Load Cell Central OM-19-2

01 Calculate bridge loading

Calculate bridge loading — field actions

Identify cell sensitivity and resistance, calculate parallel impedance and choose permissible excitation. Preserve the mechanical reference and receiver scale.

Configuration identified

Excitation suits the actual bridge load.

Bridge inventory and excitation choice

Bridge inventory	Record cell resistance, sensitivity and parallel connection count.
Excitation choice	Compare combined impedance with the selected excitation allowance.

Configuration record	Hardware identities and original settings retained
Following activity	Connect excitation and sense

01

Strain-gauge bridge

Retain the original configuration before disturbing hardware.

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02 Connect excitation and sense

Connect excitation and sense — field actions

Use the correct four/six-wire scheme, verify polarity and inspect shielding and junctions. Confirm stable bridge excitation before adjustment.

Mounting / circuit accepted

Raw bridge signals are stable.

Sense arrangement and raw stability

Sense arrangement	Record four-wire or six-wire termination and polarity.
Raw stability	Observe the bridge signal before changing zero or span.

Installation record	Inspected interfaces and resolved defects retained
Following activity	Calibrate zero and span

02

Excitation/sense

Protect the physical and electrical installation boundary.

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03 Calibrate zero and span

Calibrate zero and span — field actions

Choose the sensitivity range, establish unloaded zero and apply known loads. Check intermediate points and repeatability after adjustment.

Connections reconciled

The installed load path is calibrated.

Known-load record and repeatability

Known-load record	Retain calibration points and the applied reference loads.
Repeatability	Compare repeated intermediate readings and return to zero.

Connection record	Final wiring and configuration assignments retained
Following activity	Match the analog receiver

03

Zero/span conversion

Resolve connection and configuration differences before energization.

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04 Match the analog receiver

Match the analog receiver — field actions

Select voltage/current output, verify scale and impedance and include cable capacitance. Compare local and remote readings under controlled loads.

Functional response accepted

The receiver reproduces the calibrated signal.

Receiver loading and remote comparison

Receiver loading	Measure or calculate the complete output impedance and capacitance.
Remote comparison	Compare local and receiver readings during controlled load changes.

Response record	Test conditions, observed response and deviations retained
Following activity	Tune response and archive settings

04

Analog receiver

Evaluate actual response under controlled conditions.

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05 Tune response and archive settings

Tune response and archive settings — field actions

Evaluate filtering with dynamic loads, retaining the fastest acceptable response. Save jumpers, calibration results and a separate shunt baseline.

Return-to-service evidence

Static and dynamic performance are accepted.

Separate related-equipment review

Opto 22 SNAP-PAC-S1

Allen-Bradley 1756-OF8

Allen-Bradley 1756-CN2R

Assess each related item independently; these references do not establish replacement compatibility.

05

Receiver assessment

Return control only after reviewing the complete test outcome.