Bently Nevada 125680-01

Proximitor I/O Module

Product photograph, technical reference and selected Bently Nevada document pages.



PROXIMITOR I/O MODULE

Bently Nevada 125680-01 is the internal-termination Proximitor I/O module specified for the 3500/40M monitor. It provides the rear I/O connection for a compatible proximity-transducer monitoring channel assembly.

Applicable monitor: 3500/40M
Termination: Internal terminations
I/O format: Standard non-barrier

Replacement check
Match the complete part number and the documented system configuration before selecting a replacement.

IDENTIFICATION AND REPLACEMENT

Bently Nevada 125680-01 is a Proximitor I/O module with internal terminations for the 3500/40M family. It is the rear I/O component used with a compatible Proximitor monitor, rather than the front monitor board. The complete part number distinguishes it from the external-termination and internal-barrier versions.

Within the 3500/40M system, the connected monitor is configured using 3500 Rack Configuration Software for applicable proximity measurements such as radial vibration, thrust position, eccentricity or differential expansion. REBAM is also a supported monitor function subject to its stated firmware and software conditions. Select 125680-01 against the installed monitor type and intended measurement configuration.

Photo scope: real front photograph from the model-specific archive. Confirm the actual offered unit and included accessories. This EWOLO CONTROL compilation is not the complete Bently Nevada manufacturer manual.

Key specifications

Parameter	Specification
Applicable monitor	3500/40M
Termination	Internal terminations
I/O format	Standard non-barrier
Input impedance	10 kOhm, standard I/O
I/O dimensions (H x W x D)	241.3 x 24.4 x 99.1 mm
Operating temperature	-30 to +65 degrees C with internal/external termination I/O
Storage temperature	-40 to +85 degrees C
Humidity	95%, non-condensing
Rack space	One full-height rear slot

Mounting and connection

125680-01 is the internal-termination option. External termination blocks are not used with this I/O version. Use the correct 3500/40M monitor documentation and the installed channel configuration when identifying field terminals.

The non-barrier I/O module uses one full-height rear slot and has a 99.1 mm specified depth. The front monitor is a separate assembly.

Manufacturer references: 3500/40M Proximitor Monitor (141535 Rev. R). Selected original pages follow; the complete manufacturer document remains the governing reference.

Environmental Limits

Operating Temperature	When used with Internal/External Termination I/O Module: -30°C to +65°C (-22°F to +150°F) When used with Internal Barrier I/O Module (Internal Termination): 0°C to +65°C (32°F to +150°F)
Storage Temperature	-40°C to +85°C (-40°F to +185°F).
Humidity	95%, noncondensing

Physical

Monitor Module (Main Board)	
Dimensions (Height x Width x Depth)	241.3 mm x 24.4 mm x 241.8 mm (9.50 in x 0.96 in x 9.52 in)
Weight	0.91 kg (2.0 lb)
I/O Modules (non-barrier)	
Dimensions (Height x Width x Depth)	241.3 mm x 24.4 mm x 99.1 mm (9.50 in x 0.96 in x 3.90 in)
Weight	0.20 kg (0.44 lb)
I/O Modules (barrier)	
Dimensions (Height x Width x Depth)	241.3 mm x 24.4 mm x 163.1 mm (9.50 in x 0.96 in x 6.42 in)
Weight	0.46 kg (1.01 lb)

Rack Space Requirements

Monitor	1 full-height front slot
I/O Modules	1 full-height rear slot

Barrier Parameters

The following parameters apply to CSA-NRTL/C and ATEX / IECEx approvals.

Proximitor Barrier	
Circuit Parameters	Vmax (PWR) = 26.25V (SIG) = 13.65 V Imax (PWR) = 110.48 mA (SIG) = 2.74mA Rmin (PWR) = 237.6 Ω (SIG) = 4985 Ω
Channel Parameters (entity)	Vmax = 27.45 V Imax = 113.24 mA Rmin (PWR) = 237.6 Ω (SIG) = 4985 Ω

Alarms

Alarm Setpoints	Use Rack Configuration Software to set alert levels for each value measured by the monitor and Danger setpoints for any two of the values measured by the monitor. Alarms are adjustable from 0 to 100% of full-scale for each measured value. However, when the full-scale range exceeds the range of the transducer, the range of the transducer will limit the setpoint.
Accuracy of alarm setpoints	Within 0.13% of the desired value

Alarm Time Delays



You can program alarm delays using **Rack Configuration Software.**

Baker Hughes

Ordering Considerations

General

The 3500/40M Module requires the following (or later) firmware, and software revisions:

3500/01 Software – Version 2.50
3500/02 Software – Version 2.20
3500/03 Software – Version 1.21

When ordering I/O Modules with External Terminations the External Termination Blocks and Cable must be ordered separately for each I/O Module.

External Termination Blocks cannot be used with Internal Termination I/O Modules.

Internal Barrier I/O Modules

Consult the 3500 Internal Barrier specification sheet (document 141495) if the Internal Barrier Option is selected.

REBAM

The REBAM channel type requires the following (or later) firmware, and software revisions:

3500/40M Module Firmware – Revision 2.1
3500/01 Software – Version 3.30
3500/02 Software – Version 2.40
3500/03 Software – Version 1.40
DM2000 Software-Version 3.40.

