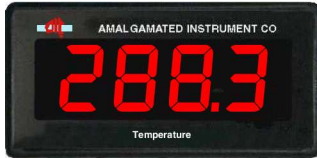


Intelligent PM4 Monitors

Model PM4-TCR

Input from Pt100 (RTD), Pt1000 (RTD), mV (up to 200mV), thermocouple or 4-20mA



4 digit LED 20mm digit height



4 digit LCD 12.7mm digit height



5 digit LED 14.2mm digit height



6 digit LED 14.2mm digit height



6 digit LCD 12.7mm digit height



Circular graph and 5 digit display



20 segment bargraph and 5 digit display

Description

The PM4-TCR accepts its input from a Pt100, Pt1000, or thermocouple sensor, 4-20mA or mV.

The PM4-TCR features flexible pushbutton calibration and programming. The display may be programmed to show temperature units $^{\circ}\text{C}$ or $^{\circ}\text{F}$ e.g. 522 $^{\circ}\text{C}$.

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

Each instrument is supplied with a single relay output as standard, configurable as alarm or PI control (time division or frequency). Optional outputs include up to 3 additional relays (the second relay is also configurable as alarm or PI control), analog (4-20mA, 0-1V, 0-10V, single or dual channel outputs configurable as retransmission or PI control), serial (RS232 or RS485 - choice of ASCII or Modbus RTU protocols) or digital (BCD or binary) and an isolated 24VDC (12V) transmitter supply.

An external input is configurable to perform one of various functions e.g. peak hold, peak and valley memory, two level brightness switching, scale switching, setpoint only access or security lock out.

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

Features

- Universal temperature input: RTD (2-wire or 3-wire), thermocouple, 4-20mA transmitter or mV
- Pushbutton calibration and setup
- Displays temperature in $^{\circ}\text{C}$, $^{\circ}\text{F}$ or absolute
- Electrical isolation between input signal/output/power supply
- 240V, 110V, 32V, 24VAC, 12 to 48VDC or 50 to 110VDC operation (factory configured)
- 18VDC transmitter supply - AC models
- Programmable digital filter
- Alarm/control relay output (5A) configurable as alarm or PI control
- 2 year warranty
- Wide range of options available:
 - Single or dual analog retransmission
 - Up to three additional setpoint relays
 - RS232 or RS485 serial communications
 - Isolated transmitter supply 24VDC ($\pm 12\text{VDC}$)
- Remote input for special functions including
 - peak/display hold
 - tare or zero
 - display brightness control

PM4TCR-3.5-0

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Specifications

Technical Specifications

Input types:	Link selectable $\pm 2\text{mA}$, $\pm 20\text{mA}$, 4 to 20mA or DC Volts $\pm 100\text{mV}$, $\pm 1\text{V}$, $\pm 10\text{V}$, $\pm 100\text{V}$ or 0-1k Ω to 0-1M Ω 3 wire slidewire
Impedance:	135 Ω nominal (4 to 20mA) 1M Ω on DC voltage
ADC resolution:	1 in 20,000
Accuracy:	0.1% of FS when calibrated 0.3% on $\pm 100\text{mV}$ and $\pm 2\text{mA}$ ranges
Sample rate:	4 per sec
ADC conversion:	Dual slope ADC
Microprocessor:	MC68HC11 CMOS
Ambient temp:	LED models -10°C to 60°C, LCD models -10°C to 50°C
Humidity:	5% to 95% non condensing
Display types:	LED models: 4 digit 20mm, 5 digit 14.2mm, status LEDs, keypad. 6 digit 14.2mm. keypad 20 segment LED bar graph, 5 digit display and 4 way keypad 16 segment circular " bargraph", 5 digit display and 4 way keypad LCD models: 4 digit or 6 digit 12.7mm
Power supply:	240, 110, 32, 24VAC 50/60Hz, 12 to 48VDC or 50 to 110VDC (factory configured)
Power usage:	AC supply 4 VA max, DC supply, consult supplier
Output (standard):	1 x relay, form A, rated 5A resistive
Transmitter supply:	unreg. 18VDC (25mA maximum)- AC models only
Relay action:	Programmable N.O. or N.C.
Output Options	
Extra relays:	1, 3 or 6 extra relays available
Retransmission:	Analog 4 to 20mA, 0 to 1V or 0 to 10V link selectable (single or dual channel versions) Serial RS232 or RS485, choice of ASCII or Modbus RTU protocols Digital Binary or BCD
DC voltage out:	Isolated 24V ($\pm 12\text{V}$), 20mA
Physical Characteristics	
Bezel size:	DIN 48mm x 96mm x 10mm
Case size:	44mm x 91mm x 115mm behind face of panel
Panel cut out:	45mm x 92mm (+1mm & -0mm)
Connections:	Plug in screw terminals (max 2.5mm ² wire)
Weight:	400g basic model, 450g with option card

