Description

The 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 (e.g. GE MarkVIe controllers, etc).

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).
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 LED’s

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

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 99.1 mm (9.50 in x 0.96 in x 3.90 in)
Weight  0.39 kg (0.85 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 (0.85 lbs.)

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
ABS - Marine and Offshore Applications
DNV GL Rules for Classification – Ships, Offshore Units, and High Speed and Light Craft

Hazardous Area Approvals

CSA/NRTL/C
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/IECEEx
Ex II 3 G
Ex nA nC ic IIC T4 Gc
Ex ec nC ic IIC T4/T5 Gc
T4 @ Ta= -20°C to +65°C (-4°F to +149°F)
When installed per drawing 149243 or 149244.
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

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B: I/O Module Type

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C: Agency Approval Option

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Network Accessories

Refer to our Network Accessories Datasheet (document 164466).
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