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PX 400

Compact 1-Axis Translation Stage

- ***Long range of motion, up to 400 µm***
- ***Accurate parallel motion***
- ***High dynamic range***
- ***Vacuum and cryogenic configurations available***

The solid state flexure and parallelogram construction of these piezo stages allow travel without any mechanical play. They provide a much higher resolution than is possible with mechanical or electromechanical systems.

The PX 400 stage can be easily combined with XY and tilting piezoelectric modules offering positioning with many degrees of freedom.

These piezo elements are able to perform dynamic work such as in semiconductor, electronics, measurement and microbiology applications.

Variants:

- PX 400
- PX 400 SG
- PX 400 CAP

Recommended Controller:

NV200/D Net

E-730-820

Applications

- Fiber positioning
- Beam alignment
- Semiconductor
- Micro-manipulation

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PX 400
Technical Data

		Unit	PX 200	PX 300	PX 400
Part no		-	T-106-00	T-107-00	T-108-00
Axes		-		x	
Motion	Open-loop (±10%)	µm	200	300	400
Capacitance (±20%)**		µF	1.8	2.5	5.2
Resolution***	Open-loop	nm	0.4	0.6	0.8
Resonant frequency	unloaded	Hz	177	177	200
Stiffness		N/µm	0.09	0.09	0.09
Max. push force open loop		N	340	720	300
Max. pull force closed loop		N	34	72	30
Voltage range		V		-20 ... +130	
Connector		-		LEMO	
Cable length		m	1	1	1
Material		-		aluminum/stainless steel	
Temperature range		°C		-20 … +80	
Dimension (l x w x h)		mm		52x48x20	
Weight		g		175	

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 400 SG & CAP

Technical Data

		Unit	PX 200 SG	PX 300 SG	PX 400 SG
Part no		-	T-106-01	T-107-01	T-108-01
Feedback sensors				strain gauge	
Motion	Closed-loop (±0.2%)	µm	160	240	320
Resolution***	Open/closed-loop	nm	0.4	0.6	0.8
Typ. repeatability		nm	±14	±31	±5
Typ. non-linearity		%	0.06	0.2	0.09
Voltage range		V		-20 ... +130	
Connector		-		LEMO ODU	
Cable length		m	2	2	2
Temperature range		°C		-20 … +80	
Dimension (l x w x h)		mm		52x48x20	
Weight		g		180	

		Unit	PX 200 CAP	PX 300 CAP	PX 400 CAP
Part no		-	T-106-06	T-107-06	T-108-06
Feedback sensors				capacitive	
Motion	Closed-loop (±0.2%)	µm	160	240	320
Resolution***	Open/closed-loop	nm	2	3	4
Typ. repeatability		nm	±5.5	±6	±10
Typ. non-linearity		%	0.01	0.05	0.02
Voltage range		V		-20 ... +130	
Connector		-		LEMO ODU	
Cable length		m	2	2	2
Temperature range		°C		-20 … +80	
Dimension (l x w x h)		mm		70.5x48x20	
Weight		g		210	

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* 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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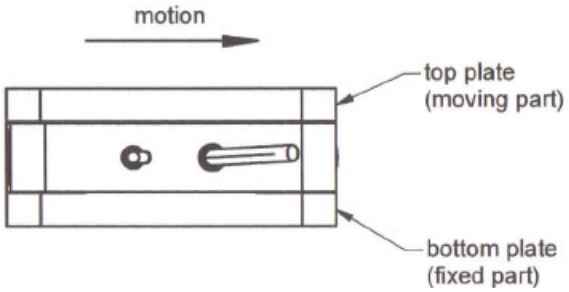
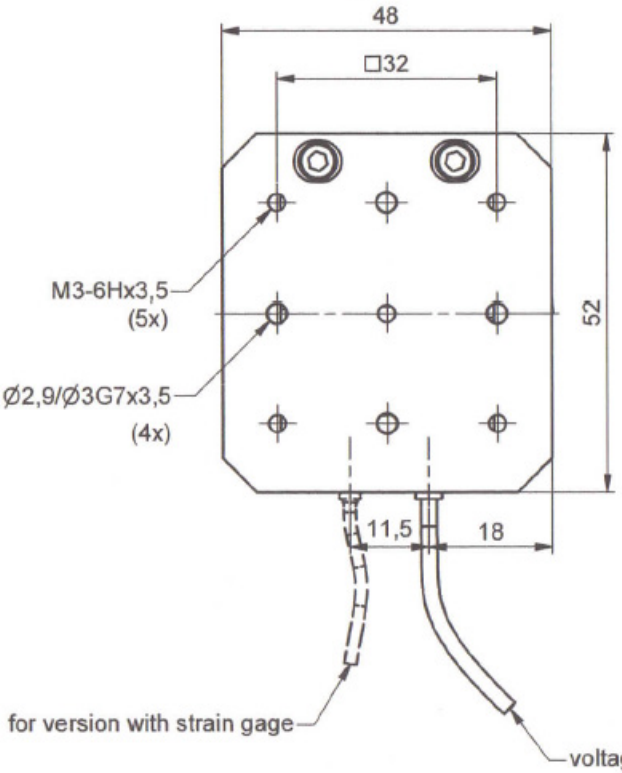
PX 400 SG

