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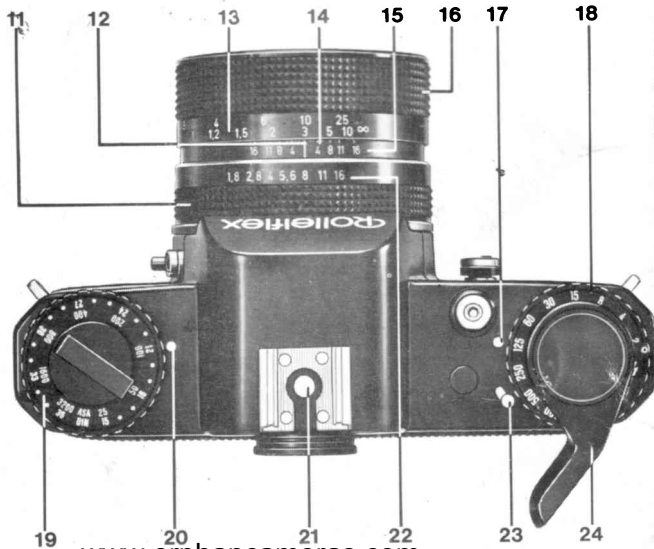
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# Rollei SL35 M

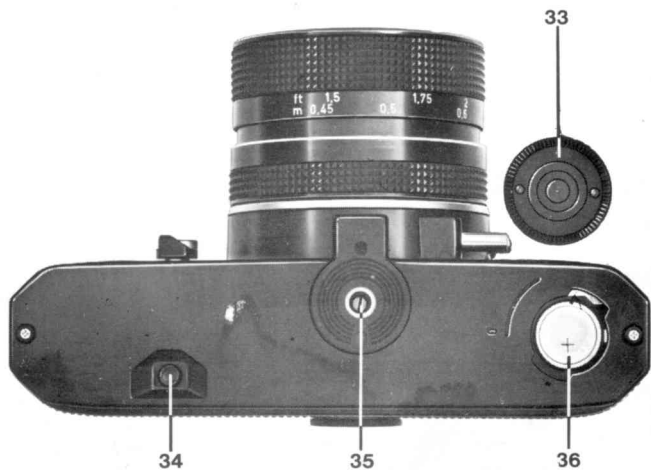
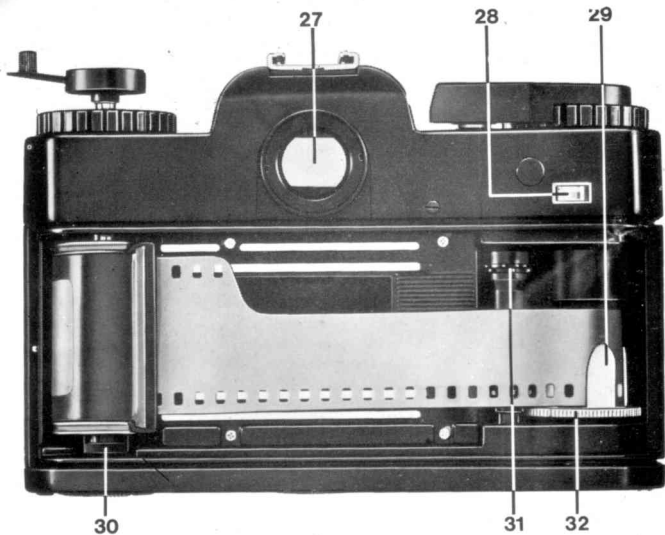
in der Praxis  
in practical use  
dans la pratique  
nell'uso pratico  
en la práctica  
in de praktijk





## **Controls and components**

- 1** Neck strap lug
- 2** Shutter release button with cable release socket
- 3** Aperture scale port
- 5** Rewind knob with crank
- 6** Self-timer tension lever
- 7** Self-timer start button
- 8** Stop-down pin
- 9** Locking button of bayonet mount (red)
- 10** Flash cable terminal
- 11** Aperture ring
- 12** Aperture and distance index
- 13** Distance scale in feet and meters
- 14** Infra-red index
- 15** Depth of field scale
- 16** Focusing ring
- 17** Shutter speed index
- 18** Shutter speed dial
- 19** Film speed setting disc with ASA and DIN scale
- 20** Film speed index



