

01

Identity, prerequisites and work boundary

APTER POWER / MODEL-SPECIFIC INSTALLATION & COMMISSIONING GUIDE

3500/25-SIL2-02-01-01

Exact product identity

Bently Nevada 3500/25-SIL2-02-01-01 combines two half-height Enhanced Keyphasor cards with internal-termination I/O for four phase-reference channels in a 3500 machinery-protection rack.

PRE-WORK CHECK	OFFICIAL BASIS
Ordering configuration	02 / two half-height 2-channel cards; 01 internal-termination I/O; 01 cNRTLus Class I, Division 2
Input signal	Proximity probe or magnetic pickup
Power consumption	3.2 W typical per module
Non-isolated input range	+0.8 to -21 V
Input impedance	21.8 kOhm minimum
Input frequency	1 to 1,200,000 cpm
Output speed range	1 to 99,999 cpm
Automatic threshold	2 V p-p minimum; 120 rpm minimum

Official evidence boundary

Official evidence: 3500/25 Enhanced Keyphasor Module Datasheet, 141532 Rev. Y. Technical statements in this document are limited to that manufacturer publication and the exact ordering identity shown.

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01 / INSTALLATION

Confirm both half-height cards and both internal-termination I/O assemblies match the complete ordering configuration.

02 / INSTALLATION

Match each channel to its documented proximity probe or magnetic pickup before energizing the rack.

03 / INSTALLATION

Set automatic or manual trigger thresholds from an observed waveform, not from an assumed keyway amplitude.

04 / INSTALLATION

Keep the non-isolated input within +0.8 to -21 V and preserve the rack grounding plan.

05 / INSTALLATION

Verify keyed-event polarity and hysteresis before using phase in protection or diagnostic measurements.

06 / INSTALLATION

Check the configured input frequency and the reported speed over a controlled run-up.

07 / INSTALLATION

Protect the rear internal-termination wiring and confirm the correct half-height slot assignment.

08 / INSTALLATION

Record final trigger level, phase stability, speed indication and channel OK state before release.

Hold point

Do not energize until the exact article, matching I/O or termination hardware, field wiring, grounding, transducer type and approved configuration have been independently checked.

03

Configuration and signal verification

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CONFIGURATION ITEM	REQUIRED MATCH
Manual threshold	0 to -20 Vdc; 0.5 V p-p minimum
Trigger hysteresis	0.2 to 2.5 V
Transducer supply	-24 Vdc nominal, 40 mA per channel
Operating temperature	-30 to +65 degrees C without barriers
Storage temperature	-40 to +85 degrees C
Relative humidity	95%, non-condensing
Rack space	One half-height front slot per card; one full rear slot per I/O module

Four-channel phase reference

Provide independent keyed phase inputs for machines needing multiple shaft-reference channels.

Speed-related measurements

Supply phase timing used by compatible 3500 monitors for speed and vector calculations.

Proximity-probe triggering

Use a keyed shaft surface with the documented proximity-probe input envelope.

Magnetic-pickup triggering

Use compatible passive pickup signals when the minimum amplitude and speed conditions are met.

Signal-path acceptance

Compare the raw or buffered signal with the processed measurement, recorder output and configured alarm behavior. Resolve polarity, sensitivity, scaling or channel-type differences before proceeding.

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RELEASE ITEM	REQUIRED EVIDENCE
Identity	Exact article and installed position recorded
Interfaces	I/O, termination, sensor and cable identities verified
Configuration	Channel type, sensitivity, range, filters and logic restored
Raw signal	Bias, gap, waveform or buffered output accepted
Processed value	Measured value and scaling compared with controlled input
Alarms	Alert, Danger, Not-OK or relay behavior proved as applicable
Outputs	Recorder or relay circuit checked against the installed load
Release	Final baseline, diagnostics and authorization retained

How do the two half-height cards in 3500/25-SIL2-02-01-01 provide four Keyphasor channels?

The 02 monitor option specifies two two-channel half-height Enhanced Keyphasor cards, so the rack arrangement provides four processed phase-reference inputs.

Which transducer signal types can 3500/25-SIL2-02-01-01 accept at its four inputs?

The datasheet permits proximity-probe signals and magnetic-pickup signals; the installed channel configuration and signal amplitude must match the selected type.

What input-frequency envelope should be checked for 3500/25-SIL2-02-01-01 during commissioning?

The specified input range is 1 to 1,200,000 cpm, while the processed output speed range is 1 to 99,999 cpm.

When may 3500/25-SIL2-02-01-01 use automatic trigger threshold selection?

Automatic threshold operation requires at least 2 V peak-to-peak input and at least 120 rpm; otherwise use a verified manual threshold.

Acceptance boundary

This guide organizes official product facts but does not replace the manufacturer datasheet, installed machine drawings, site procedures or authorized proof-test requirements.

Verified catalogue navigation; not approved substitutes

NO.	RELATED APTERPOWER PRODUCT	LINK
01	Bently Nevada 3500-05-01-01-01-00-01	Bently Nevada 3500-05-01-01-01-00-01
02	Bently Nevada 3500-92-04-01-01	Bently Nevada 3500-92-04-01-01
03	Bently Nevada 3500-33-SIL2-03-01	Bently Nevada 3500-33-SIL2-03-01
04	Bently Nevada 3500-22M-01-01-01	Bently Nevada 3500-22M-01-01-01
05	Bently Nevada 3500-15-05-05-01	Bently Nevada 3500-15-05-05-01
06	Bently Nevada 3500-05-01-02-01-00-01	Bently Nevada 3500-05-01-02-01-00-01

Selection notice

Do not infer compatibility from family naming or a shared spare-part number. Confirm the complete monitor, I/O, transducer, approval and termination identity.

Official evidence boundary

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