

G123-818B001

SIGNAL CONDITIONER

The G123-818 Signal Conditioner is a complete transducer signal conditioning module. It is typically used in conjunction with a load cell but may also be used with other low level output transducers.

Amplifier:

A stable constant voltage source provides transducer excitation. A precision instrumentation amplifier and filter combination provides an accurate, conditioned ± 10 V output and a 4-20mA current output. The 4-20mA output can be selected as unipolar or bipolar.

Set up:

A wide adjustment range is provided for excitation, span, zero and filtering to allow the majority of commercial load cells to be accommodated.

Front panel controls and test points allow convenient in place adjustment with LED indication of polarity and zero.

Shunt calibration using a known resistance is provided. Either an on board shunt or external user provided shunt can be selected.

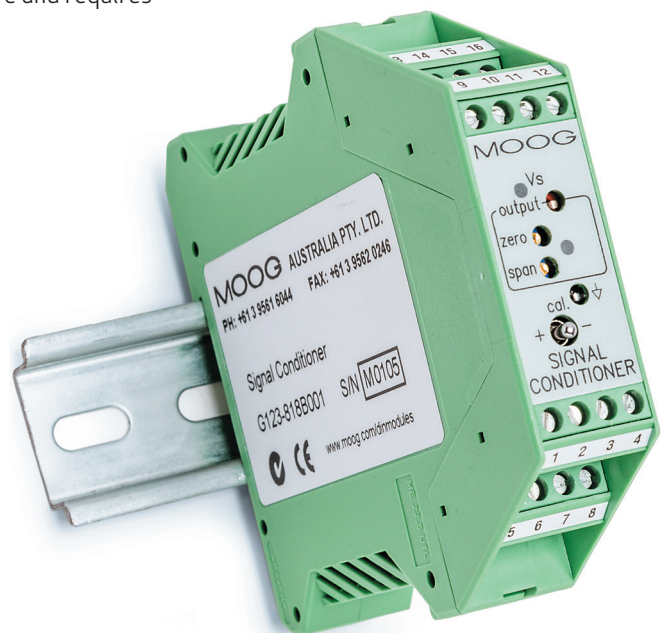
The Signal Conditioner can also be used as a stand-alone amplifier for static and dynamic measurement, outputting a scaled \pm DC voltage or current.

Housing:

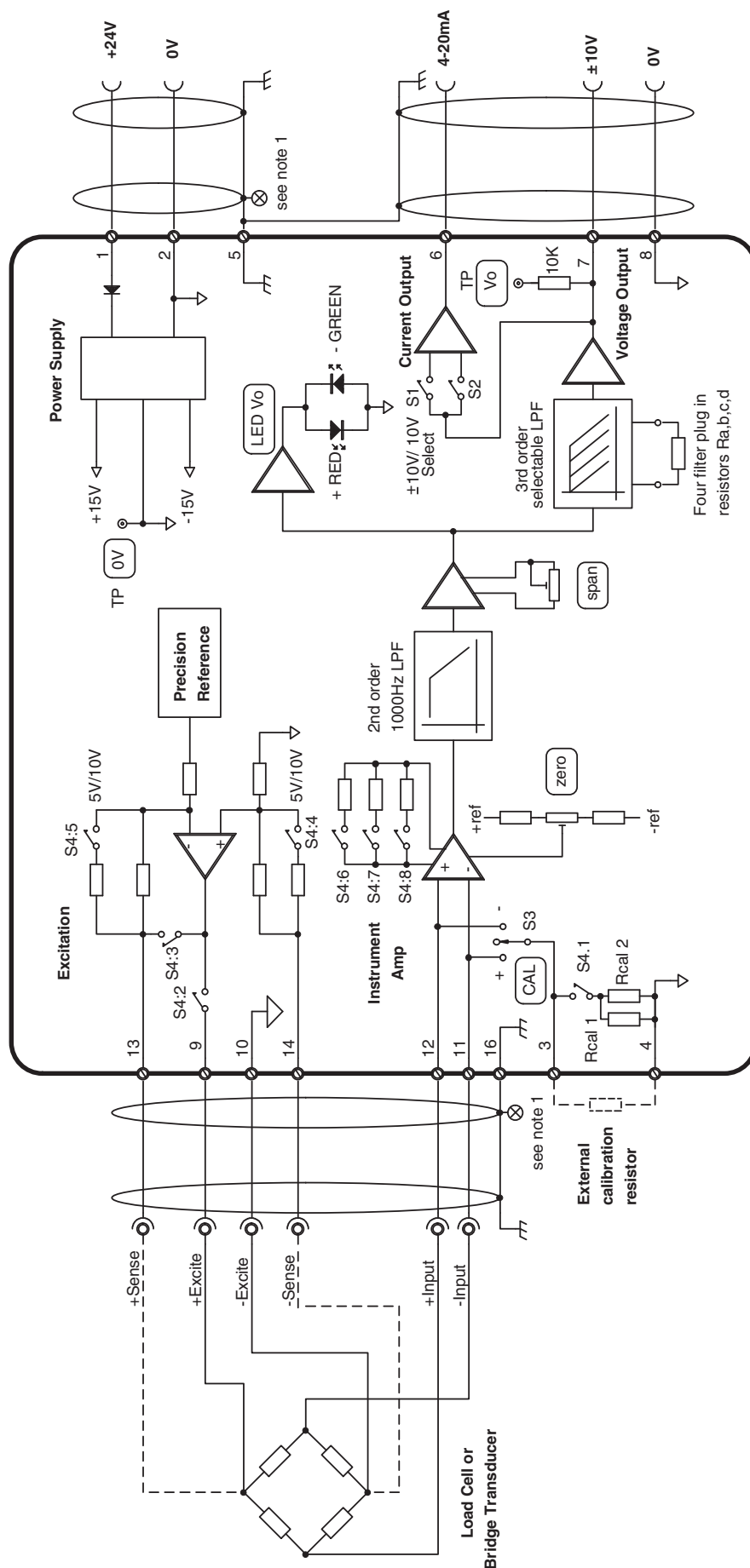
The Signal Conditioner is housed in a compact DIN rail enclosure and requires a +24 V supply.

