



ILEX

SYNCHRO ELECTRONIC® SHUTTER WITH SPEEDCOMPUTER®



For the first time, there is available an extremely reliable **ALL ELECTRONIC** photographic shutter. Its extreme simplicity, dependability and operational convenience assures the photographer of a correct exposure each time the "ACTUATE" button is pressed.

Ilex Optical Company — a leading manufacturer of lenses and shutters — introduces a new concept in shutter design for demanding professional, commercial and industrial applications. Now a truly dependable all electronic shutter is available for precise, fully-automatic exposure timing.

Ilex SYNCHRO ELECTRONIC Shutters are interchangeable with Ilex Mechanical Shutters of the same number size. Simply remove the lens assembly from your present Ilex shutter and screw it into the Ilex Synchro Electronic.

The Ilex SYNCHRO ELECTRONIC Shutter consists of a SPEEDCOMPUTER connected to an Ilex SYNCHRO ELECTRONIC Shutter by means of a specially designed connecting cord. A heavy-duty micro-switch is built into the shutter for reliable, heavy-duty strobe firing. The SPEEDCOMPUTER consists of an electronic timing package which may be hand held or attached to any convenient equipment. The SPEEDCOMPUTER

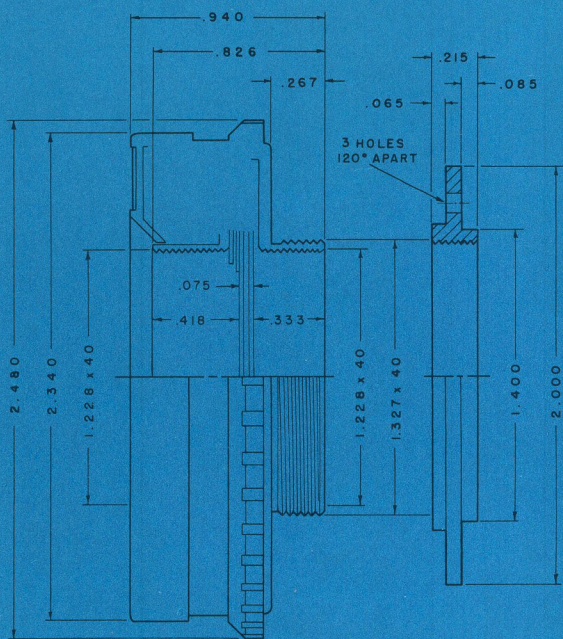
has a "Shutter Open" light which illuminates when the "ACTUATE" button is pressed and remains on as long as the shutter is open. A double action lever permits time and bulb settings. The press focus lever on the shutter can be operated electronically or mechanically. A rotary Selector Switch with click stops selects 10 shutter speed settings from 4 seconds to 1/125 of a second.

Timing is all electronic. Repeatability of each speed setting far exceeds any mechanical shutter. The sturdy, five-bladed shutter operates quietly and smoothly for efficient light passage and is free of any vibration. The press-focus lever can be operated manually at the shutter or electronically from the remotely located SPEEDCOMPUTER.

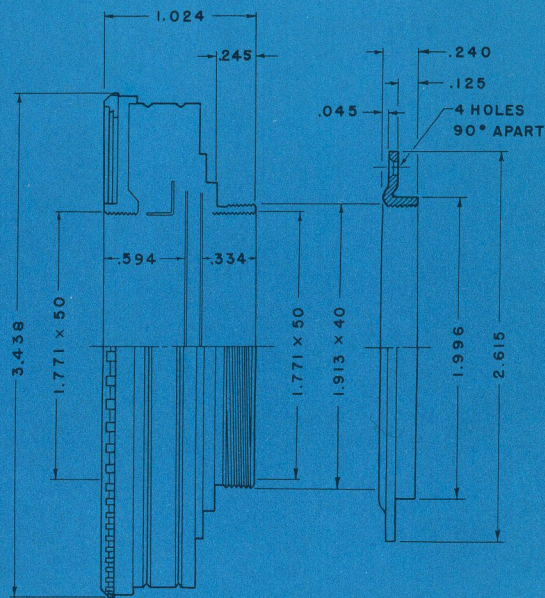
No longer is there any doubt as to whether an exposure has been successfully made. The Ilex synchro electronic shutter will prove extremely helpful to all professional, commercial and industrial users.



