



LOOP POWERED INDICATOR TYPE 122-20

FUNCTION

The 122-20 Indicator provides a fully adjustable 3½ digit display from a 4-20mA or 10-50mA signal.

APPLICATION

The 122-20 can be used for displaying process variables such as flow rate, temperature etc. and requires no power supply. It can be used to replace an analogue meter with no additional wiring.

DESCRIPTION

The 122-20 is a loop powered indicator which derives its power entirely from the 4-20mA or 10-50mA signal being measured. It has a 3½ digit, 12.7mm high liquid crystal display, and can be easily calibrated to the required range. The built in span and zero calibration signals facilitate easy on site calibration. Range and decimal point position are selected by programming links. The maximum number that can be displayed is 1999, with decimal point positions in front of the three least significant digits.

A reverse reading version is available to order, i.e. the display decreases with rising input signal. This feature is implemented during manufacture and is not user selectable.

Three windows are provided in the front cover label for legends. These are placed behind the windows prior to fixing the self adhesive label. Legends may be specified at the time of ordering for factory fitting. Alternatively the front cover label may be supplied loose for the addition of custom-made legends and fitting by the user. A legend template sheet is supplied for this purpose. Window sizes are given overleaf.



Features

- ★ **Loop Powered Design Eliminates Extra Power Supply**
- ★ **On Board Calibration Signals**
- ★ **Easy on Site Range Changing.**
- ★ **Case Sealed to IP 65**
- ★ **Less Than 2 Volts Drop Across Input**
- ★ **Custom-made Legends at No Extra Charge.**
- ★ **Extra Terminals for Looping Cables.**
- ★ **Reverse Reading Version Available**

Information required When Ordering

- Input Signal 4-20mA or 10-50mA,
- Full Scale Reading
- Legends (top, side and bottom).

NB: If the above is unspecified a 'standard unit' will be supplied as follows: - Input 4-20mA , Range 100.0, Separate Front Cover Label and Legend Template.

SPECIFICATION

INPUTS

4-20mA, or 10-50mA.

INPUT VOLTS DROP

< 2 V

OVER RANGE

The three least significant digits will be suppressed for inputs greater than full scale (i.e. only '1' is displayed).

DIGIT HEIGHT

12.7mm

MAXIMUM READING

1999

DECIMAL POINTS

Selectable by programming links and can be set to 1.999, 19.99 or 199.9

LINEARITY ERRORS

± 1 digit

TEMPERATURE COEFFICIENT

Typically $\leq \pm 100$ ppm / °C .

SAMPLE RATE

Approximately 2.5 / sec.

TEMPERATURE RANGE

Storage: -30 to +60°C

Operation: -10 to +55°C

CALIBRATED ACCURACY

Set within $\pm 0.1\%$ of FSD at full scale (factory set with external calibration signal).

CALIBRATION TEMPERATURE

20°C \pm 5°C

ON BOARD CALIBRATION SIGNALS

Provided that a minimum loop current of 4mA (4-20mA models) or 10mA (10-50mA models) is flowing, on board zero and full scale calibration signals are available.

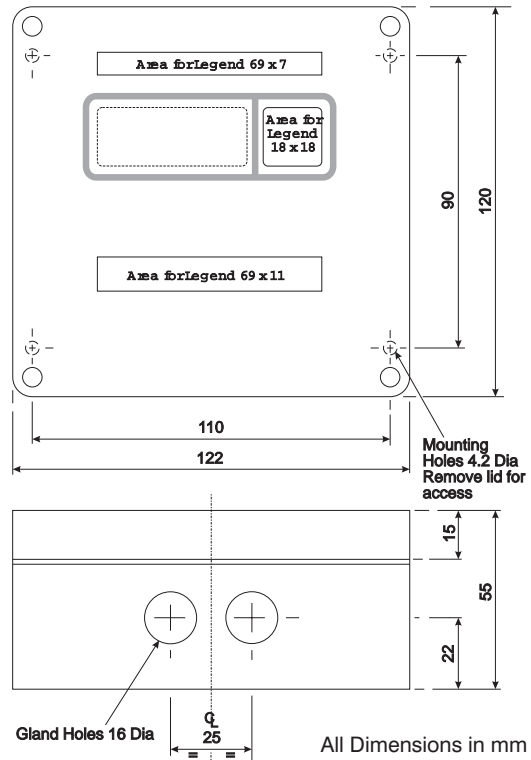
ENCLOSURE

Material: Polycarbonate

Colour: Light Grey with Clear Lid

Cable Entries: 2 off M16 Cable Glands are fitted to the bottom of the enclosure.

DIMENSIONS



TERMINATIONS

NB: Terminals 2 & 3 are connected together, but not to internal circuits, and may be used for looping cables.

a) Simple connection to 2 wire loop

Terminal

1 \leftarrow + Loop current In

2
3

4 \Rightarrow - Loop Current Out

b) Connection to 2 Wire transmitter & Power Supply

Terminal

1 \leftarrow + Power Supply

2 \Rightarrow - Power Supply

3
4

3 \leftarrow - 2 Wire Transmitter

4 \Rightarrow + 2 Wire Transmitter

WARNING THIS UNIT MAY BE CONNECTED IN A LOOP AT HIGH VOLTAGE, AND ALL INPUTS TO IT MUST BE ISOLATED FROM DANGEROUS VOLTAGES BEFORE THE COVER IS REMOVED. LIVE TERMINALS MAY BE EXPOSED.



Continuous development may necessitate changes in these details without notice

SIL

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