

# Panel Mount Instrument PM5-TR

Rate, Total, Grand Total display.

Measures pulses from flowmeters, proximity switches, encoders etc



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

- Rate/Total/Grand Total selectable via pushbuttons
- Pushbutton programming
- Accepts a wide range of input sensor types
- Displays in engineering units
- Versatile rate scaling options
- Electrical isolation between input signal/output/power supply
- Rugged construction
- 240V, 110V, 32V, 24V AC or 12 to 48 V DC supply (factory configured)
- Selectable 5, 12 or 18VDC sensor supply
- Remote switch input allows functions including reset, preset, peak hold, display hold etc.
- Up/down count selectable by an external input
- 2 year guarantee
- Alarm/control relay output (5A) programmable for rate or total or total "pass" mode operation
- Wide range of options available including:
  - Single or dual analog retransmission
  - Additional setpoint relays
  - RS232 or RS485 output
  - 16 bit digital output (PNP or NPN factory configured)
  - Ethernet comms.
  - Isolated sensor supply 24VDC ( $\pm 12$ VDC)

Combinations of options are available, see page 3 of this brochure for a full list.



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# Specifications

## Technical Specifications

Input types: Selectable to suit most sensor types. For inductive, AC and square wave inputs the maximum input voltage is 48VDC or RMS with appropriate settings

Operation: Rate, total and grand total displays available

Impedance: 1MΩ in normal mode or 12KΩ in attenuated input mode

Microprocessor: MC68HC12 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 and 4 way keypad.  
 6 digit 14.2mm and 4 way keypad  
 8 digit 10.2mm and 4 way 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, 48, 32, 24VAC 50/60Hz, 12 to 48VDC or 50 to 110VDC (factory configured)

Sensor supply: Selectable 5, 12 or 18VDC (25mA max.)

Power usage: AC supply 4 VA max, DC supply, consult supplier

Output (standard): 1 x relay, form A, rated 5A resistive

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

## Output Options - see order code section

## 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)

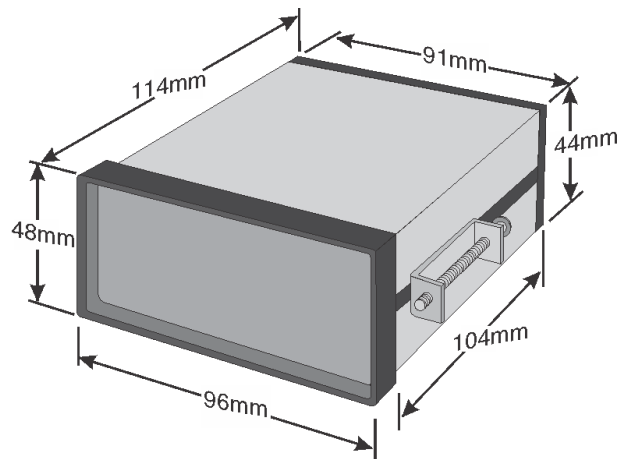
Connections: Plug in screw terminals (max 2.5mm<sup>2</sup> wire)

Weight: 400g basic model, 450g with option card

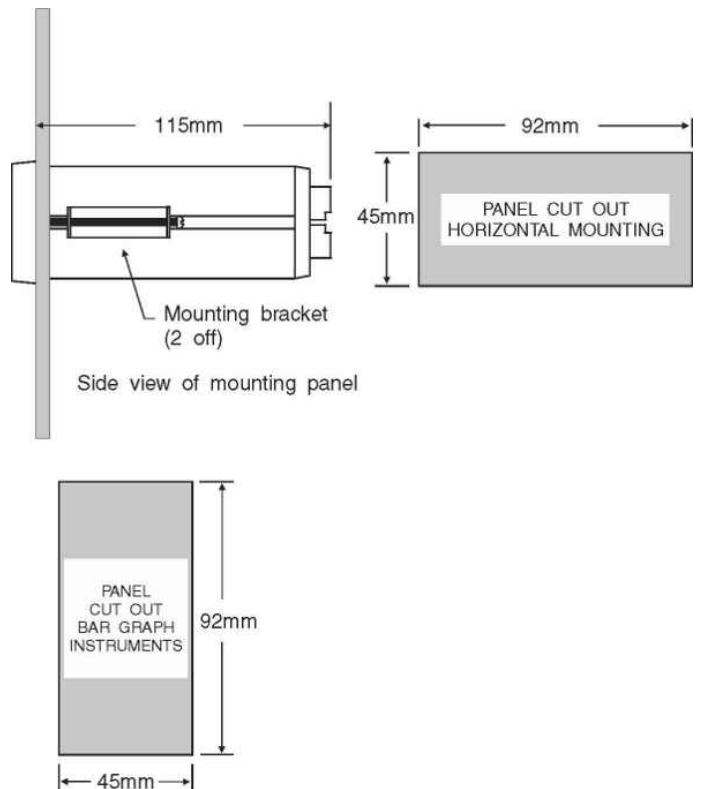
## PM5-TR Accessories

Description	Model No.
IP67 access cover	COVER-PM-IP67
Wall mount enclosure	ENC-PM1-02
IP65 wall mount encl. with IP67 cover	ENC-PM1-02-IPCOV
Surface mount kit	PM4-OPT-SMKIT
Portable/bench enclosure AC	ENC-PM-AC
Portable/bench enclosure DC	ENC-PM-DC

