



The Model 5015 5 1/2 digit (-199999 to 199999) LED Dual Channel Process Indicator can be applied to many applications which require a dual input and a single display eg. Temperature and humidity monitoring. Each channel is individually setup for zero, span, input type and more. The unit boasts a number of useful mathematical functions such as addition, subtraction, multiplication and division. The display as well as alarms, analog out, peak hold can be selected using channel A, Channel B and the above mentioned mathematical functions.

Options include linearisation, analogue output and set-points up to a total of four. Excitation is standard and is link selectable for 2-wire / 3-wire transmitters and a potentiometer input.

Selected options now feature 'Plug & Play' technology, allowing option boards to be ordered separately & field fitted when required.

### FEATURES

- 1/8 DIN enclosure (45 x 92 cut-out), UL 94 V-0 flame retardant, 147mm depth
- Front panel IP 65 / NEMA 4 / UL Type 4 rating, bezel 48 x 96 mm
- -199999 to 199999 display counts, 14.2mm bright red LED display
- Dual channel process inputs of 0-20mA, 4-20mA and Volt input
- Dual 24VDC supply for 2 / 3 wire transmitters
- Low cost - high performance design
- Built in mathematical features such as adding (summing) / subtracting (differential), multiplication and division of both inputs
- Keypad lockout available at no extra charge
- Meets European EMC directive 89/336/EEC & Low Voltage directive 73/23/EEC
- 3 year guarantee

### OPTIONS

3000	Lineariser (square root / sphere / & more)	3010	95-265V AC/DC isolated SMPS
3001-P	2 set points (solid-state relays)	3012	Peak / valley hold
3001-M	2 set points (electro-mechanical relays)	3013	RS 232 serial interface
3002	RS 485 serial interface	3014	Auto zero (with remote zero)
3003	0 - 20mA / 4 - 20 mA analogue output	3017-P	3 set points (solid-state relays)
3004-P	1 set point (solid-state relay)	3017-M	3 set points (electro-mechanical)
3004-M	1 set point (electro-mechanical relay)	3018-P	4 set points (solid-state relays)
3006	Isolated outputs (order with 3002/3/7/13)	3018-M	4 set points (electro-mechanical)
3007	0 - 10V analogue output	3020	Ultra bright Red LED display
3008	8 - 30V galvanic isolated DC supply	3025	Keypad lockout
3009	Parallel BCD output	3026	Display hold

**NOTE :** Most of the above options are factory fitted. Customer / field fitted options are available as 'plug-&-play' boards & software activated options. Contact factory for more information.

**NOTE :** Option 3009 cannot be ordered with any alarm options, or with option 3006.

# SPECIFICATIONS

## DISPLAY & OPERATION

Specification	5½ digit (-199999 to 199999) bright red LED, 14.2mm high
Setup and calibration	Full digital with visual prompting in plain messages
Memory retention	Full non-volatile operation

## ANALOG INPUT RANGES

0 - 20 mA	Input impedance 100	Other ranges on request
4 - 20 mA	Input impedance 100	
0 - 200mV	Input impedance 100 k	These inputs are all standard and are link selectable, with programmable zero, span and decimal point.
0 - 2 V	Input impedance 100 k	
0 - 10 V	Input impedance 500 k	
Potentiometer	Input impedance 100 k	

## ANALOG PERFORMANCE

Accuracy & linearity	0.05% of full scale, ± 1 display count
A/D Type & resolution	16 bit dual slope, 40 000 internal counts
A/D conversion rate	Approximately 7 per second
Temperature coefficient	20 ppm/°C typically
Settling time (process inputs)	0.5 seconds
Settling time (frequency input)	5 msec (no averaging)
Power-up / self test time	1 - 3 seconds
Warm up time	None required

## EXCITATION

### (FOR EXTERNAL TRANSMITTERS & POTS)

Link selectable for:  
24 VDC (17-26V), current limited. (For 2-wire transmitters).  
5VDC ± 1%. Maximum 25mA.  
2.5 VDC precision reference, 2mA maximum for potentiometer (2k pot minimum).

