FOA™-100E

Fiber Optic Accelerometer

General Specifications

Operation

• Sensitivity	100 mV/g ±5%
• Measuring range	0 to 40 g peak
• Bandwidth	10 to 1000 Hz (-3 dB)
• Voltage output	6 Vdc ±5% bias, ±4 Vac
• Sensitivity deviation vs temperature	
Class A	±10% max. @ 105°C *[221°F]*
Class F	±10% max. @ 155°C *[311°F]*
• Maximum shock acceleration	1000 g half sine, 1 ms duration
• Resonance frequency	> 2 kHz
• Transverse sensitivity	< 5% respecting sensitive axis
• Residual noise	Typical 8 mV_{RMS}, max. 27 mV_{RMS}

Power Requirements

• Voltage	24 Vdc ±20%
• Consumption	40 mA max.

Connection

• Connector type	4-pin M12 male
• Maximum cable length	350 m *[1150 ft]*

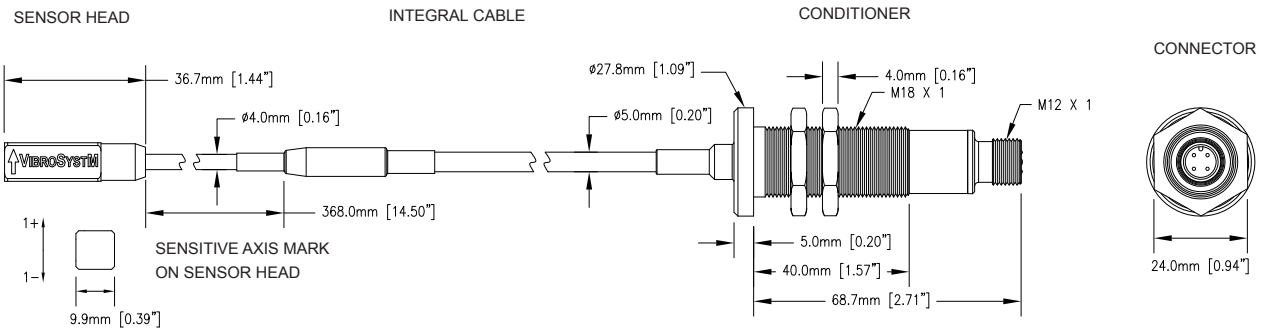
Environmental

• Temperature range	
Operating	
Sensor head (Class A)	-40 to 105°C *[-40 to 221°F]*
Sensor head (Class F)	-40 to 155°C *[-40 to 311°F]*
Conditioner	0 to 70°C *[32 to 158°F]*
Non-destructive	
Sensor head	-50 to 200°C *[-58 to 392°F]*
Storage	-20 to 85°C *[-4 to 185°F]*
• Humidity	Up to 95% non-condensing
• Electrical insulation (head vs conditioner)	
At 25°C *[77°F]* & 25% humidity	Up to 3 kV/mm
• Electrical & magnetic field	No effect (head only)

Physical characteristics

• Sensor head	Non-conductive materials
• Integral cable	
Material	Fiber optics / PTFE jacket
Length	10 m *[33 ft]*
Minimum bending radius	80 mm *[3.15 in.]*
• Conditioner body	Nickel-plated brass

DIMENSIONS



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PRODUCT IDENTIFICATION

Product Number	Description
VSM-FOA100E-10A	FOA-100E Fiber Optic Accelerometer complete with 10m integral fiber optic cable and signal conditioner (Class A 105°C)
VSM-FOA100E-10F	FOA-100E Fiber Optic Accelerometer complete with 10m integral fiber optic cable and signal conditioner (Class F 155°C)

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