



# PM1000 Series

PLUG- IN DISPLAY



- INDICATION RANGE -999 TO 9999
- PLUG ON TO ANY TRANSMITTER WITH 4-20mA OUTPUT
- FITS TO DIN 43650 CONNECTOR
- BRIGHT LED DISPLAY
- SET POINT OPTION
- EASY TO USE
- PROVIDES LOCALISED DISPLAY

## DESCRIPTION

The PM1000 series is a 4 digit LED plug-on display for use with transmitters with 4-20mA 2 wire output and fitted with DIN43650 connector. It provides a local display for a multitude of applications.

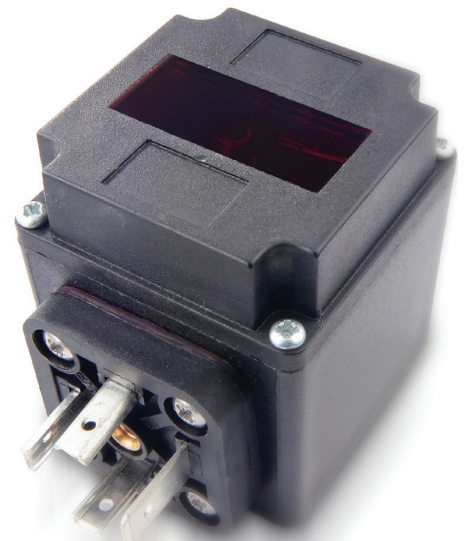
The plug-on display simply fits between the transmitter plug and connecting cable socket and is powered from the 4-20mA current loop signal of the transmitter. No additional power source is required.

Display settings are stored in non-volatile EEPROM, and can be easily modified through the menu using two programming buttons. Set-up parameters (zero, span, decimal point position, filter, and set-point level) can all be reprogrammed and stored and retained when power is removed. The display assembly inside the enclosure can be rotated through 90° steps, which will suit any mounting angle and simply installation.

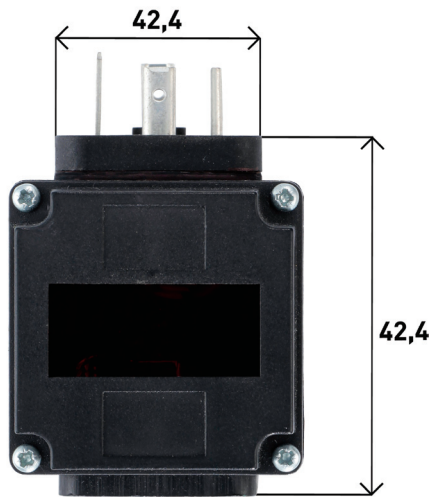
Model PM1000 is the standard version providing a 4 digit LED display. An integral open-drain switch output is provided on model PM1001. This can be programmed to open or close at a set-point level. The output can then be used to trigger an alarm or provided external controller.

Typical applications for the plug-on display include use on pressure, temperature, level, RH, or flow transmitters for local readout, alarm activation or control.

Adaptations for custom connectors can be made and available on request.



## DIMENSIONS (in mm)



### ELECTRICAL CONNECTION

Pin No.	PM1000/2	PM1001
1	+Supply	+Supply
2	4-20mA Return	4-20mA Return
3	Not connected	open drain (P type switch)
⊥	Connected through to transducer plug	

## ORDERING INFORMATION

### OUTPUT

Standard plug-in display  
Plug-in display with single set point

### Model No.

PM1000  
PM1001

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## SPECIFICATION

### DISPLAY

4 digit red LED display, 7mm digit height.

### DISPLAY OUTPUT RANGE

-999 to 9999

### INPUT SIGNAL

4-20mA, 2 wire current loop.

### DISPLAY CALIBRATION

Factory set to display 4.00 to 20.00 for 4-20mA input.

### ACCURACY

0.2% of full-scale input +/- 1 digit

### POWER SUPPLY VOLTAGE:

Requires 5 V or less from loop supply.

### ALLOWED LOOP CURRENT

Maximum 60mA. Above this automatic circuit protection is activated.

### DISPLAY UPDATE RATE

300mS to 25.5 S, adjustable filter setting from menu.

### OPEN DRAIN SWITCH OUTPUT

Model number PM1001 only: P type MOSFET switch. Maximum current source: 90mA, with automatic circuit protection.

### PROGRAMMING

Via two press buttons, menu assisted. Access to the programming buttons is made by removing front cover.

