

135137-01

Position I/O Module with Internal Terminations

Bently Nevada 135137-01 is the internal-termination Position I/O module for a 3500/45 monitor. It connects Proximitor, rotary-position-transducer or DC-LVDT signals to four configurable position channels.

PRODUCT SNAPSHOT

BRAND

Bently Nevada

FAMILY

3500/45 Position Monitor

PART

135137-01

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PRODUCT OVERVIEW

Bently Nevada 135137-01 is the internal-termination Position I/O module for a 3500/45 monitor. It connects Proximitor, rotary-position-transducer or DC-LVDT signals to four configurable position channels.

1

Connects proximity, rotary-position or DC-LVDT sensors to a 3500/45 monitor

2

Supports thrust, differential-expansion, case-expansion and valve-position configurations

3

Provides the documented sensor excitation and four-channel recorder-output path

4

Routes internally terminated position signals into programmable machinery alarms

SYSTEM COMPONENTS

3500 rack rear slot

3500/45 176449-04 position monitor

Proximitor, RPT or DC LVDT

Internal termination connectors

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
3500/40M 176449-01	Four-channel Proximitor monitor	Open product page
125680-01	Internal-termination Proximitor I/O module	Open product page
125720-01	Four-channel relay output module	Open product page
125760-01	3500 Data Manager I/O module	Open product page
125768-01	3500 RIM RS232/RS422 I/O module	Open product page

TECHNICAL DATA

PARAMETER	VALUE
Termination arrangement	Internal
Supported transducers	Proximator; RPT; DC LVDT
Signal inputs	1 to 4
Proximator/RPT input impedance	10 kOhm
DC LVDT input impedance	1 MOhm
Proximator/RPT power	-24 Vdc
DC LVDT power	+15 Vdc
Recorder output	4-20 mA
Recorder load	0-600 Ohm

PARAMETER	VALUE
Recorder update rate	100 ms or less
Thrust sensitivity	3.94 or 7.87 mV/um
Diff. expansion sensitivity	0.394 or 0.787 mV/um
Direct-filter response	-3 dB at 1.2 Hz
Gap-filter response	-3 dB at 0.41 Hz
Measurement accuracy	+/-0.33% FS typical; +/-1% maximum
Alarm setpoint accuracy	Within 0.13% of desired value
Operating temperature	-30 to +65 degC
Storage temperature	-40 to +85 degC

TECHNICAL NOTE

Confirm the installed sensor family, excitation and mechanical zero on each channel, restore the correct paired measurement function and prove travel direction plus alarm setpoints before normal operation.

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Axial thrust-position protection

Connects proximity, rotary-position or DC-LVDT sensors to a 3500/45 monitor

Turbine differential-expansion monitoring

Supports thrust, differential-expansion, case-expansion and valve-position configurations

Case-expansion measurement

Provides the documented sensor excitation and four-channel recorder-output path

Steam-valve position feedback

Routes internally terminated position signals into programmable machinery alarms

PRODUCT PRECAUTIONS

- 1 Verify 135137-01 is paired with the documented 3500/45 monitor slot.
- 2 Isolate sensor excitation and recorder loops before removing internal terminals.
- 3 Record sensor type, channel pairing, scale, zero and travel direction.
- 4 Do not connect AC LVDT or rotary-potentiometer circuits to this I/O execution.
- 5 Confirm the configured excitation matches Proximitator, RPT or DC-LVDT hardware.
- 6 Check mechanical zero and full travel without exceeding the installed transducer range.
- 7 Validate 4-20 mA recorder scaling on each active channel.
- 8 Prove Alert and Danger setpoints after confirming position direction and gap values.

ENGINEER FAQ

Q1 What evidence should be retained after 135137-01 returns to service?

Retain the full 135137-01 identity, as-left connections, restored configuration, final diagnostics and the controlled functional-test result for turbine differential-expansion monitoring.

Q3 What as-found information should an engineer record before removing 135137-01?

Record every channel or port assignment, connector identity, configured function, cable tag and diagnostic state associated with 135137-01.

Q5 Which configuration should be restored after replacing 135137-01?

Restore the approved 3500/45 Position Monitor slot, channel or interface configuration and verify that every connected circuit retains its original assignment.

Q7 What technical value deserves special attention when checking 135137-01?

Verify the published recorder output value of 4-20 mA against the installed configuration and test record.

Q2 Which rack hardware must be matched before installing 135137-01?

Match 135137-01 to the documented 3500 rack rear slot and 3500/45 176449-04 position monitor; confirm the front/rear slot pairing and the complete physical marking before connection.

Q4 How should 135137-01 be isolated before field wiring is disturbed?

Place the protected machine in its approved maintenance state, isolate rack and field energy applicable to Proximito, RPT or DC LVDT, and prove the terminals safe before disconnection.

Q6 How can 135137-01 be commissioned for axial thrust-position protection?

Apply a controlled input or command, review the model-specific diagnostics and prove the expected measurement, indication and protection response before releasing the channel.

Q8 Can 135137-01 be exchanged with another 3500 I/O or monitor execution?

Only when the complete part number, termination style, transducer or interface type and approved rack configuration match the installed duty; do not transfer settings from an adjacent model.