- 21 Hot shoe
- 22 Aperture scale
- 23 Main switch for power circuit
- 24 Rapid film advance lever (in ready position)
- 25 Red dot on camera bayonet → Fig. G
- 26 Red dot on lens bayonet → Fig. G
- 27 Finder eyepiece
- 28 Frame counter
- 29 Film holding clip
- 30 Film chamber
- 31 Transport sprocket
- 32 Take-up spool
- 33 Battery compartment cover
- 34 Rewind release
- 35 Tripod bush 1/4"
- 36 Battery compartment

(Please look to page 116 also)

### **Loading the film** (do not load in direct sunlight)

Pull out rewind knob **5** until camera back springs open. Fix end of film leader under one of the holding clips **29**, pull the cassette across the film track and insert it in the film chamber **30**, knob **5** must again be pulled out as far as it will go. It can now be pushed down into the camera again to its original position (if necessary, rotate slightly while pushing). The take-up spool **32** must now be rotated by turning the milled ring until the perforations at both edges of the film are engaged by the teeth on the transport sprocket **31**. Now close the camera back and press firmly until it locks with a click. Operate the rapid film advance lever **24** and the shutter release button **2**.

As soon as a number is visible in the frame counter window, this indicates that there is a film in the camera (loading control). If the frame counter moves on, the film has been advanced (film advance control). The frame counter indicates the number of frames that have been exposed.

### **Setting the film speed**

The film speed in ASA or DIN is given on the film packing or in the accompanying instructions for use. Turn the setting disc **19** until this film speed value is engaged.

## Inserting the battery

Remove the cover **33** in anti-clockwise direction. Wipe the new battery on both sides with a cloth to remove any oxide deposit. Place the battery with the + sign on top (see also diagram in the battery compartment) into the battery compartment **36** holding it by the edge only, do not touch the top or bottom. Refit cover **33** by turning in clockwise direction. Suitable battery types: Mallory PX 625, UCAR EPX 625/13, Toshiba HS-D or equivalent batteries of other makes.

**Important:** The battery lasts one to two years; a yearly battery change is recommended. During extended idle periods keep the battery outside the camera. Always remove a spent battery. After prolonged idle periods clean the battery as described above.

In very cold weather first warm up the battery to body temperature and insert it immediately before use.

New batteries are obtainable from photographic dealers.

## Setting the shutter speed

Turn dial **18** until the shutter speed required for the exposure engages opposite index **17**. Intermediate speeds cannot be set.

The shutter speed depends on the lighting conditions and the rate at which the subject is moving (the faster the movement, the shorter the exposure time). The numbers on dial **18** denote fractions of a second ( $60 = 1/60$  sec, and so on). The red numbers indicate that a tripod should be used.

Shutter speed and aperture are inter-dependent. The shorter the exposure time, the larger the aperture must be, and vice-versa. The speed-aperture combination is determined by the film speed and the general brightness.



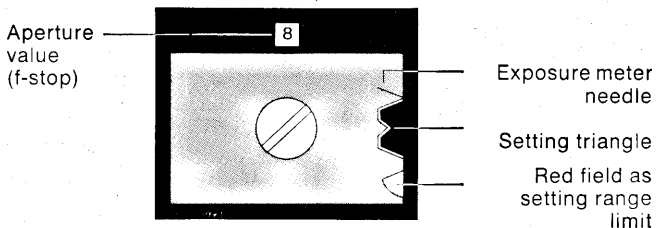


Fig. B

### Measuring the exposure

To operate the exposure meter, the main switch **23** must be switched on by swinging out the rapid advance lever **24** into the working position.

#### Open aperture measurement

when using Rollei SL 35 M / SL 35 ME lenses, or Rollei SL 35 / SL 350 lenses without A/M switch → page 36: **Do not press in** the stop-down pin **8**.

#### Working aperture measurement

with any other lens, or when using adapters, extension tubes and bellows: **Press in** the stop-down pin **8**.

