

# QUALITROL® 165/167 & AKM 47080

Direct mount thermometers



## Control and alarm functions with integrated switching capability

- Clear and reliable temperature indication
- Corrosion resistant materials and design ensure long life

### Product Summary

**Description** Side mounted bi-metal thermometers with temperature indication and resettable maximum temperature pointer. Features up to 3 control and/or alarm switches (contacts). Models can be combined with a well (pocket) to allow for replacement without draining or compromising the tank.

**Application** For temperature indication and control or alarm switching. Designed for use where the point of measurement (the well or pocket) is on the side of the apparatus and can be easily viewed.



**QUALITROL®**  
Defining Reliability

# QUALITROL® 165/167 & AKM 47080 direct mount thermometers

## Control and alarm functions with integrated switching capability

- The 165/167 series thermometers offers up to 3 switches (contacts) for control and alarm functions (AKM 47080 offers 2 switches)
- Control motors up to 3/4 HP

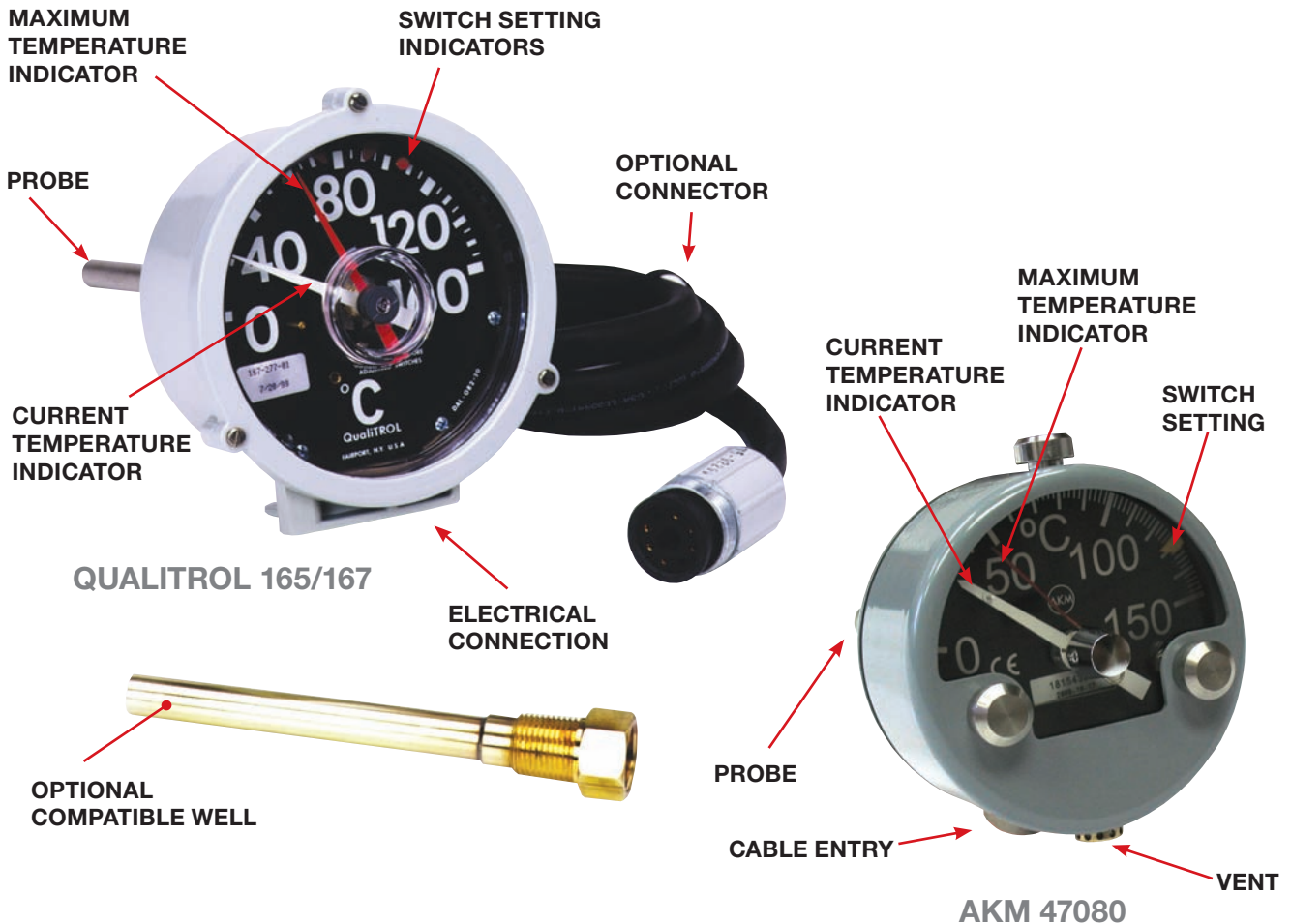
## Clear and reliable temperature indication

