

3500/25-SIL2-02-01-01

Enhanced Keyphasor module / four-channel SIL2 ordering configuration

Product identity and system role

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.

01 / FUNCTION

Accepts proximity-probe or magnetic-pickup phase reference inputs.

02 / FUNCTION

Processes four channels through two half-height two-channel cards.

03 / FUNCTION

Supports automatic or manual trigger thresholds and keyed event outputs.

04 / FUNCTION

Provides buffered phase signals for speed and vector measurements in the rack.

IDENTITY FIELD	VERIFIED VALUE
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

Official technical parameters

3500/25-SIL2-02-01-01 / manufacturer-published values

PARAMETER	OFFICIAL VALUE
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
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

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.

Applications and engineering checks

3500/25-SIL2-02-01-01

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.

01 / PRECAUTION

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

02 / PRECAUTION

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

03 / PRECAUTION

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

04 / PRECAUTION

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

05 / PRECAUTION

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

06 / PRECAUTION

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

07 / PRECAUTION

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

08 / PRECAUTION

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

Model-specific engineering FAQ

Eight evidence-mapped decisions

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.

What manual trigger limits apply when configuring 3500/25-SIL2-02-01-01?

The published manual threshold range is 0 to -20 Vdc with a 0.5 V peak-to-peak minimum input signal.

How should trigger hysteresis be verified for 3500/25-SIL2-02-01-01?

Use the configurable 0.2 to 2.5 V hysteresis range and verify stable keyed events without chatter over the operating waveform.

What rear termination arrangement belongs with 3500/25-SIL2-02-01-01?

The 01 I/O option is the internal-termination module; verify both rear I/O assemblies and the corresponding half-height front-card positions.

Which release checks establish a usable phase reference from 3500/25-SIL2-02-01-01?

Confirm channel OK state, stable keyed-event polarity, consistent phase, correct speed indication and repeatable triggering through a controlled run-up.

EVIDENCE MAP A

FAQ 01 — pp. 1, 7-8

FAQ 03 — p. 3

FAQ 05 — p. 3

FAQ 07 — pp. 7-8

EVIDENCE MAP B

FAQ 02 — pp. 2-3

FAQ 04 — p. 3

FAQ 06 — p. 3

FAQ 08 — pp. 2-5

Related products and contact

Verified ApterPower navigation links; 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

Navigation boundary

These links provide nearby catalogue references only. Confirm the complete machine, rack, I/O, transducer and ordering-code requirements before selecting any alternate article.

Official evidence boundary

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APTER POWER CONTACT

WHATSAPP / PHONE +86 180 3023 5313

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



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