

# Fiber Optic Thermometer

TRODEKS®



FOB102 shown larger than actual size.

## FOB100 Series



- ✓ 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

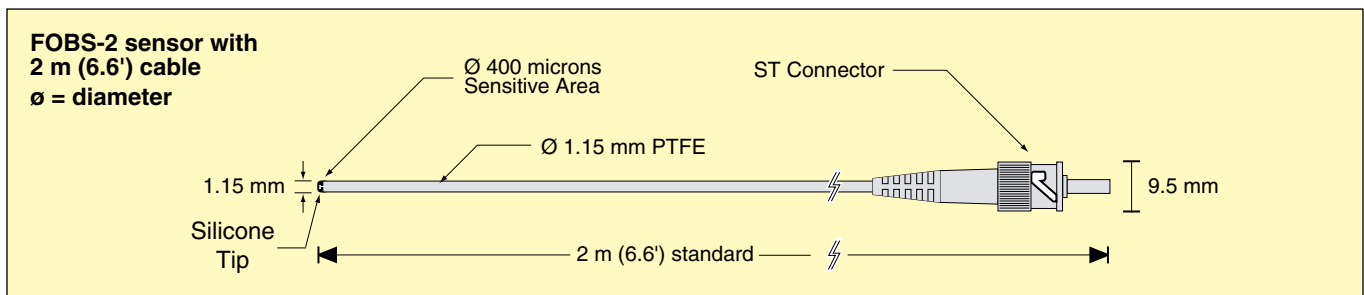
**Operating Mode:** Front panel, FOB100-SOFT PC software (optional) or RS232 commands

**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)

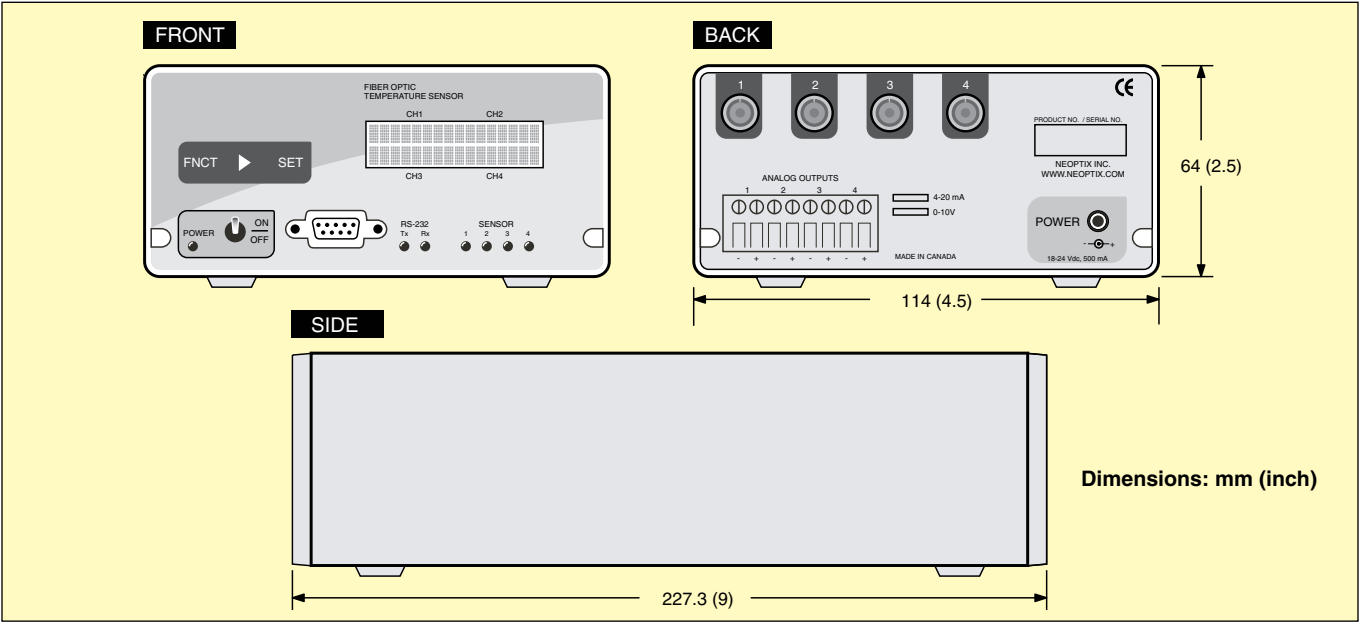


**Dimensions:**  
141.4 W x 64.0 H x 227.3 mm L  
(5.57 x 2.52 x 8.95")  
**Weight:** 1.2 kg (2.6 lb)  
**Probe Specifications**  
**Temperature Range:**  
-80 to 250°C (-112 to 482°F);  
cryogenic range available  
(down to 5 Kelvins)  
**Resolution:** 0.1°C (0.2°F)  
**Accuracy:** ±1°C or 1% FS  
**Response Time:** 250 ms or faster



FOB100 Series Thermometer Dimensions

FOB102 shown actual size.



To Order	
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.