

# NEOPTIX T1 PROBE

Fiber optic temperature probe



## Field proven high accuracy probe for general purpose temperature measurements

- Offers complete immunity to electromagnetic fields
- Offers complete intrinsic safety
- Does not require recalibration or complex input to operate
- Ideal for laboratories and diverse industrial applications
- Compatible extension cables are available, with lengths of up to 300 meters, or more
- Based on time proven GaAs technology, that offers no drift, no recalibration, ever
- Offers in customer specified lengths, with various tip configurations to address a wide variety of applications, ranging from medical, to production industrial applications

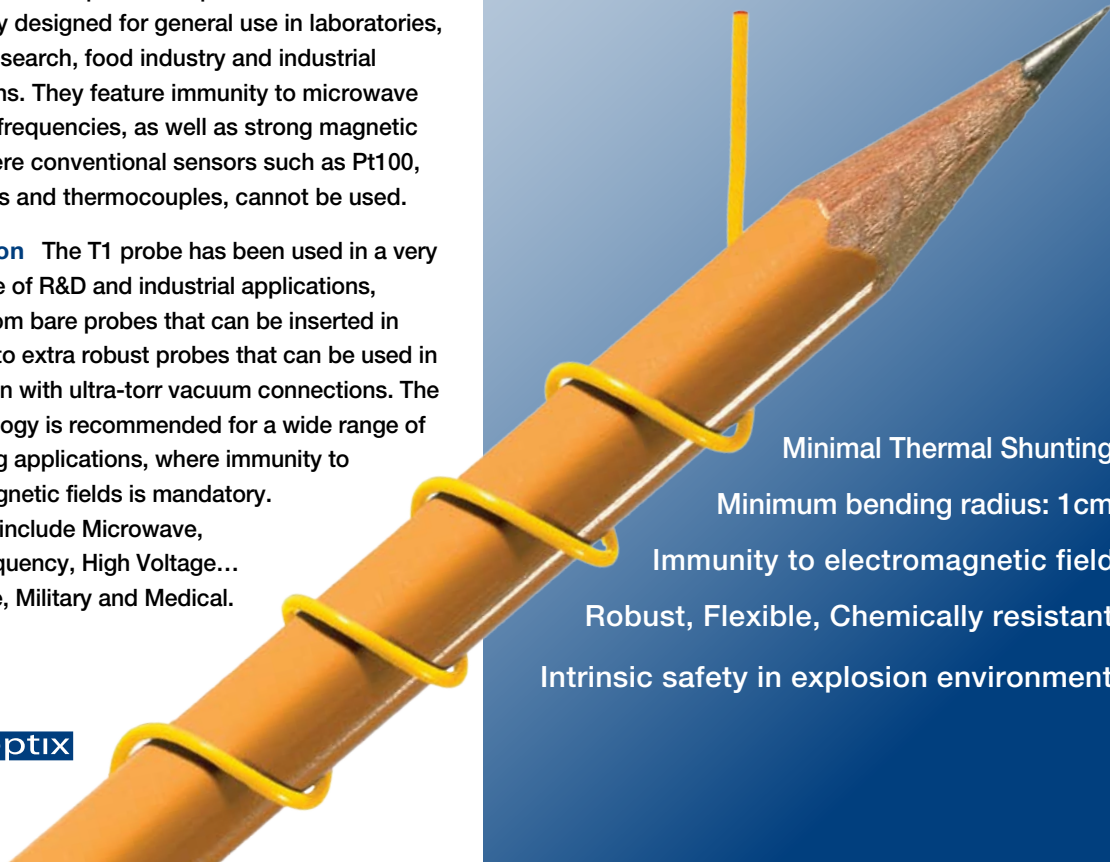
### Product Summary

**Description** Neoptix fiber optic sensors are specifically designed for general use in laboratories, medical research, food industry and industrial applications. They feature immunity to microwave and radio frequencies, as well as strong magnetic fields, where conventional sensors such as Pt100, thermistors and thermocouples, cannot be used.

**Application** The T1 probe has been used in a very wide range of R&D and industrial applications, ranging from bare probes that can be inserted in catheters to extra robust probes that can be used in conjunction with ultra-torr vacuum connections. The T1 technology is recommended for a wide range of demanding applications, where immunity to electromagnetic fields is mandatory. Examples include Microwave, Radio Frequency, High Voltage... Aerospace, Military and Medical.

