

# Compact XY Nanopositioning System

WITH CLEAR APERTURE



## P-763

- + Travel range 200  $\mu\text{m}$
- + High positional stability and resolution with capacitive sensors
- + Small footprint with a 70 mm side length
- + Large clear aperture 30 mm  $\times$  30 mm

### Precision- class nanopositioning system

2 axes, serial kinematics. Frictionless flexure joints with mechanical lever motion amplifiers. Capacitive position sensors for maximum stability and linearity

### PICMA<sup>®</sup> high- performance piezo drive

Piezoceramic actuators with all- ceramic insulation. Longer lifetime, humidity resistance and operating temperatures to 80 °C

### Fields of application

Sample handling and positioning in research and industry, also suitable for transmitted- light applications

## Specifications

Preliminary data	P-763.22C	Unit
Active axes	X, Y	
<b>Motion and positioning</b>		
Integrated sensor	Capacitive sensors	
Closed- loop travel in X, Y	200	$\mu\text{m}$
Open- loop resolution in X, Y	1	nm
Closed- loop resolution in X, Y	2	nm
Linearity error in X, Y	0.02	%
Repeatability X, Y	$\pm 5$	nm
<b>Mechanical properties</b>		
Loaded resonant frequency in X	180 Hz (260 g)	Hz
Load capacity	10	N
<b>Drive properties</b>		
Piezoceramics	PICMA <sup>®</sup> P-887	
Electrical capacitance in X , Y	12.8	$\mu\text{F}$
<b>Miscellaneous</b>		
Operating temperature range	-20 to 80	$^{\circ}\text{C}$
Material	Aluminum, steel	
Dimensions	70 mm $\times$ 70 mm $\times$ 25 mm	
Clear Aperture	30 mm $\times$ 30 mm	
Cable length	1.5	m
Connection	1 $\times$ Sub- D Mix, 1 channel, for X and Y respectively	

## Order Information

P-763.22C

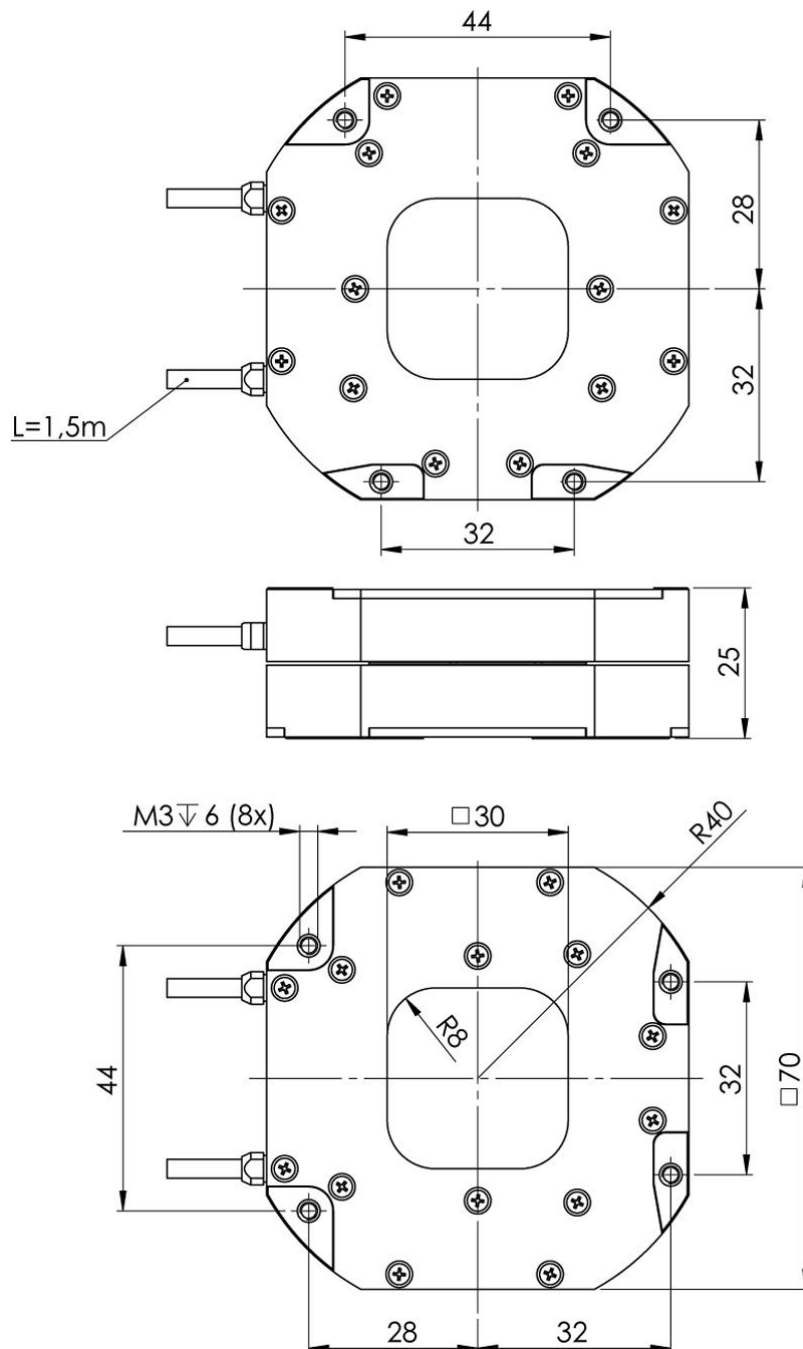
XY Nanopositioning System with Small Footprint and Large Aperture, 200  $\mu\text{m}$  x 200  $\mu\text{m}$ , Direct Metrology, Capacitive Sensors

Ask about custom designs!

## Controllers / Drivers / Amplifiers

[E-727 Digital Multi- Channel Piezo Controller](#)

## Drawings / Images



P-763, dimensions in mm