

Data sheet

P2S30 Piezo steering mirror mount



P2S30

- Highest accuracy due to piezo technology
- High resonant frequency
- Combination of large piezo actuating range and large aperture for beam transmission

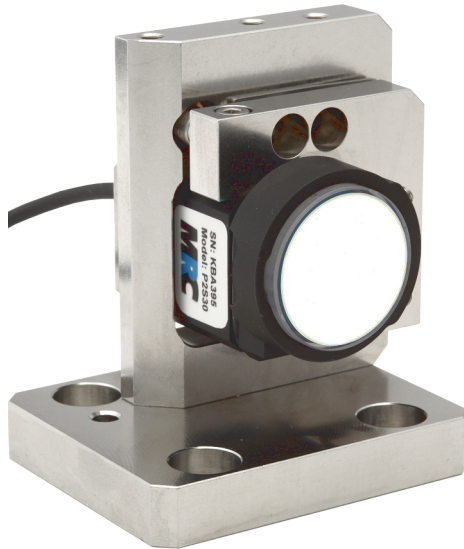


Figure 1: P2S30 steering mirror mount with a 1 inch mirror

Product description

The P2S30 is a fast piezo-driven tilting mirror mount for 1 inch mirrors. It is optimized for the use with MRC's *Compact* laser beam stabilization and is being used as the standard model in this system since 2021.

The mirror mount has a large aperture for detecting residual light behind the mirror. This makes it possible to place a position detector directly behind the mirror. For this purpose, the P2S30 can be mounted for left- or right-sided beam transmission.

The piezo stacks are integrated in a special design and guarantee precise and stepless adjustment of the mirror at maximum speed. The mechanical tilting range features comfortable 2 mrad, allowing beam deflection of up to 4 mrad. The mirror mount can also be manually adjusted by 9° using fine-thread screws.

The mirror holder corresponds to that of ordinary mirror mounts, so that common laser mirrors can be inserted and fixed without gluing.

The mirror mount is designed for permanent 24/7 use. A clean room version as well as a version for applications in environments with a pressure of up to 10⁻⁶ mbar are available.

Specifications

Maximum tilting range (mechanical)	2 mrad (± 1 mrad)
Maximum tilting range (optical)	4 mrad (± 2 mrad)
Manual tilting range (mechanical)	± 4.5°
Resonant frequency	up to 1200 Hz *
Resolution (defined by amplifier noise)	3.3 nrad
Mirror diameter / thickness	1" / from 3 mm
Size of aperture for beam transmission	12 x 12 mm ²
Beam height	40 mm
Number of piezo stacks	2
Voltage range	- 45 to 180 V
Capacity of piezostacks	3.1 µF
Operating temperature	- 30 to 80 °C

* For 1" mirror and 1/8" mirror thickness

General data

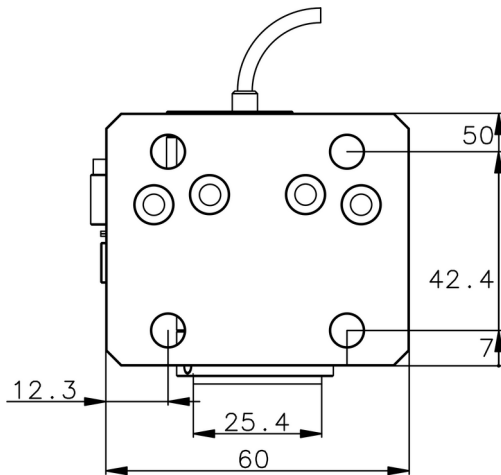
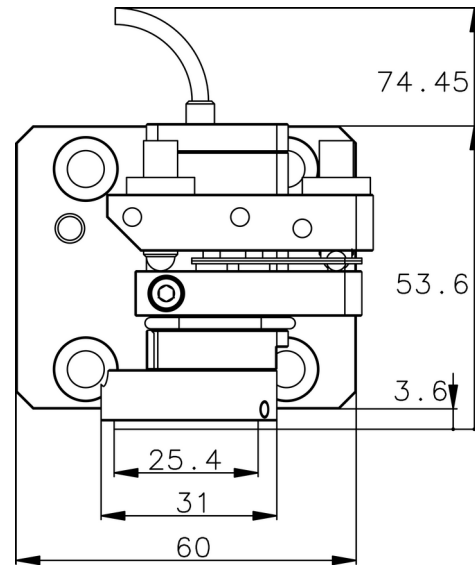
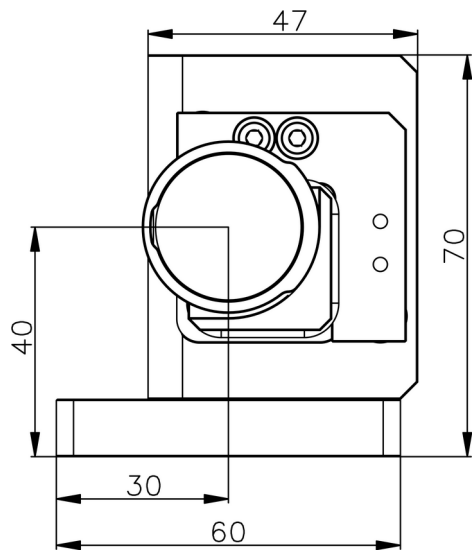
Material	Stainless steel, spring steel, etc.
Dimensions (H x W x D)	70 x 63 x 53 mm ³
Cable / Connector	2 m (fixed at actuator) / Lemo FFA.0S.304.CLAC32

Data sheet

P2S30 Piezo steering mirror mount



Technical drawings



For further details please ask for the 3D STEP files.

Pin configuration LEMO FFA.0S.304.CLAC32

LEMO	Signal
Pin 1	Y signal
Pin 2	X signal
Pin 3	-
Pin 4	GND



Contact

MRC Systems GmbH
 Hans-Bunte-Str. 10
 D-69123 Heidelberg, Germany
 Phone: +49(0)6221/13803-00
 Email: info@mrc-systems.de

Subject to change without prior notice.