

MICI 80

Micrometer Screw Piezo Drive



Motion up to 80 μm



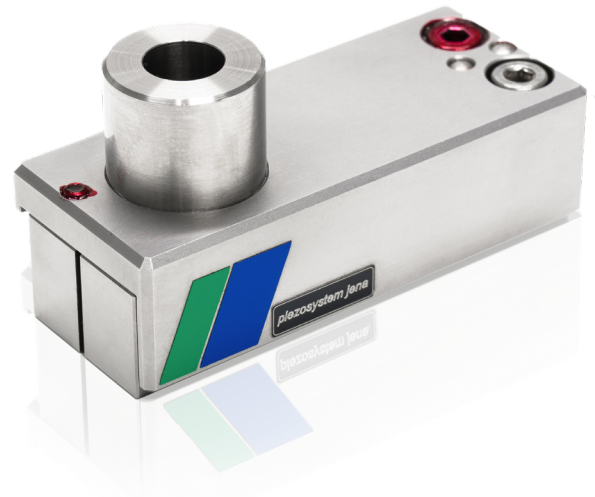
**High resonant frequency
up to 990 Hz**



Resolution to 0.1 nm



**Can carry loads up to
20 kgs**



The micrometer screw piezo drive MICI 80 is well suited for improving the positioning accuracy of linear stages.

The MICI 80 is a piezoelectrical actuator which, in combination with a micrometer screw is mounted onto a linear stage. Preadjustment is done by the measuring screw and the final fine adjustment is made by the MICI element. Typically the piezo driven system generates forces up to 216 N. The resolution is in the sub-nm range.

The major advantage of the micrometer screw piezo drive MICI is that it can be easily installed into an existing system to achieve sub-nm resolution. The travel range of the micrometer screw should be shorter than the travel range of the linear stage.

Variants:

- MICI 80
- MICI 80 SG

Recommended Controller:

NV 200/D NET



E-730-820

Applications

- Quality Control
- Automation
- Fine adjustment of optical components
- Micro assembly

MICI 80

Technical Data

	Unit	MICI 80	MICI 80 SG	MICI 80 SG DIG	MICI 80 SG EXT	
Part #	-	S-702-00	S-702-01	S-702-01D	S-702-01E	
Axis	-	Z	Z	Z	Z	
Motion	open-loop ($\pm 10\%$)*	μm	80	80	80	80
	closed loop ($\pm 0,2\%$)*		-	64	64	64
Capacitance ($\pm 20\%$)**	μF	1.8	1.8	1.8	1.8	
Integrated measurement system	-	-	SG	SG	SG	
Resolution	open-loop***	nm	0.1	0.1	0.1	0.1
	closed-loop***		-	2	2	2
Typ. Repeatability	nm	-	5	5	5	
Typ. Non-Linearity	μm	-	0.1	0.1	0.1	
Resonant frequency (w/o micrometer drive)	Hz	990	990	990	990	
Stiffness	N/ μm	1.8	1.8	1.8	1.8	
Max. push forces	N	216	216	216	216	
Max. pull forces	N	22	22	22	22	
Voltage range	V	-20...+130	-20...+130	-20...+130	-20...+130	
Connectors	Voltage****	-	LEMO 05.302	LEMO 05.302	D-SUB 15pin	LEMO 05.302
	Sensor****		-	LEMO 05.304	D-SUB 15pin	ODU 4pin
Cable length	m	1	1.2	2	2	
Material	-	stainless steel	stainless steel	stainless steel	stainless steel	
Dimensions (l x w x h)	mm	64x27x33.5	64x27x33.5	64x27x33.5	64x27x33.5	
Weight (without micrometer drive)	g	180	185	185	185	

* typical value measured with NV 40/3 controller (closed-loop: NV 40/3 CLE)

