# 3500/91M EGD Communication Gateway

## Product Datasheet

Bently Nevada* Asset Condition Monitoring



### Description

The 3500/91M EGD (Ethernet Global Data) Communication Gateway modules provides 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 3500/91M EGD Gateway provides for integration with EGD protocol compatible controllers (e.g. GE Mark* VIe controllers, etc).

Supported protocols include:

- EGD (version 2.01)

- Ethernet UDP/IP

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

# Specifications

## Inputs

| Power | |
|---|---|
| Power Consumption | 7.4 watts typical |
| Data Types | |
| Producer Exchanges | • Rack, Module, Channel and Data value status<br>• Data values (float)<br>• Setpoints (float) |
| Consumer Exchanges | • Group Reset<br>• Group Trip Multiply<br>• Group Alarm Inhibit<br>• Group Special Alarm Inhibit |

## Outputs

| OK LED: | Front panel indicates when the 3500/91M is operating properly. |
|---|---|
| TX/RX LED: | Front panel indicates when the 3500/91M is communicating with other modules in the 3500 rack. |

## Protocols

| EGD | Version 2.01 |
|---|---|
| Ethernet | |
| Ethernet | IEEE 802.3 CSMA/CD |
| Communication Link: | Ethernet, 10Mbps and 100-Mbps, and conforms to IEEE 802.3 and IEEE 802.3u |
| Protocol: | Ethernet UDP/IP frame |
| Connection: | RJ-45 jack for Ethernet 10BASE-T/100BASE-TX I/O Module |

## Environmental Limits

| Operating Temperature: | -30 °C to +65 °C<br>(-22 °F to +150 °F). |
|---|---|
| Storage Temperature: | -40 °C to +85 °C<br>(-40 °F to +185 °F). |
| Humidity: | 95%, non-condensing. |

## Physical

| Main Module | |
|---|---|
| Dimensions (Height x Width x Depth): | 241.3 mm x 24.4 mm x 241.8 mm<br>(9.50 in x 0.96 in x 9.52 in) |
| Weight: | 0.79 kg (1.75 lb.) |
| I/O Module | |
| Dimensions (Height x Width x Depth): | 241.3 mm x 24.4 mm x 99.1 mm<br>(9.50 in x 0.96 in x 3.90 in) |
| Weight: | 0.39 kg (0.85 lb.) |

## Rack Space Requirements

| Monitor Module | 1 full-height front slot |
|---|---|
| I/O Module | 1 full-height rear slot |

# Compliance and Certifications

✎ Note: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

| EMC | EN 61000-6-2 Immunity for Industrial Environments<br>EN 61000-6-4 Emissions for Industrial Environments<br>EMC Directive 2014/30/EU |
|---|---|
| Electrical Safety | EN 61010-1<br>LV Directive 2014/35/EU |
| RoHS | RoHS Directive 2011/65/EU |
| ATEX<br>(with applicable ordering dash option) | ATEX directive 2014/34/EU |

# Hazardous Area Approvals

✎ For the detailed listing of country and product specific approvals, refer to the **Approvals Quick Reference Guide**, document 108M1756, at **www.GEmeasurement.com**.

| CSA/NRTL/C (Approval Option 01) | |
|---|---|
| When used with I/O module ordering options **with** internal barriers: | Ex nC [ia] IIC T4 Gc<br>Class I, Division 1,<br>Groups A, B, C, and D<br><br>Class 1, Zone 2/0<br>AEx nC [ia] IIC T4 Gc<br>Class 1, Division 1,<br>Groups A, B, C, and D<br><br>T4 @ Ta = -20 °C ≤ Ta ≤ +65 °C<br>(-4 °F ≤ Ta ≤ +149 °F)<br>per drawing 138547 |
| When used with I/O module ordering options **without** internal barriers: | Ex nC [L] IIC T4 Gc<br>Class I, Division 2,<br>Groups A, B, C, and D<br><br>Class 1, Zone 2<br>AEx nC IIC T4 Gc<br>Class 1, Division 2,<br>Groups A, B, C, and D<br><br>T4 @ Ta = -20 °C ≤ Ta ≤ +65 °C<br>(-4 °F ≤ Ta ≤ +149 °F)<br>per drawing 149243 |

