

SC-FF Series

Frequency to Frequency Pulse Isolator and Scaler

Features:

- Pulse Scaler with Isolation
- Pulse, Contact Closure or Magnetic Pickup Inputs
- Two Year Warranty
- Various Mounting Styles
- Output LED Indicator

Description:

The model SC-FF is a signal conditioner which permits the user to condition and scale the input pulses from a pulse producing sensor into a high level output where each pulse represents an engineering unit of measure.

Several pulse input types are supported including magnetic pickup, contact closure, and an isolated pulse input.

The pulse scaling permits a user to apply a scaling multiplier with a value of .0001 to .9999 with additional multipliers of 1, .1, .01, .001 and .0001. Pulse scaling is accomplished by rotary encoded and dip switch selections.

The pulse output is available in isolated, non-isolated and relay versions. User selections include output pulse duration and internal pullup resistors. The user may select his pulse output configuration by means of a dip switch.

The unit is powered to 8 - 35 VDC. Reverse polarity protection is provided. Power and Pulse input/output indicators are provided.

The unit is available in enclosures intended for either DIN rail, NEMA4X or Explosion Proof.

Specifications:

Pulse Input:

Isolated Pulse:

Logic 1 (high): 3 - 30 VDC
 Logic 0 (low): 0-0.4 VDC
 Input Frequency Range: 0-10000 Hz
 Input Impedance: 3.3 k Ω
 Reverse Polarity Protection
 Isolation Voltage: 500 V

Contact Closure:

Switch Debounce: 40 CPS maximum count rate
 10000 ohm internal pullup to 5 VDC

Magnetic Pickup:

Sensitivity: 30 mV p-p
 Bandwidth: 0-3500 Hz
 Over Voltage Protection to 30 VDC
 10 Kohm input resistance



Pulse Output:

Pulse Duration: 50 uSec, 500 uSec 50 mSec (Switch selectable)

Open Collector Pulse:

Maximum Voltage: 48 VDC
 Maximum Current: 100 mA @ .7V max
 Max. Output Speed: 10 kHz
 Reverse Polarity Protection
 Overcurrent Protection
 Jumper selectable for 5 V and 24 V pulse output

Isolated Pulse:

Maximum Voltage: 30 VDC
 Maximum Current: 10 mA
 Max. Output Speed: 1 kHz
 Isolation Voltage: 500 VDC
 Reverse Polarity Protected

Output Relay (optional):

Contact Rating: 0.5 amps 240 VAC
 Output Form: Form A (SPST)
 Max. Output Speed: 10 KHz

Power Input:

Input Voltage Range: 8.5 to 35 VDC
 Supply Current: 25 mA (nominal)
 Reverse Polarity Protection
 Transient Protection

Pulse Scaling:

Scaler: 0.0001 to .9999
 Multiplier: X1, X0.1, X0.01, X0.001, X0.0001

Mounting Styles

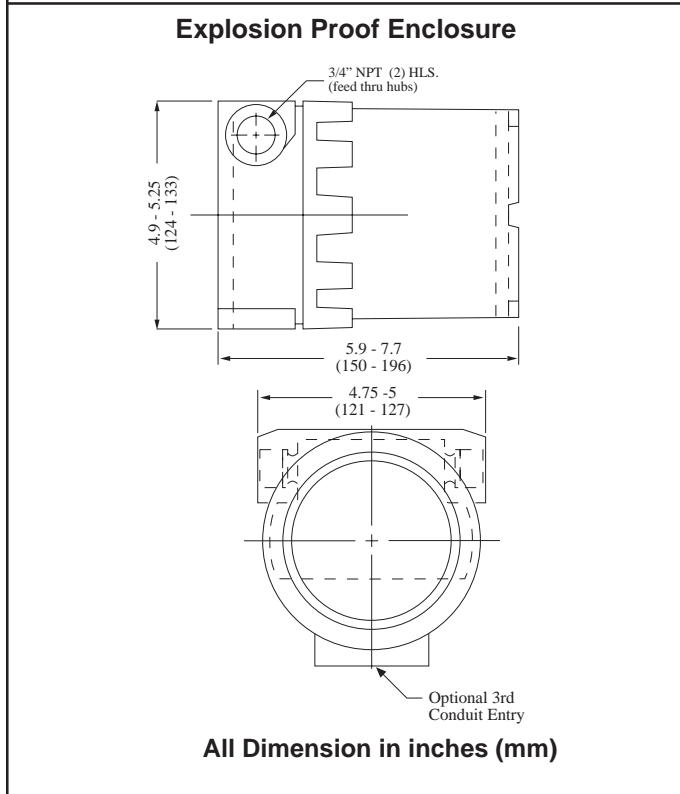
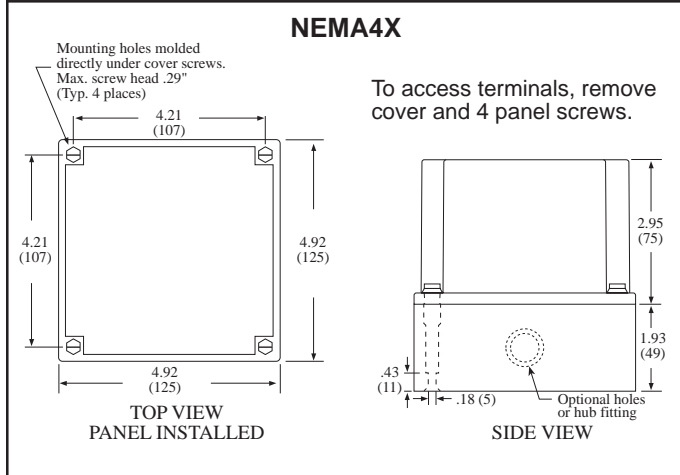
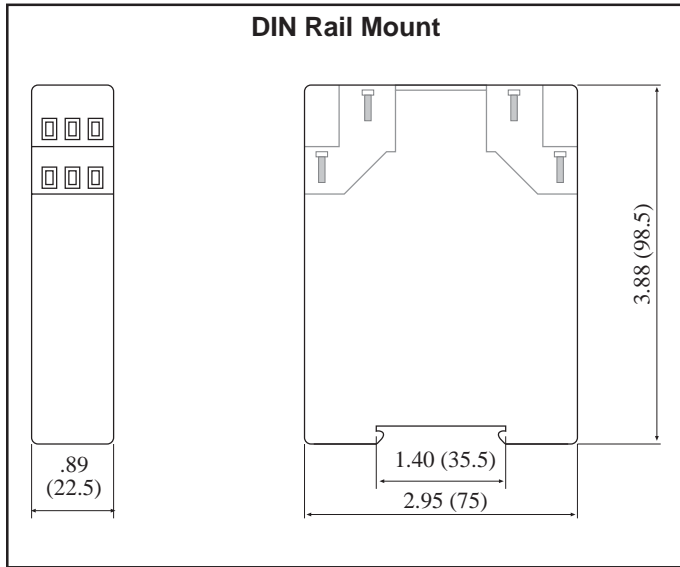
DIN Rail Mount: Plastic enclosure with a snap fastener for fitting to DIN 46 277 and DIN EN 50 022 assembly rails.

