

# Isolating Signal Converter/Amplifiers SI320 SI330 & SI340

- SI320 Two Channel Isolating Signal Converter
- SI330 Three Channel Isolating Signal Converter
- SI340 Four Channel Isolating Signal Converter

Function: The instrument is a multi-channel isolating signal converter, amplifier. Each channel is capable of accepting mA or Voltage input and giving a transmission level current output.

A 19" euro-card rack can accept 12 x SI340s and therefore give 48 channels of isolation per 19" rack.

Options on the instrument include: a single input to two (SI320), three (SI330) or four (SI340) isolated outputs.



QC SERIES  
CONVERTERS

## SPECIFICATIONS

Please note that the following are typical ranges. We also manufacture instruments to cater for other ranges, within limitations detailed below. All instruments come with span and zero potentiometers for fine tuning on site.

### INPUTS:

#### DC Current

0 to 1mA into 1K ohms  
0 to 10mA into 100 ohms  
4 to 20mA into 62.5 ohms  
10 to 50mA into 25 ohms  
Other current inputs as required  
Minimum current 100µA  
Maximum current 100mA

#### DC Voltage

0 to 1 Volt DC into 30K ohms  
1 to 5 Volt DC into 120K ohms  
0 to 10 Volt DC into 300K ohms  
Other voltage ranges as required  
Minimum voltage span 1 Volt  
Maximum voltage span 10 Volts

### OUTPUTS:

#### DC Current

0 to 1mA into 10 to 15K ohms  
1 to 5mA into 10 to 3K ohms  
0 to 10mA into 10 to 1K5 ohms  
4 to 20mA into 10 to 750 ohms  
Minimum span 1mA  
Maximum span 20mA

#### Load Stability

Less than 0.02% of span over the load range specified

#### Input to Input/Output/Supply Isolation

250 Volts RMS

### SUPPLY:

#### Power Supplies

100 to 120 Volt 50/60 Hz  
200 to 240 Volt 50/60 Hz  
or 16 to 30 Volt DC using a transformer coupled converter to maintain signal to power supply isolation

#### Power Required

5 Watts or 6VA maximum

#### Pilot Light

Green LED shows Power ON

### GENERAL:

#### Linearity Error

Proportional to input  $\pm 0.1\%$  of span

#### Temperature Coefficient

$\pm 0.1\%$  of span/  $\Delta 10^\circ\text{C}$

#### Ripple Rejection

Greater than 60dB at 50 Hz

#### Channel Interaction

Less than 0.1% of span induced in any other channel upon full scale change in one channel

#### Operating Temperature Range

0 to  $+50^\circ\text{C}$

#### Storage Temperature Range

$-20$  to  $+85^\circ\text{C}$

#### Operating Humidity Range

0 to 95% RH non-condensing

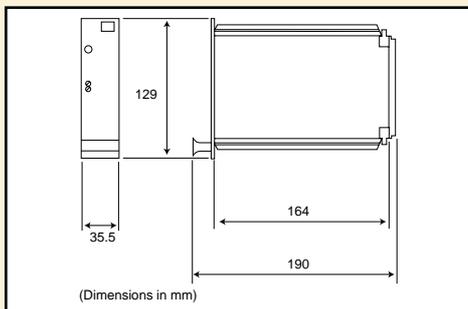
#### Storage Humidity Range

0 to 95% RH non-condensing

#### Weight

SI320 340 gms  
SI330 375 gms  
SI340 405 gms

## MECHANICAL DETAILS



## TERMINATION DETAILS

Termination details are dependent upon input type and upon type of housing chosen (19" rack or DIN rail mounting enclosure) and, if 19" rack, screw terminals or solder terminals. Further details upon request from our internal sales department.

## ORDERING DETAILS

- (a) Give identification code, i.e. SI340
- (b) Give power supply voltage, i.e. 240 Volt 60 Hz
- (c) Give all details of input signals, i.e. 2 x 4 to 20mA and 2 x 0 to 10 Volt DC
- (d) Give details of all output signals, i.e. 4 x 4 to 20mA



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