After pre-selecting the shutter speed turn the aperture ring **11** until the exposure meter needle in the viewfinder is exactly in the centre of the setting triangle. The aperture thus set is indicated on the lens and (with Rollei lenses) in the viewfinder.

If a definite aperture is required for the exposure, pre-select this aperture and then turn the shutter speed dial **18** to set the exposure meter needle in the centre of the triangle. Only a marked shutter speed must be used and this may mean slightly adjusting the aperture ring **11**.

On changing to longer exposure times, a certain point will be reached, depending on the speed of the film, which marks the lower measuring limit of the exposure meter. For example, with 100 ASA and fully opened aperture on changing from  $\frac{1}{4}$  sec to  $\frac{1}{2}$  sec, or with 200 ASA between  $\frac{1}{8}$  sec and  $\frac{1}{4}$  sec.

By passing this limit, a red field is pushed across the setting triangle in the viewfinder. As soon as the red field covers the centre of the setting triangle, it is no longer possible to make selections.

**Caution:**

On setting to B or to the flash symbols  $\downarrow$  and  $\emptyset$ , the exposure meter should **not** be used at all.

The exposure metering has standard calibration. It will indicate the correct exposure setting under average lighting conditions. Correction is however necessary for against-the-light exposures, dark subjects against a bright background or for subjects of low contrast (overcast sky, snow landscapes): In this case, after the measurement has been taken open the aperture by  $\frac{1}{2}$  to 1 stop.

With subjects of very high contrast, especially very bright subjects against dark backgrounds, close the aperture by  $\frac{1}{2}$  to 1 stop after taking the initial measurement.

In order to avoid unnecessary battery drain during long pauses between use, the exposure meter should be switched off. To do this, press back the main switch **23** into its initial position with the rapid advance lever.

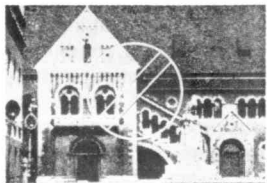
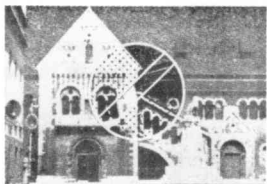


Fig. C



Fig. D

### Focusing

Look through the viewfinder and sight the subject, if possible, on a vertical or horizontal edge or line so that it runs exactly through the centre of the finder. By turning the focusing ring **16**, the line which appears distorted in the central diagonal split-image rangefinder is straightened. The correct distance has now been found, whereby the line on the ground-glass screen and in the microprism spot is sharply defined at the same time.

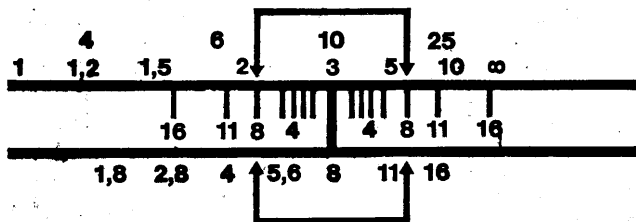
The distance set can be seen on the scale **13** at the index **12**. With subjects where there is no possibility of focusing on a straight line, the focusing can be done with the microprism spot or the ground-glass screen.

Spectacle wearers may use a correction lens made up by any optician (lens mount Order-No. 977 210).

### With infra-red film

(of maximum sensitivity at a wavelength of 800 nm) first focus as described above. Then read the distance opposite the index **12**, mount the infra-red filter and reset the distance read against the infra-red index **14**.

Fig. E



### Aperture and depth-of-field

Pre-select the aperture by turning the aperture ring **11**. The f/number required must be opposite the index **12**. The setting of the aperture depends on the depth-of-field required. The smaller the f/number, the larger the lens aperture and the smaller the depth-of-field.

The depth-of-field can also be checked on the ground-glass screen in the viewfinder: By pressing the stop-down pin **8**, the diaphragm is stopped down to the pre-selected value and thus makes it possible to adjust the aperture or distance exactly to the requirements of the photograph to be taken. When the stop-down pin **8** is pressed again, the diaphragm springs back to full aperture. It is then automatically stopped down to the pre-selected value when the shutter is released.

