

X-FWR-E Series: Motorized filter wheels with built-in controllers and motor encoders



- Interchangeable filter holders for 25 mm optics (10 positions) or 32 mm optics (7 positions)
- Smooth, high speed filter changes; Adjacent filter change time of 57 ms (10 position wheel)
- Built-in controller; daisy-chains with other Zaber products
- Mounting provided for optical cage systems and C-mount components

Product Description

Zaber's X-FWR-E Series devices are computer-controlled, motorized filter wheels with high speed filter change capabilities, a low profile, and interchangeable filter holders. Each filter wheel is sold with one included filter holder (FH0625 for 10 x 25 mm filter positions or FH0632 for 7 x 32 mm filter positions). The X-FWR-E filter wheels are stand-alone units requiring only a standard 48 V power supply. The built-in motor encoder allows closed-loop operation and slip/stall recovery features. An indexed knob provides convenient manual control for versatile operation even without a computer.

These devices connect to the RS-232 port or USB port of any computer, and they can be daisy-chained with any other Zaber products. The daisy-chain also shares power, making it possible for multiple X-Series products to share a single power supply. Convenient locking, 4-pin, M8 connectors on the unit allow for secure connection between units. Like all of Zaber's products, the X-FWR Series is designed to be 'plug and play' and very easy to set up and operate.

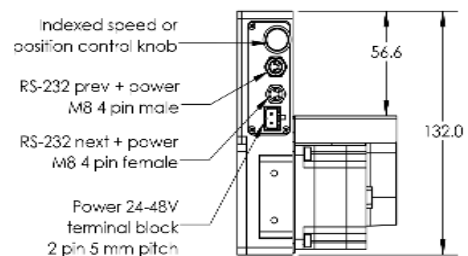
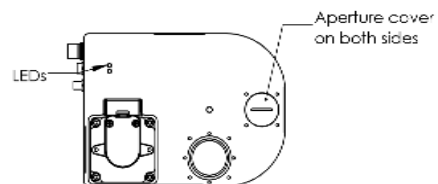
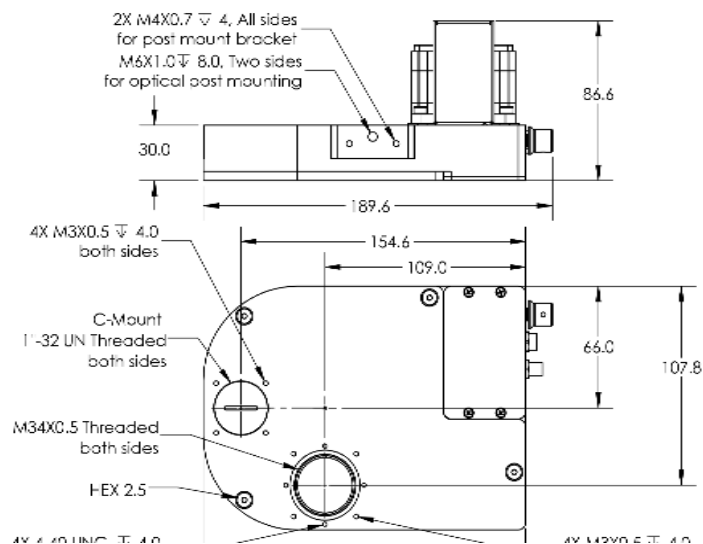
Dimension Drawings

Model Number*	# Of Positions	Lens Thread
X-FWR06A-E02-FH-0625 10		M27X0.5
X-FWR06A-E02-FH-0632 7		M32.5X0.5

Included accessories:

- One of FH0625 or FH0632 filter holders
- 4X Aperture covers for 25 & 32 mm apertures

*See product page for more details at www.zaber.com



Product Specifications

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.010714285 degrees	186.996 urad
Built-in Controller	Yes	
Range	360 degrees	
Accuracy (unidirectional)	0.4 degrees	6.980000 mrad
Repeatability	< 0.1 degrees	< 1.745 mrad
Backlash	< 0.19 degrees	< 3.316 mrad
Encoder Resolution	400 CPR	1,600 states/rev
Encoder Type	Motor mounted rotary quadrature encoder	
Communication Interface	RS-232	
Communication Protocol	Zaber ASCII (Default), Zaber Binary	
Compatible Optic Thickness	6.5 mm	0.3 "
Maximum Current Draw	650 mA	
Power Supply	24-48 VDC	
Power Plug	2-pin Screw Terminal	
Motor Steps Per Rev	200	
Motor Type	Stepper (2 phase)	
Inductance	3.2 mH/phase	
Default Resolution	1/56 of a step	
Data Cable Connection	Locking 4-pin M8	
Motor Frame Size	NEMA 23	
Mechanical Drive System	Synchronous belt	
Limit or Home Sensing	Magnetic home sensor	
Manual Control	Yes	
Mounting Interface	M6 threaded hole for optic post, M3 holes for AP134 post mount adaptor	
Operating Temperature Range	0-50 degrees C	
RoHS Compliant	Yes	
CE Compliant	Yes	

Part Number	Compatible Optic Diameter	Adjacent Optic Change Time	Number of Optics	Weight
X-FWR06A-E02-FH06 25	25 mm, 1 "	57 ms	10	1.508 kg
X-FWR06A-E02-FH06 32	31-32 mm	65 ms	7	1.503 kg