



## FOT™-100

### FIBER OPTIC TEMPERATURE SENSOR

#### GENERAL SPECIFICATIONS

##### Operation

• Sensitivity	0.128 mA/°C [0.071 mA/°F]
• Measuring range	25 to 125°C [77 to 257°F]
• Output	7.2 to 20 mA
• Accuracy	±5°C [±9°F]
• Repeatability	±2°C [±3.6°F]
• Maximum residual noise <sup>1</sup>	39 µA RMS
• Maximum response time <sup>2</sup>	
63%	1 minute
90%	3 minutes
• Output load	500 Ω max.
• Temperature drift (conditioner)	< 500 ppm/°C

##### Power Requirements

• Voltage	24 Vdc ± 15%
• Consumption	40 mA max.
• Polarity reversal protection	Built-in

##### Connection

• Connector type	5-pin M12 male
• Maximum Cable Length	300 m [984 ft]

##### Environment

• Temperature range	
Operating	
Sensor head	-20 to 135°C [-4 to 275°F]
Conditioner	0 to 60°C [32 to 140°F]
Storage	-20 to 70°C [-4 to 158°F]
• Humidity	Up to 95%, non-condensing
• Electrical insulation	
Head vs conditioner	Up to 3 kV / mm (25°C [77°F] & 25% humidity)
• Electrical & magnetic field	No effect (head only)

##### Physical Characteristics

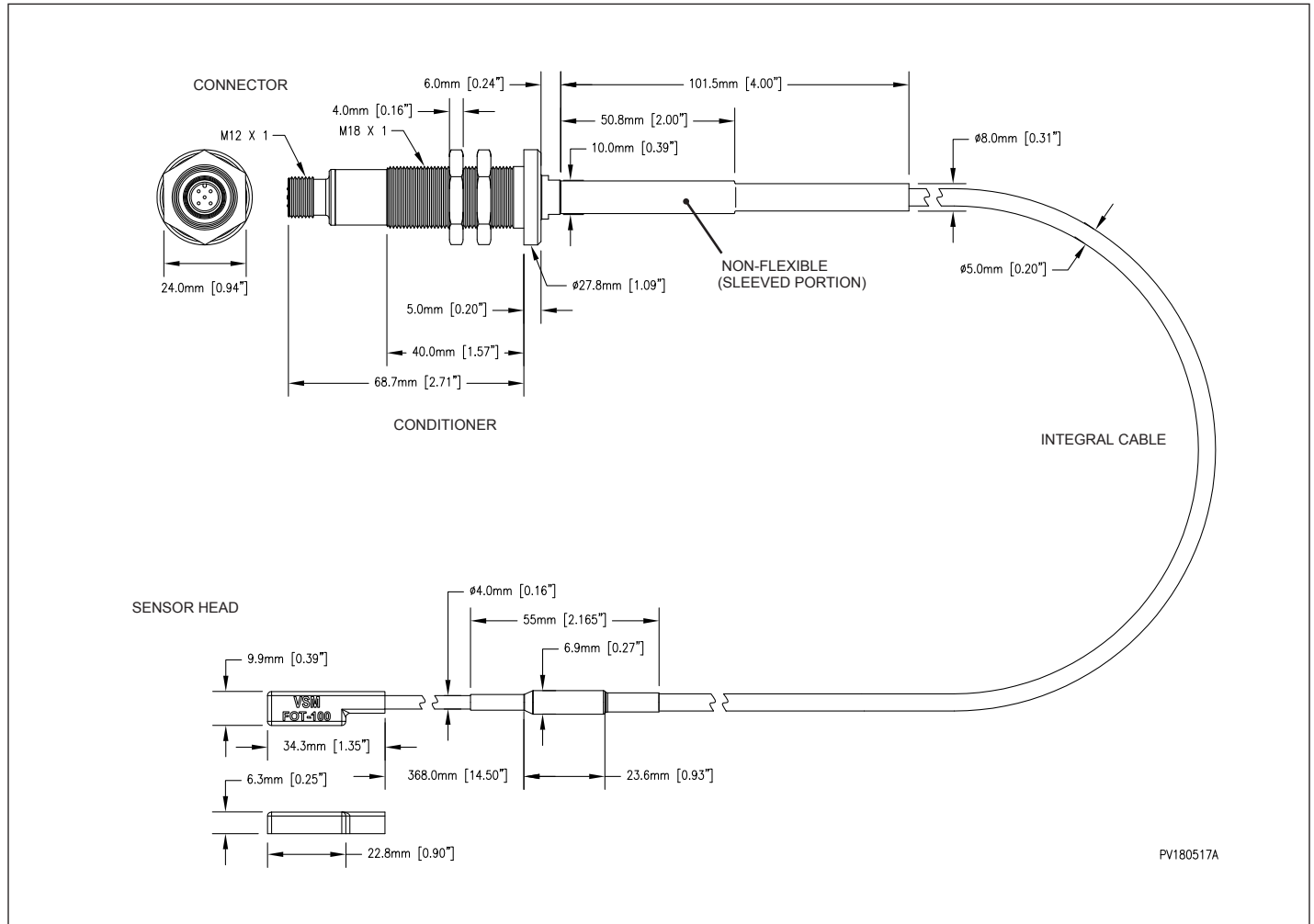
• Sensor head	Non-conductive materials
• Integral cable	Fiber optics / PTFE jacket
Length	10 m [33 ft], or 20 m [66 ft]
Minimum bending radius	80 mm [3.15 in]
• Conditioner body	Nickel-plated brass alloy

Note 1: Measured inside a 1 kHz bandwidth, with shielded cable grounded at both ends.

Note 2: The maximum response time is the amount of time required to reach 63% or 90% of the final measurement value. These values are based on the optimum thermal transfer to the sensor.



**DIMENSIONS**



**PRODUCT IDENTIFICATION**

Product Number	Description
VSM-FOT100-10	FOT-100 Fiber Optic Temperature Sensor (10 m)
VSM-FOT100-20	FOT-100 Fiber Optic Temperature Sensor (20 m)