

user manual

Zoom Lens $f=25-60\text{cm}$



The Company for Stage Lighting and Projection



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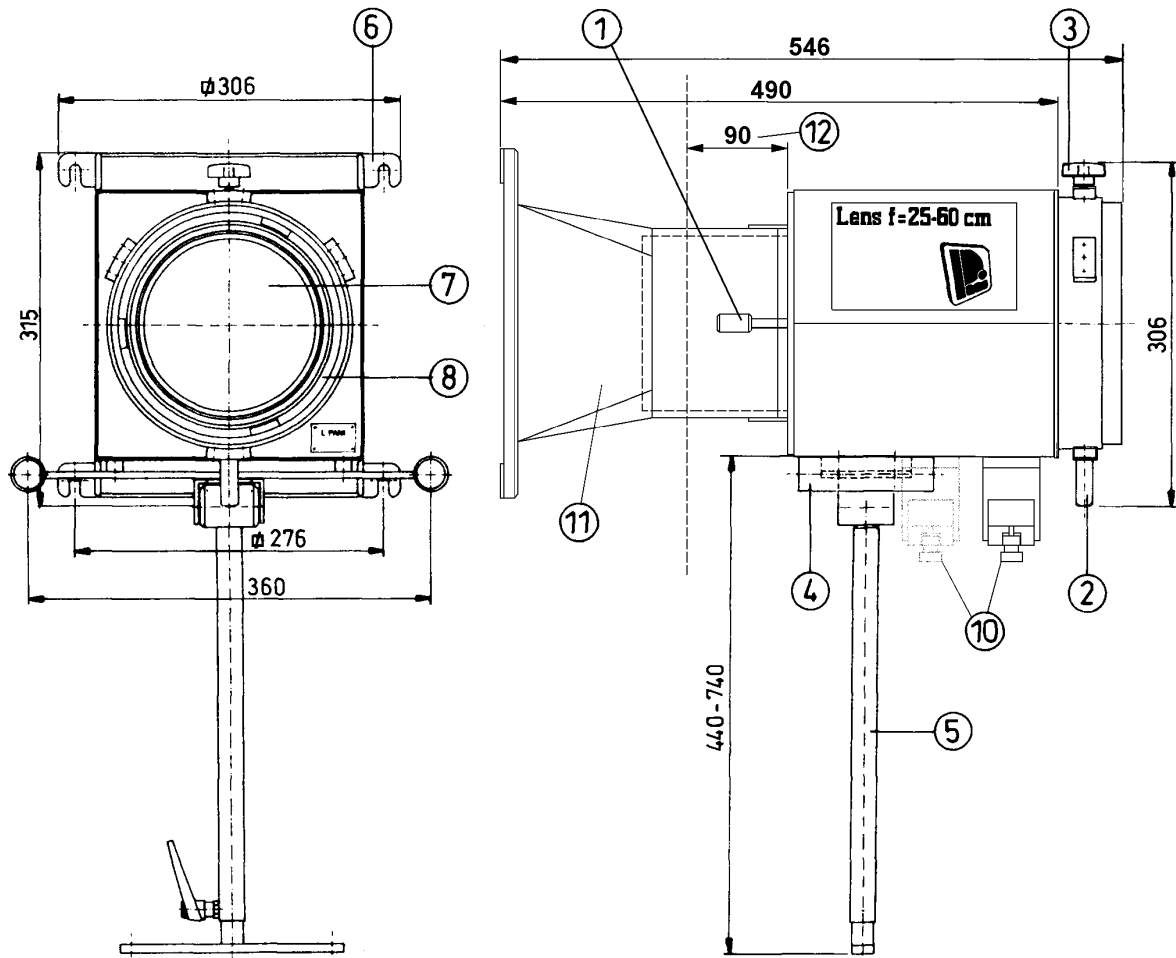
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1) Dimension and Position Drawing



Legend:

- (1) Dial for Focal Length Adjustment
- (2) Adjustment Grip for Focus Adjustment
- (3) Locking Grip for Focus Adjustment
- (4) Bridge for Dimming Shutter and Support
- (5) Support
- (6) Objectiv Hanger Bracket
- (7) Collimator Lens
- (8) Mounting Ring for Collimator Lens
- (9) Value for Basic Setting to use the Adaption Distances (see Pos. 3)
- (10) Fast Mounting Clamps for attaching to the Compact Scroller CS 70
- (11) Mounting Tube for attaching to the Standard Objectiv Hanger
- (12) Setting Measurement to the housing of the Scroller CS 70

2) Operational Elements

Dial for Focal Length Adjustment (1): With 3 rotations of this dial the entire range of focal lengths from 25 cm to 60 cm may be steplessly adjusted; by rotating clockwise the projection image becomes smaller, rotating counterclockwise it becomes larger.

