

# Panel Mount Indicators Model PM4-IVT



Scalable indication of Rate & Total

## PM4 displays



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



8 digit LED 10mm digit height

## Description

Model PM4-IVT is a rate/total display which accepts DC inputs of  $\pm 2\text{mA}$ ,  $\pm 20\text{mA}$ , 4 to 20mA,  $\pm 100\text{mV}$ ,  $\pm 1\text{V}$ ,  $\pm 10\text{V}$ ,  $\pm 100\text{V}$  or 3-wire slidewire with the resultant display reading directly in engineering units.

The total is stored in memory for at least forty days with power removed. The instruments feature flexible pushbutton calibration and programming to suit most applications. The programmable digital filter improves stability by smoothing out short term interference. Each instrument is supplied with a single control/alarm relay. An 18VDC transmitter supply is provided as standard.

Optional outputs include additional relays and isolated retransmission or serial RS232/RS485. An external input is configurable to perform one of various functions including zero, totaliser reset, brightness level, setpoint only access or security lockout. This input can also be used to allow fast and easy access to the alarm setpoints. The front panel **P** button can also perform the zero, reset, or max/min memory function if required.

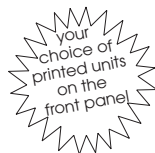
Electrical isolation between power supply, input voltage/current signal and retransmission has eliminated grounding and common mode voltage problems. This isolation feature makes the PM4-IVT ideal for interfacing to PLCs and other data acquisition equipment.



Circular graph and 5 digit display



20 segment bargraph and 5 digit display



## Features

- Rate and total from analog input
- Accepts  $\pm 20\text{mA}$ , 4 to 20mA,  $\pm 100\text{mV}$ ,  $\pm 1\text{V}$ ,  $\pm 10\text{V}$ ,  $\pm 100\text{V}$  or 3-wire slidewire
- Pushbutton calibration and setup
- Displays in engineering units
- Isolation between input/output/power supply
- 240V, 110V, 32V, 24V AC, 12 to 48V DC or 50 to 110 V DC operation (factory configured)
- Alarm/control relay output (5A)
- 40 day total memory retention
- Default display can be set for rate or total and display can be toggled via **▲** or **▼** buttons.
- 18VDC transmitter supply (standard)
- Remote input to perform a special function e.g. brightness level, fast setpoint access, totaliser reset, max/min, peak/display hold or security lockout
- 2 year guarantee

PM4IVT-3.4-0

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# Specifications

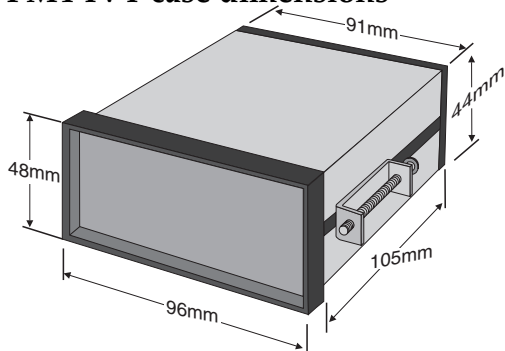
## Technical Specifications

Input types:	Link selectable $\pm 20\text{mA}$ , 4 to 20mA or DC Volts $\pm 100\text{mV}$ , $\pm 1\text{V}$ , $\pm 10\text{V}$ , $\pm 100\text{V}$ or $0\text{-}1\text{k}\Omega$ to $0\text{-}1\text{M}\Omega$ 3-wire slidewire
Impedance:	$135\Omega$ nominal (4 to 20mA) $1\text{M}\Omega$ 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 $-10^\circ\text{C}$ to $60^\circ\text{C}$ , LCD models $-10^\circ\text{C}$ to $50^\circ\text{C}$
Humidity:	5% to 95% non condensing
Display types:	<b>LED models:</b> 4 digit 20mm, 5 digit 14.2mm, status LEDs, keypad. 6 digit 14.2mm, keypad LED bar graph 20 segment bar 5 digit display, keypad 16 segment circular " bargraph", 5 digit display, keypad <b>LCD models:</b> 4 digit 12.7mm 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:	18VDC (25mA maximum)- standard
Relay action:	Programmable N.O. or N.C.

## Output Options

Extra relays:	Same specs as relay 1 (form C optional)
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

## PM4-IVT case dimensions



# PM4-IVT Order Codes

PM4-IVT - [ ] - [ ] - [ ]

## Power Supplies

PM4-IVT - [XXX] - [ ] - [ ]

240VAC .....	[ 240 ]
110VAC .....	[ 110 ]
32VAC .....	[ 32 ]
24VAC .....	[ 24 ]
12 to 48VDC .....	[ DC ]
50 to 110VDC .....	[ DCH ]

## Display Type

PM4-IVT - [ ] - [XXX] - [ ]

4 DIGIT LED .....	[ 4E ]
5 DIGIT LED + KEYPAD & ALARM LEDs .....	[ 5E ]
6 DIGIT LED + KEYPAD .....	[ 6E ]
8 DIGIT + KEYPAD .....	[ 8E ]
BARGRAPH + 5 DIGIT DISPLAY + KEYPAD .....	[ 5BP ]
CIRCULAR BARGRAPH + 5 DIGIT DISPLAY + KEYPAD .....	[ 5GP ]
4 DIGIT LCD .....	[ 4C ]
6 DIGIT LCD .....	[ 6C ]

## Options

PM4-IVT - [ ] - [ ] - [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 ]

Various output option combinations are available.

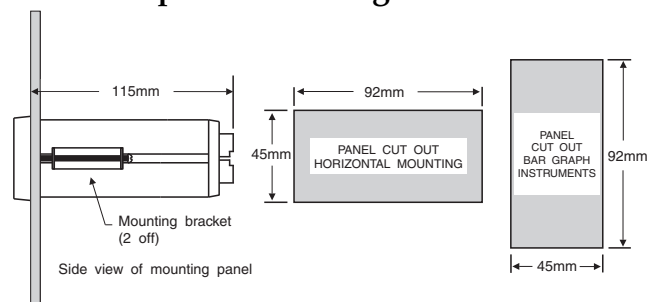
The valid optional output combinations for PM4-IVT models are:

-R12, -AR, -ARRR, -AAR, -A12, -AR12,  
-AR6, -A2, -A2R, -A4, -A4R, -2R, -212, -2R12, -4R, -412,  
-4R12, -DNR, -DN12, -DNR12, -DPR, -DP12, -DPR12

## Physical Characteristics

Bezel size:	DIN 48mm x 96mm x 10mm
Case size:	44mm x 91mm x 115mm
Panel cut out:	45mm x 92mm (+1 & -0mm)
Connections:	Plug in screw terminals (max 2.5mm <sup>2</sup> wire)
Weight:	400g basic model, 450g with option card

## PM4-IVT panel mounting details



Wiring diagrams and full operations manual are available from [www.aicpl.com.au/pdf/pm4ivtma.pdf](http://www.aicpl.com.au/pdf/pm4ivtma.pdf).