ADVANTAGES

- Supports a wide range of load cells and other low level transducers
- Flexible internal dip switch configuration options
- Output polarity and zero balance LED
- Front panel adjustment of zero and span
- Front panel shunt calibration switch
- Frequency selectable low pass filter
- Stable and accurate industrial electronics
- Compact DIN rail housing
- CE marked



BLOCK WIRING DIAGRAM



⊗ Note: 1. Connect cable screen to enclosure cable gland or chassis ground terminal on G123-818.

SPECIFICATIONS

Transducer support	4 wire or 6 wire lead compensation, 120 Ω minimum.
Transducer excitation	selectable +5 or +10 V, 40mA max
Output	± 10 V @ 10mA 4-20mA unipolar, or 4-20mA bipolar, 12mA = no load
Internal switches	Connection: 4 wire or 6 wire transducer Full scale span range: 1: 24 to 52mV, 2: 12 to 26mV, 3: 6 to 13mV Calibration select: Internal or external user shunt Excitation: 5 or 10 V and on/off selection
Filter	Low pass, 3rd order, selectable by four plug-in resistors, Frequency range 5 to 1000Hz
Front panel adjustments	Span: 15 turn trimpot Zero: ± 2.5 % full scale by 15 turn trimpot Shunt calibration: Centre off, \pm shunt connection, toggle switch
Front panel LED's	Vs, internal supply = green Vo, output polarity, positive = red, negative = green, zero = off
Front panel test points	Vout and 0 V, 2mm test plug
Supply	+24 V nominal, +22 to +28 V range 100mA @ 24 V supply, with 350 Ω load cell, 10 V excitation and 20mA output load current

Mounting	DIN rail
Class of protection	IP 20
Operating temperature range	0 - 40°C
Dimensions	100W x 108H x 22.5D
Weight	140g
CE mark	EU 2011/65/EU RoHS EU 2014/30/EU EMC EN61000-6-4 : 2007 emission EN61000-6-2 : 2005 immunity
RCM	EN61000-6-4 : 2007 emission
Input impedance	>10 M Ω
CMRR	>100 dB @ gain = 200
Noise	<5 μ Vp-p 1 to 1000Hz RTI, 350 Ω input
Temp stability	<200 μ V/°C RTO, 0 to 40°C
Drift	<5mV RTO 30 min to 24 hour
Linearity	< ± 0.05 % FS at DC
Input protection	± 40 V
Output protection	Short circuit current limited

Moog has offices around the world.
For more information or the office
nearest you, contact us online.

e-mail: info@moog.com

www.moog.com/industrial

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DIN Signal Conditioner
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ORDERING INFORMATION

Signal Conditioner G123-818B001

Delivery includes Signal Conditioner, DIN fuse holder,
2 x M205 250 mA T fuses and a 4 page application note.

This technical data is based on current available information and is subject to change at any time by Moog. Specifications for specific systems or applications may vary.

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