**From the depth of field indicator:** Here the aperture marks corresponding to the preset lens aperture on the scale **15**, to each side of the index **12**, point to the depth of field zone on the focusing ring **16** (circle of confusion  $z = 50$  microns or 0.002 inch; further stopping down is necessary for utmost sharpness). Example: 50 mm lens f/1.8, stopped down to f/8 and focused to 10 feet: depth of field from approx. 7 feet to 18 feet.

**From tables:** A depth of field table for Rollei lenses is available, with exact values for all lenses.

## The exposure

When taking a shot, the release button **2** should be pressed down smoothly. The mirror swings up, the diaphragm closes down to the pre-set lens aperture and the focal-plane shutter travels at the shutter speed. The mirror then returns immediately to its position for viewfinder focusing and the diaphragm springs back to full lens aperture. When the diaphragm stop-down pin **8** is pressed in, however, the diaphragm always remains at the set value, after release and tensioning.

When the shutter has been released, the camera must be tensioned for the next exposure. When doing this, always swing the rapid advance lever **24** through as far as it will go.

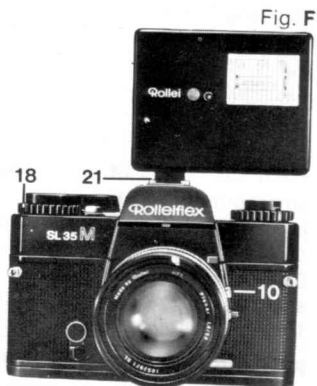
## Exposures with self-timer

Tension the shutter beforehand with the rapid advance lever and then press lever **6** upwards as far as it will go. On pushing the start button **7** in the direction indicated by the arrow, about 6 seconds elapse before automatic exposure. During this time the lever returns to its initial position.

Time exposures (shutter setting "B") are **not** possible with the delayed-action mechanism.

## Exposures with flash

Set one of the flash symbols at the index **17** with the dial **18**, according to the type of flash unit which is going to be used: For electronic flash the flash symbol  $\text{⚡}$ , for flashbulbs type AG, XM, 5 B etc. the flashbulb symbol  $\text{⦿}$ . The shutter speed in both cases is  $\frac{1}{40}$  sec.



The flash unit itself can either be slipped into the accessory shoe **21** or attached to the camera with a bracket screwed into the tripod bush **35**. When using flash units with a centre contact (without cable), the electrical connection to the camera is directly via the hot shoe **21**.

With units without centre contact, the flash cable is plugged into the terminal **10**.

The aperture required results from the flash guide number and the distance of the flash from the subject (see manual of flash unit).

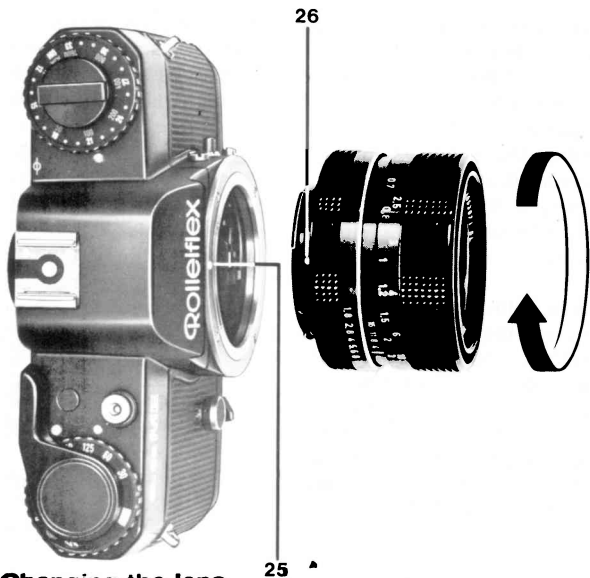
### **Exposures with filter**

The through-the-lens light metering system means that the filter factor is usually adjusted automatically. Only when using the more dense colour filters for black-and-white film is it advisable after exposure measurement to either open the aperture by one stop or increase the exposure time by one full value (corresponding to filter factor 2x).

