPLAN-P 2	f/2.5/ 90 mm
ELMARIT-P2	f/2.8/120 mm
ELMARIT-P2	f/2.8/150 mm
ELMARON-P2	f/3.4/200 mm
VARIO-ELMARIT-P2	f/2.8/70 - 120 mm

Projector complete with lamp 24 V/250 W and cable remote control, without lens

230 V/50 Hz 240 V/50 Hz 115 V/60 Hz

(The "P2" lenses do not fit the PRADOVIT 153/253/ P2002 or any earlier Pradovit projectors) Accessories starting on page 8-10 Detailed product description page 8-31

HEATS ADDRESS STATEMENTS	TATING STREET, STORE STREET, ST
Order No.	30 829
Order No.	30 821
Order No.	30 822
Order No.	30 823
Order No.	30 824
Order No.	30 825
Order No.	30 826
Order No.	30 827
Order No.	30 828

Order No.	30 820
Order No.	30 919
Order No.	30 918



LEICA PRADOVIT P 300 IR

Comfort projector with autofocus, built-in TRIAC, infrared remote control (without 9 V, IEC 6 F 22 battery), lamp 24 V/250 W.

**LEICA PRADOVIT P 300 IR** with autofocus (230 V/50 Hz) complete with lamp 24 V/250 W, IR remote control (without battery) and lens:

ELMARIT-P2	f/2.8/ 60 mm
HEKTOR-P2	f/2.8/ 85 mm
COLORPLAN-P 2	f/2.5/ 90 mm
COLORPLAN-P 2 CF	f/2.5/ 90 mm
SUPER-COLORPLAN-P 2	f/2.5/ 90 mm
ELMARIT-P2	f/2.8/120 mm
ELMARIT-P2	f/2.8/150 mm
ELMARON-P2	f/3.4/200 mm
VARIO-ELMARIT-P2	f/2.8/70 - 120 mm

 Order No.
 30 839

 Order No.
 30 831

 Order No.
 30 832

 Order No.
 30 833

 Order No.
 30 834

 Order No.
 30 835

 Order No.
 30 836

 Order No.
 30 837

 Order No.
 30 838

Projector, complete with lamp 24 V/250 W and IR remote control (without battery), without lens

(The "P 2" lenses do not fit the PRADOVIT 153 / 253 /P 2002 or any earlier Pradovit projectors) Accessories starting on page 8-10 Detailed product description page 8-31 230 V/50 Hz 240 V/50 Hz 115 V/60 Hz

Order No.	30 830
Order No.	30 921
Order No.	30 920

## Accessories

**Dissolve** projection

Carrying case



#### (PRADOVIT P 300 models)

see page 8-23

**Carrying case** for projector with lens: for easy transport and dust-free storage of projector and lens up to 90 mm focal length

### Reading lamp

Monitor

to be plugged in Order No. 37313

Order No. 37312

**Replacement** lamp for reading lamp Order No. 37308



for slide viewing in daylight. Universally suitable for all common projectors. (picture  $23 \times 23$  cm,  $9 \times 9$  in)

Order No. 37331

Order No. 37 333

Order No. 37 337

Daylight attachment

Laser pointer



8

Projection





Can be set on to the projector housing quickly and easily. Converts the PRADOVIT P 300 and P 600 units into daylight projectors (picture 30 x 36 cm.  $12 \times 14$  in)

Modern, laser based light pointer. Bundling of the laser beam makes the light point clear and easy to see even in large rooms and daylight.

Detailed accessory descriptions from page 8-29

#### (PRADOVIT P 300 models)



The magazine track extension is attached on to the front and the back of the projectors and permits the consecutive viewing of several magazines without pause.

Sturdy synthetic housing. Interval setting dial (variable between 3 and 30 s. Figures engraved and inlaid in white. 0.60 m (2 ft) connecting cable, with connecting plug for 14-pin connecting socket on projector (from Serial No. 213 091).

\* Detailed description page 8-35

Range approx. 20 m (65 ft). Connecting cable 0.60 m (2 ft), with connecting plug for 14-pin socket on projector. Power supply via 9 V battery IEC 6 F 22.

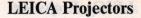
\* Detailed description page 8-35

Multiple connecting socket for simultaneous connection of e.g. sound impulse

**Cable remote-control,** separate with built-in light pointer (3 m, 10 ft)

**Extension cable for separate cable remote-control** (length approx. 10 m, 33 ft)





Accessories

Magazine track extension



Timer\*



generator and cable remotecontrol (6- and 14-pin)

(for projectors P155 / P255 from Serial No. 213 051), PRADOVIT P300 / P300 IR

(for projectors P 155 / P 255 from Serial No. 213 051), PRADOVIT P 300 / P 300 IR Infrared remote-control IR PCM\*

**Timer complete** 

Order No. 37 986

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Order No.	37 00	0		
Urder No.	31 77	U	2.46.55	24.1

Order No. 37 631

Order No. 37318

Order No. 37319

88	1000	889	898	88	1992	88	8
6		9					

rojection

## Accessories

#### (PRADOVIT P 300 models)

**Replacement lamp** for light pointer

### **Projection lenses**

Order No. 37 307 \_

Order No. Order No. Order No. Order No. Order No. Order No.	37 512         37 510         37 513         37 513         37 514         37 515         37 516         37 520	
	Contraction of the second state of the	

ELMARIT-P2
COLORPLAN-P2
COLORPLAN-P2 CF
SUPER-COLORPLAN-P2
ELMARON-P2
ELMARIT-P2
ELMARIT-P2
VARIO-ELMARIT-P2

f/2.8/ 60 mm f/2.5/ 90 mm f/2.5/ 90 mm f/2.5/ 90 mm f/2.8/120 mm f/2.8/150 mm f/3.4/200 mm f/2.8/70 - 120 mm

(Projection lenses marked "P 2" are not compatible with LEICA P 153 / P 253 / P 2002 or any earlier Pradovit projectors)



for automatic slide change with variable change intervals from approx. 5 s to approx. 35 s (for projectors up to Serial No. 213 050)

Order No. 37 316 \_\_\_\_\_

### Slide-magazines

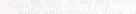
Timer-P

with 2 magazines for 60 slides each Order No. **37 979** \_\_\_\_\_\_ with 2 magazines for 80 slides each Order No. **37 980** \_\_\_\_\_\_ with 2 standard magazines for 36 slides each Order No. **37 844** 

with 2 standard magazines for 50 slides each Order No. **37 855** 

**Replacement** parts





LKM stacking container



Projection lamps, reading-, autofocus- and light-pointer lamps

Detailed accessory description from page 8-29

Stacking container (standard magazines)



Replacement bulbs available from Leica Camera's Customer Service Department, or from your national Leica Camera agency. (Please give exact technical data.)



LEICA PRADOVIT P 600 models

LEICA PRADOVIT P 600 (Cableremote control)



Automatic 35 mm slide projector in modern design for four different magazine systems:

- LKM magazines (compact, spill-proof) for 60 or 80\* slides.
- Standard magazines for 36 or 50\* slides.
- CS magazines for 40 or 100 slides.
- Round magazine for 120 slides

Integrated remote control with light pointer or laser pointer for P 600 IR model. Rapid slide change: 1.3 s intelligent auto focus (differentiates between glassless and glass coated slides and adapts focusing automatically) with manual override via remote control. Timer for automatic slide presentations. Equipped for Dissolve-Control unit via built in TRIAC. Automatic lamp changer. Swing-out single slide mechanism. Slide previewing. Separate appliance (mains) cable approx. 2 m (6 ft 6 in) long. High optical performance with:

- SUPER-COLORPLAN-P2 2.5/90 mm
- COLORPLAN-P2
   2.5/ 90 mm
- COLORPLAN-P2 CF
   2.5/90 mm
- Projection lenses with focal lengths from 60 to 250 mm
- Zoom projection lenses 70-120 mm and 110-200 mm.

### LEICA PRADOVIT P 600 IR (Infrared remote control)

FWU approved, GS and international examination symbols.

Detailed product description on page 8-37

\* Not suitable with the ELMARIT-P2 f/2.8/60 mm

#### **LEICA PRADOVIT P600**

comfort projector, with autofocus, built-in TRIAC, automatic lamp changer, timer, cable remote control, 2 lamps 24 V/250 W.

#### LEICA PRADOVIT P 600 IR

comfort projector with autofocus, built-in TRIAC, automatic lamp changer, timer, infrared remote control with integrated laser pointer (without 9 V block and 2 micro 1,5 V), with 2 lamps 24 V/250 W. Projection

9/95



## LEICA **PRADOVIT P 600**



Comfort projector with autofocus, built-in TRIAC, automatic

lamp changer, timer, cable remote control, 2 lamps 24 V/250 W.

LEICA PRADOVIT P 600 with autofocus (230 V/50 Hz) complete with 2 lamps 24 V/250 W, cable remote control and lens:

ELMARIT-P2	f/2.8/ 60 mm
HEKTOR-P2	f/2.8/ 85 mm
COLORPLAN-P 2	f/2.5/ 90 mm
COLORPLAN-P 2 CF	f/2.5/ 90 mm
SUPER-COLORPLAN-P 2	f/2.5/ 90 mm
ELMARIT-P2	f/2.8/120 mm
ELMARIT-P2	f/2.8/150 mm
ELMARON-P2	f/3.4/200 mm
VARIO-ELMARIT-P2	f/2.8/70 - 120 mm*

\* only up to 24 x 36 mm format

Projector complete with 2 lamps 24 V/250 W and cable remote control, without lens

230 V/50 Hz 240 V/50 Hz 115 V/60 Hz

(The "P2" lenses do not fit the PRADOVIT 153/253/ P 2002 or any earlier Pradovit projectors) Accessories starting on page 8-16 Detailed product description page 8-37

I serve a server and a server and a server a server and a
Order No. 30 951
Order No. 30 952
Order No. 30 953
Order No. 30954
Order No. 30 955
Order No. 30956
Order No. 30957
Order No. 30 958
Order No. 30 960

Order No.	30 950 _	
Order No.	30 926 _	
Order No.	30 925 _	



Comfort projector with autofocus, built-in TRIAC, infrared remote control with integrated laser pointer

(9 V block and 2 micro 1,5 V batteries), automatic lamp changer, 2 lamps 24 V/250 W.

LEICA PRADOVIT P 600 IR with autofocus (230 V/50 Hz) complete with 2 lamps 24 V/250 W, IR remote control (without battery) and lens:

ELMARIT-P2
HEKTOR-P2
COLORPLAN-P2
COLORPLAN-P2 CF
SUPER-COLORPLAN-P 2
ELMARIT-P2
ELMARIT-P2
ELMARON-P2
VARIO-ELMARIT-P2

f/2.8/	60	mm
f/2.8/	85	mm
f/2.5/	90	mm
f/2.5/	90	mm
f/2.5/	90	mm
f/2.8/	120	mm
f/2.8/	150	mm
f/3.4/2	200	mm
f/2.8/	70 -	120 mm*
* only u	p to	24 x 36 mm forma

230 V / 50 Hz

240 V / 50 Hz

115 V/60 Hz

Projector, complete with 2 lamps 24 V/250 W and IR remote control (without battery), without lens

(The "P2" lenses do not fit the PRADOVIT 153 / 253 / P 2002 or any earlier Pradovit projectors) Accessories starting on page 8-16 Detailed product description page 8-37

### **LEICA** Projectors

LEICA PRADOVIT P 600 IR

Order No.	30 971
Order No.	30 972
Order No.	30 973
Order No.	30 974
Order No.	30 975
Order No.	30 976
Order No.	30 977
Order No.	30 978
Order No.	30 980

Order No.	30 970 _	
Order No.	30 928 _	
Order No.	30 927 _	

Accessories Dissolve projection

Carrying case



#### (PRADOVIT P 600 models)

see page 8-23

#### **Carrying** case

for projector with lens: for easy transport and dust-free storage of projector and lens up to 90 mm focal length

Order No. 37 322 \_

Monitor



for slide viewing in daylight. Universally suitable for all common projectors. (picture 23 x 23 cm, 9 x 9 in)

Order No. 37331

Daylight attachment



Can be set on to the projector housing quickly and easily. Converts the PRADOVIT P 300 and P 600 units into daylight projectors. (picture 30 x 36 cm, 12 x 14 in)

Order No. 37 333 \_\_\_\_\_

Laser pointer



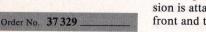
8

Order No. 37 337 \_\_\_\_\_

Magazine track extension



Modern, laser based light pointer. Bundling of the laser beam makes the light point clear and easy to see even in large rooms and daylight.





The magazine track extension is attached on to the front and the back of the projectors and permits the consecutive viewing of several magazines without

#### (PRADOVIT P 600 models)

Range approx. 20 m (65 ft). Connecting cable 0.60 m (2 ft), with connecting plug for 14-pin socket on projector. Power supply via 9 V battery IEC 6 F 22.

Detailed description page 8-35

Multiple connecting socket for simultaneous connection of e.g. sound impulse

**Cable remote-control,** separate with built-in light pointer (3 m, 10 ft)

**Extension cable for separate cable remote-control** (length approx. 10 m, 33 ft)

. Standard British di Bir 13.

**Replacement lamp** for light pointer

ELMARIT-P2 COLORPLAN-P2 COLORPLAN-P2 CF SUPER-COLORPLAN-P2 ELMARON-P2 ELMARIT-P2 ELMARIT-P2 VARIO-ELMARIT-P2 VARIO-ELMARON-P2



generator and cable remotecontrol (6- and 14-pin)

PRADOVIT P 600 / P 600 IR

PRADOVIT P600/P600 IR

f/2.8/ 60 mm f/2.5/ 90 mm f/2.5/ 90 mm f/2.5/ 90 mm f/2.8/120 mm f/2.8/150 mm f/4/250 mm\* f/3.4/200 mm f/2.8/70 - 120 mm\* f/3.5/110 - 200 mm\*

\* only up to 24 x 36 mm format

(Projection lenses marked "P 2" are not compatible with LEICA P 153 / P 253 / P 2002 or any earlier Pradovit projectors)

### **LEICA** Projectors

### Accessories

Infrared remote-control IR PCM

Bestell-Nr.	37 990			
	* * * * *		- a , a' -	9
Order No.	37 631			
		8 4 8		6 A 3
Order No.	37 320			
	57520			
Order No.	37 3 19			
Order Me	37 307			

### **Projection lenses**

Order No.	37 510
Order No.	37 512
Order No.	37 513
Order No.	37 514
Order No.	37 515
Order No.	37 516
Order No.	37 521
Order No.	37 520
Order No.	37 518
Order No.	37 522

Projection

## Accessories

Mains part for the PRADOVIT P 600 IR remote control

As an alternative power supply for the IR remote control when the use of

#### (PRADOVIT P 600 models)

batteries can be avoided e.g. fixed installation.

#### Order No. 37 335 \_

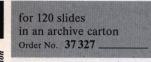
#### Slide-magazines

with 2 magazines for 60 slides each Order No. **37 979** 

with 2 magazines for 80 slides each Order No. **37 980** 

with 2 standard magazines for 36 slides each Order No. 37 844 \_\_\_\_\_\_ with 2 standard magazines for 50 slides each Order No. 37 855 \_\_\_\_\_\_

### Round magazine



**Replacement** parts



Projection lamps, reading-, autofocus- and light-pointer lamps LKM stacking container

#### Stacking container (standard magazines)



Replacement bulbs available from Leica Camera's Customer Service Department, or from your national Leica Camera agency. (Please give exact technical data.)

Detailed accessory descriptions from page 8-29



Automatic 35 mm slide projector in modern design for two magazine systems:

- LKM magazines (compact, spill-proof) for 60 or 80 slides.
- Standard magazines for 36 or 50 slides.

For projection of the 40 x 40 mm format, see page 8-21. Automatic lamp changer. Autofocus with manual override via remote control. Autofocus can be switched off.

Rapid slide change: 1 s.

ELMARON-P ELMARIT-P ELMARON-P ELMARON-P COLORPLAN-P COLORPLAN-P CF SUPER-COLORPLAN-P ELMARON-P ELMARON-P ELMARON-P ELMARON-P ELMARON-P Economy switch. High optical performance with:

- SUPER-COLORPLAN-P 2.5/90 mm
- COLORPLAN-P 2.5/90 mm for glassmounted slides
- COLORPLAN-P CF 2.5/90 mm for other slides.
- Projection lenses with focal lengths from 35 to 300 mm
- Zoom projection lenses 60 - 110 mm and 110 - 200 mm.

f/2.8/ 35 mm <sup>1)</sup> f/2.8/ 50 mm <sup>2) 4)</sup> f/2.8/ 60 mm <sup>3)</sup> f/2.8/ 85 mm f/2.5/ 90 mm f/2.5/ 90 mm f/2.8/120 mm f/2.8/150 mm f/3.4/200 mm f/4 /250 mm f/4.3/300 mm

Projector without lens, but with support 35-200, cable remote control, appliance (mains) cable, change condenser 50-200 and 2 lamps 24 V/250 W

**Extension cable**, 8 pin for remote control (10 m, 33 ft) 1) 2) 3) 4); see page 8-20

### **LEICA Projectors**

## LEICA PRADOVIT P 2002

FWU approved, GS and international examination symbols.

Detailed product description on page 8-41.

#### **LEICA PRADOVIT P 2002**

(can be switched over 110-240 V/50-60 Hz), autofocus, with built-in TRIAC and 14 pin plug according to DIN IEC 571, part 18 A 1, for dissolve control unit, complete with 2 lamps 21 V/250 W, appliance (mains) cable, cable remote control, change condenser, support and lens:

Order No.	30 875	
Order No.	30 876	
Order No.	30 877	
Order No.	30 878	
Order No.	30 879	
Order No.	30 880	
Order No.	30 881	
Order No.	30 882	
Order No.	30 883	
Order No.	30 884	
Order No.	30 885	
Order No.	30 886	
Order No.	30 698	
Order No.	37 957	

Projection

### Accessories

### **Dissolve** projection

Order No. 37 985

Order No. 37961



#### (PRADOVIT P 2002)

See page 8-23

for projector with lenses of up to 120 mm focal length (except for zoom lenses) protecting it against dust, and serving as a projector base with projection area.

Case for projector with lens of up to 250 mm focal length

Case

Hood



**Projector lenses** 

and the second se	
Order No.	37 041
Order No.	37 011
Order No.	37 004
Order No.	37 003
Order No.	37 005
Order No.	37 015
Order No.	37 085
Order No.	37 022
Order No.	37 017
Order No.	37 009
Order No.	37 082
Order No.	34 837
Order No.	37 026
Order No.	37 027

ELMARON-P
ELMARIT-P
ELMARON-P
ELMARON-P
COLORPLAN-P
COLORPLAN-P CF
SUPER-COLORPLAN-P
ELMARON-P
ELMARIT-P
ELMARON-P
ELMARON-P
EPNOR-P
VARIO-ELMARON-P
VARIO-ELMARON-P

- <sup>1)</sup> Only up to 24 x 36 mm format and 45 slides in the LKM-magazine or 30 slides in the standard magazine.
- <sup>2)</sup> Up to 24 x 36 mm format only, not for 80-slide LKM magazine or 50-slide standard magazine.
- <sup>3)</sup> Up to effective 40 x 40 mm format, not for 80-slide LKM magazine or 50-slide standard magazine.
- <sup>4)</sup> Can be used with the standard condenser 50 150.
- 5) Only up to 24 x 36 mm format.

#### (PRADOVIT P 2002)

for 35 – 200 mm focal length and lenses of 42.5 mm diameter for 250 mm focal length for 300 mm focal length

### for 35 mm for 50 - 200 mm (standard condenser) for 250 - 300 mm

for 60 - 120 mm, usable for 60 mm to 200 mm for 250 - 300 mm Aspherical lens for  $40 \times 40$ 

3 m (10 ft), with light pointer

AM stacking box

Cable remote control

light pointer and AF lamps

Sturdy synthetic body.

Interval-setting wheel, adjustable from about 3 to about 30 seconds, figures engraved and inlaid in white 0.60 m (2 ft) cable, 10-pin plug. For use with any PRADOVIT fitted with

14-pin (10 pins in use)

Mains cable

**Projector lamps**,

Replacements obtainable from the Leica Camera Service Center or the local



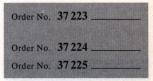
### **LEICA Projectors**

### Accessories

#### Lens sleeves

Order No.	37 1 19
Order No.	37 130
Order No.	34 640

### Interchangeable condensers (24 x 36)



### Interchangeable condensers (40 x 40)

Order No.	37 227
Order No.	37 228
Order No.	37 226

#### Spare parts

Order No. 37 939 \_\_\_\_\_ Order No. 37 644 \_\_\_\_\_

Leica Camera agency. Please state technical details in full.

Timer

8

Timer complete
Order No. 37986

socket.

## Accessories

Infrared Remote-Control IR PCM

complete, without 9 V battery (IEC 6 F 22) Order No. 37 990

Laser pointer



Range about 20 m (65 ft). 0.60 m (2 ft) cable link, plug for projector's 14-pin remote-control socket. Power supplied by 9 V IEC 6 F 22 battery.



Magazine track extension

The magazine track exten-

sion is attached on to the

front and the back of the

Modern, laser based light pointer. Bundling of the laser beam makes the light point clear and easy to see even in large rooms and daylight.

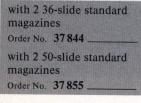
Order No. 37 337 .

Magazine track extension

Order No. 37312 \_\_\_\_

### Magazines

with 2 60-slide magazines Order No. **37 979** \_\_\_\_\_\_ with 2 80-slide magazines Order No. **37 980** \_\_\_\_\_





consecutive viewing of several magazines without pause.

projectors and permits the

LKM stacking box



Stacking box (standard magazines)



Detailed accessory descriptions from page 8-29



For two projectors which are equipped with TRIAC and 14-pin socket according to DIN IEC 574, part 18 A 1. Recording capability of data signals onto cassette and tape. Edit RS-232 for the programming of the dissolve show with an IBM compatible PC. Synchronization with programmable SYNC-marks. Several

#### TIME-CODE

Accessory for the LEICA DU-24 IR PC together with LEICA DCP software. DU-24 IR PC dissolve-control units can be combined for controlling up to 6 projectors.

**Recommended use:** Home projection, professional slide presentation; advertising, teaching and lectures.

Detailed product description on page 8-46.

Detailed product description on page 8-48.

LEICA Dissolvecontrol units LEICA DU-24 IR PC

**Dissolve-control unit LEICA DU-24 IR PC** with IR PC REMOTE CONTROL (incl. batteries), projector coupling cables, cinch-cables and 6.3 mm RCA adapter

Order No. 37 999 .

TIME-CODE

as 37 999, but with TIME-CODE Order No. 37 995 \_\_\_\_\_\_ TIME-CODE-MODULE for DU-24 IR PC Order No. 37 952 \_\_\_\_\_

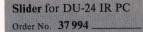
#### Slider

Slider, works digitally for the LEICA DU-24 IR PC for manual presentation and recording on tape or cassette recorder.

Detailed product description on page 8-49



Slider for DU-24 IR PC



## LEICA Dissolvecontrol units

Software LEICA DCP

with PC connection cable and PC adapter Order No. **37 992** 

> Dissolve projection console



Order No. 37972

Order No. 37 325

**Dissolve** console





The software LEICA DISSOLVE CONTROL PROGRAM can be used to program a dissolve show with up to 3 dissolve-control units and 6 projectors directly via an IBM compatible personal computer (PC).

Detailed product description on page 8-48.

For convenience and to avoid vibrations, two projectors can be installed above each other with this console (suitable for all LEICA projectors).

Detailed product description on page 8-49.

for the space saving, safe set-up of two PRADOVIT P 300 or P 600 projectors on top of each other.

Detailed accessory descriptions from page 8-29

## LEICA Dissolvecontrol units LEICA DU-24 IR



For two projectors which are equipped with TRIAC and 14-pin socket according to DIN IEC 574, part 18 A1. Recording capability of data signals onto cassette and tape as well as AV units in free head versions. Recommended use:

Home projection; professional slide presentation; advertising, teaching and lectures.

Detailed product description on page 8-50.

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For manual dissolve control with two projectors and without recording possibilities. With built-in timer that can be switched off.

#### **Usage possibilities:**

Home projection, presentations, advertising, educational and informational areas. Detailed description on page 8-52 Dissolve-control unit LEICA DU-24 IR with IR REMOTE CONTROL (incl. batteries), projector coupling cables, cinch-cables and 6.3 mm RCA adapter.

Order No. 37 998 \_\_\_\_

LEICA DU-24 MT

Order No. 37 996

# LEICA DU-24 M 2

Order No. 37 997



For manual dissolve control of two projectors without recording capability.

