

# Loop Powered Indicator

# Model 210



### **Features**

- No external power required
- Large, easily read LCD display
- Intrinsically safe approved
- Field or panel mounting
- Watertight to IP67 (Nema 4X)
- Field scalable
- Self-adhesive engineering unit labels
- CE Compliant



#### Overview

The 210 Loop Powered Indicator measures the current of a 4-20mA loop and provides a digital display of the process variable directly in engineering units. The indicator is powered by the 4-20mA loop and requires no external power.

Two potentiometers inside the instrument enable the Span and Zero to be scaled and a DIP switch enables the decimal point position to be selected.

### Field mounting by design

The 210 indicator is fully watertight to IP67 (Nema 4X) standards. It is designed for field mounting with a wall mount bracket supplied as standard. A pipe mount bracket is optionally available.

For use in hazardous areas the Model 210i is ATEX certified, and CSA<sub>US/C</sub> certified for both the USA & Canada.

### Large LCD for easy reading

The 210 incorporates a large, easily read, 42 digit display. The measurement resolution is 32 digits and a trailing "0" can be switch selected for applications requiring 42 digits.

Each indicator is supplied with a sheet of self-adhesive engineering unit labels. A recess, adjacent to the display, is provided for the correct label to be placed.

Applications include the display of flow rate, temperature, pressure and a wide range of other signals transmitted over a 4-20mA interface.



# Specifications



Pipe Bracket

Option 6

#### General

#### **Input Current**

Range: 4-20mA dc. Maximum: 100mA dc. Minimum: 3.8mA dc.

Loop Voltage Drop: 3.8 Volts @ 20.0mA.

**Display:** 17.8mm (0.7") high 32 digit LCD with trailing zero (42 digits) and decimal points switch selectable.

Display Update Rate: 0.5s.

Under-range Indication: < -999 displays as "-1".

Over-range Indication: > +1999 displays as "1".

**Calibration Range** 

Zero (4mA): Adjustable from -1999 to 1000. Span (20mA): Adjustable from 200 to 19990.

Note: Span and Zero are adjusted by 10 turn potentiometers

in 3 ranges.

Accuracy:  $\pm 0.2\%$  of span counts,  $\pm 1$  count. Operating Temperature: -10 to 70 °C.

Engineering Units: Self-adhesive labels are provided for the following units: Hz, litres/m, litres/hr, litres, gal/m, gal/h, gallons, kg/m, kg/hr, kgs, lbs/m, lbs/hr, °F, °C, Watts, Bar, kPa, psi.

Protection: IP67 (Nema 4X) watertight.

Cable Entry: By cable glands.

Mounting

Standard: Wall mount bracket supplied.

Optional: Pipe mounting - a galvanised metal bracket enables the 210 to be attached to a 2" vertical or

horizontal pipe.

Materials: The enclosure is an ABS and polycarbonate mixture.

#### Hazardous Area Approval

ATEX ApprovalCSAusc ApprovalLR104840-4.

Class 1, Groups A, B, C & D.

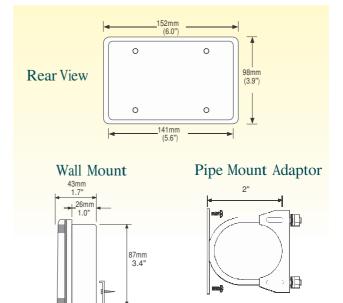
Input Parameters: Ui = 28V

li = 93mA

Pi = 650mW

Input capacitance and inductance are negligible.

## **Dimensional Diagrams**



### Product Codes

Wall Mount Bracket

Option 2

Product Codes				
210	•			Loop Powered Indicator
Intrinsic Safety	i			Intrinsically safe Not intrinsically safe
Enclosure and Mounting		0 2 6		Wall Mounting (no gland holes) Wall Mounting (Standard glands) Pipe Mount
Hazardous Approvals			C M S	CSA US and Canadian Approval ATEX Approval SAA Australian Approval No Approvals

Important: Specifications are subject to change without notice.

#### www.contrec.co.uk

Contrec Pty. Ltd. 5 Norfolk Ave, Ringwood Victoria, Melbourne Australia Mob. 0413 505 114

Email: paul@contrec.com.au

Contrec Europe Limited
PO Box 436 Sowerby Bridge

West Yorkshire HX6 2AY, UK
Tel: +44 1422 829 940 Fax: +44 1422 829 941

Email: sales@contrec.co.uk

Contrec - USA, LLC

916 Belcher Drive, Pelham AL 35124 USA Tel: (205) 685 3000 Fax: (205) 685 3001

Email: contrec@contrec-usa.com

