

Bently Nevada 3500/50M 133442-01

Two-channel tachometer I/O module

Overview

Bently Nevada 3500/50M 133442-01 is the internal-termination I/O module for a two-channel tachometer assembly used for speed, rotor acceleration and direction measurements.

01 / FUNCTION

Accepts proximity-probe or magnetic-pickup speed signals.

02 / FUNCTION

Supports speed, rotor acceleration and direction measurements.

03 / FUNCTION

Provides 4-20 mA recorder outputs and buffered transducer access.

04 / FUNCTION

Operates as a monitoring tachometer and not as an overspeed-protection or speed-control device.

PUBLIC PRODUCT FIELD		OFFICIAL VALUE
Exact spare identity		133442-01 I/O module with internal terminations
Channels		2 tachometer channels
Input transducers		Proximity probe or magnetic pickup
Input range		+10 to -24 V
Standard input impedance		20 kOhm
Power consumption		5.8 W typical for monitor assembly

Technical parameter dashboard

Bently Nevada 3500/50M 133442-01

PARAMETER	OFFICIAL VALUE	PARAMETER	OFFICIAL VALUE	PARAMETER	OFFICIAL VALUE
Exact spare identity	133442-01 I/O module with internal terminations	Standard input impedance	20 kOhm	Maximum input frequency	20 kHz
Channels	2 tachometer channels	Power consumption	5.8 W typical for monitor assembly	Events per revolution	1-255 for acceleration/zero-speed; 0.0039-255 for other measurements
Input transducers	Proximity probe or magnetic pickup	Transducer supply	24 Vdc, 40 mA per channel	Recorder output	4-20 mA; 0-600 Ohm; 100 ms or less
Input range	+10 to -24 V	Maximum displayed speed	99,999 rpm	Functional restriction	Not for overspeed protection or closed-loop speed control

Official evidence boundary

Official evidence: 3500/50M Tachometer Module Datasheet, 141538 Rev. V. Technical statements in this document are limited to that manufacturer publication and the exact ordering identity shown.

Common applications and Product Precautions

Bently Nevada 3500/50M 133442-01

Machine speed indication

Measure rotational speed from a compatible proximity probe or magnetic pickup.

Rotor acceleration

Calculate acceleration using the documented events-per-revolution configuration.

Direction measurement

Use the correct paired input arrangement for rotational direction.

Zero-speed observation

Use a suitable proximity input; magnetic pickups are not appropriate at zero speed.

01 / CHECK

Confirm 133442-01 is the internal-termination I/O module and retain the matching front tachometer monitor.

02 / CHECK

Match the selected transducer type and input polarity to the installed channel.

03 / CHECK

Do not use the 3500/50M as the machine overspeed protection or speed-control loop.

04 / CHECK

Do not rely on a magnetic pickup for reverse or zero-speed detection.

05 / CHECK

Set events per revolution from the actual target geometry.

06 / CHECK

Verify input frequency and reported speed through a controlled rotation test.

07 / CHECK

Check 4-20 mA scaling and external load before accepting the recorder output.

08 / CHECK

Record speed, direction, acceleration and channel diagnostic results before service release.

Engineering FAQ

Eight exact-model answers with official evidence

What hardware role does 3500/50M 133442-01 have in a 3500/50M tachometer assembly?

133442-01 is the rear I/O module with internal terminations; the complete tachometer channel also uses the matching front monitor and transducers.

Why must 3500/50M 133442-01 not be assigned to overspeed protection?

The datasheet explicitly excludes the 3500/50M from overspeed-protection and closed-loop speed-control service.

How is target geometry represented in the setup for 3500/50M 133442-01?

Configure events per revolution from the actual target: 1-255 for acceleration/zero-speed and 0.0039-255 for other measurements.

What recorder-output test applies after installing 3500/50M 133442-01?

Verify 4-20 mA scaling with a 0-600 Ohm load and confirm the update response is 100 ms or less.

Which transducers may feed 3500/50M 133442-01?

The tachometer accepts proximity-probe or magnetic-pickup inputs when the selected channel configuration and signal envelope match.

Can a magnetic pickup on 3500/50M 133442-01 prove reverse or zero-speed operation?

No. Magnetic pickups require motion-generated voltage and are not suitable for reverse or zero-speed detection in this application.

What maximum speed-processing limits should be checked for 3500/50M 133442-01?

The monitor supports up to 99,999 rpm indication and a maximum input frequency of 20 kHz, subject to target configuration.

Which acceptance results should be retained for 3500/50M 133442-01?

Record transducer type, target events per revolution, speed, direction, acceleration, channel diagnostics and recorder-output response.

Related products and contact

Catalogue navigation separate from technical evidence

NO.	RELATED APTERPOWER PRODUCT	LINK
01	Bently Nevada 3500-42E-289837-01	Bently Nevada 3500-42E-289837-01
02	Bently Nevada 9200-01-05-10-00	Bently Nevada 9200-01-05-10-00
03	Bently Nevada 9200-02-01-10-00	Bently Nevada 9200-02-01-10-00
04	Bently Nevada 3500-93-135785-02	Bently Nevada 3500-93-135785-02
05	Bently Nevada 3500-94M-184826-01	Bently Nevada 3500-94M-184826-01
06	Bently Nevada 126599-01	Bently Nevada 126599-01

Compatibility notice

A related ApterPower page is not an approved substitute. Verify the exact manufacturer ordering code, installed interfaces and configuration before procurement or maintenance release.

APTER POWER CONTACT

WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com



3500/50M 133442-01