

INDUSTRIAL AUTOMATION PRODUCT

3500/64M 140734-05

Four-Channel Dynamic Pressure Monitor

Bently Nevada 3500/64M 140734-05 is a four-channel Dynamic Pressure Monitor for the 3500 rack. It conditions pressure-transducer signals to supervise pulsation and high-frequency combustion or compressor pressure behavior.

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
System family	3500 Machinery Protection System
Part number	140734-05
Country	USA
HS code	8537101190

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com



3500/64M 140734-05

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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 4
Accepted signals	2-wire; 3-wire pressure transducer
3-wire input impedance	10 kOhm
2-wire input impedance	1.5 to 3.5 MOhm typical
Dynamic-pressure sensitivity	100 mV/psi; 1.45 mV/mbar
2-wire transducer supply	3.3 mA at 22 Vdc nominal
3-wire transducer supply	-24 Vdc
Recorder output	+4 to +20 mA
Recorder load	0-600 Ohm
Recorder resolution	0.3662 uA per bit
Recorder update rate	100 ms or less
Low-mode frequency range	5 Hz to 4 kHz
Low mode without LP filter	Approximately 5.285 kHz
High-mode frequency range	10 Hz to 14.75 kHz
Buffered output impedance	550 Ohm
Operating temperature	-30 to +65 degC
Storage temperature	-40 to +85 degC
Relative humidity	95% non-condensing
Front rack space	1 full-height slot
Rear I/O rack space	1 full-height slot

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System Role and Architecture

Bently Nevada 3500/64M 140734-05 is a four-channel Dynamic Pressure Monitor for the 3500 rack. It conditions pressure-transducer signals to supervise pulsation and high-frequency combustion or compressor pressure behavior.

FUNCTION 1
Processes four channels of pulsation or dynamic-pressure measurements

FUNCTION 2
Supplies approved two-wire and three-wire pressure-transducer interfaces

FUNCTION 3
Supports selectable low- and high-frequency monitoring modes

FUNCTION 4
Produces conditioned measurements, alarms and recorder outputs for machinery protection

Matched system components

- 3500 rack
- Approved 3500/64M I/O module
- Two-wire or three-wire pressure transducers
- 3500 Rack Configuration Software

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	3500 rack
Companion hardware	Approved 3500/64M I/O module
Field connection	Two-wire or three-wire pressure transducers
Primary system function	Processes four channels of pulsation or dynamic-pressure measurements
Controlled acceptance duty	Reciprocating-compressor pulsation monitoring

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Applications and Engineering Context

Reciprocating-compressor pulsation monitoring

Processes four channels of pulsation or dynamic-pressure measurements

Combustion dynamic-pressure supervision

Supplies approved two-wire and three-wire pressure-transducer interfaces

Process-gas pressure oscillation detection

Supports selectable low- and high-frequency monitoring modes

High-frequency machinery pressure alarming

Produces conditioned measurements, alarms and recorder outputs for machinery protection

TECHNICAL NOTE

Match every channel to the actual two-wire or three-wire transducer, select the correct frequency mode and filter, confirm bias and sensitivity, then prove recorder and alarm response with controlled pressure-signal injection.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	3500/64M 140734-05 / 140734-05 recorded
Physical interface	3500 rack
Companion check	Approved 3500/64M I/O module
Functional proof	Processes four channels of pulsation or dynamic-pressure measurements
Application test	Reciprocating-compressor pulsation monitoring

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Engineering Precautions

1

Confirm 140734-05 and its paired rear I/O module before removing the monitor.

2

Isolate transducer supplies and recorder loops before disturbing connections.

3

Record each channel's transducer type, sensitivity, mode and filter settings.

4

Do not apply the three-wire negative supply to a two-wire current-powered sensor.

5

Use ESD controls and protect buffered-output connectors during handling.

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
3500/60 163179-01	Six-channel temperature 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

3500/64M Dynamic Pressure Monitor Datasheet

141536 Rev. P

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