Fibers by





Minimal Thermal Shunting

Minimum bending radius: 1cm

Immunity to electromagnetic field

Robust, Flexible, Chemically resistant

Intrinsic safety in explosion environment

**QUALITROL**  
Defining Reliability



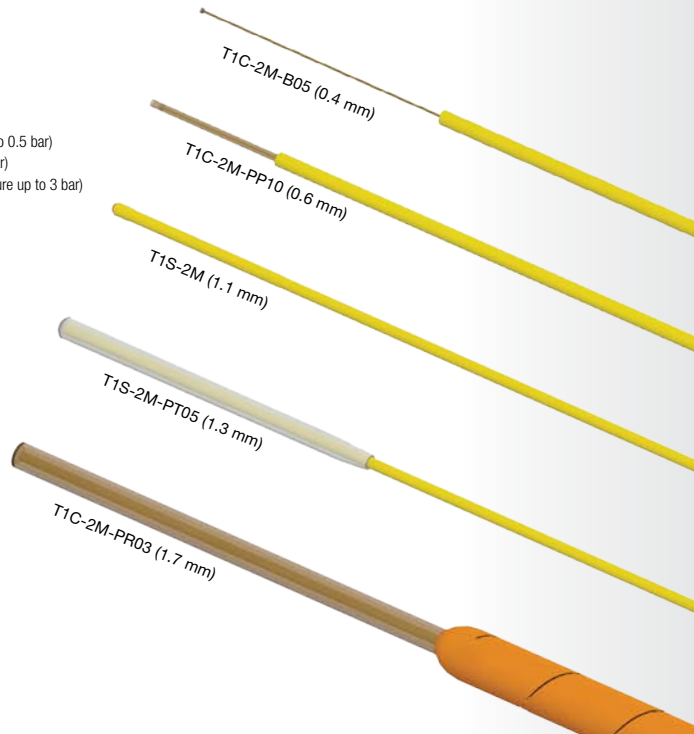
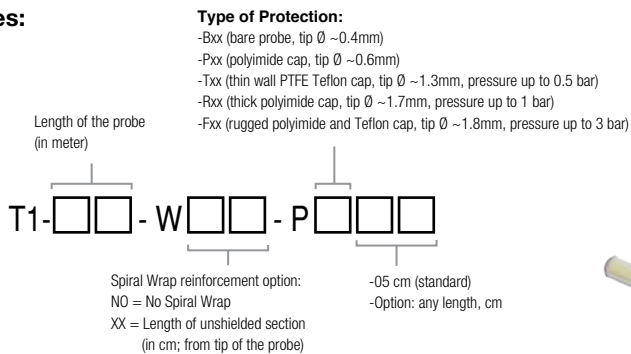
# NEOPTIX T1 Fiber Optic Temperature Probe

The Neoptix technology is based on a well-known and reproducible semiconductor phenomenon: the band-gap variation in the absorption spectrum of gallium arsenide (GaAs) with temperature. This technology offers no-drift probes with no calibration ever needed.

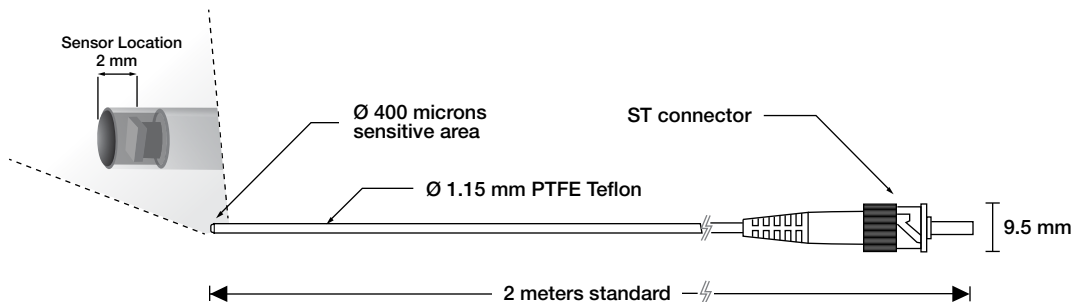
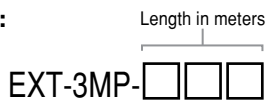
TECHNICAL SPECIFICIFICATIONS	
<b>Temperature range:</b>	-270 to +250 °C (-455 to +480 °F)
<b>Repeatability:</b>	±0.1 °C
<b>Accuracy (without user reference):</b>	±1 °C
<b>Accuracy (with user reference):</b>	±0.2 °C at ±10 °C of calibration point (per probe).1 °C
<b>Response time (63% of final value):</b>	250 msec for the standard probe
<b>Probe length:</b>	2 meters standard, up to 300 meters, or more
<b>Connector type:</b>	ST, stainless steel alloy material Optional dielectric connector (max 160 °C)
<b>Probe sheathing material:</b>	PTFE Teflon standard, 1.1 mm O.D.
<b>Probe sensitive area:</b>	GaAs 0.4 mm crystal, contact technology
<b>Extension cable, optional:</b>	3 mm Ø, PVC sheathing (85 °C max temperature) Option: Teflon PTFE (250 °C)

## ORDERING CODES:

### Probes:



### Extension cables:



Neoptix Canada LP.  
 1415, Frank-Carrel, suite 220  
 Québec (Qc) G1N 4N7 Canada  
 Phone: (418) 687-2500  
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 info@neoptix.com

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