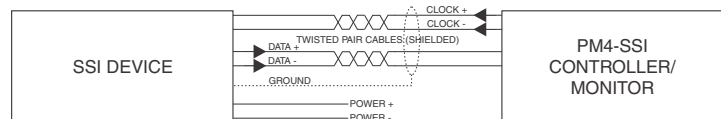
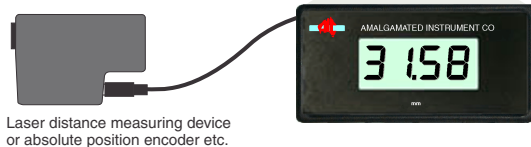


Intelligent PM4 monitors

Model PM4-SSI

Synchronous Serial Interface (SSI) Input



Description

SSI communication is typically used in non contact measurement. Long transmission distances (up to 1.2km) are possible when connecting to SSI devices. Devices available with SSI output include position encoders and laser distance measuring equipment. The data transmitted is in the form of a binary or Gray code (up to 31 bits).

The serial communications is externally activated via clock pulses generated by the PM4-SSI. Shielded twisted pair wire should be used for the clock and data lines and two wires are required for the power supply.

When used with AIC model RM-BC or RM4-BC converters the PM4-SSI may be used as Binary/BCD/Gray code display. The PM4-SSI panel meter can be programmed to scale the input signal to give a display in engineering units e.g. "metres".

Two sets of scaling values can be programmed e.g. "metres" and "millimetres", with scale selection being via an external switch.

All scaling and setup programming of the PM4-SSI is accomplished via pushbuttons.

The isolated retransmission options allow the instruments to retransmit as serial (RS232 or RS485 with choice of ASCII or Modbus RTU protocols), analog (4-20mA, 0-1V or 0-10VDC) or binary/BCD signals.

Features

- Synchronous Serial Interface (SSI) input
- Pushbutton programming
- Alarm relay output standard
- Rugged construction
- 240V, 110V, 32V, 24V AC, 12 to 48 V DC or 50 to 110 V DC operation (factory configured)
- 2 year guarantee
- External input to provide one of the following special functions: Peak hold, Display hold, Peak high/low memory, Select second set of scaling values, Brightness switching, fast setpoint access, setpoint only access or security lockout
- Can be used with RM-BC or RM4-BC to display from BCD/Binary/Gray Code sources
- Wide range of options available:
 - Single or dual analog retransmission
 - Additional setpoint relays
 - RS232 or RS485 serial communications
 - Isolated transmitter supply 24VDC (± 12 VDC)

PM4SSI-3.5-0

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Specifications

Technical Specifications

Input:	Synchronous Serial Interface (SSI) Binary or Gray Code - up to 31 bits
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 8 digit 10.2mm, 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, 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.

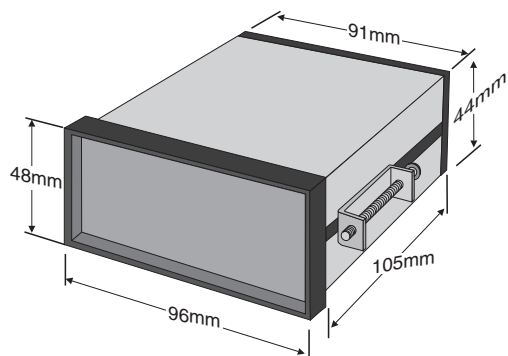
Output Options

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 ($\pm 12V$), 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

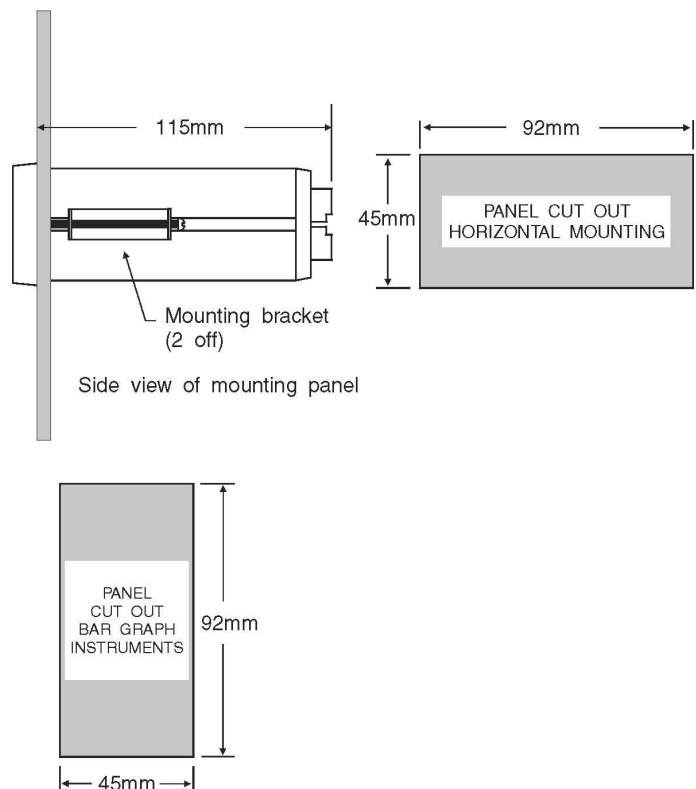
PM4-SSI case dimensions



PM4-SSI 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-SSI panel mounting details



Wiring diagrams and full operations manual are available from www.aicpl.com.au/pdf/pm4ssima.pdf.

