Transformer Rectifier Monitor - TRM

Rectifier monitoring, Output levels, Pipeline Potentials, Remote Controlled Interruption, Instant-off Analysis, Alerts & Alarms

FEATURES

Rectifier monitoring 24/7

Backup power-supply for reporting during power loss

Remote controlled cycling of normally closed (NC) switch in configurable patterns

GPS time synchronization – also with all other MetriCorr units

Remote controlled instant-off surveys

Remote monitoring - cellular or satellite via Masterlink module
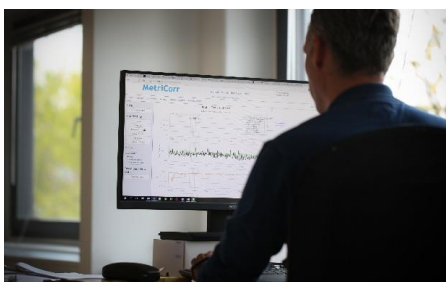
Data presentation, analysis, reporting in CP*Manage Web

Alarms for T/R power, TRM battery and tamper (e.g. door)

Temperature sensor

DIN rail mounting

MEASUREMENTS

- ✓ DC voltage (anode/cathode)
- ✓ AC voltage (anode/cathode)
- ✓ DC current (anode/cathode)
- ✓ AC current (anode/cathode)
- ✓ DC potential (pipeline)
    - ✓ On
    - ✓ Instant-off
- ✓ AC voltage (pipeline)

DATA AT YOUR FINGERTIPS – WHEREVER YOU ARE!

The T/R Monitor (TRM) is designed to support survey campaigns, to report T/R output voltage, output current and pipeline ON- and OFF potential, as well as to send alarms when the T/R settings or functionality is compromised.

The TRM is completely remote controlled through the MetriCorr CP*Manage Web or through the MetriCorr iOS/Android App. Setting intervals for measurements and data transmission to the CP*manage Web, as well as initiation of survey campaigns is made either through the CP*manage web, or by the App. Alarms on power level or tamper / door-open are transferred to CP*manage Web immediately when registered.

Alert and alarm handling is set up through the CP*Manage Web and can be assigned for measured values (pipeline ON- and OFF potential, output voltage and current) as well as power and tamper settings.

The GPS time-synchronization and designed measurement cycle provides the possibility of getting ON-readings as well as "instant" OFF-readings synchronized with rectifier switch-off from all MetriCorr units connected to the web via a Masterlink unit. An instant off campaign can be set up and completed in minutes. User defined delay after switch-off is offered within the range of 120ms to 3s.

Remote monitoring and communication is done by cellular service with satellite communication as an alternative (limited) option. A full operation is also obtainable through ethernet LAN.

Data is sent to the CP*Manage Web for easy reporting and analyzing – a full system report can be obtained in conjunction with remotely monitored test stations be a click of the mouse.

The TR Monitor ideally fits onto a DIN rail mounted inside the T/R cabinet itself, or in separate junction box.

Technical specifications - TRM

Technical data		
Storage capacity	+200 000 readings	
Logging interval	10 min – ∞, Typically 1 hour 1s (intensive mode)	
Alarms	Continuous monitoring, immediate response via email	
Power supply options	- Mains adapter 100–240 V AC / 12 V DC - Backup battery	
Operating conditions	-40ºC to +85ºC	
Transient protection	1100 V for 150 ms – 20 kA @ 8/20 µs 12.5 kA @ 10/350 µs (optional)	
Installation options	- Junction Box - Existing T/R installation	
Size L x W x H	156 x 60 x 86 mm	
Communication	- LTE Cat. M - 4G/5G with 2G fall back - Satellite (option) - Android or iOS App - Bluetooth - Ethernet (option) - GPS Time Synchronization - GNSS (Position)	
Voltage/Potential (Edc, Uac)	Input resistance Range Resolution DC accuracy AC accuracy	+10.0 MΩ 100 V 1 mV ± 1 mV ± 0.3% reading ± 1 mV ± 1% reading
Shunt	Shunt R Range Resolution DC accuracy AC accuracy	External mΩ ±200mVdc (200A @ 1mΩ, 2A @100mΩ) 0.2µV (0.2mA @ 1mΩ, 2µA @ 100mΩ) ±1µV ±0.1% rdg (1mA ±0.1% rdg @ 1mΩ, 10µA @ 100mΩ) ±5µV ±0.1% rdg (5mA ±0.1% rdg @ 1mΩ, 50µA @ 100mΩ)

25 (1") | TR-MONITOR | 156 (6.14") | 60 (2.36") | 86 (3.38")