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# DPM 40

3½ Digit LED Module

A compact low-cost LED module ideally suited for applications where a bright display under all conditions is required. The DPM 40 is fitted with high efficiency LEDs and supplied with a filter and bezel to give a high contrast display. The small size and low cost of the unit makes it

- 🔊 11mm (0.43") Digit Height
- 🔊 Programmable Decimal Points
- 🔊 Auto-zero
- 🔊 Auto-polarity
- 🔊 200mV d.c. Full Scale Reading (F.S.R.)
- 🔊 Display Hold



## 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.

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

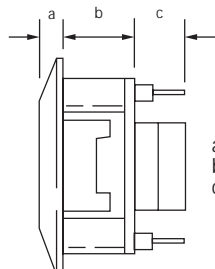
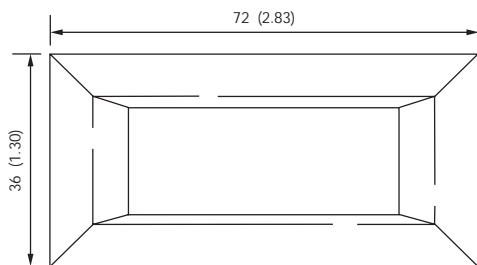
### NOTE

Ensure that link across Ra is OPEN.

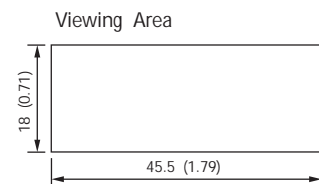
				Stock Number
Specification	Min.	Typ.	Max.	Unit
Accuracy (overall error) *		0.05	0.1	% (±1 count)
Linearity			±1	count
Sample rate		3		samples/sec
Operating temperature range	0		50	°C
Temperature stability		150		ppm/°C
Supply voltage	4.5	5	5.5	V
Supply current		100	200	mA
Input leakage current (Vin = 0V)		110	pA	

\* To ensure maximum accuracy, re-calibrate periodically.

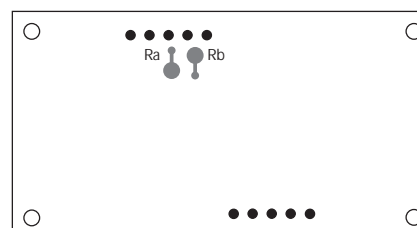
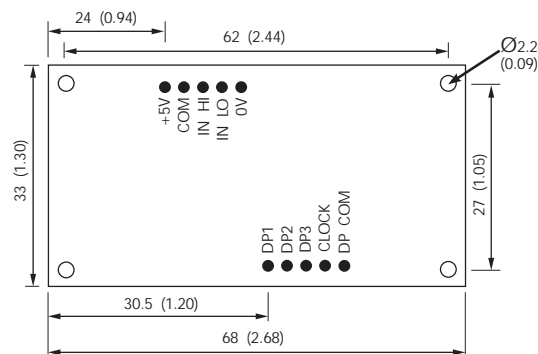
## DIMENSIONS All dimensions in mm (inches)



- a. 4.0 (0.16)
- b. 12.0 (0.47)
- c. 8.5 (0.33)



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



SCALING RESISTORS

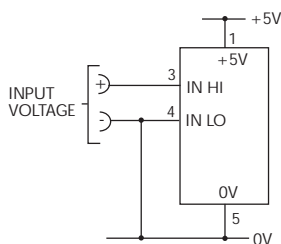
## PIN FUNCTIONS

- |                   |   |   |
|-------------------|---|---|
| A. DP1            | 199.9   |   |
| B. DP2            | 19.99   |   |
| C. DP3            | 1.999   |   |
| D. CLOCK/<br>HOLD | Connect to 0V to hold display reading. Leave open for normal operation.   |   |
| E. DP COM         | Connect to Pin A, B or C to select required DP.   |   |
| 1. +5V            | Positive power supply input.  |   |
| 2. COM            | The ground for the analogue section of the converter, held actively at 2.8V (nom) below +5V. This pin is for use only when the module is used with a fully floating supply. <b>It should on no account be connected to any other terminations or circuitry except as specified in the relevant operating modes.</b> |   |
| 3. IN HI          | Positive measuring input.   | } Analogue inputs must be no closer than 1V to the positive supply or lower than 1.5V below 0V. |
| 4. IN LO          | Negative measuring input.   |   |
| 5. 0V             | Negative power supply input.  |   |

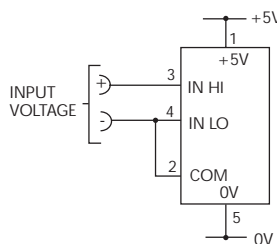
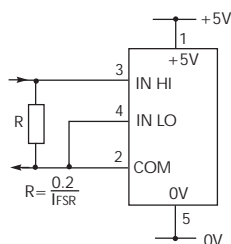
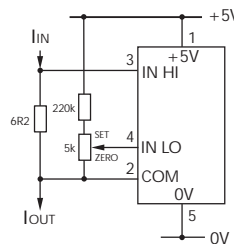
## SAFETY

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).

## VARIOUS OPERATING MODES



Operation with input referenced to panel



Operation with input floating with respect to power supply.