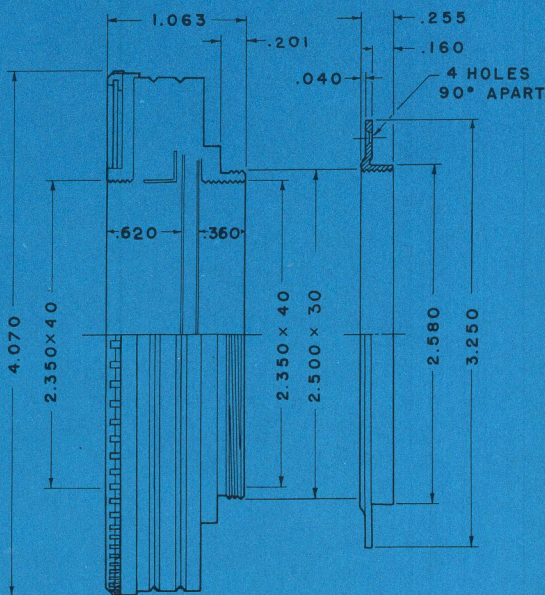
SYNCHRO ELECTRONIC[®] SHUTTER WITH SPEEDCOMPUTER[®]



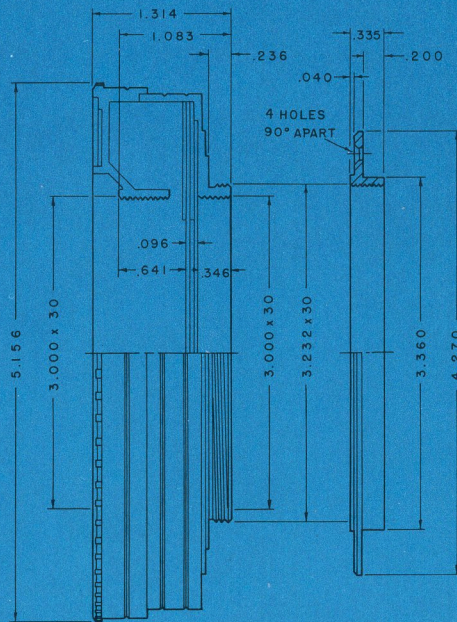
#1 SYNCHRO ELECTRONIC SHUTTER



#3 SYNCHRO ELECTRONIC SHUTTER



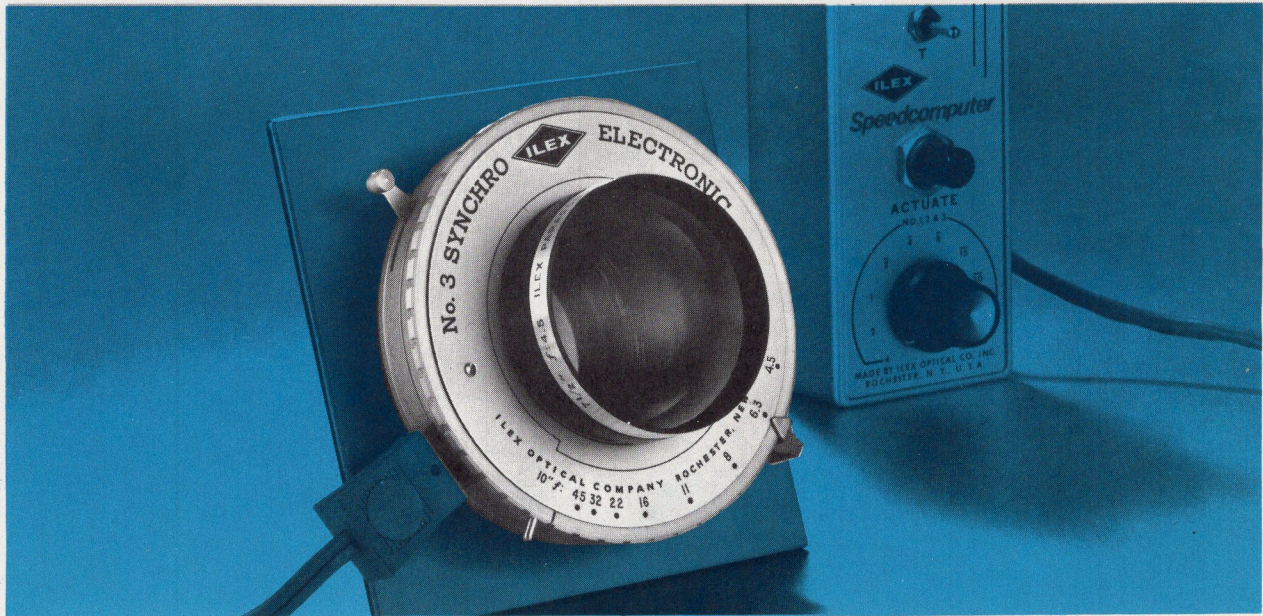
#4 SYNCHRO ELECTRONIC SHUTTER



#5 SYNCHRO ELECTRONIC SHUTTER



COMMERCIAL PARAGON LENSES: f/4.5 SERIES



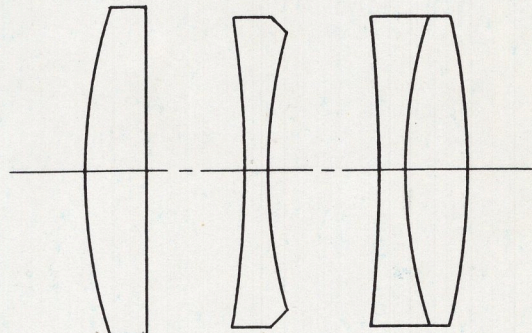
FOCAL LENGTH (inches)	APERTURE	COVERAGE (inches)	MOUNTINGS
3½	f/4.5	2¼ x 3¼	# 1 Electronic Shutter # 1 Mechanical Shutter # 0 Iris Barrel
4¼	f/4.5	2¼ x 3¼	# 1 Electronic Shutter # 1 Mechanical Shutter # 1 Iris Barrel
5	f/4.5	3¼ x 4¼	# 1 Electronic Shutter # 1 Mechanical Shutter # 1 Iris Barrel
5½	f/4.5	4 x 5	# 3 Electronic Shutter # 3 Mechanical Shutter # 2 Iris Barrel
6½	f/4.5	4 x 5	# 3 Electronic Shutter # 3 Mechanical Shutter # 3 Iris Barrel
7½	f/4.5	5 x 7	# 3 Electronic Shutter # 3 Mechanical Shutter # 3 Iris Barrel
8½	f/4.5	5 x 8	# 4 Electronic Shutter # 4 Mechanical Shutter # 4 Iris Barrel
