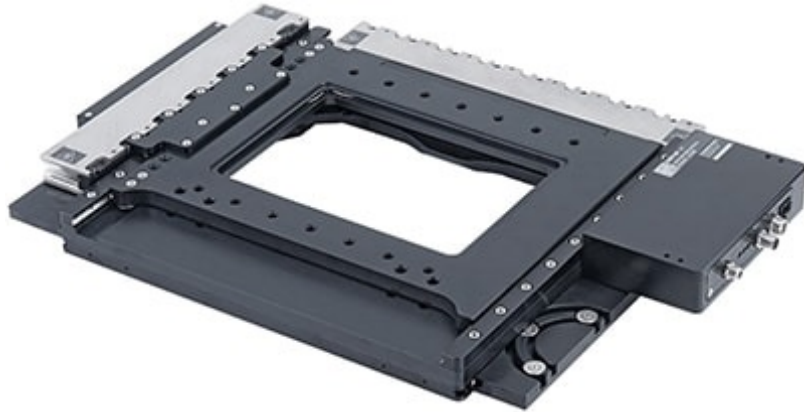


X-ADR130B100B-SAE53D12 Datasheet



- 130 x 100 mm or 250 x 100 mm travel options
- 1 nm resolution linear encoders provide 5 μ m accuracy, 500 nm repeatability, and 50 nm minimum incremental move
- Ultra quiet linear motors provide 750 mm/s top speed and are maintenance free
- Supported by μ Manager microscopy Software
- Built-in controller allows connection with a single cable and daisy chaining with other Zaber products
- One digital input and two digital outputs

X-ADR-AE Series Overview

Zaber's X-ADR-AE series microscope stages are designed as replacements for manual stages on inverted microscopes or for stand-alone operation as scanning stages. Featuring non-contact linear motors and optical linear encoders, these stages offer a leap in performance over conventional screw-driven stages, making them suitable for demanding applications where speed, accuracy and reliability are of utmost importance.

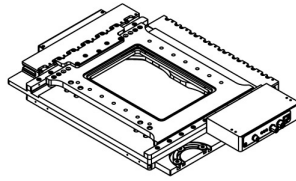
Compact controllers are built directly into the stage, saving bench space and allowing the stages to be powered and controlled through a single flex rated cable. X-ADR-AE devices also include a digital input and two digital outputs for interfacing with external systems. An event-driven trigger system allows devices to be programmed for stand-alone operation based on I/O, time, or movement stimuli.

Mounting adaptors are available for breadboards and most common microscopes. Custom adaptors and plates are available upon request.

