## QUALITROL<sub>®</sub> 120

### **Direct mount thermometers**



# Large dial face for maximum readability

- Durable design for survivability in harsh environments
- Up to 4 adjustable switches for control or alarm functions
- Easy to install and operate

## **Product Summary**

Description Side mounting bourdon tube thermometers equipped with a 6" (152.4 mm) dial face for temperature indication. Features a resettable maximum temperature pointer and up to 4 adjustable switches (contacts) for control and alarm functions. Can be installed in an optional well to allow units to be replaced without lowering the oil level in the tank or disturbing the tank seal.

control or alarm functions where the point of measurement (the well or pocket) is on the side of the

**Application** For temperature indication and



apparatus and can





#### Large dial face for • Large 6" (152.4 mm) dial face with large graduations and letters maximum readability for optimal legibility · UV-stabilized polycarbonate lens (resists yellowing with age) for life time readability **Durable design for survivability** • UV-stabilized polycarbonate lens for high-impact strength, in harsh environments securely fastened in place with stainless steel bezel ring and stainless steel hardware UL and CSA recognized switches Molded neoprene channel gasket is uniformly clamped in place, protecting against water entry around entire lens • Free-breathing housing reduces internal condensation buildup with dual breathers act as vacuum breaker to prevent unwanted moisture intake · Magnetically coupled maximum pointer is integral with lens for ease of resetting and moisture path elimination Rugged construction with corrosion resistant materials • Die-cast aluminum housing resists corrosion with two-part, long-life epoxy finish Up to 4 adjustable switches for • Up to four switches (contacts) can be set by the factory or can be control or alarm functions easily set or changed in the field Switches feature lockdown screws to resist tampering and vibration • Two switches can be set to trigger at the same temperature Easy to install and operate • Dial temperature range, number of switches (4 maximum), switch settings and wiring, electrical connection type, cable/wire types and lengths, probe dimensions, and thermowell characteristics can all be customer specified to meet specific application requirements Mounts directly into well (pocket) • "One-screw' access; bezel clamp and lens easily removed to reach switch settings and 'quick-test' mechanism Maximum temperature pointer follows indicating pointer upward and remains at hottest reading to track high temperature levels. Resets easily with magnetically coupled knob on face of lens 'Quick-test' feature enables simple testing of switch actuation and related controlled transformer functions by moving indicating pointer



#### Don't see what you need?

QUALITROL regularly creates models with special customer requirements. Contact your local sales representative or QUALITROL Application Engineer to review your special requirements.

clockwise through switch settings. A no-stress, spring-loaded clutch

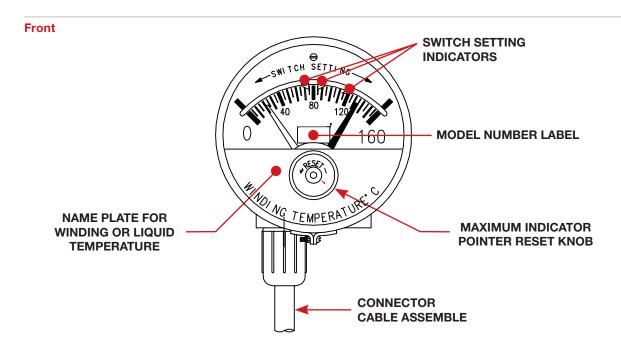
prevents damage to internal thermometer components



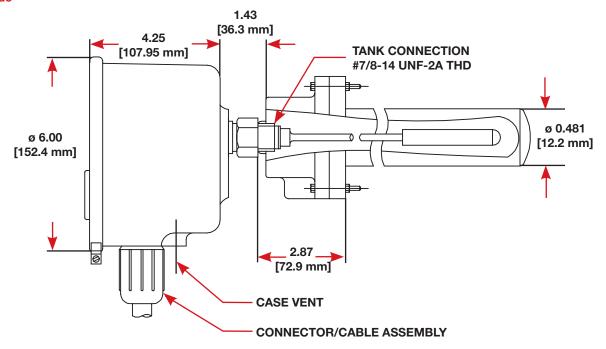


Mechanical	Standard measurement ranges	1-120, 0-160, 0-180, 20-180, 0-200, 0-220, and 0-250 (°C) Other custom ranges available
	Mounting style	Center back thread
	Probe	0.481" DIA. x 5.812" long (12.2 mm DIA x 147.6 mm) (standard), Other options available
	Well connection	7/8-14 UNF-2A removable brass union connection (standard)
Dimensions	Dial diameter	5.375" (136.525 mm)
Materials	Housing	Powder coated die-cast aluminum
	Dial	Anodized aluminum with thermosetting powder coat finish
	Bezel retaining ring	Stainless steel, removable
	External hardware	Stainless steel
	Lens	High-impact strength, UV-stabilized polycarbonate (standard), tempered glass (optional)
Environmental	Ambient operating temperature	-30 to 140°F (-34 to +60°C)
	Relative humidity	90% (non-condensing)
	Shock	10g in 3 orthogonal planes, 10 msec half-sine
	Vibration	60 to 120 Hz @ 0.004" displacement
Electrical	Connection type	Qualitrol, ANSI, or MIL quick-disconnect; terminal box, permanently attached cable, or flying-leads
	Number of switches	Up to four (4). Switch wiring can be tailored to application, connector and cable type
	Switch options	Snap-action, SPST or SPDT (UL recognized/CSA certified)
	Switch ratings	10 Amp. @ 125, 250 & 480 VAC
		1/2 Amp. @ 125 VDC - resistive
		1/4 Amp. @ 250 VDC - resistive
		1.5 Amp. @ 48 VDC - resistive
	Inductive power factor	75%
	Switch differential	5-10°C standard (advised differential to minimize fan wear)
	Dielectric strength	1500 VAC, 50/60 Hz (standard), 2000 VAC, 50/60 Hz (optional) Voltage applied all terminals to ground for 60 seconds





#### Side



#### **About QUALITROL**®

QUALITROL Company LLC 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 Company produces thousands of different types of products on demand, each customized to customers' unique requirements.

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