

Intelligent PM4 monitors

Model PM4-RT8

4 inputs of 3-wire RTD or 8 inputs of 2-wire RTD



Description

The PM4-RT8 accepts 4 channels of 3-wire RTD temperature sensors or 8 channels of 2-wire RTD temperature sensors.

The instrument can function as an accurate monitor, alarm, controller, signal conditioner or transmitter.

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

Each instrument is supplied with a single relay output as standard. Optional outputs include additional relays, isolated outputs, analog (4-20mA, 0-1V, 0-10V, single or dual channel outputs), digital (BCD or binary) or serial communications (RS232 or RS485).

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 signals and retransmission eliminates grounding and common mode voltage problems. Note - the inputs have a common ground. This isolation feature makes the PM4 ideal for interfacing to PLCs, computers and other data acquisition equipment.

Features

- Accepts 4 channels of 3-wire RTD sensors or 8 channels of 2-wire RTD sensors
- Pushbutton calibration and setup
- Displays 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)
- Programmable digital filter
- Alarm/control relay output (5A)
- 2 year guarantee
- Wide range of options available:
 - Single or dual analog retransmission
 - Up to 3 additional relays - a total of 4
 - RS232 or RS485 serial communications
 - Binary or BCD retransmission
- Remote input for special functions including
 - peak/display hold
 - high/lo memory
 - display brightness control
 - switch display scaling

PM4RT8-2.5-0

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Specifications

Technical Specifications

Input types: Up to 4 x 3-wire Pt100 or Pt1000 RTD or up to 8 x 2-wire Pt100 or Pt1000 RTD

Display resolution: 1° or 0.1°

ADC resolution: 1 in 20,000

Accuracy: 0.1% of FS when calibrated ±1 digit

Sample rate: 3-wire - 1 channel sampled per sec.
2-wire - 1 channel sampled per half sec.

ADC conversion: Dual slope ADC

Microprocessor: MC68HC11 CMOS

Ambient temp: -10°C to 60°C

Humidity: 5% to 95% non condensing

Display types: **LED models:**
5 digit 14.2mm, status LEDs, keypad.
6 digit 14.2mm and 4 way keypad
20 segment LED bar graph,
5 digit display and 4 way keypad

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: 18VDC (25mA maximum)

Relay action: Programmable N.O. or N.C.

Output Options

Extra relays: 1 or 3 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 (±12V) standard
±5V (10V) link selectable
(rated at 20mA)

Physical Characteristics

Bezel size: DIN 48mm x 96mm x 10mm

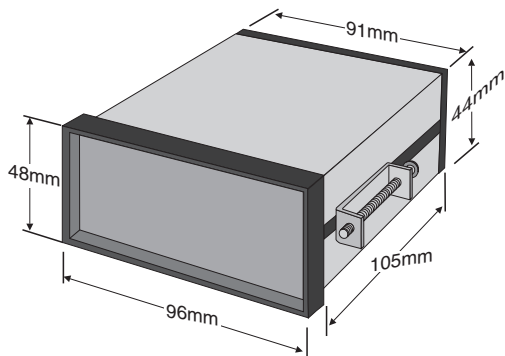
Case size: 44mm x 91mm x 115mm
behind face of panel

Panel cut out: 45mm x 92mm (+1mm & -0mm)

Connections: Plug in screw terminals (max 2.5mm² wire)

Weight: 400g basic model, 450g with options

PM4-RT8 case dimensions



PM4-RT8 Order Codes

PM4-RT8 - [] - [] - []	
Power Supplies	
PM4-RT8 - [XXX] - [] - []	
240VAC	240
110VAC	110
32VAC	32
24VAC	24
12 to 48VDC	DC
50 to 110VDC	DCH
Display Type	
PM4-RT8 - [] - [XXX] - []	
5 DIGIT LED + KEYPAD & ALARM LEDs	5E
6 DIGIT LED + KEYPAD	6E
BARGRAPH + 5 DIGIT DISPLAY + KEYPAD	5BP
Options	
PM4-RT8 - [] - [] - [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 (±12V)	12
1 EXTRA RELAY	R
3 EXTRA RELAYS	RRR

Various output combinations are available e.g.

-A2 (Analog & RS232)

and -4R12 (RS485, 1 extra relay & 24V (±12VDC))

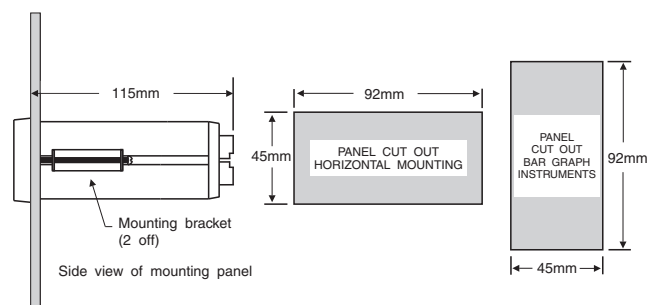
The valid option combinations for PM4-RT8 are:

-R12, -AR, -ARRR, -AAR, -A12, -AR12, -A2, -A2R, -A4, -A4R, -2R, -2R12, -4R, -4R12, -DNR, -DNR12, -DPR and -DPR12

PM4-RT8 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-RT8 panel mounting details



Wiring diagrams and full operations manual are available from www.aicpl.com.au/pdf/pm4rt8man.pdf.