

SC-IF SERIES

Current to Frequency Loop Powered Isolator

Features

- 4-20 mA Input (10-50 mA optional)
- 0 to 10 kHz Pulse Output
- Two Year Warranty
- Loop Powered
- Input & Output LED Indicators
- Various Mounting Styles



Description:

The SC-IF loop powered signal conditioner whose function is to provide a 0 - 10kHz frequency output signal in response to a 4-20mA analog input.

The SC-IF appears to the input loop as a series shunt resistor. A small sense resistor is used to measure the input current. The input loop derives it's power from the input current loop.

This input current signal is then scaled and converted to a 0 to 10,000 Hz frequency signal by a Current to Frequency Converter. This frequency signal is then transmitted across an optoisolator to the output stage.

The 10-50 mA range option is provided to enable the unit to perform range conversions as well as signal isolation.

Specifications:

Analog Input

Available Ranges: 4-20 mA (10-50 mA optional)

Input Type: Two Wire, Loop Powered

Equivalent Input Impedance: 525 Ω on 4-20 mA range
210 Ω on 10-50 mA range

Operational Range: 3.5-33 mA

Over Current Protection: 2.5 times rated span

Reverse Polarity Protection

Isolation Voltage: 500 V

Input Loop Indicator: LED illuminates when loop is powered by proper polarity

Pulse Output Option

Output Type: Open Collector Transistor

Low Cutoff: 1% of full scale

Range: 0 to 10,000 Hz

Duty Cycle: 50/50 Duty Cycle (nominal)

Maximum Off Voltage: 30 VDC

Minimum On Current: 10 mA

Maximum On Voltage: 1 VDC

Temperature Effect: Less than 200 ppm/degree C

Reverse Polarity Protection

Mounting Styles

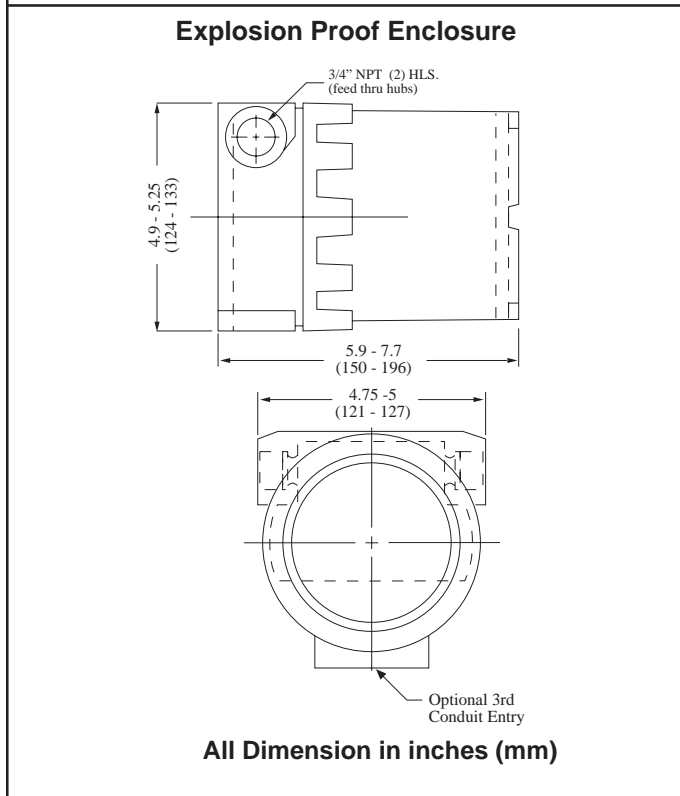
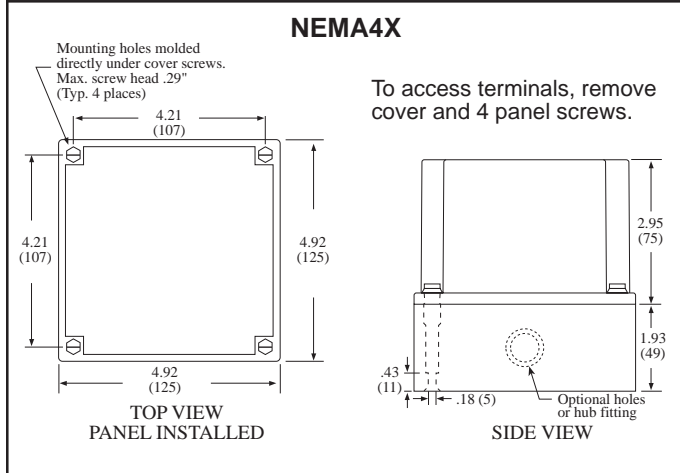
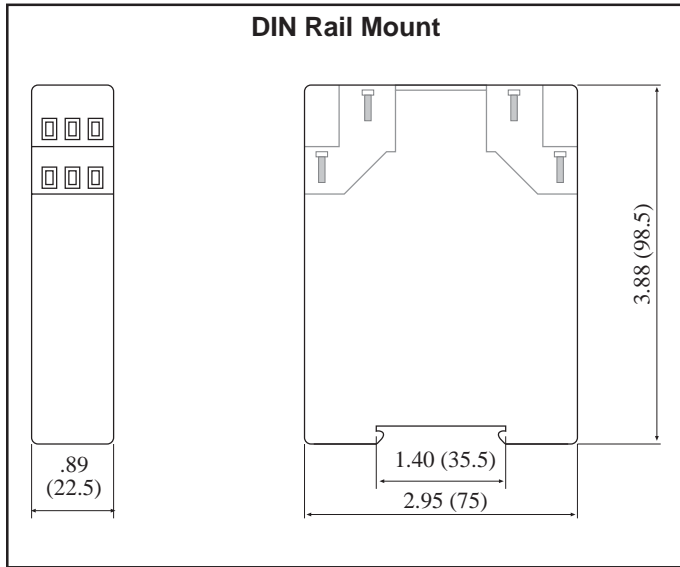
DIN Rail Mount: Plastic enclosure with a snap fastener for fitting to DIN 46 277 and DIN EN 50 022 assembly rails.

