

INDUSTRIAL AUTOMATION PRODUCT

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.

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
System family	3500/60 Temperature Monitor
Part number	133819-01
Country	USA
HS code	8537101190

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133819-01

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Technical Specifications

Technical values below are limited to the named Bently Nevada product record.

PARAMETER	TECHNICAL 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
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

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System Role and Architecture

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.

FUNCTION 1

Terminates six internal RTD or thermocouple measurement circuits

FUNCTION 2

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

FUNCTION 3

Feeds conditioned machine-temperature values to configurable alarm comparisons

FUNCTION 4

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

Matched system components

- 3500 rack rear slot
- 3500/60 163179-01 temperature monitor
- RTD or thermocouple field sensors
- 3500 Rack Configuration Software

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	3500 rack rear slot
Companion hardware	3500/60 163179-01 temperature monitor
Field connection	RTD or thermocouple field sensors
Primary system function	Terminates six internal RTD or thermocouple measurement circuits
Controlled acceptance duty	Bearing metal temperature monitoring

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Applications and Engineering Context

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

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.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	133819-01 / 133819-01 recorded
Physical interface	3500 rack rear slot
Companion check	3500/60 163179-01 temperature monitor
Functional proof	Terminates six internal RTD or thermocouple measurement circuits
Application test	Bearing metal temperature monitoring

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Engineering 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.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
3500/40M 176449-01	Four-channel Proximity monitor	Open product page
125680-01	Internal-termination Proximity 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

MANUFACTURER SOURCE RECORD

3500/60 and 3500/61 Temperature Modules Datasheet

141540 Rev. L

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