

# MICI 200

## Micrometer Screw Piezo Drive



*Motion from 200  $\mu\text{m}$   
in open-loop*



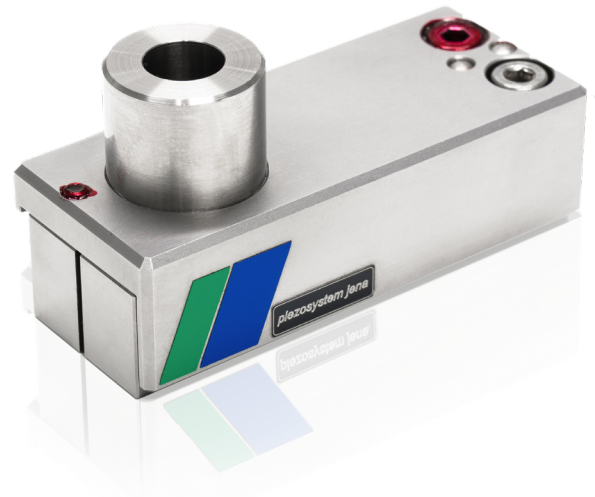
*High resonant frequency  
of 332 Hz in open-loop*



*Resolution to 0.56 nm*



*Simple installation to  
an existing system*



The micrometer screw piezosystem MICI 200 is based on a high load piezo actuating system with a lever transmission. This allows for a range of motion of up to 200  $\mu\text{m}$  in open-loop mode (without feedback control).

Preadjustment is done by the measuring screw and the final fine adjustment is made by the MICI element. Through this, the accuracy and reproducibility of the linear stage system can be improved significantly. The achievable resolution is in the sub-nm range.

The important advantage of the micrometer screw piezosystem MICI 200 system is the simple installation into an existing system so it can achieve sub-nm resolution.

### Variants:

- MICI 200
- MICI 200 SG

### Recommended Controller:

#### NV 200/D NET



E-730-820

### Applications

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

# MICI 200

## Technical Data

		Unit	MICI 200	MICI 200 SG	MICI 200 SG DIG	MICI 200 SG EXT
Part #	-		S-703-00	S-703-01	S-703-01D	S-703-01E
Axis	-		Z	Z	Z	Z
Motion open-loop ( $\pm 10\%$ )*	$\mu\text{m}$		250	250	250	250
Capacitance ( $\pm 20\%$ **)	$\mu\text{F}$		7.2	7.2	7.2	7.2
Integrated measurement system	-		-	strain gauge	strain gauge	strain gauge
Resolution	open-loop***	nm	0.56	0.56	0.56	0.56
	closed-loop***		-	6	6	6
Typ. Repeatability	nm		-	5	5	5
Typ. Non-Linearity	$\mu\text{m}$		-	0.1	0.1	0.1
Resonant frequency (w/o micrometer drive)	Hz		332	332	332	332
Stiffness	N/ $\mu\text{m}$		0.46	0.46	0.46	0.46
Max. push forces	N		110	110	110	110
Max. pull forces	N		11	11	11	11
Voltage range	V		-20...+130	-20...+130	-20...+130	-20...+130
Connectors	Voltage****	-	LEMO 0S.302	LEMO 0S.302	D-Sub 15pin	LEMO 0S.302
	Sensor****		-	LEMO 0S.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 <sup>3</sup>		85 x 28 x 36.5	85 x 28 x 36.5	85 x 28 x 36.5	85 x 28 x 36.5
Weight (without micrometer drive)	g		280	280	280	280

