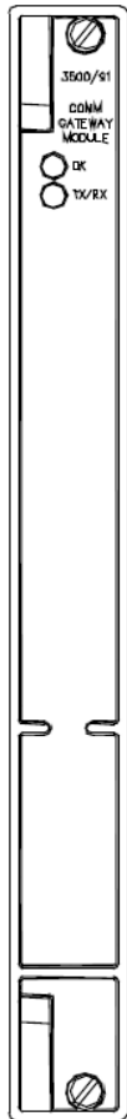


3500/91 EGD Communication Gateway Module

Datasheet

Cordant™

165361 Rev. K



Description

The Bently Nevada™ 3500/91 EGD (Ethernet Global Data) Communication Gateway modules provide comprehensive communication capabilities of 3500 rack-monitored values and status. This Ethernet network path provides information with response times suitable for controller applications. Using the 3500/91 EGD Gateway provides for integration with EGD protocol compatible controllers.

Supported protocols include:

- EGD (version 2.01)
- Ethernet UDP/IP

The Ethernet standard supported by the 3500/91 I/O modules is IEEE802.3 for 10BASE-T and 100BASE-TX (twisted pair).



Baker Hughes

Specifications

Inputs

Power Consumption	7.4 watts typical
Data Types	
Producer Exchanges	- Rack, Module, Channel and Data value Status - Data values (float) - Setpoints (float)
Consumer Exchange	- Group Reset - Group Trip Multiply - Group Alarm Inhibit - Group Special Alarm Inhibit

Outputs

Front Panel LEDs	
OK LED	Indicates when the 3500/91 is operating properly.
TX/RX LED	Indicates when the 3500/91 is communicating with other modules in the 3500 rack.

Protocols

EGD	Version 2.01
Ethernet	IEEE 802.3 CSMA/CD
Communication Link	Ethernet, 10-Mbps and 100-Mbps, and conforms to IEEE 802.3 and IEEE802.3u
Protocol	Ethernet UDP/IP frame

Connection	RJ-45 jack for the Ethernet 10BASE-T/100BASE-TX I/O Module MT-RJ jack for the Ethernet 100BASE-FX I/O Module
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Environmental Limits

Operating Temperature	-30°C to +65°C (-22°F to +150°F)
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Humidity	95%, noncondensing

Physical

Main Module	
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	0.79 kg (1.75 lbs.)
I/O Modules	
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	0.39 kg (0.85lbs.)

Rack Space Requirements

Main Module	1 full-height front slot
I/O Modules	1 full-height rear slot

Compliance and Certifications

FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

EMC

European Community Directive:

EMC Directive 2014/30/EU

Standards:

EN 61000-6-2; Immunity for
Industrial Environments
EN 61000-6-4; Emissions for
Industrial Environments

Electrical Safety

European Community Directive:

LV Directive 2014/35/EU

Standards:

EN 61010-1

RoHS

European Community Directive:

RoHS Directive 2011/65/EU

Maritime

DNV GL rules for classification – Ships,
offshore units, and high speed and light
craft

ABS Rules for Condition of Classification,
Part 1

- Steel Vessels Rules
- Offshore Units and Structures

Hazardous Area Approvals



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

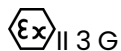
For additional technical documentation, please log in to bntechsupport.com and access the Bently Nevada Media Library.

cNRTLus

Class I, Zone 2: AEx/Ex nA nC ic IIC T4 Gc;
Class I, Zone 2: AEx/Ex ec nC ic IIC T4 Gc;
Class I, Division 2, Groups A, B, C, and D;

T4 @ Ta= -20°C to +65°C (-4°F to +149°F)
When installed per drawing 149243 or
149244.

ATEX/IECEx



Ex nA nC ic IIC T4 Gc
Ex ec nC ic IIC T4 Gc

T4 @ Ta= -20°C to +65°C
(-4°F to +149°F)
When installed per drawing 149243 or
149244.

Network Accessories

Refer to our Network Accessories Datasheet (document 164466).

Ordering Information

Ordering Considerations

Version 3.70 (release pending) or higher of 3500 Rack Configuration Software is required.

The 3500/91 EGD requires a 3500/22M TDI to communicate with monitor modules.

Only 1 EGD per rack is allowed.

Version 1.20 (release pending) or higher of TDI (3500/22M) firmware is required.

For consumed exchange support, version 2.21 (release pending) or higher of 4-Channel firmware is required.

The 3500/91 EGD Communication Gateway

3500/91-AA-BB-CC

A: Main Module Type

0 1	EGD Communication Gateway Module
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B: I/O Module Type

0 1	Ethernet 10BASE-T/100BASE-TX I/O Module
0 2	Ethernet 100BASE-FX I/O Module

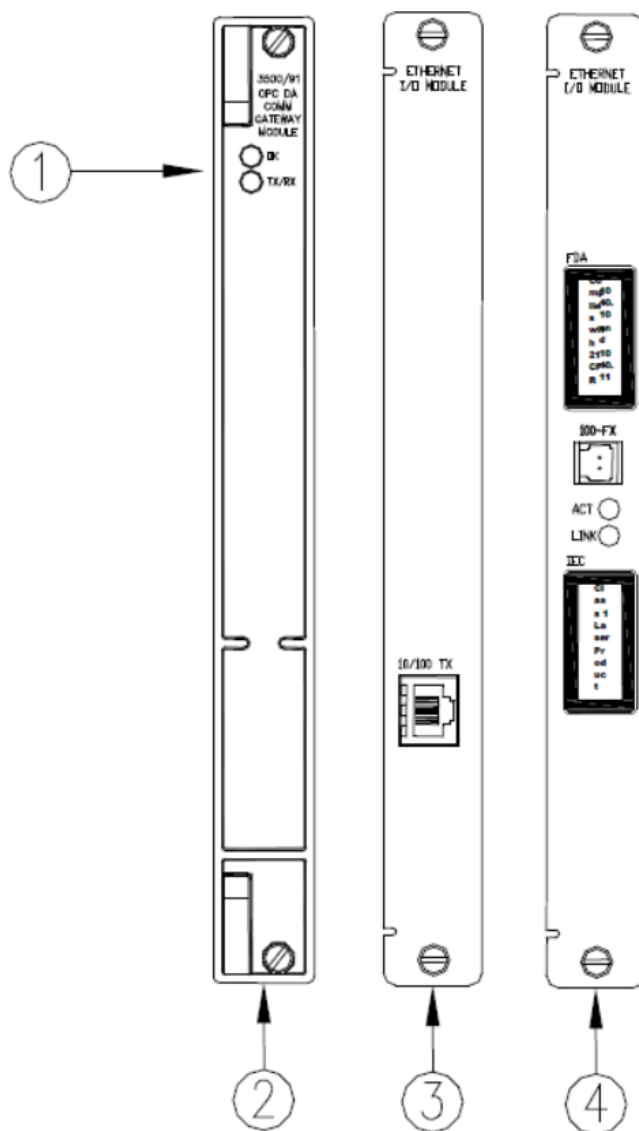
C: Agency Approval Option

0 0	None
0 1	CSA/NRTL/C
0 2	CSA/A

Spares

161232	3500/91 User Guide
161204-01	3500/91 EGD Gateway Module
161216-01	Ethernet 10BASE-T/100BASE-TX I/O Module
161216-02	Ethernet 100BASE-FX I/O Module

Graphs and Figures



1. Status LEDs
2. 3500/91 EGD Communication Gateway Module
3. Ethernet 10BASE-T/100BASE-TX I/O Module
4. Ethernet 100BASE-FX I/O Module

Figure 1: 3500/91 Front and Rear Views

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