Description

The Communication Gateway Module (CGW) provides information to external hosts including measurements, alarms, statuses, and system controls using standard industrial protocols. The CGW is designed for integration with process control and other automation systems.

The Communication Gateway module occupies a single slot and has two RJ-45 Ethernet ports supporting Modbus and EGD protocols.

The module OK LEDs indicate when the module is functioning properly, and the LINK LED indicates when the module is communicating to the rest of the system.

The Comm Gateway Module includes two Ethernet ports which provide TCP/IP communications capabilities. The supported industrial protocols are:

- **Modbus TCP/IP**: Modbus over Ethernet is available for connection to HMI’s, unit control systems, or other plant automation equipment. The module can only be configured as a server and supports configurable Modbus addresses within the 40000 address range.

- **Ethernet Global Data (EGD)**: EGD is a GE protocol used on Mark VI and Mark Vie controllers and by GE Programmable Automation Controllers and certain 3rd party automation equipment. Version 3.04 and backward compatibility with previous versions is supported.
Communications Gateway

<table>
<thead>
<tr>
<th>Communications Gateway (CGW)</th>
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</thead>
<tbody>
<tr>
<td><strong>Power Consumption</strong></td>
</tr>
<tr>
<td>Maximum</td>
</tr>
<tr>
<td>Typical</td>
</tr>
<tr>
<td><strong>Data Communications</strong></td>
</tr>
<tr>
<td>2 Ethernet ports</td>
</tr>
<tr>
<td>- utility or rear side</td>
</tr>
<tr>
<td><strong>Connector</strong></td>
</tr>
<tr>
<td><strong>Cable Length</strong></td>
</tr>
<tr>
<td><strong>Modbus Rate</strong></td>
</tr>
<tr>
<td>EDG</td>
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<tr>
<td>EDG</td>
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<tr>
<td><strong>LEDs</strong></td>
</tr>
<tr>
<td>Module OK LED</td>
</tr>
<tr>
<td>System Communication LED</td>
</tr>
<tr>
<td><strong>Environmental Limits</strong></td>
</tr>
<tr>
<td><strong>Chassis Operating Temperature Range</strong></td>
</tr>
<tr>
<td>(indoor use only)</td>
</tr>
</tbody>
</table>

Environmental Limits

- **Module Temperature Rating - Certification**
  -30°C to +70°C (-22°F to 158°F)
  ![You must still meet the Chassis Operating Temperature Range defined above.]
- **Storage Temperature Range**
  -40°C to +85°C (-40°F to 185°F)
- **Relative Humidity**
  0% to 95% rH non-condensing operating and storage
- **Vibration**
  Without Isolators: 0 g to 0.35 g @ 57-500 Hz
  With Isolators: 0 g to 5 g @ 57-500 Hz.
- **Shock**
  2” Incline Drop
- **Altitude**
  < 2000 m (6,562 ft)
  ![Higher altitudes are possible but are site specific applications. Contact Bently Nevada support if you require higher altitudes.]
- **Pollution Degree**
  Pollution Degree 2
- **Installation Category**
  Category II

Verify that temperature ratings on the wiring cables match the operating temperature range.
CAUTION

LOCATION TEMPERATURE AND HUMIDITY

If you install the hardware in a location where temperatures may exceed 40°C (104°F) or in excessive humidity, you should consider supplying environmental controls. High temperatures will reduce the operational life of the system.
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;
  EN 61010-2-201;

RoHS
European Community Directive:
  RoHS Directive 2011/65/EU

Cyber Security
Designed to meet IEC 62443-4-2

*Maritime
ABS Rules for Condition of Classification, Part 1
- Steel Vessels Rules
- Offshore Units and Structures

Functional Safety
This component is non-interfering with the safety system. The system SIL 2 certification does not require this component be SIL certified.

Hazardous Area Approvals


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

cNRTLus
Class I, Zone 2: AEx/Ex ec nC IIC T4 Gc;
Class I, Zone 2: AEx/Ex nA nC IIC T4 Gc;
Class I, Division 2, Groups A, B, C, D T4;
Class I, Division 2, Groups A, B, C, D T4 (N.I.);
T4 @ Ta= -30˚C to +70˚C (-22˚F to +158˚F)

ATEX/IECEx

Ex ec nC IIC T4 Gc
Ex nA nC IIC T4 Gc
T4 @ Ta= -30˚C to +70˚C (-22˚F to +158˚F)
Ordering Information


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

Communications Gateway Module

<table>
<thead>
<tr>
<th>Ordering Option</th>
<th>Description</th>
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<tbody>
<tr>
<td>60R/CGW01-AAA-B • RJ-45 Ethernet Comm Gateway</td>
<td></td>
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</tbody>
</table>

AAA – Hazardous Area Certifications

| 00   | No Hazardous Area |
| 01   | CSA/NRTL/C (Class I, Div 2) |
| 02   | Multi (CSA, ATEX, IECEx) |
| XXX  | Country Specific Approvals |

B – SIL Level

| 0   | No SIL |