Load Cell / Strain Gauge Signal Amplifier DIN380

Function: Signal amplifier that will convert the input from a Load Cell or Strain Gauge (Full or Half Bridge) into a standard transmission voltage or current signal. The DIN380 supplies the transducer excitation voltage and then conditions the resulting mV signal. The DIN380 includes remote sensing input terminals to ensure that the correct voltage is applied at the transducer if it is remote from the conditioning device. The DIN380 includes as standard, zero and span potentiometers for site tuning (~±10%) and a Resistor Test Facility to simulate a known weight/force. Options on the DIN380 include: coarse zero and span offset calibration components; -10 to +10 Volt output; and, a passive output.

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 clarifacation.

INPUTS:

DC Voltage
0 to 10mV DC
-10mV to +10mV DC
Others available on request
Minimum voltage span 5mV
Maximum voltage span 100mV

Input Impedance
1M ohm or greater

Excitation Voltage
5V 45mA maximum with remote sensing

OPTIONAL EXTRAS:

Zero Offset
DIL Switch giving a coarse variation of the zero by ±50%

Span Offset
DIL Switch giving a coarse variation of the span between 50 and 100%

Fine tuning is then achieved by using the internal zero and span potentiometers.

OUTPUTS:

DC Current
0 to 10mA into 10 to 2000 ohms
4 to 20mA into 10 to 1000 ohms
Other ranges as required
Minimum span 1mA
Maximum span 20mA

DC Voltage
0 to 1 Volt DC into 100 ohms min
0 to 10 Volt DC into 1K ohm min
1 to 5 Volt DC into 500 ohms min
Other ranges as required
Minimum span 1 Volt DC
Maximum span 10 Volt DC

Optional extras:
1) -10 to +10 Volts DC into 10K ohms minimum
2) Passive output

Output/Supply Isolation
600 Volts > 20M ohms

SUPPLY:

Power Supply Voltage
User selectable
115 Volt AC±15% 50/60 Hz
230 Volt AC±15% 50/60 Hz

Power Required
3VA Maximum

Pilot Light
Red LED shows Power ON

GENERAL:

Linearity Error
Proportional to input ±0.1% of span

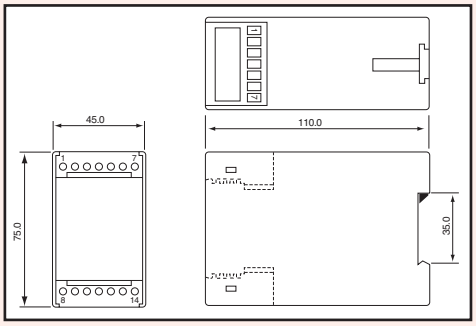
Response Time
1mSecs (approx) 0 to 65%

Temperature Coefficient
±0.1% of span / △10°C

Operating / Storage Temperature Range
0 to +45°C / -20 to +60°C

Weight
112 gms

MECHANICAL DETAILS



TERMINATION DETAILS

Terminal		Terminal	
1	Excitation +ve (+5 Volt DC)	8	Output -ve
2	Remote Sensing +ve	9	Output +ve
3	Signal +ve	10	Unused
4	Signal -ve	11	Unused
5	Remote Sensing -ve	12	230 Volt ±15% 50/60Hz
6	Excitation -ve	13	115 Volt ±15% 50/60Hz
7	Calibrated Resistor / Test Facility	14	Neutral

ORDERING DETAILS

a) Give identification code, i.e. DIN380
b) Give details of input signal, both input type and range, i.e. 2.3mV/V and 0 to 1 Tonne
c) Give details of output required, both type and range, i.e. 4 to 20mA

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