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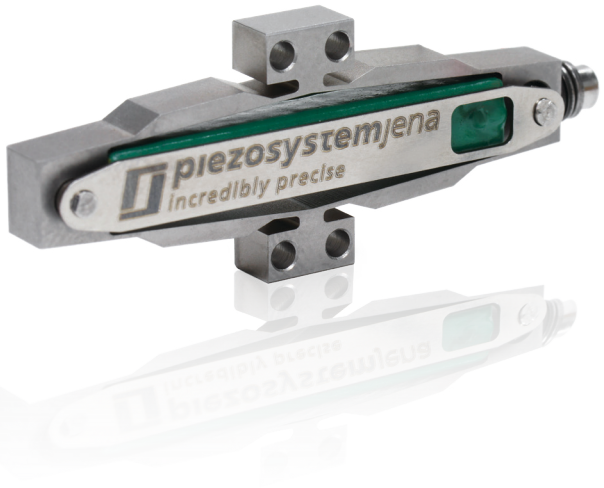
PX 500

1-Axis Translation Stage

- ***Long range of motion, up to 500 µm***
- ***Easy system integration***
- ***High resonant frequency up to 450 Hz***
- ***Vacuum and cryogenic configurations available***



The PX 500 linear actuator was developed especially for OEM applications. Without external loads, the piezoelectric element can reach a motion of 500 µm.

The PX 500 piezo flexure stage is especially suited for system integration due to its small dimension. The construction is based on solid-state hinges that provide a levered transmission of the piezo elements.

The PX 500 is ideally suited for micro-positioning optical components, such as mirrors and laser diodes, or for opening and closing micro fluid valves.

The element can be mounted to a fixture using one of the holes (2.2 mm diameter). The other hole will move in relation to this one.

Recommended Controller:

NV200/D Net

E-730-820

Applications

- Beam shutter
- Optic alignment
- Valve control system in micro fluid technology
- Micro manipulation

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PX 500
Technical Data

		Unit	PX 500	PX 1500
Part no		-	T-605-89	T-622-00
Axes		-	x	
Motion	Open-loop (±10%)	µm	500	1500
Capacitance (±20%)**		µF	3.6	7.2
Feedback sensors		-	-	
Resolution***	Open-loop	nm	1	3
Resonant frequency	unloaded	Hz	450	180
	load 12 g		200	150
	load 50 g		100	110
Stiffness		N/µm	0.06	0.04
Max. push force		N	35	60
Max. pull force		N	3	6
Voltage range		V	-20 ... +130	
Connector		-	LEMO 2pin	
Cable length		m	1	1
Material		-	alumunium/stainless steel	
Temperature range		°C	-20 … +80	
Dimension (l x w x h)		mm	52x20x8	87x34x13
Weight		g	14	98

Rights reserved to change specifications as progress occurs without notice!

* typical value measured with NV 40/3 amplifier and the resolution is only limited by the noise of the power amplifier and metrology.
** typical value for small electrical field strength

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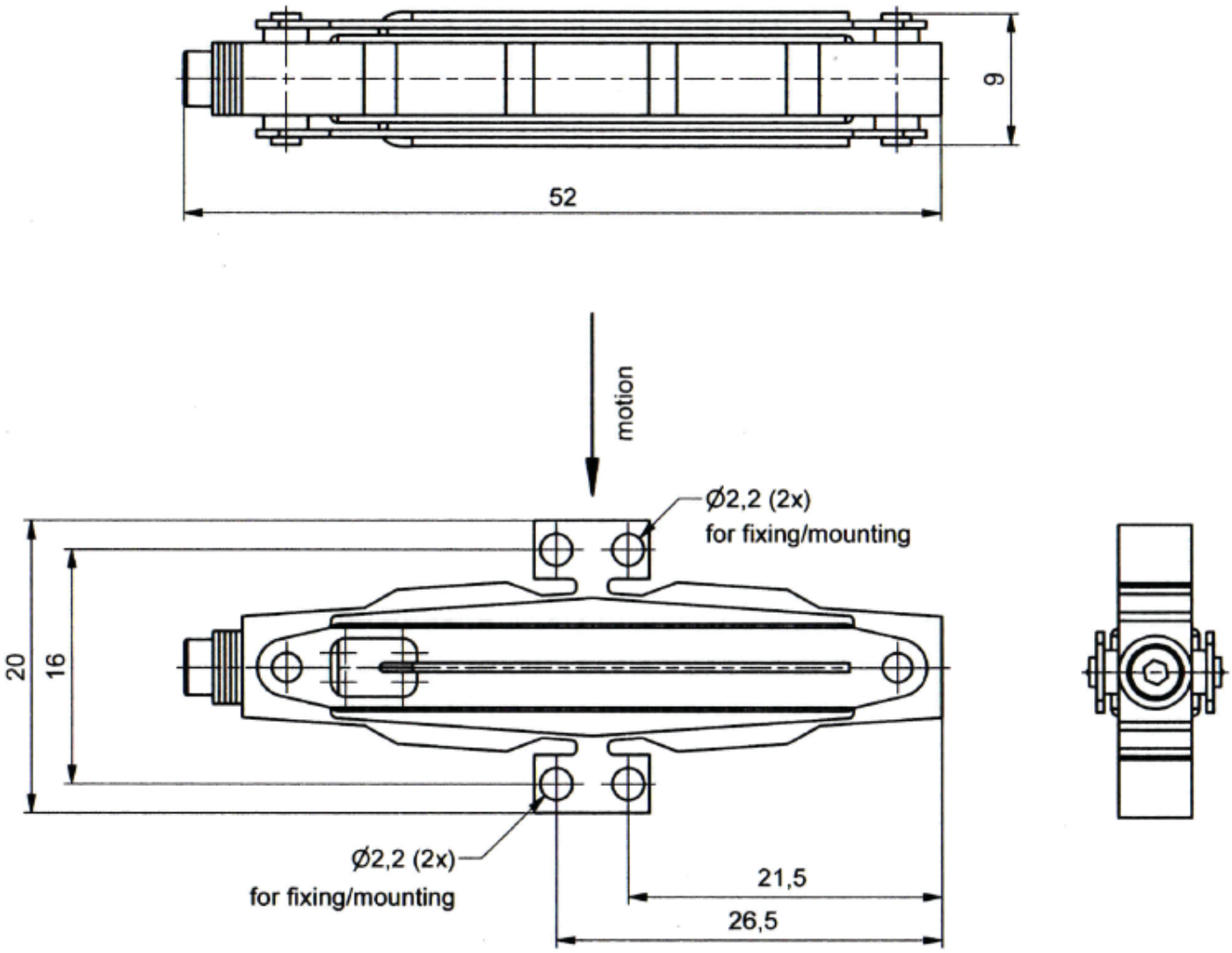
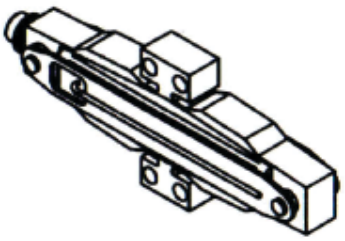
PX 500
Part Drawing



M 1 : 1



Dimensions given in mm.

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