

Intelligent PM4 monitors

Model PM4-QC

Rate/Total/Position from Quadrature input



4 digit LED 20mm digit height



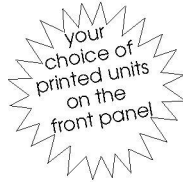
4 digit LCD 12.7mm digit height



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

Description

Model PM4-QC provides the versatility and flexibility needed for a wide variety of rate, counting, batching, measuring and positioning applications.

The PM4-QC accepts inputs from quadrature output devices giving automatic count up/down capability or positive/negative rate indication.

The instrument features flexible pushbutton scaling and programming and may be scaled to read directly in terms of measured units (engineering units e.g. Millimetres, Metres/sec etc.)

Input frequencies of up to 2MHz can be used.

Each instrument is supplied with a single control/alarm relay (standard). In addition to normal total alarm operation a special "pass" mode allows the relays to be configured to activate for a programmable time on multiples of a total e.g the a relay can be programmed to close for 1 second every time the total reaches a multiple of 1000.

Optional outputs include additional relays, isolated 24VDC ($\pm 12V$) (to power encoder, 20mA max.) or isolated retransmission, analog 4-20mA, 0-1V, 0-10V, binary/BCD or serial RS232/RS485. An external input is configurable to perform one of various functions e.g. reset, preset, peak hold, display hold, peak/valley memory, display toggle (rate/total), display dulling, grand total reset, setpoint access only, security lock out or remote brightness switching.

Electrical isolation between power supply, input 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 input from quadrature output transducers
- Pushbutton calibration and setup
- Easy display scaling - no special test equipment required
- Simple preset operation for batching applications
- Electrical isolation between input signal/output/power supply
- 240V, 110V, 32V, 24VAC, 12 to 48VDC or 50 to 110VDC operation (factory configured)
- 18VDC regulated transmitter supply
- Alarm/control relay output (5A) configurable as alarm or "pass" mode operation
- Wide range of options available:
 - Single or dual analog retransmission
 - Additional setpoint relays
 - RS232 or RS485 serial communications
 - Isolated transmitter supply 24VDC ($\pm 12VDC$)
- Remote input for special functions including
 - peak/display hold
 - tare or zero
 - display brightness control

PM4QC-2.3-0

AMALGAMATED INSTRUMENT CO PTY LTD

ACN: 001 589 439

Unit 5, 28 Leighton Place Hornsby
NSW 2077 Australia

Telephone: +61 2 9476 2244
Facsimile: +61 2 9476 2902

e-mail: sales@aicpl.com.au
Internet: www.aicpl.com.au

Specifications

Technical Specifications

Input types: Quadrature input (A & B) from NPN, PNP, switch contact, magnetic pickup etc (24VDC max.)

Max Count Rate: 2MHz (500kHz phase input)

Display Update: 1, 2, 4, 8, 16 or 32 per sec

Impedance: 10kΩ nominal

Memory retention: Total & grand total memory retained for a minimum of 40 days with power removed

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 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

Transducer supply: +5V reg. or +9V or +18V unreg. (20mA max) + 9V & +18V on AC models only

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, 3 or 6 extra relays available

Retransmission: Analog (4-20mA, 0-1VDC or 0-10VDC) (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 (±12V), 20mA

Physical Characteristics

Bezel size: DIN 48mm x 96mm x 10mm

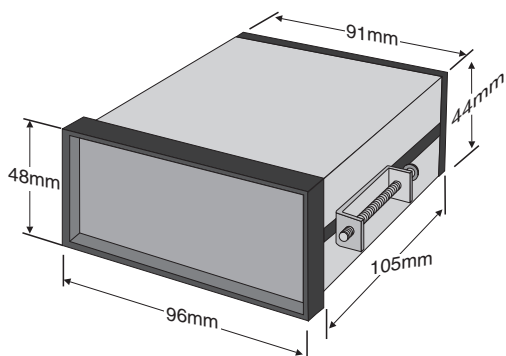
Case size: 44mm x 91mm x 115mm behind face of panel

Panel cut out: 45mm x 92mm (+1mm & -0mm)

Connections: Plug in screw terminals

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

PM4-QC case dimensions



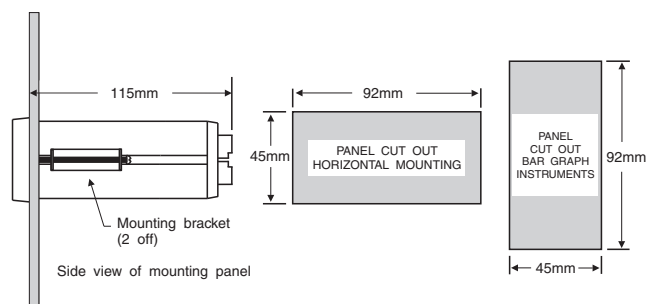
PM4-QC Order Codes

PM4-QC - [] - [] - []	
Power Supplies	
PM4-QC - [XXX] - [] - []	
240VAC	240
110VAC	110
32VAC	32
24VAC	24
12 to 48VDC	DC
50 to 110VDC	DCH
Display Type	
PM4-QC - [] - [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-QC - [] - [] - [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 (±12V)	12
1 EXTRA RELAY	R
3 EXTRA RELAYS	RRR
6 EXTRA RELAYS	R6
ANALOG + 1 EXTRA RELAYS	AR
ANALOG + 3 EXTRA RELAYS	ARRR
ANALOG + 6 EXTRA RELAYS	AR6

PM4-QC 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-QC panel mounting details



Wiring diagrams and full operations manual are available from www.aicpl.com.au/pdf/pm4qcman.pdf.