

MiniStat-100

Miniatur Static Projector for Controlling the Shape of Objects



The miniaturized projector MiniStat-100 serves for illuminating the scene with stripes or custom specific patterns. The grating is made of chroma on glass.

If your CCD-camera is placed aside the projector with an appreciable angle, the stripes in its images are deviated by the shape of the objects in the scene. This principle is well known as 'Structured Lighting'.

Weighting about 570g the projector MiniStat-100 is well suited for applications on moved axes at handling systems or robots.

Due to a very small drift in time or temperature and high light power relatively large objects may be controlled in high precision.

There are many stripes in the image (standard gratings: 20, 40 or 80 periods). So you can gather many profiles simultaneously. Deviations of the shape may be encountered by calculating the difference of successive images. This can be done in video speed e.g. 30 images per second using a standard PC.

MiniStat-100 is prepared to adapt standard C-Mount lenses. So you have a big choice to fit the lens to requests of your application.

Because of its rugged construction and the shielding of the grating against the environment it is well suited for applications in industrial production.

Applications

3D information for:

- Controlling robots and handling systems
- Quality control
- Control of the completeness
- Medical applications
- Projection of marks for photogrammetry

Features

- Rugged construction for industrial applications
- high resolution, low drift
- Halogen lamp for visible light with no speckles
- low weight
- small cylindric construction
- mounting with central thread
- customised gratings available

Technical Specifications

MiniStat-100

Optical Specifications

Projection window:	6 x 6 (max. 10 x 10)mm grating chroma on glass
Distance grating to lens:	17,5 mm
Lens mounting:	C-Mount
Size of the scene:	20 .. 600 mm in square

Mechanical Specifications

Weight (without lens):	ca. 650 g
Diameter:	69 mm
Length (without lens):	176 mm
Mounting:	Central thread M36 x 1,5

Electrical Specifications

Lamp: (limit the long term power to 35 W by dimming or switching the lamp off after several seconds)	Halogen lamp with mirror: 12V / 100 W
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AMP Connector 4-polig (MiniStat-100)

Pin	Kabel	Signal
1	schwarz	GND Lüfter
2	braun	GND Lampe
3	braun	Y 12V Lampe
4	rot	+ 12V Lüfter

Subject to change without notice	Stand: 05.04
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