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

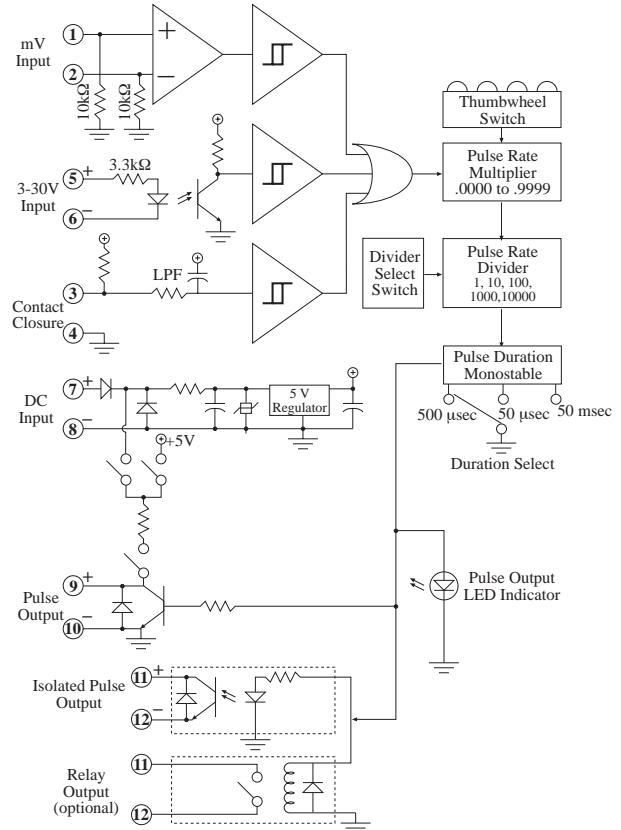
Explosion Proof: Aluminum enclosure for:
 Class I, Division 1, Groups B, C & D
 Class II, Division I, Groups E, F & G.

Listing: CE Compliant

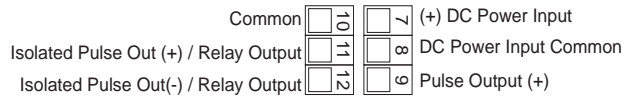
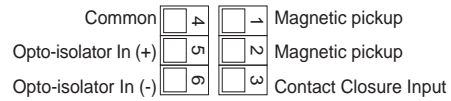
Dimensions



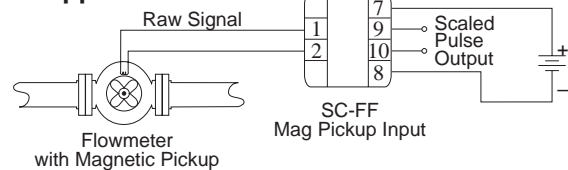
Simplified Block Diagram



Wiring:



Typical Application:



Ordering Information

Example SC-FF 1 B ET

Series FF = Frequency to Frequency

Output Type
 1 = Open Collector & Isolated Pulse (STD)
 2 = Open Collector & Relay Output

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