Option: 24 VDC (17-26V), increased current capacity 100mA with option 3010.

## ANALOG OUTPUT OPTION

Analog output isolation	Optional, 1500V input/output isolation (order option 3006)
Analog output accuracy	0.1% of full scale, 12-bits
Analog output temp. coefficient	20 ppm / °C typically
Current analog output load	500 maximum (current is source, not sink)
Voltage analog output load	1 k minimum

## SET POINT OPTIONS

Adjustable settings:	Hysteresis, on delay, hi/lo, normally open/closed
Electro-mechanical relay:	
Rating	250V AC, 30V DC, 2A, power factor 1
Form type	Form C (change-over contact)
Solid-state relay:	
Rating	400V AC/DC, 0.5A, power factor 1
Form type	Form A (normally open contact)

## REGULATORY COMPLIANCE

Regulatory requirements	Complies with EC Directives 89/336/EEC & 73/23/EEC
-------------------------	--

## SERIAL INTERFACE OPTIONS

Serial interface  
Isolation to input  
Capabilities - Digibus protocol  
Capabilities - Ascibus protocol

RS-232 or RS-485, 2400, 4800, 9600 & 19200 baud  
Optional, 1500V isolation (order option 3006)  
Full remote control, except for field setup  
- continuous output approximately 5 x second  
- output on demand via print button  
- output on demand via serial request

## ENVIRONMENTAL

Operating temperature range  
Service temperature range  
Storage temperature range  
Humidity

-10 to +50°C  
-15 to +60°C  
-40 to +80°C  
< 85% non-condensing

## MECHANICAL SPECIFICATIONS

Dimensions  
Protection  
Front panel rating

DIN 1/8, 96 mm wide x 48 mm high x 147 mm deep  
Industrial strength, UL 94 V-0 flame retardant ABS plastic  
IP 65 / NEMA 4 / UL Type 4 with supplied o-ring seal

## POWER SUPPLY

### STANDARD

115 / 230 VAC  $\pm$  10% (standard), link selectable, 50/60Hz, 5VA typical

### OPTIONAL

8V-30VDC isolated switch mode power supply option (Option 3008), 5VA typical

95V-265V AC/DC switch mode power supply option (Option 3010), 5VA typical

10V-30VDC non-isolated DC power supply (Option 3028), 5VA typical

## ORDERING EXAMPLE

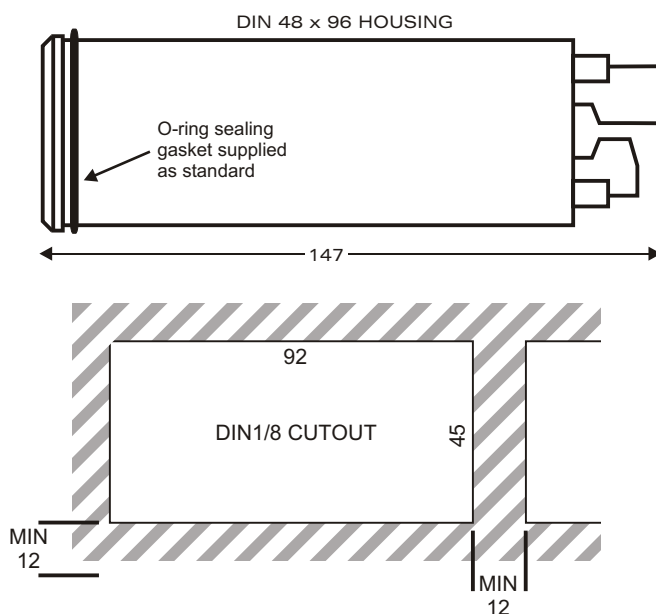
Option modules (see page 1)