Adjustment Grip (2) and Locking Grip (3): Before focusing loosen the locking grip (3); the precise focus may be obtained by rotating the adjustment grip (2) from the center $\pm 30^\circ$: with shorter projection distances rotate the grip to the right, for longer distances to the left. When the desired focus is achieved, tighten the locking grip (3) again.

3) Functional Description and Adaption Distances

As the objective can be correctly focused for a specific projection distance, the picture size can be adjusted through the entire focal length range without affecting image sharpness. The factory has adjusted the objective to mount at the necessary distance of 60 mm between the objective hanger and the slide plane. This distance is achieved individually for each projector in combination with various accessories by using the various distances, which are included in delivery::

BP1,2HMI; BP2; BP2,5C; BP4C with accessory:

slide carrier:	spacer of 15 mm
slide carrier with slide mask:	spacer of 12 mm
AMD 32/ AMD 15:	spacer of 12 mm
AMD 32/ AMD 15 with slide mask:	no spacer

BP 4 HMI; BP 6 Gold; BP 12 Platin with accessory:

slide carrier:	spacer of 20 mm
slide carrier with slide mask:	spacer of 18 mm
AMD 32/ AMD 15:	spacer of 12 mm
AMD 32/ AMD 15 with slide mask:	no spacer

All projectors equipped with:

SFX:	spacer of 6 mm
DFX:	no spacer
RFX:	spacer of 12 mm
WFX:	spacer of 12 mm
FFX:	spacer of 20 mm

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4) Application Range

The objective may standardly be used at projection distances from 11 m to infinity. i.e. it may be focused for this range.

4.1) Collimator lens - optional available

To focus the objective at projection distances shorter than 11 m a collimator lens (7) is required. With this option it is possible to focus the objective at distances from 6 to 11 m. The collimator lens is attached with the mounting yoke and 3 pcs. of screws M4x8 on the front of the objective.

5) Front Condensor Lens

On projectors with interchangeable front condensor lenses /slide format 18x 18 cm We recommend front condensor lens G 505/ II or G 505/ II/ G or Turbo lens for 50-60cm. On projectors with a slide format 24x 24 cm we recommend G 705 or G 705/ G.

6) Dimming Shutter

Due to differences in gray scale glass dimensions of our shutters, only the dimming shutter G405/PCS (Order Code: 22702) or G405 PCS-II-DMX (Order Code: 22703) should be used with the ZOOM Objective 25 – 60 cm. The shutter may be mounted on the bridge (4) [see section 7] with the interchangeable extension bars for $f = 33 - 40$ cm (Order Code: 12012) just in front of the objective. Set the distance between objective and shutter in that way that the cone of light meets the area of grey scale with the largest diameter, which is achievable. So the thermic stress of the material is minimised.

7) Bridge for Dimming Shutter and Support

In the delivered package is contained a bridge (4) and an objective support (5). This standard support is rotatably mounted on the bridge and good for a support height from 440 to 740 mm (distance objective bottom edge and floor).

Optional available is a support for heights of 570 to 875 mm (e.g. when an aircondition is used).

ATTENTION !

The ZOOM - objective must strictly be mounted with support ! (except when mounted on the compact scroller CS 70)

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8) Mounting on the Scroller CS 70

For use with the Scroller CS 70 the Zoom Objective has to be prepared in the following way:

- 1) Dismount the support (5) and the mounting tube (11)
- 2) Mount the two fast mounting clamps (10) on the housing of the objective lens with the delivered screws.
- 3) Using the lens on the scroller together with the dimming shutter needs to use the rods of medium length.
- 4) Set the objective lens on the two rods.
- 5) Move the lens to the required position of 90 mm from the scroller housing (12)
- 6) Fasten all 4 knurled nuts of the mounting clamps (10).

9) Technical Data

Focal Length: steplessly adjustable) from 25 cm to 60 cm
 Lightpower: 1: 2,7 - 3,9
 Horizontal Field Angle for Slide Format 18x 18 cm..... 19,1° - 8,1°
 Horizontal Field Angle for Slide Format 24x 24 cm..... 23° - 10°
 Weight: unpacked 21 kg
 packed 34 kg
 Dimensions without Packaging B x H x T: 395 x 340 x 605 mm
 Dimensions with Packaging B x H x T: 440 x 390 x 740 mm

10) Unit as Delivered

ZOOM- Projection Objective 25- 60 cm, 1: 2,7 - 3,9 manual including bridge for dimming shutter, standard support, standard mounting tube and lens cover.

added in the package: 4 pcs. of spacers 6 mm
 4 pcs. of spacers 12 mm
 4 pcs. of spacers 15 mm
 4 pcs. of spacers 18 mm
 4 pcs. of spacers 20 mm

2 fast mounting clamps for use on the compact scroller CS 70 (with 4 screws each)
 1 user manual

O.C.: 12433

11) Accessories

Collimation Lens for projection distances of 6 - 11 m including mounting ring 3 screws M 4x 8 O.C.: 12437

Support for heights from 570 mm to 875 mm O.C.: 12035

for position numbers see page 3