## PM5-TR case dimensions



## PM5-TR panel mounting details



## Order codes e.g. PM5-TR-240-5E

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

PM5-TR-  -  -

	↑    ↑    ↑	
	-----	<b>Power supply</b>
240	-----	240VAC
110	-----	110VAC
48A	-----	48VAC
32A	-----	32VAC
24A	-----	24VAC
DC	-----	12 to 48VDC isolated
	-----	<b>Display type</b>
4E	-----	4 digit 20mm red LED
4C	-----	4 digit 12.7mm LCD
5E	-----	5 digit 14mm red LED with front keypad and alarm annunciators
5BP	-----	5 digit 7.6mm red LED + 20 segment bargraph and alarm annunciators
6E	-----	6 digit 14mm red LED with front keypad
6C	-----	6 digit 12.7mm LCD
	-----	<b>Optional outputs</b>
R	----	One extra relay (form C, 5A @ 240VAC)
RR	----	Two extra relays (form C, 5A @ 240VAC)
RRR	----	Three extra relays (form C, 5A @ 240VAC)
R6	----	Six extra relays (form A 2A @ 240VAC)
R12	----	One extra relay (form A, 3A @ 240VAC) plus +/- 12V (24V) supply (20mA max.)
I	----	Isolated 4-20mA retransmission 12 bit
A	----	Isolated 4-20mA or DCV retransmission 16 bit
IR	----	Isolated 4-20mA retransmission 12 bit + extra relay (form A, 3A @ 240VAC)
AR	----	Isolated 4-20mA or DCV retransmission 16 bit + extra relay (form A, 3A @ 240VAC)
*IRRR	----	Isolated 4-20mA retransmission 12 bit + 3 extra relays (form A, 2A @ 240VAC)
ARRR	----	Isolated 4-20mA or DCV retransmission 16 bit + 3 extra relays (form A, 2A @ 240VAC)
*IR6	----	Isolated 4-20mA retransmission 12 bit + 6 extra relays (form A, 2A @ 240VAC)
AR6	----	Isolated 4-20mA or DCV retransmission 16 bit + 6 extra relays (form A, 2A @ 240VAC)
II	----	Dual isolated 4-20mA retransmission 12 bit
AA	----	Dual isolated 4-20mA or DCV retransmission 16 bit
IIR	----	Dual isolated 4-20mA retransmission 12 bit + extra relay (form A, 3A @ 240VAC)
AAR	----	Dual isolated 4-20mA or DCV retransmission 16 bit + extra relay (form A, 3A @ 240VAC)
12	----	+/- 12V (24V) or +/- 5V (10V) supply (20mA max.)
12I	----	+/- 12V (24V) or +/- 5V (10V) supply (20mA max.) + isolated 4-20mA retransmission 12 bit
12A	----	+/- 12V (24V) or +/- 5V (10V) supply (20mA max.) + isolated 4-20mA or DCV retransmission 16 bit
12IR	----	+/- 12V (24V) or +/- 5V (10V) supply (20mA max.) + isolated 4-20mA retransmission 12 bit + extra relay (form A, 3A @ 240VAC)
12AR	----	+/- 12V (24V) or +/- 5V (10V) supply (20mA max.) + isolated 4-20mA or DCV retransmission 16 bit + extra relay (form A, 3A @ 240VAC)
DP	----	16 bit PNP digital output with 5/24V excitation
DPR	----	16 bit PNP digital output with 5/24V excitation plus extra relay (form A, 3A @ 240VAC)
DN	----	16 bit NPN digital output with 5/24V excitation
DNR	----	16 bit NPN digital output with 5/24V excitation plus extra relay (form A, 3A @ 240VAC)
2	----	RS232 comms.
2R	----	RS232 comms. + 1 extra relay (form A, 3A @ 240VAC)
2RRR	----	RS232 comms. + 3 extra relays (form A, 2A @ 240VAC)
2R5	----	RS232 comms. + 5 extra relays (form A, 2A @ 240VAC)
*2I	----	RS232 comms. + isolated 4-20mA retransmission 12 bit
2A	----	RS232 comms. + isolated 4-20mA or DCV retransmission 16 bit
*2IR	----	RS232 comms. + isolated 4-20mA retransmission 12 bit + extra relay (form A, 2A @ 240VAC)
2AR	----	RS232 comms. + isolated 4-20mA or DCV retransmission 16 bit + extra relay (form A, 2A @ 240VAC)
4	----	RS485 comms.
4R	----	RS485 comms. + 1 extra relay (form A, 3A @ 240VAC)
4RRR	----	RS485 comms. + 3 extra relays (form A, 2A @ 240VAC)
4R5	----	RS485 comms. + 5 extra relays (form A, 2A @ 240VAC)
*4I	----	RS485 comms. + isolated 4-20mA retransmission 12 bit
4A	----	RS485 comms. + isolated 4-20mA or DCV retransmission 16 bit
*4IR	----	RS485 comms. + isolated 4-20mA retransmission 12 bit + extra relay (form A, 3A @ 240VAC)
4AR	----	RS485 comms. + isolated 4-20mA or DCV retransmission 16 bit + extra relay (form A, 3A @ 240VAC)
ET	----	Ethernet comms. + RS232 or RS485 (Power over Ethernet available with PM5 DC supply models)
ETR	----	Ethernet comms. + RS232 or RS485 + 1 extra relay (form A, 3A @ 240VAC)
ETDL	----	Ethernet comms. + RS232 or RS485 + 8Mbyte data logger (Power over Ethernet available with PM5 DC supply models)
ETDLR	----	Ethernet comms. + RS232 or RS485 + 8Mbyte data logger + 1 extra relay (form A, 3A @ 240VAC) (Power over Ethernet available with PM5 DC supply models)

\* means not a normal stock item - check availability, minimum order quantity may apply

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