

Intelligent PM4 monitors

Model PM4-WT



High Speed/High Precision load cell/pressure sensor monitor



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

Features

- Accepts 4-arm or 6-arm mV/V output load cells/strain bridges or pressure sensors
- High Speed selectable 5 to 100 samples per second
- Selectable input range in steps 0.5mV/V to 100mV/V
- 5VDC or 10VDC excitation
- High precision up to 22 bits resolution
- Up to 0.005% of full scale
- Pushbutton calibration and setup
- Wide range of display options available
- Display reads in engineering units
- Stores calibration information for up to 2 load cells
- Auto zero facility
- Batching functions standard
- 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 - improves stability by smoothing out short term interference
- Your choice of front panel measuring unit legend on the front panel e.g. "Tonnes", "kg" etc.
- 2 year manufacturing warranty
- Wide range of output options available including:
 - Single or dual analog retransmission
 - Additional setpoint relays
 - RS232 or RS485 serial communications (ASCII or Modbus RTU)
- Remote input for special functions including
 - display hold
 - peak hold
 - max/min memory
 - tare or zero
 - display brightness control

PM4-WT -4.1-0

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Specifications - subject to change without notice

Technical Specifications

Input types:	Ratiometric 4 or 6 arm strain bridge (6-arm not available on models with LCD or 4 digit LED displays)
Input sensitivity:	0.5mV/V to 100mV/V selectable
Excitation voltage:	5V or 10V link selectable
Bridge resistance:	80Ω to >2000Ω . If bridge resistance is less than 350Ω (nominal) use 5V excitation
ADC resolution:	1 in 20,000
ADC conversion:	Sigma Delta, up to 22 bits resolution
Accuracy:	Up to 0.005% of full scale (alarms & display) dependant on mV/V range and sample rate
Sample rate:	5 to 100 per second (selectable)
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 bargraph, 5 digit display + 4 way keypad 16 segment circular "bargraph", 5 digit display + 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: LED displays 35mA at 24VDC, LCD displays 20mA at 24VDC Plus sensor current Figures are for instruments with no options fitted.
Output (standard):	1 x relay, form A, rated 5A resistive
Relay action:	Programmable N.O. or N.C.
Output Options - see order code for full list	
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

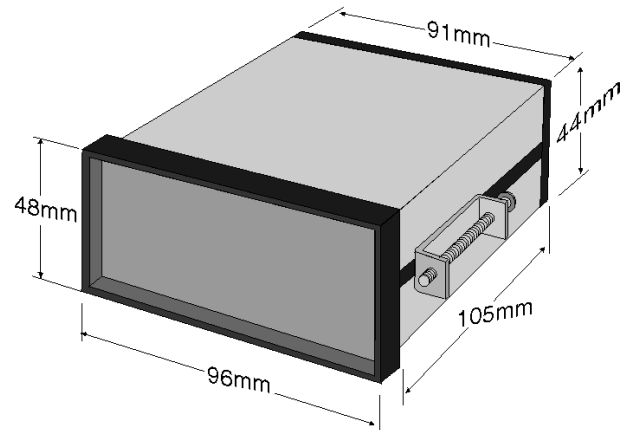
Physical Characteristics

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

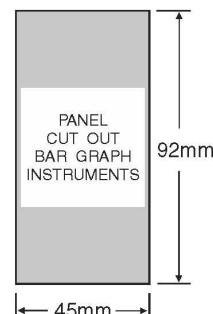
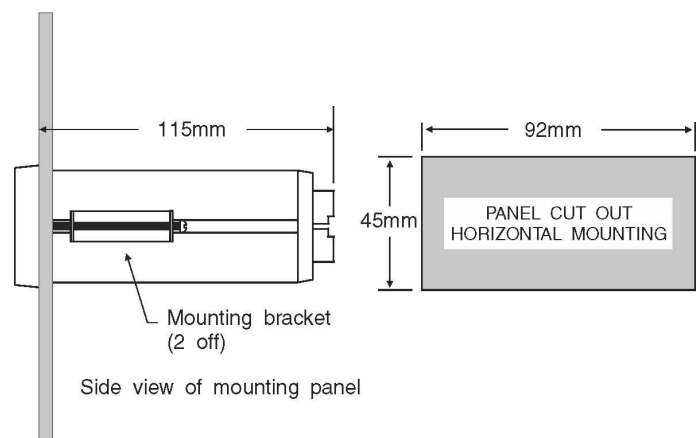
PM4-WT Accessories

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

Case dimensions



Panel mounting details



Wiring diagrams and full operations manual are available from www.aicpl.com.au/pdf/pm4wtman.pdf.

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PM4-WT order codes

The last section is for optional outputs, if required. (Note: only one of the optional outputs below can be fitted).

