Panel Mount Indicators
PM4-LN2
Dual input lineariser with arithmetic capabilities

Scalable indication of 4-20mA, ±1VDC, ±10VDC or ±100VDC

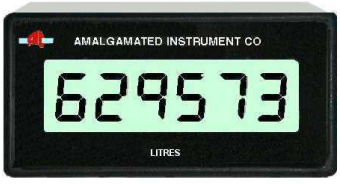
PM4 displays

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

your choice of printed units on the front panel

Description

Model PM4-LN2 is a dual channel lineariser display with arithmetic capabilities. The PM4-LN2 accepts DC inputs of 4-20mA, ±0-1V, ±0-10V or ±0-100V (link selectable). Up to 30 linearising points per channel may be entered (X and Y values). The arithmetic functions - add, subtract, product, divide, maximum, minimum, sine & cosine can be performed on the inputs. The PM4-LN2 can be set to display the result or scan the channels.

The instrument features flexible pushbutton calibration and programming.

The programmable digital filter improves stability by smoothing out short term interference. Each instrument is supplied with a single control/alarm relay. An external input is configurable to perform one of various functions e.g. zero, tare, brightness level, peak hold, display hold, display toggle (from live to linearised display), max/min memory, setpoint only access or security lockout. This input can also be used to allow fast and easy access to the alarm setpoints. The front panel **P** button can also perform the zero, tare, display toggle (toggle between live and linearised displays), or max/min memory function. Optional outputs include additional relays and isolated retransmission, analog 4-20mA, 0-1V, 0-10V or serial RS232/RS485 (choice of ASCII or Modbus RTU protocols). Any optional relays can be configured for setpoint or trailing operation. Electrical isolation between power supply, input signal and retransmission eliminates grounding and common mode voltage problems.

Circular graph and 5 digit display

20 segment bargraph and 5 digit display

Features

- Dual independent 30 point lineariser inputs
- EEPROM storage of lineariser table values
- Pushbutton calibration and setup
- Displays in engineering units
- Isolation between input signal/supply and retransmission
- Rugged enclosure
- 240V, 110V, 48V, 32V, 24V AC, 12 to 48V DC or 50 to 110 V DC operation (factory configured)
- Alarm/control relay output (5A)
- Remote input to perform a special function e.g. brightness level, fast setpoint access, tare, max/min, display toggle, peak/display hold, setpoint only access or security lockout
- 2 year guarantee

PM4LN2-3.6-0

AMALGAMATED INSTRUMENT CO *ABN: 80 619 963 692*

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:	Link selectable 4 to 20mA or DC Volts ±1V, ±10V, ±100V
Maths functions:	Add, subtract, product, divide, maximum, minimum, sine & cosine
Linearisation:	Two 30 point tables
Impedance:	80Ω nominal (4 to 20mA) 1MΩ on DC voltage
ADC resolution:	1 in 20,000
ADC conversion:	Dual slope ADC
Accuracy:	0.1% when calibrated
Sample rate:	1 sample every 2 seconds
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 + 4 way keypad LED bar graph 20 segment bar + 5 digit display + 4 way keypad 16 segment circular "bargraph" + 5 digit display + 4 way keypad **LCD models:** 4 digit 12.7mm 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:	Same specs as relay 1 (form C optional)
Retransmission:	Analog 4 to 20mA, 0 to 1VDC or 0 to 10VDC link selectable Serial RS232 or RS485, choice of ASCII or Modbus RTU protocols Digital Binary or BCD
DC voltage out:	Isolated 24V (±12V), 20mA

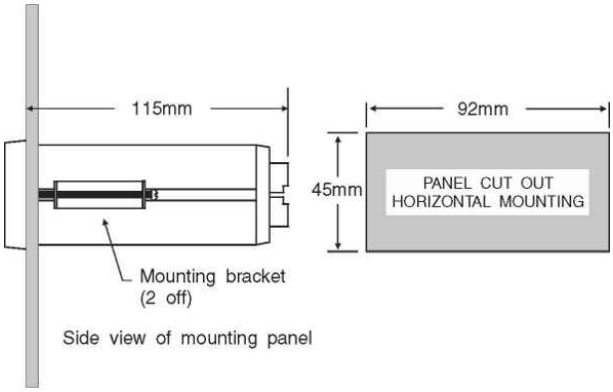
Physical Characteristics

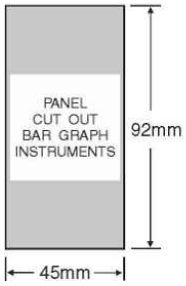
Bezel size:	DIN 48mm x 96mm x 10mm
Case size:	44mm x 91mm x 115mm
Panel cut out:	45mm x 92mm (+1mm & -0mm)
Connections:	Plug in screw terminals (max 2.5mm^2 wire)
Weight:	400g basic model, 450g with option card

