

This low cost, compact indicator is ideally suited for low or high volume applications. SP 5-1200-BL is an easy to mount LCD digital panel meter. The module features a 4 to 25V measurement range with 100mV resolution and is powered from the signal it is measuring. Only valid readings are displayed; the module indicates "LO" at voltages below 4V and "HI" at voltages above 25V. Screw terminals allow for quick and easy connection. The module is panel mounted using the metal clip provided and a rubber seal is included, providing splashproof protection for the unit when fitted to the meter during installation.

- 2-Wire Operation (excluding backlighting)
- 4 to 25V d.c. Full Scale Reading
- 18mm / 0.7" LCD Digit Height
- Reverse Polarity Protection
- No Calibration Required (pre-calibrated for use)
- Splashproof
- LED Backlighting (via separate supply)
- Screw Terminal Connections



## ELECTRICAL SPECIFICATIONS

| Specification               |                          | Min. | Typ. | Max.    | Unit               |
|-----------------------------|--------------------------|------|------|---------|--------------------|
| Accuracy (overall error)    |                          |      | 0.2  |         | V ( $\pm 1$ count) |
| Linearity                   |                          |      |      | $\pm 1$ | count              |
| Valid displayed reading*    |                          | 4.0  |      | 25.0    | V d.c.             |
| Resolution                  |                          |      | 100  |         | mV d.c.            |
| Sample rate                 |                          |      | 3    |         | samples/sec        |
| Operating temperature range |                          | 0    |      | 50      | °C                 |
| Supply voltage              | Meter                    | 3    |      | 50      | V d.c.             |
|                             | Backlighting             |      | 5    |         | V d.c.             |
| Supply current              | Meter (@ 9V d.c.)        |      | 1.5  |         | mA                 |
|                             | Backlighting (@ 5V d.c.) |      | 50   |         | mA                 |

\* At voltages below 4.0V d.c., the LCD will display *LO* and will ultimately go blank.

At Voltages in excess of 25.0V d.c., the LCD will display *HI*.

Do NOT exceed 50V d.c., as this may damage the meter.

The module includes reverse polarity protection up to 30V for up to 30 seconds.

Operation and accuracy at voltages above 25.0V or below 4.0V are not specified.

## SAFETY

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

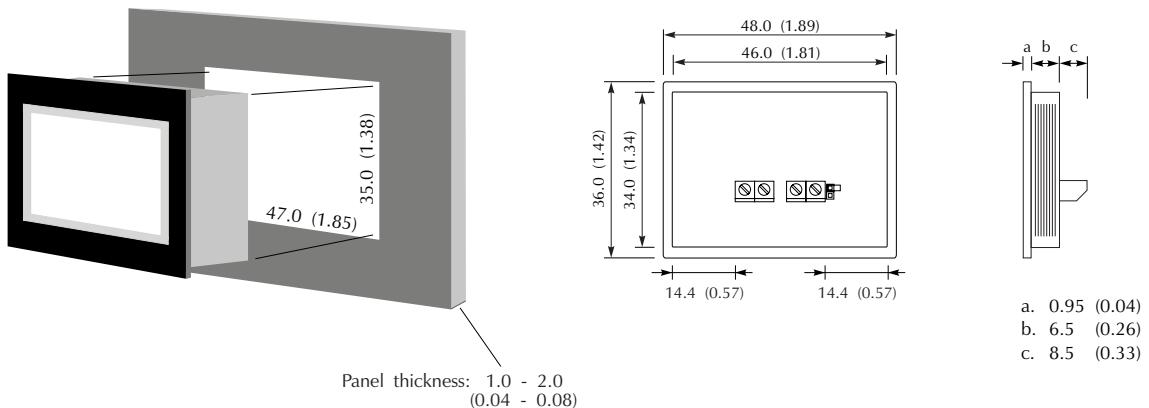
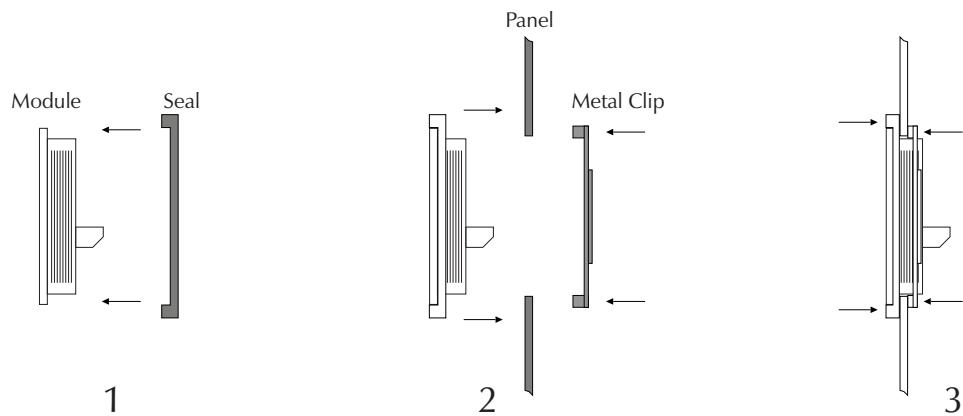
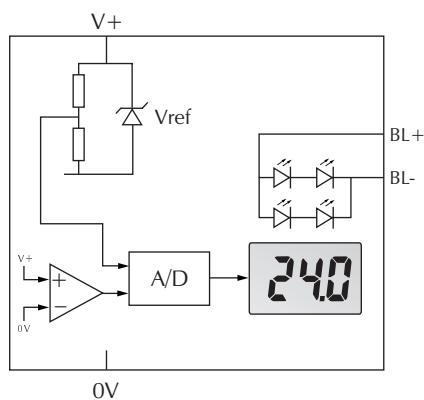
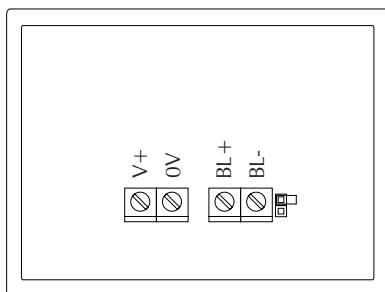
LASCAR ELECTRONICS LTD.  
MODULE HOUSE,  
WHITEPARISH,  
WILTSHIRE SP5 2SJ,  
UK  
TEL: +44 (1794) 884567  
FAX: +44 (1794) 884616  
E-mail: sales@lascar.co.uk

