

# ORBIT 60 SERIES

## Condition Monitoring Module

### Datasheet

Bently Nevada Machinery Condition Monitoring

145M9028 Rev. -



### Description

The CMM listens to all information within the system, including all measurements, waveforms, digital transducer signals, system controls, status information, system configuration information, process data from external systems, and alarm and events logs. It only listens, with no capability to write, allowing interface to System 1 over the business networks, with no risk to the protection system.

Each module occupies two slots within the system. Placing multiple CMM modules allows the connection of two independent System 1 clients to the Orbit 60 System. Data is transferred to System 1 continuously, but in the event the connection is lost or System 1 is not utilized, non-volatile storage buffers historical data until the information is off-loaded to the host software. System 1 can configure the CMM module to extract additional measurements and waveforms from system sensor data.

Each module has two independently configurable RJ-45 Ethernet ports. OK LEDs indicate proper operation and LINK LEDs show good communication to the system.



## Condition Monitoring Module

### Condition Monitoring Module (CMM)

#### 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

## 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

### Maritime\*

ABS Rules for Condition of Classification, Part 1

- Steel Vessels Rules
- Offshore Units and Structures

### Functional Safety\*

SIL 2

\* Approvals pending

### Hazardous Area Approvals



For the detailed listing of country and product specific approvals, refer to the *Approvals Quick Reference Guide* (108M1756) available from [Bently.com](http://Bently.com).

### CSA/NRTL/C

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 +65°C (-22°F to +149°F)

### ATEX/IECEx

 II 3 G  
Ex ec nC IIC T4 Gc  
Ex nA nC IIC T4 Gc

T4 @ Ta= -30°C to +65°C (-22°F to +149°F)

## Ordering Information



For the detailed listing of country and product specific approvals, refer to the *Approvals Quick Reference Guide* (108M1756) available from [Bently.com](http://Bently.com).

## Condition Monitoring Module

Ordering Option	Description
60R/CMM01-AAA	
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

Copyright 2021 Baker Hughes Company. All rights reserved.



Bently Nevada and Orbit Logo are registered trademarks of Bently Nevada, a Baker Hughes Business, in the United States and other countries. The Baker Hughes logo is a trademark of Baker Hughes Company. All other product and company names are trademarks of their respective holders. Use of the trademarks does not imply any affiliation with or endorsement by the respective holders.

Baker Hughes provides this information on an "as is" basis for general information purposes. Baker Hughes does not make any representation as to the accuracy or completeness of the information and makes no warranties of any kind, specific, implied or oral, to the fullest extent permissible by law, including those of merchantability and fitness for a particular purpose or use. Baker Hughes hereby disclaims any and all liability for any direct, indirect, consequential or special damages, claims for lost profits, or third party claims arising from the use of the information, whether a claim is asserted in contract, tort, or otherwise. Baker Hughes reserves the right to make changes in specifications and features shown herein, or discontinue the product described at any time without notice or obligation. Contact your Baker Hughes representative for the most current information.

The information contained in this document is the property of Baker Hughes and its affiliates; and is subject to change without prior notice. It is being supplied as a service to our customers and may not be altered or its content repackaged without the express written consent of Baker Hughes. This product or associated products may be covered by one or more patents. See [Bentley.com/legal](https://www.bentley.com/legal).

1631 Bently Parkway South, Minden, Nevada USA 89423  
Phone: 1.775.782.3611 (US) or [Bentley.com/support](https://www.bentley.com/support)  
[Bentley.com](https://www.bentley.com)