**MODEL 5015 - 3001P - 3003**

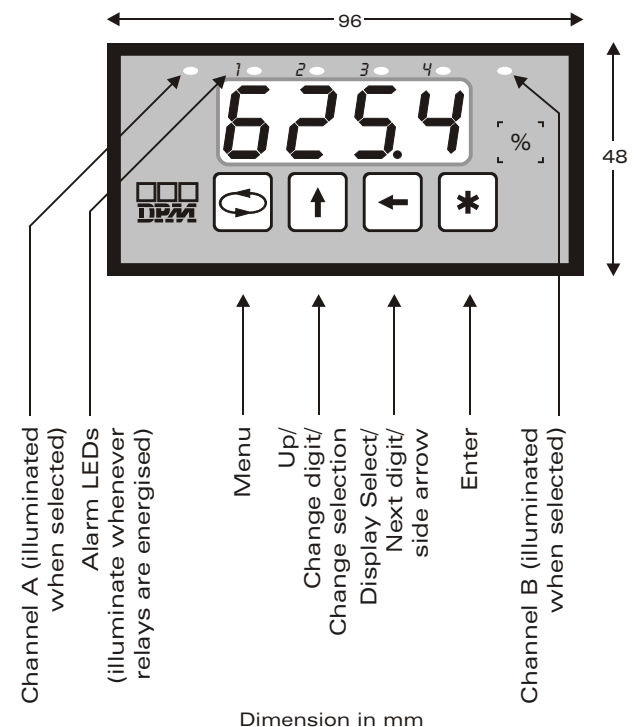
Input : 4 - 20 mA  
Display : 0 - 100.0 %  
Aux Supply : 230 VAC  
Analog output : 4 - 20 mA = 0 - 100.0 %  
Setpoints : 2 setpoints with solid state relays

