

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
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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)
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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
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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
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TECHNICAL DETAILS

Performance

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		

Environment

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

Mechanical (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)

Mechanical (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