### MENU SELECTION

Zero adjustment: -999 to 9999  
Span adjustment: 0 to 9999  
Decimal point: 3 positions or off  
Filter: 0.3 to 25.5 second  
Over-range: On/Off Setpoint: -999 to 9999  
Setpoint direction: Up/Down  
Settings stored in Non-volatile EEPROM

### TEMPERATURE RANGE

Operating: -10°C to + 60°C  
Storage: + 5°C to + 40°C

### CASE MATERIAL

Moulded ABS plastic, Red Acrylic display window, Nitrile seal.

### INGRESS PROTECTION TYPE

Splash-proof, enclosure sealed to IP65

### ELECTRICAL CONNECTION

Plugs directly onto transmitters with 4-20 mA output and right-angle DIN 43650 (3-pin +earth) connector plug.



# PM8005/8006

SERIES PANEL METERS



- AC AND DC SUPPLY OPTIONS
- 5 DIGIT LED DISPLAY
- DIRECT ACCESS MENU FUNCTIONS FOR CALIBRATION, ALARM SETTING AND MORE
- LARGE RANGE OF OPTIONAL FUNCTIONS

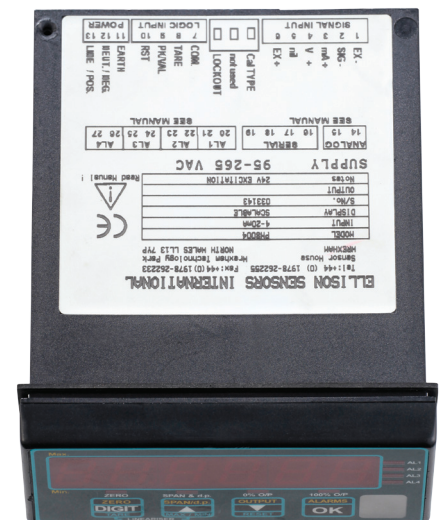
## DESCRIPTION

The PM8000 Series digital panel meters are easy to set up and commission, whilst offering extremely high precision and long term reliability.

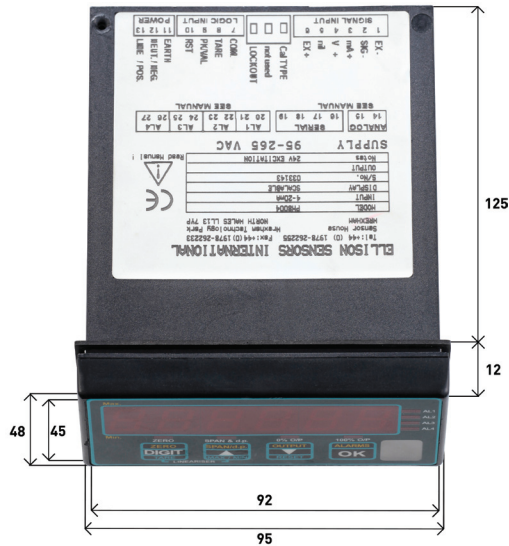
A MENU-FREE calibration system is employed with this panel meter design. This makes calibration and set-up of operating parameters very straightforward and radically simplifies this process compared with the usual menu arrangement used on most digital meters. The menu in this case is replaced by simple push buttons enabling zero, span, analogue output or alarms to be adjusted via a button on the front of the panel.

The 5 digit red LED display is standard, providing +/-30000 count resolution and an accuracy of 0.10% of range. Input signals include 4-20mA, 0-10V, 1-5V and 0-10mA. A 24V sensor excitation supply is provided and can be used to power an external transmitter current loop.

Optional features include; AC or DC excitation, 4-20mA or 0-10Vdc analogue output, zero, two or four alarms/relays, various serial data outputs. Please contact us with your specifications and we will advise you on the suitable model for your application.



