

Intelligent PM4 monitors

Model PM4-SG



Measures weight, force torque, pressure, level from ratiometric mV/V input



4 digit LED 20mm digit height



4 digit LCD 12.7mm high digits



5 digit LED 14.2mm high digits



Bargraph displays



6 digit LED 14.2mm digit height



6 digit LCD 12.7mm high digits

Description

Model PM4-SG accepts its input from any conventional 4-arm loadcell, pressure transducer, torque transducer etc.

Programmable input sensitivity ranges are from 0.5mV/V to 100mV/V. Two levels of bridge excitation are provided (5V and 10V).

The instrument features flexible pushbutton calibration and programming and may be scaled to read directly in engineering units.

The programmable digital filter improves stability by smoothing out short term interference.

Instruments are supplied with a control/alarm relay (standard). Optional outputs include additional relays and isolated analog retransmission

External voltage free contact inputs are configurable to perform one of various functions e.g. tare, zero, peak hold, peak or valley memory, setpoint only access, security lock out, initiate auto calibration or change display brightness.

Electrical isolation between power supply, load cell signal and retransmission eliminates grounding and common mode voltage problems. This isolation feature makes the PM4 ideal for interfacing to PLCs, computers and other data acquisition equipment.

Features

- Accepts 4-arm load cells/strain bridges
- Accuracy to 0.01% of full scale
- Pushbutton calibration and setup
- Wide range of display options available
- Display reads in engineering units
- Electrical isolation between input signal/output/power supply
- 240V, 110V, 32V, 24VAC, 12 to 48VDC or 50 to 110VDC operation (factory configured)
- Remote input for special functions including
 - Peak/Display hold
 - Fast setpoint access
 - Display brightness control
 - Tare or Zero
- On models fitted with front panel pushbuttons the **P** button may also be programmed to perform the tare, zero, or peak/valley memory special functions

Output Options

- Analog retransmission (4-20mA, 0-1VDC or 0-10VDC)
- Additional setpoint relays (1 or 3)

PM4-SG-3.6-0

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Specifications - subject to change without notice

Technical Specifications

Input types: Ratiometric 4-arm strain bridge
 Input sensitivity: 0.5mV/V to 100mV/V selctable
 Excitation voltage: 5V or 10V link selectable (see note below)
 Bridge resistance: 80Ω to >2000Ω . If bridge resistance is less than 350Ω (nominal) use 5V excitation

ADC conversion: Up to 20 bit Sigma Delta conversion
 Accuracy: 0.01% of full scale (alarms & display)
 dependant on mV/V range and sample rate

Sample rate: 10 samples per second

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, consult supplier

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

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 option card

PM4-SG Order Codes

PM4-SG- [] - [] - []

Power Supplies

PM4-SG - [XXX] - [] - []

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

Display Types

PM4-SG - [] - [XXX] - []

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

Output Options - combinations available see below If serial communications are required, use the PM4-WT

PM4-SG - [] - [] - [XXX]

ANALOG (4-20mA, 0-1V or 0-10V selectable)	A
1 EXTRA RELAY	R
3 EXTRA RELAYS	RRR

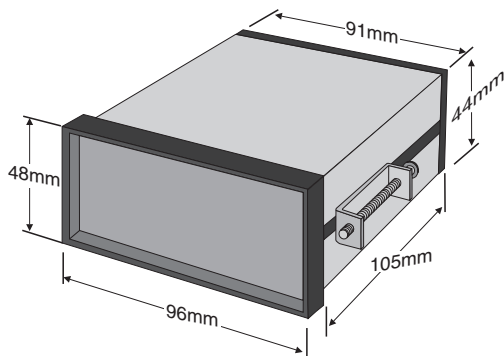
Output Combinations

Various output combinations are available e.g.
 -AR (Analog & 2nd setpoint relay)
 The valid option combinations for PM4-SG are:
 -R12, -AR, -A12, -AR12

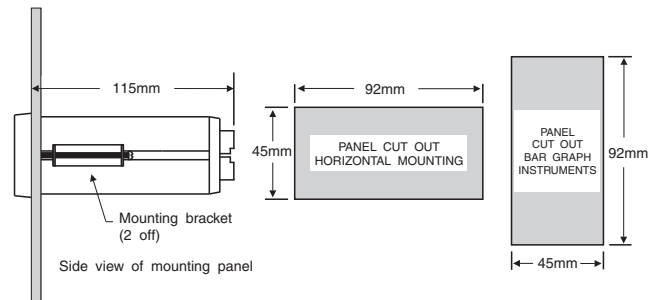
PM4-SG Accessories

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-SG case dimensions



PM4-SG panel mounting details



Wiring diagrams and full operations manual are available from www.aicpl.com.au/pdf/pm4sgman.pdf.