NEMA 4: 4.92" x 4.92" NEMA 4 Enclosure for wall mounting.

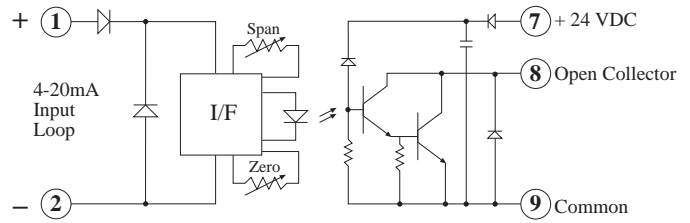
Explosion Proof: Aluminum enclosure for:
Class I, Division 1, Groups B, C & D
Class II, Division I, Groups E, F & G.

Listing: CE Compliant

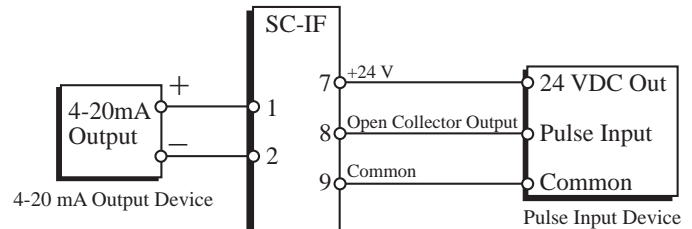
Dimensions



Simplified Block Diagram



Typical Wiring Hookup



Ordering Information

Example **SC-IF** **D** **ET**

Series _____
 IF = Current to Frequency

Mounting: _____
 B = Nema 4X
 C = Explosion Proof
 D = DIN Rail

Options: _____
 ET = Extended Temp: -4° to 185°F (-20° to 85° C)
 T = Third 3/4" conduit entry for Explosion Proof Housing
 H2 = 0.875" Hole for NEMA4 mounting style
 HF2 = 0.5" Female NPT Hub fitting
 H3 = 1.125" Hole for NEMA4 mounting style
 HF3 = 0.75" Female NPT Hub fitting

Accessories: (add to end of part number)
 DR-4 = 4" DIN Rail