

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.

PRODUCT SNAPSHOT

BRAND

Bently Nevada

FAMILY

3500 Machinery Protection System

PART

140734-05

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PRODUCT OVERVIEW

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.

1

Processes four channels of pulsation or dynamic-pressure measurements

2

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

3

Supports selectable low- and high-frequency monitoring modes

4

Produces conditioned measurements, alarms and recorder outputs for machinery protection

SYSTEM COMPONENTS

3500 rack

Approved 3500/64M I/O module

Two-wire or three-wire pressure transducers
RELATED PRODUCTS ON APTER POWER

3500 Rack Configuration Software

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 Proximitior monitor	Open product page
3500/32M 149986-02	Four-channel relay control module	Open product page

TECHNICAL DATA

PARAMETER	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

PARAMETER	VALUE
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

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.

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

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

PRODUCT 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.
- 6 Restore low- or high-frequency mode according to the approved measurement duty.
- 7 Verify transducer bias and dynamic response before enabling channel alarms.
- 8 Inject a controlled signal and confirm recorder scaling plus Alert/Danger action.

ENGINEER FAQ

Q1 How does an engineer select low or high mode on 3500/64M 140734-05?

Select the frequency mode required by the approved pulsation or dynamic-pressure measurement and configure the corresponding filter path.

Q2 Can two-wire and three-wire transducers be mixed on 3500/64M 140734-05?

Only where each channel and rear I/O circuit is wired and configured for the installed sensor supply and signal arrangement.

Q3 What bias checks are required before enabling 3500/64M 140734-05?

Verify the expected transducer bias or supply condition at every channel before accepting dynamic measurements or alarms.

Q4 How is recorder scaling validated for 3500/64M 140734-05?

Inject a controlled pressure-equivalent signal and compare the monitor value with the connected 4-20 mA recording channel.

Q5 What may cause loss of high-frequency response on 3500/64M 140734-05?

Review the selected monitoring mode, low-pass filter, transducer bandwidth, cabling and channel configuration before replacing hardware.

Q6 Which details must be recorded before replacing 3500/64M 140734-05?

Record sensor type, sensitivity, wiring method, frequency mode, filters, full-scale range, setpoints and recorder assignment.

Q7 How should 3500/64M 140734-05 be tested after installation?

Apply controlled dynamic signals across the intended band and verify buffered output, measured value, recorder response and alarm action.

Q8 Can another pressure monitor configuration be copied into 3500/64M 140734-05?

Use only the approved configuration for the exact transducer and machinery duty; do not transfer settings from an unrelated channel or machine.