10	f/4.5	6½ x 8½	# 5 Electronic Shutter # 5 Mechanical Shutter # 5 Iris Barrel
12	f/4.5	8 x 10	# 5 Electronic Shutter # 5 Mechanical Shutter # 5 Iris Barrel

f/4.5 COMMERCIAL PARAGONS

The Commercial Paragon series of lenses are a state-of-the-art achievement in optical quality and brilliance. They represent the finest lenses available for color work as well as black and white reproductions.

All air-to-glass surfaces are hard-coated with magnesium fluoride for minimum reflectivity and maximum light transmission. There are 9 lenses in the Commercial Paragon series having an aperture of f/4.5 and focal lengths from 3½" to 12". Coverage ranges from 2¼" x 3¼" to 8" x 10".

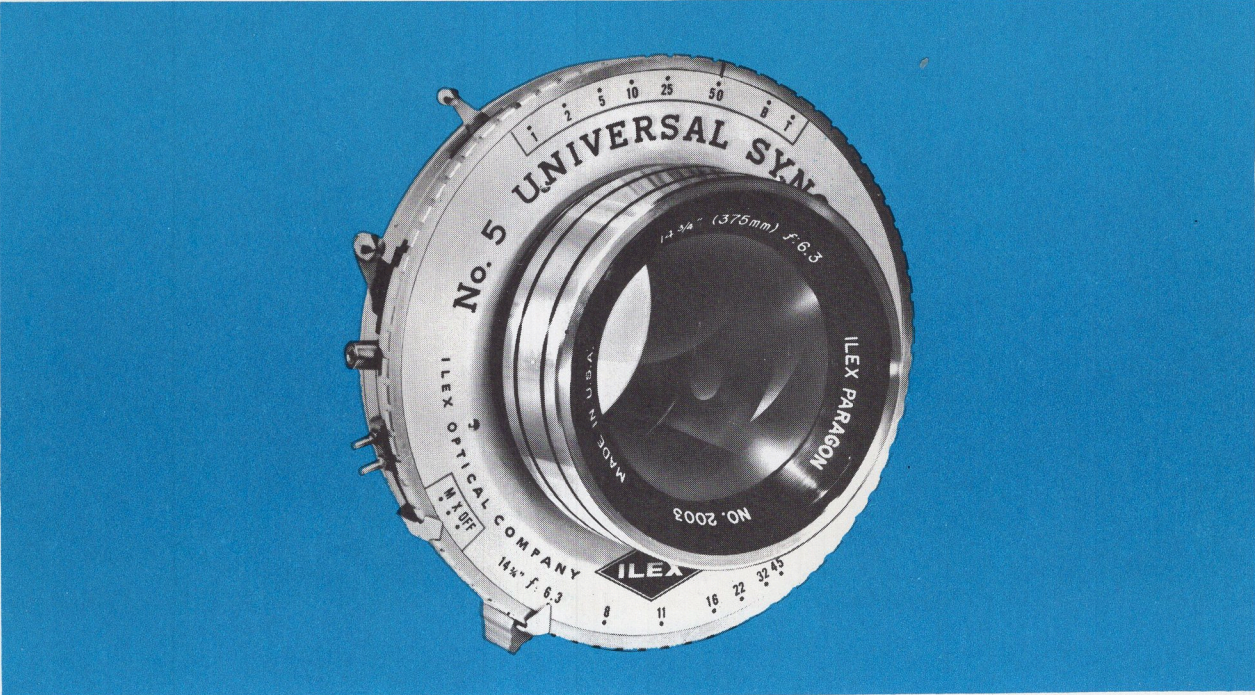
All Commercial f/4.5 paragon lenses can be mounted in Ilex mechanical shutters or iris barrels. They can also be used with the Ilex Synchro Electronic Shutters which are operated by remote control Speedcomputers.



