

Description

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.

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.

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.

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

For information on applying and configuring the G123-818 Signal Conditioner refer to the Application Notes C31961.

Features

- 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.



Specifications

Functional

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.

Switch functions also available on test header for remote configuration.

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.

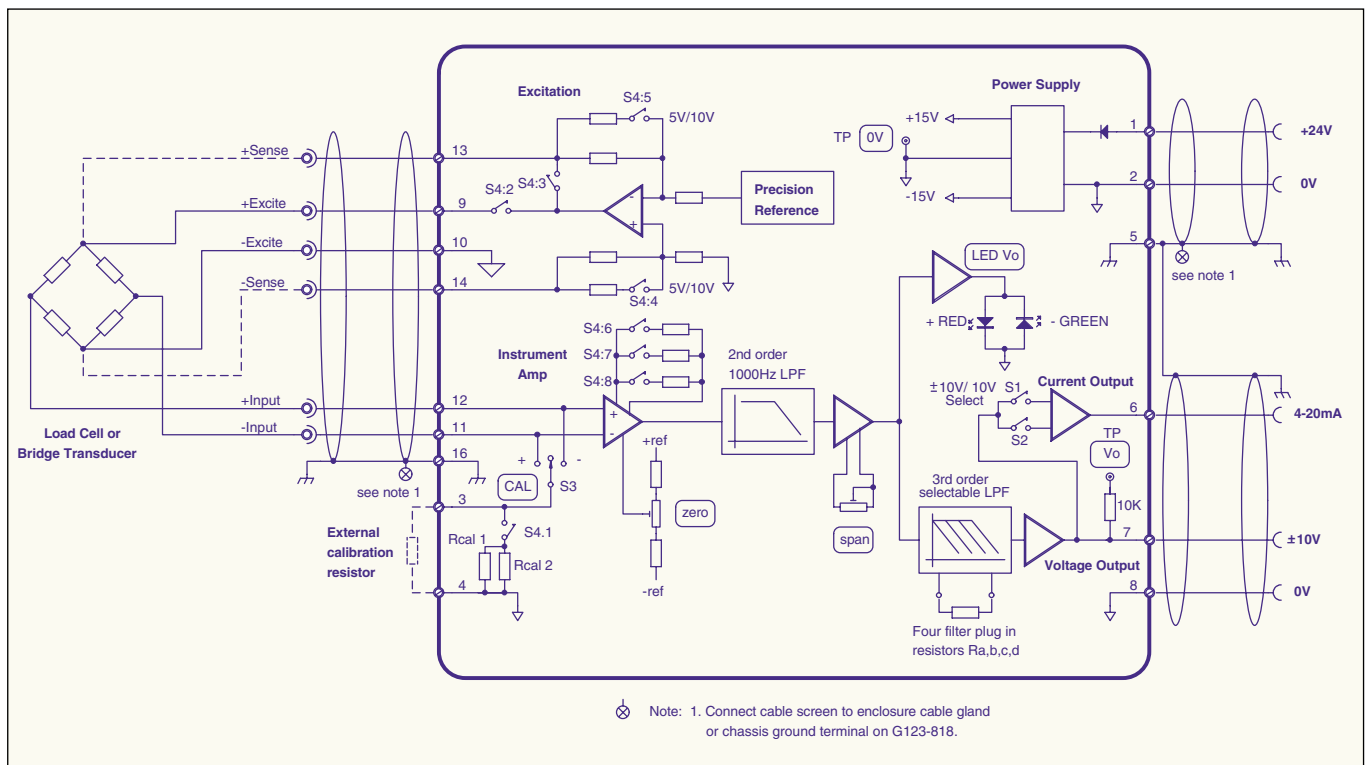
Environmental and physical

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:	140 g.
Approvals:	CE Mark: EN50081.1 emission. EN61000-6-2 immunity. C tick: AS4251.1 emission.

Performance

Input impedance:	>10 MΩ
CMRR:	>100 dB @ gain = 200
Noise:	<5 μVp-p 1 to 1000Hz RTI, 350 Ω input
Temp stability:	<200 μV/°C RTO, 0 to 40°C.
Drift:	<5mV RTO 30min to 24 hour.
Linearity:	<±0.05 % FS at DC
Input protection:	±40 V.
Output protection:	Short circuit current limited.

Operating Details



Ordering Information

Signal Conditioner G123-818-001.

Special configurations can be provided.
Consult your Moog sales office to discuss details.

Internet Data

For a detailed Application Manual and the latest version of this Data Sheet please refer to the Moog website www.moog.com/dinmodules

MOOG

Industrial Controls Division. Moog Inc., East Aurora, NY 14052-0018. Telephone: 716/652-3000. Fax: 716/655-1803. Toll Free 1-800-272-MOOG.
Moog GmbH. Germany. Telephone: 07031-622-0. Fax: 07031-622-100.
Moog Sarl. France. Telephone: 01 45 60 70 00. Fax: 01 45 60 70 01.
Moog Australia Pty. Ltd. Telephone: 03 9561 6044. Fax: 03 9562 0246.

Moog pursues a policy of continuous development and reserves the right to alter designs and specifications without prior notice. Information contained herein is for guidance only and does not form part of a contract.
Australia: Melbourne, Sydney, Brisbane ■ Austria: Vienna ■ Brazil: São Paulo ■ Denmark: Birkerød ■ England: Tewkesbury ■ Finland: Espoo ■ France: Rungis ■ Germany: Böblingen, Dusseldorf ■ Hong Kong: Shatin ■ India: Bangalore
Ireland: Ringaskiddy ■ Italy: Malnate (VA) ■ Japan: Hiratsuka ■ Korea: Kwangju-Kun ■ Philippines: Bago City ■ Singapore: Singapore ■ Sweden: Askim ■ USA: East Aurora (NY)