QUALITROL T2 PROBE





Field proven high accuracy probe for measuring hot spot temperature

- Long term, drift-free survivability
- Does not require recalibration or complex input to operate
- Withstands kerosene desorption, heat runs, oil immersion and vibrations
- Surpasses ASTM dielectric strength standards for use inside transformers
- A special version (T2D) is available for DC windings of HVDC transformers

Product Summary **Description Robust, oil-permeable Qualitrol** Sensitive area Material: GaAs Neoptix T2™ temperature probes for highly Resistivity: $10^7 \Omega$ -m accurate measurement of power transformer Continuous longitudinal slit allowing perfect oil penetration throughout temperatures. Installed in standard spacers probe length (patent pending) or directly onto any other location inside transformer windings to directly measure 'hot spot' temperature. Virgin PTFE Teflon_® sheath Dielectric strength: >18000 V/mm (ASTM D149) Dielectric constant: 2.1 @ 1 Mhz Application For use inside oil-filled or dry-type Optical fiber glass/quartz fiber electrical transformers. Compatible with with 20µ polyimide coating Dielectric strength: >15000 V/mm Dielectric constant: > 3.5 @ 1 MHz QUALITROL® intelligent transformers High performance epoxy monitors with direct winding. Dielectric strength: > 17000 V/mm Dielectric constant: 3.01 @ 1kHz/25°C Fibers by //neoptix **PTFE Teflon®** spiral wrap reinforcement



QUALITROL® T2 Fiber Optic Temperature Probe



Field proven high accuracy probe for measuring hot spot temperature

- Direct measurement inside transformer yields highly accurate temperature readings reducing risk of failure or unnecessary reduction in transformer life
- · Thousands are currently installed and in service

Long term, drift-free survivability

- All materials have high dielectric and chemical resistant properties
- ST type connectors resist failure due to vibrations

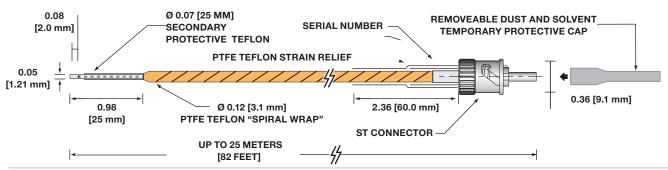
Does not require recalibration or complex input to operate

Galium arsenide (GaAs) measurement principle

Surpasses ASTM dielectric strength standards for use inside transformers

 Unique, patent-pending longitudinal slit enables uniform contact with transformer oil over entire probe length

Environmental	Certification	ASTM-D 149 and ASTM-D 2413
	Chemical resistance	Solvent and chemical resistant (kerosene, etc.)
	Measurement range	-112°F to 480°F (-80°C to 250°C)
	Survivability range	-328°F to 572°F (-200°C to 300°C)
	Probe permeability	Longitudinal continuous slit (patent pending) on cable insures uniform oil impregnation into sheath
Mechanical	Connector type	Standard fiber optic ST
	Probe material	Chemically resistant, inert and dielectric materials; quartz optical fiber
	Probe sensitive area	Direct point measurement with sensitive area of 300 microns O.D.
	Standard probe length	4, 6, 8, 10 meters (custom lengths available up to 25 meters upon request)
Specifications	Accuracy	± 1.8°F (± 1°C)
	Response time	250 milliseconds
	Ordering code	Uncovered length: 01 cm (standard) XX = n cm Total length:



About QUALITROL®:

QUALITROL® manufactures substation and transformer monitoring and protection devices used by electric utilities and manufacturing companies. It is the global leader in sales and installations of transformer asset protection equipment, fault recorders, and fault locators. Established in 1945, QUALITROL® produces thousands of different types of products on demand, each customized to customers' unique requirements.

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