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PM4-SSI order codes

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

PM4-SSI-	<div></div>	<div></div>	<div></div>
	Power supply		
240	-----	240VAC	
110	-----	110VAC	
32	-----	32VAC	
24	-----	24VAC	
DC	-----	12-48VDC isolated	
DCH	-----	50-110VDC isolated	
	Display type		
4E	-----	4 Digit 20mm red led	
5E	-----	5 digit 14mm red led with front pushbuttons & annunciators	
6E	-----	6 digit 14mm red led with front pushbuttons	
5BP	-----	Bargraph with 7.6mm red led and front pushbuttons	
5GP	-----	Circular bargraph with 7.6mm red led and front pushbuttons	
4C	-----	4 digit 12.7mm lcd	
4CG	-----	4 digit 12.7mm lcd with backlight	
6C	-----	6 digit 12.7mm lcd	
	Optional outputs		
R	-----	2nd setpoint relay	
R12	-----	2nd setpoint relay and 24V (+/- 12V) isolated transmitter supply	
RRR	-----	2nd, 3rd and 4th setpoint relays	
R6	-----	2nd to 7th setpoint relays (i.e. 6 extra relays)	
12	-----	24V (+/- 12V) isolated transmitter supply	
A	-----	Analog retransmission (isolated)	
AR	-----	Analog retransmission (isolated) and 2nd setpoint relay	
ARRR	-----	Analog retransmission (isolated) and 2nd, 3rd and 4th setpoint relays	
AR12	-----	Analog retransmission (isolated), 2nd relay and 24V (+/- 12V) isolated transmitter supply	
A12	-----	Analog retransmission (isolated) and 24V (+/- 12V) isolated transmitter supply	
AR6	-----	Analog retransmission (isolated) and 2nd to 7th setpoint relays	
AA	-----	Dual analog retransmission (isolated)	
AAR	-----	Dual analog retransmission (isolated) and 2nd setpoint relay	
A2	-----	Analog retransmission, 4-20mA only (isolated) and RS232 communications (isolated)	
A2R	-----	Analog retransmission, 4-20mA only (isolated), RS232 communications (isolated) and second relay	
A4	-----	Analog retransmission, 4-20mA only (isolated) and RS485 communications (isolated)	
A4R	-----	Analog retransmission, 4-20mA only (isolated), RS485 communications (isolated) and second relay	
2	-----	RS232 communications (isolated)	
2R	-----	RS232 communications (isolated) and 2nd setpoint relay	
2R12	-----	RS232 communications (isolated), 2nd setpoint relay and 24V (+/- 12V) isolated transmitter supply	
4	-----	RS485 communications (isolated)	
4R	-----	RS485 communications (isolated) and 2nd setpoint relay	
4R12	-----	RS485 communications (isolated), 2nd setpoint relay and 24V (+/- 12V) isolated transmitter supply	
DN	-----	Digital NPN 16 bit Binary/BCD retransmission	
DNR	-----	Digital NPN 16 bit Binary/BCD retransmission and 2nd relay	
DN12	-----	Digital NPN 16 bit Binary/BCD retransmission and 24V (+/- 12V) isolated transmitter supply	
DNR12	-----	Digital NPN 16 bit Binary/BCD retransmission, 2nd relay and 24V (+/- 12V) isolated transmitter supply	
DP	-----	Digital PNP 16 bit Binary/BCD retransmission	
DPR	-----	Digital PNP 16 bit Binary/BCD retransmission and 2nd relay	
DP12	-----	Digital PNP 16 bit Binary/BCD retransmission and 24V (+/- 12V) isolated transmitter supply	
DPR12	-----	Digital PNP 16 bit Binary/BCD retransmission, 2nd relay and 24V (+/- 12V) isolated transmitter supply	
ABP	-----	Analog retransmission bipolar output (-10V to +10VDC only)	

Applications/input types available with panel mount display models

- Analog input, process transmitters etc. $\pm 20\text{mA}$, 4-20mA or $\pm 2.5\text{VDC}$ or $\pm 25\text{VDC}$
- Pulse input, rate, total, count, grand total (encoders, switches, proximity sensors etc.)
- Rate, total from quadrature pulse input
- Liquid conductivity/resistivity/ppm
- pH/Redox (ORP)
- Loop powered displays
- AC current or AC voltage input
- Temperature - RTD, thermocouple, 4-20mA
- Weighing - 4 or 6 wire mV/V output loadcells
- Pressure measurement - 4 or 6 wire mV/V pressure sensors or 4-20mA analog transducers
- Liquid level measurement - 4 or 6 wire mV/V pressure sensors or 4-20mA analog transducers
- Serial input - RS232, RS485, Serial current loop for slave displays etc.
- Synchronous Serial Interface (SSI) for high accuracy position etc. measurement
- Binary, BCD or Gray Code input
- Real time clock with alarms
- Timer, elapsed time, stopwatch, run time etc.
- Auto/Manual station

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