

# SIGNAL ISOLATOR

COMPACT SERIES Type COM-3B

- **Narrow profile - high packing density**
- **Field programmable ranges covering all common process signals**
- **Universal supply 11—32VDC**
- **Simple installation**
- **3-port isolation**
- **Unpluggable shielded connectors**

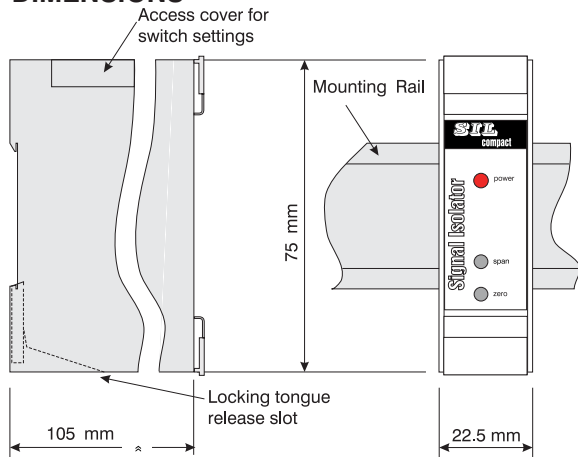


This instrument provides cost-effective signal booster or signal converter functions. The input, outputs and power supply are electrically isolated from each other making these units ideal for preventing or solving erratic measurements due to earth loops

## TYPICAL APPLICATIONS

- Overcoming problems where the input and output cannot be related to a common connection.
- Solving current loop load problems.
- Isolating and converting dangerous voltages to safe levels.
- Converting voltage signals to current or current signals to voltage.

## DIMENSIONS



## Information required when ordering

### Standard units

Standard units are supplied with the following settings:

**Input:** 4-20mA, **Output:** 4-20mA

**Order Code:** COM-3B

### Units pre-configured

**Order code:** COM-3B /9  
followed by:-

- Input signal
- Output signal

## SPECIFICATION

### GENERAL NOTE

The standard unit has field programmable inputs and outputs which are detailed below. Other ranges for the Compact Isolator may be available, please contact our sales department with your requirements.

### INPUTS

Field programmable input ranges:

0 - 10 mA }  
0 - 20 mA } 100 ohms input impedance  
4 - 20 mA }

0 - 5 Volts }  
1 - 5 Volts } 300 k ohms input impedance

### OUTPUTS

mA Ranges	Max. load (ohms)
0 - 10 mA	1500
0 - 20 mA	1000
4 - 20 mA	1000
4 - 20 mA current sink* (50 Volts supply max.)	

\* factory-set option only

Voltage Ranges	Min. load (ohms)
0 - 10 V	1000
2 - 10	1000

### LINEARITY ERROR

≤ ± 0.1% of full scale

### LOAD RESISTANCE EFFECT

≤ 0.001% of span / 100 ohms change

### RESPONSE TIME

200 ms

### ISOLATION

The input and output are isolated from each other and from the power supply. Maximum voltage 250 V RMS or 400V DC

Resistance between any port (input, output or power supply) ≥ 50 x 10<sup>6</sup> ohms @ 1000V DC

Capacitance between output and power supply 1000pF

### SUPPLY VOLTAGE REJECTION

Output change < 0.01 % span / % supply change

### TEMPERATURE COEFFICIENTS

Zero: ± 0.02% span / deg C

Span: ± 0.02% span / deg C

### POWER SUPPLY

11—32 VDC 1.6 W max.

This unit is protected by a thermal self-resetting fuse.

'Power on' indication is provided by a red LED indicator.

### ENVIRONMENTAL

Temperature range

Operating: - 10 to + 50 deg C

Storage: - 20 to + 70 deg C

Humidity: 0-95% RH non-condensing

### SAFETY & EMC

Safety: EN61010-1

Immunity: EN50082-1

Emissions: EN50081-1

CE certified

### WEIGHT

Approximately 110g

### ENCLOSURE

Protection: Enclosure - IP40

Terminals - IP20

Material: Enclosure - Polycarbonate (30% GFR),

Colour - green

Terminal Housing Polycarbonate

Colour - green

Terminals: To suit wire with cross section 2.5mm<sup>2</sup> max.

### ELECTRICAL CONNECTIONS



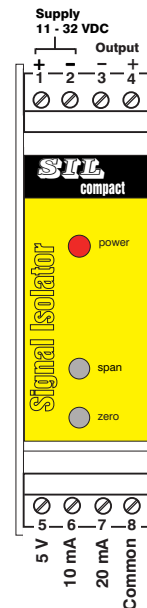
**WARNING:** these details are provided for pre-sales information only. Installation must be carried out in accordance with the User Guide

Top terminals

1. Supply (+)
2. Supply (-)
3. Output signal (-)
4. Output signal (+)

Bottom terminals

5. 5 volts input signal (+)
6. 10 mA input signal (+)
7. 20 mA input signal (+)
8. Input signal (-)



Continuous development may necessitate changes to these details without notice.

# SIIL®

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