For further details see the filter table of the Rollei booklet "Accessories 35 mm SLR".

### **Unloading the film**

By pressing the release **34**, unlock the rewind locking mechanism and turn the rewind crank **5** in the direction of the arrow until the frame counter **28** has reached its initial position and a slight resistance is felt. The film has detached itself from the take-up spool. Only now open the camera back by pulling up the rewind knob **5** and remove the film cassette.



### Changing the lens

Before removing or attaching the lens, be sure that the diaphragm stop-down pin 8 is not pressed in.

Push in the locking button 9 and release the lens from the camera bayonet by turning to the left.

**Fully open the aperture** of the interchangeable lens and insert it so that red dot 25 lines up with red dot 26, then turn to the right until engagement.

## **Close-ups**

### **Extension tubes and bellows**

These are attached to the camera as already described with changing lenses. In the same way, the lens is attached to the front bayonet. The tubes can, of course, be used in combination, or attached to the bellows focusing device.

M 42 intermediate adapter, retro adapter, microscope adapter, and macro lens adapter → Rollei booklet "Accessories 35 mm SLR".

**Exposure measurement only with pressed-in diaphragm stop-down pin 8 (working aperture measurement).**

## **Care of the camera**

and accessories maintains their value and reliability for many years.

### **Cleaning**

of the camera should be done regularly at appropriate intervals according to use: Dust the camera and accessories inside and outside with a soft sable brush and a rubber blower. Clean the outer parts with a soft dry cloth, glass surfaces with lens cleaning tissue. Never polish the mirror and never touch the inside components or the rubber blinds of the focal plane shutter with the fingers. Clean the everready case, hold-all case and lens cases by blowing and brushing out.

### **Rollei-Service**

with many approved workshops throughout the world provides servicing in all countries: these dealers and specialists trained at our factory will take expert care of your camera and provide help and advice in all questions of photography.

### **Serial number**

Every camera carries on its base a serial number. Every lens also has its number. We advise you to make a note of these numbers so that you can establish your ownership in the case of loss or a misunderstanding.



## Handling faults and remedies

Fault	Possible cause
Meter needle does not respond	Rapid winding lever still in rest position
	Preselected exposure time outside indicator range
	Battery exhausted, not inserted or wrongly inserted
	Stop-down pin depressed
	Lens wrongly inserted
Red field crossing setting triangle inside viewfinder or exterior indicator	Preselected exposure time outside indicator range
Shutter does not release	Winding lever only partly tensioned Self-timer lever only partly tensioned
Picture unexposed or partly exposed	Electronic flash used with 0 position
	FP-Flash bulbs used with $\frac{1}{2}$ position
	No flash position set
Picture underexposed	Wrong exposure measurement
	Stray light entry through finder eyepiece in strong side light
Whole film under- or overexposed	Wrong film speed setting
Whole film unexposed	Film has not advanced due to faulty loading or because torn
Image partly or completely unsharp	Subject movement: exposure time too long for moving subject
	Camera shake: exposure time too long for handheld shot
Rewind knob does not turn	Film wrongly loaded
	Film torn
Rewind release fails to engage, heavy resistance against film advance	Excessive exploitation of film length, film entirely wound off

Remedy	Notes
Fully pull out rapid winding lever	→ page 24
Select shorter or longer exposure time	→ page 24/25
Change or (correctly) fit the battery	→ page 23
Press in stop-down pin only with working aperture measurement	→ page 24
Fully open lens aperture before inserting	→ page 30
Select different exposure time	→ page 24/25
Fully tension rapid winding lever	→ page 24
Fully tension self-timer lever	→ page 28
Use electronic flash with $\frac{1}{2}$ position only	$\emptyset$ Position fires too early
Use long peak FP-flash bulbs	$\frac{1}{2}$ Position fires too late
Set shutter speed dial to $\frac{1}{2}$ or $\emptyset$ position	→ page 28
Measure brightness of main subject	
Use eyepiece cup, especially when wearing spectacles	
Set film speed correctly	→ page 22
Correctly load film, advance smoothly but not too fast	Film advance control → page 22
Use faster shutter speed	→ page 24/25
Support camera or use a tripod	→ page 23
Load film correctly	→ page 22
Remove torn piece of film, trim new leader and rethread	→ page 22
Avoid any force, keep rewind release pressed in and rewind film somewhat, then finish lever stroke	If film is torn out of cartridge: open back in total darkness only, rewind film by hand and wrap up light-proof