#### Recommended use:

Home projection; professional slide presentation; advertising, teaching and lectures.

Detailed product description on page 8-53.

### Specifications and Technical Data

**LEICA Projectors** 



LEICA PRADOVIT P150 models

LEICA PRADOVIT P 150 (Cableremote control)



LEICA PRADOVIT P 150 IR (Infraredremote control)



LEICA PRADOVIT P 150 DU-Set (for dissolve projection) 8

Projection

### LEICA Projectors Specifications and Technical Data

#### Type:

Automatic 35 mm-slide projector.

#### Magazine systems:

LKM-magazines for 60 or 80 slides. Universal magazines for 36 or 50 slides. CS-magazine for 40 or 100 slides.

#### Lens:

High optical performance with COLORPLAN-P2 f/2.5/90 mm

#### **Body:**

8

Modern design, upper body in metallic lacquer. Impactresistant, high-quality synthetic with textured surface. Modular component system facilitates easy servicing. Secure three-point support, precise alignment through two height-adjustable, freely moving knurled screws. On / off switch.

Appliance (mains) cable; neat roll-up facility on projector base; slide preview panel on upper surface.

## Magazine guide and slide transport:

Free access to slide chamber. Convenient slide-in facility for LKM-magazine, straight magazines and CS-magazines. Smooth slide transport through positively guided slide-claw. Projection of differently mounted slides (according to DIN 108). Dark interval only 1.5 s. Random slide-magazine transport backwards and forwards with extended slide-claw. Quiet slide transport and slide change. Slide stage removable for easy editing and sorting.

#### Slide change through:

Remote-control for slide transport forward and reverse, focusing with autofocus override. Slide-change button on cable remotecontrol unit which can be mounted on the projector (P 150 and P 150 DU models) or cable remote control or IR remote control (P 150 model).

#### Autofocus:

The autofocus function with override facility allows focusing adjustment via remote-control. The autofocus is automatically reset to standard after each slide change. The autofocus system is independent to the projector lamp's centering via an infrared focusing system. Optimal setting accuracy.

#### **Illumination system:**

24 V / 150 W halogen lamp – standard feature. Convenient bulb-change. Screen illumination performance in excess of 80 % (with HEKTOR-P 2 f/2.8/85 mm and image size 24 x 36 mm).

#### **Effective light flux:**

according to DIN 19 021; with image size 24 x 36 mm and with HEKTOR-P 2 f/2.8/85 mm: 620 lm.

#### **Cooling system:**

Direct ventilation fan for optimum cooling of slide, halogen lamp and projector. Additional infrared-ray absorption filter (Schottglass) provides additional protection for slides. Quiet, reliable fan cooling performance.

#### Mains connection:

230 V / 50 Hz 240 V / 50 Hz 120 V / 60 Hz 115 V / 60 Hz \*) depending on version

#### **Slide-window temperature:**

According to DIN 19 021: 60 °C (temperature rise 40 K).

#### **Electric safety:**

Insulation features: VDE and GS- and interference suppression symbol; also: SEMKO, NEMKO, DEMKO and SEV-approval. Easily accessible fuse-box.

#### Thermal safety system:

Built-in. Protection from thermal damage.

## Variation of the P 150 IR model:

with infrared remote control but without manual focus override via remote control.

## Variation of the P 150 DU model:

with connection socket for dissolve projection (built in TRIAC) but without manual focus override via remote control.

#### **Dimensions and weight:**

Length: 254 mm (10 in) Width: 250 mm (9.8 in) Height: 123 mm (4.8 in) Weight: approx. 3.60 kg

\*) only as PRADOVIT P 150 basic model

### Specifications and Technical Data LEICA Projectors

Light-pointer with sturdy synthetic housing. Can be mounted on the cable remote-control unit. Power supply via the projector. Focusing with lateral slider. Lamp (Type E 10/13)

12 V/2.8 W.

. . . . .

The new LKM system has five distinct advantages:

- 1. It can be used for all sorts of slide frames up to 2 mm thickness.
- 2. It's spillproof.
- 3. It is compact and spacesaving.
- Its stacking containers easily fit the stacking containers of the standard magazine system, thus facilitating slide storage.
- 5. Slides can easily be removed from the magazine, even when it's in the projector.





Light-pointer \*)

\*) not for P 150 IR model

# LKM magazine system for 60 and 80 slides

### Specifications and Technical Data

### **LEICA** Projectors



## LEICA PRADOVIT P 300 models

LEICA PRADOVIT P 300 (Cable remote control)



#### Type of projector:

Automatic 35 mm slide projector with built-in TRIAC for a dissolve control unit.

#### Magazine systems:

LKM magazines (compact, spill-proof) for 60 or 80 slides. Standard magazines for 36 or 50 slides. CS magazines for 40 or 100 slides.

#### Lenses:

High optical performance with SUPER-COLOR-PLAN-P 2 2.5/90 mm, COLORPLAN-P 2 2.5/90 mm for glass-mounted slides, COLORPLAN-P 2 CF, 2.5/90 mm (curved field) for other slides, projection lenses with focal lengths from 85 to 200 mm and the zoom projection lens 70 - 120 mm.

#### Body:

Modern design. Sturdy high quality synthetic with structured surface and metallic lacquer. Stable three-point set-up, horizontal compensation with two low-friction knurled screws. On/off switch. Integrated appliance (mains) cable with the possibility to roll it up on the base of the projector. Integrated carrying handle. Socket to attach a reading lamp which is available as LEICA PRADOVIT P 300 IR (Infrared remote control)

### LEICA Projectors Specifications and Technical Data

an accessory. Slide previewing on the top of the appliance. Dimmer switch for the lamp.

#### Socket:

Socket, 14 pin for:

- External remote control, extension cable (10 m, 33 ft) additionally applicable.
- Infrared remote control IR PCM (P 300)
- Slide control unit (soundtrack) via multiple socket
- Dissolve control unit DU-24 (see page 8-46)
- Timer for automatic slide presentations with time intervals that can be set (see page 8-35)

# Magazine guide and slide transport:

Free access to the slide space of the projetor. Handy insertion of the LKM, standard and CS magazines. Trouble-free slide transport thanks to the securely guided slide claw. Display of all, also varying kinds of mounts (mounts according to DIN 108). Dark interval between slides is only approx. 1.3 sec. When the slide claw is pulled out, the slide magazines can be moved fore or backwards at will. Slide transport and change occur with minimal sound. When the slide claw is in place, the picture stage can be swung out.

#### Slide change through:

Separate slide changing keys for forward and reverse transport. Autofocus with manual override. Remote control cable with built-in light pointer can be stored in the projector.

#### Autofocus set-up:

The autofocus allows optional correction per remote control (override), without changing the autofocus basic setting. This is effective again after each slide change. The autofocus set-up, due to a separate measuring system, is independent of the centring of the projection lamp. High focusing accuracy.

#### **Illuminating system:**

24 V/250 W tungsten halogen lamp. The unit is delivered complete with lamp. The projection lamps are easy to change. Built-in condenser with a focal length of up to 200 mm. Illumination performance of over 80 % (in reference to COLOR-PLAN-P 2 2.5/ 90 mm and a image size of 24 x 36 mm).

#### **Effective light flux:**

According to DIN 19 021, with image 24 x 36 mm and COLORPLAN-P 2 2.5/90 mm lens: approx. 900 lm.

#### **Cooling system:**

Direct ventilation fan for optimum cooling of slide, halogen lamp and projector. Additional infrared-ray absorption filter (Schottglass) provides additional protection for slides. Quiet reliable fan cooling performance.

#### Mains connection:

230 V / 50 Hz (euro voltage) 240 V / 50 Hz 115 V / 60 Hz

#### Slide window temperature:

According to DIN 19 021: average of 65 °C (temperature rise 45 K)

#### **Electric safety:**

Insulation features: VDE and GS and interference suppression symbol; also SEMKO, NEMKO, DEMKO and SEV. Easily accessible fuse box, FWU approved.

#### Thermal safety system:

Built-in, protection from thermal damage.

### Dimensions and weight:

Length: 278 mm (11 in), width: 275 mm (10 in), height: 135 mm (5.3 in)

### Specifications and Technical Data LEICA Projectors

Monitor

The monitor is a handy daylight screen for all common projectors. It can be used universally e.g.:

- for bright small -scale slide presentations even in davlight
- · for comfortable, large format slide previewing
- · for transferring slides or small film onto video.

The monitor is a picture screen of approx. 23 x 23 cm  $(9 \times 9 \text{ in})$ , which is combined with a polished tilted mirror

The daylight attachment enables slide viewing without a screen and in davlight. It consists of a tilted mirror - that can be folded together - and a matte screen. Both parts can easily be mounted onto the projector. To achieve the optimum image size, it is recommendable to use an 85 or 90 mm lens.

Modern, laser based light pointer (laser class II) in full metal version. The light point remains bright and clearly visible even in daylight due to the bundling of the laser beam. With a range of 50 m (164 ft), it is also suitable for large rooms.



and housed in a flat body. Folded together, with a secured mirror, the unit can be transported comfortably. Dimensions (folded together) 325 x 275 x 35 mm.



The size of the matte screen is approx. 30 x 36 cm (12 x 14 in). Can be used on LEICA P 155/P 255 and PRADOVIT P 300/P 300 IR as well as P 600/P 600 IR projectors



Laser pointer

Davlight attachment

### Specifications and Technical Data

### Magazine track extension



The two-piece magazine track extension is simply attached to the front and back of the projector's track. It permits magazine changes to be made without pressure or pause in between.

#### **Dimensions:**

front extension: approx. 34 cm (13.4 in) rear extension: approx. 33 cm (13 in)

### Specifications and Technical Data LEICA Projectors

For use with any projector fitted with a 14-pin socket according to DIN 45351.

Robust synthetic body with black grained surface. Interval-setting wheel, adjustable from about 3 s to 30 s, figures engraved and inlaid in white. 0.60 m (2 ft) cable, 10-pin plug. The cable is long enough for any desired set-up next to the projector. The Timer is suitable for the following projectors: PRADOVIT 2002, LEICA P 2000, PRADOVIT COLOR 2. PRADOVIT CA 2502, and PRADOVIT 2500 equipped for fade control. LEICA P155 / P255 models, LEICA P153 / P253 models,

Range about 20 m (65 ft). Detector in robust plastic housing, modern design. 0.60 m (2 ft) cable link with connecting plug for the projector's 14 pin remotecontrol socket. Transmitter in handy, robust synthetic housing. Powered by 9 v IEC TT 6 LF 22 battery. Four transmitting channels with a push-button each for slide transport forward, slide transport reverse, and focusing forward and focusing reverse. Pushbuttons conveniently arranged.



and for PRADOVIT 153/253 models and PRADOVIT P 300 / P 300 IR. Please contact the Leica Camera Service Centre or your national Leica Camera agency for information on connecting other PRADOVIT projectors.

#### **Dimensions:**

Length: 65 mm (2.6 in) Width: 50 mm (2 in) Height: 23.5 mm (1 in).



#### **Dimensions and weight:**

IR detector: Length: 130 mm (5.1 in) Width: 63 mm (2.5 in) Height: 32 mm (1.3 in) Weight: 0.140 kg. IR transmitter: Length: 140 mm (5.5 in) Width: 52 mm (2 in) Height: 27 mm (1 in) Weight: 0.080 kg. Timer C

Infrared remote-control IR PCM

### LEICA Projectors Specifications and Technical Data

### **Reading lamp**



### LKM magazine system for 60 and 80 slides



Adjustable to any position, through rotation on socket connection and flexible neck. On / off setting by turning the back of the reflector. "I" = ON; "O" = OFF. Halogenlamp 12 V/5 W.

The new LKM system has five distinct advantages:

- 1. It can be used for all sort of slide frames up to 2 mm thickness.
- 2. It's spillproof.
- 3. It is compact and spacesaving.
- Its stacking containers easily fit the stacking containers of the standard magazine system, thus facilitating slide storage.
- 5. Slides can easily be removed from the magazine, even when it's in the projector.

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### **LEICA** Projectors

LEICA PRADOVIT P 600 models

LEICA PRADOVIT P 600 (Cable remote control)



### LEICA PRADOVIT P 600 IR (Infrared remote control)

#### **Type of projector:**

Automatic 35 mm slide projector with built-in TRIAC for a dissolve control unit.

#### Magazine systems:

LKM magazines (compact, spill-proof) for 60 or 80 slides. Standard magazines for 36 or 50 slides. CS magazines for 40 or 100 slides and round magazines for 120 slides.

#### Lenses:

9/95

High optical performance with SUPER-COLOR-PLAN-P 2 2.5/90 mm, COLORPLAN-P 2 2.5/90 mm for glass-mounted slides, COLORPLAN-P 2 CF, 2.5/90 mm (curved field) for other slides, projection lenses with focal lengths from 60 to 250 mm and the zoom projection lenses 70 - 120 mm and 110 - 200 mm.

#### **Body:**

Chassis of solid diecast aluminum. Upper body of sturdy, high quality synthetic with structured surface and metallic lacquer. Stable three-point set up. Horizontal compensation with the handy knurled screws. Separate connection cable. On/off switch. Slide previewing on the top of the unit. Dimmer switch for the lamp. olection

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### LEICA Projectors Specifications and Technical Data

#### Socket:

Socket, 14 pin for:

- External remote control, extension cable (10 m, 33 ft) additionally applicable.
- Infrared remote control **IR PCM (P 300)**
- · Slide control unit (soundtrack) via multiple socket
- Dissolve control unit DU-24 (see page 8-23)

#### Magazine guide and slide transport:

Free access to the slide space of the projetor. Handy insertion of the LKM. standard, CS and round magazines.

Trouble-free slide transport thanks to the securely guided slide claw. Display of all, also varying kinds of mounts (mounts according to DIN 108). Dark interval between slides is only approx. 1.3 sec. When the slide claw is pulled out, the slide magazines can be moved fore or backwards at will. Slide transport and change occur with minimal sound. When the slide claw is in place, the picture stage can be swung out.

#### Slide change through:

Separate slide changing keys for forward and reverse transport. Autofocus with manual override. Remote control cable with built-in light pointer (P 600) can be stored in the projector. A laser pointer (laser class II) is built into the remote control of the P 600 IR.

#### Autofocus set-up:

The "intelligent" autofocus differentiates between glassless and glass covered slides and focuses accordingly. In addition, it allows optional correction per remote control (override), without changing the autofocus basic setting. This is effective again after each slide change. The autofocus set-up, due to a separate measuring system, is independent of the centring of the projection lamp. High focusing accuracy. The autofocus can be switched off entirely for special slide shows (e.g. panorama).

#### **Illuminating system:**

Automatic lamp changer, with 2 24 V/250 W halogen lamps. Use of the reserve lamp is signalized by a light diode on the back of the unit. The unit is delivered complete with lamps. The projection lamps are easy to change by simply removing the aspherical lens. Built-in change condenser for 60 - 150 mm lenses and focal lengths of over 150 mm. Illumination performance of over 80% (in reference to COLORPLAN-P2 2.5/ 90 mm and a image size of 24 x 36 mm).

#### **Effective light flux:** According to DIN 19021. with image 24 x 36 mm and COLORPLAN-P2 2.5/90 mm lens: approx. 950 lm.

#### **Cooling system:**

Direct ventilation fan for optimum cooling of slide, halogen lamp and projector. Additional infrared-ray absorption filter (Schottglass) provides additional protection for slides. Quiet reliable fan cooling performance.

#### Mains connection:

230 V / 50 Hz (euro voltage) 240 V / 50 Hz 115 V/60 Hz

Slide window temperature: According to DIN 19021: average of 65 °C (tempera-

ture rise 45 K)

#### **Electric safety:**

Insulation features: VDE and GS and interference suppression symbol; also SEMKO, NEMKO, DEMKO and SEV. Easily accessible fuse box, FWU approved.

Thermal safety system: Built-in, protection from

thermal damage.

**Dimensions and weight:** Length: 310 mm (12 in), width: 280 mm (11 in), height: 135 mm (5.3 in) Weight: approx. 6.50 kg

### Specifications and Technical Data LEICA Projectors

Range about 20 m (65 ft). Detector in robust synthetic housing, modern design. 0.60 m (2 ft) cable link with connecting plug for the projector's 14 pin remotecontrol socket. Transmitter in handy, robust synthetic housing. Powered by 9 v IEC TT 6 LF 22 battery. Four transmitting channels with a push-button each for slide transport forward, slide transport reverse, and focusing forward and focusing reverse. Pushbuttons conveniently arranged.

#### The new LKM system has five distinct advantages: 1. It can be used for all

- sort of slide frames up to 2 mm thickness.
- 2. It's spillproof.
- 3. It is compact and spacesaving.
- 4. Its stacking containers easily fit the stacking containers of the standard magazine system, thus facilitating slide storage.
- 5. Slides can easily be removed from the magazine, even when it's in the projector.



**Dimensions and weight:** IR detector: Length: 130 mm (5.1 in) Width: 63 mm (2.5 in) Height: 32 mm (1.3 in) Weight: 0.140 kg. IR transmitter: Length: 140 mm (5.5 in) Width: 52 mm (2 in) Height: 27 mm (1 in) Weight: 0.080 kg.



Infrared remote-control **IR PCM** 

### LKM magazine system for 60 and 80 slides

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### LEICA Projectors Specifications and Technical Data

### Round magazine



The round magazine can hold 120 slides of up to 2.4 mm thickness. It is ideal for larger presentations without magazine change or also for endless projection, e.g. for commercial use (only for P 600/P 600 IR and similar units).

### Specifications and Technical Data

### **LEICA** Projectors



#### Type of projector:

Automatic 35 mm slide projector with built-in TRIAC for a dissolve control unit.

#### Slide formats:

Optimised for the  $24 \times 36$  mm format. For projection of the  $40 \times 40$  mm format a special condenser and aspherical  $40 \times 40$  mm illuminating lens should be used.

#### Magazine systems:

LKM magazines (compact, spill-proof) for 60 or 80 slides. Standard magazines for 36 or 50 slides.

## Magazine guide and slide transport:

Free access to the slide space of the projector. Handy insertion of both the LKM and standard magazines. Easy switching between LKM and standard magazine with swivelling arm on the slide claw. It is simple to guide the slide magazine in the magazine trough. Good sliding properties. Trouble-free slide transport thanks to the securely guided slide claw and sliding elements made of stainless steel. Display of all, also varying kinds of mounts (mounts according to DIN 108). Dark interval between slides is only approx. 1 sec. Automatic closure of the slide when an empty claw is moved into the optical path. Slide transport and change occur with minimal sound. When the slide claw is pulled out, the slide magazines can be moved fore or backwards at will.

#### **Body:**

High-quality aluminium die cast of stylish design and optimum stability. Silver grey metallic finish and dark centre band lend an elegant appearance. Quiet high precision function. Exceptionally stable three-point set-up, precise horizontal compensation with two knurled screws. Socket for mains cable. On/off switch. Economy switch for the lamp. Slide change button. Carrying handle.

## LEICA PRADOVIT P 2002

From wide angle projection to the bridging of long distances Automatic lump changer Light diode tat the lear of the projector series when the projector series when the projector series when the distance lamp is in usy relia end complete with relia end complete with lamps. Optimizin lump bettere complete with bettere complete with bettere a complete with bettere a

### **LEICA Projectors**

### Specifications and Technical Data

#### Lenses:

High optical performance and optimum image quality with SUPER-COLORPLAN-P 2.5/90 mm, COLORPLAN-P 2.5/90 mm for glassmounted slides, COLOR-PLAN-P CF 2.5/ 90 mm (curved field) for other slides, as well as projection lenses with focal lengths from 35 to 300 mm. Meeting all requirements from wide angle projection to the bridging of long distances.

#### **Illuminating system:**

Automatic lamp changer. Light diode (at the rear of the projector) warns when the reserve lamp is in use. Two 24 V/250 W tungsten halogen lamps. The unit is delivered complete with lamps. Optimum lamp centering carried out in the factory. The projection lamps are easy to change. Lamp housing with additional shield housing. Modern aspherical illumination system, optimised for the 35 mm format. Replaceable condenser lens elements - for 24 x 36 mm format: 35 mm lens, 50 - 200 mm lenses, 250 - 300 mm lenses. At request, format 40 x 40 mm is also possible - by exchanging the aspherical condenser lens and the interchangeable condenser for 60 - 200 mm lenses and 250-300 mm lenses.

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Illumination of the slides in conjunction with the aspherical condenser system radiantly bright from corner to corner. Illumination performance of over 80% (in reference to COLORPLAN-P 2.5/90 mm and a image size of 24 x 36 mm). Dimmer switch (separate switch) approximately doubles the life of the lamp.

#### **Effective light flux:**

According to DIN 19 021, with image 24 x 36 mm and COLORPLAN-P 2.5/90 mm lens: 950 lm.

Slide window temperature: According to DIN 19021: average of 69 °C (temperature 49 K).

#### Autofocus set-up:

Automatic focusing with override. Motorised focusing can be switched off. Rapid response sensitivity due to the silicium photo elements. High focusing accuracy. Autofocus override allows any correction per remote control, without any change in the basic setting, which is fully restored after each slide change. Autofocus device is independent of the centering of the projector lamp due to it's own light source. Focusing takes place already in the dark phase (dissolve projection).

#### Slide change through:

Forwards and reverse with the slide change button on the projector, cable remote control (with focusable light pointer), infrared remote control IR PCM.

Forwards with timer, slide control units (soundtrack), dissolve control units.

#### Sockets:

Socket, 14 pin according to DIN IEC 374, part 18 A1. for connection of DU-24 IR PC, DU-24 IR or DU-24 M2 dissolve control units, infrared remote control IR PCM and timer. Socket, 8 pin for cable remote control. Socket, 6 pin wired according to DIN standards. Facility for connecting soundtrack or slide control units. Simultaneous use of the cable remote control and slide control unit (without additional twin plugs) through these two sockets. Built-in TRIAC for lamp modulation.

#### **Cooling system:**

2 channel blower for optimum cooling. Separate cooling air streams for slide gate and lamp via two channel radial blower. Additionally, a 2.7 mm thick infrared-ray absorption filter (KGI-glass) provides additional protection for slides. Extremely quiet blower performance.

### Specifications and Technical Data LEICA Projektors

Mains connection:

Voltage selector 110 – 210 V/ 50 – 60 Hz.

#### **Electric safety:**

VDE and GS and interference suppression symbol; also SEMKO, NEMKO, DEMKO and SEV. FWU approved.

Thermal safety system: Built-in, protection from thermal damage.

#### Dimensions and weight:

Length: 335 mm (13 in), width: 270 mm (10 in), height: 165 mm (6.5 in) Weight: depending on equipment approx. 9.0 kg.

> Dimensions and weight: IR detector: Length: 130 cmn (5 in) Width: 65 mm (2.5 in) Height: 32 mm (1.5 in) Weight: 0.140 kg. IR transmitter: Longth: 140 mm (5.3 in) Width: 52 mm (2 in) Height: 27 mm (1 in) Weight: 27 mm (1 in)

#### Standard outfit:

Projector with carrying handle. Detachable 2.5 m (8 ft) long cable. Two tungsten halogen lamps, main lamp centred in the factory. Cable remote control, 3 m (10 ft), detachable, with light pointer. Customer's choice of projector lens (35 mm to 300 mm).

Range about 20 m (65 ff): Detector in robust synthetic housing, modern design, 0.60 m (2 ft) cahle link, with connecting plug for the projector's 14-pin remotecontrol socket. Transmitter in handy, rohast synthetic housing. Powered by 9 y

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### **LEICA Projectors**

### Specifications and Technical Data

### Timer



For use with any projector fitted with a 14-pin socket according to DIN 45 351.

Robust synthetic body, with black grained surface. Interval-setting wheel, adjustable from about 3 s to 30 s, figures engraved and inlaid in white. 0.60 m (2 ft) cable, 10-pin plug. The cable is long enough for any desired set-up next to the projector.

Infrared remote-control IR PCM



Range about 20 m (65 ft). Detector in robust synthetic housing, modern design. 0.60 m (2 ft) cable link, with connecting plug for the projector's 14-pin remotecontrol socket. Transmitter in handy, robust synthetic housing. Powered by 9 v IEC 6 F 22 battery. Four The Timer is suitable for the following projectors: PRADOVIT P 2002, LEICA P2000, PRADOVIT COLOR 2, PRADOVIT CA 2502, and PRADOVIT 2500 equipped for fade control. LEICA P155 / P255 models. the LEICA P153 / P253 and for PRADOVIT 153/253 models as well as PRADOVIT P300/P300 IR. Please contact the Leica Service Centre or your national Leica agency for information on connecting other PRADOVIT projectors.

