

OMG-T4A Datasheet

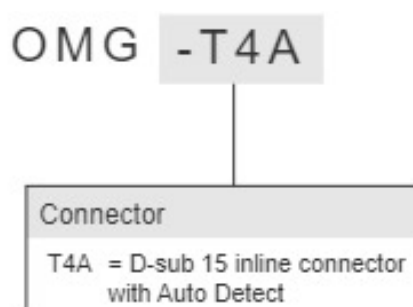


- Two-axis gimbal mount with +/- 7° range
- Holds 1" (25 mm) optics
- Our most compact optical mount weighing only 330 grams
- Designed for use with an X-MCC2 Series stepper motor controller or any 2-phase stepper motor controller
- With AutoDetect, the X-MCC controller configures its settings automatically for the connected peripheral

OMG Series Overview

Zaber's OMG device is a high resolution, two-axis optic mount in a compact package. They are stepper motor driven optic mounts designed to interface with our X-MCC2 Series multi-axis controllers, offering high resolution daisy-chainable operation without the need for a computer. Set up is easy with AutoDetect. Once connected, the X-MCC controller will automatically detect and configure the OMG.

OMG Series Part Numbering





OMG-T4A Bundle Options

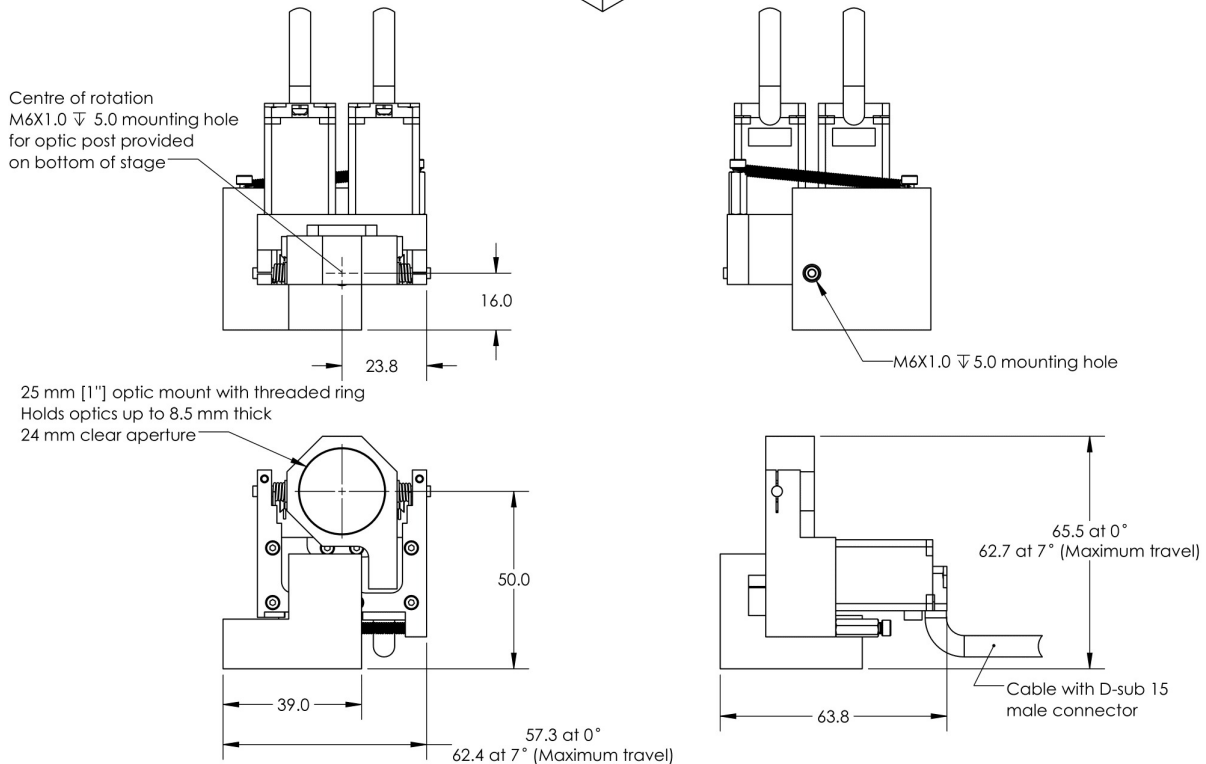
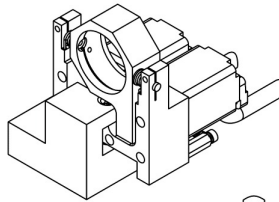
This device may be purchased stand-alone or bundled with one of the following accessory kits:

Products	Description
OMG-T4A	Motorized two-axis optic mount
with K0065 accessory kit Power supply: Controller: X-MCC2 (48 V) Recommended	• 2 x MC10T3: Motor Extension Cable, 1.5 m, for Use with X-MCC Series Controllers and T3A/T4A Peripherals

OMG-T4A Drawings

ZABER

OMG Motorized Gimbal Optic Mount
dimensions in mm



DWG 3893 R01



OMG-T4A Specifications

Specification	Value	Alternate Unit
Built-in Controller	No	
Recommended Controller	X-MCC2 (48 V) Recommended	
AutoDetect	Yes	
Range	+/- 7°	
Aperture Diameter	24 mm	0.945"
Motor Steps Per Rev	200	
Motor Type	Stepper (2 phase)	
Motor Rated Current	240 mA/phase	
Motor Winding Resistance	20.4 ohms/phase	
Inductance	5 mH/phase	
Motor Connection	D-sub 15	
Default Resolution	1/64 of a step	
Motor Frame Size	NEMA 08	
Mechanical Drive System	Precision lead screw	
Limit or Home Sensing	Magnetic hall sensor	
Axes of Motion	2	
LED Indicators	No	
Mounting Interface	M6 threaded hole for optic post	
Operating Temperature Range	0 to 50 °C	
Optic Mounting Interface	1" or 25 mm optics	
Vacuum Compatible	No	
RoHS Compliant	Yes	
CE Compliant	Yes	
Weight	0.33 kg	0.728 lb

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.000115378°	2.014 μrad
Accuracy (unidirectional)	0.055°	0.959750 mrad
Repeatability	< 0.007°	< 0.122 mrad
Backlash	< 0.005°	< 0.087 mrad

Specification	Value	Alternate Unit
Maximum Speed	11°/s	2 rpm
Minimum Speed	0.001082°/s	18.884 μrad/s
Speed Resolution	0.001082°/s	18.884 μrad/s
Encoder Type	None	
Angular Motion Per Motor Rev	1.4768384°	

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.000057689°	1.007 μrad
Accuracy (unidirectional)	0.0275°	0.479875 mrad
Repeatability	< 0.004°	< 0.070 mrad
Backlash	< 0.0025°	< 0.044 mrad
Maximum Speed	7°/s	1 rpm
Minimum Speed	0.000541°/s	9.442 μrad/s
Speed Resolution	0.000541°/s	9.442 μrad/s
Encoder Type	None	
Angular Motion Per Motor Rev	0.7384192°	