

### PRODUCT DESCRIPTION

The DPM 3AS-BL features a 200mV d.c. measurement range with auto-zero and auto-polarity. Decimal points are user selectable. The DPM 3AS-BL features a negative rail generator which enables the meter to measure a signal referenced to its own power supply GND. LED backlighting ensures excellent readability under low light conditions. The design of the panel meter's housing allows the module to be easily snapped into a panel. The module's low cost means it will suit high and low volume applications. The DPM 3AS-BL is intended to replace the DPM 3, DPM 3S, DPM 3-BL and DPM 3S-BL in many applications, usually requiring only minor circuit modifications.

### FEATURES

- 11mm (0.43") Digit Height
- 200mV d.c. Full Scale Reading
- 3.0 to 7.5V or 6.0 to 15.0V Operation
- Auto-zero and Auto-polarity
- Programmable Decimal Points
- LED Backlighting



### TYPICAL APPLICATIONS

- Precision Instrumentation Systems
- Power Supply Monitoring
- Hand held instruments
- Panel-Mount Indication
- Low Power Voltage Measurement

### ORDERING INFORMATION

Standard Meter	Stock Number <b>DPM 3AS-BL</b>
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### ELECTRICAL SPECIFICATIONS

Specification	Min.	Typ.	Max.	Unit	
Accuracy (overall error) *		0.1		% (±1 count)	
Linearity			±1	count	
Sample rate		2.5		samples/sec	
Operating temperature range	0		50	°C	
Temperature stability		250		ppm/°C	
Meter supply voltage	V+ to GND configuration	3.0	5.0	7.5	V d.c.
	V+ to V- configuration	6.0	9.0	15.0**	V d.c.
Meter supply current	V+ to GND configuration		350		µA
	V+ to V- configuration		175		µA
Backlight supply voltage	4.75	5.0	***	V d.c.	
Backlight supply current @ 5V d.c.		40	60	mA	
Input leakage current (Vin = 0V)		1	10	pA	

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

\*\* Operation of the meter beyond the maximum supply voltage rating may cause permanent damage to the meter.

\*\*\* An external series resistor is required above 5V, see Applications.

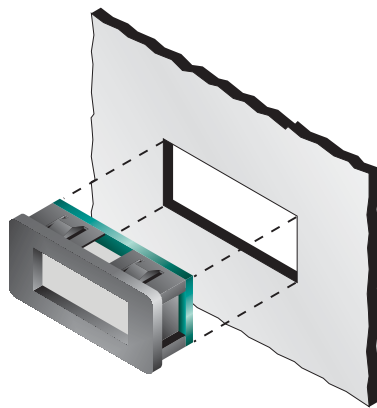
Unless otherwise noted, specifications apply at  $T_A=25^\circ\text{C}$ ,  $V_{\text{supply}}=5\text{V d.c.}$  ( $f_{\text{clock}}=48\text{kHz}$ ) and are tested with the module configured for fully floating input mode.

### SAFETY

To comply with the Low Voltage Directive (LVD 93/68/EEC), input voltages to the module's pins must not exceed 60Vdc. The user must ensure that the incorporation of the panel meter 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).

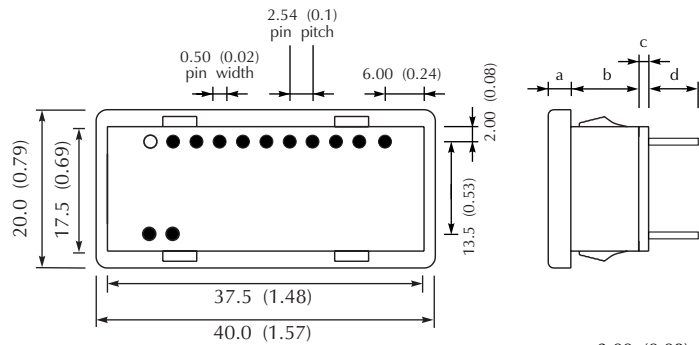
### DIMENSIONS

All dimensions in mm (inches)



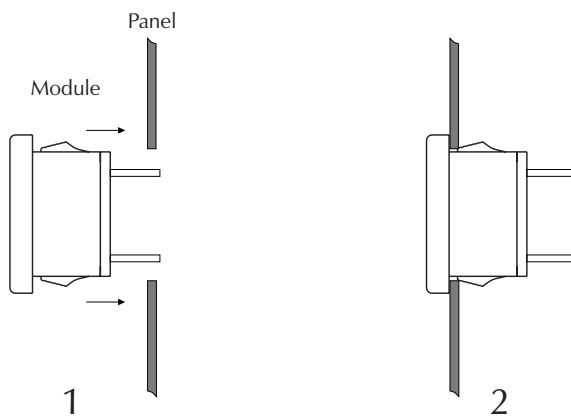
Panel cut-out: 38.0 x 18.0  
(1.50 x 0.71)

Panel thickness: 1.0 - 2.5  
(0.04 - 0.10)

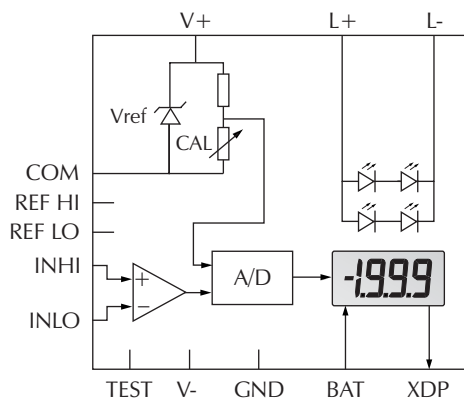


- a. 2.00 (0.08)
- b. 6.00 (0.24)
- c. 1.60 (0.06)
- d. 6.00 (0.24)

### PANEL FITTING



### FUNCTIONAL BLOCK DIAGRAM



### PIN CONFIGURATION (rear view)

