Fiber Optic Thermometer

FIBER OPTIC TEMPERATURE SENSOR

FOB

CH 1   CH 2

+47.7℃ +215.6℃
+121.3℃ -61.1℃

CH 3   CH 4

FNCT ▶ SET

POWER ON/OFF

RS-232 TX RX   SENSOR 1 2 3 4

FOB102 shown larger than actual size.

FOB100 Series

2 YEAR WARRANTY CE **NIST**
Standard

✔ **NIST Certificate Included**
✔ **1, 2, or 4 Channels**
✔ **Large Display**
✔ **No Calibration Required**
✔ **Voltage or Current Output**
✔ **RS232 or Optional Software Available**
✔ **Ideal for Microwave-Type Applications**

The FOB100 Series comprises high-accuracy, multipurpose fiber optic thermometers with 1, 2, or 4 channels. They use an original algorithm to analyze incoming signals, measuring the temperature on each channel.

The standard analog output is 0 to 10V; 4 to 20 mA is optional. Sensors are sold separately in various cable lengths (see To Order chart, next page), are interchangeable, and do not require calibration.

With the optional FOB100-SOFT software for Windows® (see Accessories chart, next page), the user can download data to a PC via the RS232 communications port on the front panel. Software features include min/max alarm; full data logging functions; and bar-graph, trend-line, or statistics display.

The FOB100's rugged enclosure and immunity to EMI/RFI interference make it ideal for demanding industrial and laboratory applications.

Specifications

Number of Channels: 1, 2 or 4
Resolution: 0.1°C (0.2°F)
Precision: ±0.8°C (1.6°F) or 1% FS
Response Time:
   Single-Channel Version:
   10 Hz sampling rate
   2- and 4-Channel Versions:
   250 ms switching rate between each channel
Operating Temperature: 0 to 50°C (32 to 122°F)
Storage Temperature: -20 to 60°C (-4 to 140°F)
Display: VFD, 2 lines x 16 characters
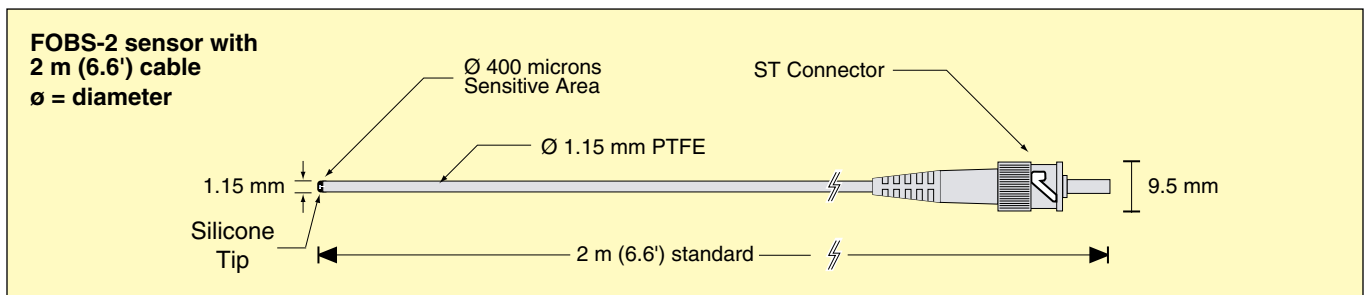**Communication Port:** RS232
Operating Mode: Front panel, FOB100-SOFT PC software (optional) or RS232 commands
Analog Outputs: 120 to 240 Vac, 50/60 Hz AC adaptor
   Standard: 0 to 10V (4)
   Optional: 4 to 20 mA
Power: 18 to 24 Vdc, 8 W (included)

FOBS-2 sensor with 2 m (6.6') cable
ø = diameter

Ø 400 microns Sensitive Area

ST Connector

Ø 1.15 mm PTFE

1.15 mm

Silicone Tip

2 m (6.6') standard

9.5 mm

Dimensions:
141.4 W x 64.0 H x 227.3 mm L
(5.57 x 2.52 x 8.95")
Weight: 1.2 kg (2.6 lb)

