

MIPOS 600 SG

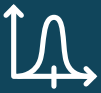
Lens Positioning System



600 μm Focusing Range



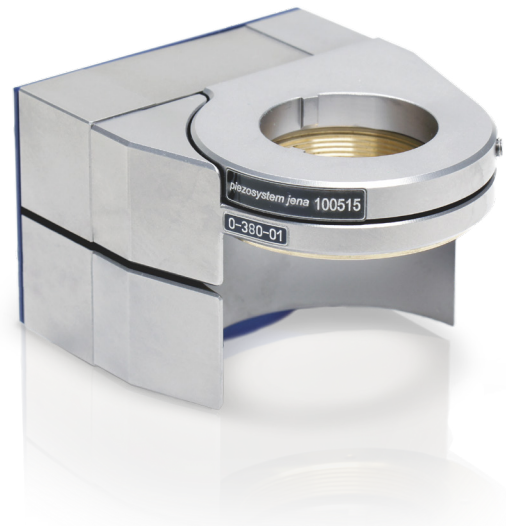
**Typ. Step Resolution 12 nm
in Closed-Loop**



**Resonant Frequency up to
190 Hz**



**Standard Integrated Strain
Gauge Sensor**



The systems of the MIPOS 600 SG series offer a nanopositioning 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.

Unique parallelogram design guarantees high parallel motion without influencing the optical axis. The precise positioning repeatability of the MIPOS 600 SG can be guaranteed by the use of the integrated measurement system. The design which includes an integrated preload of the actuator offers high resonant frequency and highly parallel motion.

Due to the unique features of the MIPOS 600 series, fast scanning applications can be accurately realized with the shortest settling times.

Variants:

- With strain gauge (SG)

Recommended Controller:

NV 200/D NET



E-730-820

Applications

- Surface scanning and analysis
- AFM microscopy
- Biotechnology (e.g. cell scanning)
- Beam focusing for printing processes
- Semiconductor testing

MIPOS 600 SG

Technical Data

		<i>Unit</i>	<i>MIPOS 600 SG</i>
Part #		-	0-380-01D
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		-	SG
Resolution Open-Loop***		nm	0.9
Resolution Closed-Loop***		nm	12
Typ. Repeatability		nm	13
Resonant Frequency	unloaded	Hz	190
	additional load = 80g		161
	additional load = 105g		134
	additional load = 300g		118
Stiffness		N/ μm	0.144
Rotational Error (full motion)		μrad	<20
Voltage Range		V	-20...+130
Connector ****	Voltage	-	d-sub
	Sensor	-	d-sub
Cable Length		m	2
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 Microscope			yes
Option for Inversed Microscope			no

* Typical value measured with 0.3 mV Controller.

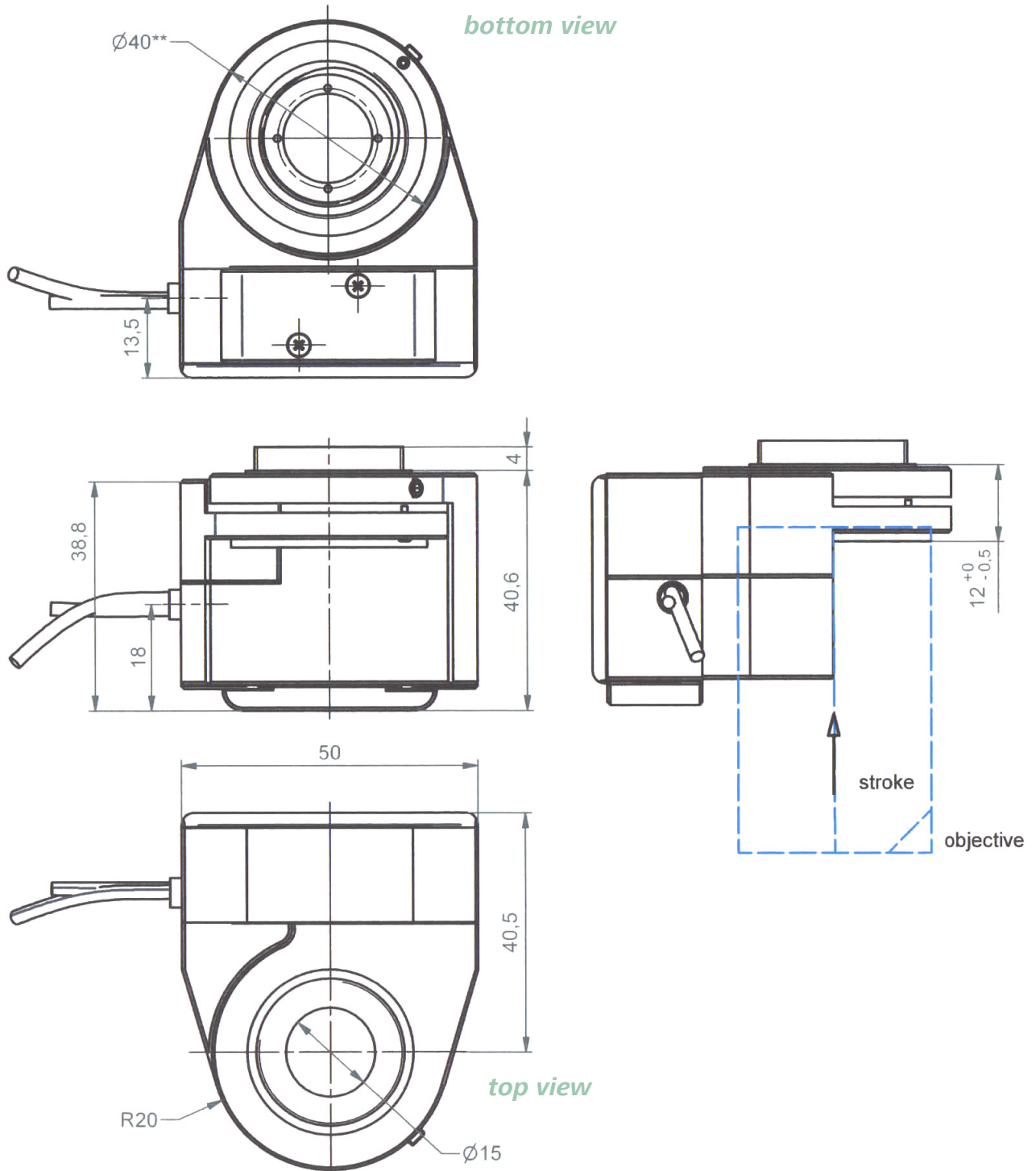
** Typical value for small electrical field strength.

