

LHM Series Datasheet



- 3 kg load capacity
- Up to 65 mm/s speed; 25 N peak thrust
- 50 N-cm cantilever load
- Designed for use with a X-MCB1 Series stepper motor controller or any 2-phase stepper motor controller

Zaber's LHM Series devices are motorized linear stages with a compact size and affordable price tag. They are designed to be used with our X-MCB1 controller, or with any 2-phase stepper motor controller.

At only 23 mm high, these miniature plain bearing stages are excellent for applications where a small profile is required. Carriage pre-load can be easily adjusted to compensate for wear over the lifetime of the stage.

For applications requiring more precise motion or high stiffness in multi-axis assemblies, please contact us or see our Product Overview page for the variety of stages we offer.

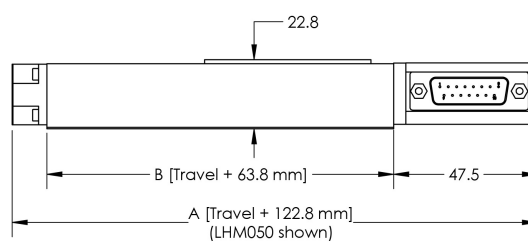
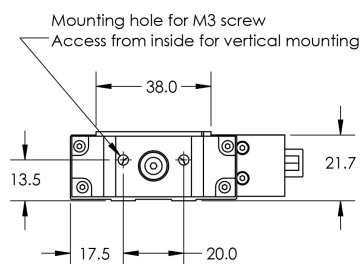
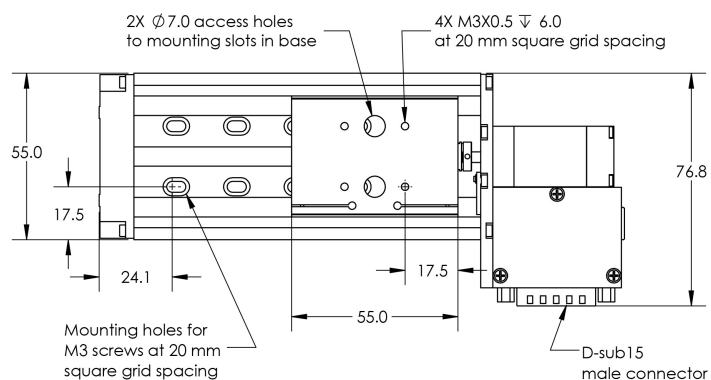
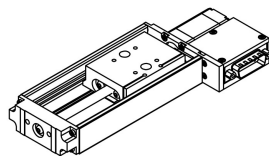
Drawings

ZABER

LHM Motorized Linear Stage
dimensions in mm

Model Number*	Travel	A	B
LHM025	25.4	148.2	89.2
LHM050	50.8	173.6	114.6
LHM100	101.6	224.4	165.4
LHM150	152.4	275.2	216.2
LHM200	203.2	326.0	267.0

*See product page for complete list of available models at www.zaber.com



OWG 1175 R01

Specifications

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.124023437 μm	
Built-in Controller	No	
Recommended Controller	X-MCB1 (48 V) Recommended	
Repeatability	< 4 μm	< 0.000157 "
Backlash	< 30 μm	< 0.001181 "
Maximum Speed	65 mm/s	2.559 "/s
Minimum Speed	0.0012 mm/s	0.000047 "/s
Speed Resolution	0.0012 mm/s	0.000047 "/s
Encoder Type	None	
Peak Thrust	25 N	5.6 lb
Maximum Continuous Thrust	25 N	5.6 lb
Maximum Centered Load	50 N	11.2 lb
Maximum Cantilever Load	25 N-cm	35.4 oz-in
Guide Type	Plain bearing	
Linear Motion Per Motor Rev	1.5875 mm	0.062 "
Motor Steps Per Rev	200	
Motor Type	Stepper (2 phase)	
Motor Rated Current	600 mA/phase	
Motor Winding Resistance	6.5 ohms/phase	
Inductance	3.5 mH/phase	
Motor Connection	D-sub 15	
Default Resolution	1/64 of a step	
Mechanical Drive System	Lead screw	
Limit or Home Sensing	Magnetic hall sensor	
Axes of Motion	1	
LED Indicators	No	
Mounting Interface	M3 threaded holes	
Vacuum Compatible	No	
Operating Temperature Range	0 to 50 °C	
RoHS Compliant	Yes	

Specification	Value	Alternate Unit
CE Compliant	Yes	

Part Number	Travel Range	Accuracy (unidirectional)	Weight
LHM025A-T3	25.4 mm (1.000 ")	50 µm (0.001968 ")	0.30 kg (0.661 lb)
LHM050A-T3	50.8 mm (2.000 ")	75 µm (0.002953 ")	0.36 kg (0.794 lb)
LHM100A-T3	101.6 mm (4.000 ")	125 µm (0.004921 ")	0.42 kg (0.926 lb)
LHM150A-T3	152.4 mm (6.000 ")	175 µm (0.006890 ")	0.46 kg (1.014 lb)
LHM200A-T3	203.2 mm (8.000 ")	225 µm (0.008858 ")	0.52 kg (1.146 lb)

Charts

Thrust Speed Performance

