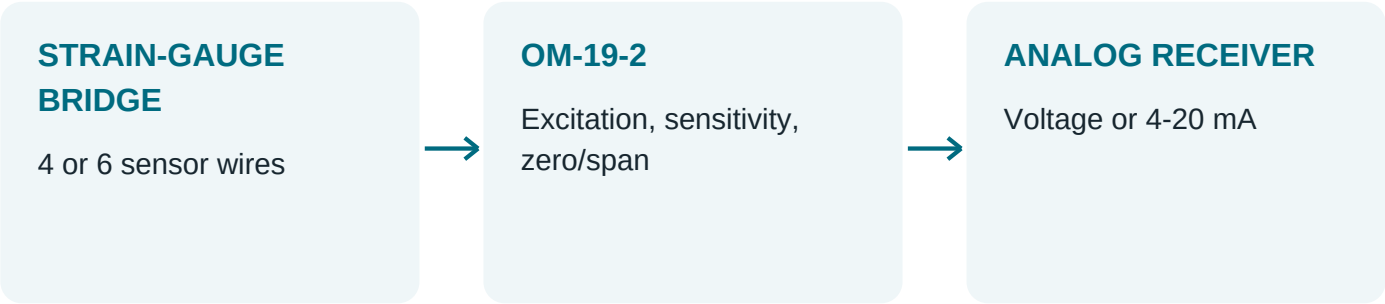


Load Cell Central OM-19-2

01 Signal conditioner / role and version

Load Cell Central OM-19-2 is the DIN-rail version of the OM-19 analog signal conditioner for strain-gauge load cells, with voltage and 4-20 mA outputs.



01 / CAPABILITY

Connects four- or six-wire strain-gauge load cells

02 / CAPABILITY

Provides jumper-selected 3, 5 or 10 V excitation

03 / CAPABILITY

Offers zero, span and sensor-sensitivity adjustments

04 / CAPABILITY

Includes a shunt-calibration push button

OM-19-1	Board version
OM-19-2	DIN-rail version - this product
OM-19-3	Housing version
OM-192S	Separate two-set-point option

Version identification is separate from output, supply and filter selection. Preserve the installed configuration when comparing units.

Load Cell Central OM-19-2

02 Interfaces and operating limits

Excitation and bridge loading

Standard supply	24 +/-4 V DC
Maximum supply current	120 mA (OM-19)
Sensor excitation	3, 5 or 10 V DC, jumper selected
Minimum bridge impedance at 3/5 V	80 ohm
Minimum bridge impedance at 10 V	160 ohm
Span adjustment	0.15 to 12 mV/V

FOUR-CELL LOAD CHECK

Four 350-ohm bridges in parallel give 87.5 ohm (350 / 4). This clears the 80-ohm minimum for 3/5 V, but not the 160-ohm minimum for 10 V. The four-cell statement is not unconditional at every excitation setting.

Output / receiver interface

Voltage output	+/-10 V or 0-10 V
Current output	4-20 mA
Voltage-output load	At least 2000 ohm
Current-output load	At most 500 ohm
Maximum output capacitance	1 nF

Check sensor wiring and excitation independently of receiver loading. A correct bridge connection does not establish a correctly loaded analog output.

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03 Configuration and measurement characteristics

Accuracy class	0.05%
Zero temperature effect	At most 0.035% FS per degree C
Span temperature effect	At most 0.02% per degree C
Operating temperature	0 to +70 C
Jumper-selected low-pass filter	10 Hz at -3 dB
Bandwidth	At most 20 kHz
Calibration control	Shunt-calibration push button

Configuration controls / distinct purposes

Sensor-wire selector	Choose four- or six-wire connection
Excitation jumper	Choose 3, 5 or 10 V
Sensor-sensitivity selection	Match the sensor range
Zero and span adjustments	Separate offset and range controls
Filter Y/N selection	Engage or bypass the 10 Hz low-pass
Shunt push button	Apply the calibration signal
Supply indicator	Power-supply LED

OPTION SCOPE

A customized 0.5-450 Hz filter, potentiometer input and 12 V supply are optional. The 12 V option limits voltage output to +/-5 V or 0-5 V; do not label those values as the standard configuration.

Load Cell Central OM-19-2

04 Engineering decisions

How does excitation selection affect OM-19-2 bridge loading?

Use a combined bridge impedance of at least 80 ohm with 3 or 5 V excitation. Selecting 10 V raises that minimum to 160 ohm.

Can four 350-ohm load cells be connected in parallel to OM-19-2 at 10 V?

Four equal 350-ohm bridges in parallel present 87.5 ohm. That is below the 160-ohm minimum for 10 V excitation, so the four-cell arrangement must not be treated as valid at that setting.

What receiver loading must be checked for OM-19-2 voltage and current outputs?

The voltage receiver must present at least 2000 ohm; the 4-20 mA circuit must stay at or below 500 ohm. Output capacitance is limited to 1 nF.

Does OM-19-2 include two alarm relays as standard?

No. The two-relay set-point board is identified as the OM-192S option, separate from the OM-19 analog conditioning board.

Which OM-19-2 controls are available for calibration adjustments?

Zero and span adjustments are provided alongside sensor-sensitivity selection. A separate push button applies the shunt-calibration signal.

12 V OPTION / DIFFERENT VOLTAGE RANGE

No. The 12 V supply option limits voltage output to +/-5 V or 0-5 V; the standard supply specification is 24 +/-4 V DC.

FILTER AND SENSOR-WIRE SELECTION

Filtering is selected Y/N. Independently match the four-/six-wire setting to the connected load cell; these are separate controls.

Load Cell Central OM-19-2

05 Service record / sources and contact

Checks to retain with the installed configuration

Sensor record	Wire count, sensitivity and combined bridge impedance
Excitation record	3, 5 or 10 V jumper setting
Output record	Voltage/current receiver and actual load
Adjustment record	Zero/span settings, shunt response and filter selection
Option record	12 V supply or separate OM-192S board, only if fitted

Match the DIN-rail version, sensor wiring, excitation, output load and installed options. Two relay set points belong to the separate OM-192S option; do not assume they are fitted to OM-19-2.

Manufacturer evidence

OM-19 / OM-192S Analog Signal Conditioner / Load Cell Central, copyright 2015; four-page datasheet

Version: page 1. Controls: page 3. Electrical, output and environmental limits: page 4. Parallel-cell calculation is derived from those published impedance limits.

Related measurement portfolio

Portfolio navigation only; no interchangeability or direct compatibility is implied.

ABB PFEA113 3BSE028144R0020

Load-cell tension measurement electronics / [View product page](#)

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