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Motorized, Fast-Change Filter Wheel



FW103H

- 55 ms Typical Switching Speed Between Adjacent Ports
- Holds up to Six Ø1" (Ø25 mm) Filters
- Light-Tight Design
- Accepts Filters up to 0.25" (6.35 mm) Thick

Thorlabs' FW103H includes a motorized fast-change filter wheel designed for applications requiring sequential filter changes, such as multi-wavelength fluorescence imaging. The light-tight housing can accept up to six Ø1.0" (Ø25.4 mm) or Ø25 mm filters, including our excitation and emission filters (see pages 1718 - 1719). Additionally, the housing cover can be removed, without removing the entire assembly from the optical setup, to facilitate filter changes.

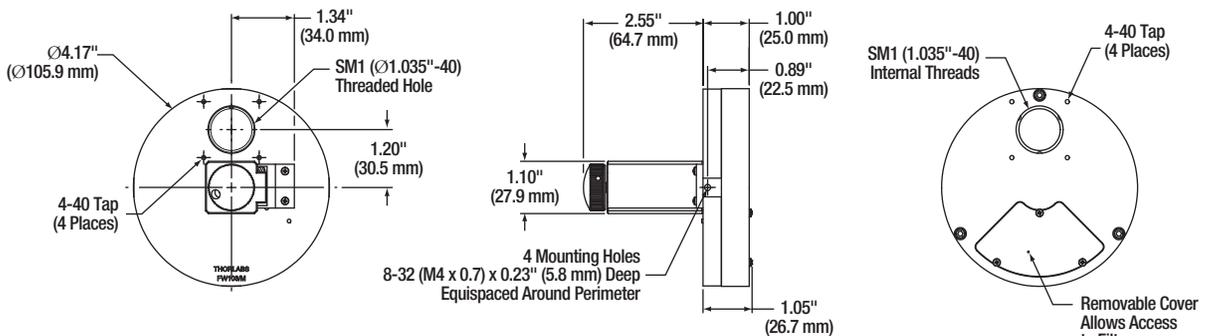
The FW103H packages the fast-change filter wheel with a high-powered stepper motor controller (BSC101), which provides a typical switching time of 55 ms between adjacent filters. The controller provides the ability to fine tune the filter wheel's acceleration and speed for optimal performance.



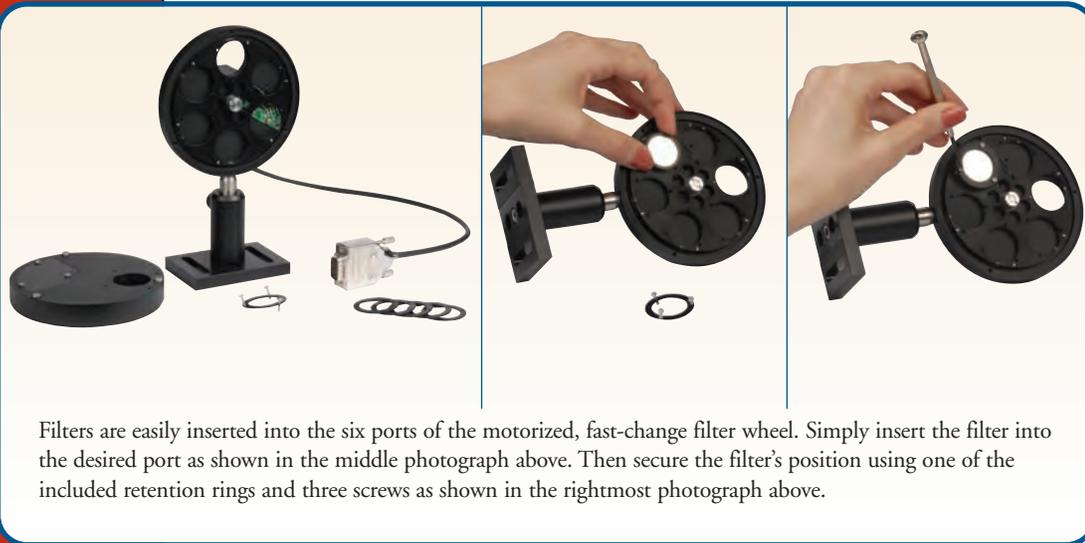
BSC101

BSC101 Controller

The BSC101 apt™ controller is a single-channel 50 W stepper motor controller designed to drive high-power, 2-phase bi-polar stepper motors, with or without encoder feedback. USB connectivity provides easy plug-and-play PC operation. Multiple units can be connected to a single PC via standard USB hub technology for multi-axis motion control applications, and the very user friendly apt™ software allows the user to quickly get up and running with reasonably complex move sequences. Advanced custom motion control applications and sequences are also possible using the extensive ActiveX® programming environment. For more details on the BSC101, see pages 632 - 633.



Please refer to our website for complete models and drawings.



Filters are easily inserted into the six ports of the motorized, fast-change filter wheel. Simply insert the filter into the desired port as shown in the middle photograph above. Then secure the filter's position using one of the included retention rings and three screws as shown in the rightmost photograph above.



The FW103H and FW103S are compatible with Thorlabs' SM1 Lens Tube Systems, 30 mm Cage Components, and TR Series of Posts.

ITEM #	METRIC ITEM #	\$	£	€	RMB	DESCRIPTION
FW103H	FW103H/M	\$ 1,695.00	£1,220.40	€ 1,474.65	¥ 13,509.15	Fast Motorized Filter Wheel and High-Current BSC101 Controller