DPM 342

LED Backlit 4-20mA Loop Powered Indicator

A compact loop powered indicator giving an accurate, zero corrected indication of 4-20mA loop current. Calibration is by two multi-turn potentiometers which allow sensitive adjustment of the instrument. The DPM 342 features an integral snap-in bezel, making installation easy. The module's LED backlighting ensures a clear display, even under low light conditions. No soldering is required. Connection to the current loop is via two screw terminals. The correct decimal point is selected via a jumper link.

- **11mm (0.43") Digit Height**
- **Programmable Decimal Points**
- **Low Volt Drop**
- **Loop Powered LED Backlighting**
- **Simple Screw Terminal Connections**
- **Wide Adjustment Range**
- **Auto-polarity on Display**



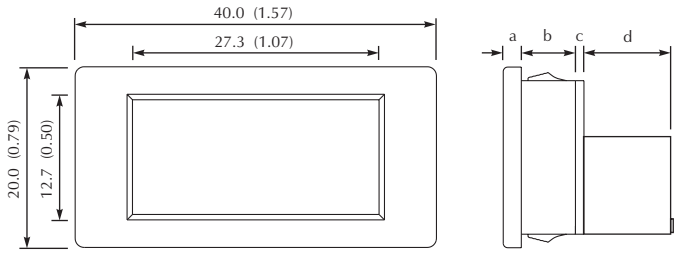
Standard Meter				Stock Number DPM 342
Specification	**Min.**	**Typ.**	**Max.**	**Unit**
Accuracy (overall error) *	0.05		0.1	%(±1 count)
Linearity			±1	count
Sample rate		3		samples/sec
Operating temperature range	0		50	°C
Temperature stability		200		ppm/°C
Loop Volt Drop	5	5.6	6	V
Supply current	4			mA
Full scale reading (20mA)	0		1999	Count
Offset adjustment range	-1200		+1200	Count

*To ensure maximum accuracy, re-calibrate periodically.

CONNECTOR SOURCING GUIDE

METHOD	Screw Terminals - No Connector Required

DIMENSIONS All dimensions in mm (inches)

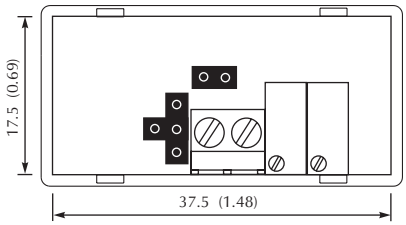


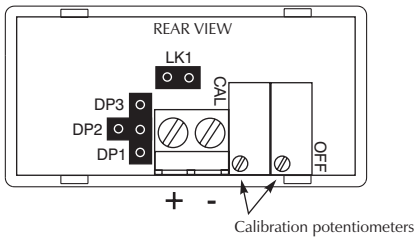
a. 2.00 (0.08)
b. 6.00 (0.24)
c. 1.60 (0.06) max
d. 9.50 (0.37)

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

Panel thickness
1.0 to 2.5 (0.04 to 0.1)

ON BOARD JUMPER LINKS





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TERMINAL FUNCTIONS

1. + Positive current input.
2. - Negative current input.

CALIBRATION

The meter is supplied calibrated to read 000 for 4mA loop current and 1000 for 20mA. Calibration is carried out in two simple stages because the DPM 342 has a very wide adjustment range . Place the jumper link across LK1. This disables the offset adjustment to enable span adjustment to be made first. After span adjustment is complete, the jumper link is removed and the offset adjustment is made. The jumper link is then used to display one of the decimal points if necessary.

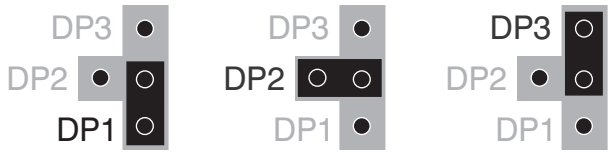
Example to re-calibrate: Meter to read -40.0 for 4mA and 150.0 for 20mA.

1. Calculate the span by subtracting the desired reading at 4mA from the desired reading at 20mA: -1500 - (-400) = 1900
2. Short jumper link Lk1 with the link header normally used to select the desired Decimal Point.
   Link Lk1 is located above the screw terminals.
3. Apply 16mA between the + and - screw terminals.
4. Adjust the CAL potentiometer so the DPM 342 indicates 1900.
5. Remove jumper link Lk1 and place it back on the desired Decimal Point (DP1 in this case).
6. Apply 4mA between the - and + screw terminals.
7. Adjust the OFF potentiometer so the DPM 342 indicates the desired reading at 4mA: -40.0
8. Adjust CAL and OFF as necessary for optimum accuracy, by repeating steps 2 to 7.

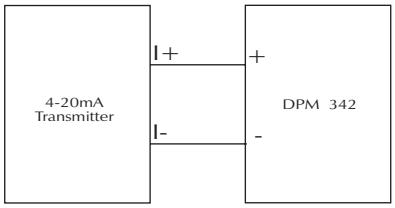
SAFETY

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). No inputs other than 4-20mA indicating loop current should be made.

JUMPER LINKS: In order to quickly and easily select the required Decimal Point, the meter has several on-board jumper links.



CURRENT LOOP CONNECTION: The DPM 342 and its backlighting are powered from the 4-20mA signal loop and need no other power supply. Ensure correct polarity when connecting.



Connecting the DPM 342 to a 4-20mA Current Loop.

PANEL FITTING Locate the meter by passing it through the front of the panel cut-out and gently push until the rear of the bezel is flush with the panel (DO NOT PUSH ON THE LCD). The snap-in lugs will now automatically hold the meter firmly in position. Take care when inserting the meter, not to damage the current loop wires and not to short them on the panel.

