

DIN Rail Mount Indicators

RM4-TCR Universal Temperature Monitor

RTD, thermocouple, 0-20mV & 0-50mV

Description

The RM4-TCR is a DIN rail mounted process unit which can function as an indicator/ alarm/ controller/ transmitter/ computer interface.

Input types available are 100Ω (Pt100) or 1000Ω (Pt1000) RTDs or thermocouple types B, E, J, K, N, R, S or T. Two millivolt input ranges of 0-20mV and 0-50mV are also provided with five point linearisation.

All function settings, including selection of input type and calibration scaling is carried out via the pushbuttons.

Temperature units can be selected as °C or °F with a user selectable resolution of up to 0.01 degrees (RTD) or 0.1 degrees (thermocouple). If required the display can be programmed to show the units of temperature as °, °C, °F, C or F e.g. 325°C. For mV inputs the display can be scaled to read in engineering units.

Two alarm relays are provided as standard. The relays can be set for independent operation or to have a "trailing" operation.

Combinations of optional outputs including extra relays, analog output (configurable as retransmission or PI control) or serial communications (ASCII or Modbus protocol) can also be provided.

The RM4-TCR has a programmable display brightness function, this allows the unit to be operated with low display brightness to reduce the instrument power consumption and to improve readability in darker areas.

The programmable digital filter improves stability by smoothing out short term interference.

An external input is configurable to perform one of various functions e.g. Two level brightness switching, peak hold, display hold, max/min memory, scale switching (allows switching between two sets of display scale values, resolution and display units e.g. °C to °F), setpoint only access or security lockout.

Electrical isolation between power supply, temperature sensor input and retransmission eliminates grounding and common mode voltage problems.



Features

- Pushbutton calibration and setup
- 5 digit LED display and relay/ alarm status indication
- Programmable **P** button function e.g. max/ min display, zero or tare
- Isolation between input, output and supply
- Powered by 240V, 110V, 48V, 42V, 32V, 24VAC, or 12 to 48V DC (factory configured)
- Digital filter for improved stability
- Two alarm/ control relay outputs (5A) standard
- Programmable display brightness reduces power consumption and controls glare in low brightness areas
- Auto dim feature conserves power
- Rugged aluminium DIN rail mount housing
- Remote input to perform special functions e.g. zero, tare/ gross/ net, peak hold, display hold, max/ min, scale switching or security lock out
- 2 year guarantee

Options

- Isolated 12 bit analog output (configurable as retransmission or PI control) Single or two independent outputs 4-20mA, 0-1V or 0-10V (link selectable)
- 16 bit analog retransmission + 3rd setpoint relay
- Additional relay in combination with analog or transmitter supply outputs
- Isolated & regulated 12VDC @ 50mA or 24VDC @ 25mA (link selectable)
- Isolated RS232, RS422 or RS485 serial comms. with a choice of ASCII or Modbus RTU protocol
- Combined analog 4-20mA and RS485 serial outputs



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