





-  Bandgap Reference
-  Compact Size
-  Auto-zero
-  Auto-polarity

A compact size LED DPM ideally suited for applications where excellent readability under all lighting conditions is required. The DPM 56 is fitted with high efficiency red LED displays and is supplied with a bezel and red filter, giving a high contrast display. It uses a bandgap reference for improved temperature stability and features auto-zero, auto-polarity, 14.2 mm seven segment displays and 200mV full scale reading (FSR). It is easily programmed by the user to read volts, amps or other engineering units. May be used in single-ended or differential mode, or to measure floating inputs. Small size and low cost renders it suitable for high volume applications.

SPECIFICATIONS	MIN.	TYP.	MAX.	UNIT
Accuracy (overall error)*		0.05	0.1	%(±1 count)
Linearity			±1	count
Sample rate		3		per sec
Temperature stability		30		ppm/°C
Temperature range	0		50	°C
Supply voltage (V+ to V-)		5	5.5	V
Supply current		100	200	mA
Maximum D.C. input voltage			±20	V
Input leakage current (Vin=0V)		1	10	pA

* To ensure maximum accuracy, re-calibrate periodically.

SAFETY

To comply with Low Voltage Directive (LVD 93/68/EEC), input voltages to the modules 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).

LASCAR ELECTRONICS LTD.
MODULE HOUSE
WHITEPARISH
WILTSHIRE SP5 2SJ
UK
TEL: +44 (1794) 884567
FAX: +44 (1794) 884616
E-mail: sales@lascar.co.uk

LASCAR ELECTRONICS INC.
4258 West 12th Street
Erie
PA 16505
USA
TEL: +1 (814) 835 0621
FAX: +1 (814) 838 8141
E-mail: us-sales@lascarelectronics.com

LASCAR ELECTRONICS (HK) LTD.
8th FLOOR, CHINA AEROSPACE CENTRE,
143 HOI BUN ROAD,
KWUN TONG, KOWLOON,
HONG KONG
TEL: +852 2389 6502
FAX: +852 2389 6535
E-mail: saleshk@lascar.com.hk

Specifications liable to change without prior warning

DPM 56

Issue 7

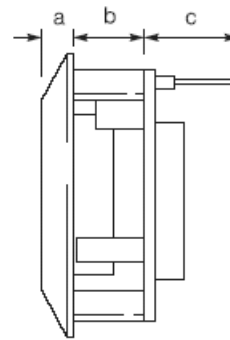
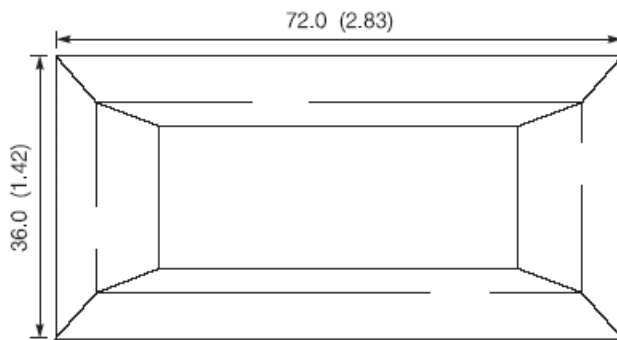
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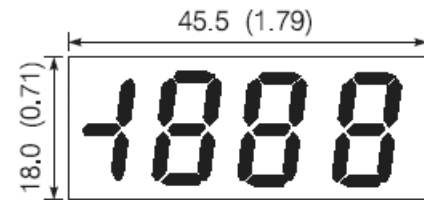
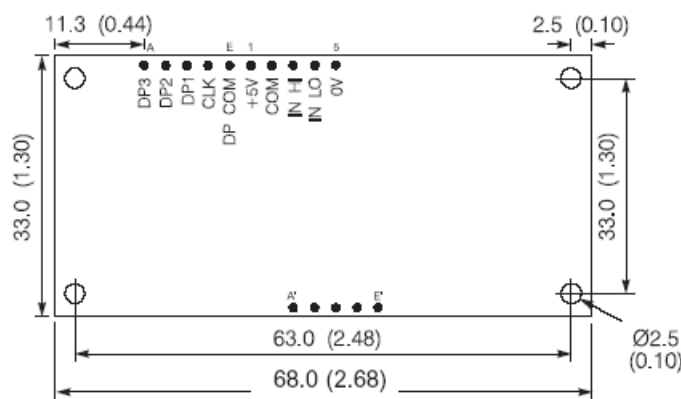
Applies to DPM 56/1

DIMENSIONS

All dimensions in mm (inches)



a. 4.00 (0.16)
b. 9.00 (0.35)
c. 12.0 (0.47)