### **Dimensions:**

Length: 65 mm (2.6 in) Width: 50 mm (2 in) Height: 23.5 mm (1 in).

transmitting channels with a push-button each for slide transport forward, slide transport reverse and focusing forward and focusing reverse. Push-buttons conveniently arranged.

### **Dimensions and weight:**

IR detector: Length: 130 mm (5 in) Width: 63 mm (2.5 in) Height: 32 mm (1.3 in) Weight: 0.140 kg. IR transmitter: Length: 140 mm (5.5 in) Width: 52 mm (2 in) Height: 27 mm (1 in) Weight: 0.080 kg.

Projection

### Specifications and Technical Data

### **LEICA** Projectors

LKM magazine system

for 60 and 80 slides

The new LKM system has five distinct advantages:

- 1. It can be used for all sort of slide frames up to 2 mm thickness.
- 2. It's spillproof.
- 3. It is compact and spacesaving.
- Its stacking containers easily fit the stacking containers of the standard magazine system, thus facilitating slide storage.

The modern, laser based light pointer (laser class II) in full metal version. The light point remains bright and clearly visible even in daylight due to the bundling of the laser beam. With a range of 50 m it is also suitable for large rooms.

The two-piece magazine track extension is simply attached to the front and back of the projector. It permits magazine changes to be made without pressure or pause in between.



5. Slides can easily be removed from the magazine, even when it's in the projector.



**Dimensions:** front extension: approx. 275 mm rear extension: approx. 275 mm Laser pointer

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Magazine track extension

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8-45

LEICA Dissolvecontrol units LEICA DU-24 IR PC

Specifications and Technical Data



For two projectors which are equipped with TRIAC and 14-pin socket according to DIN IEC 574, part 18 A1. Recording capability of data signals onto cassette and tape. Edit RS-232 for the programming of the dissolve show with an IBM compatible PC. Synchronization with programmable SYNC-marks, Several dissolve-control units DU-24 IR PC can be combined for controlling up to 6 projectors. Dissolve shows which have been recorded with the dissolve units Leitz DU-24 A and LEICA **DU-24 P on multichannel** tape or cassette recorders can be replayed.

#### **Description and functions:**

- Control unit for soft and hard dissolves.
- 9 selectable dissolve times: CUT (hard dissolve), 1, 2, 3, 4, 6, 10, 18 and 30 seconds.
- Timer operation for dissolves with 5 different intervals.
- 24 V power supply through projectors with built-in TRIAC for lamp control.

- Standardized digital data signal controls the dissolve of the projectors.
- A signal can be recorded on a compatible multichannel cassette or multichannel tape recorder without difficulty.
- The connection to the multichannel cassette or multichannel tape recorder is done via a cinch cable.
- Two marked cables [each 1.70 m (5'6")] connect control unit and projectors.
- Edit "RS-232" for the direct connection of an IBM compatible PC.
- LED display shows sequence of functions and status display of projectors.
- Display to indicate the slide magazine position and for the input comfirmation shown as a respective code number.

rojection

### Specifications and Technical Data

## Control buttons and functions:

- "LINE UP" / "RESET"button: For basic focus setting, to line up projectors and reset the projectors to the starting position (Reset).
- "DISS" button (dissolve): To start two different dissolve times.
- When "DISS" and "LINE UP" / "RESET" are pressed simultaneously, a reverse dissolve follows.
- "SYSTEM"-switch: For the adaptation of the projectors being used and for the replay of dissolve shows which have been recorded with dissolve-control units LEITZ DU-24 A or LEICA DU-24 P.
- "ADDRESS" / "REC"switch: For recording and replay. For the assigning of the control unit to selected address in the software when programming with PC and several projectors.

### Infrared remote control:

- Cable free remote control up to a range of approx. 20 m (66 ft).
- Nine buttons for the different dissolve times; with subsequent slide change.
- "REV" button for a reverse step of the slide magazine and subsequent reverse dissolve.

- "FREEZE" button to interrupt an ongoing dissolve process.
- "PULSE" button to create a pulsing projection image.
- "PRESET A" and "PRESET B" buttons for selection of the projector.
- Transport button for the individual forward or reverse transport of the slide magazines for special effects.
- Focus button for manual focus correction (Override) of the projecting projector.
- "AUX" 1, 2, and 3 Button allows the control of electric peripheral instruments, e. g., additonal projector for a title fade-in.

#### Cable remote control:

- A 3 m (9.8 ft) separate cable remote control from the projectors PRADOVIT P 300 / P 300 IR (code no. 37 318)
- Distances of up to 50 m (164 ft) are possible with 10 m (33 ft) extension cords (code no. 37 319).
- Three dissolve times and reverse.
- Focus button for manual focus correction (Override) of the projecting projector.
- Lightpointer.

### LEICA Dissolvecontrol units

### **Compatible projectors:**

- All automatic 35 mm projectors which have a TRIAC and a 14-pin socket are compatible with the control unit DU-24 IR PC. For instance, the LEITZ PRADOVIT and LEICA projectors which are equipped for dissolve such as the PRADOVIT P 2002 LEICA P2000, PRADOVIT COLOR 2, LEICA P153 DU/P253 DU, LEICA P155 DU and LEICA P 255 DU, PRADOVIT P 300 / P 300 IR, PRADOVIT P 600/ P 600 IR.
- A prerequisite for a problem-free projection is combining instruments only of the same type. The projectors cannot be "mixed".

### **Dimensions and weights:**

Dissolve unit: Length: 176 mm (6.9 in) Width: 210 mm (8.3 in) Height: 44 mm (1.7 in) Weight: approx. 978 g IR-remote control: Length: 134 mm (5.3 in) Width: 57 mm (2.2 in) Height: 22 mm (0.9 in) Weight: approx. 110 g

### LEICA Dissolvecontrol units *TIME-CODE*

### Specifications and Technical Data

Accessory for the LEICA DU-24 IR PC in conjunction with LEICA DCP software. Precise synchronisation between the dissolve program and sound. It is fast and easy to check the finished

# Software LEICA DCP

The programming of a dissolve show can also be done with the software LEICA DISSOLVE CONTROL PROGRAM directly via the edit RS 232 with an IBM compatible personal computer (PC). When transferring the data signals onto tape or cassette, the synchronization is done with programmable SYNC-marks. programs. Time referral is perfectly in rhythm. Already built-in to the new unit, or available as an accessory for already existing DU-24 IR PC control unit (order numbers on page 8-23).

Multivisual shows can be arranged by connecting several LEICA DU-24 IR PC control units together. Up to six projectors can be controlled by up to three dissolve units. The programming of a multivisual show is also done with the LEICA DISSOLVE CONTROL PROGRAM software and an IBM compatible PC.

### Specifications and Technical Data

Digitally functioning slider for DU-24 IR PC as of version number 1.10 (older units can be modified by the Leica Camera Service Center). To be connected via the REMOTE socket. "FLIP" key for fast image change. Separate slide transport keys, "forwards" and "reverse". Effects, such as freezing a fade-over, rocking between two images. Free choice of fade-cover times by varying the sliding speed. Reverse fade-overs are possible. All dissolving effects can be recorded with a multi-channel soundtrack or cassette recorder. This

With this console, two projectors are set up vibrationfree above one another. This saves space and moves the optical axis of the dissolve projectors as closely together as possible (optimal registration of the projected

............

### ensure secure installation. Dimensions and weight:

image). Two rubber strips

Length: 325 mm (12.8 in) Width: 355 mm (14 in) Height: 300 mm (11.8 in) Weight: 4.2 kg



makes synchronisation of sound with the projectors easy. Connection cable 1.70 m (5 ½ ft) long. Extension is not possible.

Dimensions and weight: Length: 165 mm (6.5 in) Width: 60 mm (2.4 in) Height: 25 mm (1 in) Weight: 280 g.

### LEICA Dissolvecontrol units

Slider for DU-24 IR PC

# Dissolve projection console



24 V power supple
 through the projectors
 with built in TRIAC for
 introp control
 Standardized digital
 data signal controls the
 dissolve of the projectors

LEICA Dissolvecontrol units LEICA DU-24 IR

Specifications and Technical Data



For two projectors which are equipped with TRIAC and 14-pin socket according to DIN IEC 574, part 18 A 1. Recording capability of data signals onto cassette and tape.

### **Description and functions:**

- Control unit for soft and hard dissolves.
- Selectable dissolve times: (CUT (hard dissolve), 2 s and 6 s, or 1 s, 3 s and 10 s.
- Timer operation with 2 different dissolve times and 3 different intervals.
- 24 V power supply through the projectors with built-in TRIAC for lamp control.
- Standardized digital data signal controls the dissolve of the projectors.

- A signal can be recorded on a compatible multichannel tape or cassette recorder without difficulty. Also, the recording can be done with AV tape or cassette recorder (freehead).
- The connection is done via a 6-pin socket or cinch socket.
- Two marked cables [each 1.70 m (5'6")] connect control unit and projectors.
- LED display shows sequence of functions and status display of projectors.

### Specifications and Technical Data

## Control unit buttons and functions:

- "LINE-UP" / "RESET" button: For basic focus setting, to line up the projectors and to reset the projectors to the starting position.
- "DISS" button (dissolve): To start the dissolve process, six different dissolve times can be selected.
- When "DISS" and "LINE UP" / "RESET" are pressed simultaneously, a reverse dissolve follows.
- "SYSTEM" switch: for the adaptation of the projectors being used.
- "PRESET" switch: for the selection of one of the two dissolve time-series.
- "MODE" switch: for recording ("REC"), replay ("PLAY"), to pre-magnatize and erase with freehead recording instruments ("ERASE"), in addition it is used for the selection of 3 different slide intervals in timer operation.

### Infrared remote control:

- Cable free remote control up to a range of approx. 20 m (66 ft).
- Three buttons for the different dissolve times of the selected dissolve timeseries; with subsequent slide change.
- Focus button for manual focus correction (Override) of the projecting projector.
- "REV" button for a reverse step of the slide magazine and subsequent reverse dissolve.

#### Cable remote control:

- A 3 m (9.8 ft) long separate cable remote control from the projectors LEICA P 155 and LEICA P 255 (code no. 37 318).
- Distances of up to 50 m (164 ft) are possible with 10 m (33 ft) extension cords (code no. 37 319).
- Six dissolve times and reverse dissolve.
- Focus button for manual focus correction (Override) of the projecting projector.
- Lightpointer

### LEICA Dissolvecontrol units

#### **Compatible projectors:**

 All automatic 35 mm projectors which have a TRIAC and a 14-pin socket are compatible with the control unit DU-24 IR. For instance, the LEITZ PRADOVIT and LEICA projectors which are equipped for dissolve such as the PRADOVIT P 2002, LEICA P 2000, PRADOVIT COLOR 2, LEICA P155 DU, LEICA P 255 DU, PRADOVIT P 300 / P 300 IR. PRADOVIT P 600 / P 600 IR. A prerequisite for a problem-free projection is combining instruments only of the same type. The projectors cannot be "mixed".

### Dimensions and weights:

Dissolve unit: Length: 176 mm (6.9 in) Width: 111 mm (4.4 in) Height: 44 mm (1.7 in) Weight: approx. 560 g IR Remote control Length: 134 mm (5.3 in) Width: 57 mm (2.2 in) Height: 22 mm (0.9 in) Weight: approx. 110 g

8-51

## LEICA Dissolvecontrol units LEICA DU-24 MT

Specifications and Technical Data



For manual dissolve control with two projectors and without recording possibilities.

#### **Description and functions:**

- Compact housing with two handily arranged turning knobs and a dissolve button for alternative operating modes.
- Automatic slide show
- (standing and dissolve times are selected with the turning knobs and released automatically), or manual slide show
- (any standing time can be set via the manual release, with pre-selected dissolve time)
- Attachment of the control unit to the projectors via two marked connection cables (1.70 m, 5.6 ft each)

## Combination possibilities of the projectors

- All automatic 35 mm projectors that are equipped with a TRIAC and a 14 pin socket (according to DIN IEC 574, part 18 A 1) can be used together with the DU-24 MT control unit: e.g. LEITZ PRADOVIT and LEICA projectors that are equipped for dissolve projection as well as PRADOVIT P2002, LEICA P2000, PRADOVIT COLOR 2, LEICA P155 DU/P 255 DU, PRADOVIT P300/P300 IR, PRADOVIT P600/P600 IR
- A prerequisite for problemfree projection is the combination of units of the same type. The projectors cannot be intermixed.

### **Dimensions and weight:**

Length: 131 mm (5.2 in) Width: 67 mm (2.6 in) Height: 26 mm (1 in) Weight: approx. 200 g

### Specifications and Technical Data



LEICA Dissolvecontrol units LEICA DU-24 M 2

For manual dissolve control of two projectors without recording capability.

#### **Description and functions:**

- Housing with slider.
- No dissolve time limits: The fade-in and fade-out of the projectors is set by the speed in which the slider is moved.
- Slide change of the "dark" projector is done through integrated switches in the end position of the control unit.
- The projectors are connected to the control unit with two marked 1.7 m (5'6") cables.

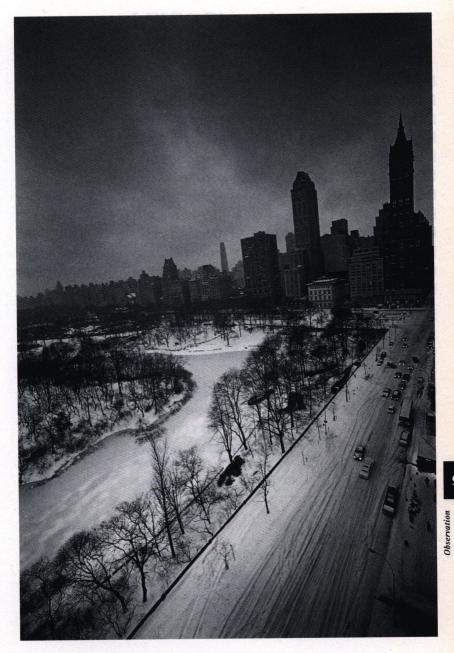
#### **Compatible projectors:**

- · All automatic 35 mm projectos which have a TRIAC and a 14-pin socket according to DIN IEC 574, part 18 A1 are compatible with the dissolve unit DU-24 M2. For instance. the LEITZ PRADOVIT and LEICA projectors which are equipped for dissolve such as the PRADOVIT P 2002, LEICA P 2000, PRADOVIT COLOR 2, LEICA P155 DU, LEICA P 255 DU and PRADOVIT P300/P300 IR, PRADOVIT P600/P600 IR.
- A prerequisite for a problem-free projection is combining instruments only of the same type. The projectors cannot be "mixed".

#### **Dimensions and weight:**

Length: 100 mm (3.9 in) Width: 50 mm (2 in) Height: 26 mm (1 in) Weight: approx. 180 g

## Observation



LEICA M 6 ELMARIT-M f/2.8/28 mm Frieder Blickle

## Observation

## **LEICA Binoculars LEICA Spotting scopes**

<b>Product Range</b>	LEICA binoculars	9-3
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Product Range	LEICA spotting scopes LEICA APO-TELEVID 77	9-19 9-20
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8× 42 mm 5	LEICA APO-TELEVID 77 LEICA TELEVID 77 Eyepieces for LEICA TELEVID	9-20 9-21
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85 42 (200) 5 20 54 19 00 5 600 62 (2000 4	LEICA APO-TELEVID 77         LEICA TELEVID 77         Eyepieces for LEICA TELEVID         spotting scopes         Accessories for LEICA TELEVID         spotting scopes         PHOTOADAPTER         Ever ready cases	9-20 9-21 9-22
85 42 (200) 5 20 54 19 00 5 600 62 (2000 4	LEICA APO-TELEVID 77         LEICA TELEVID 77         Eyepieces for LEICA TELEVID         spotting scopes         Accessories for LEICA TELEVID         spotting scopes         PHOTOADAPTER         Ever ready cases         Front and rear covers (replacement)	9-20 9-21 9-22

Note

**Telescope-Ocular LEICA TO-R** for LEICA R lenses \_

2 - 41

Observation

### **Product Range of LEICA Binoculars**

Model	Magni- fica- tion	Lens dia- meter	Exit pupil	Twilight factor	M/° field of view at 1000 m	Approx. weight	Dimensions Width Depth Height	Code	Page
8 x 20 BC	8 x	20 mm	2.5 mm	12.65	115 m/6.3	220 g	60 mm 35 mm 92 mm	40 305	9-4
8 x 20 BCA green	8 x	20 mm	2.5 mm	12.65	115 m/6.3	225 g	60 mm 35 mm 92 mm	40 307	9-4
8 x 20 BCA black	8 x	20 mm	2.5 mm	12.65	115 m/6.3	225 g	60 mm 35 mm 92 mm	40 3 09	9-4
10 x 25 BC	10 x	25 mm	2.5 mm	15.8	95 m/5.4	240 g	60 mm 36 mm 110 mm	40306	9- 5
0 x 25 BCA green	10 x	25 mm	2.5 mm	15.8	95 m/5.4	245 g	60 mm 36 mm 110 mm	40 308	9-5
10 x 25 BCA black	10 x	25 mm	2.5 mm	15.8	95 m/5.4	245 g	60 mm 36 mm 110 mm	40310	9-5
8 x 32 BA black	8 x	32 mm	4.0 mm	16	135 m/7.7	625 g	117 mm 45 mm 112 mm	40011	9- 6
7 x 42 BA black	7 x	42 mm	6 mm	17.2	140 m/8	890 g	130 mm 57 mm 141 mm	40 013	9- 7
7 x 42 BA green	7 x	42 mm	6 mm	17.2	140 m/8	890 g	130 mm 57 mm 141 mm	40 240	9- 7
8 x 42 BA black	8 x	42 mm	5.25 mm	18.3	130 m/7.44	890 g	130 mm 57 mm 141 mm	40 012	9-8
8 x 42 BA green	8 x	42 mm	5.25 mm	18.3	130 m/7.44	890 g	130 mm 57 mm 141 mm	40 2 39	9-8
10 x 42 BA black	10 x	42 mm	4.2 mm	20.5	110 m/6.3	890 g	130 mm 57 mm 137 mm	40 014	9-9
10 x 42 BA green	10 x	42 mm	4.2 mm	20.5	110 m/6.3	890 g	130 mm 57 mm 137 mm	40 241	9- 9
8 x 50 BA black	8 x	50 mm	6.25 mm	20	115 m/6.6	1150 g	135 mm 72 mm 181 mm	40 066	9-10
10 x 50 BA	10 x	50 mm	5 mm	22.36	115 m/6.6	1150 g	135 mm 72 mm 178 mm	40 067	9-1

7 x 42 BDA black	7 x	42 mm	6	mm	17.15	120 m/6.87	1490 g	177,5 mm 80.5 mm 205.5 mm	40 022	9-12
7 x 42 BD black	7 x	42 mm	6	mm	17.15	120 m/6.87	1350 g	177,5 mm 80.5 mm 205.5 mm	40 023	9-13

B = Viewing with eyeglasses

Observation

LEICA TRINOVID 8 x 20 BC 8 x 20 BCA

**Compact binoculars** 



LEICA TRINOVID 8 x 20 BC

Compact high-performance binoculars. Ideal where compact light-weight binoculars

Magnification: Lens diameter: Exit pupil: Twilight factor: Field:

Close-range focus to:

Central drive, true internal focusing. Optical adjustment  $\pm$  3.5 diopters. Adjustable eyecups, interchangeable soft rubber support. Folding binoculars, eyebase adjustable from 32 mm to 83 mm (1.3 to 3.3 in). Ribbed central section and tubes finished in leather (BC) or in green or black



LEICA TRINOVID 8 x 20 BCA

are required. Metal construction.

8 x 20 mm 2.5 mm 12.65 6.3° = 115 m at 1000 m range 3 m (10 ft)

rubber (BCA); exposed external metal parts black anodized or green enamelled.

Dimensions (folded): 60 mm (2.4 in) wide, 35 mm (1.4 in) deep, 92 mm high (3.6 in)

Weight: BC 220 g, BCA 225 g

Detailed product description on page 9-15.

LEICA TRINOVID 8 x 20 BC with neck cord Order No. 40 305 \_\_\_\_

LEICA TRINOVID 8 x 20 BCA green with neck cord Order No. 40 307 \_\_\_\_

LEICA TRINOVID 8 x 20 BCA black with neck cord Order No. 40 309 \_\_\_\_

Accessories for 8 x 20 BC and 8 x 20 BCA Soft nappa leather case Order No. 42 198



LEICA TRINOVID 10 x 25 BC

Compact binoculars for high magnification. Superb optical performance. The

Magnification: Lens diameter: Exit pupil: Twilight factor: Field:

Close-range focus to:

Central drive, true internal focusing. Optical adjustment  $\pm$  3.5 diopters. Adjustable eyecups, interchangeable soft rubber support. Folding binoculars, eyebase adjustable from 32 mm to 83 mm (1.3 to 3.3 in). Ribbed central section and tubes finished in leather (BC) or in green or black



LEICA TRINOVID 10 x 25 BCA

ideal mini-size leisure binoculars. Metal construction.

10 x 25 mm 2.5 mm 15.8 5.4° = 95 m at 1000 m range 5 m (16 ft)

rubber (BCA); exposed external metal parts black anodized or green enamelled.

Dimensions (folded): 60 mm (2.4 in) wide, 36 mm (1.4 in) deep, 110 mm (4.3 in) high. Weight:

BC 240 g, BCA 245 g

Detailed product description on page 9-15.

### **LEICA Binoculars**

LEICA TRINOVID 10 x 25 BC 10 x 25 BCA

**Compact binoculars** 

LEICA TRINOVID 10 x 25 BC with neck cord Order No. 40 306

LEICA TRINOVID 10 x 25 BCA green with neck cord Order No. 40 308

LEICA TRINOVID 10 x 25 BCA black with neck cord Order No. 40 310 \_\_\_\_

Accessories for 10 x 25 BC and 10 x 25 BCA Soft nappa leather case Order No. 42 199

## LEICA TRINOVID 8 x 32 BA

All-purpose binoculars



8 x 32 mm 4.0 mm 16.0

range

Lightweight, handy precision binoculars with wide field of view (135/1000 m), good light transmission with exceptional close focus to 3.25 m (10.66 ft). Sliding eyecup. Metal construction.

Magnification:	25 mm C2
Lens diameter:	
Exit pupil:	
Twilight factor:	
Field of view:	

Close-range focus to:

Central drive, true internal focusing, waterproof to a depth of 5 m (16 ft). Diopter adjustment: greater than  $\pm$  3.0 diopters. Folding binoculars, eyebase adjustable from 56 mm to 74 mm (2.2 to 2.9 in). Body fully enclosed in black polyurethane armoring. Eyelets for carrying strap.

 $7.7^{\circ} = 135 \text{ m at } 1000 \text{ m}$ 

3.25 m (10.66 ft.)

Dimensions: Width: 117 mm (4.6 in), depth: 45 mm (1.8 in), height: 112 mm (4.4 in)

Weight: 625 g

Detailed product description on page 9-16.

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Observation

#### LEICA TRINOVID 8 x 32 BA black

with carrying strap and non-slip pad, eyepiece cover, soft nappa leather ever ready case

Order No. 40011



## LEICA TRINOVID 7 x 42 BA

Hunting and night binoculars

Special wide-field hunting and night binoculars with extra-large exit pupil for keeping the object in view even when the support is unstable. Especially suitable for hunting, sailing, and marine use. Sliding eyepiece sleeve. Metal construction.

Magnification:	
Lens diameter:	
Exit pupil:	
Twilight factor:	
Field:	

Close-range focus to:

Central drive, true internal focusing, waterproof to a depth of 5 m (16 ft). Optical adjustment greater than  $\pm$  3.0 diopters. Folding binoculars, eyebase adjustable from 56 mm to 74 mm (2.2 to 2.9 in). Body fully enclosed in black or green positive-grip poly7 x 42 mm 6 mm 17.1 8° = 140 m at 1000 m range 6.3 m (20 ft)

urethane. Eyelets for carrying strap. Dimensions: 130 mm (5 in) wide, 57 mm (2.2 in) deep, 141 mm (5.6 in) high. Weight: 890 g

Detailed product description on page 9-16.

### LEICA TRINOVID 7 x 42 BA black

with carrying strap and non-slip pad, eyepiece cap, soft nappa leather ever-ready case Order No. **40013** 

### LEICA TRINOVID 7 x 42 BA green

with carrying strap and non-slip pad, eyepiece cap, soft nappa leather ever-ready case Order No. **40 240** 

## LEICA TRINOVID 8 x 42 BA

Universal binoculars



Universal wide-field binoculars with medium magnification and large exit pupil. Enhanced performan

for daylight and twilight viewing. Sliding eyepiece sleeve. Metal construction.