TYPICAL TESSAR LENS CONFIGURATION



COMMERCIAL PARAGON LENSES: f/6.3 SERIES



FOCAL LENGTH (inches)	APERTURE	COVERAGE (inches)	MOUNTINGS
6½	f/6.3	4 x 5	#1 Electronic Shutter #0 Mechanical Shutter #1 Iris Barrel
8½	f/6.3	5 x 8	#3 Electronic Shutter #3 Mechanical Shutter #3 Iris Barrel
10	f/6.3	6½ x 8½	#3 Electronic Shutter #3 Mechanical Shutter #3 Iris Barrel
12	f/6.3	8 x 10	#4 Electronic Shutter #4 Mechanical Shutter #4 Iris Barrel
14¾	f/6.3	11 x 14	#5 Electronic Shutter #5 Mechanical Shutter #5 Iris Barrel
20	f/7.0	11 x 14	#5 Electronic Shutter #5 Mechanical Shutter #5 Iris Barrel

f/6.3 COMMERCIAL PARAGONS

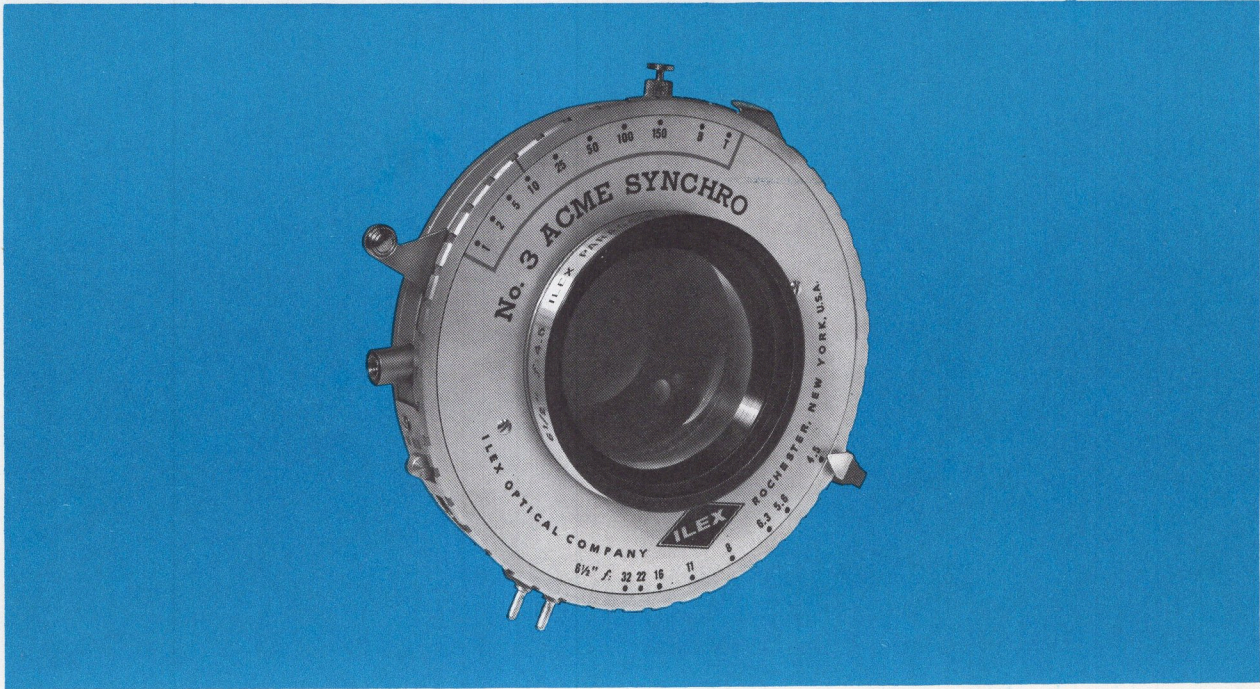
The Ilex Commercial Paragon is a completely new version of the widely accepted Paragon lens especially re-designed for the industrial, commercial, or studio photographer. The design philosophy of the Commercial Paragon takes into account the special needs of the Commercial photographer. The glass is carefully selected, and all lenses are put through a special Lexcoating® process to provide exceptional brilliance.

All have an f/6.3 aperture and are available in plain barrel with adjustable iris, or shutter mounted in focal lengths as shown in table. Focus is constant across the entire image.

These lenses are expertly crafted and are finished to the highest professional standards. They are accurately color corrected and provide outstanding performance in commercial color and black and white applications.

ILEX

**NO. 3 & NO. 4
MECHANICAL SHUTTERS**



The No. 3 & No. 4 Shutters are available in 4 models: Universal, "X" Universal, Acme, and Acme Synchro. All feature ruggedized construction and consistency of operation.

