



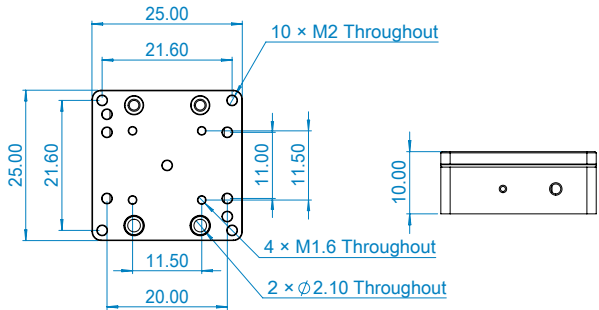
2025
New

"Closed-Loop Scanner Series" – Scanner25-x.Ultra

Scanners with sub-nanoscale resolution capacitive displacement sensors for closed-loop control

- ➔ Features
- Tiny structure
 - Ultra-high vacuum & low temperature compatible
 - Closed-loop control

➔ Picture & dimensions



➔ Specifications

Optional Versions ⇄		.HV (default)	.ULT	.UHV	.ULT.UHV
		.HV version, compatible with 1E-7 mbar .ULT version, used at He3 or dilution cryogenics systems .UHV version, compatible with 2E-11 mbar			
1	Footprint × hight	25 × 25 mm × 10.5 mm			
2	Weight	80 g			
3	Work environment	Temperature range: 1.4 ~ 400 K, Max. Magnetic field: 35 Tesla			
4	Option1 - 30 mK		✓		✓
5	Option2 - 2e-11 mbar			✓	✓
6	Mainbody	Pure Ti	BeCu	Pure Ti	BeCu
7	Wires	twisted paired wire & triax cable			
8	Connectors	2 head pins + 1 triax connector (for each dimension)			
9	Scanning Axis	X			
10	Travel range	@300 K: 55 µm; @4 K: 30 µm			
11	Drive Voltage	Max. 75 V @300 K; Max. 150 V @4 K			
12	Max. Load	250 g			
13	Capacitance @300 K	7 uF			
14	Sensor	Capacitive displacement sensor			
15	Resolution	0.5 nm			
16	Linearity error	Typical ~ 0.1 %			
17	Repeatability	< 5 nm			

For detail drawing and 3D model please contact us.

Piezoelectric Motion - LT

N5

Specifications subject to change without notice.



Overview of “Scanner Series” Piezoelectric Motion Unit

Low Temperature Piezoelectric Motion - Scanner Series

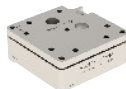
Choose your suitable MultiFields® “Scanner Series” product



Scanner16-xy



Scanner16-z



Scanner25-xy

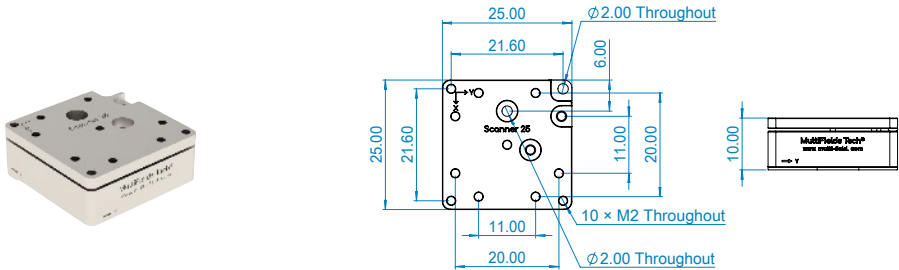
Series defined by size	“16mm Series”		“25mm Series”
1 Work Environment	Default: 1.4 K ~ 400 K; 1e-7 mbar; 35 Tesla Option1 - .ULT, lowest use temperature 30 mK; Option2 - .UHV, highest vacuum environment 2E-11 mbar;		
2 Scanning Axes	X, Y	Z	X, Y
3 Dimensions	16 × 16 × 9 mm	16 × 16 × 6 mm	25 × 25 × 13.5 mm
4 Travel Range	30 × 30 μm	30 μm	55 × 55um
5 Max. Load	100 g	100 g	200 g
6 Repeatability	< 10 nm		
7 Drive Voltage	Max. 75 V @300K; Max. 180 V @4K		
8 Resolution	0.5 nm	0.5 nm	0.8 nm
9 Pins	4 pins	2 pins	4 pins
10 Main Body	Default: Pure Ti; ULT: BeCu		
11 Weight	8 g	7g	23 g

"25mm Series" – Scanner25-xy

High-load scanning stage of x & y direction with long travel range

- ➔ Features
- Compact design
 - Sub-nm resolution
 - 55 × 55 μm travel range at room temperature
 - Ultra-high vacuum & low temperature compatible

➔ Picture & dimensions



➔ Specifications

Optional Versions ⇨		.HV (default)	.ULT	.UHV	.ULT.UHV
		.HV version, compatible with 1E-7 mbar .ULT version, used at He3 or dilution cryogenics systems .UHV version, compatible with 2E-11 mbar			
1	Footprint × hight	25 × 25 × 10 mm			
2	Weight	23 g			
3	Work environment	Temperature range: 1.4 ~ 400 K, Max. Magnetic field: 35 Tesla			
4	Option1 - 30 mK		✓		✓
5	Option2 - 2e-11 mbar			✓	✓
6	Mainbody	Pure Ti	BeCu	Pure Ti	BeCu
7	Wires	Phosphor Bronze Twisted Paired Wires, 20cm			
8	Pin materials	Polyster (glass fiber filled), BeCu		Peek, BeCu	
9	Pins number	2 pins for each axis			
10	Scanning Axes	X, Y			
11	Travel range @300 K	55 × 55 μm			
12	Drive voltage	Max. 75 V @300 K, Max. 180 V @4 K			
13	Max. Load	200 g			
14	Capacitance @300 K	4 uF			
15	Resolution	0.8 nm			
16	Repeatability	< 10 nm			

For detail drawing and 3D model please contact us.