PM4-WT-	<div></div>	<div></div>	<div></div>
	Power supply		
240	-----	240VAC	
110	-----	110VAC	
32	-----	32VAC	
24	-----	24VAC	
DC	-----	12-48VDC isolated	
DCH	-----	50-110VDC isolated	
	Display type		
4E	-----	4 Digit 20mm red led	
5E	-----	5 digit 14mm red led with front pushbuttons & annunciators	
6E	-----	6 digit 14mm red led with front pushbuttons	
5BP	-----	Bargraph with 7.6mm red led and front pushbuttons	
5GP	-----	Circular bargraph with 7.6mm red led and front pushbuttons	
4C	-----	4 digit 12.7mm lcd	
4CG	-----	4 digit 12.7mm lcd with backlight	
6C	-----	6 digit 12.7mm lcd	
	Optional outputs		
R	-----	2nd setpoint relay	
R12	-----	2nd setpoint relay and 24V (+/- 12V) isolated transmitter supply	
RRR	-----	2nd, 3rd and 4th setpoint relays	
R6	-----	2nd to 7th setpoint relays (i.e. 6 extra relays)	
12	-----	24V (+/- 12V) isolated transmitter supply	
A	-----	Analog retransmission (isolated)	
AR	-----	Analog retransmission (isolated) and 2nd setpoint relay	
ARRR	-----	Analog retransmission (isolated) and 2nd, 3rd and 4th setpoint relays	
AR12	-----	Analog retransmission (isolated), 2nd relay and 24V (+/- 12V) isolated transmitter supply	
A12	-----	Analog retransmission (isolated) and 24V (+/- 12V) isolated transmitter supply	
AR6	-----	Analog retransmission (isolated) and 2nd to 7th setpoint relays	
AA	-----	Dual analog retransmission (isolated)	
AAR	-----	Dual analog retransmission (isolated) and 2nd setpoint relay	
A2	-----	Analog retransmission, 4-20mA only (isolated) and RS232 communications (isolated)	
A2R	-----	Analog retransmission, 4-20mA only (isolated), RS232 communications (isolated) and second relay	
A4	-----	Analog retransmission, 4-20mA only (isolated) and RS485 communications (isolated)	
A4R	-----	Analog retransmission, 4-20mA only (isolated), RS485 communications (isolated) and second relay	
2	-----	RS232 communications (isolated)	
2R	-----	RS232 communications (isolated) and 2nd setpoint relay	
2R12	-----	RS232 communications (isolated), 2nd setpoint relay and 24V (+/- 12V) isolated transmitter supply	
4	-----	RS485 communications (isolated)	
4R	-----	RS485 communications (isolated) and 2nd setpoint relay	
4R12	-----	RS485 communications (isolated), 2nd setpoint relay and 24V (+/- 12V) isolated transmitter supply	
DN	-----	Digital NPN 16 bit Binary/BCD retransmission	
DNR	-----	Digital NPN 16 bit Binary/BCD retransmission and 2nd relay	
DN12	-----	Digital NPN 16 bit Binary/BCD retransmission and 24V (+/- 12V) isolated transmitter supply	
DNR12	-----	Digital NPN 16 bit Binary/BCD retransmission, 2nd relay and 24V (+/- 12V) isolated transmitter supply	
DP	-----	Digital PNP 16 bit Binary/BCD retransmission	
DPR	-----	Digital PNP 16 bit Binary/BCD retransmission and 2nd relay	
DP12	-----	Digital PNP 16 bit Binary/BCD retransmission and 24V (+/- 12V) isolated transmitter supply	
DPR12	-----	Digital PNP 16 bit Binary/BCD retransmission, 2nd relay and 24V (+/- 12V) isolated transmitter supply	
ABP	-----	Analog retransmission bipolar output (-10V to +10VDC only)	

Applications/input types available with panel mount display models

- Analog input, process transmitters etc. $\pm 20\text{mA}$, 4-20mA or $\pm 2.5\text{VDC}$ or $\pm 25\text{VDC}$
- Pulse input, rate, total, count, grand total (encoders, switches, proximity sensors etc.)
- Rate, total from quadrature pulse input
- Liquid conductivity/resistivity/ppm
- pH/Redox (ORP)
- Loop powered displays
- AC current or AC voltage input
- Temperature - RTD, thermocouple, 4-20mA
- Weighing - 4 or 6 wire mV/V output loadcells
- Pressure measurement - 4 or 6 wire mV/V pressure sensors or 4-20mA analog transducers
- Liquid level measurement - 4 or 6 wire mV/V pressure sensors or 4-20mA analog transducers
- Serial input - RS232, RS485, Serial current loop for slave displays etc.
- Synchronous Serial Interface (SSI) for high accuracy position etc. measurement
- Binary, BCD or Gray Code input
- Real time clock with alarms
- Timer, elapsed time, stopwatch, run time etc.
- Auto/Manual station

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