

133819-01

RTD/TC Non-Isolated I/O Module with Internal Terminations

Bently Nevada 133819-01 is the non-isolated RTD/thermocouple I/O module with internal terminations for a 3500/60 monitor. It connects six machine-temperature inputs to the protection rack.

PRODUCT SNAPSHOT

BRAND

Bently Nevada

FAMILY

3500/60 Temperature Monitor

PART

133819-01

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PRODUCT OVERVIEW

Bently Nevada 133819-01 is the non-isolated RTD/thermocouple I/O module with internal terminations for a 3500/60 monitor. It connects six machine-temperature inputs to the protection rack.

- 1

Terminates six internal RTD or thermocouple measurement circuits
- 2

Allows mixed RTD and thermocouple channels when configured with a 3500/60 monitor
- 3

Feeds conditioned machine-temperature values to configurable alarm comparisons
- 4

Supports adjacent three-monitor TMR temperature arrangements when engineered for voting

SYSTEM COMPONENTS

3500 rack rear slot

3500/60 163179-01 temperature monitor

RTD or thermocouple field sensors

3500 Rack Configuration Software

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
I/O execution	RTD/TC non-isolated
Termination arrangement	Internal
Input channels	1 to 6
Supported input types	RTD; thermocouple
Input impedance	10 MOhm per lead
Type E range	-100 to +1000 degC
Type J range	-18 to +760 degC
Type K range	-18 to +1370 degC
Type T range	-160 to +400 degC

PARAMETER	VALUE
Platinum RTD alpha 0.00385	-200 to +850 degC
Platinum RTD alpha 0.00392	-200 to +700 degC
Nickel RTD	120 Ohm; 3-wire or 4-wire
Matched monitor power	7 W nominal
Operating temperature	-30 to +65 degC
Storage temperature	-40 to +85 degC
Rear rack space	1 full-height slot
Functional safety	SIL 2

TECHNICAL NOTE

Record sensor type, lead arrangement, polarity and configured range for all six channels; after installation compare each channel with a traceable temperature stimulus before restoring alarms.

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Bearing metal temperature monitoring

Terminates six internal RTD or thermocouple measurement circuits

Winding-temperature supervision

Allows mixed RTD and thermocouple channels when configured with a 3500/60 monitor

Lube-oil temperature alarm

Feeds conditioned machine-temperature values to configurable alarm comparisons

TMR temperature-voting system

Supports adjacent three-monitor TMR temperature arrangements when engineered for voting

PRODUCT PRECAUTIONS

- 1 Confirm 133819-01 is paired with the intended 3500/60 front monitor.
- 2 Isolate thermocouple and RTD circuits before removing the internal terminal connectors.
- 3 Preserve thermocouple polarity and extension-wire alloy through the cabinet termination.
- 4 Record three-wire or four-wire RTD lead assignments before disconnection.
- 5 Do not treat the non-isolated 133819-01 as the channel-isolated I/O execution.
- 6 Program each channel for the actual RTD or thermocouple type and range.
- 7 For TMR service, verify all three adjacent monitor channels and voting configuration.
- 8 Apply controlled temperature stimuli and prove Alert and Danger operation on every active channel.

ENGINEER FAQ

Q1 Can 133819-01 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.

Q2 What evidence should be retained after 133819-01 returns to service?

Retain the full 133819-01 identity, as-left connections, restored configuration, final diagnostics and the controlled functional-test result for winding-temperature supervision.

Q3 Which rack hardware must be matched before installing 133819-01?

Match 133819-01 to the documented 3500 rack rear slot and 3500/60 163179-01 temperature monitor; confirm the front/rear slot pairing and the complete physical marking before connection.

Q4 What as-found information should an engineer record before removing 133819-01?

Record every channel or port assignment, connector identity, configured function, cable tag and diagnostic state associated with 133819-01.

Q5 How should 133819-01 be isolated before field wiring is disturbed?

Place the protected machine in its approved maintenance state, isolate rack and field energy applicable to RTD or thermocouple field sensors, and prove the terminals safe before disconnection.

Q6 Which configuration should be restored after replacing 133819-01?

Restore the approved 3500/60 Temperature Monitor slot, channel or interface configuration and verify that every connected circuit retains its original assignment.

Q7 How can 133819-01 be commissioned for bearing metal temperature monitoring?

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 What technical value deserves special attention when checking 133819-01?

Verify the published type j range value of -18 to +760 degC against the installed configuration and test record.