LASCAR ELECTRONICS INC.  
3750 WEST 26th STREET,  
ERIE,  
PA 16506,  
USA  
TEL: +1 (814) 835 0621  
FAX: +1 (814) 838 8141  
E-mail: us-sales@lascarelectronics.com

LASCAR ELECTRONICS (HK) LIMITED  
UNIT NOS. 6-8, 19/F FUTURA PLAZA,  
111-113 HOW MING STREET,  
KWUN TONG, KOWLOON,  
HONG KONG  
TEL: +852 2389 6502  
FAX: +852 2389 6535  
E-mail: purchasing@lascar.com.hk

**DIMENSIONS**

All dimensions in mm (inches)

**PANEL FITTING****FUNCTIONAL BLOCK DIAGRAM****CONNECTIONS (rear view)**

## SCREW TERMINAL FUNCTIONS

V+ Positive power supply to the meter/voltage being measured.  
0V 0V power supply to the meter/voltage being measured.

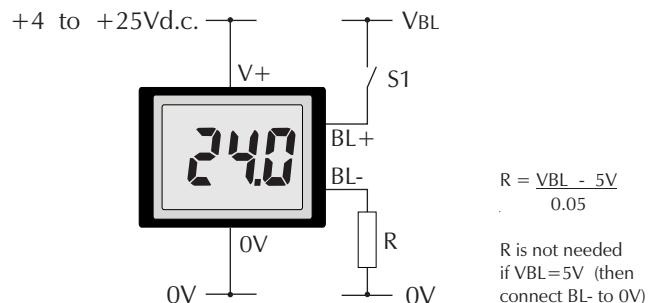
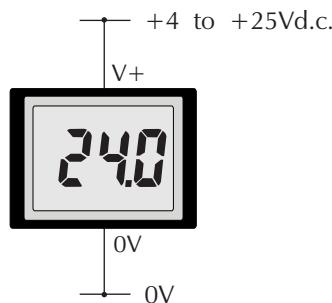
BL+ Positive power supply to the LED backlighting.  
BL- Negative power supply to the LED backlighting.

When the jumper link is placed over both pins, located next to the screw terminals, this connects the 0V of the LED backlighting to the 0V of the signal being measured. This allows for 3-wire operation of the module. This connection should only be made if both power supplies can share a common 0V line.

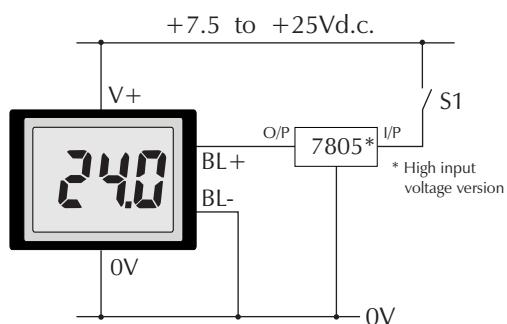
## SCALING

This module cannot be re-scaled for other voltage or current scales.

## APPLICATIONS



Note: - add a series resistor R if the backlighting supply voltage is higher than 5V d.c.



The voltage regulator may require a heatsink to limit its temperature rise. Ensure that the maximum input specification of the voltage regulator considerably exceeds the maximum peak voltage that can be experienced on the supply line being monitored.