## Facts and figures

**Camera type:** 24 x 36 mm single lens reflex camera with exposure measurement through the lens at open aperture.

**Features:** Rollei bayonet mount for interchangeable lenses, accessory shoe with centre contact, focal plane shutter with rubber blinds and rapid winding, double exposure and blank frame lock, self-locking stop-down pin, selftimer with starting button, cable-release thread, self-zeroing exposure counter with film loading control, 1/4 inch tripod bushing, carrying strap eyelets.

**Exposure measurement:** Through-the-lens system with CdS cells, centreweighted full-field measurement of finder screen image; optional open aperture measurement or working aperture measurement. Self-locking film speed setting from 25 to 3200 ASA / 15 to 36 DIN, measuring range with 50 mm f/1.8 lens and 100 ASA / 21 DIN film from 1 to 16,000 cd/m<sup>2</sup>, meter needle centred with index in finder. Powered by button cell 1.35 V in camera bottom, switched on by rapid winding lever.

**Finder system:** Pentaprism, instant return mirror. Focusing screen with diagonal focus indicator, microprism ring and ground-glass screen with Fresnel lens. Aperture indication, measuring range limit indication. Finder eyepiece with fitting for eyepiece cup and correction lens. Laterally correct and parallax-free finder image.

**Focal plane shutter:** Shutter speeds 1/1000 to 1/2 second and B with longtime exposure indication; X and FP switch-over flash synchronisation at 1/40 second for centre contact and cable contact.

**Dimensions:** approx. 146 x 92 x 99 mm / 5<sup>3</sup>/<sub>4</sub> x 3<sup>5</sup>/<sub>8</sub> x 3<sup>7</sup>/<sub>8</sub> in. with 50 mm lens f/1.8.

**Weight:** approx. 895 g/31<sup>5</sup>/<sub>8</sub> oz. with 50 mm lens f/1.8.

**Interchangeable lenses:** see page 36.

## Accessories:

### Lens hoods;

- rectangular, Type A, for 2.8/25 mm lens;
- screw attachment, Type B, for 1.4/35 mm lens;
- screw attachment, Type C, for 1.4/85 mm lens;
- screw attachment, Type D, for 2.8/85 mm and 4/135 mm lenses;
- folding, Type E, for 2.8/35 mm, 1.4/50 mm and 1.8/50 mm lenses; with slightly reduced effect also for 2.8/85 mm and 4/135 mm lenses.

Filters: Medium yellow, green, orange, light red, UV, R 1.5, grey - 2, grey - 3, infra-red; polarizing filter, soft focus attachments.

Rollei retro-adapter, adapter for high-magnification lens, microscope adapter, intermediate adapter M 42.

Extension tube set 7.8 - 15 - 30 - 50 mm with automatic diaphragm control, bellows unit with automatic diaphragm control.

Viewfinder eye cup, viewfinder fitting for correction lens, protective covers for camera body and lenses, everready case, combination carrying case, lens case, carrying strap with anti-slip guard.

Technical modifications and inclusion of accessories reserved.

