3500/77M 143737-01

3500/77M external-termination I/O module

Four reciprocating-compressor cylinder pressure signals

PRODUCT SNAPSHOT

BRAND Bently Nevada	FAMILY 3500/77M reciprocating compressor pressure
PART 3500/77M 143737-01	ORIGIN / HS USA / 8537101190

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PRODUCT OVERVIEW

Four reciprocating-compressor cylinder pressure signals

1. Handles four dynamic pressure channels
2. Covers signals from DC to 5.5 kHz
3. Supplies compatible pressure transducers
4. Provides buffered channel outputs for diagnostics

SYSTEM COMPONENTS

- 3500 rack
- compatible cylinder-pressure transducers
- matched I/O module and field wiring
- 3500 Rack Configuration Software

TECHNICAL NOTE

Verify 3500/77M 143737-01, front/rear assembly pairing, transducer supply, channel scale and phase reference, firmware compatibility and rack slot before work; prove all four pressure waveforms and alarms after restart.

TECHNICAL DATA

PARAMETER	VALUE
Complete model	3500/77M 143737-01
Assembly	143737-01
Termination	External
Input channels	4
Frequency response	0 to 5.5 kHz
Pressure accuracy at 25 degC	+/-0.5%
Pressure accuracy over temperature	+/-1%
Power consumption	7.8 W full load

PARAMETER	VALUE
Buffered output impedance	550 ohm
Transducer supply	+23 +/-0.8 V DC
Current limit	24.5 mA per channel
Operating temperature	-30 to +65 degC
Storage temperature	-40 to +85 degC
Humidity	95%, noncondensing
Rack occupancy	One full-height front slot and one rear slot

ENGINEERING NOTE

Verify 3500/77M 143737-01, front/rear assembly pairing, transducer supply, channel scale and phase reference, firmware compatibility and rack slot before work; prove all four pressure waveforms and alarms after restart.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
Bently Nevada 129715 138 40 05 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 129715 138 40 05 05 page
Bently Nevada 330901 00 08 05 11 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330901 00 08 05 11 05 page
Bently Nevada 3500 05 02 04 01 00 00	Related Bently Nevada machinery-monitoring product	View Bently Nevada 3500 05 02 04 01 00 00 page
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Bently Nevada 3500 42E 285691 01	Related Bently Nevada machinery-monitoring product	View Bently Nevada 3500 42E 285691 01 page
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Bently Nevada 16925 02	Related Bently Nevada machinery-monitoring product	View Bently Nevada 16925 02 page
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APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Recip compressor cylinder-pressure monitoring

Handles four dynamic pressure channels

Compressor performance analysis

Covers signals from DC to 5.5 kHz

Rod-load and valve diagnostic support

Supplies compatible pressure transducers

3500/77M system renewal

Provides buffered channel outputs for diagnostics

PRODUCT PRECAUTIONS

1. Verify the complete 3500/77M 143737-01 marking and its assigned 3500/77M reciprocating compressor pressure system position before work.
2. Place the connected recip compressor cylinder-pressure monitoring process in the approved maintenance state.
3. Isolate applicable power and four reciprocating-compressor cylinder pressure signals field energy before disconnecting conductors.
4. Record connector, conductor, address, firmware and software identities before removal.
5. Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.
6. Confirm the installed 3500 rack and compatible cylinder-pressure transducers against the approved project.
7. Restore power in a controlled sequence and review device, network and host diagnostics.
8. Prove the intended compressor performance analysis function and retain the final test result.

ENGINEER FAQ

Q1 Does 3500/77M 143737-01 match 3500 rack in a Recip compressor cylinder-pressure monitoring installation?

Verify the complete 3500/77M 143737-01 marking, the documented 3500/77M reciprocating compressor pressure system position and the installed 3500 rack before fitting the assembly.

Q2 How should 3500/77M 143737-01 be wired when it must handles four dynamic pressure channels?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for 3500/77M 143737-01; then continuity-test the affected path.

Q3 Which 3500/77M reciprocating compressor pressure system records should be captured before removing 3500/77M 143737-01?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with 3500/77M 143737-01 before disconnection.

Q4 What controlled test confirms that 3500/77M 143737-01 can covers signals from dc to 5.5 khz?

Apply the approved field or simulated stimulus, observe the 3500/77M reciprocating compressor pressure system indication and confirm the intended response without bypassing the normal interlocks.

Q5 Which compatible cylinder-pressure transducers condition should be checked when 3500/77M 143737-01 reports an abnormal state?

Check the compatible cylinder-pressure transducers supply, seating and connection first, then compare channel diagnostics with the recorded 3500/77M 143737-01 baseline.

Q6 Can 3500/77M 143737-01 be moved directly into Compressor performance analysis without validating 3500 Rack Configuration Software?

No. Confirm the 3500 Rack Configuration Software, revision, connection scheme and 3500/77M reciprocating compressor pressure system configuration before transferring 3500/77M 143737-01 to that duty.

Q7 What maintenance evidence is required after 3500/77M 143737-01 is used for Rod-load and valve diagnostic support?

Retain the nameplate record, corrective action, final diagnostics and a controlled rod-load and valve diagnostic support functional-test result for 3500/77M 143737-01.

Q8 How should 3500/77M 143737-01 be returned to service in 3500/77M system renewal?

Restore power under control, verify supplies compatible pressure transducers, exercise the intended signal path and release 3500/77M 143737-01 only after the 3500/77M reciprocating compressor pressure system remains in its approved operating state.

SOURCE Bently Nevada 3500/77M Recip Cylinder Pressure Monitor Datasheet | 147485 Rev. Y

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