

INDUSTRIAL AUTOMATION PRODUCT

3500/40M 140734-01

3500/40M Four-Channel Proximitior Monitor Module

3500/40M 140734-01 accepts up to four Bently Nevada proximity-transducer inputs and derives configured radial-vibration, thrust-position, differential-expansion, eccentricity or REBAM measurements for alarm comparison.

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
System family	Bently Nevada 3500 Machinery Protection System
Part number	140734-01
Country	USA
HS code	8537101190

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Technical Specifications

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

PARAMETER	VALUE
Monitor family	3500/40M
Input channels	1 to 4
Input signal	Proximity transducer
Typical power consumption	7.7 W
Standard I/O input impedance	10 kohm
Radial-vibration sensitivity	3.94 or 7.87 mV/um
Thrust-position sensitivity	3.94 or 7.87 mV/um
Eccentricity sensitivity	3.94 or 7.87 mV/um
Differential-expansion sensitivity	0.394 or 0.787 mV/um
REBAM sensitivity	40 or 80 mV/um
Buffered outputs	1 coaxial connector per channel
Buffered-output impedance	550 ohm
Transducer power supply	-24 V DC
Radial direct-filter range	4 to 4000 Hz or 1 to 600 Hz

PARAMETER	VALUE
Radial gap filter	-3 dB at 0.09 Hz
Smax tracking range	0.125 to 15.8 times running speed
Vector-valid speed range	60 to 60000 cpm
Direct and gap accuracy	+/-0.33% FS typical; +/-1% FS maximum
Thrust direct filter	-3 dB at 1.2 Hz
Thrust gap filter	-3 dB at 0.41 Hz
Eccentricity direct filter	-3 dB at 15.6 Hz
Eccentricity gap filter	-3 dB at 0.41 Hz
Operating temperature	-30 to +65 degC with standard I/O
Storage temperature	-40 to +85 degC
Humidity	95%, noncondensing
Alarm setpoint range	0 to 100% of full scale
Alarm-setpoint accuracy	Within 0.13% of desired value
Channel programming	Two channel pairs

VERIFIED PRODUCT RECORD

DATA GROUP	VERIFIED VALUE
Installed host / carrier	3500 rack and rack power supplies
Companion hardware	Compatible Proximitor sensors and proximity probes
Field connection	Selected 3500/40M I/O module
Primary system function	Conditions four proximity-transducer channels in one rack position
Controlled acceptance duty	Radial shaft-vibration protection

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System Role and Architecture

3500/40M 140734-01 accepts up to four Bently Nevada proximity-transducer inputs and derives configured radial-vibration, thrust-position, differential-expansion, eccentricity or REBAM measurements for alarm comparison.

FUNCTION 1

Conditions four proximity-transducer channels in one rack position

FUNCTION 2

Programs channels as two independently assigned pairs

FUNCTION 3

Compares active measurement values with alert and danger setpoints

FUNCTION 4

Provides protected front-panel buffered transducer outputs

Matched system components

- 3500 rack and rack power supplies
- Compatible Proximitors and proximity probes
- Selected 3500/40M I/O module
- 3500 Rack Configuration Software

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	3500 rack and rack power supplies
Companion hardware	Compatible Proximitors and proximity probes
Field connection	Selected 3500/40M I/O module
Primary system function	Conditions four proximity-transducer channels in one rack position
Controlled acceptance duty	Radial shaft-vibration protection

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Applications and Engineering Context

Radial shaft-vibration protection

Conditions four proximity-transducer channels in one rack position

Thrust-position supervision

Programs channels as two independently assigned pairs

Differential-expansion monitoring

Compares active measurement values with alert and danger setpoints

Rolling-element bearing REBAM channels

Provides protected front-panel buffered transducer outputs

TECHNICAL NOTE

Install 3500/40M 140734-01 with the documented I/O module and recorded channel-pair configuration. Before returning protection service, restore transducer type, scale, filters, alert/danger values and time delays, then prove the buffered outputs and rack diagnostics.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	3500/40M 140734-01 / 140734-01 recorded
Physical interface	3500 rack and rack power supplies
Companion check	Compatible Proximitors and proximity probes
Functional proof	Conditions four proximity-transducer channels in one rack position
Application test	Radial shaft-vibration protection

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Engineering Precautions

1

Verify the complete 3500/40M 140734-01 marking and installed hardware revision before removal.

2

Place the monitored machine and all affected protection channels in the approved maintenance state.

3

Isolate rack and transducer-loop energy and apply ESD controls before handling the module.

4

Record both channel-pair functions, transducer types, full-scale ranges, filters and setpoints.

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Keep the selected internal, external or barrier I/O arrangement matched to the installed wiring.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
330171-00-12-50-01-05	3300 XL 5/8 mm proximity probe	View 330171-00-12-50-01-05 page
330171-00-33-50-01-05	3300 XL 5/8 mm proximity probe	View 330171-00-33-50-01-05 page
330172-00-08-10-01-05	3300 XL 5/8 mm armored proximity probe	View 330172-00-08-10-01-05 page
330103-00-04-10-02-00	3300 XL 8 mm metric proximity probe	View 330103-00-04-10-02-00 page
330103-00-16-10-02-05	3300 XL 8 mm metric proximity probe	View 330103-00-16-10-02-05 page
330106-05-30-05-02-00	3300 XL 8 mm reverse-mount probe	View 330106-05-30-05-02-00 page
330130-045-00-00	3300 XL standard extension cable	View 330130-045-00-00 page
330130-080-02-05	3300 XL extension cable	View 330130-080-02-05 page

MANUFACTURER SOURCE RECORD

Bently Nevada 3500/40M Proximitors Monitor Datasheet

141535 Rev. R

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