PM4-TCR Order Codes

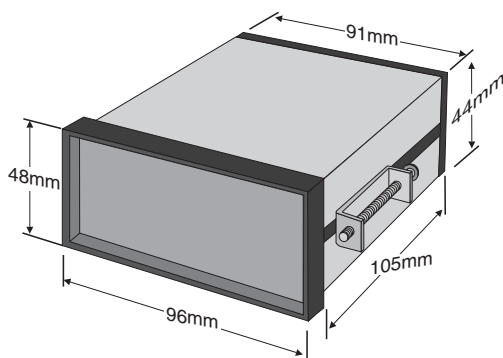
PM4-TCR - [] - [] - []	
Power Supplies	
PM4-TCR - [XXX] - [] - []	
240VAC	240
110VAC	110
32VAC	32
24VAC	24
12 to 48VDC	DC
50 to 110VDC	DCH
Display Type	
PM4-TCR - [] - [XXX] - []	
4 DIGIT LED	4E
5 DIGIT LED + KEYPAD & ALARM LEDs	5E
6 DIGIT LED + KEYPAD	6E
BARGRAPH + 5 DIGIT DISPLAY + KEYPAD	5BP
CIRCULAR BARGRAPH + 5 DIGIT DISPLAY + KEYPAD	5GP
4 DIGIT LCD	4C
6 DIGIT LCD	6C
Options	
PM4-TCR - [] - [] - [XXX]	
ANALOG (4-20mA, 0-1V or 0-10V selectable)	A
DUAL ANALOG (4-20mA, 0-1V or 0-10V selectable)	AA
RS232	2
RS485	4
BCD/Binary NPN	DN
BCD/Binary PNP	DP
DC VOLTAGE OUTPUT 24V ($\pm 12\text{V}$)	12
Note: The standard 18VDC transmitter supply output MUST NOT be used if the optional 24VDC ($\pm 12\text{VDC}$) voltage output is used	
1 EXTRA RELAY	R
3 EXTRA RELAYS	RRR
6 EXTRA RELAYS	R6

The valid option combinations for PM4-TCR are: -R12, -AR, -AAR, -A12, -AR12, -A2, -A2R, -A4, -A4R, -2R, -2R12, -4R, -4R12, -DN, -DP

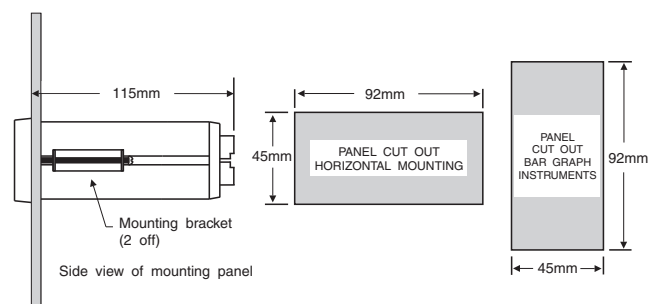
PM4-TCR Accessories

Description	Model No.
IP65 access cover	COVER-IP65
Wall mount enclosure	ENC-PM1-01
Wall mount encl. with IP65 cover	ENC-IP65-PM1-01
Surface mount kit	PM4-OPT-SMKIT
Portable/bench enclosure AC	ENC-PM-AC
Portable/bench enclosure DC	ENC-PM-DC

PM4-TCR case dimensions



PM4-TCR panel mounting details



Wiring diagrams and full operations manual are available from www.aicpl.com.au/pdf/pm4tcrma.pdf.