Universal Shutter

The No. 3 & No. 4 Universal shutters are automatic, self-cocking shutters. They are operated by simply pressing the release lever. The No. 3 Universal has shutter speeds of T, B, 1, 1/2, 1/5, 1/10, 1/15, 1/50, 1/100, 1/150 second. The No. 4 Universal has shutter speeds of T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/100 second. When specified, the shutters can be supplied with press-focus levers.

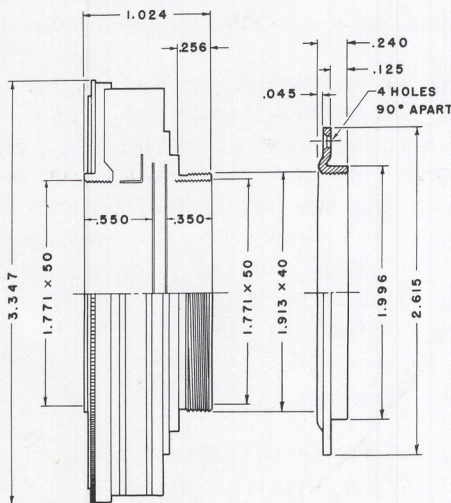
SHUTTER SIZE	LIGHT APERTURE	LENS MOUNTING APERTURE	OUTSIDE DIAMETER	FLANGE THREAD DIAMETER
No. 3	1.375" (max.) .125" (min.)	1.771" x 50 front & rear	3.347"	1.913" x 40

"X" Universal Shutter

The No. 3 & No. 4 "X" Universal Shutter retain the automatic, self-cocking feature of the Universal shutter with the addition of X flash synchronization. The No. 3 "X" Universal has shutter speeds of T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/100, 1/150 second. The No. 4 "X" Universal has shutter speeds of T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/100 second.

Acme Shutter

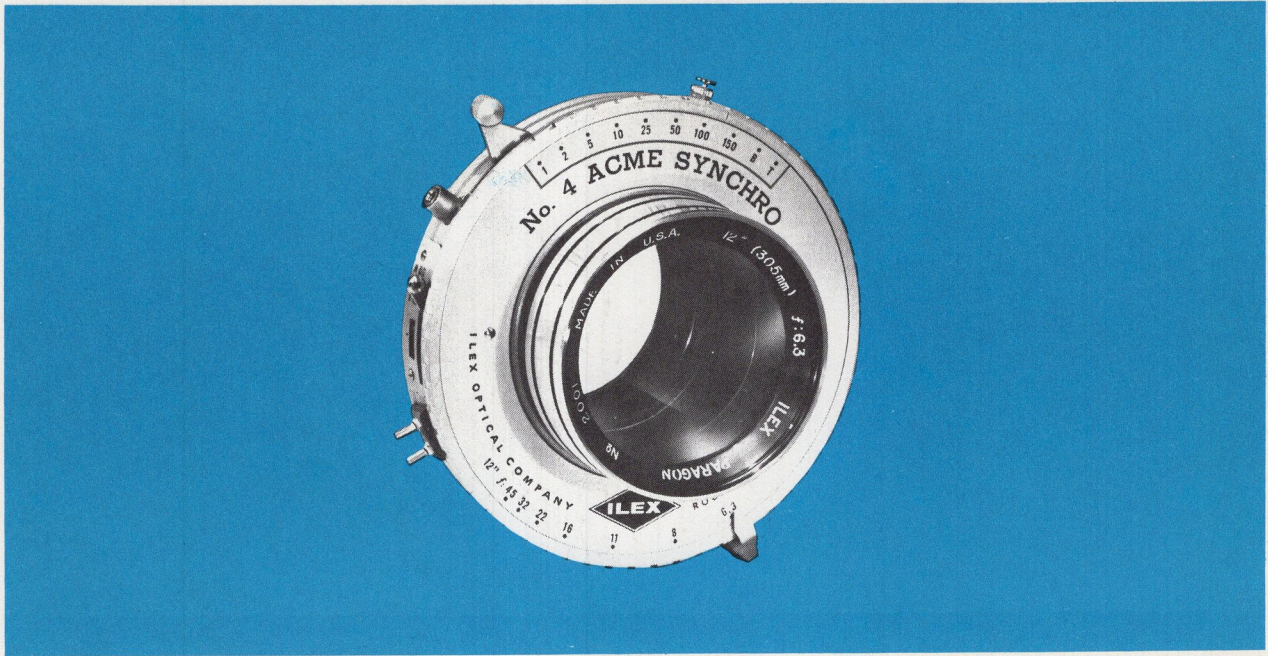
The No. 3 & No. 4 Acme shutters are set and release type. They may be opened at any speed setting for focusing by pressing the "Focus Button." They will remain open until the button is released. There is no need to re-set the speed to T or B for focusing. This enables focusing at any time without altering the settings of the shutter. The No. 3 & No. 4 Acme have shutter speeds of T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/100, 1/150 second.