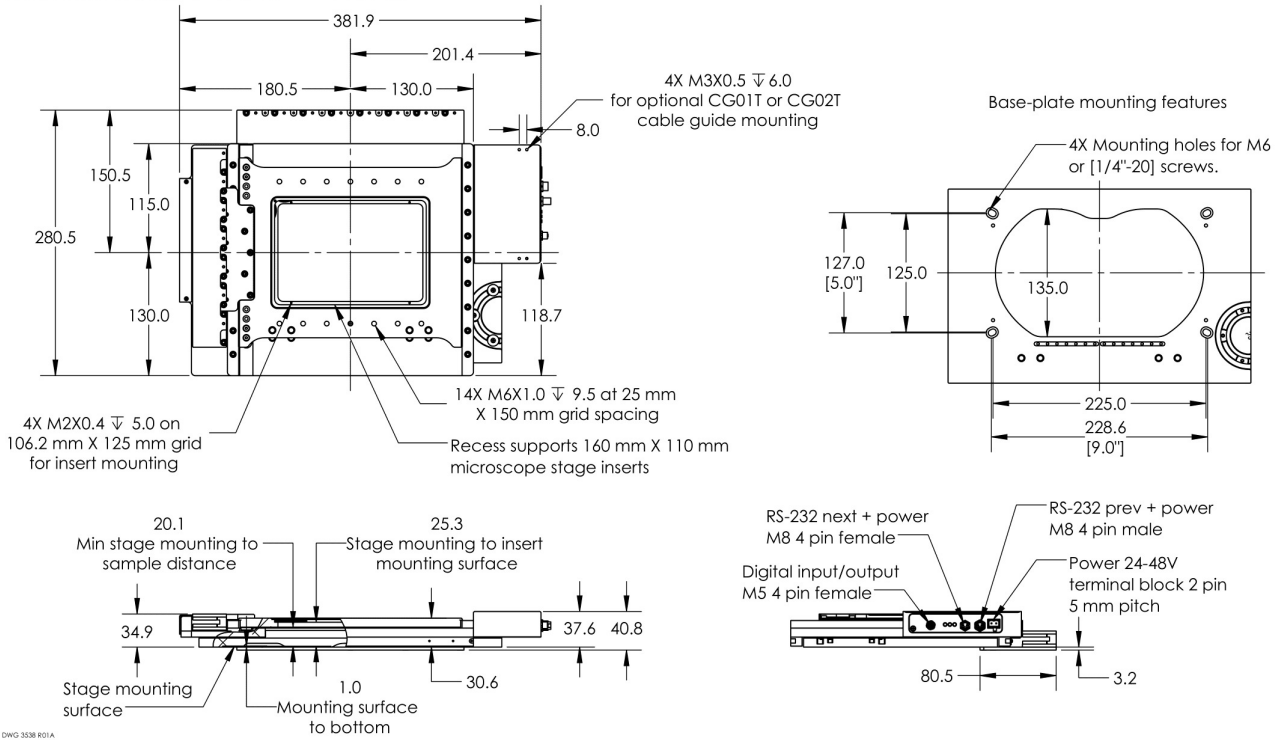
X-ADR130B100B-SAE53D12 Drawings

ZABER

X-ADR130B100B-SAE53D12
Direct Drive XY Microscope Stage
 dimensions in mm



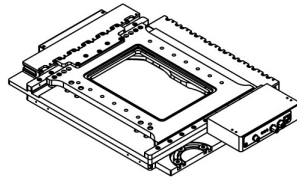
Adaptor plates required for most applications.
 See accessories page for details at www.zaber.com



DWG 3338 R01A

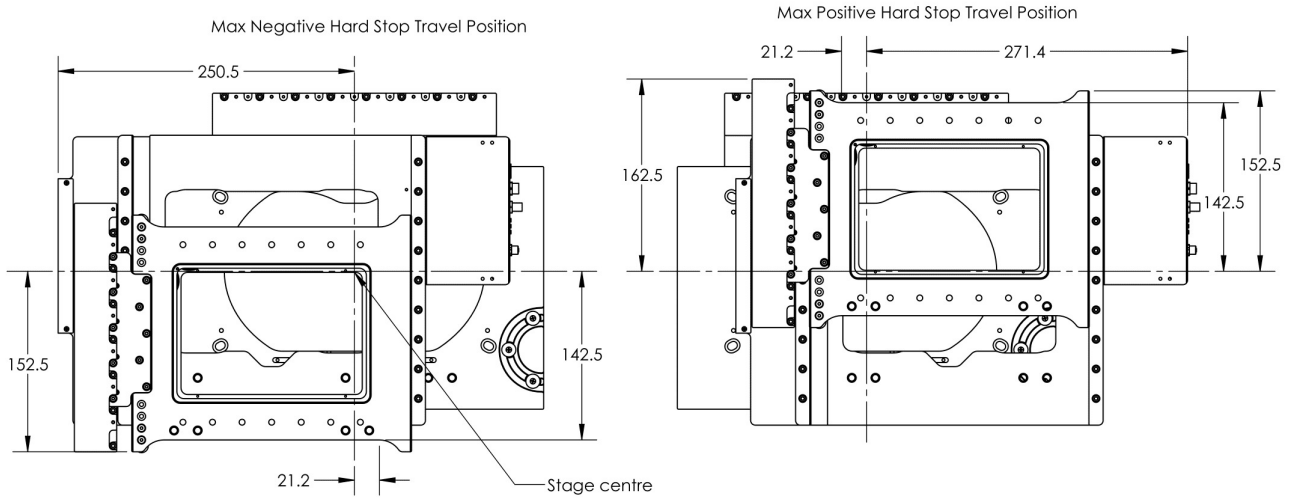
ZABER

X-ADR130B100B-SAE53D12
 Direct Drive XY Microscope Stage
 dimensions in mm



Axis	Nominal Travel	Max Hard Stop Travel	Min Hard Stop Travel
Upper	100.0	105.0	55.0
Lower	130.0	140.0	40.0

Hard stop travel limits can be reduced in 5 mm increments (upper axis) and 10 mm increments (lower axis) for space constrained applications.