Ennanced performance	
Magnification:	8 x
Lens diameter:	42 mm
Exit pupil:	5.25 mm
Twilight factor:	18.3
Field:	$7.4^\circ = 130 \text{ m}$ at 1000 m
	range

5.3 m (17 ft)

urethane. Eyelets for carrying strap.

Dimensions: 130 mm (5 in) wide, 57 mm (2.2 in) deep. 141 mm (5.6 in) high.

Weight: 890 g

Detailed product description on page 9-16.

### LEICA TRINOVID 8x42 BA black

with carrying strap and non-slip pad, eyepiece cap, soft nappa leather ever-ready case Order No. 40012

### LEICA TRINOVID 8 x 42 BA green

with carrying strap and non-slip pad, evepiece cap, soft nappa leather ever-ready case Order No. 40 239

Close-range focus to: Central drive, true internal focusing, waterproof to a depth of 5 m (16 ft). Optical adjustment greater than  $\pm$  3.0 diopters. Folding binoculars, evebase adjustable from 56 mm to 74 mm (2.2 to 2.9 in).

Body fully enclosed in black or green positive-grip poly-

Observation



## LEICA TRINOVID 10 x 42 BA

Universal binoculars

Universal high-performance binoculars with high magnification and extreme closerange focusing. Especially suitable for daylight and twilight viewing, in birdwatching, the observation of animals in general, hunting, and the inspection of architectural and structural details. Sliding eyepiece sleeve. Metal construction.

Magnification: Lens diameter: Exit pupil: Twilight factor: Field:

Close-range focus to:

Central drive, true internal focusing, waterproof to a depth of 5 m (16 ft). Optical adjustment greater than  $\pm$  3.0 diopters. Folding binoculars, eyebase adjustable from 56 mm to 74 mm (2.2 to 2.9 in). Body fully enclosed in black or green positive-grip polyure10 x 42 mm 4.2 mm 20.5 6.3° = 110 m at 1000 m range 4.6 m (15 ft)

thane. Eyelets for carrying strap.

Dimensions: 130 mm (5 in) wide, 57 mm (2.2 in) deep, 137 mm (5.4 in) high.

Weight: 890 g

Detailed product description on page 9-16.

#### LEICA TRINOVID 10 x 42 BA black

with carrying strap and non-slip pad, eyepiece cap, soft nappa leather ever-ready case Order No. **40 014** 

### LEICA TRINOVID 10 x 42 BA green

with carrying strap and non-slip pad, eyepiece cap, soft nappa leather ever-ready case Order No. **40 241** 

## LEICA TRINOVID 8 x 50 BA

High performance, high speed binoculars



Binoculars with high optical performance far into twilight. Thanks to the large

Magnification: Lens diameter: Exit pupil: Twilight factor: Field:

Close-range focus to:

Central drive, true internal focusing, waterproof to a depth of 5 m (16 ft). Optical adjustment, at least  $\pm$  4 diopters. Folding binoculars, eyebase adjustable from 58 to 74 mm (2.2 to 2.9 in).

Body fully enclosed in black positive grip polyurethane.

exit pupil of 6.25 mm, viewing is possible even when the support is unstable.

8 x 50 mm 6.25 mm 20 6.6° = 115 m at 1000 m (3280 ft) range 5.4 m (17 ft 9 in)

Eyelets for carrying straps.

Dimensions: 135 mm (5.3 in) wide, 72 mm (2.8 in) deep, 181 mm (7 in) high.

Weight: 1150 g

Detailed product description on page 9-16.

Observation

### LEICA TRINOVID 8 x 50 BA black

with Neoprene carryingstrap (40 mm, 1.6 in wide), eyepiece cover and a soft nappa leather ever ready case



### High performance, high magnification binoculars with top optical quality and the superb twilight performance of 22.36. The excep-

Magnification: Lens diameter: Exit pupil: Twilight factor: Field:

Close-range focus to:

Central drive, true internal focusing, waterproof to a depth of 5 m (16 ft). Optical adjustment, at least  $\pm$  4 diopters. Folding binoculars, eyebase

adjustable from 58 to 74 mm (2.2 to 2.9 in).

Body fully enclosed in black positive grip polyurethane.

tional close focus of 4.80 m (15 ft 9 in) permits detailed viewing of objects in closer range.

10 x mataconset sightly
50 mm
5 mm constalling com a
22.36
$6.6^\circ = 115 \text{ m} (377 \text{ ft}) \text{ at}$
1000 m (3280 ft) range
4.8 m (15 ft 9 in)

Eyelets for carrying straps.

Dimensions: 135 mm (5.3 in) wide, 72 mm (2.8 in) deep, 178 mm (7 in) high.

Weight: 1150 g

Detailed product description on page 9-16.

### **LEICA Binoculars**

## LEICA TRINOVID 10 x 50 BA

High magnification, high performance binoculars

> LEICA TRINOVID 10 x 50 BA black with Neoprene carryingstrap (40 mm, 1.6 in wide), eyepiece cover and a soft nappa leather ever ready

Order No. 40067

case

## LEICA GEOVID 7 x 42 BDA

Multi-functional. high-tech binoculars with integrated infrared distance meter and electronic compass.



### CLASS 1 LASER PRODUCT

Observation

Detailed product description on page 9-17.

### LEICA GEOVID

7 x 42 BDA with Neoprene carrying strap, eyepiece covers, battery and nappa leather case

Order No. 40022

Optics: Magnification: 7 x Lens diameter: 42 mm Exit pupil: 6 mm Eye relief: 18.5 mm Field of view: 120 m/1000 m Multiple layer coating Adjustable eye base from: 58.5 mm to 71.5 mm (2.3 to 2.8 in)Prism system: Porro Focus range: individual evepiece  $\pm 4$  diopter setting (from approx. 12.5 m [41 ft] to∞) Diopter compensation for difference between left and

right eyes:  $\pm 4$  diopters Twilight factor: 17.15 Geometric light value: 36

### **Distance Meter:**

Measuring range: 25 to 1000 m (with natural objects in bright sunlight with visibility up to 10 km) Accuracy:  $\pm 1 \text{ m}$ Measurement time: max. 0.3 sec.

### Azimuth measurement:

Measuring range: 360° Measuring accuracy: 0.5° (displayed in whole degrees) Angle of tilt:  $\pm 35^{\circ}$ Measuring time: 0.2 sec. Declination:  $\pm 90^{\circ}$  adjustable Interference field compensation: User-determined

### Further Technical Data: Sliding eye cups, metal body.

Spray and salt water resistent (DIN-standard) Power supply: 6 V 2CR5 long-life lithium battery Capacity: approx. 1000 distance/azimuth measurements Eye safety rating: Class 1 according to IEC **Operational** temperature range:  $-25^{\circ}$  to  $+55^{\circ}$  C Storage temperature range:  $-35^{\circ}$  to  $+85^{\circ}$  C Tripod thread: A 1/4" Height: with retracted eyecups: approx. 205.5 mm (8 in) Height: with extended eyecups: approx. 217.0 mm (8.5 in)Width: approx. 177.5 mm (7 in)Depth: approx. 80.5 mm (3 in) Weight: approx. 1490 g



### **Optics:**

Magnifications: 7 x Lens diameter: 42 mm (1.7 in) Exit pupil: 6 mm Eve relief: 18.5 mm Field of view: 120 m/1000 m Multiple layer coating Adjustable eye base from 58.5 mm to 71.5 mm (2.3 to 2.8 in)Prism system: Porro Focus range: individual eveniece  $\pm 4$  diopter setting (from approx. 12.50 m to ∞) Diopter compensation for difference between left and right eyes:  $\pm 4$  diopters Twilight factor: 17.15 Geometric light value: 36

#### **Distance meter:**

Measuring range: from 25 m to 1000 m (with natural objects in bright sunlight with visibility up to 10 km) Accuracy:  $\pm 1$  m Measurement time: max. 0.3 sec. Further technical data: Sliding evecups Metal housing Spray and salt water resistant (DIN standard) Power supply: 6 V lithium battery (type 2 Cr 5) Capacity: approx. 1000 distance measurements Eye safety rating: Class 1 according to IEC Operational temperature range: - 25° to + 55°C Storage temperature range: -35° to 85°C Tripod thread: A 1/4" Height with retracted eyecups: approx. 205.5 mm (8 in) Height with extended eyecups: approx. 217 mm (8.5 in) Width: approx. 177.5 mm (7 in) Depth: approx. 80.5 mm (3 in) Weight: approx. 1350 g

Detailed product description on page 9-17.

### **LEICA Binoculars**

## LEICA GEOVID 7 x 42 BD

High-tech binoculars with integrated infrared distance meter

### CLASS 1 LASER PRODUCT

#### LEICA GEOVID 7 x 42 BD

with Neoprene carrying straps protective cover and battery Order No. **40 023** 

LEICA GEOVID 7 x 42 BD (yard) Measurements in yards with Neoprene carrying straps, protective cover and battery Order No. 40024

Accessories

Order No. Order No. Order No.	42 163 .	
Order No.	42 162 .	

 Order No.
 42 143 \_\_\_\_\_\_

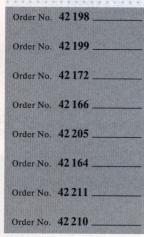
 Order No.
 42 156 \_\_\_\_\_\_\_

 Order No.
 42 144 \_\_\_\_\_\_\_

 Order No.
 42 129 \_\_\_\_\_\_\_

 Order No.
 42 200 \_\_\_\_\_\_

Order No. 42142





Neoprene carrying strap



Floating carrying strap

Neoprene carrying stap, 40 mm wide Floating carrying strap<sup>1)</sup>

Black carrying strap out of perlon fabric, 16 mm wide, with non-slip pad for all TRINOVID BA binoculars (replacement) Neoprene carrying strap for GEOVID (replacement)

Black pair of rubber eye cups (replacement) for TRINOVID 8 x 20 BC and BCA and 10 x 25 BC and BCA Green pair of rubber eye cups (replacement) for TRINOVID 8 x 20 BC and BCA and 10 x 25 BC and BCA

Black eyepiece cap (replacement) for TRINOVID BA binoculars 8 x 32 with sliding eyepiece sleeves

Black eyepiece cap (replacement) for TRINOVID BA binoculars 7/8/10x42 and 8/10x50 with sliding eyepiece sleeves

Green eyepiece cap (replacement) for all TRINOVID BA binoculars with sliding eyepiece sleeves

Eyepiece cap for GEOVID (replacement)

Black soft nappa leather case for TRINOVID 8 x 20 BC and 8 x 20 BCA Black soft nappa leather case for TRINOVID 10 x 22 BC and 10 x 25 BCA Black nappa leather case for TRINOVID 8 x 32 BA Black nappa leather case for all TRINOVID 42's BA

binoculars with sliding eyepiece sleeves Black nappa leather case

for all TRINOVID 50's BA binoculars Ever ready case for GEOVID 7 x 42 BD, for GEOVID 7 x 42 BDA (replacement) Ever-ready case for TRINOVID 8 x 32 BA (Cordura, black with belt strap and belt loop Ever-ready case for TRINOVID 7 / 8 / 10 x 42 BA (Cordura, black, with belt strap and belt loop

<sup>1)</sup> If the LEICA binoculars fall overboard, the bright colored, floating carrying strap keeps them afloat so that them can be spotted and recovered.

Observation

### Specifications LEICA Binoculars

Precision mechanical system: Special space-saving design reduces the overall volume and folds to vest-pocket size.

Extra-light for ease of carrying and fatigue-free viewing. Easy-to-focus central drive. Optical adjustment to user's visual acuity.

Solid all-metal construction ensures perfect long-term retention of adjustment and maximum protection of all optical and mechanical components.

BCA model particularly silent and non-slip.

Maintenance-free. Their true internal focusing system makes these binoculars absolutely dust- and spray water-proof.

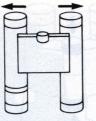
### **High-performance optics:**

The special layout of the optical paths gives these binoculars their elegant flat shape.

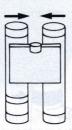
All glass-to-air surfaces specially coated for perfect contrast and a bright image to match the human eye's maximum sensitivity. Pentaprisms made to extremely close angular tolerances for maximum accuracy. Stringent quality control in the selection of all optical elements. Lenses, prisms, and eyepieces are carefully matched.

Shockproof prism mounts fitted with precisionadjusted prisms.

The two optical systems produce the same magnification and are in perfect parallel alignment for fatigue- and headache-free long-term viewing. Optics designed for extra-



Position for viewing



Position for carrying and storage

wide field and enhanced close-range viewing. Special optical design and sliding eyepiece sleeve with rubber eyecups also suitable for use by spectacle wearers. 30 years' warranty.

### LEICA TRINOVID 8x20 BC/BCA 10 x 25 BC/BCA

### LEICA Binoculars Specifications

LEICA TRINOVID 8 x 32 BA 7 x 42 BA 8 x 42 BA 10 x 42 BA 8 x 50 BA 10 x 50 BA

Precision mechanical system: Compact modern construction reduces the overall

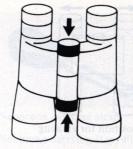
volume as compared with conventional binoculars. Functional, ergonomic design for fatigue-free viewing.

New-type of central drive. Central focusing and optical adjustment to user's visual acuity by triple-function combination central drive.

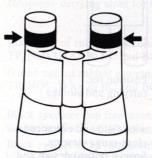
Strong all-metal body ensures perfect long-term retention of adjustment and maximum protection of all optical and mechanical components. Fully enclosed body covered in shockabsorbent, non-slip, soundabsorbent polyurethane armoring.

Special optical design and sliding eyecups also suitable for use with spectacles. True internal focusing system, special sealing, and nitrogen gas filling make these binoculars absolutely dust and water spray proof. Maintenance-free. Watertight to a depth of 5 m (according to DIN). Working temperature range from -25 °C to +55 °C (-13 °F to 131 °F).

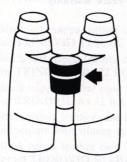
Short focusing path for fast location of focusing plane.



**Conventional central drive:** Separate knob for optical adjustment



Single-eyepiece focusing: No combined control of the two optical systems



New-type central drive: Combined control of both optical systems

### **High-performance optics:**

Stringent quality control in the selection of all optical elements. Lenses, prisms, and eyepieces are carefully matched. For perfect contrast and a bright image, multiple coating of all glassto-air surfaces to match the human eye's maximum sensitivity.

Hard-coated external lens and eyepiece surfaces. Phase-corrected coating of pentaprisms made to extremely close angular tolerances for maximum accuracy. Shockproof prism mounts fitted with precision-adjusted prisms. The two optical systems produce the same magnification and are in perfect parallel alignment for fatigue- and headache-free long-term viewing. Optics for extended widefield and enhanced closerange viewing. Made in Germany. 30 years' warranty.

### Specifications LEICA Binoculars



*LEICA GEOVID* 7 x 42 *BDA* 7 x 42 *BD* 7 x 42 *BD* 7 x 42 *BD* (yard)

Multi-functional, high-tech binoculars with integrated infrared distance meter and electronic compass\*. Sliding eyecups, metal housing.

#### **Mechanical Precision:**

Functional, ergonomic design for fatigue-free viewing. Focusing ability to adjust to the individual visual acuity of both eyes (diopter correction). Sturdy, all-metal housing guarantees long-lasting alignment and the best possible protection of all optics and mechanics. Shock absorbent, rust-proof and sound absorbent fullbody rubber armoring. Unique optical design and rubberized sliding eyecups to optimally accommodate eveglass wearers.

#### **Electronic Compass:**

Azimuth determination to an accuracy of 0.5 degrees due to its electronic, microprocessor-controlled solidstate compass. Additional Through a special sealing technique, protected against the problems caused by dust and water. Spray and salt water resistent (DIN standard). Maintenance free. Working temperature range between -25 °C to +55 °C.

#### **High-performance Optics:**

Extraordinary care is taken with the selection of all optical elements as well as the pairing of lenses, prisms and eyepieces. Leica Multi-Coating on all glass/air surfaces provides excellent contrast and brightness, and is matched to the maximum sensitivity of the human eye. Hard coating of exterior lens and eyepiece surfaces. The prism holders are

sensors determine the effects of gravity to compensate for a  $\pm$  35° binocular tilt. LED display in center of field of view adjusts to brightness of ambient light. installed with perfectly aligned, shockproof mounted prisms. Fatigue free observation even for long time periods (without headaches) as the magnification of both optical systems are identical and absolutely parallel in alignment.

#### **Distance Meter:**

High precision infrared distance meter (accuracy to 1 m). Measuring range from 25 to 1000 m (with good visibility). LED display in center of field of view adjusts to brightness of ambient light. Microprocessor – controlled processing of infrared impulses.

\*) only for LEICA GEOVID 7 x 42 BDA (A = Azimut)

Additionally for LEICA GEOVID 7 x 42 BDA

## LEICA Spotting scopes The range of LEICA spotting scopes

		<b>TELEVID 77</b> ith	LEICA TELEVID 77 with		
	straight sight	angular sight	straight sight	angular sight	
Order No.:	40 104	40 102	40 103	40 101	
Lens diameter:	77 mr	n (3 in)	77 mm (3 in)		
Focal length:	440 mm	(17.3 in)	440 mm (17.3 in)		
Close-up range:	3.90 m	(13 ft)	3.90 m (13 ft)		
Length:	410 mm	1 (16 in)	390 mm	n (15 in)	
Height:	105 mm	n (4 in)	105 mm	n (4 in)	
Depth:	93 mm	(3.7 in)	93 mm	(3.7 in)	
Weight:	169:	5 g	149:	5 g	

LEICA Spotting scopes LEICA APO-TELEVID 77

> High performance spotting scope





Color neutral viewing due to special fluorite glass. Dual focusing for more convenient operation. Robust, waterpressure tight, aluminium alloy housing

- Dual focusing, a choice of two transmission ratios;
   5 or 15 revolutions
- Top optical performance
- Defined close-up range of 3.90 meters (13 ft)
- Water pressure tight (filled with nitrogen gas)

up to a depth of 3 m (10 ft)

- Metal housing (aluminium alloy)
- Lens diameter 77 mm (3 in)
- Eyepiece bayonet
- Adjustable ∞ + 5 dpt.
- Large, rotatable tripod socket (tripod thread 1/3" and 3/8")
- Elegant design

Detailed product description on page 9-25.

9

LEICA

1/4" to 3/8"

Order No. 40104.

### LEICA APO-TELEVID 77 (with angular sight) with front and rear covers, tripod thread 1/4" to 3/8" Order No. 40102

**APO-TELEVID 77** 

(with straight sight)

with front and rear

covers, tripod thread

 Lens diameter:
 77 mm (3 in)

 Focal length:
 440 mm (17.3 in)

 Close-up range:
 3,90 m (13 ft)

 Length:
 410 mm (16 in)

 Height:
 105 mm (4 in)

 Depth:
 93 mm (3.7 in)

 Weight:
 1695 g



High optical quality. Dual focusing for more convenient operation. Robust, water-pressure tight, aluminium alloy housing.

- Dual focusing, a choice of two transmission ratios, 5 or 15 revolutions
- Top optical performance
- Defined close-up range of 3.90 meters (13 ft)
- Water pressure tight (filled with nitrogen gas) up to a depth of 3 m (10 ft)

Metal housing
(aluminium allov)

- Lens diameter: 77 mm (3 in)
- · Eyepiece bayonet
- Adjustable  $\infty + 5$  dpt.
- Large, rotatable tripod socket (tripod thread 1/3" and 3/8")
- Elegant design

Detailed product description on page 9-25.

Lens diameter:	77 mm (3 in)
Focal length:	440 mm (17.3 in)
Close-up range:	3.90 m (13 ft)
Length:	390 mm (15 in)
Height:	105 mm (4 in)
Depth:	93 mm (3.7 in)
Weight:	1495 g

## LEICA Spotting scopes LEICA TELEVID 77

High performance spotting scope

LEICA TELEVID 77 (with straight sight) with front and rear covers, tripod thread 1/4" to 3/8" Order No. 40103

LEICA TELEVID 77 (with angular sight) with front and rear covers, tripod thread 1/4" to 3/8" Order No. 40101

Eyepieces for LEICA TELEVID spotting scopes

> B 20 x WW EYEPIECE

**B 20 x WW EYEPIECE** with bayonet cover and protective cover, case

Order No. 41002.

## B 40 x EYEPIECE



× O + B

20 x eyepiece with top optical performance and exceptionally large field of view

Composition:	6 elements
Magnification:	20 x
Exit pupil:	3.85 mm
Field of view:	3.45°, 60 m
Length (with eye	
cup pushed in):	68 mm
	(2.7 in)
Diameter:	53 mm
	(2 in)
Sliding eyecups:	yes
Weight:	246 g

High magnification 40 x eyepiece with top optical performance and exceptionally compact construction.

Composition:	6 elements
Magnification:	40 x
Exit pupil:	1.93 mm
Field of view:	1.25°, 22 m
Length (with eye-	
cup pushed in):	46 mm
	(1.8 in)
Diameter:	45 mm
	(1.7 in)
Sliding eyecups:	yes
Weight:	102 g

Zoom eyepiece with above average performance, universally usable.

Composition:	8 elements
Magnification:	20 to 60 x
Exit pupil:	3.85 mm
	to 1.28 mm
Field of view:	1.9° to 1.1°
	34 to 19 m
Length (with eye-	
cup pushed in):	73 mm
	(2.9 in)
Diameter:	53 mm
	(2 in)
Sliding eyecups:	yes
Weight:	249 g

with bayonet cover and protective cover, case Order No. **41 003** 

**B** 40 x EYEPIECE

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Observation

B 20 - 60 x ZOOM-EYEPIECE

B 20 - 60 x ZOOM-EYEPIECE with bayonet cover and protective cover, case Order No. 41 001





For attachment of a standard mirror reflex camera to one of the LEICA TELEVID models.

Composition: Focal length (with TELEVID): Light factor: Length: Diameter: Weight:

(Note: To make the connection, a T 2 adapter with the respective camera bayonet is needed.)

7 elements 800 mm (31.5 in) 10.4 129 mm (5.1 in) 58 mm (2.3 in) approx. 250 g LEICA Spotting scopes Accessories

LEICA TELEVID PHOTO ADAPTER

PHOTO ADAPTER with front and rear covers, case

Order No. 42300

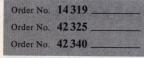
## LEICA Spotting scopes Accessories

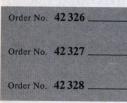
### Ever ready cases

Ever ready cases for LEICA TELEVID models with angular sight Order No. 42 310

Ever ready case for LEICA TELEVID models with straight sight Order No. 42 315

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Observation

Order No. 42 329 \_\_\_\_\_ Order No. 14 268 \_\_\_\_\_ Order No. 14 162 \_\_\_\_\_

Order No. 42 305 \_\_\_\_\_

Due to the special style, the spotting scope can also be used in the ever ready case.

Due to the special style, the spotting scope can also be used in the ever ready case.

Front cover for LEICA TELEVID models (replacement) Rear cover for LEICA TELEVID models (replacement) Tripod connection with 1/4" or 3/8" (replacement)

**Bayonet cover** for LEICA TELEVID EYEPIECES (replacement)

**Protective cover** for B 20 x WW EYEPIECE and B 20-60 x ZOOM EYEPIECE (replacement)

Protective cover for B 40 x EYEPIECE (replacement)

Front cover for PHOTO ADAPTER (replacement) Rear cover for PHOTO ADAPTER (T2 thread/replacement) Rear cover for PHOTO ADAPTER (LEICA bayonet/ replacement)

**T2 adapter** for PHOTO ADAPTER on LEICA R/LEICAFLEX/LEICAFLEX SL/SL2

#### **Precision-mechanics:**

The full metal housing guarantees, optimum, longlasting adjustment and a best possible protection of all the optical and mechanical components. The partial rubber armouring guarantees soundsuppression and improves the grip. Specific scaling measures, as well as nitrogen gas fillings, offer excellent protection against dust or humidity on the inside. Water-pressure tight up to 0.3 bar (equivalent to a water depth of approx. 3 m, 10 ft). Unrestricted use, even with high temperature fluctuations. High operational comfort due to the fast and precise focusing via the dual focusing; option of 5 or 15 revolutions from 3.9 m (13 in) to ∞. Exceptionally large support surface on the tripod connection: rotatable in 45° steps. Changeable eyepieces with locking sliding eyecups. The evepieces can be changed rapidly by the quick change bayonet. To find the viewed object faster, the lenshood has an integrated direction aid.

