

**SCI**  
**FREQUENCY TO CURRENT CONVERTER**



Flow  
Pressure  
Level  
Temperature  
measurement  
monitoring  
control



- Frequency to Current Conversion
- Compact DIN Rail Mounting Option
- Explosion-proof enclosure Available
- Magnetic or High-Level Pulse Inputs
- 4–20 mA Loop Powered

**S6**



**USA**

KOBOLD Instruments Inc.  
1801 Parkway View Drive  
USA-Pittsburgh, PA 15205  
☎ +1 412-788-2830  
Fax +1 412-788-4890  
E-mail: info@koboldusa.com



**CANADA**

KOBOLD Instruments Canada Inc.  
9A Aviation  
Pointe-Claire, QC H9R 4Z2  
☎ +1 514-428-8090  
Fax +1 514-428-8899  
E-mail: kobold@kobold.ca

Visit KOBOLD Online at  
[www.kobold.com](http://www.kobold.com)

Model:  
**SCI**



## Features

- Frequency to Current Conversion
- Compact DIN Rail Mounting Option
- Explosion-proof enclosure Available
- Magnetic or High-Level Pulse Inputs
- 4–20 mA Loop Powered

The SCI is a two-wire, loop powered, frequency to analog converter that converts a pulse rate input to a 4-20 mA output signal. Two forms of signal input are accepted, one for millivolt (magnetic pickups) signals, and the other for high level inputs to 30 volts (amplified signals).

The outputs are completely scalable. Zero and span are adjusted with multi-turn trim potentiometers.



## Specifications

### Input

#### High Level

- Type:** 0–30 VDC (opto-isolated)
- Logic 1:** 4–30 VDC
- Logic 0:** 0–1 VDC
- Frequency:** 0–10 kHz
- Fault Tolerance:** Reverse polarity, Over voltage

#### Millivolt Input (Magnetic Pickups)

- Type:** Differential
- Impedance:** 10 kohms
- Sensitivity:** 30 mV p-p
- Frequency:** 0–3500 Hz

#### Over Voltage Protection

±30 VDC

#### Frequency Ranges (User Selectable)

- DIP Settable:** 150 Hz, 300 Hz, 600 Hz, 1,200 Hz, 2,500 Hz, 5,000 Hz, 10,000 Hz

### Analog Output

- Signal:** 4–20 mA, 2-wire
- Accuracy:** ±0.1% of span @ 68°F
- Linearity:** ±0.1% of span
- Response Time:** 0.1 sec.

#### Errors

##### Output Voltage Effect

< ±0.002% span/volt

##### Temperature Effect

< 100 ppm/°F

**Noise:** < 0.2% of span

## KOBOLD SCI Signal Conditioner

- Voltage:** 10–40 VDC
- SCI Load:** 500 ohms nominal
- External Load:** 1,500 ohms max.
- Trim Controls:** Zero & Span (independent)
- Span Range:** 50% to 100% F.S.
- Overcurrent Limit:** 35 mA
- Fault Tolerance:** Reverse polarity

#### Operating Temperature

- Standard:** 32°F to 150°F
- Optional (E):** -4°F to 185°F

#### Mounting Options

- DIN Rail:** DIN 46 277 or DIN EN 50 022
- Plastic Enclosure:** NEMA 4X 4.9"x4.9"x4.9"
- Explosion Proof:** Aluminum enclosure CI I, Div I, Gr B,C,D CI II, Div I, Gr E,F,G

## SCI Ordering Information

Mounting Option	Order Number
DIN Case (NEMA 1)	SCI-121
Plastic Enclosure (NEMA 4X)	SCI-122
Explosion Proof Enclosure	SCI-123
Option	Option Suffix
Factory scaling of output	-F
Extended Temperature (-4 °F to 185 °F)	-E