DMG 5338 R01A

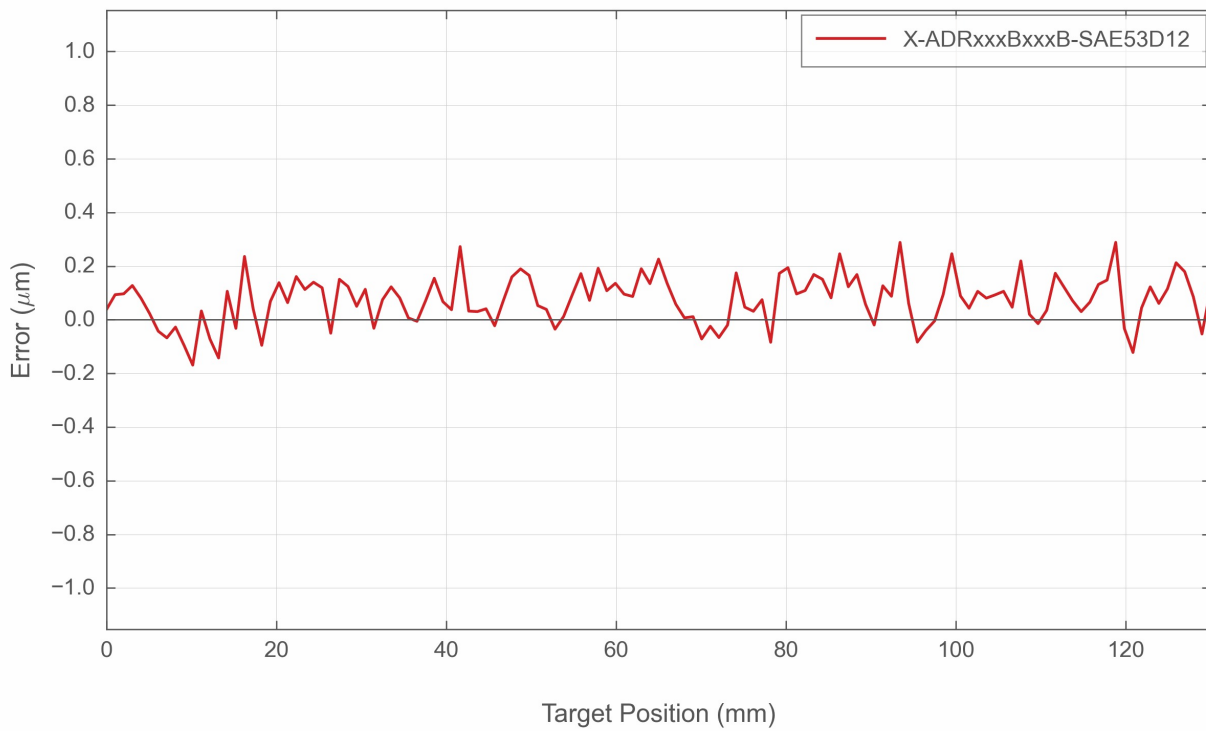
X-ADR130B100B-SAE53D12 Specifications

Specification	Value	Alternate Unit
Built-in Controller	Yes	
X Travel Range	130 mm	5.118"
Y Travel Range	100 mm	3.937"
Accuracy (unidirectional)	5 μ m	0.000197"
Repeatability	< 0.5 μ m	< 0.000020"
Minimum Incremental Move	50 nm	
Maximum Speed	750 mm/s	29.528"/s
Minimum Speed	0.61 nm/s	
Speed Resolution	0.61 nm/s	
Encoder Type	Linear analog encoder	
Encoder Count Size	1 nm	
Peak Thrust	20 N	4.5 lb
Maximum Continuous Thrust	13 N	2.9 lb
Communication Interface	RS-232	
Communication Protocol	Zaber ASCII (Default)	
Maximum Centered Load	50 N	11.2 lb
Maximum Cantilever Load	500 N-cm	708.1 oz-in
Guide Type	Crossed-Roller Bearing	
Pitch	0.025°	0.436 mrad