NO. 3 MECHANICAL SHUTTER



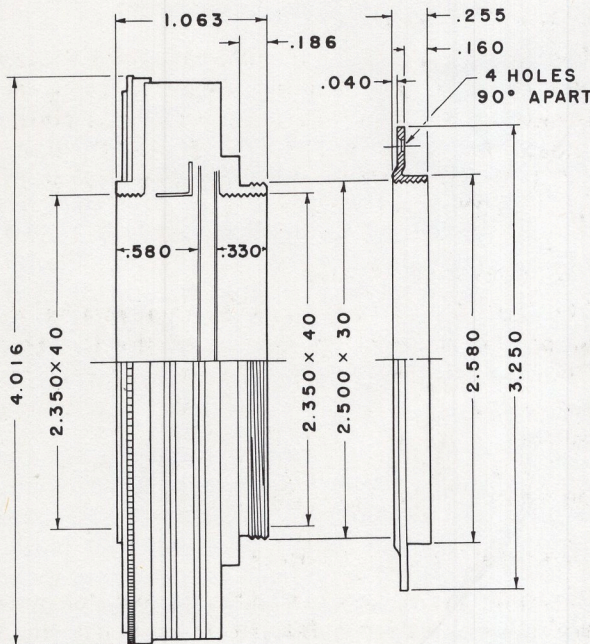
NO. 3 & NO. 4 MECHANICAL SHUTTERS



SHUTTER SIZE	LIGHT APERTURE	LENS MOUNTING APERTURE	OUTSIDE DIAMETER	FLANGE THREAD DIAMETER
No. 4	1.750" (max.) .156" (min.)	2.350" x 40 front & rear	4.016"	2.500" x 30

Acme Synchro Shutter

The No. 3 & No. 4 Acme Synchro Shutters have all the features of the Acme type with the addition of a built-in, patented flash synchronizer. The synchro-mechanism operates independently of the shutter, and thus is used only when flash is required. This feature, while still permitting the utmost accuracy in synchronization, reduces wear on the synchro-mechanism since it is only operated when needed. An additional advantage is that the light source may be left connected to the shutter with no danger of firing until the synchro-lever is set. When set, the synchro-lever will automatically operate the shutter at 1/25 second, even though the shutter may be set at T or B. This eliminates the possibility of inadvertently firing a bulb at an incorrect setting. The time delay can be accurately set for the standard delays of 0, 5, 20, and 23 milliseconds, or any value in-between, and is independent of ambient temperature. This permits selecting the exact delay for the particular application. The lens can be focused at any time without firing the flash bulb. The bulb will not fire unless the shutter has first been cocked, so there is no possibility of firing a bulb without the shutter opening. The No. 3 & No. 4 Acme Synchro has shutter speeds of T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/100, 1/150 second.

