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 Mark* Vle controllers, etc).

Supported protocols include:

- EGD (version 2.01)
- Ethernet UDP/IP

The Ethernet standards supported by the 3500/91 I/O modules are IEEE802.3 for 10BASE-T and 100BASE-TX (twisted pair), and IEEE 802.3u for 100BASE-FX (fiber optic).
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

Compliance and Certifications
EMC
Standards:
EN 61000-6-2 Immunity for Industrial Environments
EN 55011/CISPR 11 ISM Equipment
EN 61000-6-4 Emissions for Industrial Environments
European Community Directives:
EMC Directive 2004/108/EC

Electrical Safety
Standards:
EN 61010-1
European Community Directives:
2006/95/EC Low Voltage

Hazardous Approvals
North American
Approval Option (01)
When used with I/O module ordering options with internal barriers:
Ex nC (ia) IIC: Class 1, Div 1

Specifications and Ordering Information
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ATEX:

Approval Option (02)

For ATEX agency approval
ordering options with internal barriers:

Ex nC [ia] IIC: Class 1, Zone 2/0
Groups A, B, C, D
T4 @ Ta = -20 °C to +65 °C
(-4 °F to +150 °F)
per drawing 138547

When used with I/O Module ordering options without internal barriers:
Ex nC [L] IIC: Class 1, Div 2
AEx nC IIC: Class 1, Div 2
Groups A, B, C, D
T4 @ Ta = -20 °C to +65 °C
(-4 °F to +150 °F)
per drawing 149243

South Africa Approval Option (02)

For Selected Ordering Options with ATEX/North American agency approvals:
Ex nCAL [ia] IIC T4
Ex nCAL [L] IIC T4
T4 @ Ta = -20 °C to +65 °C
(-4 °F to +150 °F)

Note: When used with Internal Barrier I/O Module, refer to specification sheet 141495-01 for approvals information.

For further certification and approvals information please visit the following website:
www.ge-mcs.com/bently

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 (0.85 lb.).

Rack Space Requirements

Main Module
1 full-height front slot

I/O Modules
1 full-height rear slot
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.

List of Options and Part Numbers

The 3500/91 EGD Communication Gateway
3500/91-AXX-BXX-CXX

A: Main Module Type
   0 1 EGD Communication Gateway Module

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
TBD

3500/91 Manual

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

Network Accessories
Refer to our Network Accessories datasheet 164466-01
Front and Rear View

(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.