- 4.5 inch (114.3 mm) dial face for clear temperature indication
- Provides accuracy within  $\pm 2\%$  of full scale
- Dampened element provides smooth pointer movement
- The lens is made of clear, UV stabilized, molded polycarbonate for easy, scratch-resistant viewing throughout the life of the unit

## Corrosion resistant materials and design ensure long life

- Rugged cast-aluminum housing with thermosetting powder coat finish for survivability in harsh environments
- Sealed 165/167 models available for submersible applications such as vault transformers
- Unsealed models feature case venting to prevent moisture from accumulating under the lens and keep the dial face clear
- Gasketed lens is held on with bezel to form a leak-tight seal for protecting the internal mechanism from the environment

## 165/167 & 47080 Features





## 165/167 TECHNICAL SPECIFICATIONS

<b>Mechanical</b>	Mounting	Side (center back thread)
	Standard dial ranges	0-120°C, 0-160°C, 0-180°C, 20-180°C, 0-200°C, 0-220°C, 0-250°C
	Tank connection (165 series)	3/8" NPT (standard)
	Tank connection (167 series)	7/8-14 UNF -2A (standard)
	Accuracy	+/- 2% of dial range
<b>Materials</b>	Case and bezel	Die-cast aluminum, ASA #70 light grey finish
	Lens	UV stabilized polycarbonate
	Gasket material	Neoprene - 40 ± 5 durometer
	Probe	Stainless steel (standard)
<b>Environmental</b>	Std. operating temperatures	-30 to 140° F. (-34 to 60° C)
	Resonance	Withstands resonance at 120 CPM and multiples thereof
<b>Electrical</b>	Switch type	SPST or SPDT
	Maximum number of switches	3
	Electrical connections	QUALITROL, military, ANSI, terminal block and flying leads
	Switch rating (AC)	10A @ 125, 250 & 480 VAC
	Switch rating (DC)	1/2A @ 125 VDC - resistive
		1/4A @ 250 VDC - resistive
		1 1/2A @ 48 VDC - resistive
	Inductive power factor	75%
	Switch setting accuracy	+/- 2% of dial range*
	Switch setting repeatability	+/- 1.250% of dial range*
	Dielectric strength	1500 VAC for one minute

## 47080 TECHNICAL SPECIFICATIONS

<b>Mechanical</b>	Mounting	Side (center back thread)
	Dial range	0-150°C
	Tank connection	7/8-14 UNF -2A, G 3/4", 22 mm o-ring seal
	Accuracy	+/- 2% of dial range
<b>Materials</b>	Case	Die-cast aluminum, ASA #70 light grey finish
	Lens	UV stabilized polycarbonate
	Probe	Stainless steel (standard)
<b>Environmental</b>	Std. operating temperatures	-40 to 158°F (-40 to 70°C)
<b>Electrical</b>	Switch type	SPST or SPDT
	Maximum number of switches	2
	Electrical connections	Terminal block
	Switch rating (AC)	5A @ 250 VAC
	Switch rating (DC)	0.3A @ 110 VDC - inductive (L/R=10 ms)
	Switch setting accuracy	+/- 2% of dial range*
	Switch setting repeatability	+/- 1.250% of dial range*
	Dielectric strength	2000 VAC for one minute