*** 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. The part number is extended by the suffix "D".
 For further product variations and recommended configurations, please contact our sales representatives.

MIPOS 600 SG

Technical Drawing



Dimensions given in mm.

Rights reserved to change specifications as progress occurs without notice.

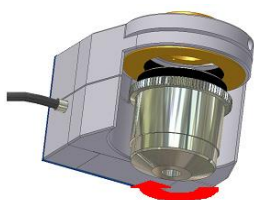
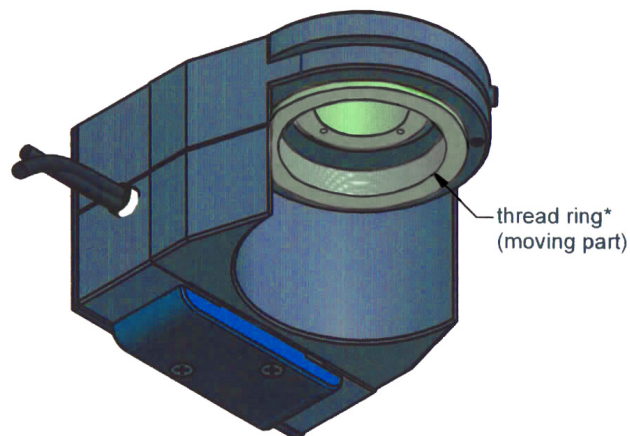
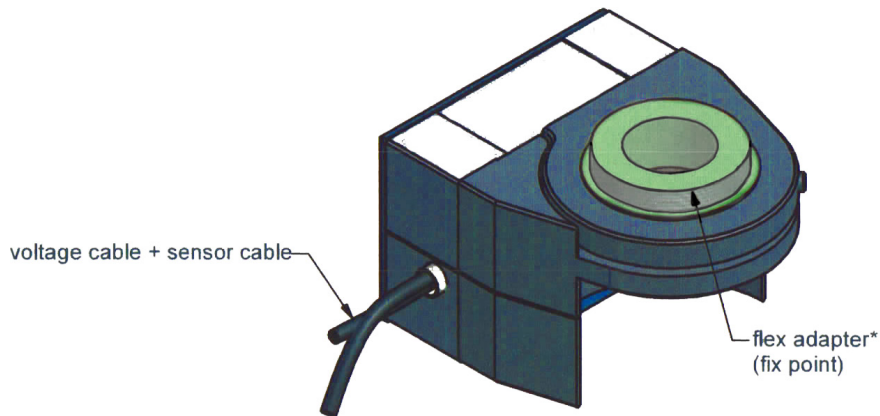
piezosystem jena GmbH
Tel: +49 (3641) 66880
E-Mail: info@piezोजना.com

piezosystem jena, Inc.
Tel: +1-508-634-6688
E-Mail: contact@psj-usa.com

www.piezोजना.com

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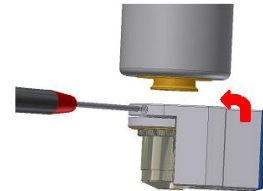
Technical Drawing



1. Screw the objective into the MIPOS



2. Screw the Flex-Adapter into the microscope



3. Clamp the MIPOS on the Flex-Adapter using the attachment screw

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piezosystem jena GmbH
Tel: +49 (3641) 66880
E-Mail: info@piezोजना.com

piezosystem jena, Inc.
Tel: +1-508-634-6688
E-Mail: contact@psj-usa.com

www.piezोजना.com