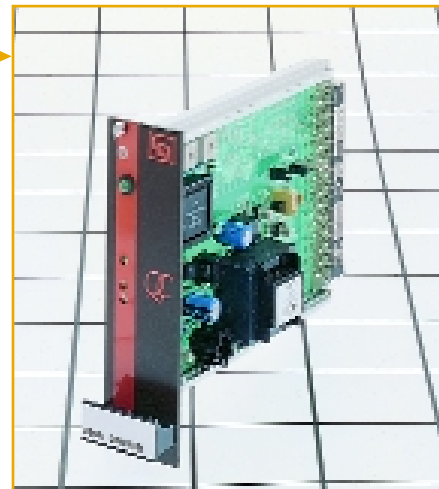


# Very Low Frequency to Current/Voltage Converter SI300/20

**Function:** The SI300/20 is a very low frequency converter/amplifier which will give an isolated transmission level voltage or current output. The SI300/20 will accept frequency inputs from a variety of transducer types (voltage free contacts, 2 wire proximity detectors, 3 wire devices with pulse outputs, pnp open collectors, etc.) The SI300/20 has two ranges of frequencies over which it will operate. The resolution and speed of response is range dependent. The SI300/20 has an on board transducer power supply with a variable voltage output suitable for most common transducers. The SI300/20 is ideally suited to monitor the speed of rotating machinery and can be followed by a T100/T120 to give alarm, control and shutdown facilities at preset levels of speed. It is further suited for use with constant displacement flow meters to give an analogue measurement of flow rate and with proximity detectors for non-contact speed measurement.



QC SERIES  
CONVERTERS

## SPECIFICATIONS

Please note that the following are typical standard ranges. We will manufacture instruments to cater for other ranges too, within certain limitations. Please contact our internal sales department for further clarification.

### INPUTS:

#### AC Frequency or Pulse

Range 1:

Between 0 and 10 Hz

Minimum span 0.1 Hz

Maximum span 10 Hz

Resolution 0.1%

Range 2:

Between 0 and 100 Hz

Minimum span 0.1 Hz

Maximum span 100 Hz

Resolution 1%

Range 2 to be used when resolution is not so important but speed of response is important

#### Input Voltage (Peak to Peak)

Minimum amplitude 500mV

Maximum amplitude 100 Volts

#### Speed of Response

Almost instantaneous. Exponential decay on loss of signal or optional cut-off if specified.

#### Transducer Power Supply

3 to 24 Volt DC potentiometer adjustable

20mA maximum

### OUTPUTS:

#### DC Current

0 to 1mA into 10 to 20K ohms

1 to 5mA into 10 to 4K ohms

0 to 10mA into 10 to 2K ohms

4 to 20mA into 10 to 1K ohms

Minimum span 1mA

Maximum span 20mA

#### DC Voltage

0 to 1 Volt into 100 ohms min

1 to 5 Volts into 500 ohms min

0 to 10 Volts into 1K ohms min

Minimum span 100mV

Maximum span 10 Volts

#### Load Stability

Less than 0.2% over the load range specified

### SUPPLY:

#### Power Supplies

100 to 120 Volt 50/60 Hz

200 to 240 Volt 50/60 Hz

or 24 Volt DC with inverter to maintain signal to power supply isolation

#### Power Required

3 Watts 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/ $\triangle 10^\circ\text{C}$

#### 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

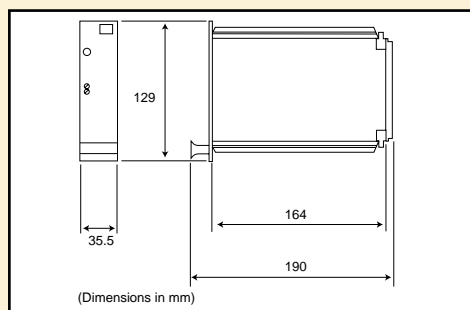
#### Storage Humidity Range

0 to 95% RH non-condensing

#### Weight

SI300/20 290 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. SI300/20
- (b) Give power supply voltage, i.e. 240 Volt 60 Hz
- (c) Give details of input signal, i.e. 2 wire proximity detector

- (d) Give details of input frequency range; i.e. 0 to 10 Hz
- (e) Give details of transducer power supply voltage required (if required); i.e. 12 Volt DC
- (f) Give details of output required, i.e. 4 to 20mA



LEE-DICKENS LTD

Desborough, Kettering, Northants NN14 2QW U.K.

Tel: (01536) 760156 Fax (01536) 762552