** typical value for small electrical field strength

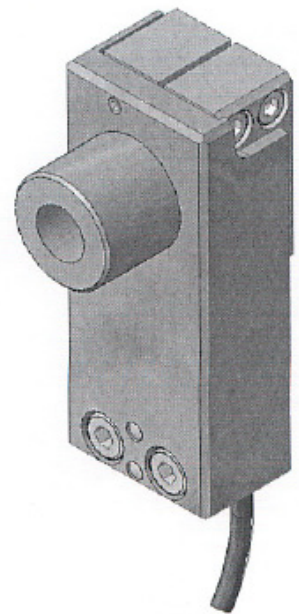
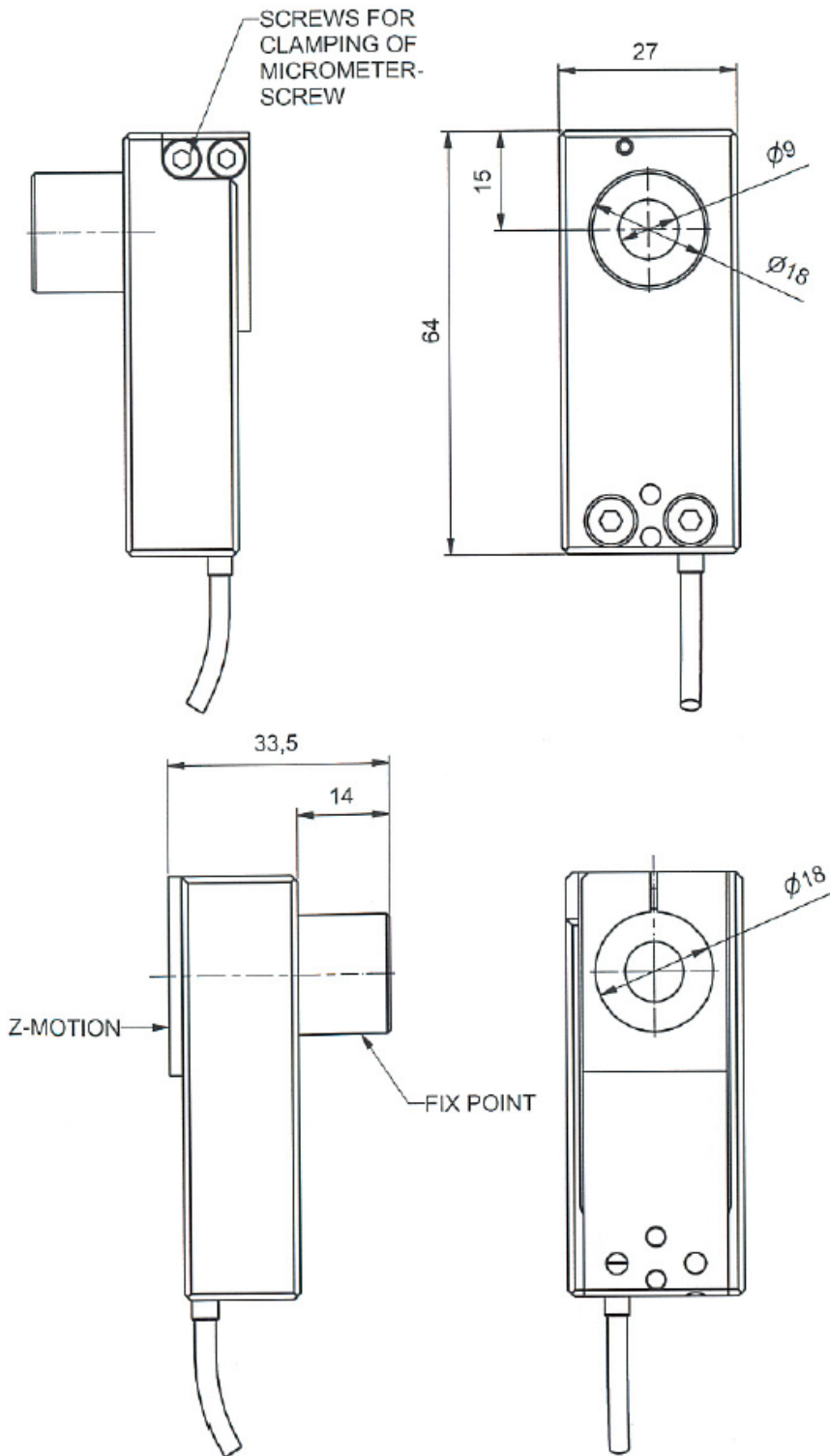
*** The resolution is only limited by the noise of the power amplifier and metrology.

**** digital Piezo with suffix ,D' comes with one 15 pins D-sub connector

For further product variations and recommended configurations, please contact our sales representatives.

MICI 80

Part Drawing



Dimensions given in mm.

Rights reserved to change specifications as progress occurs without notice.

