

# SC Series

## Signal Conditioners

### Features:

- Two Year Warranty
- Loop Powered (SC-FI & SC-II only)
- Pulse, Contact Closure or Magnetic Pickup Inputs (SC-FI & SC-FF only)
- Various Mounting Styles
- LED Indicators



### SC-FI Frequency to Current Signal Conditioner

#### Description:

The SC-FI is a two wire frequency to analog converter that converts a pulse rate input into a 4-20 mA output signal proportional to frequency or rate.

The input pulse rate is amplified and filtered by the input signal conditioning circuitry. Two forms of input signal conditioning are provided, one for magnetic pickups the other being an isolated pulse input.

The amplified frequency signal is then converted to an analog signal using a precision frequency to analog converter.

The output stage derives its power from the output current loop. The output stage converts the analog input signal into the desired output range. Multi-turn potentiometers provide for the necessary trimming of span and zero.

#### Ordering Information

Example	SC-FI	D	ET
Series	_____		
	FI= Frequency to Current		
Mounting:	_____		
	B= Nema 4X		
	C= Explosion Proof		
	D= DIN Rail		
Options:	_____		
	ET= Extended Temp: -4° to 185°F (-20° to 85° C)		
	L = Low Count Speed for Contact Closure Inputs		
Accessories: (add to end of part number)			
	DR-4= 4" DIN Rail		

### SC-II Current to Current Loop Powered Isolator

#### Description:

The SC-II loop powered isolator provides a retransmitted, galvanically isolated 4-20 mA output signal in response to isolated 4-20 analog input. It may be applied in a similar manner as a conventional two wire transmitter. The SC-II 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 its 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 opto-isolator to the output stage. The output stage derives its power from the output current loop. The output stage converts the 0-10000 Hz frequency signal into a current flowing in the output loop equal to that flowing in the input current loop.

The 0 to 10 kHz output and the 10-50 mA range options are provided to enable the unit to perform range conversions as well as signal isolation.

#### Ordering Information

Example	SC-II	D	ET
Series	_____		
	II= Current to Current		
	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)		
Accessories: (add to end of part number)			
	DR-4= 4" DIN Rail		

### SC-FF Frequency to Frequency Pulse Isolator & Scaler

#### 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 a 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.

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