



LOOP-POWERED TRIP AMPLIFIER

Type B12-2W

- *Self powered - no auxiliary supply needed*
- *High / Low alarm selection*
- *Adjustable hysteresis*
- *Multi-turn dial set-point*
- *Wall or DIN rail mounting*



The B12-2W single point trip amplifier provides voltage free contacts which change state when the input signal passes an adjustable reference set-point. No auxiliary supply is required as the trip amp derives all its power from the 4-20mA signal being monitored. Applications for the trip amplifier include detection of high or low alarm conditions and sensing broken signal lines.

Alarm indication

Two indicators, red and green, are provided on the front panel. Red indicates an alarm condition. User adjustable High-Low alarm selection is provided. When set to HIGH, the red LED is 'on' when the measured signal is higher than the set-point. When set to LOW, the red LED is 'on' when the measured signal is lower than the set-point. The green LED indicates the opposite state to the red LED.

Set-point

The trip-point is set by a front panel mounted ten-turn dial scaled 0-100% of the measured signal.

Relay output

Relay contacts provided are one normally closed and one normally open.

Information required when ordering

- Specify "Type B12-2W"
NB Units are supplied as standard with High / Low Alarm Section set to 'HIGH' & Hysteresis set to $\pm 1\%$ of span

Specifications

Input

4-20mA

Outputs

Relay with one normally closed and one normally open contact rated 4A @250VAC resistive or 2.5A @ 24VDC resistive.

Hysteresis

Set during calibration at $\pm 1\%$ of span. May be user adjusted to a maximum of $\pm 5\%$ of span.

High / Low Alarm Selection

Set by internal slide switch.

Set-point

Front panel mounted ten-turn dial scaled 0 - 100% of the input signal. A locking mechanism prevents accidental movement of the knob setting.

Calibrated Accuracy

Set at 100% to be within typically $\pm 0.2\%$ FSD
Repeatability error less than 0.2% span

Linearity

Set-point linearity error $\leq \pm 1\%$

Interference Rejection

Filtering is incorporated to attenuate R.F. and other industrial noise.

Temperature Coefficients

Zero: $\pm 0.02\%$ span / °C, Span: $\pm 0.02\%$ span / °C

Environmental

Temperature: operating -10 to +60°C, storage -20 to +70°C
Humidity: 0 – 95% RH non-condensing

Isolation

500V RMS, input to output

Power Supply

None required, power is derived from the input signal. The unit drops approximately 6 volts across its input terminals.

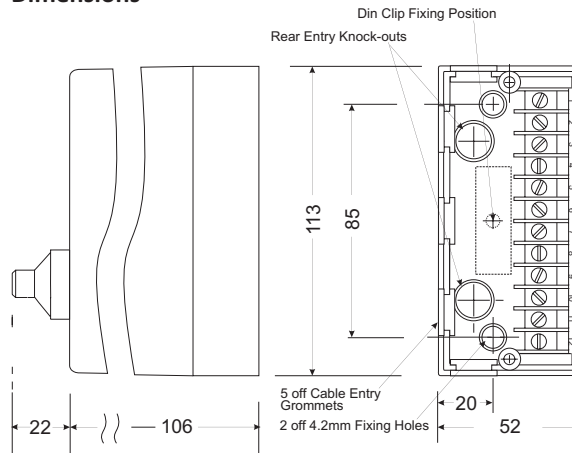
Safety & EMC

Safety: EN61010-1, Immunity: EN50082-1,
Emissions: EN50081-1, CE certified

Mechanical

Weight: approx. 0.3kg
Enclosure: Fire retardent materials - PPO base, ABS cover
Screw terminal wire capacity: 2 x 1.5mm²

Dimensions



Electrical Connections



NOTE: These details are provided for pre-sales information only. Installation must be carried out in accordance with the User Guide

- 1
 - 2 - Input Signal (+)
 - 3 - Input Signal (-)
 - 4
 - 5
 - 6
 - 7
 - 8
 - 9
 - 10 - Earth (*this terminal must be earthed*)
 - 11
 - 12
- Relay contacts are shown with the input signal lower than set point

Continuous development may necessitate changes in these details without notice

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