Part Drawing

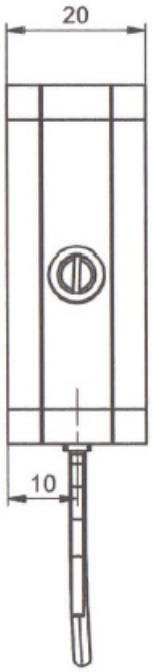
front view



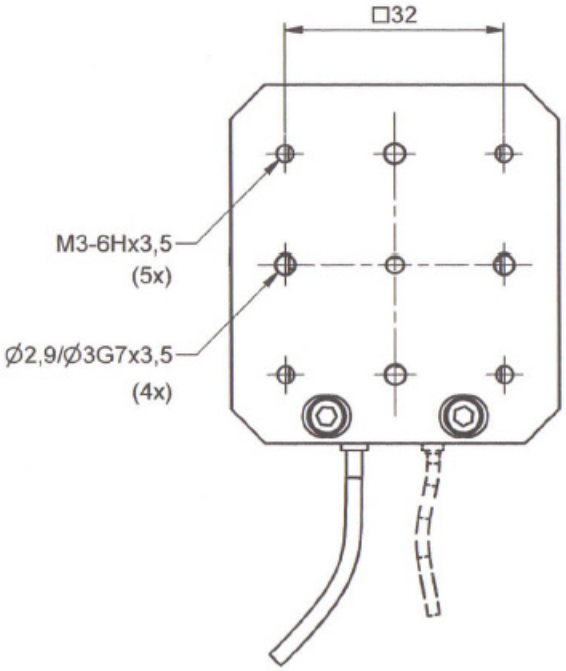
top view



side view



bottom view



nomenclature:

x	*model*	*part no.*
0	*PX 400*	*T-108-00*
1	*PX 400 SG*	*T-108-01*

Dimensions given in mm.

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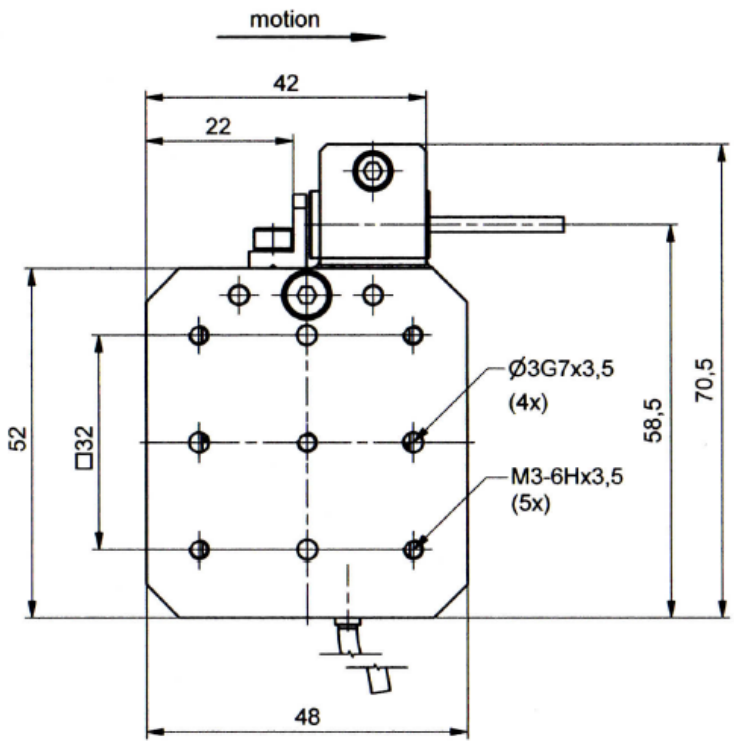
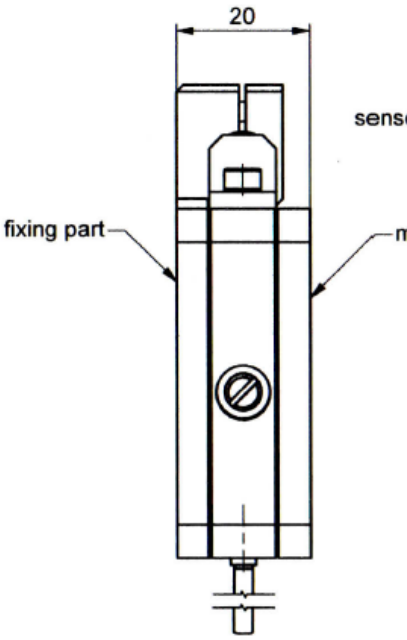
PX 400 CAP

Part Drawing

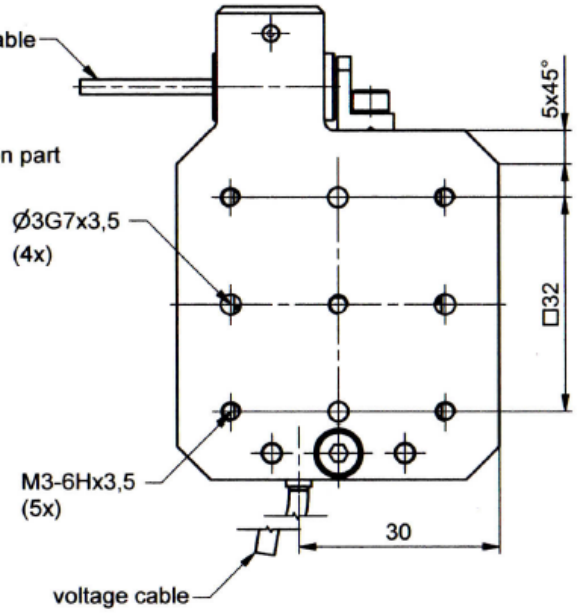
top view



side view



bottom view



This drawing is valid for the following systems as well:

PX 200 CAP (T-106-06)
PX 300 CAP (T-107-06)

Dimensions given in mm.

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