## FRONT PANEL

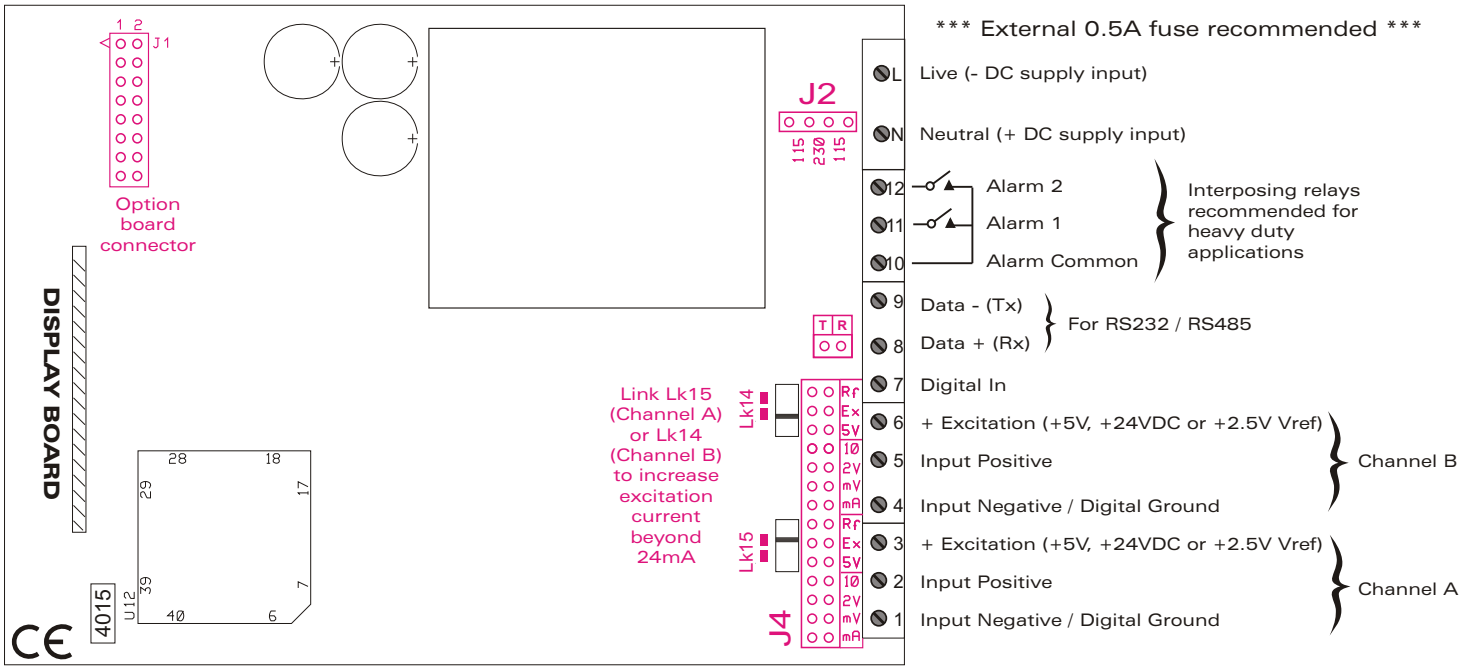
## DIMENSIONS & CUTOUT



DIN 48 x 96 industrial strength single piece housing  
Flame retardant ABS plastic (meets UL 94 V-0)  
Front panel rating is IP65 with supplied O-ring seal



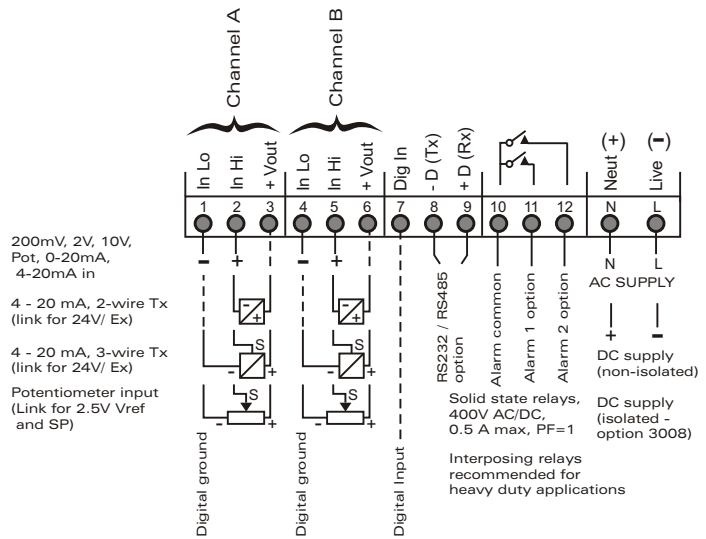
# PINOUT



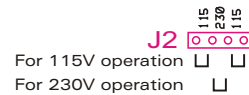
## INTERNAL LINKS

Channel	Terminal	Link
Channel A	INPUT	
	mA	X X
	200 mV	X X
	2 V	X
	10 V	X
	Terminal 3 voltage output	
	+5VDC	X
	+24VDC, current limited	X
	+2.5V Vref	X
	Channel B	INPUT
mA		X X
200 mV		X X
2 V		X
10 V		X
Terminal 3 voltage output		
+5VDC		X
+24VDC, current limited		X
+2.5V Vref		X

## APPLICATION EXAMPLES



## POWER SUPPLY LINKS



## GUARANTEE

This product is guaranteed against faulty workmanship or defective material, for a period of 3 (three) years from date of delivery by DPM.

DPM undertakes to replace without charge all defective equipment which is returned to it (transportation costs prepaid) during the period of guarantee, provided there is no evidence that the equipment has been abused or mishandled in any way.

DPM reserves the right to alter any specification without notice.

E-mail : info@dpm.co.za  
Website : www.dpm.co.za



## DISTRIBUTED BY: