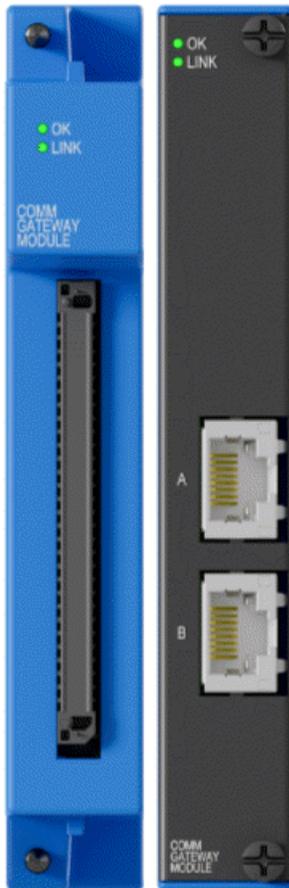


ORBIT 60 SERIES Communication Gateway Module

Datasheet

Bently Nevada Machinery Condition Monitoring

137M0700 Rev. A



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

Communications Gateway (CGW)		
Power Consumption		
Maximum	10.2 Watts	
Typical	6.8 Watts	
Data Communications		
2 Ethernet ports - utility or rear side	Independent Ethernet ports 1000/100/10 Base-T Auto-negotiation	
Connector	RJ-45	
Cable Length	100 meters (328 feet) max	
Updated Rate		
Modbus	50 ms	
EDG	20 ms	
LEDs		
Module OK LED	Indicates when the module is functioning properly	
System Communication LED	Indicates when the module is communicating to the rest of the system	
Physical Characteristics		
Required Rack Space	1 Slot	
Environmental Limits		
Chassis Operating Temperature Range (indoor use only)	3U Chassis: -30°C to +70°C (-22°F to 158°F)	
	6U Chassis: -30°C to +65°C (-22°F to 149°F)	

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

* Approvals pending

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 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 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 II 3 G
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 the detailed listing of country and product-specific approvals, refer to the [Approvals Quick Reference Guide \(108M1756\)](#).

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Communications Gateway Module

Ordering Option	Description
60R/CGW01-AAA-B • RJ-45 Ethernet Comm Gateway	
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

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