

# QUALITROL® 118 ITM



Intelligent dry transformer monitor

## Accurate, flexible and reliable monitoring for dry type transformers

- Monitor up to three dry-type transformer windings
- Built-in fan control, fan exerciser, alarming and trip functions
- 0-1 or 4-20mA output for integration with SCADA systems
- CE, UL and CSA certified

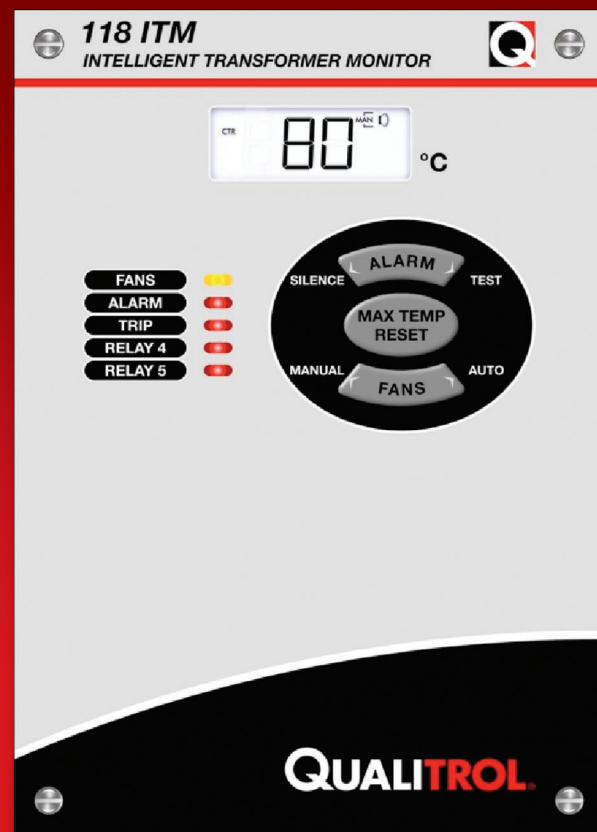
### Product Summary

**Application** The 118 series Intelligent Transformer Monitor is the right choice for all your Dry Type Transformer monitoring and control needs.

**Description** The 118 monitors temperature in up to three (3) Dry-Type transformer windings. The 118 operates Fan, Alarm, Trip and two (2) additional relays by comparing the winding with the highest temperature to pre-selected relay set point temperatures. Front panel LED indication available.

Up to two (2) cooling fan banks can be controlled using the heavy duty fused fan control relays.

Both analog and digital communications can be provided for use with SCADA systems.



**QUALITROL**  
Defining Reliability

## QUALITROL® 118 ITM Intelligent dry transformer monitor

---

### Thermocouple Monitor

- The 118 ITM monitors up to three (3) Type “K” thermocouples
  - Reliable operation through advanced design
  - The 118 ITM displays three (3) thermocouple inputs, the stored maximum temperature and its associated winding
- 

### Fan Exerciser

- Fan exerciser is configurable to customer requirements
  - The 118 ITM has a built-in configurable fan exerciser function that can activate fans at periodic intervals providing maximum asset protection (configuration software required)
- 

### 118 ITM Outputs

- Output Fans: One or two SPST contacts Rated 30 Amps @ 120/240 VAC 1 HP @ 120 VAC, 2 HP @ 240 VAC for each contact
  - Output Alarm: One SPDT contact Rated 10 Amps @ 120 VAC or 8 Amps @ 240 VAC (resistive)
  - Output Trip: One (1) SPDT contact Rated 10 Amps @ 120 VAC or 8 Amps @ 240 VAC (resistive)
  - Remote Output: 0-1 mA into a load of up to 10,000 ohms max
  - 4-20 mA into a load of up to 500 ohms max
  - Optional MODBUS communication via RS-485
- 

### Certification

- As part of Qualitrol's drive for quality and reliability on all Intelligent Transformer Monitors, the 118 ITM is rigorously tested to UL standard 873, Canadian Standard C22.2 No. 24-93 and EU Declaration of Conformance CE
-