Requires the M version of the 3500 Proximitor Monitor.

Ordering Information

For the detailed listing of country and product-specific approvals, refer to the *Approvals Quick Reference Guide (108M1756)*.

For additional technical documentation, please log in to bntechsupport.com and access the Bently Nevada Media Library.

Proximitor Monitor 3500/40M-AA-BB

A: I/O Module Type	
01	Proximitor I/O Module with Internal Termination
02	Proximitor I/O Module with External Terminations
03	Proximitor I/O Module with Internal Barriers and Internal Terminations
B: Hazardous Area Approval Option	
00	None
01	cNRTLus (Class 1, Division 2)
02	ATEX / IECEx / CSA (Class 1, Zone 2)

Agency Approval Option B-02 is only available with Ordering Option A-03

External Termination Blocks

125808-01	Proximitor ET Block Euro Style Connectors
128015-01	Proximitor ET Block Terminal Strip Connectors

Cables

3500 Transducer XDCR signal to External Termination (ET) Block Cable 129525-AAAA-BB

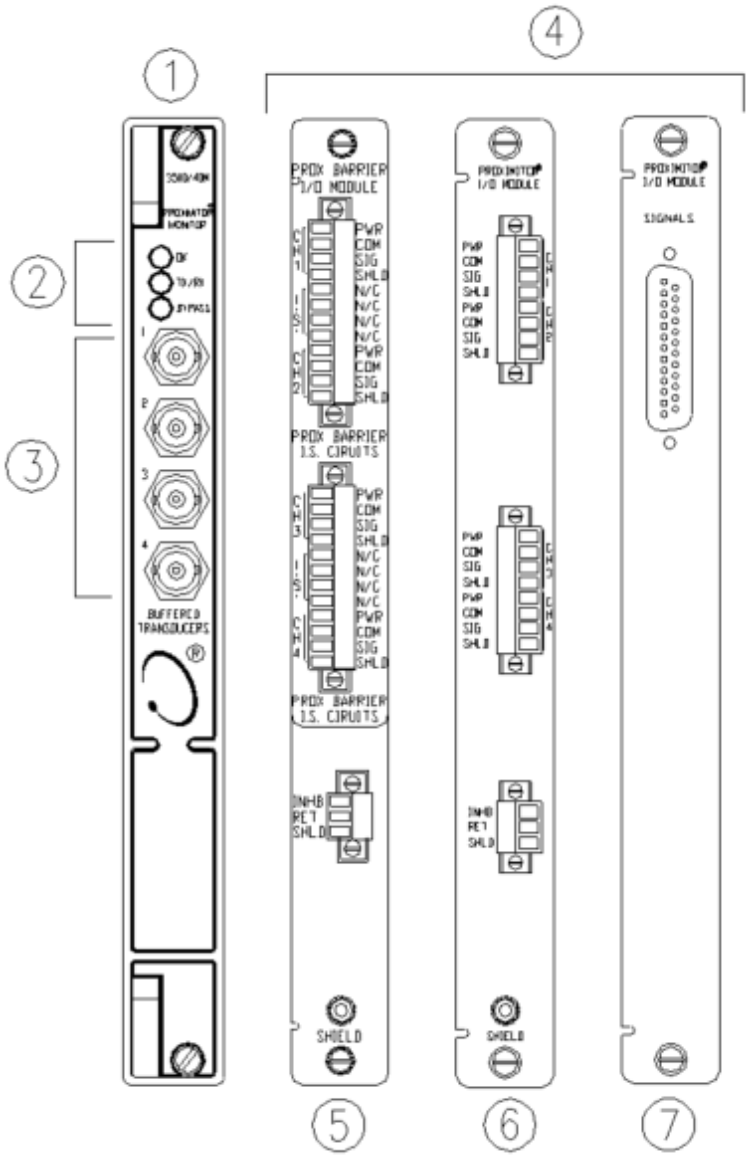
A: I/O Cable Length	
0005	5 feet (1.5 meters)

0007	7 feet (2.1 meters)
0010	10 feet(3.0 meters)
0025	25 feet (7.6 meters)
0050	50 feet (15.2 meters)
0100	100 feet (30.5 meters)
B: Assembly Instructions	
01	Not assembled
02	Assembled

Spares

176449-01	3500/40M Proximitor Monitor
125680-01	Proximitor I/O Module with Internal Terminations
126615-01	Proximitor I/O Module with External Terminations
135489-04	Proximitor I/O Module with Internal Barriers and Internal Terminations
143488	3500/40M Monitor User Guide
00580434	Internal I/O Module connector header, Euro style, 8-pin
00502133	Internal I/O Module connector header, Euro style, 12-pin
166M4363	Connector header, push-in-spring type (alternative for PN 00580441)
166M2389	Connector header, push-in-spring type (alternative for PN 00580434)

Graphs and Figures



1. Main Module Front View
2. Status LEDs
3. Buffered Transducer Outputs
4. I/O modules
5. Barrier I/O module, Internal Termination
6. I/O Module, Internal Termination
7. I/O Module, External Termination

Figure 1: Assorted 3500/40M Proximitor Monitor Views