## DIMENSIONS MM



## ORDERING INFORMATION

Model	Excitation	Analogue Output	Alarm	Serial Output	Power Supply	Analogue Output	Number of Alarms	Serial Output
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### Standard 5 Digit Panel Meters Without Features

PM8005	- AC				95-265Vac	No	No	No
PM8005	- VDC				11-30Vdc	No	No	No

### Panel Meters With Options - AC Mains Supply

PM8006	- AC	- I			95-265Vac	4-20mA	No	No
PM8006	- AC	- I	- AL2	-	95-265Vac	4-20mA	2	No
PM8006	- AC	- I	- AL4	-	95-265Vac	4-20mA	4	No
PM8006	- AC	- I	- AL2	- 232	95-265Vac	4-20mA	2	RS232
PM8006	- AC	- I	- AL4	- 232	95-265Vac	4-20mA	4	RS232
PM8006	- AC	- I	- AL2	- 485	95-265Vac	4-20mA	2	RS485
PM8006	- AC	- I	- AL4	- 485	95-265Vac	4-20mA	4	RS485
PM8006	- AC	- V			95-265Vac	0-10Vdc	No	No
PM8006	- AC	- V	- AL2	-	95-265Vac	0-10Vdc	2	No
PM8006	- AC	- V	- AL4	-	95-265Vac	0-10Vdc	4	No
PM8006	- AC	- V	- AL2	- 232	95-265Vac	0-10Vdc	2	RS232
PM8006	- AC	- V	- AL4	- 232	95-265Vac	0-10Vdc	4	RS232
PM8006	- AC	- V	- AL2	- 485	95-265Vac	0-10Vdc	2	RS485
PM8006	- AC	- V	- AL4	- 485	95-265Vac	0-10Vdc	4	RS485
PM8006	- AC		AL2		95-265Vac	No	2	No
PM8006	- AC		AL4		95-265Vac	No	4	No
PM8006	- AC		AL2	- 232	95-265Vac	No	2	RS232
PM8006	- AC		AL4	- 232	95-265Vac	No	4	RS232
PM8006	- AC		AL2	- 485	95-265Vac	No	2	RS485
PM8006	- AC		AL4	- 485	95-265Vac	No	4	RS485
PM8006	- AC			232	95-265Vac	No	No	RS232
PM8006	- AC			485	95-265Vac	No	No	RS485

### Panel Meters With Options - DC Supply

PM8006	- VDC	- I			11-30Vdc	4-20mA	No	No
PM8006	- VDC	- I	- AL2	-	11-30Vdc	4-20mA	2	No
PM8006	- VDC	- I	- AL4	-	11-30Vdc	4-20mA	4	No
PM8006	- VDC	- I	- AL2	- 232	11-30Vdc	4-20mA	2	RS232
PM8006	- VDC	- I	- AL4	- 232	11-30Vdc	4-20mA	4	RS232
PM8006	- VDC	- I	- AL2	- 485	11-30Vdc	4-20mA	2	RS485

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## SPECIFICATION

### DISPLAY

High intensity red LED display, 14.2mm digit height.

### RESOLUTION

+/-30000 counts maximum over full range, with 5 Digit Display (-20000 to +99999)

### INPUT RESISTANCE

33ohms for current input, 1.1Mohms for voltage

### FILTERING / SMOOTHING

Selectable time constant of 0 to 5 seconds

### ACCURACY

0.1% of reading +/-2 counts  
TEMPERATURE STABILITY:  
100 ppm/°C for span, 50/°C for zero

### OUTPUT FOR EXTERNAL SENSORS

24Vdc

### ACCURACY OF THE EXCITATION SUPPLY

+/-20% accuracy.

### CURRENT CAPACITY OF THE EXCITATION SUPPLY

30mA for 24V

### POWER SUPPLY

Optional 95 to 265 Vac, 11 to 30Vdc or 110-240AC

### CURRENT CONSUMPTION

8VA maximum

### TEMPERATURE RANGE

Operating: 0°C to + 50°C  
Storage: -10°C to + 70°C

### HUMIDITY

90% RH maximum at 40°C, non-condensing

### ELECTROMAGNETIC-COMPATIBILITY

Emissions EN61000-6-4  
Immunity EN61000-6-2  
Certification CE marked

### ELECTRICAL CONNECTION

4 way detachable screw terminal connector for conductor size 0.5 to 1.5mm

### BEZEL SIZE

96mm wide x 48mm high (1/8 DIN)

### CUTOUT SIZE

92mm wide x 45 mm high

### DEPTH BEHIND PANEL

125 mm minimum required

### WEIGHT

300 grams typically  
CASE MATERIAL:  
UL 94V0 rated black ABS

### ALARM RELAYS RELAY VOLTAGE RATING

250Vac, 24Vdc

### ALARM HYSTERESIS

Settable from 0 to 9998 counts

### ALARM SET-POINT STABILITY

+/- 100 ppm/°C typical

### ALARM SPEED OF RESPONSE

15mS typical

