

MIPOS 600SG OEM

Microscope objective/ lens positioning system

Concept:

The systems of the MIPOS 600SG OEM series offer a nano positioning and scanning range up to 600 μm in open loop operation, and 500 μm in closed loop. They can be assembled with objectives with a diameter of up to 40 mm.

piezosystem jena's successful parallelogram design guarantees high parallel motion without influencing the optical axis. The precise positioning repeatability of the MIPOS 600SG OEM can be guaranteed by the use of the integrated measurement system. The design which includes integrated pre-load of the actuator offers high resonant frequency and highly parallel motion, and is available in an upside-down version for inverted microscopes. Due to the unique features of the MIPOS 600 series, fast scanning applications can be accurately realized with the shortest settling times.

Specials:

Adapter clamp rings for the nose piece are available separately. They allow for fast mounting and exchanging of the MIPOS system on the microscope without removing other objectives. These Flex-Adapters are available for all standard microscopes and allow the MIPOS series to be universally applicable. Parfocal tube extensions for each threading type are available as an accessory in different lengths.

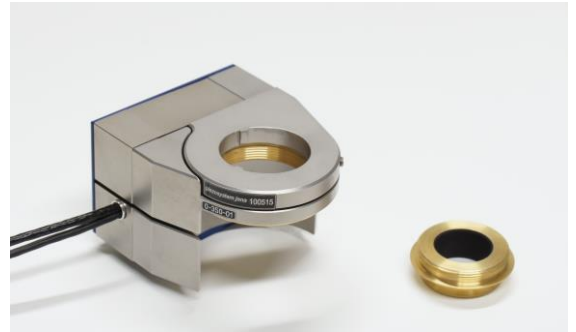


Image: MIPOS 600SG OEM

Product highlights:

- 600 μm focusing range
- compact design
- high resonant frequency
- easy to attach on microscopes
- flexible use by Flex-Adapter
- integrated feedback sensor

Applications:

- surface scanning and analysis
- AFM microscopy
- biotechnology (e.g. cell scanning)
- beam focusing for printing processes
- semiconductor test equipment

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0-380-01D

Technical data:

axis	-	Z
motion in open loop ($\pm 10\%$)*	μm	600
motion in closed loop ($\pm 0,2\%$)*	μm	500
capacitance ($\pm 20\%$)**	μF	21.0
integrated measurement system	-	strain gage
resolution open loop ***	nm	0.9
resolution closed loop***	nm	12
typ. repeatability	nm	13
resonant frequency	Hz	190
additional load = 40g	Hz	161
additional load = 100g	Hz	134
additional load = 160g	Hz	118
stiffness	N/ μm	0.144
rotational error (full motion)	μrad	<20
voltage range	V	-20...+130
connector****	voltage	-
	sensor	-
cable length	m	2
material	-	stainless steel
dimensions (LxWxH)	mm	60.5 x 50 x 40.1
weight	g	370
max. lens diameter	mm	40
max. lens weight	g	500
option for standard microscopes	-	yes
option for inverse microscopes	-	yes

* typical value measured with EVD125 amplifier

** typical value for small electrical field strength

*** the resolution is only limited by the noise of the power amplifier and metrology

**** in combination with a digital controller unit, the system comes with a Sub-D 15 connector. That part number is extended by the suffix "D"

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Recommended configuration:

Actuator	MIPOS 600SG OEM
Amplifier/Controller	d-Drive with EVD125
	30DV50
	30DV300
	NV120/1CLE

The MIPOS series of micro lens and objective positioning systems offers a travel range from 20 µm up to 600 µm in z-axis. Available for standard and inverted microscopes.

More details under "objective lens positioning systems" www.piezosystem.com

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