#### Specifications

High performance optics: Restrictive selection of all optical elements, careful co-ordination of lenses, prisms and evepieces. The large lens diameter (77 mm, 3 in) guarantees high detail definition, even at twilight, with a comfortably large exit pupil, even with higher magnifications. Complicated lens system with three special uncemented lens elements (fluorite glass) which heightens the color neutrality and transmission. All glass-air surfaces are hard coated, adjusted for the maximum sensitivity of the eye, to ensure contrast and brightness. Special optical lay-out and sliding rubber evecups to

sliding rubber eyecups to adapt for eyeglass wearers. Surpassing field of view with the B 20 x WW EYEPIECE of 3.45°, 60 m. Made in Germany. LEICA Spotting scopes LEICA TELEVID models

### Technical information

LEICA Program general	LEICA Carrying straps, Chart and Description	10-2
	general       Description         LEICA equipment, Battery chart       10-3         Cameras       Flash synchronization for LEICA cameras       10-4         Id Lenses       Filter sizes       10-6         Which LEICA WINDER for which       10-7         Adaptation of lenses       10-7         Adaptation of lenses       10-7         Conversion of lenses       10-7         CL lenses on LEICA M cameras       10-7         Existing 28 mm lenses on the LEICA M 4-P       Existing M lenses on the LEICA M 6         Interchangeable lenses of the LEICA M range on the LEICA CL       Existing interchangeable lenses on the LEICA M 5         Projection       Lamps       10-13         Production distances and screen image sizes       10-14         The versatile possibilities of combination in the projector range in fade projection       10-15         Connection of the dissolve unit to tape       10-15	10-3
LEICA R and M Cameras	Flash synchronization for LEICA cameras	10-4
and Lenses	Filter sizes	10-6
		10-7
	Adaptation of lenses	10-8
	Conversion of lenses	
	CL lenses on LEICA M cameras	
	Existing 28 mm lenses on the LEICA M 4-P	
	Existing M lenses on the LEICA M 6	
	Existing interchangeable lenses on the LEICA M5	
Projection	Lamps	10-13
	Production distances and screen image sizes	10-14
		10-15
	Connection of the dissolve unit to tape or to cassette recorders	10-16

List of LEICA models (Family Tree) Tree,

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10-18

## **LEICA** Program

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## LEICA Carrying straps, Chart and Description

Carrying strap	Order No.	Description	Delivered with	Recommended for use with
Carrying strap with slip-guard     14312     Nylon strap vulcanised slip-guard       Carrying strap; wide version     14235     Nylon with leather layer, 30 mm wide, adjustable slip-guard, Leica logo imprinted		vulcanised slip-guard	LEICA R-cameras LEICA M-cameras R 2.8/280 mm R 4/280 mm R 2/180 mm	LEICA R- and M- cameras with lenses up to approx. 180 mm; lenses with longer focal lengths and carrying eyelets
		LEICA M Adaptation a Conversion.	More carrying comfort for heavier equipment, e. g. LEICA R-camera with drive or winder and a heavy lens, R 2.8/280 mm (attachment to lens)	
Carrying strap for R 2.8/400 mm 14311 Wide Nylon strap, plastic snap lock		R 2.8/400 mm	R 2.8/400 mm lens, case for R 2.8/400 mm lens	
carrying strap flexible Nec with worked band, hooks for attachm		Approx. 40 mm wide, flexible Neoprene, with worked-in fabric band, hooks included for attachment to camera/lens	LEICA GEOVID 7 x 42 BDA / BD BA-binoculars of the 50's series	Excellent carrying comfort, e. g. on BA binoculars, LEICA R-camera with drive or winder and heavy lens up to approx. 180 mm focal length
carrying strap floatable wide		Neoprene version,	on · Lamps Production (	BA binoculars when used near water
Binocular carrying strap with slip-guard	42 159	Nylon strap with vulcanised slip-guard	BA binoculars (32, and 42 versions)	BA binoculars (32, and 42 versions)

## **LEICA** Program

## LEICA equipment, Battery chart

	Silver oxide button cells (1.5 V):	LEICA mini	Lithium cells (3 V):
	and have been an an international standard and and and	LEICA mini II	Duracell DL 123 A
LEICA R-cameras	Duracell D 357	LEICA mini zoom	Kodak K 123 LA
(2 required, 4 for	Duracell 10 L 14	LEICA minilux	Panasonic CR 123 A
LEICA R7)	Eveready EPX 76	(1 required)	Sanyo CR 123 A
and many manufacture of the party was	Kodak KS 76	(I required)	Ucar EL 123 A
LEICA M6	Maxell SR 44		Varta CR 123 A
(2 required)	National SR 44		
in miles it is to the	Panasonic SR 44	Remote control IR PCM,	Alkali manganese batterie (9 V):
Databack R4/DB2	Philips 357	PRADOVIT P 150 IR	(9 V):
(2 required)	Ray-o-vac 357	LEICA P 155/255 IR	Duracell MN 1604
	Sony SR 44	PRADOVIT P 300 IR	Kodak K9V
	Ucar EPX 76	PRADOVIT P 600 IR	
	Varta V 76 PX	(1 required)	Ucar 522 Varta 4022
			Varta 4022
		Bart Bartine B	Alkali manganese cells
	Lithium cells (3 V):	5 - 1 - Val	(Micro 1.5 V):
LEICA R-cameras	Duracell DL 1/3 N	Remote control for	Duracell MN 2400
(1 required, 2 for	Kodak K 58 L	DU-24 IR/PC	Kodak K3A
LEICA R7)	Philips CR 1/3 N	(4 required)	Philips LR 03
LEICA K /)		must be set at "Manual" an as	Ucar E 92
LEICA M6	Varta CR 1/3 N		Varta V 2400 PX
(1 required)	antemotive and a start a	fromic flash units on LENCA R	Varta 4003
	e is no longer produced autoin	Databack for	Lithium button cells (3 V
1		LEICA AF-C1,	1 1 1/26 201/16/0
	Mercury button cells	LEICA mini/II	Maxell CR 2025
	(1.35 V):	LEICA mini zoom	Panasonic CR 2025
	1 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LEICA minilux	Sony CR 2025
LEICAFLEX / SL	Duracell PX 625	(1 required)	Varta CR 2025
LEICA M5, LEICA CL	Ucar EPX 625	and the state of the second	Alkali manganese cells
LEICAMETER MR	Varta V 625 PX	sill roams z w y ream	(Mignon 1.5 V):
(1 required)	a second and a second second second second second	MOTOR-WINDER-	(Winghon 1.5 V).
		R/R3/R4	Duracell MN 1500
LEICAFLEX SL 2	1 08 1 4 4 m	(6 required)	Kodak KAA
(2 required)	E	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Ucar E 91
	and the second of the second s	MOTOR-DRIVE-R/R4,	Varta 4006
	141 1411	Motor for	Varta V 1500 PX
THEY AND THE THE	Lithing hattarias (6 M).	LEICAFLEX SL/SL2 mot	valta v 1500 FX
	Lithium batteries (6 V):	(10 required)	Alternativ: NC-recharge
LEICA AF-C1	Duracell DL 245	MOTOR-WINDER-	able batterie
LEICA C2-ZOOM	Eveready EL 2 CR 5	MOTOR-WINDER- M/M4-2/M4-P	A BIMA
(1 required)	Kodak KL 2 CR 2		
	Panasonic 2 CR 5 M	(4 required)	and the second
GEOVID 7 x 42 BDA		1 B	A 244
GEOVID 7 x 42 BD /	Sanyo 2 CR 5		
BD (yards)	Sony 2 CR 5	e la	Lithium button cells (3 V
(1 required)	Ucar 2 CR 5	IR remote exposure release	
(Troquines)	Varta 2 CR 5	for LEICA C2-ZOOM	Sony CR 1220
	1	(2 required, can only	Ucar CR 1220
		be changed by	Varta CR 1220
	the second se	Service department)	Panasonic CR 1220

a backet for electronic flash and has a

## LEICA R and **M** Cameras Flash synchronization

Ty	be of flash	R6/R6.2	R5*/R-E	R4 models *	R3 m	odels *	all LEICAF	LEX models
-31	AV Cardina in	X-contact	X-contact	X-contact	X-contact	M-contact		Q = M-contact
		<b>X</b> ( $\frac{1}{100}$ ) 1 → $\frac{1}{60}$ , <b>B</b>	<b>X, 100</b> ( $^{1}/_{100}$ ) $^{1}/_{2} \rightarrow ^{1}/_{60}$ , <b>B</b>	<b>X</b> , <b>100</b> (1/100) $1 \rightarrow 1/60$ , <b>B</b>	$\frac{X (1/90)}{4 s \rightarrow 1/60, B}$	0.5 V		FRANK S
	AG 1 AG 3 cube	1 → 1/30, <b>B</b>	$1/_2 \rightarrow 1/_{30}, B$	1 → 1/30, <b>B</b>	$4 \mathrm{s} \rightarrow 1/_{30}, \mathrm{B}$	Na shahara Rata Maxa Maxa	1 → 1/30, <b>B</b>	1 → 1/60
lbs	PF 1 XM 1	1 → 1/30, <b>B</b>	$1/_{2} \rightarrow 1/_{30}, B$	1 → 1/30, <b>B</b>	$4 \mathrm{s} \rightarrow 1/_{30}, \mathrm{B}$	masonic SR Philips 15	1 → 1/30, <b>B</b>	1 → <sup>1</sup> /15
Flashbulbs	M 2	$1 \rightarrow 1/60, \mathbf{B}$	$1/2 \rightarrow 1/60, \mathbf{B}$	$1 \rightarrow 1/60, \mathbf{B}$	$4 \mathrm{s} \rightarrow 1/60, \mathrm{B}$	8c=y 58	1 → 1/60, <b>B</b>	W73
Flas	PF 5	1 → 1/30, <b>B</b>	$1/2 \rightarrow 1/30, \mathbf{B}$	1 → 1/30, <b>B</b>	$4 \text{ s} \rightarrow 1/30, \mathbf{B}$	1/125 → 1/1000	1 → 1/30, <b>B</b>	1 → <sup>1</sup> / <sub>125</sub>
Gaa Bre	M 3 GE 5 B	1 → 1/30, <b>B</b>	$1/_{2} \rightarrow 1/_{30}, \mathbf{B}$	1 → 1/30, <b>B</b>	$4 \mathrm{s} \rightarrow 1/_{30}, \mathrm{B}$	1/125 → 1/1000	1 → 1⁄30, <b>B</b>	1 → ½50
icec larr	FP 26 PF 6	1 → 1⁄15, <b>B</b>	$1/_{2} \rightarrow 1/_{15}, \mathbf{B}$	1 → 1/15, <b>B</b>	$4 s \rightarrow 1/_{15}, B$	1/ <sub>30</sub> → 1/ <sub>1000</sub>	1 → 1/15, <b>B</b>	弾い口

\* for flash pictures the camera must be set at "Manual", unless "X" or "100" is used.

With system compatible electronic flash units on LEICA R 4/R 5/R-E models automatic switchover of the camera electronics to "X" (1/100 sec.), when the units is charged. Effective with all modes. With shutter-speed priority and automatic mode the aperture is no longer produced automatically. It closes to the set values.

Type of flash		M 6	all M r from No.		N up to No	CL	
and Male	in Providence in the second seco	X-contact	<b>∉</b> = X-contact	Q = M-contact	<b>∉</b> = X-contact	Q = M-contact	X-contact
electronic			$ \begin{array}{c} \mathbf{B} \rightarrow \not \leftarrow (= 1/50) \\ \mathbf{B} \rightarrow \bullet (= 1/50) \end{array} $	-	<b>B</b> → 1/50	- 5.12 - oti	<b>B</b> − ½0
-93	AG 1 AG 3 cube M 2	$\begin{array}{ccc} \mathbf{AG 3} \\ \mathbf{B} \rightarrow 1/_{30} \\ \mathbf{B} \rightarrow 1/_{30} \\ \end{array} \qquad \qquad$			<b>B</b> → 1/25	4	<b>B</b> → 1/ <sub>30</sub>
	XM 1 B PF 1	$\mathbf{B} \rightarrow 1/_{30}$	MOTOR-WEND M/H4-2/M4	$\mathbf{B} \rightarrow 1/_{60}$	voready HL 2 Kodek KL 2	<b>B</b> → 1/ <sub>50</sub>	-\$3 AO <u>1</u> 33 -\$3 AO <u>1</u> 33 [upon 1]
sqli	PF 5	$\mathbf{B} \rightarrow 1/_{30}$	-	$\mathbf{B} \rightarrow 1/_{60}$	Philip 2 CR	$\mathbf{B} \rightarrow 1/_{100}$	at div <u>a</u> go
Flashbulbs	M 3	$\mathbf{B} \rightarrow 1/_{30}$		$\mathbf{B} \rightarrow 1/_{125}$	500 <u>0</u> 2 CR	(2)	uro (18
Fla	GE 5 B Press 25	$\mathbf{B} \rightarrow 1/_{30}$	for LEICA C2-Z (2 requ <del>n</del> ed, can be changed	<b>B</b> → 1/ <sub>500</sub>	Yana 2 CR	<b>B</b> → 1/500	-
	Press 40 2	$\mathbf{B} \rightarrow 1/_{30}$	Shirie danar		-	-	-
	FP 26 PF 6 3	$\mathbf{B} \rightarrow 1/_{15}$	-	-	-	-	-

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 $\oint$  or X = Socket for electronic flash and hot shoe.  $\bigcirc$  or M = Socket for flashbulb units.

## LEICA R and M Cameras Flashsynchronization

		1	I g, III g	I f, II f, III f		from No. 360	001	up to No. 36	0000
Ty	pe of flash			time red contact number	L	time black co number	ntact	time contact	number
	electronic	¥	red $\frac{B}{4}$ (= 1/30) $\frac{1}{4}$ (= 1/50)	1/50 T, 1 → $1/25$ B	20 0 2	$T, 1 \rightarrow 1/20$	2 2 6	$T, 1 \rightarrow 1/_{20}$	0 4 6,5
	AG 1 AG 3 cube M 2	ŧ	B red ∉ (= ½30)		(13) (15)	(197.04)	i Si deri I In est	Ande order Ander Augusta M. 201 Han M. Augusta Mon Mon	IPCAC PRANC PRANC PRANC PRANC PRANC
	AG 1 AG 3 cube	ß	ER Line	1/15 1/25 1/50 1/75	2 9 8 3	1/15 - 1/20 1/30 1/40 1/60	8 11 8 5	1/20 1/30 1/40 1/60	10 12 8 5
	XM 1 PF 1	ß	B → 1/60 *	1/15 1/20 1/50	2 5 10	1/15 - 1/20 1/30	9 3	1/20 1/30	14 13
Flashbulbs	PF 5	ß	<b>A</b> (beside 30 - 1).	1/15 1/25 1/50 1/75	2 14 11 5	1/15 - 1/30 1/40	16 11	1/20 - 1/30 1/40	14 11
F	GE 5	ß	B → 1/125 * B → 1/125	1/15 1/25 1/50 1/75 1/100 1/200 1/200	2 14 11 6 4 2 1	1/15 - 1/30 1/40 1/60 1/100 1/200	16 11 8 5,5 4	1/20 - 1/30 1/40 1/60 1/100	14 11 9 7
	М3	ß	B → 1/125 *	1/15 1/25 1/50 1/75	2 7 10 6	1/15 - 1/20 1/30 1/40 1/60	9 15 11 8	1/20 1/30 1/40 1/60	14 13 12 10
	All	ß		$\begin{array}{c} \mathbf{B}, \mathbf{T} \\ 1 \rightarrow \frac{1}{10} \end{array}$	2	$\begin{array}{c} \mathbf{B}, \mathbf{T} \\ 1 \rightarrow \frac{1}{10} \end{array}$	o 4 mi	$\begin{array}{c} \mathbf{T}, 1 \rightarrow \frac{1}{8} \\ \mathbf{B} \end{array}$	(
2.5	•		* except setting red or black arrow respectievly	1/2 5/125 pt 1/2 5/125 pt 1/2 8/135 mp 1/2 8/135 mp		100	0 2785	( inter second	EKTOR MART MART MART
(本)の「「「「「」」」」				<ul> <li>114 - 1135 ten</li> <li>1154 - 1135 ten</li> <li>1154 - 1135 ten</li> <li>1154 - 123 ten</li> <li>1154 - 123 ten</li> <li>1154 - 1230 mm</li> </ul>				MAN MAR-M (Bron Larew Haran Marwach (bawach) (bawach)	

## LEICA R and **M** Cameras **Filter sizes**

#### for LEICA M and C lenses and discontinued lenses with screw mount

Examples: A 36 = Slip-on filter, external lens mount diameter 36 mm, E 39 = screw in filter thread, diameter 39 mm, 7 = Series filter size 7

