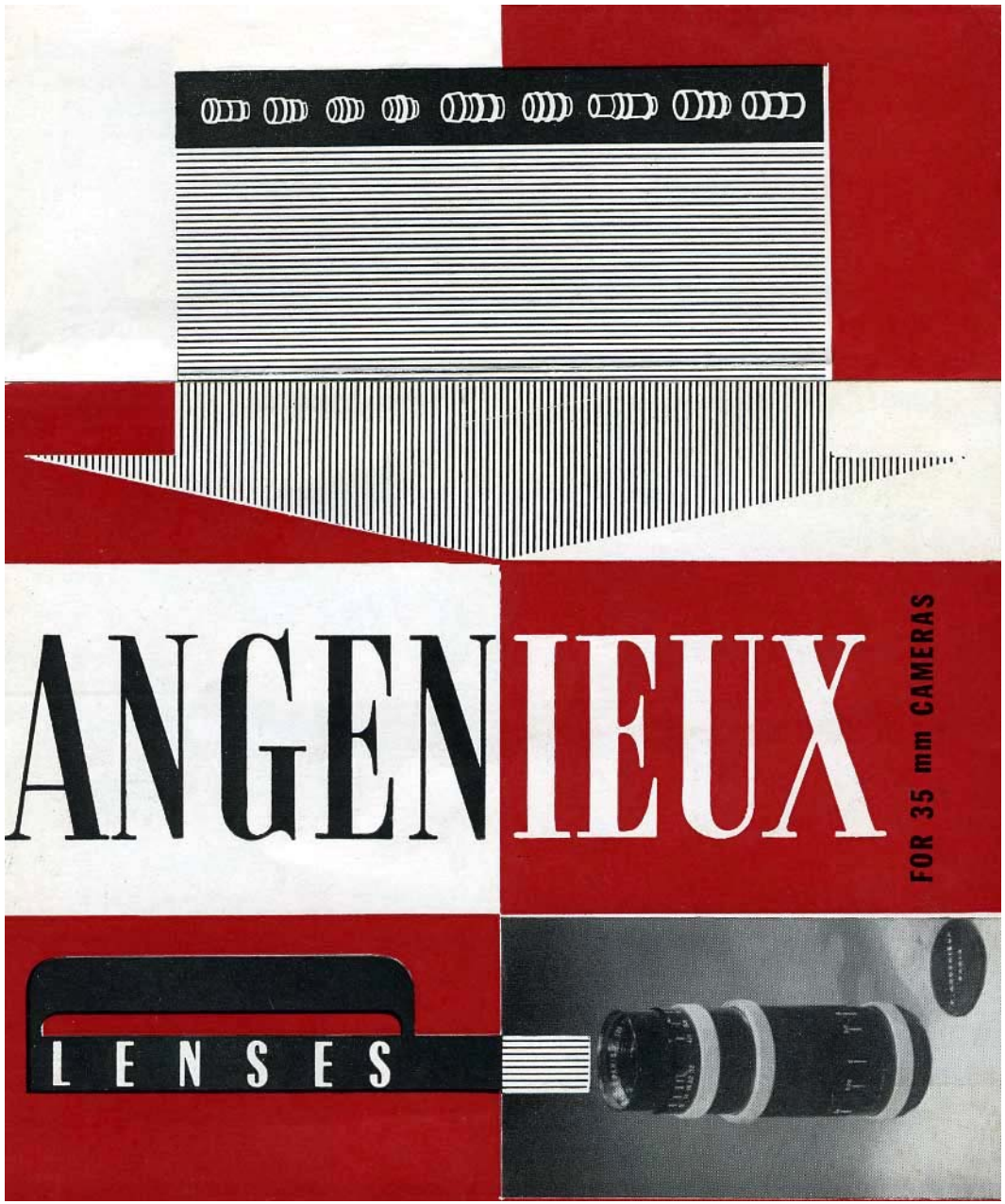

ANGENIEUX
FOR 35 mm CAMERAS
LENSES

Focal Length in m/m & Speed	Designation	Angle of Field	Relative magni-fication	Diaphragm stops	Focusing range	Backfocal length in m/m	Total length in m/m*
28 f/3.5	type R11	75°	0.56	From 3.5 to 22	From 2ft. to Inf.	37.60	56.07
35 f/2.5	type R1	63°	0.70	From 2.5 to 22	From 3ft. to Inf.	38.90	60.80
50 f/1.8	type S1	47°	1.—	From 1.8 to 22	From 3ft. 6 in. to Inf.	38.60	32.80
50 f/1.5	type S21	47°	1.—	From 1.5 to 22	From 3ft. to Inf.	37.50	38.80
90 f/2.5	type Y12	27°	1.80	From 2.5 to 22	From 3ft. 6 in. to Inf.	60.20	47.50
90 f/1.8	type P1	27°	1.80	From 1.8 to 22	From 3ft. 6 in. to Inf.	47.20	55.70
135 f/3.5	type Y2	18°	2.70	From 3.5 to 32	From 5ft. to Inf.	105.70	64.—
135 f/2.5	type P2	18°	2.70	From 2.5 to 32	From 5ft. to Inf.	65.50	65.80
180 f/4.5	type P21	13°	3.60	From 4.5 to 32	From 8ft. to Inf.	80.50	81.80

