

MX_079 – 9001 – Cost effective Linear Stage

Rack-Pinion Linear Stage



MX_079 – 9001 – 50mm Linear Stage

Long life recirculating linear ball bearing guides are distinguished by a beneficial combination of high load capacity, lifetime, maintenance-free operation, and guiding accuracy. This makes the MX_079-9001 family an attractive solution for cost effective precision industrial applications.

DC Motor with high resolution rotary encoder

Fields of application

Industry and research microscopy, optical devices.

- Travel range 50 mm
- Max Speed to 10 mm/s
- Bidirectional repeatability to 10 μ m
- Vertical or horizontal use
- Long life recirculating linear ball bearing guides

General Specifications

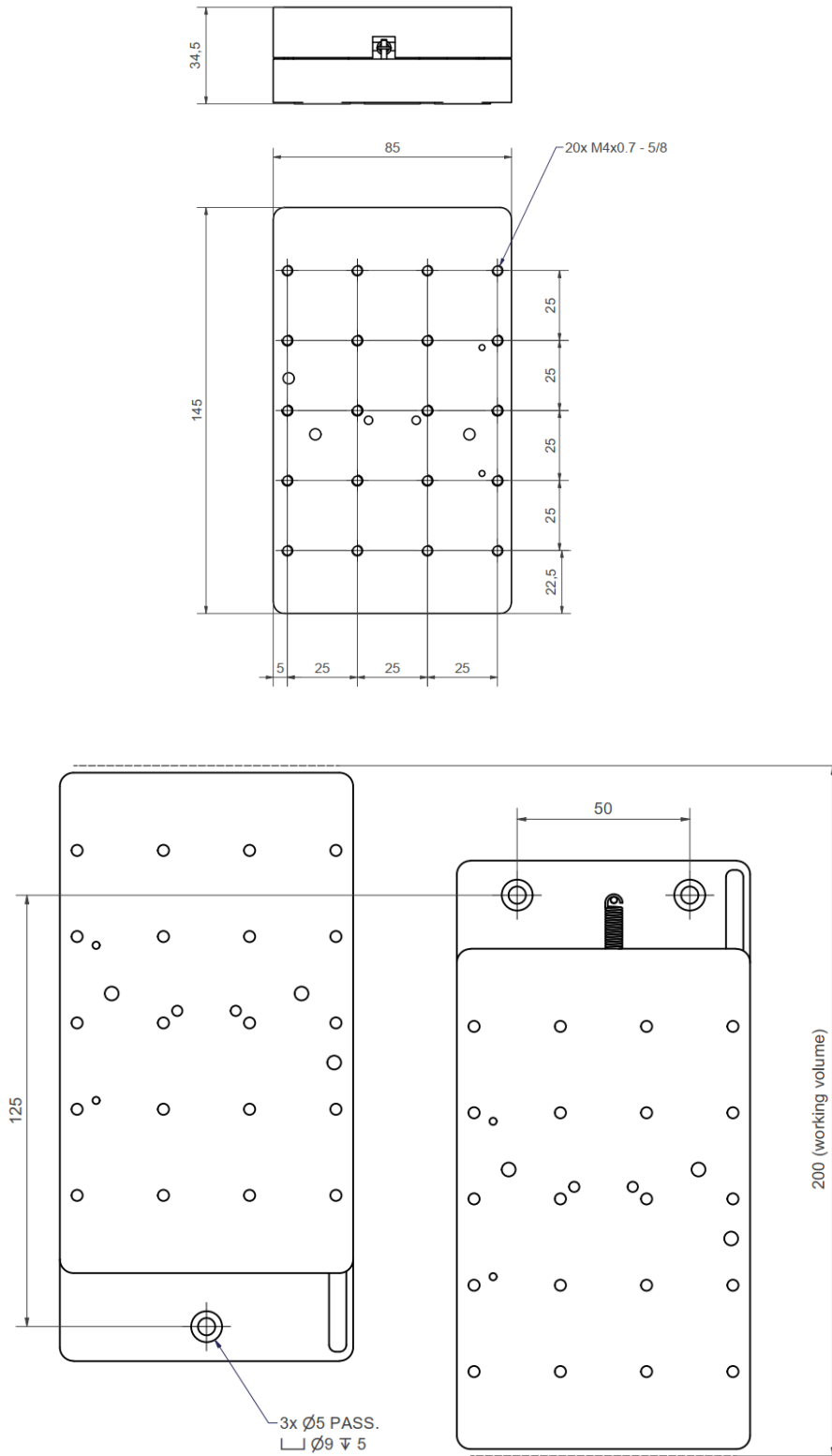
	MX_079-9001 - 50			Unit	Tolerances
Motion and position					
Active axis	X (Z with gravity compensation)				
Travel range	50			mm	
Integrated sensor	Rotary encoder				
Sensor resolution approx..	60			nm	
Min. incremental motion	1			µm	Typ.
Unidirectional repeatability	3			µm	
Bidirectional repeatability	10			µm	Typ.
Pitch	100			µrad	Typ.
Yaw	100			µrad	Typ.
Horizontal Straightness	±3			µm	Typ.
Vertical Straightness	±2			µm	Typ.
Max Speed	10			mm/s	
Mechanical properties					
Load capacity in Z	10			N	
Drive properties					
Drive type	DC motor, Gearhead 150:1, 1024 imp/rev - line drive				
Nominal voltage	24			V	
Nominal current	0.143			A	
Stall current	0.289			A	
Miscellaneous					
Housing material	Aluminium black anodized				
Operating temperature	18-28			°C	
Humidity	20-80%				

Mecartex is a cutting-edge company operating in the field of high precision applications.
 The company, founded in early 2002 offer micro-positioning devices with high dynamics and precision and base solutions with motion control.

Customized solutions & manufacturing
 Mecartex provides innovative solutions for very high precision applications, offering complete support from development through production while maintaining a short time-to-market.

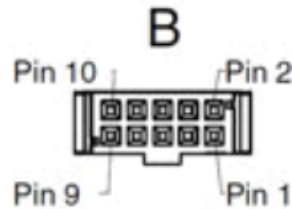
Flexures technology
 Mecartex offers a unique expertise in flexures. This technology enables extremely accurate movements and has numerous advantages like high reliability, frictionless, contamination' proof or cleanliness.

Mechanical Interface – MX079-9001-50



Electrical Interface - MX_079-9001-50

D-Sub	Description
1	Switch GND
2	
3	
4	Switch VDD +5V
5	Mot +
6	
7	Switch NEG
8	Switch POS
9	Mot -



2.54 mm 10-pol	Description
1	NC
2	VCC
3	GND
4	NC
5	Channel A\
6	Channel A
7	Channel B\
8	Channel B
9	Channel I\
10	Channel I