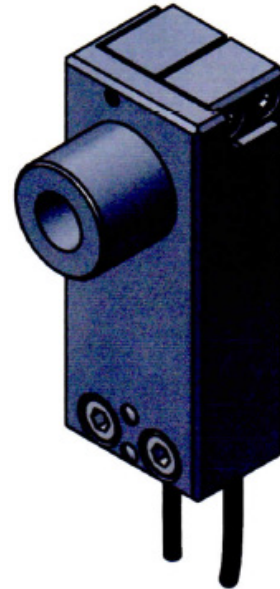
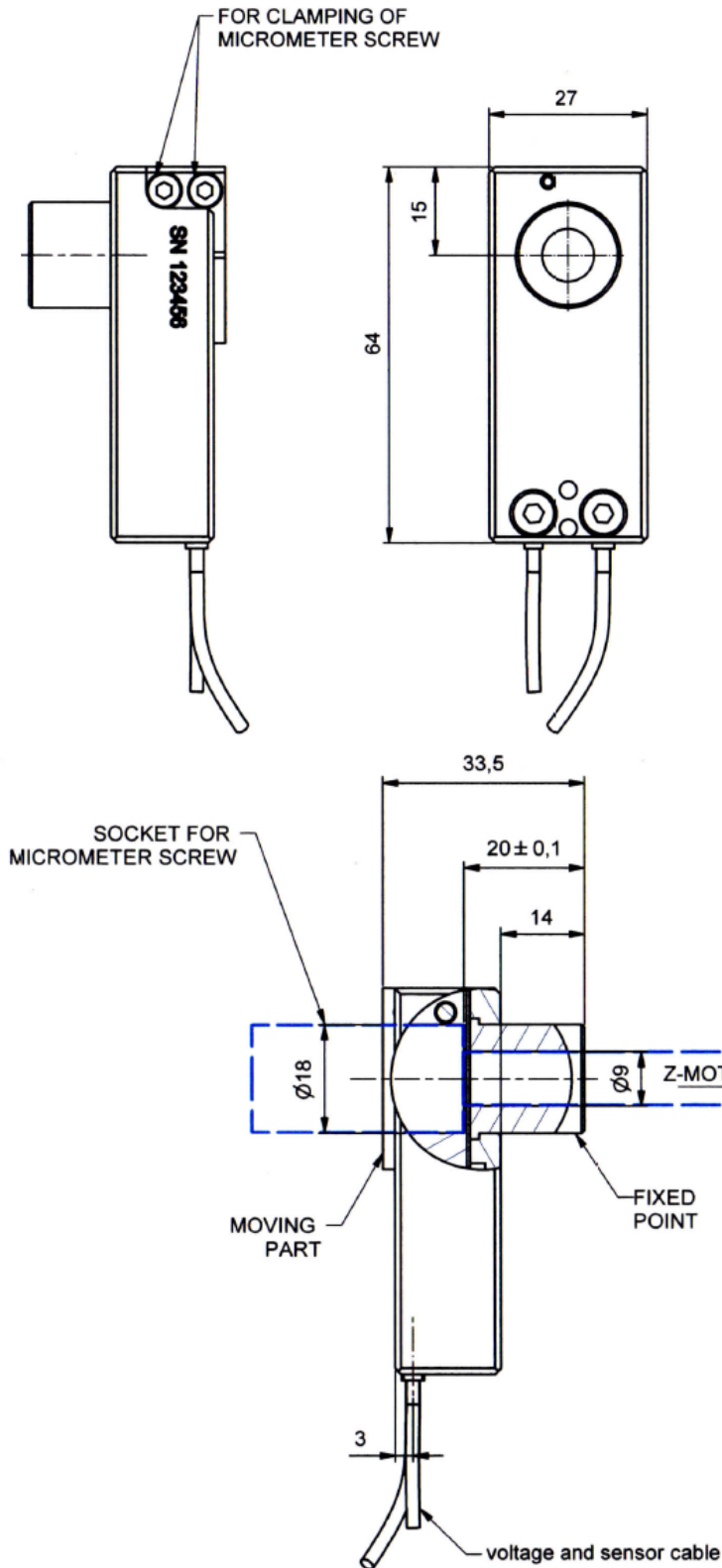
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MICI 80 SG

Part Drawing



Dimensions given in mm.

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