Interchangeable lenses Rollei-HFT® *)	Distagon	F-Distagon	Distagon	Distagon	Distagon
Maximum aperture	3.5	2.8	4	2.8	1.4
Focal length	15 mm	16 mm	18 mm	25 mm	35 mm
Aperture range	3.5-22	2.8-16	4-22	2.8-22	1.4-16
Angular field diagonal	109°	180°	99°	80°	61°
Angular field horizontal	99°	141°	88°	70°	53°
Angular field vertical	76°	89°	66°	50°	37°
Lens components	13	8	10	8	9
Lens elements	12	7	9	7	8
Focusing down to	0.16 m 6 <sup>1</sup> / <sub>4</sub> "	0.3 m 12"	0.3 m 12"	0.25 m 10"	0.26 m 11"
Filter size	**)	**)	-	E 49	E 67
Lens hood type +)	-	-	-	A	B
Overall length	104 mm 4 <sup>1</sup> / <sub>8</sub> "	68 mm 2 <sup>11</sup> / <sub>16</sub> "	61 mm 2 <sup>3</sup> / <sub>8</sub> "	64 mm 2 <sup>1</sup> / <sub>2</sub> "	85 mm 3 <sup>5</sup> / <sub>16</sub> "
Diameter	84 mm 3 <sup>5</sup> / <sub>16</sub> "	70 mm 2 <sup>3</sup> / <sub>4</sub> "	70 mm 2 <sup>3</sup> / <sub>4</sub> "	62 mm 2 <sup>7</sup> / <sub>16</sub> "	70 mm 2 <sup>3</sup> / <sub>4</sub> "
Weight approx. g/oz	760 23 <sup>13</sup> / <sub>16</sub>	345 12 <sup>3</sup> / <sub>16</sub>	300 10 <sup>5</sup> / <sub>8</sub>	310 10 <sup>15</sup> / <sub>16</sub>	470 16 <sup>9</sup> / <sub>16</sub>

\*) Made by Carl Zeiss, Oberkochen, West Germany or made by Rollei under licence from Carl Zeiss; Reg. Trade Mark: Rollei-HFT®

Distagon	Planar	Planar	Planar	Sonnar	Sonnar	Tele-Tessa	Tele-Tessa
2.8	1.4	1.8	1.4	2.8	2.8	4	4
35 mm	50 mm	50 mm	85 mm	85 mm	135 mm	135 mm	200 mm
2.8-22	1.4-16	1.8-16	1.4-16	2.8-22	2.8-22	4-32	4-32
61°	46°	45°	29°	29°	18°	19°	13°
52°	39°	38°	24°	24°	15°	16°	11°
36°	27°	26°	16°	16°	10°	10°	7°
5	7	7	6	4	4	4	3
5	6	6	5	4	4	4	5
0.4 m 1'5"	0.45 m 1'5"	0.45 m 1'5"	1 m 3'5"	1 m 3'5"	1.6 m 5'5"	1.6 m 5'5"	2.5 m 8'
E 49	E 49	E 49	E 67	E 49	E 55	E 49	E 67
E	E	E	C	D+E	**)	D+E	**)
53 mm 2 <sup>1</sup> / <sub>16</sub> "	47 mm 1 <sup>7</sup> / <sub>8</sub> "	47 mm 1 <sup>7</sup> / <sub>8</sub> "	72 mm 2 <sup>13</sup> / <sub>16</sub> "	52 mm 2 <sup>1</sup> / <sub>16</sub> "	98 mm 3 <sup>7</sup> / <sub>8</sub> "	98 mm 3 <sup>7</sup> / <sub>8</sub> "	134 mm 5 <sup>1</sup> / <sub>4</sub> "
62 mm 2 <sup>7</sup> / <sub>16</sub> "	62 mm 2 <sup>7</sup> / <sub>16</sub> "	62 mm 2 <sup>7</sup> / <sub>16</sub> "	70 mm 2 <sup>3</sup> / <sub>4</sub> "	62 mm 2 <sup>7</sup> / <sub>16</sub> "	62 mm 2 <sup>7</sup> / <sub>16</sub> "	62 mm 2 <sup>7</sup> / <sub>16</sub> "	76 mm 3"
210 7 <sup>3</sup> / <sub>8</sub>	230 8 <sup>7</sup> / <sub>16</sub>	185 6 <sup>1</sup> / <sub>2</sub>	535 18 <sup>7</sup> / <sub>8</sub>	195 6 <sup>7</sup> / <sub>8</sub>	450 15 <sup>7</sup> / <sub>8</sub>	375 13 <sup>3</sup> / <sub>16</sub>	580 20 <sup>7</sup> / <sub>16</sub>

+) See also page 35

\*\* ) built-in