

INDUSTRIAL AUTOMATION PRODUCT

3500/60 163179-01

Six-Channel Temperature Monitor

Bently Nevada 3500/60 163179-01 is a six-channel Temperature Monitor for the 3500 rack. It processes RTD and thermocouple inputs for continuous machine-temperature indication and alarm protection.

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
System family	3500 Machinery Protection System
Part number	163179-01
Country	USA
HS code	8537101190

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3500/60 163179-01

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Technical Specifications

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

PARAMETER	TECHNICAL VALUE
Input channels	1 to 6
Supported input types	RTD; thermocouple
Input impedance	10 MOhm per lead
Power consumption	7 W nominal
Recorder output	4-20 mA
Recorder load	0-600 Ohm
Recorder resolution	0.3662 uA per bit
Recorder update rate	100 ms or less
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
Operating temperature	-30 to +65 degC
Storage temperature	-40 to +85 degC
Relative humidity	95% non-condensing
Front rack space	1 full-height slot
Functional safety	SIL 2

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System Role and Architecture

Bently Nevada 3500/60 163179-01 is a six-channel Temperature Monitor for the 3500 rack. It processes RTD and thermocouple inputs for continuous machine-temperature indication and alarm protection.

FUNCTION 1

Conditions six RTD or thermocouple temperature channels

FUNCTION 2

Supports mixed sensor types when each channel is configured for its installed element

FUNCTION 3

Generates temperature alarms and recorder signals for machinery protection

FUNCTION 4

Can participate in adjacent-monitor temperature voting arrangements

Matched system components

- 3500 rack
- Approved RTD/TC I/O module
- RTD or thermocouple field sensors
- 3500 Rack Configuration Software

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	3500 rack
Companion hardware	Approved RTD/TC I/O module
Field connection	RTD or thermocouple field sensors
Primary system function	Conditions six RTD or thermocouple temperature channels
Controlled acceptance duty	Bearing-metal temperature protection

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Applications and Engineering Context

Bearing-metal temperature protection

Conditions six RTD or thermocouple temperature channels

Generator winding-temperature monitoring

Supports mixed sensor types when each channel is configured for its installed element

Lube-oil temperature alarming

Generates temperature alarms and recorder signals for machinery protection

Triple-modular temperature voting

Can participate in adjacent-monitor temperature voting arrangements

TECHNICAL NOTE

Document sensor type, lead configuration, polarity and range for all six channels; after replacement use traceable stimuli to verify indicated temperature, recorder scaling and alarm thresholds.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	3500/60 163179-01 / 163179-01 recorded
Physical interface	3500 rack
Companion check	Approved RTD/TC I/O module
Functional proof	Conditions six RTD or thermocouple temperature channels
Application test	Bearing-metal temperature protection

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Engineering Precautions

1

Verify 163179-01 and its paired temperature I/O module before rack work.

2

Isolate sensor and recorder circuits before removing field connections.

3

Preserve thermocouple polarity and extension-wire alloy from sensor to rack.

4

Record three-wire or four-wire RTD lead assignments before disconnection.

5

Configure every channel for the actual sensor type and engineering range.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
3500/20 125744-02	3500 rack interface module	Open product page
3500/45 140072-04	Four-channel position monitor	Open product page
3500/64M 140734-05	Four-channel dynamic-pressure monitor	Open product page
3500/40M 176449-01	Four-channel Proximity monitor	Open product page
3500/32M 149986-02	Four-channel relay control module	Open product page

MANUFACTURER SOURCE RECORD

3500/60 and 3500/61 Temperature Modules Datasheet

141540 Rev. L

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