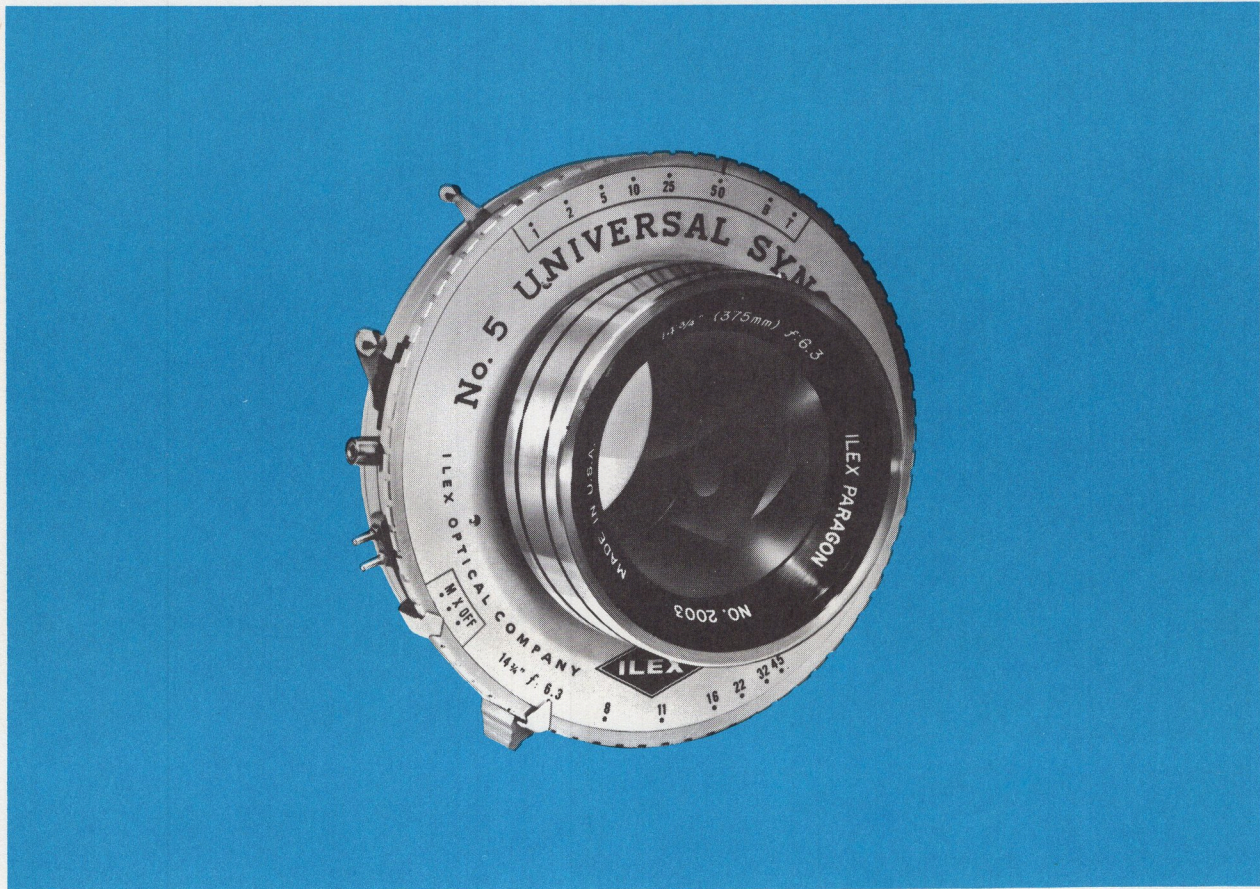


NO. 4 MECHANICAL SHUTTER

These features and safeguards make the Ilex Acme Synchro Shutter the most versatile and modern shutter available to today's well-equipped photographer.

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**NO. 5
MECHANICAL SHUTTERS**



The No. 5 Shutter is available in 3 models: Universal, "X" Universal, and Universal Synchro. All feature ruggedized construction and consistency of operation.

SHUTTER SIZE	LIGHT APERTURE	LENS MOUNTING APERTURE	OUTSIDE DIAMETER	FLANGE THREAD DIAMETER
No. 5	2.500" (max.) .212" (min.)	3.000" x 30 front & rear	5.079"	3.232" x 30

Universal Shutter

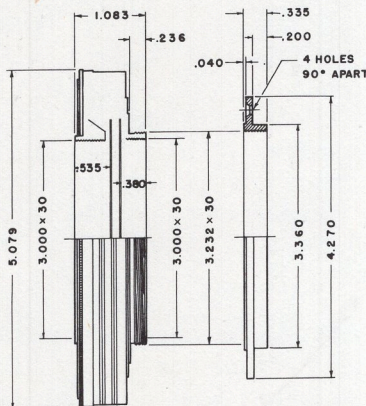
The No. 5 Universal is an automatic, self-cocking shutter. It is operated by simply pressing the release lever. The No. 5 Universal has shutter speeds of T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50 second. When specified, the shutter can be supplied with a press-focus lever.

"X" Universal Shutter

The No. 5 "X" Universal Shutter retains the automatic self-cocking feature of the Universal Shutter with the addition of X flash synchronization. The No. 5 "X" Universal has shutter speeds of T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50 second. When specified, the shutter can be supplied with a press-focus lever.

Universal Synchro Shutter

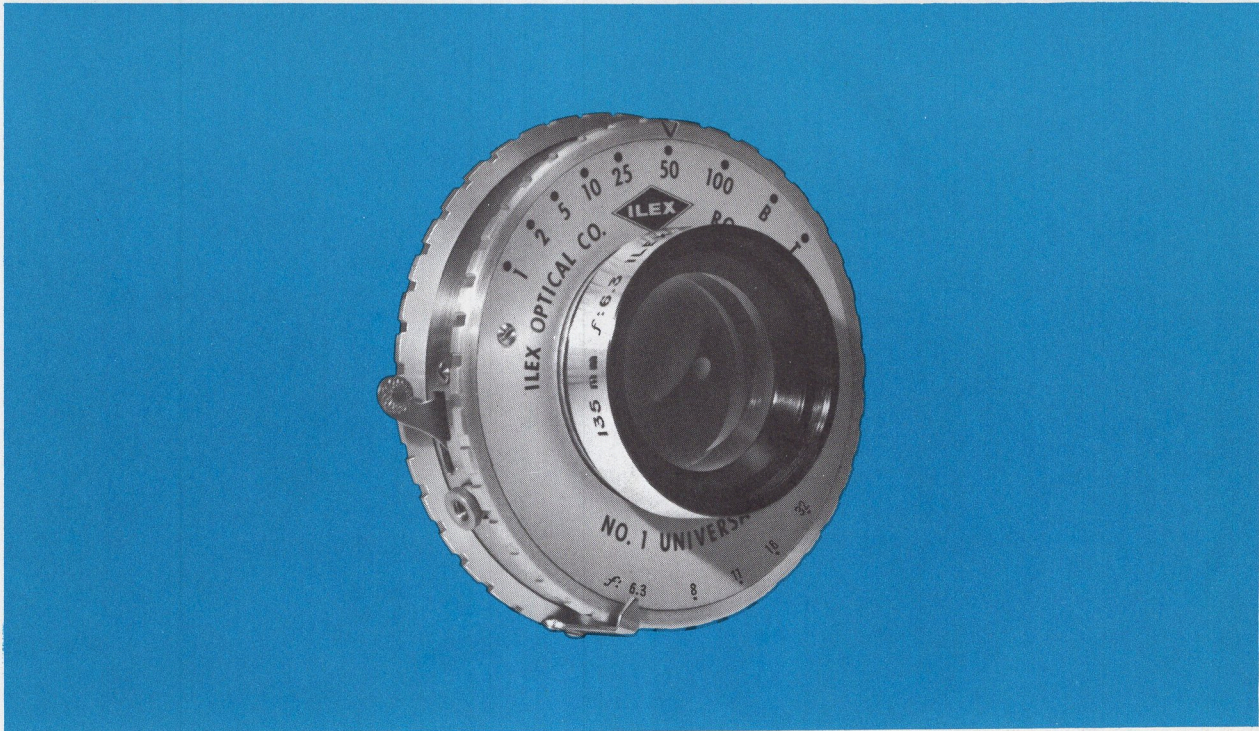
When M and X synchronization is required along with the press-focus feature, specify the No. 5 Universal Synchro Shutter. This self-cocking unit has shutter speeds of T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50 second.



