



FOT™-100

FIBER OPTIC TEMPERATURE SENSOR

TECHNICAL 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 Response Time ¹	
63%	1 Minute
90%	3 Minutes
• Output Load	500 Ω max.
• Temperature Drift (Conditioner)	< 500 ppm/°C

Power Requirements

• Voltage	24 Vdc ± 15%
• Consumption	50 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)

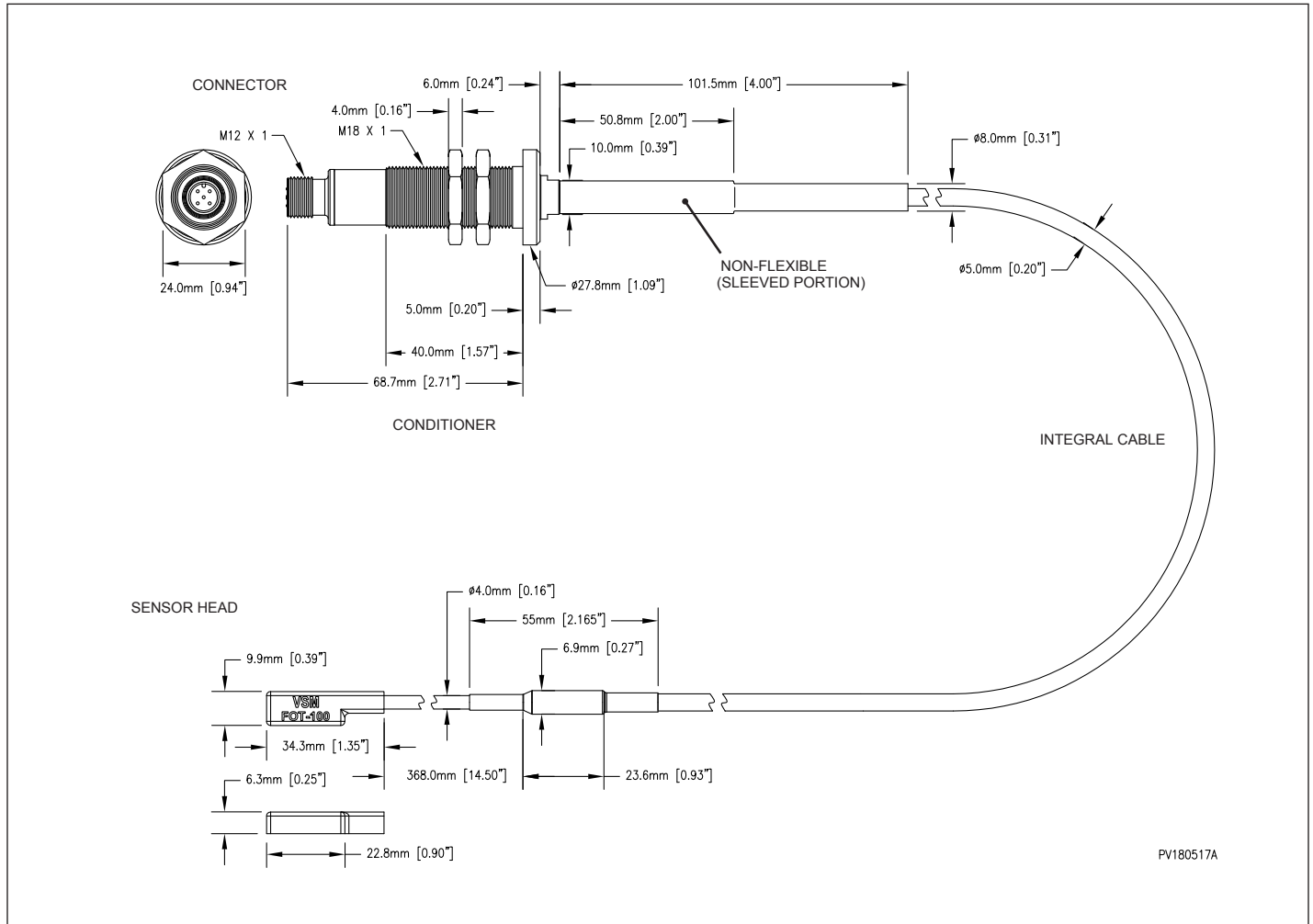
Physical Characteristics

• Sensor Head	Non-Conductive Materials
• Integral Cable	Fiber Optics / PTFE Jacket
Length	10 m [33 ft]
Minimum Bending Radius	80 mm [3.15 in]
• Conditioner Body	Nickel-Plated Brass Alloy

Note 1: 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)