SUPER-ANGULON	Filter
ELMARIL (from Serial No. 3585 865)	E 48 0
ELMARIA M. (from Serial No. 3 583 865)	E 40 C
LEX 10%	E 48 0
EK 10K.	
JAMICEON (from Serial No. 2307451).       //2       /.3 mm         JMMICEON (from Serial No. 2307451).       //2       /.3 mm         JMMICEON (from Serial No. 2307451).       //2       /.3 mm         JMMICEON (from Serial No. 2307451).       //2       /.3 mm         JMMARON (from Serial No. 2307421).       //2       /.3 mm         JMMARON (screw-thread).       //2.3 //3 mm       //3.5 //3 mm         JMMARON (screw-thread).       //3.5 //3 mm       //3.5 //3 mm         JMMARON (screw-thread).       //2.4 //3 mm       //3.5 //3 mm         JMMARON (screw-thread).       //1.4 //3 mm       //3.5 //3 mm         JMMARON (screw-thread).       //1.4 //3 mm       //1.4 //3 mm         OCTILUX (from No. 2919657).       //1.1 //3 mm       //1.4 //3 mm         JMMARON (screw-thread).       //2.4 //3 mm       //1.4 //3 mm         JMMICRON-M       //2.4 //3 mm <td< td=""><td>A</td></td<>	A
JAMPERSON (from Serial No. 2307451).         /// / 35 mm           MMICRON (from Serial No. 2307451).         // / 35 mm           MMICRON (from Serial No. 2307451).         // / 35 mm           MMICRON (from Serial No. 2307451).         // / 35 mm           MMARON (from Serial No. 2307451).         // / 35 mm           MMARON (screw-thread).         // / 35 mm           MMARON (screw-thread, from Serial No. 142141).         // / 35 / 35 mm           MMARON (screw-thread, from Serial No. 142141).         // / 35 / 35 mm           MMARON (screw-thread, from Serial No. 142141).         // / 35 / 35 mm           MMARON (screw-thread, from Serial No. 142141).         // / 1 / 50 mm           MMARON (screw-thread, from Serial No. 142141).         // / 1 / 50 mm           CTILLUX (from No. 2919657).         // / 1 / 4 / 50 mm           OCTILLUX (from No. 2919657).         // / 1 / 4 / 50 mm           MMARAR (from Serial No. 2378901).         // / 2 / 50 mm           MMAR (screw-thread).         // / 2 / 50 mm           MAR (screw-thread).         // / 2 / 50 mm           MMAR (screw-thread).	A
JAMPERSON (from Serial No. 2307451).         /// / 35 mm           MMICRON (from Serial No. 2307451).         // / 35 mm           MMICRON (from Serial No. 2307451).         // / 35 mm           MMICRON (from Serial No. 2307451).         // / 35 mm           MMARON (from Serial No. 2307451).         // / 35 mm           MMARON (screw-thread).         // / 35 mm           MMARON (screw-thread, from Serial No. 142141).         // / 35 / 35 mm           MMARON (screw-thread, from Serial No. 142141).         // / 35 / 35 mm           MMARON (screw-thread, from Serial No. 142141).         // / 35 / 35 mm           MMARON (screw-thread, from Serial No. 142141).         // / 1 / 50 mm           MMARON (screw-thread, from Serial No. 142141).         // / 1 / 50 mm           CTILLUX (from No. 2919657).         // / 1 / 4 / 50 mm           OCTILLUX (from No. 2919657).         // / 1 / 4 / 50 mm           MMARAR (from Serial No. 2378901).         // / 2 / 50 mm           MMAR (screw-thread).         // / 2 / 50 mm           MAR (screw-thread).         // / 2 / 50 mm           MMAR (screw-thread).	E
JAMPERSON (from Serial No. 2307451).         /// / 35 mm           MMICRON (from Serial No. 2307451).         // / 35 mm           MMICRON (from Serial No. 2307451).         // / 35 mm           MMICRON (from Serial No. 2307451).         // / 35 mm           MMARON (from Serial No. 2307451).         // / 35 mm           MMARON (screw-thread).         // / 35 mm           MMARON (screw-thread, from Serial No. 142141).         // / 35 / 35 mm           MMARON (screw-thread, from Serial No. 142141).         // / 35 / 35 mm           MMARON (screw-thread, from Serial No. 142141).         // / 35 / 35 mm           MMARON (screw-thread, from Serial No. 142141).         // / 1 / 50 mm           MMARON (screw-thread, from Serial No. 142141).         // / 1 / 50 mm           CTILLUX (from No. 2919657).         // / 1 / 4 / 50 mm           OCTILLUX (from No. 2919657).         // / 1 / 4 / 50 mm           MMARAR (from Serial No. 2378901).         // / 2 / 50 mm           MMAR (screw-thread).         // / 2 / 50 mm           MAR (screw-thread).         // / 2 / 50 mm           MMAR (screw-thread).	E
MARKON (from Serial No. 2307 451).         //2         / 35 mm           MMICRON (from Serial No. 2487 304).         /72         / 35 mm           MMICRON (from Serial No. 2487 304).         /72         / 35 mm           MMARCON (from Serial No. 2487 304).         /72         / 35 mm           MMARCON (from Serial No. 2487 201).         /72         / 35 mm           MMARON (screw-thread).         /73.57         35 mm           MMARON (screw-thread, from Serial No. 1422 141).         /73.57         35 mm           MMARON (screw-thread, from Serial No. 1422 141).         /73.57         35 mm           MMARON (screw-thread, from Serial No. 1422 141).         /73.57         35 mm           MMARON (screw-thread, from Serial No. 1422 141).         /73.57         35 mm           CTILLUX (from No. 2919 657).         /71.1         50 mm           CTILLUX (from No. 2919 657).         /71.4         50 mm           MMARAR (72         50 mm         MM           MMARAR         /72.5         50 mm           MAR (screw-thread).         /73.5<	Ē
IMMICRON (from Serial No. 2435 004).       f/2       / 35 mm       E         IMMARON       (from Serial No. 2974251).       f/2       // 35 mm       F/2         IMMARON       (from Serial No. 2974251).       f/2       // 35 mm       F/2         IMMARON (screw-thread).       (f/3,5/7) 35 mm       F/3       F/3       F/3         IMMARON (screw-thread, from Serial No. 1423141)       (f/3,5/7) 35 mm       F/3       F/3         IMMARON (bayonet)       (f/1,5/7) 35 mm       F/1       f/3       F/3         IMMARON (bayonet)       (f/1,5/7) 35 mm       F/1       f/3       F/3         OCTILLUX (from No. 2919657)       (f/1,4/50 mm       F/1.4/50 mm       F/1.4/50 mm         OCTILLUX (from No. 2919657)       (f/1,4/50 mm       F/1.4/50 mm       F/1.4/50 mm         MMARAR       (f/2,4/50 mm       F/1.4/50 mm       F/1.4/50 mm         MMARAR       (f/2,4/50 mm       F/3.4/50 mm       F/3.4/50 mm         MMAR (screw-thread).       (f/3,4/50 mm       F/3.4/50 mm       F/3.4/50 mm         MAR (screw-thread).       (f/3,4/50 mm       F/3.4/50 mm       F/3.4/50 mm         MAR (screw-thread).       (f/3,4/7 mm       F/3.4/50 mm       F/3.4/50 mm         MMICRON-M (from Serial No. 2378 901)       (f/2,4/90 mm	Ē
IMMICRON (from Serial No. 2435 504).	
MAR	E 39 0
MAR       (73.57) 35 mm         MMARON (screw-thread).       (73.57) 35 mm         MMARON (screw-thread, from Serial No. 1423 141)       (73.57) 35 mm         MMICRON-C.       (72.74) 40 mm         CTILUX.       (71.75) 35 mm         MMICRON-C.       (71.74) 50 mm         CTILUX.       (71.75) 50 mm         CTILUX.       (71.47) 50 mm         CTILUX.       (71.47) 50 mm         MMARON (screw-thread).       (72.75) 50 mm         MMARAR.       (72.75) 50 mm         MMITAR.       (72.75) 50 mm         MMICRON-M.       (72.45) 50 mm         MAR.       (72.55) 50 mm         MAR.       (73.57) 50 mm         MAR.       (71.47) 73 mm         MAR.       (72.87) 90 mm         MAR.       (72.87) 90 mm         <	E
MMARON (screw-thread).       (73.57)       35 mm         MMARON (bayonet).       (73.57)       35 mm         MMARON (bayonet).       (73.57)       35 mm         CTILUX (from No. 2919657).       (71.750 mm         CTILUX (from No. 2919657).       (71.7450 mm         CTILUX (from No. 2919657).       (71.7450 mm         CTILUX (from No. 2919657).       (71.7450 mm         MMARR (71.4750 mm       (71.4750 mm         MMARR (71.4750 mm       (71.5750 mm         MMAR (71.4750 mm       (72.750 mm         MMTCRON-M       (72.750 mm         MMTRON-M       (72.750 mm         MAR (screw-thread).       (73.57 65 mm         MMAR (screw-thread).       (73.57 65 mm         MMAR (screw-thread).       (72.79 0 mm         MMAR (from Serial No. 2378901)       (73.57 65 mm         MMICRON-M (from Serial No. 2813801)       (72.79 0 mm         MMICRON-M (from Serial No. 3177201)       (72.79 0 mm         MAR (screw-thread).       (74.79 mm         MAR (screw-thread).       (74.79 0 mm         MAR (screw-thread).       (74.79 0 mm     <	E
MMARON (bayonet)	A
MMARON (bayonet)	AE
MMICRON-C.       (f2 / 40 mm)         CTILUX       (f1 / 50 mm)         CTILUX (from No. 2919 657)       (f1 / 50 mm)         CTILUX       (f1 / 25 0 mm)         MMILUX       (f1 / 50 mm)         MMARIT       (f1 / 50 mm)         MMARTA       (f2 / 50 mm)         MMARAR       (f2 / 50 mm)         MMITAR       (f2 / 50 mm)         MMICRON-M       (f2 / 50 mm)         KTOR       (f2 / 50 mm)         MAR (screw-thread)       (f3 / 50 mm)         MAR (screw-thread)       (f3 / 50 mm)         MAR (screw-thread)       (f3 / 57 66 mm)         MAR (screw-thread)       (f3 / 57 66 mm)         MMICRON-M (from Serial No. 2378 901)       (f3 / 57 66 mm)         MMILUX-M       (f1 / 47 75 mm)         MMICRON-M (from Serial No. 2813 801)       (f2 / 90 mm)         MMICRON-M (from Serial No. 3 177 201)       (f2 / 90 mm)         MAR (screw-thread)       (f4 / 135 mm)         MAR (screw-thread)       (f4	Ē
CTILUX (from No. 2919 657).       f1 / 50 mm         CTILUX (from No. 2919 657).       f1 / 50 mm         MMARIT.       f1.4/ 50 mm         IMMARIT.       f1.4/ 50 mm         IMMARIT.       f1.4/ 50 mm         IMMART.       f1.4/ 50 mm         IMMAR.       f2 / 50 mm         IMMICRON-M       f2 / 50 mm         IMMICRON-M       f2 / 50 mm         IMMICRON-M       f2 / 50 mm         MAR       f2 / 50 mm         MAR (screw-thread).       f3 / 55 0 mm         MAR (screw-thread).       f3 / 55 0 mm         MAR (screw-thread).       f3 / 5 65 mm         MAR (from Serial No. 2378 901)       f3 / 5 65 mm         MARREX       f1 / 4 / 75 mm         MMICRON-M (from Serial No. 2813 801)       f2 / 90 mm         MMICRON-M (from Serial No. 2813 801)       f2 / 90 mm         MMICRON-M (from Serial No. 1573 001)       f2 / 90 mm         MAR (screw-thread).       f4 / 4 90 mm         MAR (screw-thread).       f4 / 4 90 mm         MAR (screw-thread).       f4 / 4 90 mm         MAR (screw-thread).	
MMILUX.       (f1.4/ 50 mm         MMARIT       (f1.5/ 50 mm         MMARA       (f2/ 50 mm         MMITAR       (f2/ 50 mm         MMICRON-M       (f2/ 50 mm         MMICRON-M       (f2/ 50 mm         MAR       (f3/ 5/ 50 mm         MAR (screw-thread)       (f3/ 5/ 65 mm         MAR (from Serial No. 2378 901)       (f3/ 5/ 65 mm         MMICRON-M (from Serial No. 2318 801)       (f2/ 90 mm         MMICRON-M (from Serial No. 2813 801)       (f2/ 90 mm         MMICRON-M (from Serial No. 3177 201)       (f2/ 8/ 90 mm         MARIT       (f2/ 8/ 90 mm         MARIT       (f2/ 8/ 90 mm         MAR (screw-thread, from No. 1573 001)       (f4/ 90 mm         MAR (screw-thread, from No. 1573 001)       (f4/ 90 mm         MAR (screw-thread, from No. 1573 001)       (f4/ 190 mm         MAR (screw-thread, from No. 1573 001)       (f4/ 4/ 135 mm         MAR (screw-thread, from No. 1573 001)       (f4/ 4/ 135 mm         MAR (screw-thread, from No. 1416 001)       (f4/ 5/135 mm         MAR (tro	E
MMILUX.       (71.4/ 50 mm         MMARIT.       (71.5/ 50 mm         MMARA       (72/ 50 mm         MMITAR       (72/ 50 mm         MMICRON-M       (72/ 50 mm         KTOR       (72.5/ 50 mm         MAR       (72.5/ 50 mm         MAR       (72.5/ 50 mm         MAR       (73.5/ 50 mm         MAR (screw-thread)       (73.5/ 50 mm         MAR (crosserial No. 2378901)       (73.5/ 65 mm         MAR (crosserial No. 2378901)       (73.5/ 65 mm         MMICRON-M (from Serial No. 2318801)       (72/ 90 mm         MMICRON-M (from Serial No. 3177 201)       (72/ 90 mm         MMICRON-M (from Serial No. 3177 201)       (72/ 80 mm         MARIT       (72.8/ 90 mm         MARIT       (72.8/ 90 mm         MARIT       (72.8/ 90 mm         MARIT       (72.4/ 90 mm         MAR (screw-thread, from No. 1573 001)       (74/ 90 mm         MAR (screw-thread, from No. 1573 001)       (74/ 90 mm         MAR (screw-thread, from No. 1573 001)       (74/ 190 mm         MAR (screw-thread, from No. 1573 001)       (74/ 4/ 90 mm         MAR (screw-thread)       (74/ 4/ 35 mm         MAR (screw-thread)       (74/ 4/ 35 mm         MAR (screw-thread) <td>Ē</td>	Ē
MMILUX.       (71.4/ 50 mm         MMARIT.       (71.5/ 50 mm         MMARA       (72/ 50 mm         MMITAR       (72/ 50 mm         MMICRON-M       (72/ 50 mm         KTOR       (72.5/ 50 mm         MAR       (72.5/ 50 mm         MAR       (72.5/ 50 mm         MAR       (73.5/ 50 mm         MAR (screw-thread)       (73.5/ 50 mm         MAR (crosserial No. 2378901)       (73.5/ 65 mm         MAR (crosserial No. 2378901)       (73.5/ 65 mm         MMICRON-M (from Serial No. 2318801)       (72/ 90 mm         MMICRON-M (from Serial No. 3177 201)       (72/ 90 mm         MMICRON-M (from Serial No. 3177 201)       (72/ 80 mm         MARIT       (72.8/ 90 mm         MARIT       (72.8/ 90 mm         MARIT       (72.8/ 90 mm         MARIT       (72.4/ 90 mm         MAR (screw-thread, from No. 1573 001)       (74/ 90 mm         MAR (screw-thread, from No. 1573 001)       (74/ 90 mm         MAR (screw-thread, from No. 1573 001)       (74/ 190 mm         MAR (screw-thread, from No. 1573 001)       (74/ 4/ 90 mm         MAR (screw-thread)       (74/ 4/ 35 mm         MAR (screw-thread)       (74/ 4/ 35 mm         MAR (screw-thread) <td></td>	
MMAR       f/2 / 50 mm         MMITAR       f/2 / 50 mm         MMICRON-M       f/2 / 50 mm         KTOR       f/2.5/ 50 mm         MAR       f/2.5/ 50 mm         MAR       f/2.5/ 50 mm         MAR (screw-thread)       f/3.5/ 50 mm         MAR (screw-thread)       f/3.5/ 50 mm         MAR (screw-thread)       f/3.5/ 65 mm         MAR       f/3.5/ 65 mm         MMICON       f/1.4/ 75 mm         MMICRON-M (from Serial No. 2813 801)       f/2 / 90 mm         MMICRON-M (from Serial No. 2813 801)       f/2 / 90 mm         MMICRON-M (from Serial No. 3177 201)       f/2 / 90 mm         MAR (screw-thread)       f/4 / 90 mm         MAR (screw-thread, from No. 1 573 001)       f/4 / 90 mm         MAR (screw-thread, from No. 1 573 001)       f/4 / 90 mm         MAR (screw-thread, from No. 1 573 001)       f/4 / 90 mm         MAR (screw-thread, from No. 1 573 001)       f/4 / 135 mm         MAR (screw-thread, from No. 1 573 001)       f/4 / 90 mm         MAR (screw-thread, from No. 1 573 001)       f/4 / 135 mm         MAR (screw-thread, from No. 1 573 001)       f/4 / 135 mm         MAR (screw-thread, from No. 1 573 001)       f/4 / 135 mm         MAR (screw-thread, from No. 1 573 001)       f	E
MMITAR       f/2       / 50 mm         MMICRON-M       f/2       /50 mm         KTOR       f/2.5/ 50 mm         MAR       f/2.5/ 50 mm         MAR (screw-thread)       f/3.5/ 50 mm         MAR (screw-thread)       f/3.5/ 50 mm         MAR (screw-thread)       f/3.5/ 65 mm         MAR (from Serial No. 2 378 901)       f/3.5/ 65 mm         MMILUX-M       f/1.4/ 75 mm         MMAREX       f/1.5/ 85 mm         MMICRON-M (from Serial No. 2 813 801)       f/2         MICRON-M (from Serial No. 3 177 201)       f/2         MAR (screw-thread)       f/2.8/ 90 mm         MAR (screw-thread)       f/4         MAR       f/4	E
MMICRON-M       f/2 / 50 mm         KTOR       f/2.5/ 50 mm         MAR       f/2.5/ 50 mm         MAR (screw-thread)       f/3.5/ 50 mm         MAR (screw-thread)       f/3.5/ 50 mm         MAR (screw-thread)       f/3.5/ 65 mm         MAR (screw-thread)       f/3.5/ 65 mm         MAR (screw-thread)       f/1.4/ 75 mm         MMICRON-M (from Serial No. 2813 801)       f/2 / 90 mm         MMICRON-M (from Serial No. 2813 801)       f/2 / 90 mm         MMICRON-M (from Serial No. 3177 201)       f/2 / 90 mm         MAR (screw-thread)       f/4 / 35 mm         MAR (screw-thread)       f/4 / 135 mm <tr< td=""><td>E 3</td></tr<>	E 3
KTOR $f/2.5f$ 50 mm         MAR $f/2.8f$ 50 mm         MAR (screw-thread) $f/3.5f$ 50 mm         MAR (screw-thread) $f/3.5f$ 56 mm         MAR (from Serial No. 2 378 901) $f/3.5f$ 65 mm         MAR (from Serial No. 2 378 901) $f/3.5f$ 65 mm         MMILUX-M $f/1.4f$ 75 mm         MMILCRON $f/1.4f$ 75 mm         MMICRON-M (from Serial No. 2 813 801) $f/2 / 90$ mm         MMICRON-M (from Serial No. 3 177 201) $f/2 / 90$ mm         MARIT $f/2.8f$ 90 mm         MARIT $f/2.8f$ 90 mm         MAR (screw-thread) $f/4 / 90$ mm         MAR (screw-thread) $f/4 / 130$ mm         MAR (screw-thread) $f/4 / 135$ mm         MAR (screw-thread) $f/4 / 5135$ mm         MAR (screw-thread) $f/4 / 5135$ mm         MAR (screw-thread) $f/4 / 5135$ mm         MAR (screw-thread) $f$	ES
MAR $f'2.87$ 50 mm         MAR (screw-thread). $f'3.57$ 50 mm         MAR (screw-thread). $f'3.57$ 50 mm         MAR (from Serial No. 2378 901) $f'3.57$ 65 mm         MMILUX-M. $f'1.47$ 75 mm         MMILEX-M. $f'1.57$ 85 mm         MMICRON-M (from Serial No. 2813 801) $f'2.790$ mm         MMICRON-M (from Serial No. 3177 201) $f'2.790$ mm         MMICRON-M (from Serial No. 3177 201) $f'2.790$ mm         MAR (screw-thread). $f'4.790$ mm         MAR (screw-thread). $f'4.7135$ mm         MAR (screw-thread). $f'4.7135$ mm         MAR (screw-thread). $f'4.7135$ mm         MAR (from Serial No. 2788 927). $f'2.87135$ mm	Ā
MAR       f/3.5/ 50 mm         MAR       f/3.5/ 65 mm         MAR (from Serial No. 2378 901)       f/3.5/ 65 mm         MMILUX-M.       f/1.4/ 75 mm         MMIRCRON       f/1.5/ 85 mm         MMICRON-M (from Serial No. 2 813 801)       f/2 / 90 mm         MMICRON-M (from Serial No. 3 177 201)       f/2 / 90 mm         MART       f/2.8/ 90 mm         MAR (screw-thread)       f/4 / 90 mm         MAR (screw-thread)       f/4 / 90 mm         MAR (bayonet)       f/4 / 90 mm         MAR (bayonet)       f/4 / 90 mm         MARIT       f/2.8/135 mm         MART       f/2.8/135 mm         MART       f/2.8/135 mm         MAR (screw-thread, from No. 1 573 001)       f/4 / 90 mm         MAR (screw-thread, from No. 1 573 001)       f/4 / 100 mm         MAR (screw-thread, from No. 1 573 001)       f/4 / 100 mm         MAR (bayonet)       f/4 / 135 mm         MAR (bayonet)       f/4 / 135 mm         MAR (from Serial No. 3 595 960)       f/4 / 135 mm         MAR       f/4 / 135 mm         KTOR (screw-thread, from No. 1 416 001)       f/4 .5/145 mm         KTOR (screw-thread)       f/4 .5/200 mm         LYT       f/5 .6/400 mm         LYT	Ē
MAR       (73.5/ 65 mm         MAR (from Serial No. 2378 901)       (73.5/ 65 mm         MMILUX-M.       (71.4/ 75 mm         MMAREX       (71.5/ 85 mm         MMICRON-M (from Serial No. 2813 801)       (72 / 90 mm         MMICRON-M (from Serial No. 2813 801)       (72 / 90 mm         MMICRON-M (from Serial No. 3 177 201)       (72.8/ 90 mm         MARIT       (72.8/ 90 mm         MARIT       (72.8/ 90 mm         MAR (screw-thread)       (74 / 90 mm         MAR (screw-thread, from No. 1573 001)       (74 / 90 mm         MAR (screw-thread, from No. 1573 001)       (74 / 90 mm         MAR (screw-thread, from No. 1573 001)       (74 / 90 mm         MAR (screw-thread, from No. 1573 001)       (74 / 90 mm         MAR (screw-thread, from No. 1573 001)       (74 / 90 mm         MAR (screw-thread, from No. 1573 001)       (74 / 100 mm         MAR (screw-thread, from No. 1573 001)       (74 / 135 mm         MAR (trap serial No. 2788 927)       (72.8/135 mm         MARIT       (72.8/135 mm         MAR       (74 / 135 mm         LE-ELMAR       (74 / 135 mm         LE-ELMAR       (74 / 135 mm         LE-ELMAR       (74 / 135 mm         LF-ELMAR       (74 / 135 mm         <	A
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MAR (screw-thread), from No. 1 573 001) $f/4$ <	E
MAR (screw-thread), from No. 1 573 001) $f/4$ <	E
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MAR.       f/4.5/135 mm         KTOR (screw-thread).       f/4.5/145 mm         KTOR (screw-thread, from No. 1416 001)       f/4.5/135 mm         KTOR (bayonet)       f/4.5/135 mm         LYT       f/4.5/135 mm         LYT       f/4.5/135 mm         LYT       f/4.5/200 mm         LYT       f/4.5/200 mm         LYT       f/4.8/280 mm         LYT       f/5.6/400 mm         LYT       f/5.6/400 mm         LYT       f/5.6/400 mm         LYT       f/5.6/500 mm         LYT       f/6.8/400 mm         LYT       f/6.8/400 mm         LYT       f/6.8/400 mm         LYT       f/6.8/560 mm	E
MAR.       f/4.5/135 mm         KTOR (screw-thread).       f/4.5/145 mm         KTOR (screw-thread, from No. 1416 001)       f/4.5/135 mm         KTOR (bayonet)       f/4.5/135 mm         LYT       f/4.5/135 mm         LYT       f/4.5/135 mm         LYT       f/4.5/200 mm         LYT       f/4.5/200 mm         LYT       f/4.8/280 mm         LYT       f/5.6/400 mm         LYT       f/5.6/400 mm         LYT       f/5.6/400 mm         LYT       f/5.6/500 mm         LYT       f/6.8/400 mm         LYT       f/6.8/400 mm         LYT       f/6.8/400 mm         LYT       f/6.8/560 mm	E
MAR.       f/4.5/135 mm         KTOR (screw-thread).       f/4.5/145 mm         KTOR (screw-thread, from No. 1416 001)       f/4.5/135 mm         KTOR (bayonet)       f/4.5/135 mm         LYT       f/4.5/135 mm         LYT       f/4.5/135 mm         LYT       f/4.5/200 mm         LYT       f/4.5/200 mm         LYT       f/4.8/280 mm         LYT       f/5.6/400 mm         LYT       f/5.6/400 mm         LYT       f/5.6/400 mm         LYT       f/5.6/500 mm         LYT       f/6.8/400 mm         LYT       f/6.8/400 mm         LYT       f/6.8/400 mm         LYT       f/6.8/560 mm	E
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KTOR (bayonet)	A
KTOR (bayonet)	E
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E 55 M 55 x 0.75	85 x 0

# LEICA R and M Cameras WINDER for LEICA M Cameras

Service Strangers	enna Unico	Camera type									
Winder type	LEICA M 6	LEICA M 4-P	LEICA M 4-2	LEICA MD-2							
LEICA WINDER M	yes	yes	yes	yes							
LEICA WINDER M 4-P	yes	yes	yes	yes							
LEICA WINDER M 4-2 from Serial No. 10350	yes	yes	yes	yes							
LEICA WINDER M 4-2 up to Serial No. 10349	ol que lasse del conves entraise aos pris estatos no torres estatos no torres	<b>yes</b> apart from Serial No. 1552 500 1552 884 and 1563 000 1588 536 (can be adapted by Technical Service)	yes	yes							

LEICAFLEX models

dife Tank ad octa hal reads the no scale rela-ELMARIT-R 1/2 3/28 mm 4 ELMARIT-R 1/2 3/28 mm ELMARIT-R 1/2 3/28 mm SUMMILUX-R 1/1 4/50 mm 1/2.8/60 mm SUMMILOX R 1/1 4/80 mm SUMMILOX R 1/1 4/80 mm SUMMICRON-R 1/2 3/90 mm

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#### **Adaptation of lenses**

Conversion of LEICAFLEX lenses for use on LEICA R models

Conversion of LEICA R lenses to filter thread E 55:

Conversion of LEICA R lenses to filter thread E 60:

Conversion of LEICA R lenses for additional use on LEICAFLEX models Existing LEICAFLEX lenses can be fitted with an additional cam for the full utilisation of the LEICA R exposure facilities. The use of modified lenses

MACRO-ELMARIT f/2.8/60 mm ELMARIT-R f/2.8/90mm SUMMICRON-R f/2/90 mm MACRO-ELMAR f/4/100 mm (for Focusing Bellows R) ELMARIT-R f/2.8/135 mm

#### APO-TELYT-R f/3.4/180 mm

Modification by the Leica Camera Service Center or

From the stated serial numbers onwards, the following lenses fit on all LEICA R models but no longer on the LEICAFLEX models. The Leica Camera Service

ELMARIT-R f/2.8/24 mm ELMARIT-R f/2.8/28 mm ELMARIT-R f/2.8/35 mm SUMMILUX-R f/1.4/50 mm MACRO-ELMAR-R f/2.8/60 mm SUMMILUX R f/1.4/80 mm SUMMICRON-R f/2/90 mm ELMARIT-R f/2.8/90 mm

# on all LEICAFLEX models remains unrestricted.

Modification by the Leica Camera Service Center or authorized workshops of Leica Camera agencies.

up to Serial No. 3 013 650 up to Serial No. 2 809 000 up to Serial No. 2 770 950

up to Serial No. 2933 350 up to Serial No. 2772 618

up to Serial No. 2947024

authorized workshops of Leica agencies.

Center or any authorized workshop can fit the control cams to permit the use of most of these lenses on LEICAFLEX cameras.<sup>1)</sup>

Can be equipped for LEICAFLEX models

from 3 428 941, SL 2 models from 3 367 501, all from 3 332 801, all from 3 291 801, all

from 3335501, SL/SL2 models from 3 267 301, no from 3 381 677, all from 3 384 201, all

<sup>1)</sup> Bayonet-exchange on R-lenses for use on LEICAFLEX-bodies

#### **Adaptation of lenses**

CL lenses for use on LEICA M cameras

Screw-thread LEICA lenses and lenses for the LEICA M models have a differential helical focusing movement, i. e. the rear focusing barrel bearing against the rangefinder coupling roller only moves in and out. For a more compact and lightweight design, the 40 mm SUMMICRON-C f/2 and

28 mm focal-length lenses from Serial No. 2 411 001 bring the 28 mm frame into the viewfinder of the LEICA M4-P and the LEICA M6. With lenses of earlier production correct

All M lenses can be used. However, exposure measurement cannot be carried out with the following: 15 mm HOLOGON f/8, 21 mm SUPER-ANGULON-M f/4 and the 28 mm ELMARIT-M f/2.8 below Serial No. 2314921.

When changing the 50 mm SUMMICRON f/2 with near-focusing device, it must be set at infinity.

90 mm ELMAR-C f/4 for the LEICA CL have instead a direct rear focusing cam. These lenses can be mounted on the LEICA M, but do not provide precise coupling with the rangefinder. For this reason we do not recommend the use of the CL lenses on the LEICA M Cameras.

fading-in is not guaranteed. Here we recommend the use of the 28 mm brilliant finder (Code No. 12009). Conversion of the lens is not possible.

To ensure that the proper viewfinder frame appears and that the distance measurement occurs correctly, existing 35 mm lenses to the LEICA M 3 - i. e. with finder glass must also be used with finder glass on all other M-cameras. Existing 28 mm lenses on the LEICA M4-P and LEICA M6

Existing M lenses on the LEICA M 6

#### Adaptation of lenses

LEICA M lenses on the LEICA CL

The bayonet lens mount of the LEICA CL is identical to that of the LEICA M models. Hence numerous M lenses are usable on the LEICA CL. Due to the different camera composition however, the following restrictions apply.

#### Not usable

- All lenses with a view finder attachment can not be mounted onto the CL, as the attachment bumps the speed setting knob. Besides that, the finder attachment is too large for the LEICA CL, whose view finder windows are closer together.
- Lenses whose rear mount enter too far into the camera body (SUPER-ANGULON-M 21 mm and ELMARIT-M 2.8/28 mm below serial no. 2314921) can not be used because they damage the measuring cell.

#### Usable, but in danger of damaging the camera

• Collapsible lenses need protective tape to limit the retraction of the lens barrel.

This tape (available internationally from the Dymo company) is to surround the lens barrel, this can be applied by the owner.

Required tape width	ELMAR	f/3.5/50 mm
9.5 mm (3/8 in):	ELMAR	f/2.8/50 mm
	SUMMAR	f/2/50 mm
	SUMMITAR	f/2/50 mm
	SUMMICRON	f/2/50 mm
	ELMAR	f/4/90 mm
Required tape width		
12.7 mm (1/2 in):	HEKTOR	f/2.5/50 mm

#### Usable, but with other restrictions

- Since the range finder of the LEICA CL operates starting from a distance of 0.8 m, lenses with distances shorter than 0.8 m can not be focused in the view finder of the LEICA CL.
- The measuring cell can not quite register the extremely wide cone of light of aperture stops larger than f/2.0 and shorter focal lengths. For this reason, the exposure meter only functions correctly as of f/2.0.