\*With the pointer rotating at a speed of 25% of the dial range/minute

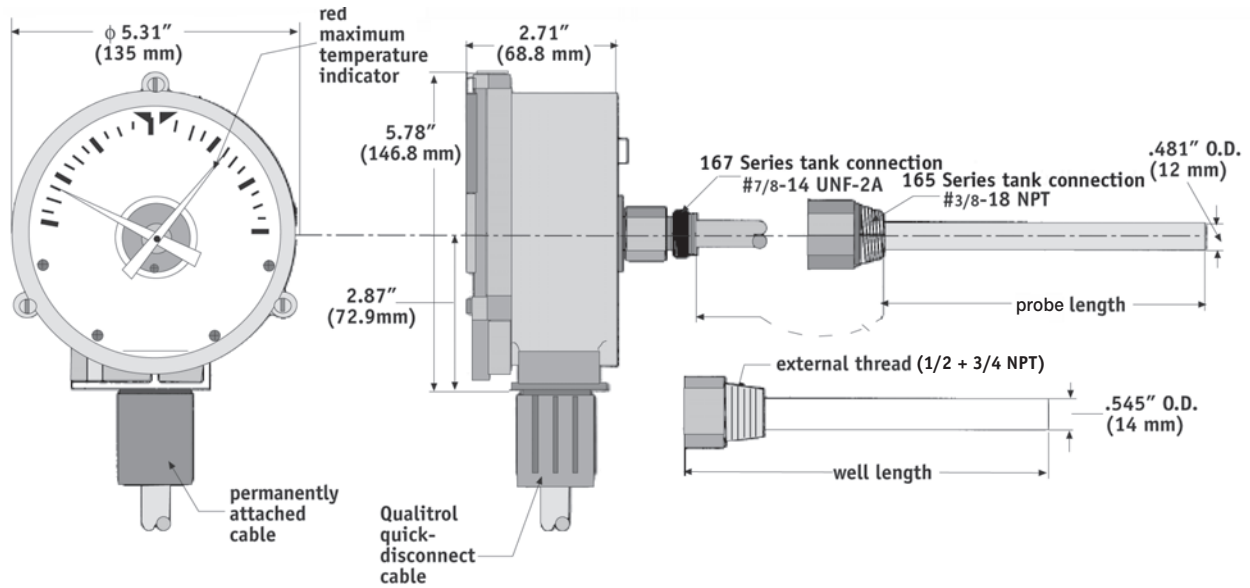


### Don't see what you need?

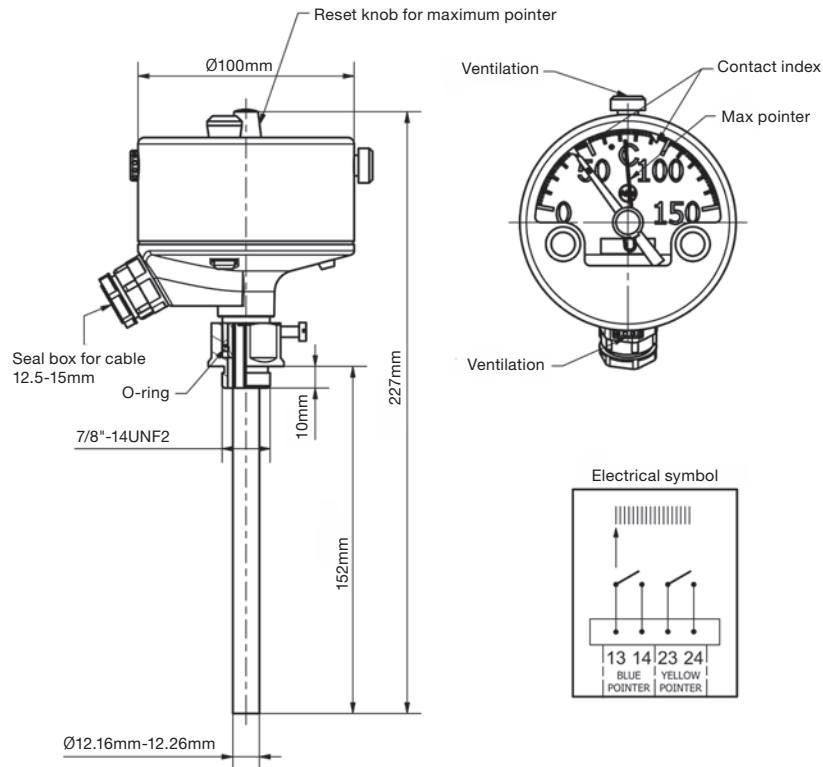
QUALITROL regularly creates models with special customer requirements. Contact your local sales representative or QUALITROL Application Engineer to review your special requirements.



## QUALITROL 165/167



## AKM 47080



### 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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