

INDUSTRIAL AUTOMATION PRODUCT

3500/77M 176449-07

3500/77M Recip Cylinder Pressure Monitor

Bently Nevada 3500/77M 176449-07 is a four-channel cylinder-pressure monitor for reciprocating-compressor protection and performance measurements in a 3500 rack.

CONTROLLED ENGINEERING COPY

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
System family	Bently Nevada 3500 reciprocating compressor monitoring
Part number	3500/77M 176449-07
Origin / HS	USA / 8537101190
Shipping origin	Xiamen, Fujian, China

DOCUMENT SCOPE

Exact article identity, official technical data, host matching, installation checks, applications, precautions and controlled acceptance evidence.

MODEL-SPECIFIC ENGINEERING NOTE

Confirm 3500/77M 176449-07, 3500 rack with approved cylinder-pressure transducers and phase reference, pressure channels, multi-event wheel, I/O module and rack configuration, installed position, polarity, shielding, grounding, configuration, diagnostics and controlled functional-test evidence before commissioning.

System Role and Architecture

Bently Nevada 3500/77M 176449-07 is a four-channel cylinder-pressure monitor for reciprocating-compressor protection and performance measurements in a 3500 rack.

FUNCTION 1
Processes four cylinder-pressure channels

FUNCTION 2
Uses approved 165855 pressure transducers

FUNCTION 3
References crank position from a multi-event wheel

FUNCTION 4
Calculates compression and rod-load measurements

MATCHED SYSTEM COMPONENTS

NO.	DOCUMENTED COMPONENT / ROLE
01	Bently Nevada 3500 reciprocating compressor monitoring
02	3500 rack with approved cylinder-pressure transducers and phase reference
03	pressure channels, multi-event wheel, I/O module and rack configuration
04	Approved wiring, shielding and grounding arrangement

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Host identity	Bently Nevada 3500 reciprocating compressor monitoring
Interface role	four-channel reciprocating-compressor cylinder-pressure monitoring
Field / power context	3500 rack with approved cylinder-pressure transducers and phase reference
Commissioning evidence	Identity, gap, polarity, response and alarm diagnostics recorded

INSTALLATION AND CONNECTION CHECKS

- 1

Confirm the complete 3500/77M 176449-07 marking and controlled maintenance record before work.
- 2

Place the 3500 rack with approved cylinder-pressure transducers and phase reference and associated machine or process in the approved maintenance
- 3

Isolate the documented power, signal and protection circuits before disconnecting 3500/77M 176449-07.
- 4

Record the installed position, pressure channels, multi-event wheel, I/O module and rack configuration, polarity, shielding and grounding.

Technical Specifications

Technical values below are limited to the named product record and directly applicable manufacturer documentation.

PARAMETER	VALUE
Order number	176449-07
Channels	4
Approved transducer	165855 cylinder-pressure transducer
Phase reference	Multi-event wheel input

PARAMETER	VALUE
Measurements	Suction, discharge, maximum and minimum pressure
Derived values	Compression ratio, rod load and rod reversal
Country of origin	USA
HS code	8537101190

ENGINEERING BOUNDARY

Confirm 3500/77M 176449-07, 3500 rack with approved cylinder-pressure transducers and phase reference, pressure channels, multi-event wheel, I/O module and rack configuration, installed position, polarity, shielding, grounding, configuration, diagnostics and controlled functional-test evidence before commissioning.

PRE-INSTALLATION CHECKS

- 1

Confirm the complete 3500/77M 176449-07 marking and controlled maintenance record before work.
- 2

Place the 3500 rack with approved cylinder-pressure transducers and phase reference and associated machine or process in the approved
- 3

Isolate the documented power, signal and protection circuits before disconnecting 3500/77M 176449-07.
- 4

Record the installed position, pressure channels, multi-event wheel, I/O module and rack configuration, polarity, shielding and grounding.

Applications and Engineering Context

Cylinder pressure protection

Monitors suction and discharge events.

Compressor performance

Calculates compression ratio and pressure extremes.

Rod load monitoring

Derives rod load and reversal measurements.

3500 rack service

Preserves pressure and phase-reference assignments.

TECHNICAL NOTE

Confirm 3500/77M 176449-07, 3500 rack with approved cylinder-pressure transducers and phase reference, pressure channels, multi-event wheel, I/O module and rack configuration, installed position, polarity, shielding, grounding, configuration, diagnostics and controlled functional-test evidence before commissioning.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	3500/77M 176449-07 recorded
Host / carrier	Bently Nevada 3500 reciprocating compressor monitoring
Physical interface	pressure channels, multi-event wheel, I/O module and rack configuration matched
Configuration	Exact installed configuration and channel assignments restored
Functional proof	Controlled four-channel reciprocating-compressor cylinder-pressure monitoring response recorded

IMPORTANT NOTICE

Confirm 3500/77M 176449-07, 3500 rack with approved cylinder-pressure transducers and phase reference, pressure channels, multi-event wheel, I/O module and rack configuration, installed position, polarity, shielding, grounding, configuration, diagnostics and

Related Products and Source Record

Brand-qualified Apter Power navigation links are provided for system planning only; manufacturer evidence remains the named source record.

RELATED PRODUCTS ON APTER POWER	
01	Bently Nevada 330930-045-04-00
02	Bently Nevada 330173-03-08-05-02-05
03	Bently Nevada 330101-16-40-05-01-05
04	Bently Nevada 330104-00-03-50-02-00
05	Bently Nevada 330876-02-90-00-00
06	Bently Nevada 330880-28-15-044-01-02
07	Bently Nevada 330103-02-08-50-11-00
08	Bently Nevada 330102-00-31-05-02-00

Navigation links only - not manufacturer evidence for technical parameters.

MANUFACTURER SOURCE RECORD

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

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