| ATEX/IECEx (Approval Option 02) | |
|---|---|
| For ATEX agency approval ordering options **with** internal barriers: | ⟨Ex⟩<br>II 3 (1) G<br>Ex nA nC ic [ia Ga] IIC T4 Gc<br><br>T4 @ Ta = -20 °C ≤ Ta ≤ +65 °C<br>(-4 °F ≤ Ta ≤ +149 °F) |
| For ATEX agency approval ordering options **without** internal barriers: | ⟨Ex⟩<br>II 3 G<br>Ex nA nC ic IIC T4 Gc<br><br>T4 @ Ta = -20 °C ≤ Ta ≤ +65 °C<br>(-4 °F ≤ Ta ≤ +149 °F) |

# Ordering Considerations

- Version 3.70 or higher of 3500 Rack Configuration Software is required.
- The 3500/91M EGD requires a 3500/22M TDI to communicate with monitor modules.
- Version 1.20 or higher of TDI (3500/22M) firmware is required.
- Only 1 EGD per rack is allowed.
- For consumed exchange support, version 2.21 or higher of 4-Channel firmware is required.

# Ordering Options

## 3500/91M EGD Communication Gateway

### 3500/91M-AXX-BXX

**A:** I/O Module Type
- **01** Ethernet 10BASE-T/100BASE-TX I/O Module

**B:** Agency Approval Option
- **00** None
- **01** CSA/NRTL/C
- **02** CSA/ATEX/IECEx

## Additional Options

| Spares | |
|---|---|
| 190782-01 | 3500/91M EGD Gateway Module |
| 190798-01 | Ethernet 10BASE-T/100BASE-TX I/O Module |
| Documentation | |
| 164466 | Network accessories datasheet |
| Bently_Manuals | International Technical Documentation DVD |

# Graphs and Figures
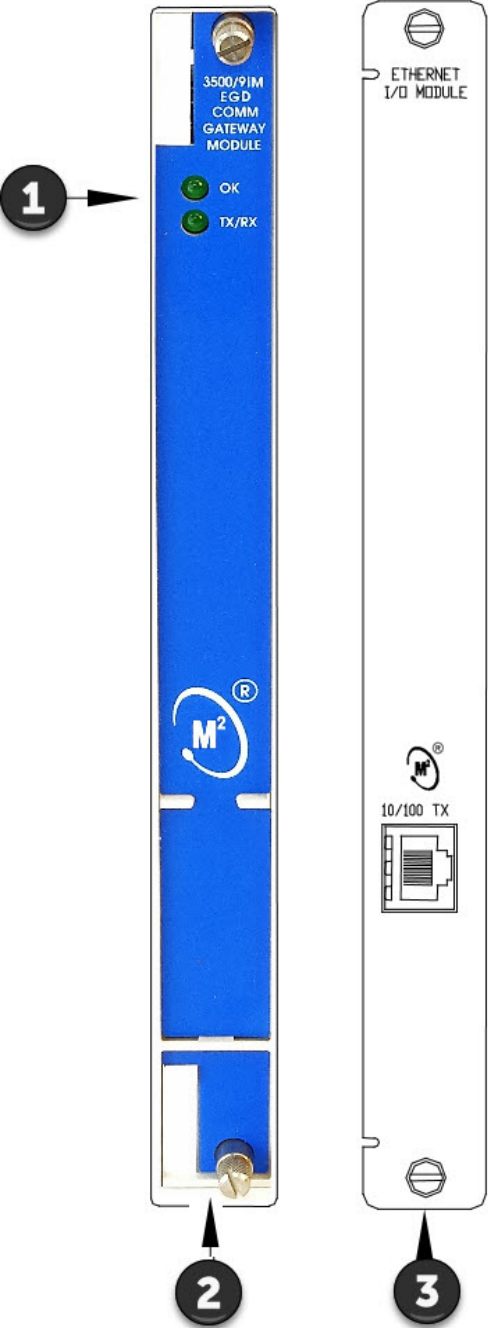


1:  Status LEDs
2:  EGD Comm Gateway Module
3:  Ethernet 10BASE-T/100BASE-TX I/O Module

**Figure 1:  Front and rear views of the EGD Communication Gateway**