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

\*\* typical value for small electrical field strength

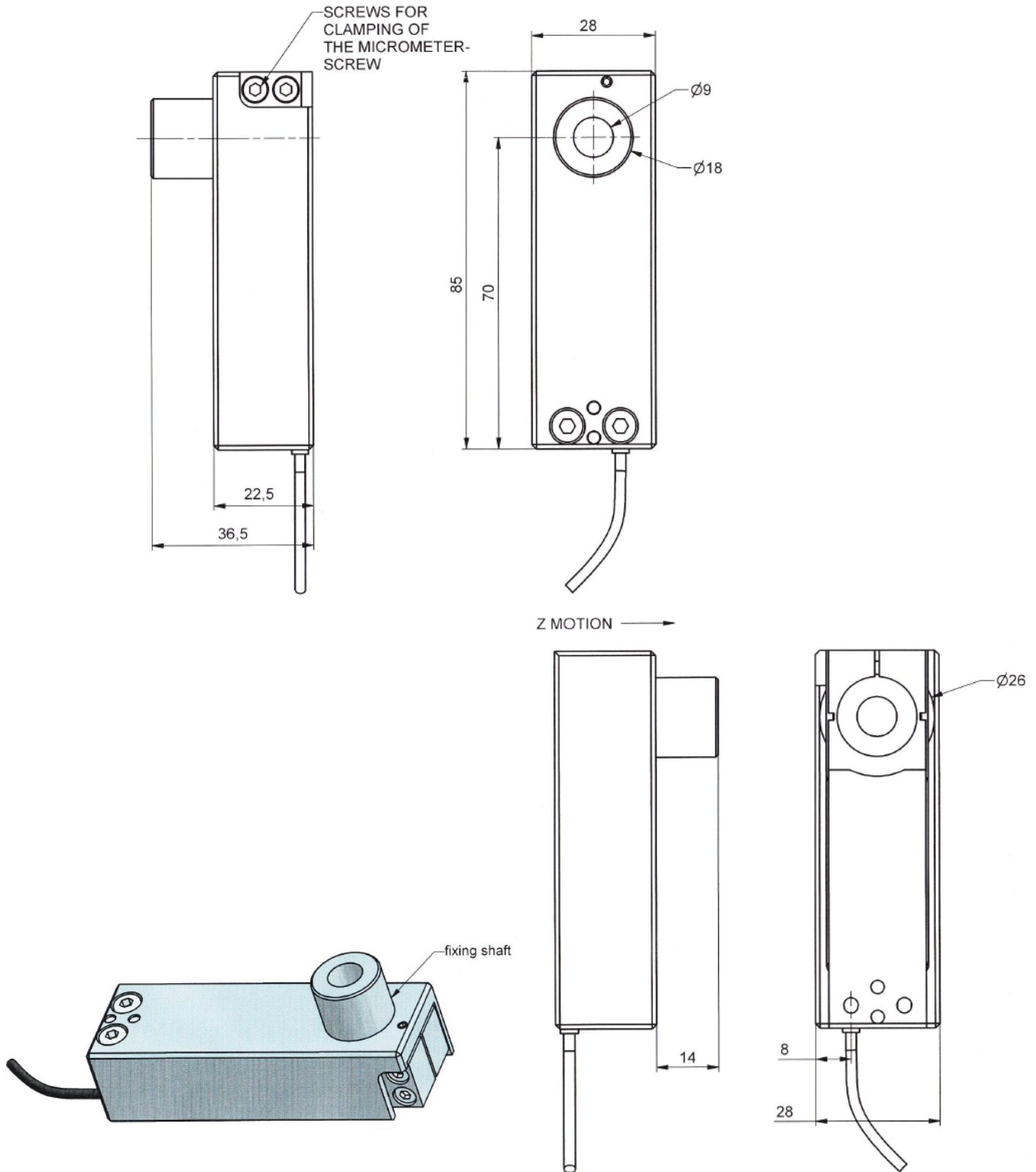
\*\*\* The resolution is only limited by the noise of the power amplifier and metrology.

\*\*\*\* 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 200

## Part Drawing



Dimensions given in mm.