NO. 5 MECHANICAL SHUTTER



NO. 1 MECHANICAL SHUTTERS



ILEX

**WIDE FIELD
PARAGON LENSES**



FOCAL LENGTH	APERTURE	COVERAGE (inches)	FIELD ANGLE	MOUNTINGS
47 mm (1 7/8")	f/8	2 1/4 x 3 1/4	100°	# 1 Electronic Shutter # 1 Mechanical Shutter # 0 Iris Barrel
65 mm (2 1/2")	f/8	4 x 5	100°	# 1 Electronic Shutter # 1 Mechanical Shutter # 1 Iris Barrel
90 mm (3 1/2")	f/8	5 x 7	100°	# 1 Electronic Shutter # 0 Mechanical Shutter # 1 Iris Barrel

WIDE FIELD PARAGONS

The purpose of a wide-angle lens is to provide the photographer with a large viewing angle at close quarters. Because of the extreme angles involved, designing-out distortion and aberration becomes a far more sophisticated problem than in other lenses.

Through the design facilities afforded by electronic computers, these new Paragons from Ilex represent a major achievement in the design of wide-angle lenses. They are the most advanced commercial wide-angle lenses available today. Even at maxi-

mum aperture, minimum distortion is achieved throughout the entire viewing angle with minimum loss of illumination. The brilliance, out to the edges, is unmatched by previous designs.

These six-element lenses cover a full 100° field angle even at their maximum aperture of f/8. They permit the use of full swings and tilts in the format for which they were designed.

In keeping with the advanced design of these new lenses, particular attention was directed to color correction. The result is a lens with superior performance in both black and white and color photography. A carefully controlled coating process essentially eliminates light reflection, a major factor causing loss in contrast. The lenses can be fitted to mechanical or electronic shutters and are also available in iris barrels.

The Wide-Field Paragons are subjected to extensive and thorough quality control tests during each stage of manufacture. Every element is rigidly inspected to maintain the highest quality and assure the superb performance designed into the Ilex Wide-Field Paragon.



ENLARGING LENSES



FOCAL LENGTH (inches)	APERTURE	BARREL SIZE	COVERAGE (inches)
2	f/4.5	0	1 1/4 x 1 5/8
3	f/4.5	0	2 1/4 x 2 1/4
3 1/2	f/4.5	0	2 1/4 x 3 1/4
4	f/4.5	1	2 1/4 x 3 1/4
4 1/4	f/4.5	1	2 1/2 x 3 1/2
5	f/4.5	1	3 1/4 x 4 1/4
5 1/2	f/4.5	2	4 x 5
6 1/2	f/4.5	3	4 x 5
7 1/2	f/4.5	3	5 x 7
8 1/2	f/4.5	4	5 x 8
10	f/4.5	4	6 1/2 x 8 1/2
12	f/4.5	5	8 x 10

ENLARGING LENSES

The Paragon series of enlarging lenses is a state-of-the-art achievement in optical quality and resolution. They represent the finest 4-element lenses for color as well as black and white reproductions.

All air-to-glass surfaces are hard-coated with magnesium fluoride for minimum reflection and maximum light transmission. The lens barrel is a precision instrument, finished in a durable satin black, providing a rich appearance in keeping with the overall quality of the lens.

The iris diaphragm is continuously variable, and the lens is available with lock rings or flanges. There are 12 lenses in the Paragon Enlarging series. All have an aperture of f/4.5 and provide coverage from 1 1/4" x 1 5/8" to 8" x 10" with focal lengths from 2 to 12 inches.