SC-FF Series

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 kΩ
- 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
- 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
Simplified Block Diagram

Dimensions

DIN Rail Mount

NEMA4X

To access terminals, remove cover and 4 panel screws.

Explosion Proof Enclosure

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

All Dimension in inches (mm)