*Distance between the outward surfaces of the front and rear lens elements.

LENSES

The Angenieux optical factory is built and equipped with the finest of modern requirements for precision optical manufacture. Machinery and tools are of latest design, manned by expert, highly qualified personnel.

P. ANGÉNIEUX

The introduction in 1950 of the RETROFOCUS wide-angle lenses has been widely recognized as one of the most important events in the history of photography. The significance of this event was proven by the early enthusiastic acceptance given to the RETROFOCUS and is now more than ever apparent by its continually growing success on the market.

The RETROFOCUS was the first product resulting from a planned series of entirely new types of lenses. In offering them to you, we feel that in addition to their superior advantages, you will also be interested to know what photographic needs originally led to their creation.

The initial problem we had to solve arose from the ever increasing use of miniature single lens reflex cameras. They were not equipped to use wide angle lenses with extremely short focal lengths — an inherent difficulty with all cameras of this type — and a satisfactory solution was generally considered impossible until the introduction of the RETROFOCUS.

The f/2.5 RETROFOCUS 35 mm lens, our first product, was followed by the f/3.5 RETROFOCUS 28 mm lens. The field covered by the RETROFOCUS 28 mm is 74 degrees (as compared with 64 degrees for the RETROFOCUS 35 mm) and its back focal length is about 38 mm. The pictures rendered by both lenses are perfect, without distorsion, and their over-all quality comparable to results obtained from the finest lenses available on the market.

The same problem existed with miniature single lens cameras in connection with the use of very fast 50 mm lenses. Again, miniature cameras did not permit their use with very large openings. To overcome this difficulty, our new 50 mm 1:1.5 lens is now available. This new introduction fills this particular need in the miniature camera field.

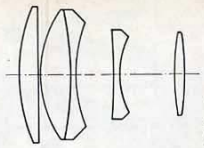
The remarkable performance of the three types of lenses which are now on the market, the 28 mm, the 35 mm and the 50 mm focal lengths add immeasurably to the versatility of the 35 mm reflex cameras. In addition, and because of their exceptional quality, these lenses are currently being used with equal success with cameras of widely different types.

Lenses of longer focal lengths than the types afore mentioned, have been adapted, without any difficulty, for the 35 mm single lens reflex cameras. Our objective, therefore, was to find a formula which allowed increase of speed without making the lenses too bulky. As a result, we now have the new lens types P1 and P2, with outside measurements kept to a minimum. The quality of these types was immediately appreciated by even the most discriminating of experts, and used with complete success in the photographic world.

Judging from the encouraging comments constantly received, our chosen determination to avoid the beaten path in search of better and more versatile lens equipment has been eminently successful. As a result of this acclaim, we intend to follow this line of conduct and search for new ideas and designs.

In order to insure an uninterrupted flow of high-quality production, no lens ever leaves the plant without having been thoroughly tested and controlled several times with the use of the finest scientifically designed equipment available. and specifically designed for the purpose.

EXAKTA CAMERA COMPANY
705 BRONX RIVER ROAD
BRONXVILLE 8, NEW YORK



TYPE

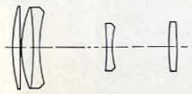
P2

135 mm f 2.5

Fast speed photography at long distances is a difficult problem when the available light is not sufficient. In order to meet such a requirement satisfactorily, this tele-lens has been created. Its remarkable performance facilitates taking color pictures of wild animals in their natural habitat, shots at the circus or theatre, which are not possible with the slower lenses of the same kind — the only ones available before the introduction of the Angénieux lens —.

A true telephoto lens, very compact, the distance between the front lens and the focal plane being only 162 mm. It can be handled easily under all circumstances.

The P21 lens has the same optical qualities as the 135 mm lens which makes it indispensable for the photographer interested in distant subjects.

