



# FS02 - BraggMETER Filter

High Speed Optical Tunable Filter

**FS02 – BraggMETER Filter** is a high speed optical tunable filter that integrates a proprietary cavity design without guiding optics, resulting in a compact, robust and vibration-resistant device. The filter is encapsulated in an athermal package that ensures excellent thermal stability.

## Applications

BraggMETER filter is ideal for laboratory R&D activities or as an industrial component for devices manufacturing. It can be used in the implementation of:

- Fiber swept laser sources
- Optical sensing equipment
- OCT systems
- Spectral characterization tools

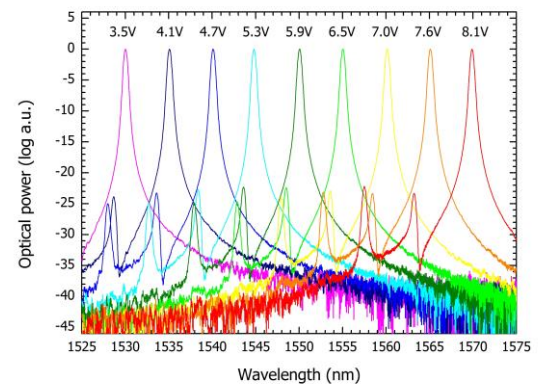
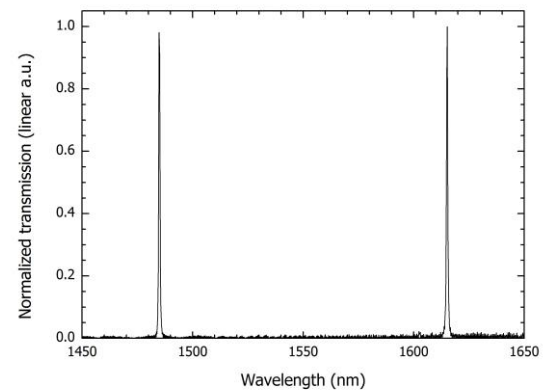
## Quality

All HBM FiberSensing's processes are strictly controlled from development to production. Each product is subjected to high standard performance and endurance tests, individually calibrated and checked before shipping.

HBM FiberSensing, S.A. concentrates all optical sensing activity of HBM and is an ISO 9001:2008 certified company.

High speed scanning  
Low-voltage tuning  
Wide tuning range  
Resistant to shock  
Athermal packaging  
Small form factor

## Spectral Response





## Specifications

### Optical

Central Operation wavelength	1550 nm
Insertion loss	<2.5 dB
Fiber type	SMF28
Free spectral range (FSR)	≥80 nm or ≥100 nm
Finesse	700 (typical)
Side band rejection	>20 dB
Maximum power spectral density	50 mW/nm

### Electrical

Scan frequency	DC – 40 kHz
Capacitance	0.4 μF
Tuning voltage @DC	14 V/FSR (typical)
Tuning voltage range	-10 to 50 V

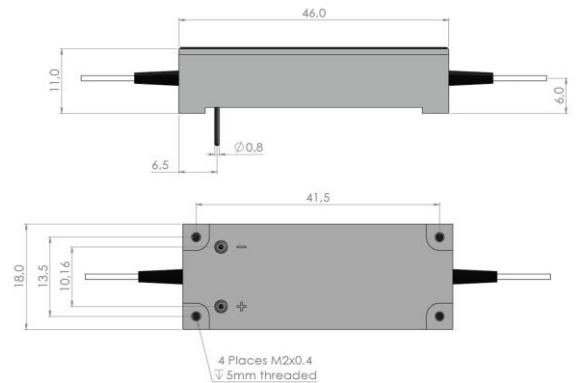
### Environmental

Operation Temperature	10°C to 60°C
Storage Temperature	-10°C to 70°C
Thermal drift	<1 nm/°C

### Mechanical

Fiber	Ø250μm acrylate
Fiber length	1m (typical)
Connector	NC or FC/APC
Case	Anodized aluminum
Dimensions	11.0 x 17.8 x 45.7 mm
Weight	80 g
M2 mounting threads	13.72 x 41.66 mm (center)

## Technical Drawings



## Ordering Information

FS02 – BraggMETER Filter

### P/N

1-FS02-aa-bb-101-3

#### CONNECTIONS

- 10 – No connectors
- 11 – Optical Connector FC/APC

#### TYPE

- 08 - FSR 80 nm
- 12 - FSR 120 nm

### P/N List

- 1-FS02-08-10-101-3
- 1-FS02-08-11-101-3
- 1-FS02-12-10-101-3
- 1-FS02-12-11-101-3