

AC 5 T - Acceleration sensor



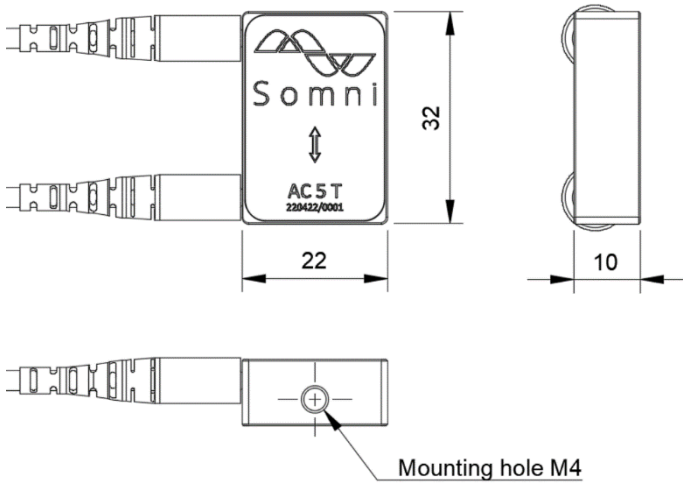
The AC 5 T is Somni's latest Fiber Bragg Grating based single axis accelerometer. The unique properties of the AC 5 T are its unprecedented size and weight. With less than 40 grams this is the world smallest and lightest dual ended FBG based accelerometer in the world!



- Robust stainless-steel design for harsh outdoor environment
- Dual ended
- Shock proof up to 20.000 m/s²
- Unprecedented frequency bandwidth
- Intrinsic temperature compensation

Parameter	Performance
Sensitivity	6 pm/g ± 2 pm/g
Noise level ¹	0.01 g
Frequency range	1 - 3000 Hz
Resonance frequency	> 4000 Hz
Cross axis sensitivity	< -30 dB
Maximum acceleration	± 5.000 m/s ²
Maximum shock	20.000 m/s ²
Weight	<40 grams
Material	1.4462 (Duplex)
Operational temperature range	-65 to +80 °C
Protection	IP 67
FWHM	< 0.7 nm
Reflectivity	>20 %
Insertion loss	< 0.2 dB
FBGs	2
Connector options ²	FC/APC, LC/APC, open end

1. Cumulative noise floor, using a FAZ I4G or I4W interrogator.
2. Other connector options available on request.



Mounting instructions

It is recommended to fasten the sensor on a flat surface using an M4 bolt as indicated.

Maximum torque to apply is 5 Nm.

Calibration

All sensors are individually tested and calibrated after manufacturing. Each sensor is shipped with a detailed calibration sheet.

The graph shows a typical response of the sensor.