Probe Specifications
Temperature Range:
-80 to 250°C (-112 to 482°F);
cryogenic range available
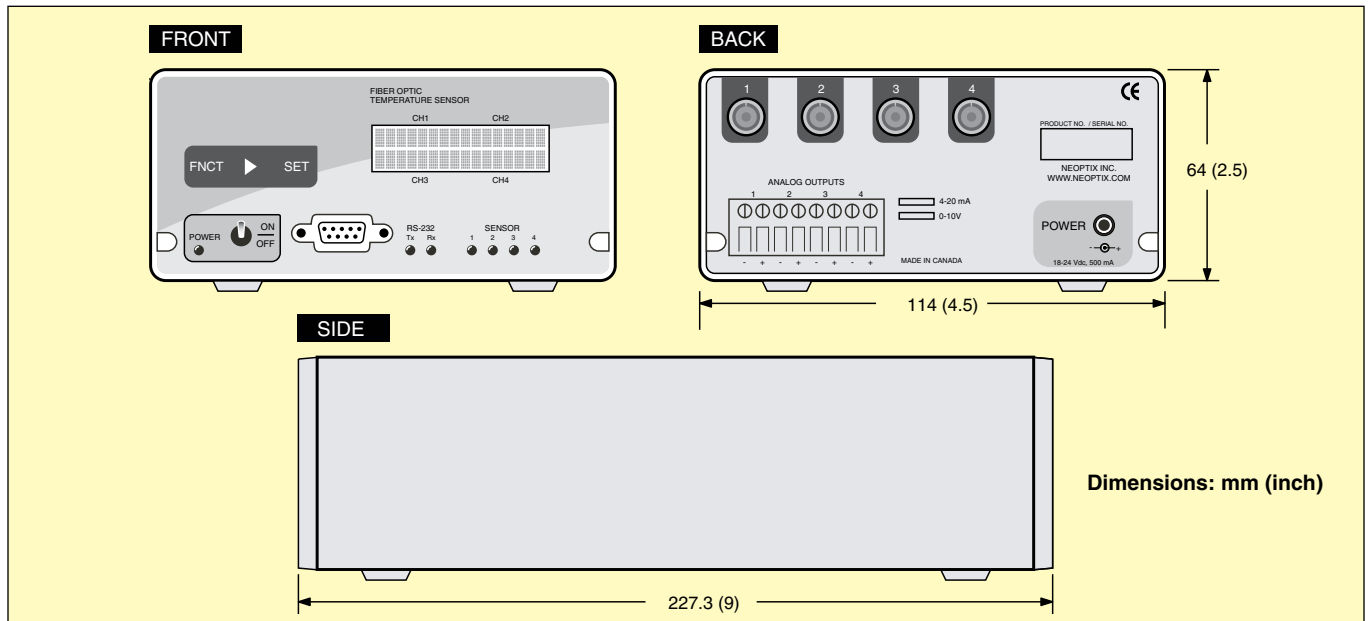(down to 5 Kelvins)
Resolution: 0.1°C (0.2°F)
Accuracy: ±1°C or 1% FS
Response Time: 250 ms or faster

FOB102 shown actual size.

FOB100 Series Thermometer Dimensions

FRONT

BACK

SIDE

64 (2.5)

114 (4.5)

227.3 (9)

Dimensions: mm (inch)

To Order *Visit omega.com/fob100 for Pricing and Details*	
Model No.	**Description**
FOB101	1-channel fiber optic benchtop thermometer
FOB102	2-channel fiber optic benchtop thermometer
FOB104	4-channel fiber optic benchtop thermometer
Model No.	**Required Sensors**
FOBS-2	Sensor with 2 m (6.6') cable
FOBS-10	Sensor with 10 m (33') cable
FOBS-20	Sensor with 20 m (66') cable
FOBS-30	Sensor with 30 m (98') cable**

Note: For corrosive environments, add "-PTFE" to the model number for an additional cost.

Accessories

Model No.	**Description**
FOB100-SOFT	Windows software
FOBS-CAB-(*)	Polyurethane, sensor extension cable, 2 m (6.6')

* Add number of meters. Each additional meter over 2 m, there will be an additional cost.
** Maximum available cable length is 30 m (98').
Comes complete with operator's manual, NIST certificate, and 100 to 240 Vac, 50/60 Hz AC adaptor.
To change the 0 to 10V output to a 4 to 20 mA output, add "-PV" to the model number, no additional cost.
***Ordering Example: FOB101,** 1-channel benchtop fiber optic thermometer, and **FOBS-2,** 2 m (6.6') cable temperature sensor.*

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