

DPM 390

3½ Digit LED Module

This high performance meter uses high efficiency red LED displays behind a red window which gives an excellent high contrast display. The meter is housed in a robust DIN case and uses a 10 way 0.1" pitch shrouded pin connector at the rear. A screw terminal block connection adaptor board is available.

- 14.2mm (0.56") Digit Height
- Programmable Decimal Points
- Auto-zero
- Auto-polarity
- 200mV d.c. Full Scale Reading (F.S.R.)
- Built-in Negative Rail Generator
- Snap-in Panel Mounting
- Compact DIN Case



SCALING

Two resistors Ra and Rb may be fitted in order to alter the full scale reading (F.S.R.) of the meter - see table. The meter will need re-calibration by adjusting CAL (remove the bezel to access CAL potentiometer).

Required F.S.R.		Ra	Rb
2V	Note	910k	100k
20V	Note	1M	10k
200V	Note	1M	1k
2kV	Note	1M	100R
200µA		0R	1k
2mA		0R	100R
20mA		0R	10R
200mA		0R	1R

NOTE
Ensure that Link La is open if fitting Ra.

Stock Number				DPM 390
Standard Meter				
Specification	Min.	Typ.	Max.	Unit
Accuracy (overall error)		0.05	0.1	% (±1 count)
Linearity			±1	count
Sample rate		3		samples/sec
Temperature range	0		50	°C
Temperature stability		30		ppm/°C
Supply voltage	4.5	5	5.5	V
Supply current		150	200	mA
Input leakage current (Vin= 0V)		1	10	pA

CONNECTOR SOURCING GUIDE

METHOD	FARNELL	MOLEX	PANDUIT	RS	SAMTEC
PCB socket	90147-1210				SSW-110-02-F-S
Terminal Block	Available From Lascar - Stock No. T/BLK-1				
Adaptor Board					

DIMENSIONS

All dimensions in mm (inches)

Panel cut-out
68 x 33 (2.68 x 1.30)

Panel thickness
1.0 to 2.8 (0.04 to 0.11)

Link diagram
(top view)

PANEL FITTING

Locate the meter by passing it through the front panel cut-out , gently pushing until the rear of the bezel is flush with the panel. The snap-in lugs will now automatically hold the meter firmly in position.

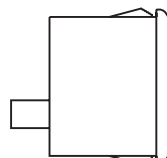
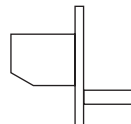
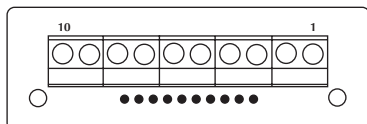
PIN FUNCTIONS

- | | | |
|-----------|--|---|
| 1. +5V | Positive power supply input. | |
| 2. GND | Negative power supply input. | |
| 3. IN HI | Positive measuring input. | } Analogue inputs must be no closer than 1.5V to either the positive or negative supply. The negative supply of this meter is generated internally and mirrors the positive supply voltage. |
| 4. IN LO | Negative measuring input. | |
| 5. REF HI | Positive input for reference voltage. | } Not used if internal reference used. |
| 6. REF LO | Negative input for reference voltage. | |
| 7. DP COM | Connect to pins 8, 9 or 10 to display required DP. | |
| 8. DP1 | 199.9 (DIP switch 3) | } Connect to DP COM or turn relevant DIP switch to on position to display. |
| 9. DP2 | 19.99 (DIP switch 2) | |
| 10. DP3 | 1.999 (DIP switch 1) | |

SAFETY

To comply with the Low Voltage Directive (LVD 93/68/EEC), input voltages to the module's pins must not exceed 60Vdc. If voltages to the measuring inputs do exceed 60Vdc, then fit scaling resistors externally to the module. The user must ensure that the incorporation of the DPM into the user's equipment conforms to the relevant sections of BS EN 61010 (Safety Requirements for Electrical Equipment for Measuring, Control and Laboratory Use).

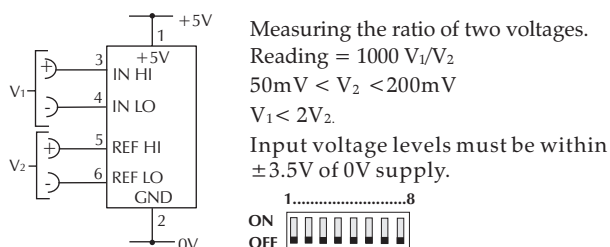
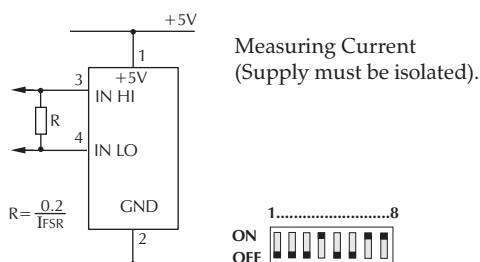
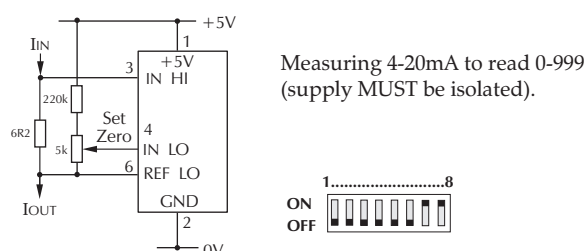
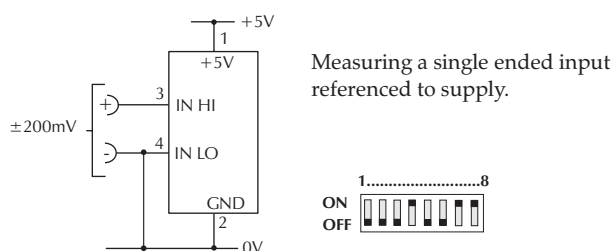
OPTIONAL CONNECTOR - T/BLK-1



VARIOUS OPERATING MODES

ON-BOARD DIP SWITCHES: In order to quickly and easily change operating modes for different applications the meter has several on-board DIP switches.

Do not connect more than one meter to the same power supply if the meters cannot use the same signal ground. Taking any input beyond the power supply rails will damage the meter.



DIP SWITCH FUNCTION

- | | |
|----------------|--|
| 1 DP3 | 5 REF LO to GND |
| 2 DP2 | 6 INLO to GND |
| 3 DP1 | 7 REFLO to REF- (internal reference connection) |
| 4 IN LO to COM | 8 REF HI to REF+ (internal reference connection) |