Roll	0.006°	0.105 mrad
Yaw	0.01°	0.174 mrad
Maximum Current Draw	2300 mA	
Power Supply	24-48 VDC	
Motor Type	Moving Magnet Track Linear Motor	
Force Constant	5.5 N/A	1.2 lbs/A
Data Cable Connection	Locking 4-pin M8	
Limit or Home Sensing	Optical Index Mark	
Axes of Motion	2	
LED Indicators	Yes	
Mounting Interface	Separate mounting adaptors available	

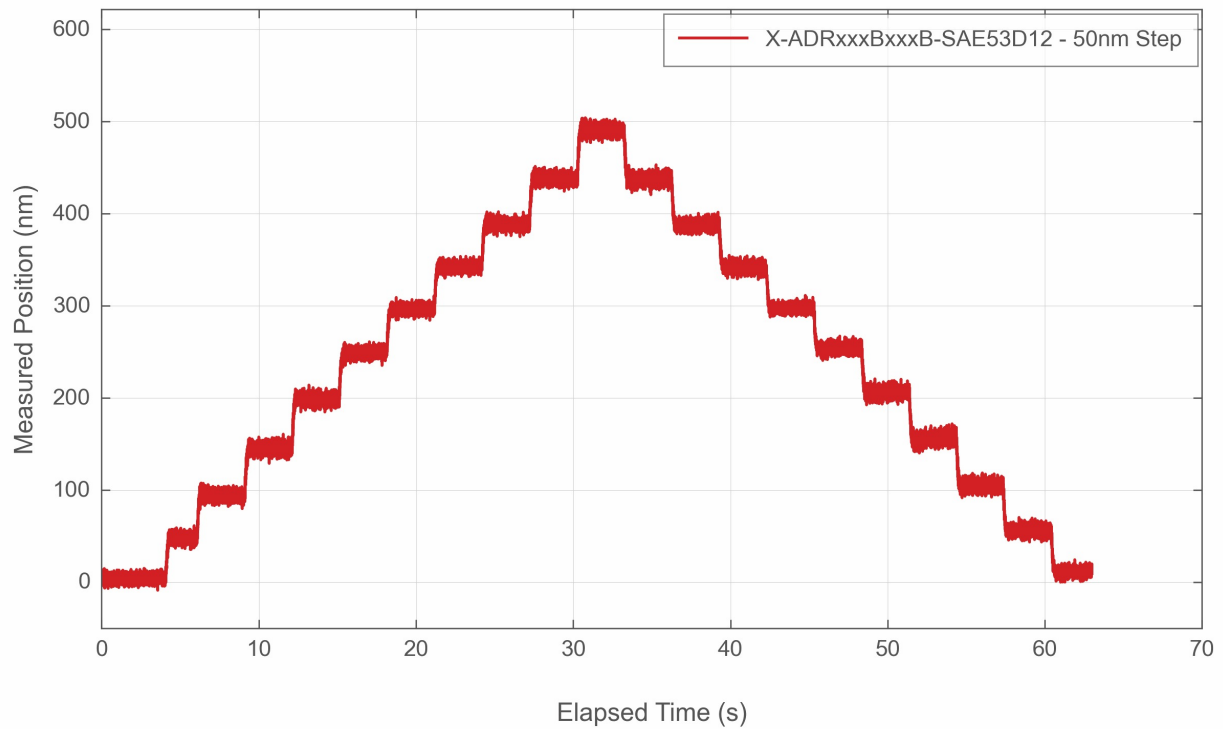
Specification	Value	Alternate Unit
Operating Temperature Range	0 to 50 °C	
Vacuum Compatible	No	
RoHS Compliant	Yes	
CE Compliant	Yes	
Digital Input	1	
Digital Output	2	
Weight	4.9 kg	10.803 lb

X-ADR-AE Series Charts

Typical Accuracy



Typical Minimum Incremental Move



Contact

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