

# 3500/25-02-01-01

## 3500/25 Four-Channel Enhanced Keyphasor Module

### Product identification

Bently Nevada 3500/25-02-01-01 combines two half-height Enhanced Keyphasor cards for four input channels, internal-termination I/O and cNRTLus Class I Division 2 approval.

| Parameter      | Verified value            |
|----------------|---------------------------|
| Manufacturer   | Bently Nevada             |
| Model          | 3500/25-02-01-01          |
| Product Family | 3500 System               |
| Product Type   | Enhanced Keyphasor Module |

### Technical specifications

| Parameter                     | Verified value                                     |
|-------------------------------|----------------------------------------------------|
| Channel option                | 02 = Two half-height 2-channel cards               |
| Total channels                | 4                                                  |
| I/O option                    | 01 = Internal terminations                         |
| Approval option               | 01 = cNRTLus Class I Division 2                    |
| Power consumption             | 3.2 W typical per module                           |
| Accepted signals              | Proximity probes or magnetic pickups               |
| Non-isolated input range      | +0.8 to -21.0 V                                    |
| Input impedance               | 21.8 kohm minimum                                  |
| Input frequency range         | 0.017 Hz to 20 kHz                                 |
| Maximum events per revolution | Supported to 20 kHz                                |
| Manual threshold              | 0 to -20 VDC selectable                            |
| Hysteresis                    | 0.2 to 2.5 V selectable                            |
| Buffered outputs              | Two front coaxial and two rear Euro-style per card |
| Buffered output impedance     | 504 ohms maximum                                   |
| Transducer supply             | -24 VDC, 40 mA maximum per channel                 |
| Main-card dimensions          | 119.9 x 24.4 x 256.5 mm                            |
| Main-card weight              | 0.34 kg (0.76 lb)                                  |
| I/O module dimensions         | 241.3 x 24.4 x 103.1 mm                            |
| I/O module weight             | 0.46 kg (1.01 lb)                                  |
| Operating temperature         | -30 to +65 C with standard Keyphasor I/O           |
| Storage temperature           | -40 to +85 C                                       |
| Humidity                      | 95% non-condensing                                 |

## Product overview

3500/25-02-01-01 is the four-channel Enhanced Keyphasor configuration for the Bently Nevada 3500 system. Option 02 supplies two half-height two-channel cards, allowing four primary or paired timing-reference inputs in the designated rack positions.

The 01 I/O selection uses internal terminations, while the final 01 field selects cNRTLus Class I Division 2 approval. Input conditioning accepts compatible proximity-probe or magnetic-pickup signals and produces Keyphasor timing information for other rack modules.

This configuration supports speed, phase and once-per-turn reference functions for machinery protection and analysis. Transducer type, threshold, event count, rack placement, internal wiring and firmware settings must be validated before commissioning.

## Applications

- Generates once-per-turn reference signals for vibration phase and orbit analysis.
- Measures shaft speed from proximity-probe or magnetic-pickup pulse trains.
- Provides primary and backup Keyphasor inputs in supported redundant or paired arrangements.

## Keyphasor Processing

- Each half-height card accepts two transducer signals and generates timing-reference events.
- Multiple events per revolution can be processed up to the documented 20 kHz input limit.
- Manual threshold and hysteresis settings adapt triggering to the installed transducer waveform.

## Firmware & Updates

- Enhanced functions include field-upgradeable firmware and asset-management data reporting.
- Firmware compatibility must be checked for both half-height cards in the four-channel arrangement.
- Record the installed configuration before upgrading so threshold and event settings can be restored.

## Compatibility

- Internal-termination I/O cannot be used with external termination blocks.
- Proximity probes use the documented non-isolated input range and module-supplied transducer power.
- Isolated magnetic-pickup I/O behavior does not apply to this 01 internal-termination option.

## High-risk technical note

3500/25-02-01-01 uses internal terminations; do not connect external termination blocks, and verify both half-height cards are installed in the planned slot arrangement.

Request a quotation  
[info@apterpower.com](mailto:info@apterpower.com)  
+86 18106909650

Exact model  
3500/25-02-01-01  
3500 System



## Manufacturer source

<https://dam.bakerhughes.com/m/22d0219c69acba5/original/3500-25-Enhanced-Keyphasor-Module-Datasheet-141532-pdf.pdf>  
Source technical meaning is unchanged. This web edition is organized for exact-model identification and quotation support.