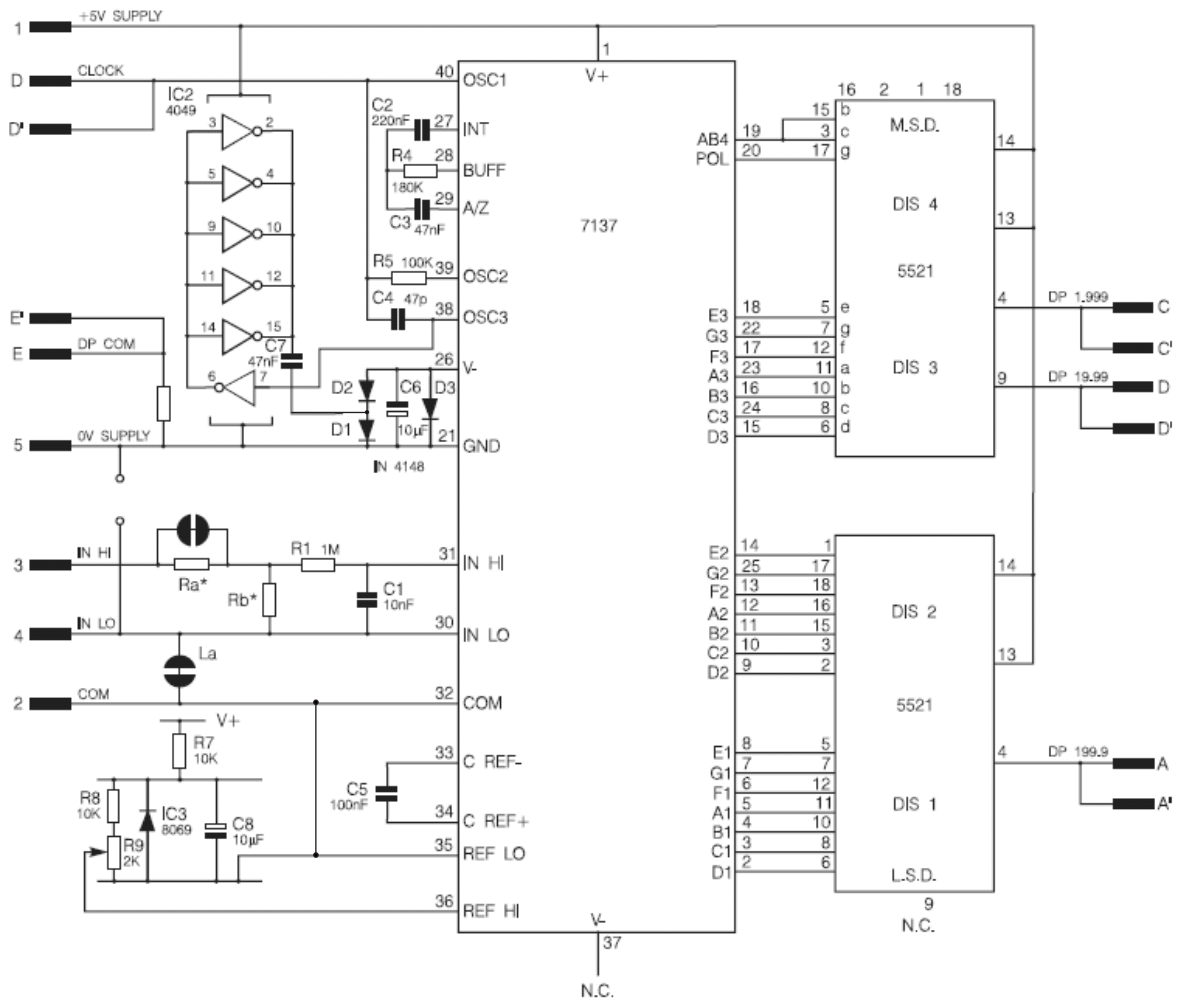


Display in TEST mode
Panel cut-out 68 x 33 (2.67 x 1.30)

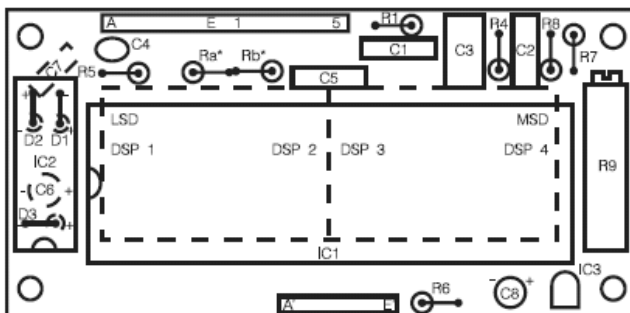
PIN FUNCTIONS

A, A'	DP3	199.9
B, B'	DP2	19.99
C, C'	DP1	1.999
D, D'	CLOCK	Connect to 0V to hold display reading.
E, E'	DP COM	Connect this pin to required DP input.
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. COM must not be allowed to sink excessive current (>5mA).
3.	IN HI	Positive measuring input.
4.	IN LO	Negative measuring input. This pin can be connected to 0V by a "solder blob" link between pins 4 and 5, when using the meter in single-ended measurements.
5.	0V	Negative power supply input.

CIRCUIT DIAGRAM



COMPONENT LAYOUT



Components shown dotted, mounted on front side of board.

* Optional scaling components.

APPLICATIONS

Input Scaling: Two resistors may be fitted, Ra and Rb in order to alter the full scale reading of the meter - See Table. The meter will have to be re-calibrated.

NOTE

Ensure link across Ra is cut.

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

