Bently Nevada 165855-11

Engineering installation and verification guide

Bently Nevada 165855-11 identifies a 165855 cylinder pressure transducer with the 11 armored 0-6.8 bar absolute-pressure range option for reciprocating compressors.

01 / Establish the installed identity

Compare the full offered model and any visible revision or approval marks with the removed item, machine drawing and monitor configuration. Capture the original measured baseline before changing the sensing chain.

Transducer family	165855 cylinder pressure
Pressure range option	11; 0 to 6.8 bar (0 to 100 psia), with armor
Measured quantity	Cyclic absolute cylinder pressure
Pressure port	7/8-14 UNF; SAE J1926 mating seal
Interconnect cable family	146824
Monitor family	3500/77M cylinder pressure
Supply	18 to 30 Vdc

02 / Engineering interface map

1 / compressor indicator port	Start from the actual installed application.
2 / 165855 transducer	Confirm fit and identity before energizing.
3 / 146824 lead	Confirm fit and identity before energizing.
4 / 3500/77M monitor	Confirm fit and identity before energizing.

03 / Installation decisions

Pressure isolation

Use a compatible isolation valve and depressurize before removing the sensor.

Process wetted materials

Verify sensor, adapter and O-ring compatibility with the actual gas or liquid.

SAE J1926 seal

The 7/8-14 body requires the correct mating bore for adequate pressure sealing.

Diaphragm handling

Keep objects away from the sensor diaphragm during transport and installation.

Compensation data

Load the supplied unit-specific temperature points into the approved monitor.

Approval marking

Do not assign a hazardous-area rating from the incomplete 165855-11 code alone.

04 / Acceptance sequence

Isolate and inspect	Apply site isolation and inspect the physical part, contacts, seal or route as applicable.
Fit and connect	Use the verified mounting and electrical interface; preserve the installed channel design.

Prove response	Check the relevant gap, bias, pressure or velocity output against the approved site procedure.
Record as left	Save complete markings, test results, configuration and operating trend before release.

05 / Fault isolation by symptom

Why must the O-ring of 165855-11 be checked for process-gas compatibility?	An incompatible seal can degrade and cause leakage. Confirm the actual media and select the approved seal material before pressurizing.
What happens if 165855-11 is mounted in a bore that does not meet SAE J1926?	The thread alone does not establish a pressure seal. Use the specified mating geometry and verify the isolation-valve or adapter arrangement.
How should the compensation data for 165855-11 be handled during replacement?	Retain the data supplied with the actual sensor and load the corresponding points into the 3500/77M configuration; do not reuse another sensor file.
Why is the diaphragm of 165855-11 protected during installation?	Contact with tools or foreign objects can damage the sensing surface and corrupt pressure measurement. Use the manufacturer handling procedure.

06 / Engineering review before release

Can the missing approval suffix on 165855-11 be inferred from its 11 range option?	No. The 11 segment selects range and armor, while hazardous-area approval is a separate ordering segment. Verify the actual label.
What could cause an offset in the signal from 165855-11?	Check the zero output, supply, wiring, compensation data and process state before changing monitor calibration or replacing the sensor.
How should a pressure line be made safe before servicing 165855-11?	Follow the site isolation procedure, depressurize and confirm the indicator port is safe before loosening the sensor or adapter.
What evidence should be recorded after commissioning 165855-11?	Keep complete marking, sensor compensation data, pressure-port and seal details, monitor channel, zero/full-scale checks and accepted cycle trend.

Technical basis

Bently Nevada 165855 Cylinder Pressure Transducer, 166815 Rev. M

Discuss the complete marking and installed application with Apter Power.
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