## TECHNICAL DETAILS

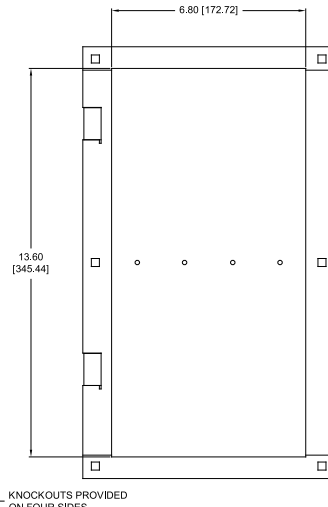
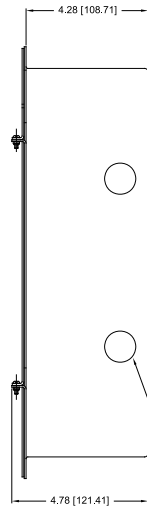
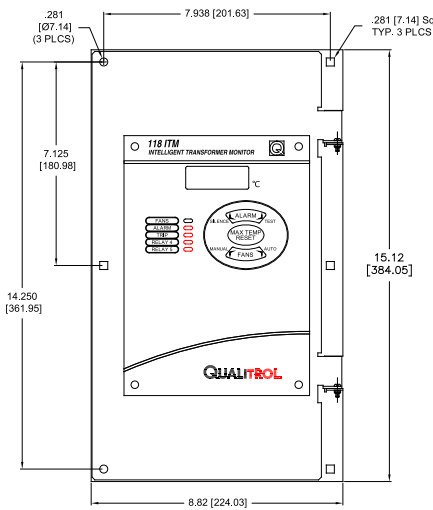
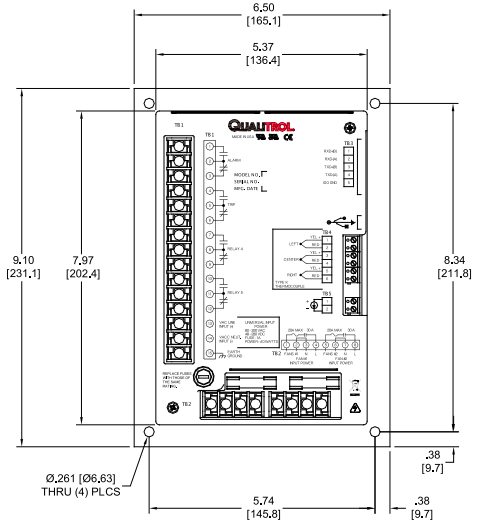
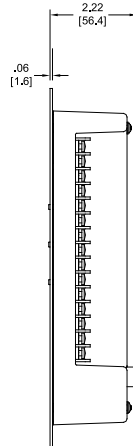
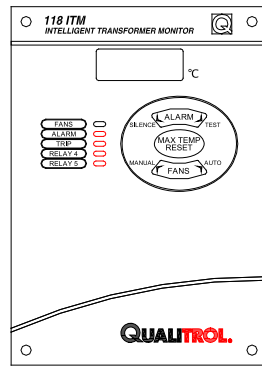
<b>Performance</b>	Input Power:	80 to 300 VAC 50/60 Hz ; <10Watts 48 to 280 VDC Universal Power Supply <10Watts		
	Measurement Range:	0°C–250°C		
	Display Resolution:	1°C increments		
	Input Measurement Accuracy:	±3°C		
	Memory Retention:	40 years (with power OFF)		
	Contact Ratings	Volts	Resistive	Horsepower
	Fans:	120 VAC	30 A	1 Hp
		240 VAC	30 A	2 Hp
	Alarm & Trip:	120 VAC	10 A	-----
		240 VAC	8 A	-----
	Fan Circuit Rating:	UL rated for 20 Amp		
	Remote Output	0 to 1 mA = into 10,000 Ohms max. load		
	Current Loop:	0 to 10 mA = into a 1000 Ohms max. load		
(configuration software required)	0 to 20 mA = into 500 Ohms max. load			
	4 to 20 mA = into 500 Ohms max. load			
	0 to 5 V			
Accuracy:	±3°C			
Fan Exerciser:	Fan Run Time – 1 to 120 minutes Fan Cycle Time – 0.01 to 30.0 days Time starts at power up			
Optional Modbus Communications:	Via electrically isolated 2- or 4-wire RS-485 link			
<b>Environment</b>	Operating Temperature:	-30°C to +72°C		
	Storage Temperature:	-50°C to +72°C		
	Relative Humidity:	10 to 90% non-condensing		
	Hi-pot:	1500 VAC 50/60 Hz for 1 minute; relay contacts and power input to all other terminals and earth ground		
	Vibration:	50/180 Hz @ .004" displacement		
	Shock:	10 Gs in 3 orthogonal planes		
	Transient Suppression:	Per ANSI 37.90a-1989 oscillatory waveform test		
<b>Mechanical</b> (Panel Mount Unit)	Front Panel:	6.5"[165.1mm] Wide x 9.10"[231.1mm] High		
	Mount:	Panel mount through 5.37" [136.4 mm] wide x 7.97" [202.4 mm] high cutout. Mounting Holes 5.74" [145.8mm] Wide x 8.34"[211.8mm] High Ø.261[6.63mm]		
	Depth:	2.22"[56.4mm]		
	Weight:	3lbs[1.4kg]		
	Terminals:	Screw terminal; maximum 12-gauge wire		
	Front Panel:	8.82"[224.03mm] Wide x 15.1"[231.1mm] High (Hinge Mount)		
	<b>Mechanical</b> (Hinge Mount)	Mount:	Hinge mount through 8.82" [224.03mm] Wide x 15.12" [384.05 mm] High cutout Mounting Holes 7.94" [201.63mm] Wide x 14.25" [361.95mm] High Ø.261 [6.63mm] x (4)	
Depth:		4.28" [108.71mm]		
Weight:		5lbs [2.3kg]		
Terminals:		Screw terminal; maximum 12-gauge wire		

# QUALITROL® 118 ITM Intelligent dry transformer monitor



## 118 ITM dimensions

**118 ITM-P**  
Panel Mount



KNOCKOUTS PROVIDED ON FOUR SIDES

**118 ITM-H**  
Hinge Mount

- USB Cable + CD for software installation to configure settings and calibration via PC



**CAB - 625 & 626**  
Type "K" Thermocouples



**Put Qualitrol® at the heart of your 21<sup>st</sup> Century Smart Grid!**

### 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.

©2010 QUALITROL® Company LLC, an ISO 9001 system certified company. All rights reserved. Information subject to change without notice. All trademarks are properties of their respective companies, as noted herein. AP-M08-01L-01EN.