PM4-LN2 Accessories

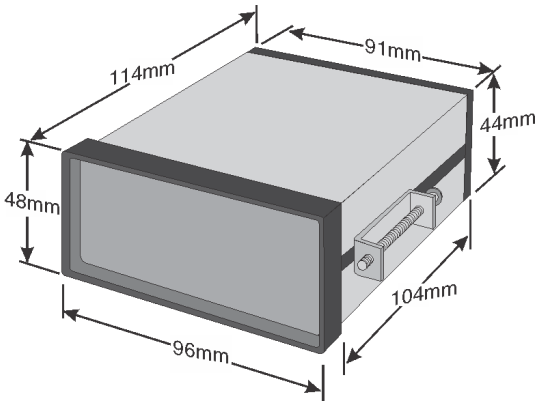
Description	Model No.
IP67 access cover	COVER-PM-IP67
Wall mount enclosure	ENC-PM1-02
IP65 wall mount encl. with IP67 cover	ENC-PM1-02-IPCOV
Surface mount kit	PM4-OPT-SMKIT
Portable/bench enclosure AC	ENC-PM-AC
Portable/bench enclosure DC	ENC-PM-DC

PM4-LN2 panel mounting details





PM4-LN2 case dimensions



Wiring diagrams and full operations manual are available from www.aicpl.com.au/pdf/pm4ln2ma.pdf.

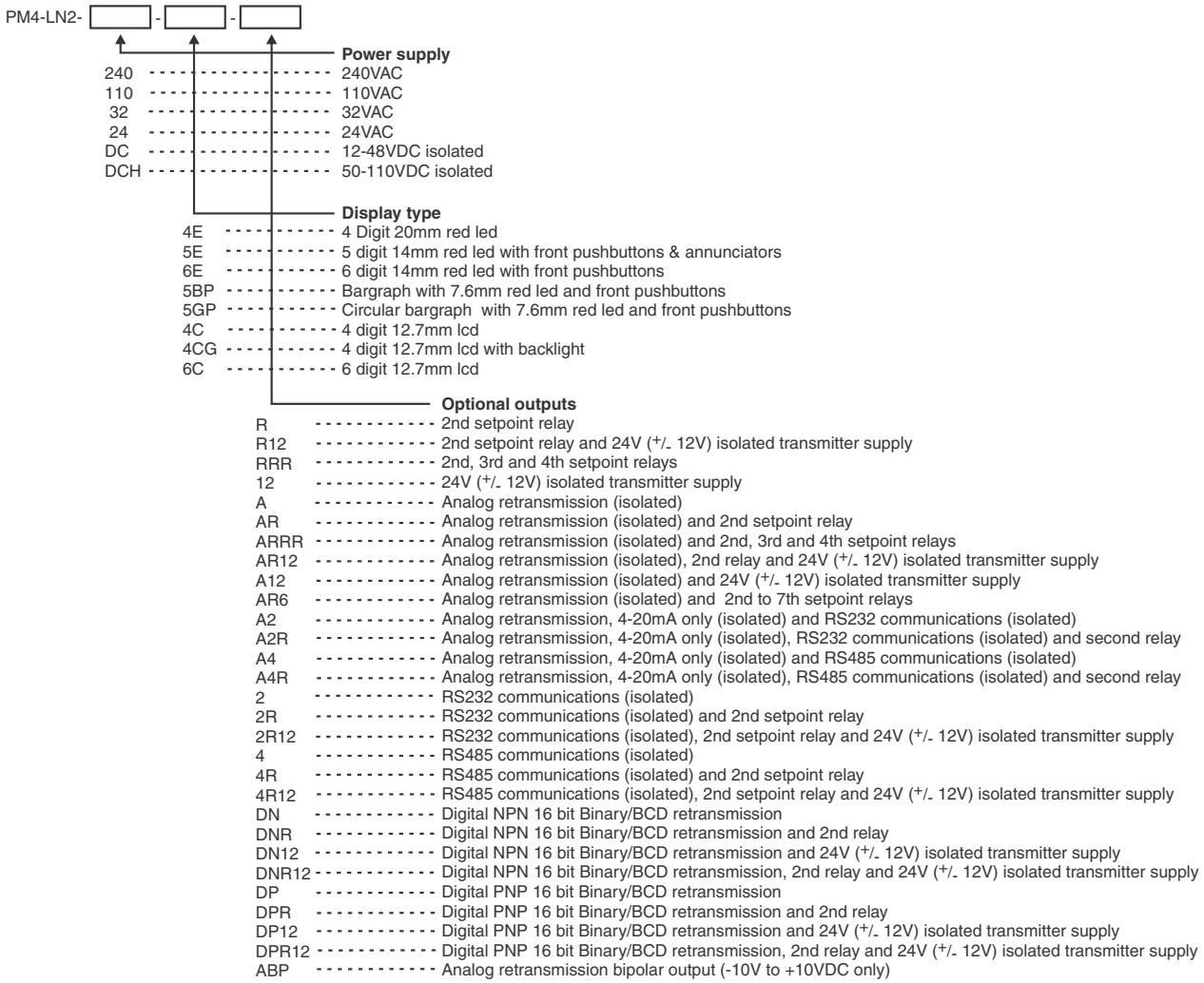
PM4LN2-3.6-0

AMALGAMATED INSTRUMENT CO *ABN: 80 619 963 692*

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

PM4-LN2 order codes

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



Applications/input types available with panel mount display models

- **Analog input, process transmitters etc. ±20mA, 4-20mA or ±2.5VDC or ±25VDC**
- **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**

AMALGAMATED INSTRUMENT CO *ABN: 80 619 963 692*

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