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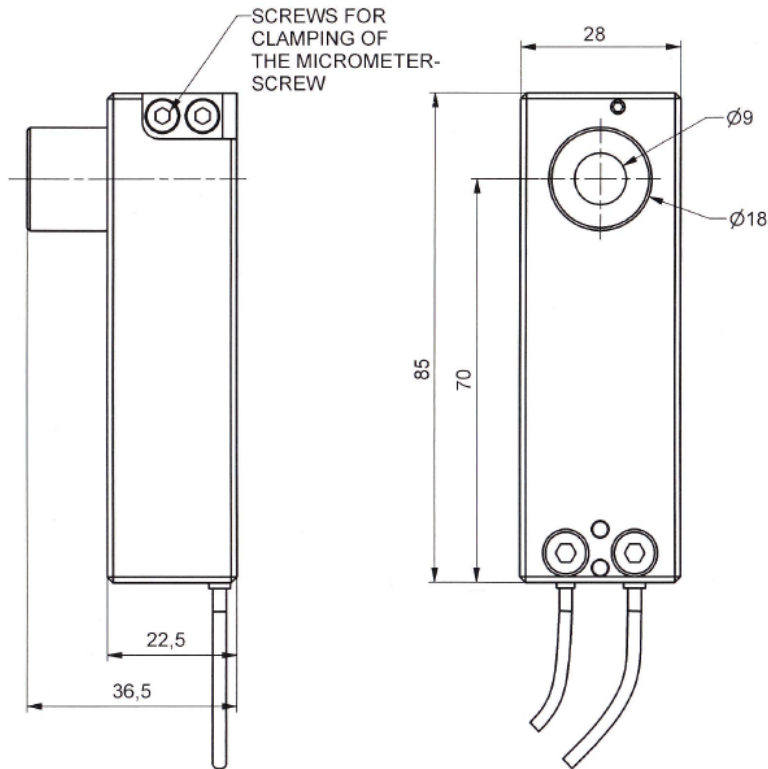
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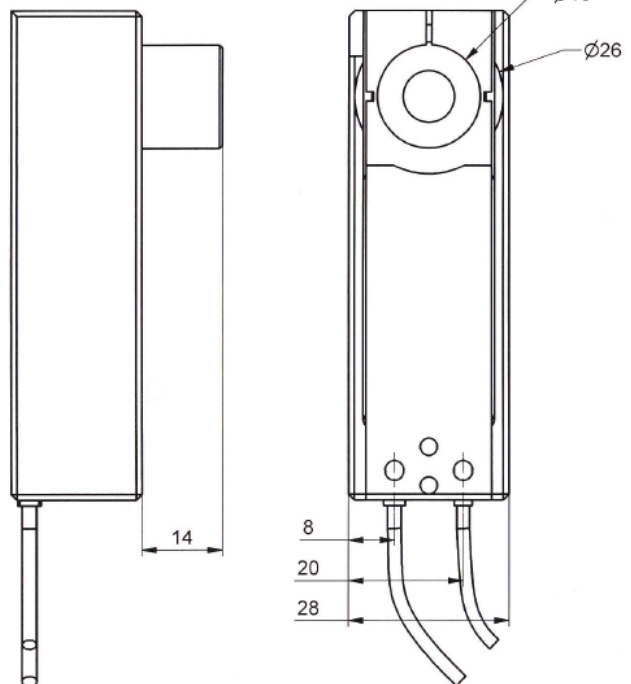
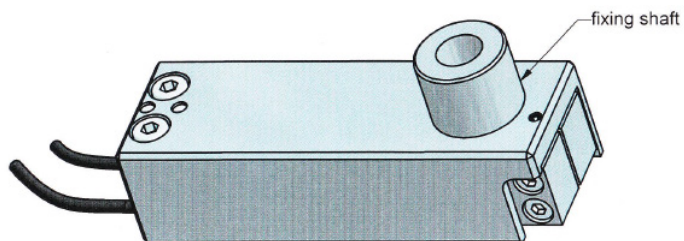
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# MICI 200 SG

## Part Drawing



Z MOTION →



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