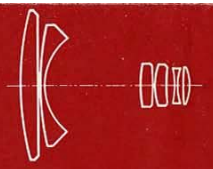


TYPE

P21

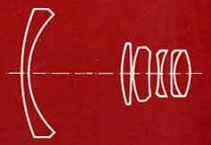
180 mm f 4.5

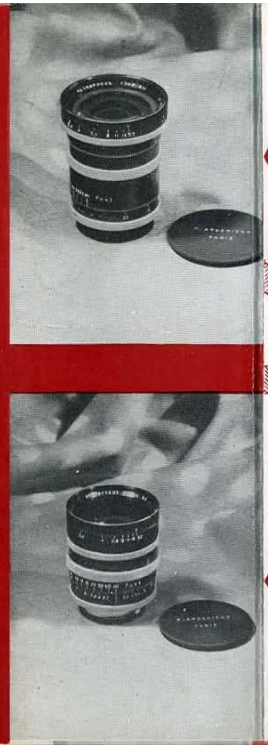
RETROFOCUS LENSES



These lenses are of an entirely new type, which makes them unique throughout the camera world. The distance between the rear element and the film is longer than the focal length, and therefore, they can easily be adapted to all types of 24 x 36 mm reflex cameras.

Their high speed and even distribution of light over the field make them especially suited for color photography. Loss of light at the edges of the picture is considerably less with the Angénieux lens than with ordinary wide-angle lenses (set at identical speeds). All aberrations are fully corrected and the pictures are remarkably clear, without any distorsion whatsoever.





TYPE

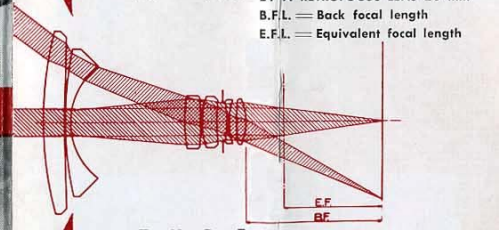
R11

28 mm f 3.5

HOW THE IMAGE IS FORMED BY A RETROFOCUS LENS 28 mm

B.F.L. = Back focal length

E.F.L. = Equivalent focal length



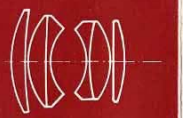
TYPE

R1

35 mm f 2.5

S1

50 mm f 1.8



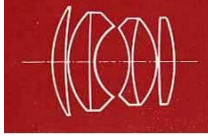
We designed this lens with the objective of improving miniature photography with reflex cameras. In addition, we wanted to achieve the greatest possible distance between the rear element and the film.

Despite the extreme speed, the picture results of the S21 are excellent. Even at full aperture of f 1.5 the definition of the entire field is remarkably good. In view of its speed and high quality, the S21 lens is ideal for interiors and fast sports action photography. It is also excellent for portraits and can be generally considered as a universal type lens.

(S-21)

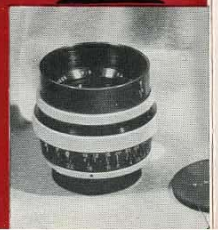
This lens is of the classic so called "Gauss" type and has 6 elements. On account of its high speed combined with outstanding optical quality, it can be considered a lens for general use. It is highly recommended for photocopying documents because very clear reproductions can be obtained at apertures f 8 and f 11. It is also extremely adequate for taking close-ups even at wider apertures.

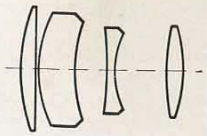
(S-1)



S21

50 mm f 1.5





TYPE

Y12

90 mm f 2.5

This latest lens replaces the previous type Y1.

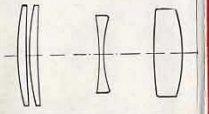
Careful redesigning is responsible for marked improvements in the lens performance while its construction remains relatively simple. Somewhat, slower than type P1, this new lens serves the same purpose and gives a perfectly sharp picture from corner to corner, at full aperture.

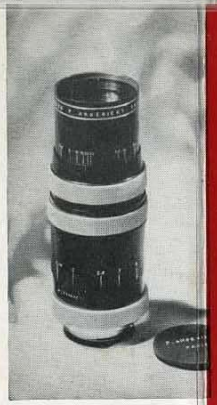
This is a four element lens longer than type P2 and not quite as fast. Maximum correction although, brings its performance equal to the best results obtained with type P2 at same apertures.

TYPE

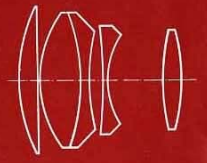
Y2

135 mm f 3.5





This telephoto lens is very compact although it is a high speed lens. A fast lens such as this, with its remarkable angle of field, is often of great value. It is highly praised for sports and child portraits and for snapping fast moving scenes when the photographer has to be at a distance from the subject.



P1

90 mm f 1.8