#### **Adaptation of lenses**

• With some of the lenses, the respective view finder field is blocked out, especially when the lens hood is used. This applies to the following lenses:

SUMMICRON	2/35 mm
SUMMILUX	1.4/35 mm
SUMMILUX	1.4/35 mm ASPH.
SUMMILUX	1.4/50 mm
NOCTILUX	1/50 mm und 1,2/50 mm
ELMARIT	2.8/90 mm

• Since the LEICA CL only has viewfinder fields for 40 mm, 50 mm, and 90 mm, the image frame is not shown clearly in the finder.

All lenses with LEICA bayonet mount, and, with a suitable bayonet adapter, the earlier, screw-thread versions of LEICA lenses can be used on the LEICA M 5. With minor exceptions or restrictions they can also be fully utilized for selective light metering through the lens. Existing interchangeable lenses on the LEICA M 5

#### **Exceptions:**

1. When a lens is **collapsible**, collapsibility must be limited to the permissible amount by means of a protective tape. **The lens need not be returned to the factory.** The protective tape is available internationally in various widths from DYMO.

The tape should surround the lens mount leaving a gap of 1 mm. To obtain the right length, a paper pattern should first be cut.

#### **Collapsible lenses:**

ELMAR	f/3.5/50 mm
ELMAR	f/2.8/50 mm
SUMMAR	f/2 /50 mm
SUMMITAR	f/2 /50 mm
SUMMICRON	f/2 /50 mm
ELMAR	f/4 /90 mm
HEKTOR	f/2.5/50 mm

Required - width of type 9.5 mm

Required width of tape 12.7 mm

#### **Adaptation of lenses**

Existing interchangeable lenses on the LEICA M 5 2. Lenses to be returned to the Leica Camera Technical Service Center, National Agency, or authorized workshop for adaptation:

 a) 21 mm and 28 mm wide-angle lenses, parts of whose mounts enter into the camera body too deeply.
 A recess in the lens bayonet prevents the swinging-in of the photo resistor. The lenses can be subsequently attached - but exposure measurement through the lens is not possible.

SUPER-ANGULON f/4 /21 mm

with screw thread. The bayonet adapter has to be modified. (Code No. 14097) Please state: for 21 mm

SUPER-ANGULON f/4 /21 mm SUPER-ANGULON f/3.4/21 mm ELMARIT f/2.8/28 mm

with bayonet mount with bayonet mount (below Serial No. 2473251)

with bayonet mount (below Serial No. 2314921)

 b) lenses whose detachable viewfinder attachments ruin the cover plate of the LEICA M 5. Lens bayonet and viewfinder attachment must be re-machined.

SUMMARON f/3.5/35 mm SUMMICRON f/2 /50 mm

In addition the VISOFLEX 1 and 3 and the Universal Focusing Bellows can be used with the LEICA M 5. With these accessories, selective light metering is also possible with photography from the tripod. The measured value is read in the measuring viewfinder of the camera when the mirror is swung out.

The VISOFLEX 2 cannot be used.

with **detachable** viewfinder attachment

with near-focusing range

Please use only the body cover supplied with the M 5.

#### Attention:

In the LEICA M 5 only films in cassettes with standardized spools (to DIN 4535 or ISO 1057 standards) can be used. These spools have drive lugs on both ends. The rewind key of the LEICA M 5 engages in the drive lugs facing the camera baseplate.

## Projection Lamps Projection, distances

Projectors			Projector lamps								354	Light pointer lamps				19	AF- lamp	
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PRADOVIT COLOR 150+AF PRADOVIT COLOR 250+AF		0				20K U	6633						0 0					
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	Order No.		000-001-002-000 038-101-092-000 028-101-128-000	038-127.003-013	038-127.003-002 038-127.004-013	038-127.004-002 038-127.005-013	038-127.007-013 038-127.007-013	009-127.009-013 038-127.009-013	038-12/.009-002 038-127.006-013	038-127.006-002	000-001.000-000 038-101.090-000 038-101.090-000	302-053.018-011	000-101-133-000 038-101-133-000	038-101.142-000 038-101.073-000	94	2	-049.07	
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<sup>1)</sup> = halogen lamp <sup>2)</sup> = no longer available

## Projection distances and screen image sizes

35 mm format

Projection distances and screen image sizes for the 35 mm format.

A square screen is necessary when both upright and horizontal slides are to be projected; the table below contains the lengths of the screens in m. For the projection of 40 x 40 mm slides the given values must be increased by about 10 %.

					Focal	lengths	in mm			
		35	50	60	90	120	150	200	250	300
	1 2	0.95 1.95	1.30	1.15	14 1/2 1 4 1 79 ER - A	ta		th begg	1 9 A 152 PA 515 P	rod A Pog A Pog A
	3	2.95	1.95	1.75	1.10		1	club Se	MARS D	(XDA)
	4	3.95	2.65	2.30	1.50	1.10	000	TRART		10010
	5		3.30	2.90	1.85	1.40	1.10	CLOW SE	LANGER D	TOKIE I
	6	S. SL	4.00	3.50	2.25	1.70	1.35	WHAT H	a and	Q.A.M
	7			4.00	2.65	1.95	1.55	中国北京	AL ESCAR	ACH LAD A A DI
	8				3.05	2.25	1.80	1.35	4.02.74 71	786145
B	9				3.45	2.55	2.05	1.50	REALIZE	A AGAS
S IN	10		ti li la		3.80	2.85	2.25	1.70	1.35	ADON
lce	11	6			<b>UTIMIC</b>	3.15	2.50	1.85	1.45	ADO AS
star	12				/2   /50 n	3.45	2.75	2.05	1.60	a tagar
n ai	13			Ingale	Histor the	3.70	2.95	2.20	1.75	1.45
0110	14	12 23	221221	d and	<b>LARGA</b>	4.00	3.20	2.40	1.90	1.55
Projection distances in m	15			- 1999-24	22,30[2]		3.45	2.55	2.05	1.70
E	16	sele slee	malasi	SEE	<b>BALANAI</b>	E BITTE	3.65	2.75	2.15	1.80
1	17		1	-tacjetti	ve fight-r	eystering-	3.90	2.90	2.30	1.90
	18	Saparajo - 2	a Glass	राज होई है।		HARRY .	4.15	3.10	2.45	2.05
	19	UT IS		distant.		and the		3.25	2.60	2.15
	20	12 - 2 -	to an and	1				3.45	2.75	2.25
-	21	<u></u>				S. 199. 91		3.60	2.85	2.40
	22	See As		Sec. a				3.80	3.00	2.50
	25		1.00	i hereitse	1989	10		4.30	3.45	2.85
	30			and the second second		0.00000000			4.15	3.45
	35	An Sec.			1.1.1.1.1.1		A State		des	4.00

The versatile possibilities of combination in the projector range in fade projection LEICA DU-24 IR and LEICA DU-24 IR PC

Projectors, equipped with 250 W halogen lamps that can be combined freely:

-PRADOVIT P 2002 LEICA P 2002-LEICA P2000 LEICA P 2000-**PRADOVIT COLOR 2** PRADOVIT COLOR 2 PRADOVIT CA 2502\* PRADOVIT CA 2502\* LEICA P255 DU LEICA P255 DU PRADOVIT P300 **PRADOVIT P300** PRADOVIT P 300 IR PRADOVIT P 300 IR **PRADOVIT P600 PRADOVIT P600** PRADOVIT P600 IR PRADOVIT P600 IR \* from Serial-no. 145 758

PRADOVIT CA 2502 with lower serial numbers can be adapted by the technical service department of Leica Camera GmbH.

Projectors that can only be combined with units of the same type (250 W):

Projectors that can only be combined with units of the same type (150 W):

LEICA P 155 DU  $\checkmark$  LEICA P 155 DU LEICA P 153 DU  $\checkmark$  LEICA P 153 DU

Older projectors cannot perform all of the functions of the new control units.

Connection of the Dissolve Control Unit to a tape recorder or cassette recorder

Projectors

## LEICA DU-24 IR / LEICA DU-24 IR PC

### tape recorder (TB) / cassette recorder (CR)



Projector	Dissolve control unit	psibq.	Connection	Sound recorder	
		6089 TI 6089 TI 6089 TI	Connection cable 6 pin on 3.5 mm mono phone plug** 379-980.801-000**	NOKIA SL 837 AV (CR)	
Two projectors of the	noir their		6 pin connecting cable** 031-049.159	UHER CR 1600 (CR) UHER CR 4000 (CR) Report Monitor AV	
same type with built-in TRIAC and 14-pin AV- plug For example two of one of the following types	DU-24 IR		Please consult the technical customer service department of the Revox company in 79843 Löffingen	REVOX B 77 FH (TB)	
PRADOVIT P 2002 LEICA P 2000 PRADOVIT COLOR 2 PRADOVIT COLOR 2 PRADOVIT CA 2502 (as of serial no. 145 758) LEICA P 155/P 255 DU PRADOVIT P 153/P 253 DU PRADOVIT P 300/P 300 IR PRADOVIT P 600/P 600 IR	FEICA D	LEICA DU-24 IR PC	Connection cable Cinch plug* Adapter Cinch plug and 6.3 mm phone plug*	All units with 3 and more track which can record separately FOSTEX X 18 (CR) FOSTEX X 28 H (CR) FOSTEX 280 (CR) FOSTEX GT 10 (CR) YAMAHA MT120 S (CR) TASCAM 424 (CR) TASCAM 134 (CR) TASCAM 34 B (TB)	
		ad est	Please consult the technical customer service department of the Revox company in 79843 Löffingen	REVOX B 77 DHA (TB)	

This list does not claim to be complete

\* Part of the LEICA DU-24 IR and LEICA DU-24 IR PC outfit

\*\* Available for the customer service department of Leica Camera GmbH, Solms

Connection of the Dissolve Control Unit to a tape recorder or cassette recorder

### tape recorder (TB) / cassette recorder (CR)

**Projectors** 

LEICA DU-24 P

Projector	Dis- solve- control unit	Connection	Sound recorder		
Two projectors of equal light intensity with built-in TRIAC and 14-pin AV-plug. For example two	DU-24 P	Connecting cable Cinch plug 5 pin plug (available in radio shops)	FOSTEX x 15 (CR)* TASCAM PORTA 05 (CR)* REVOX B 77 FH (TB) TASCAM 133 (CR) TASCAM 134 (CR)		
projectors of one of the following types PRADOVIT P 2002, LEICA P 2000, PRADOVIT CA 2502 (as of serial no. 145 758) PRADOVIT P 300 / P 300 IR,	Camera Camera for inter Loos fil noom 1 standard Secial N Secial N	Solder-over the included 6 pin connection cable (that goes into the tape recorder); pin 6 to pin 2			
LEICA P 155 / P 255 DU PRADOVIT P 153 / P 253 DU or one each of the		Connecting cable Cinch plug 5 pin plug (available in radio shops)			
following projectors PRADOVIT P 2002, LEICA P 2000, PRADOVIT CA 2502 (as of serial no. 145 758) COLOR 2 PRADOVIT P 600 / P600 IR, PRADOVIT P 300 / P 300 IR, LEICA P 255 DU and PRADOVIT 253 DU		DOVIT P 2002,         Connecting cab           A P 2000,         in radio shops           DOVIT CA 2502         serial no. 145 758)           DR 2         DOVIT P 600 /           IR,         DOVIT P 300 /           IR,         A P 255 DU		All units with 3 and more tracks which can record separately TASCAM 424 (CR) TASCAM 424 (CR)* TASCAM 234 L (CR)* FOSTEX x 18 (CR) FOSTEX x 18 (CR) FOSTEX x 26 (CR)* FOSTEX x 28 H (CR) FOSTEX x 30 (CR)* YAMAHA MT 120 S	

This list does not claim to be complete.

\* No longer in production.

#### Recording and play-back possibilities with new and older dissolve control units

ni-tlind fitty be	deini	Play-back	
Recording	LEITZ DU-24 A/P	LEICA DU-24 IR	LEICA DU-24 IR PC
LEITZ DU-24 A/P*	ensig e		
LEITZ DU-24 A/P**	1 DHK •		•
LEITZ DU-24 IR*	In DG	•	
LEITZ DU-24 IR**		•	•
LEITZ DU-24 IR PC**		CEPT.	A. diable from

\* Free-Head \*\* Multi-track recording

9/95

List of the LEICA models LEICA I (non-interchangeable lens)

Available from 1925

**Compur LEICA** 



First basic LEICA model, black enamelled, **non-interchangeable 50 mm ELMAR f/3.5 lens**, with locking spring for the infinity position, slip-on rangefinder, focal plane shutter 1/20 to 1/500 sec. and time exposure.

Black enamelled, non-interchangeable 50 mm ELMAR f/3.5 lens. Compur shutter, speeds from  $1 - \frac{1}{300}$  sec. Separate shutter wind and film transport.

.............

Available from 1926

LEICA I (with changing mount) Available from 1930

Available from 1931 Standard LEICA



Camera with screw mount for interchangeable lenses.

Lens flange and lens screw mount not yet standardized.

Lens flange and lens mount standardized in models from Serial No. 60 500 onward.

Black enamelled or chromium finished, screw mount for interchangeable lenses, slip-on rangefinder, focal plane shutter 1/20 to 1/500 sec., pull-out rewind knob. Serial No. from 100 000.

Black enamelled or chromium finished, with built-in coupled rangefinder, focal plane shutter 1/20 to 1/500 sec. and time exposure. Serial No. from 71 500.



Available from 1932

LEICA II



Available from 1932

As model II, but with extended range of shutter speeds from 1 to  $\frac{1}{500}$  sec., rangefinder with focusing telescope (1.5 x), eyelets at sides for carrying strap. Serial No. from 109 000.

As model III, but with additional shutter speed <sup>1</sup>/1000 sec. Serial No. from 156 201.

As model III a, but with eye lenses for viewfinder and rangefinder closer together. The lever for adjusting the rangefinder telescope is next to the rewind knob. Serial No. from 240017.

With enlarged cassette spaces (cassettes for 10 m (33ft) film) for reporters, otherwise as III a.

Shutter speeds from 1/30 to 1/500 sec. and time exposure, slip-on brilliant finder and rangefinder, screw mount for interchangeable lenses. Serial No. from 455 000.

As model I c, but with builtin coupled range finder, shutter speeds from  $V_{30}$  to  $V_{500}$  sec. and time exposure. Serial No. from 440 000.

rea model 01 c. but with built-in full Bash synchroni 2stion and Bim indicator built into from vinding knob Serial No. from 523 000.





## List of the LEICA models LEICA III

Available from 1933 LEICA III a Available from 1935 LEICA III b

Available from 1938 LEICA 250

LEICA I c

Available from 1949

LEICA II c

Available from 1948

LEICA III ( (black synchronizing dial without self-timer Available from 1950 List of the LEICA models LEICA I f (black synchronizing dial)

Available from 1952

LEICA If (red synchronizing dial) Available from 1952

LEICA II f (black synchronizing dial)

Available from 1951

LEICA II f (red synchronizing dial) Available from 1952

LEICA III c



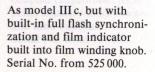
As model I c, but fully synchronized, film indicator built into the film winding knob. Serial No. from 562 000.

As above, but international shutter speeds 1/25, 1/50 sec. etc. Serial No. from 536 001.

As model II c, but with built-in full flash synchronization, film indicator built into the film winding knob. Serial No. from 451 000.

As above, but with international shutter speeds  $\frac{1}{25}$ ,  $\frac{1}{50}$  to  $\frac{1}{1000}$  sec. and time exposure. Serial No. from 574 401.

As model II c, but with extended range of shutter speeds from 1 to  $\frac{1}{1000}$  sec. and time exposure. Serial No. from 360 000.





Available from 1940.

LEICA III f (black synchronizing dial without self-timer

As before, but international shutter speeds. Serial No. from 615 000.

As model III f with red synchronizing dial, but with self-timer of approximately 12 seconds delay. Serial No. from 685 000.



List of the **LEICA** models LEICA III f (red synchronizing dial without self-timer

Available from 1952

LEICA III f (with self-timer)

Available from 1954

LEICA III g

The LEICA III g differs from the LEICA III f in the following technical features: 1. Large bright-line view-

- finder with automatic parallax compensation.
- 2. Shutter speeds graduated in geometric progression.
- 3. Fully automatic synchronization (without contact numbers).
- 4. Film indicator in the back of the camera body. Serial No. from 825 001.

basically the same design as that of the LEICA III g. Has no rangefinder or self-

Serial No. from 887 001.

Available from 1957 LEICA Ig

Available from 1957

timer.

# List of the LEICA models LEICA M 3



Available from 1954 LEICA M 2



Available from 1958

LEICA M1





Bright-line measuring viewfinder with automatic parallax compensation, automatically superimposed image frames for 50, 90 and 135 mm focal length (35 mm frame obtained by use of 35 mm lens with finder attachment). Bayonet mount for rapid lens change. Shutter speed knob engages at each setting from 1 to 1/1000 sec. and B. Attachable exposure meter with direct shutter coupling. Automatic frame counter under magnifier. Hinged back.

From 1956 with field-ofview selector. Serial No. from 700 001.

As LEICA M 3, with the following differences: Automatically superimposed image frames for 35, 50 and 90 mm focal lengths. Film counter must be returned to 0 by hand. From 1959 with self-timer. Serial No. from 926 001.

Without rangefinder. Fields of view for 35 and 50 mm lenses are shown parallaxfree and permanently superimposed into bright-line finder. Otherwise as M2. Serial No. from 950 001.

As LEICA M 1, but without viewfinder, equipped for the use of the marking device. Serial No. from 1 102 501.

10

Available from 1959 LEICA MD

Single-lens-reflex camera, focusing screen with microprism measuring field, builtin CdS exposure meter, lens bayonet mount, focal plane shutter 1 to 1/2000 sec. and B, electronic flash 1/100 sec., automatic frame counter under magnifier. Serial No. from 1080 114.

Bright-line measuring viewfinder with automatic parallax compensation. Automatically superimposed image frames for 35, 50, 90 and 135 mm focal length. Bayonet mount for rapid lens change. Shutter speed knob from 1 to <sup>1</sup>/1000 sec. and B.

Attachable exposure meter coupled directly with the shutter knob.

Rapid film loading system for all standard 35 mm films and LEICA cassettes. Automatic film counter under magnifier. Hinged back.

Serial No. from 1175001.

as LEICA M4, but without viewfinder. Designed for the use of the marking device. Serial No. from 1 159 001.





List of the LEICA models LEICAFLEX (Type 1)

Available from 1965 LEICA M 4

Available from 1967

## LEICA MD a

# List of the LEICA models LEICAFLEX SL



Available from 1966 LEICA M 4

# Available from 1968

LEICA M 5



Single-lens-reflex camera with selective through-thelens light metering. Focusing screen with finestground micro-prisms for the assessment of sharpness throughout the entire viewfinder field. Central measuring field with 4-sided micro- prisms for positive focusing. Bayonet mount for rapid lens change. Focal-plane shutter 1 to 1/2000 sec. and B. Electronic flash up to 1/100 sec. Automatic frame counter.

Rapid film change. Serial No. from 1 173 005.

as LEICA M4, but with

built-in CdS exposure meter for selective light metering through the lens. Focalplane shutter 1/2 to 1/1000 sec. and B.

Exposure measurement up to 30 sec. coupled with the shutter speed dial. Additional accessory-shoe contact for electronic-flash

units. Novel onesided camera suspension. Removable rapid-loading spool. Rewind crank in the detachable baseplate. Serial No. from 1 287 001.

Compact measuring-viewfinder camera. Brightline measuring viewfinder with automatic parallax compensation. Automatically superimposed image frames for 40 and 50 as well as 90 mm focal length. Quick-changing lens bayonet as in LEICA-M models. Built-in CdS exposure meter for selective light metering through the lens. Vertically traveling focal-plane shutter from 1 to 1/1000 sec. and B. Accessory-shoe contact for electronic flash units. Onesided camera suspension. Entire camera back can be pulled off for convenient film insertion. Rapid film change.

Serial No. from 1 300 001.

As LEICAFLEX SL but with additional split-image rangefinder for positive focusing.

Combined shutter speed and lens stop indication in the viewfinder. Sensitivity of exposure meter increased by 3 steps. Illuminated measuring read-out for poor lighting conditions. Additional accessory-shoe contact.

Serial No. from 1385001.





# List of the LEICA models LEICA CL

Available from 1973 LEICAFLEX SL 2

Available from 1974

## List of the LEICA models LEICA R 3



Single-lens reflex camera with electronically-controlled metal-blade focalplane shutter. Alternative averaging or selective light metering through the lens. Automatic shutter speed

Available from 1976

LEICA M 4-2

Available from 1977

LEICA MD-2





determination can be switched over to manual control. Shutter speeds from 4 to 1/1000 sec., B,  $X = \frac{1}{90}$  sec. (electronicflash synchronization). Focusing screen with finestgrain micro-prisms for sharpness assessmentthroughout the viewfinder field. Central micro-prisms ring with additional splitimage rangefinder and film wind control. Film cartridge window, rapid film change. Serial No. from 1446001.

As LEICA M 4, but with connection for motor winder M 4-2. Additional accessoryshoe contact for electronic flash unit. Without selftimer. Serial No. from 1 468 001.

As LEICA M 4-2 but without viewfinder. Suitable for the use of recording strips. Serial No. from 1 468 723.

Available from 1977

LEICA R 3-MOT



As LEICA R 3, but with connection for motor winder R 3. Display of the selective or averaging measuring mode in the viewfinder above the shutter speed scale. Serial No, from 1 492 251.

Single lens reflex camera with electronically-controlled metal-blade focal-plane shutter. Two exposure measuring methods (Leitz selective measurement and Leitz largefield integral measurement) coupled with the following operating modes: aperture priority, shutter speed priority, automatic mode and manual setting. In addition, automatic switchover to "X" with systemcompatible electronic flash units. Electronically-controlled shutter speeds from  $\frac{1}{1000}$  to about 8 sec. X = 1/100 sec. for electronic-flash synchronisation. Interchangeable focusing screens.

As LEICA M 4–2, but with automatically superimposed field of view frames for six focal lengths: 28, 35, 50, 75, 90 and 135 mm lens. Serial No. from 1 532 377.

As LEICA R 4, but with shutter speed priority and manual operating modes combined with the two exposure measuring methods (Leitz selective measurement and Leitz largefield integral measurement). Serial No. from 1 632 551.

As LEICA M 4-P, but with selective exposure measurement through the lens (TTL). Exposure meter dislay as light balance in the viewfinder. Serial No. from 1 657 251.



Detachable camera back. Automatic frame counter and film transport check. Film cartridge window. Rapid film change. Rapid lens bayonet changer. Was initially supplied under the name "LEICA R 4-MOT ELECTRONIC". Serial No. from 1533 351.

# List of the LEICA models LEICA R 4

LEICA R5

Available from 1981 LEICA M 4-P







Available from 1980

LEICA R4s

Available from 1983

LEICA M 6

List of the LEICA models LEICA R 4 s MOD. 2

Available from 1986

## LEICA R5



Single-lens reflex camera with electronically controlled metal-blade focal-plane shutter. Two exposure measuring methods (selective and integral) combined with aperture-priority, shutter-priority, variable automatic program and



Compact single-lens reflex camera with mechanically controlled metal-blade focal-plane shutter. Through-the-lens exposure metering. Instant changeover between selective and integral wide-field exposureAs LEICA R4s, but with override for single-hand operation and optimised mode selection switch. Serial No. from 1655485.

............

manual modes. TTL flash exposure measurement and automatic switching to "X" when using system-compatible flash units. Electronically-controlled shutter speeds from 1/2000 sec. to 15 sec. "X" =  $\frac{1}{100}$  sec. for electronic flash synchronisation. Diopter setting from +2 to -2 diopters. Interchangeable focusing screens. Removable camera back and connection for cable-free Data Back. Automatic-frame counter. Film cartridge window. Serial No. from 1 696 451.

meter mode. Manual shutter and aperture control. Shutter range  $\frac{1}{1000}$  s to 1 s, "X" = 1/100 s, B. TTL flash-exposure control with dedicated flash unit and SCA 351 or SCA 551 adapter. Interchangeable focusing screens. Diopter setting from +2 to -2 diopters. Independent mirror release. Supplementary viewfinder light. Camera back interchangeable with cable-free data back. Automatic exposure counter. Film-cartridge window

Serial No. from 1728451.



Electronically controlled, compact single-lens reflex camera; two modes: aperture priority with selective or full-field integral exposure metering; exposure metering memory; and manual mode with selective metering. TTL-flash exposure control with systemcompatible flash units. Exposure times from ½2000 s to ½ s (manual mode), or to 15 s in automatic mode. Interchangeable focusing

As LEICA R 6, but with mechanically controlled shutter speeds from 1/2000 to 1 s. Improved, easier-toread frame counter with magnifyer-window.

Compact, microprocessorcontrolled 35 mm single lens reflex camera, with multi-mode automatic (aperture and shutter priority and a variable automatic program), and manual programs. TTL flash metering with system compatible flash units (SCA 351/551), depending on program, includes fill-in flash. In the automatic modes, the shutter speeds are formed electronically and infinitely variably from 16 sec. to 1/2000 sec., in the manual and shutter priority modes, the shutter speeds are in half values from 4 sec. to 1/2000 sec. Mechanically formed shutter speeds 1/100 sec. for flash synchronisation and "B". Film



screens. Eyepiece diopter setting from -2 to +2 diopters. Hinged camera back with connection for Data Back without cable.

# List of the LEICA models LEICA R-E

Available from 1990

LEICA R 6.2



Available from 1992 LEICA R 7



speed range: manual from ISO 6/9° to ISO 12 800/42°, DX from ISO 25/50° to ISO 5000/38°. Viewfinder LED display with automatic brightness adjustment. Supplementary lens aperture illumination. Interchangeable focusing screens. Eyepiece adjustment from + 2 to - 2diopters. Removable rear cover with connection for a cable-free data back.

## Accessories for items no longer in the current product range

Please ask the customer service department of Leica Camera GmbH about items no longer listed in chapter 11.

Accessories for R 4 models	11-3
Accessories for R 3 models	11- 4
Modification of LEICAFLEX lenses for use on LEICA R models	11- 4
Accessories for LEICAFLEX SL / SL 2 models	11-5
Accessories for earlier R lenses	11-6
Accessories for earlier camera bodies and lenses	11-9
Accessories for compact-cameras	11-12
Accessories for FOCOMAT I c	11-12
Accessories for PRADOVIT A	11-12
Accessories for PRADOVIT-COLOR	
Accessories for PRADOVIT C / CA 1500 / 2500 / CA 2502	11-13
Accessories for PRADOVIT R / RA 152	11-13
Accessories for PRADOVIT 153 / 253, LEICA P 155 / P 255	11-13
Accessories for earlier TRINOVID binoculars	11-14

## Accessories for LEICA R 4 models

LEICA R lenses

DB 2 LEICA R Data Back

DB2 LEICA R Data Back for LEICA R4 models Order No. 14230

Adapter for MD-R external power supply

Adapter for MD-R external power supply Order No. 14 323

5 m Extension cable for MD-R external power supply

Order No. 14325.

#### Near-focusing devices

All other accessories

see page 2-1 onwards

The DB2 LEICA R is a camera back for printing data onto the exposure.

Detailed description on page 1-27.

For LEICA R4 models with cable for connection to the flash contact.

and the set of the second

For connection of external power supply; with 1 m long, attached cable and screw-on connection plug<sup>1)</sup>. (The adapter for the MD-R external power supply is pushed into the drive in place of the battery housing). Note: When using this camera back on LEICA R models with motor winder or drive the shutter speeds

are as follows: with motor winder: 1/125 sec. and longer, with motor drive: 1/30 sec. and longer. Shorter times lead to blurred exposures.

**Connection possibilities** Battery housing, when – due to cold – batteries need to be kept at body temperature and must be stored elsewhere.

Mains voltage up to a maximum of 15 DC voltage.

see page 3-1 onwards

see page 1-5 onwards

<sup>1)</sup> suitable is either a coupling socket 302-013.154-011 or a built-in socket 042-813.155-008 (2 pin), available from Leica Camera GmbH, customer service.

### Accessories for LEICA R 3 models

LEICA R lenses	see page 2-1 onwards

Correction lenses R

with adapter, locks into position \*) for LEICA R 3 models (Spherical) see page 1-6

Eyecup R locks in position \*)

Eyecup for LEICA R 3 models Order No. 14215

Replacement parts for cameras

can also be used in conjunction with correction lenses \*) The Leica Camera Service Centre can fit a catch for locking the eyecup in position on the eyepiece mount of any LEICA R3 camera, but modification of the eyepiece mount is not essential for the use of correction lenses and eyecup R.

**Camera body cover,** R-bayonet for all R-cameras.

Order No. 14312 \_\_\_\_

Order No. 14103

**Carrying strap** with non-slip pad

Near-focusing devices

see page 3-1 onwards

Recommended accessories see page 1-5 onwards

Modification of LEICAFLEX lenses for use on LEICA R models Existing LEICAFLEX lenses can be fitted with a cam for the full utilisation of the LEICA R exposure facilities.

Modified lenses continue to be fully functional in all LEICAFLEX models. Cost and time for conversion upon request from the national Leica Agency or from Leica Camera customer Service.

## Accessories for LEICAFLEX SL / SL 2 models

#### LEICA R lenses

**Correction** lenses

<sup>1)</sup> The Leica Camera Service Center can supply a mount, code 042-655.815-006, for using a correction lens on any LEICAFLEX/SL model. Any optician can make such a lens and fit it in the mount. Eyecup 008-027.200-060 is also available from the Leica Camera Service Centre, for fitting to the correction-lens mount.

<sup>2)</sup> The Leica Camera Service Center can fit a catch for locking the eyecup in position on the eyepiece mount of any LEICAFLEX SL2 camera, but modification of the eyepiece mount is not essential for the use of correction lenses and eyecup R. can be used in conjunction with correction lenses

see page 2-1

with adapter 1)

see page 1-6

for LEICAFLEX SL2

models(Spherical)

Camera body cover, R-bayonet for all R-cameras

Carrying strap with non-slip pad

Twin flash-socket cover

see page 3-1 onwards

see page 1-5 onwards

Adapter for the use of VISOFLEX 2/3 lenses on: LEICAFLEX SL/SL2, LEICA R (at working aperture)

ction Eyecup R locks in position<sup>2)</sup>

Evecup

models

for LEICAFLEX SL2

Spare parts for cameras

Order No. 14103

Order No. 14215 .

Order No. 14312

Order No. 15526

Near-focusing devices

Recommended accessories

**Cover** for 1:1 adapter and nearfocusing ring: Rear cover

Order No. 14162 \_\_\_\_\_

Order No. 14167

Adapter

### Accessories for earlier LEICA R lenses

ELPRO near-focusing attachments for earlier LEICA R lenses  Lens hood cannot be attached.
 ELPRO 3 and ELPRO 4 can be used only after the lenses have been modified for the filter thread M 55 x 0.75. Modification by Leica Camera Technical Service Center. Series 7 filters continue to be suitable for use with the aid of the Adapter No. 14225, available as an accessory.

Lens my moith	ELPRO	Distance	Distanc	ce in cm	Object-	Repro-	
	Order No.	scale at	Object to film	Object to front lens	field in mm	duction scale	
SUMMICRON-R	VI a	∞	50	41	184 x 276	1: 7.7	
f/2/50 mm	16 531	0.5	31	21	91 x 137	1: 3.8	
(M 44 x 0.75)	2 <sup>1)</sup>	∞	30	21	94 x 141	1: 3.9	
11 228	16542	0.5	24	14	62 x 93	1: 2.6	
ELMARIT-R f/2.8/90 mm up to No. 2 809 000 (M 54 x 0.75), 11 239	3 <sup>2)</sup> 16 543	0000000000000000000000000000000000000	74 44	61 30	161 x 241 72 x 108	1: 6.7 1: 3.0	
SUMMICRON-R f/2/90 mm up to No. 2 770 950 (M 54 x 0.75), 11 219	3 <sup>2)</sup> 16 543	∞ 0.7	74 44	61 30	161 x 241 72 x 108	1: 6.7 1: 3.0	
ELMARIT-R	3 <sup>2)</sup>	∞	76	61	107 x 160	1: 4.5	
f/2.8/135 mm	16 543	1.5	58	42	66 x 99	1: 2.8	
up to No. 2772618	4 <sup>2)</sup>	∞	150	135	237 x 355	1: 9.9	
(M 54x0.75), 11211	16544	1.5	84	68	106 x 159	1: 4.4	
VARIO-ELMAR-R	3	80 mm/∞	82	61	177 x 266	1: 7.4	
f/4.5/80-200 mm	16543	200 mm/1.8	66	45	50 x 75	1: 2.1	
(M 55 x 0.75), 11 224	4	80 mm/∞	156	135	392 x 588	1:16.3	
	16544	200 mm/1.8	96	74	83 x 125	1: 3.5	
VARIO-ELMAR-R	3	75 mm/∞	82	61	187 x 281	$1: 7.8 \\ 1: 1.7$	
f/4.5/75-200 mm	16543	200 mm/1.2	60	38	41 x 62		
(E 55)	4	75 mm/∞	156	135	414 x 621	1:17.3	
	16 544	200 mm/1.2	80	58	62 x 93	1: 2.6	

Leather case



All values rounded off

Leather case for one near-focusing attachment

\*) replacement

for MACRO-ELMAR-R f/4/100 mm

for TELYT-R f/4/250 mm for TELYT-R f/4.8/350 mm

R-lens:	Internal lens thread	Dia- meter in mm	Lens hood	Lens cap	Rear cover	Filter- size 2)	Adapter Series filters	ELPRO <sup>3)</sup> near focusing attachm.	Soft leathe case
ELMARIT-R 2.8/19 11 225	M 82 x 0.75	88	12 529	14221	14 162	-	ALLE AL	-	4)
SUPER- ANGULON-R 3.4/21 11803	M 67 x 0.75	70	4)	14 144	4)	Series 8	Lens hood		4)
ELMARIT-R 2.8/28 11 247	M 48 x 0.75	51	12 509	14 172	14 162	Series 7	Lens hood	10 - 1 J	1473
SUMMICRON-R 2/35 11 227 up to No. 2 791 416	M 48 x 0.75	51	12 509 1)	14 172	14 162	Series 7	Lens hood	107.5	4)
ELMARIT-R 2.8/35 11101 up to No. 2517850	M 44 x 0.75	47	4)	-	14 162	Series 6	14 160	10528	4)
up to No. 2928900	M 48 x 0.75	51	12 509	14 172	14 162	Series 7	Lens hood	-	4)
SUMMILUX-R 1.4/50 11875 up to No. 2806500	M 48 x 0.75	51	4)	14 172	14 162	Series 7	Lens hood		4)
SUMMICRON-R 2/50 11 228 up to No. 2 777 650	M 44 x 0.75	47	4)	-	14 162	Series 6	14 160	16 531 16 542	4)
MACRO-ELMARIT-R 2.8/60 11 203 up to No. 3 013 650	M 60 x 0.75	63.7	12 5 1 4	14 290	14 162	Series 8	Lens hood	fr-M	4)
SUMMICRON-R 2/90 11219 up to No. 2770950	M 54 x 0.75	70	built- in	14 144	14 162	Series 7	14 161	3)	4)
up to No. 3 381 676	M 55 x 0.75	70	built- in	14289	14 162	E 55	14 225	3)	4)
ELMARIT-R 2.8/90 11 239 up to No. 2 809 000	M 54 x 0.75	65	built- in	er of ale	14 162	Series 7	14 161	3)	4)
up to No. 3 260 100	M 55 x 0.75	65	built- in	14 289	14 162	Series 7	14 225	16 543	4)
MACRO-ELMAR 4/100 11 230 up to No. 2 933 350	M 54 x 0.75	65	built- in	inn <u>e</u> shi tad), ann	14 162	Series 7	14 161	-1-5	4)
ELMARIT-R 2.8/135 11 211 up to No. 2772 618	M 54 x 0.75	65	built- in		14 162	Series 7	14161	3)	4)
ELMARIT-R 2.8/180 11919 up to No. 2939700	M 72 x 0.75	78	built- in	14152	14 162	Series 8	4)	- 7 4	4)
APO-TELYT-R 3.4/180 11 240 up to No. 2 947 023	M 59 x 0.75	65	built- in		14 162	Series 7.5	4)	- 1.96	4)
TELYT-R 4/250 11920 up to No. 3 050 600	M 72 x 0.75	78	built- in	14 152	14 162	Series 8	4)	-	4)
TELYT-lens unit 5.6/400 (TELEVIT-R)	KOIB <u>T</u> 377 Moyed	98	built- in	14 295	4)	Series 7	Filter- slot		4)
TELYT-lens unit 5.6/560 (TELEVIT-R)	databa davios	120	built- in	4)	4)	Series 7	Filter- slot		4)
VARIO-ELMAR-R 3.5/35-70 to No. 3 393 300	M 60 x 0.75	69	built- in	14 290	14 162	E 60	14 263 for Series 7.5	-	4)
VARIO-ELMAR-R 4.5/80–200 11 224	M 55 x 0.75	72	built- in	d leekin	14 162	E 55	14 225 for Series 7	16543 16544	4)
VARIO-ELMAR-R 4.5/75-200 11 226	M 55 x 0.75	70	built- in	14289	14 162	E 55	14 225 for Series 7	16 543 16 544	4)

Leather case for same: 14 621
 Filter see page 2-40
 see page 11-9

<sup>4)</sup> Replacement may be obtainable from the Leica Camera Service Center: please enquire.

### Accessories for earlier LEICA R lenses



### TELYT-S f/6.3/800 mm

Extreme telephoto lens with Leica special glasses for optimum optical performance

- Angle of view: 3°
- Number of elements: 3 (1 component)
- Filter size: Series 7 (in filter slot)
- Aperture setting ring with clickstops (between f/6.3 and 22 also half values)
- Preset diaphragm
- Smallest aperture: f/32
- Focusing range: ∞ to 12,50 m (41 ft)
- Smallest object field: 320 x 480 mm (1 ft - 1 ft 7 in) (about 1:13)
- Rapid focusing by means of an easy-grip rotary knob and parallel guide
- Lens can be dismantled into 5 parts for transport in a special metal case assembly and dismantling by means of bayonet and marked locking rings with levers
- Sturdy carrying handle for assembled lens

- Lining-up device in the shape of a sports finder with rear and front sight and field-of-view orientating device for upright and horizontal format, protected against damage by integration with the carrying handle
- Detachable and lockable lens hood
- Slot with cover for Series 7 filters
- Thread A <sup>1</sup>/<sub>4</sub> and A <sup>3</sup>/<sub>8</sub>, DIN 4503 (<sup>1</sup>/<sub>4</sub> and <sup>3</sup>/<sub>8</sub> in) for sturdy tripods
- Support ring, rotatable with tripod thread A <sup>1</sup>/<sub>4</sub> DIN 4503 (<sup>1</sup>/<sub>4</sub> in) for additional monopod
- Black anodized finish
- LEICA R quick change bayonet
- Rotatable swivelling device for upright and horizontal format, with clickstops
- Lens cap diameter: 152 mm (6 in)
- Length from bayonet flange: 768 mm (30 in)
- Diameter: 152 mm (6 in)
- Weight: 6.860 kg

metal transport case

Order No. on request .

### Accessories for earlier Camera Bodies and Lenses

LEICA M lenses

see page 5-1 onwards

 see page 4-4 onwards
 LEICA WINDER M

 see page 4-4 onwards
 Recommended<br/>M-accessories

 see page 5-17 onwards
 Brilliant Finder

#### Accessories for earlier LEICA M and CL lenses

M-lens	Internal thread	Lens cap diameter in mm	Lens hood	Lens cap	Rear cover	Filter
ELMARIT-M f/2.8/21 up to No. 3 363 299	M 60 x 0.75	62	Sut in .	14 290	14269	E 60
SUPER-ANGULON-M f/3.4/21 up to No. 2 993 700	M 48 x 0.75	52.5	1)_	1)	1)	Series 7 with lens hood or E 48
ELMARIT-M f/2.8/28 Order No. 11804	M 49 x 0.75	51	12 536	14 001	14 269	E 49
SUMMILUX-M f/1.4/35 up to No. 2 166 700	M 41 x 0.5	46.5	1)	- 19	14269	E 41
SUMMILUX-M f/1.4/35 Aspherical	M 46 x 0.75	49	12 587 + 14 013	14231	14269	E 46
SUMMICRON-M f/2/35 up to No. 2 307 450	M 39 x 0.5	42	12 538	14268	14 269	E 39
up to No. 2 483 503	-	42	12 504	14 268	14269	Series 7 in lens hood
up to No. 2974250	M 39 x 0.5	42	12 504	14 268	14 269	E 39 or Series 7
SUMMARON-M f/2.8/35	M 39 x 0.5	42	=	14268	14 269	E 39
SUMMICRON-C f/2/40	M 39 x 0.75	41.5	1)	1)	14 269	Series 5.5 with lens hood

 Replacement may be obtainable from the Leica Camera Service Center; please enquire.

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### Accessories for earlier Camera Bodies and Lenses

#### Accessories for earlier LEICA M and CL lenses

M-lens	Internal thread	Lens cap diameter in mm	Lens hood	Lens cap	Rear cover	Filter	Nappa soft leather case
NOCTILUX-M f/1/50 up to No. 2919656	M 58 x 0.75	61	1)	-	14 269	E 58	( I)
up to No. 3 220 708 Order No. 11 821	M 60 x 0.75	62	12 539 12 544	14 290	14 269	E 60	14 694
NOCTILUX-M f/1.2/50		52.5	1)	1)	14 269	Series 8 in lens hood	1)
SUMMILUX-M f/1.4/50 Order No. 11 114	M 43 x 0.5	45 ctre	12 586 + 14 037	14 007	14 269	E 43	1)
SUMMICRON-M f/2/50. up to No. 2 915 800 Order No. 11 819 11 825	M 39 x 0.5	42	12 538 + 14 033	14 268	14 269	E 39	1) 14 699
ELMAR-M f/2.8/50	M 39 x 0.5	42	mpenen	14 268	14 269	E 39	1)
SUMMILUX-M f/1.4/75 up to No. 3 223 300	M 60 x 0.75	62	12 539	14 290	14 269	E 60	1)
SUMMICRON-M f/2/90 up to No. 2997000	M 48 x 0.75	63.7	built-in	1)	14 269	E 48	1)
SUMMICRON-M f/2/90 from No. 2 813 801 to No. 2 813 900 from No. 2 997 001 to No. 3 177 200	M 49 x 0.75	63.7	built-in	1)	14269	E 49	1)
ELMARIT-M f/2.8/90	M 39 x 0.5	42		14 268	14 269	E 39	1)
TELE-ELMARIT-M f/2.8/90	M 39 x 0.5	42	-	14 268	14 269	E 39	1)
ELMAR-C f/4/90	M 39 x 0.75	.42	1)	1)	14 269	Series 5.5 with lens hood	1)
ELMAR-M f/4/90	M 39 x 0.5	42	S parts (	14268	14 269	E 39	1)
ELMARIT-M f/2.8/135 up to No. 2788926	M 54 x 0.75	63.7	built-in	1)	14 269	Series 7 with Adapter 14 161	DEDING (
ELMAR-M f/4/135 Order No. 11851	M 39 x 0.5	42	es - dy carry	14 268	14 269	E 39	0/06 1) - (30 12)
HEKTOR-M f/4.5/135	M 39 x 0.5	42	moled is	14 268	14 269	E 39	1)

<sup>1)</sup> Replacement may be obtainable from the Leica Camera Service Center, please inquire.

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### Accessories for earlier Camera Bodies and Lenses

#### Accessories for VISOFLEX lenses

M-lens	Internal thread	Lens cap diameter	Lens hood	Lens cap	Rear cover	Filter size
ELMAR-M f/3.5/65 up to No. 2 378 900	M 41 x 0.5	9756 (Di	built-in	dina.L	-	E 41
from No. 2 378 901	M 44 x 0.75	56	built-in	obvT b	-	Series 6 with Adapter 14 160
TELYT-M f/4/200	M 58 x 0.75	72	built-in	iniM	14 050	E 58
TELYT-M f/4.8/280 up to No. 2 340 952	M 58 x 0.75	76	built-in	1)	14 269	E 58
from No. 2 340 953	M 66 x 0.75	76	built-in	L.coth	14 269	Series 8 with Adapter 14 169
TELYT-M f/5.6/400	-	98	built-in	14 295	14 269	Series 7 in filter slot
TELYT-M f/6.8/400	M 72 x 0.75	78	built-in	14 152	14 269	Series 7 in filter slot
TELYT-M f/5.6/560	···· ··· ··· · · · · · · · · · · · · ·	120	built-in	1)	14 269	Series 7 in filter slot
TELYT-M f/6.8/560	- 50	98	built-in	14 295	14 269	Series 7 in filter slot
TELYT-S f/6.3/800		152	built-in	1)	14 269	Series 7 in filter slot

<sup>1)</sup> Replacement may be obtainable from the Leica Camera Service Center; please enquire.

. . . . . . . . .

Filters

Filter E 32	Screw-in filter						
	E 39	E 41	E 48	E 49	E 55		
UVa	-Service	13 13 1	·	13 330	13 328	13 373	
Yellow	_	_	13 160		anne <del>n</del> nela	. Carth	
Yellowgreen	_	_	10 00 0 4	—	-	13 391	
Orange	-	-			NOT 100 YOU	13 3 12	
Red	13 401	-	-		YP1022 359	<i>m</i> – <i>m</i>	

	Screw-in filters		Series filters			
sta area enstomer	E 58	E 60	E 77	6	7	8
UVa	13 270	13 381	-	13 012	13 009	13 018
Yellow			—	13 013	-	—
Yellowgreen	-	13 392		13 014	13 007	13 021
Orange	-	13 383	8.31-31	13 011	13 008	-
Polcirc.	<u> </u>	_	13 334		-	-

### Accessories for Compact-Cameras

LEICA AF-C1

Order No.	18 502	
Order No.	18 5 1 5	

Leather ever-ready case Carrying strap

Leather ever-ready case

Leather ever-ready case IR-remote release Carrying strap

Mini tripod with ball and socket joint

Mini tripod with ball and socket joint

Carrying strap Wrist strap

#### LEICA mini

Order No.	18 503
Order No.	18 516
Order No.	18 517
Order No.	14 320

#### LEICA C2-ZOOM

Order No.	18 502
Order No.	18 504
Order No.	18 515
Order No.	14 320

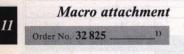
### Accessories for the FOCOMAT Ic

Order No.	17652 -	
Order No.	17 437 .	
Order No.	17 586 .	

Anti-Newton disc Tension maintenance Enlargement frame 30 x 40 cm

### Accessories for the PRADOVIT A

Projector lenses and accessories see page 8-20, 21



Film guide
Order No. 32 868 \_\_\_\_\_1)

 Please inquire at Leica customer service, Solms The fitting of projector lenses of 42.5 mm dia. to older PRADOVIT projectors requires the sleeve 37 119 (exceptions: PRADOVIT I, f, n, n 12, n 24, to which they **cannot** be fitted). see page 8-20, 21

### Accessories for the PRADOVIT-COLOR

**Projector lenses** and lens sleeves

Accessories for the PRADOVIT C / CA 1500 / 2500, CA 2502

Hood and case

Macro attachment

Order No. 32 825 \_\_\_\_\_

Film guide

Order No. 32 868 \_\_\_\_\_

**Projector lenses** and accessories

Magazines

Replacement parts
Order No. 37 644

Accessories for the PRADOVIT R / RA 152 Projector lenses and accessories

Accessories for PRADOVIT 153 / 253

Projector lenses and accessories

 Please inquire at Leica customer service, Solms

see page 8-20, 21

see page 8-20, 21

see page 8-18

Mains connection cable

see page 8-20, 21

see page 8-20, 21

#### Accessories for **PRADOVIT 153 / 253**

Order No. 37 641

Order No. 37 642

**Replacement** parts

Order No. 37 639

Order No. 37 989

Magazines

Accessories for LEICA P 155 / P 255

**Multiple Connecting socket** (6- and 14pin), e.g. for connecting slide control unit

(cassette rewinder/tape connection).

**Extension** cable for remote-control, 10 m (33 ft)

**Cable remote-control** (3 m, 10 ft) with light pointer

**IR** remote-control (without battery 9 V. IEC 6 LF 22)

see page 8-14

(up to unit no. 213 050)

#### Timer-P

for automatic slide projection with a choice of intervals from approx. 3.5 to 35 sec.

Cable remote control

Order No. 37314

Order No. 37316

separate, with built-in light pointer (3 m)

for separate cable remote

control (approx. 10 m)

Extension cable

Order No. 37315

### Accessories for TRINOVID **Binoculars**

Order No.	42 101
Order No.	42 149

**Rubber rain guard** for TRINOVID B and BA

Spare carrying strap black, Perlon fabric, for **TRINOVID B and BA** binoculars

Nappa leather case for TRINOVID 8 x 32 B black \*)

and BA\*)

Non-slip pad for carrying strap, black, order no. 707 115 705 000.\*)

\*) obtainable from Leica service center or local Leica agency.

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Order No. 42181

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