## **ORBIT 60 SERIES Power Input Module**

## Datasheet

Bently Nevada Machinery Condition Monitoring

163M5233 Rev. A



## **Description**

The Power Input Modules (PIM) always reside in a special-purposed slot located in the first slot of the chassis. This slot accommodates two PIMs for redundancy. At least one PIM must power every chassis, and every chassis requires its own PIMs and power sources. Redundant PIMs and power sources are strongly recommended.

The PIM is a half-height module that connects an external power source to the system. Each Orbit 60 Series chassis supports two stacked redundant power input modules. Failure of one power source does not affect the operation if the system uses both power inputs. The PIM employs out-of-range protection for miswiring, overvoltage, and overcurrent protection for the input power sources.





## **Power Input Module**

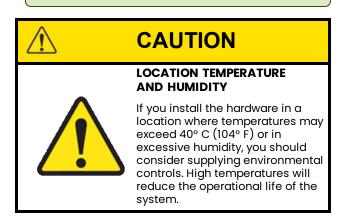
Power I	nput Module (PIM)
Electrical	
Voltage Input	+21 to +32 Vdc
<b>Current Draw</b>	
6U 19" full load	10.5 Amps @ 24 Vdc
3U 19" full load	7.1 Amps @ 24 Vdc
Out of Range Protection	An undervoltage does not harm the PIM. An overvoltage causes the fuse to open.
Physical	
Width	0.8" (2.03 cm)
Height	5.2" (13.21 cm)
Depth	9.67" (24.56 cm)

Env	vironmental 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)  ⚠
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

Env	vironmental Limits
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.





# 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 =  $-30^{\circ}$ C to  $+70^{\circ}$ C ( $-22^{\circ}$ F to  $+158^{\circ}$ F)

## ATEX/IECEX

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

T4 @ Ta =  $-30^{\circ}$ C to  $+70^{\circ}$ C ( $-22^{\circ}$ F to  $+158^{\circ}$ 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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Two PIM modules are included with the Orbit 60 Chassis.



Specific PIM modules are exclusively used with either the 3U or 6U chassis. The 3U and 6U PIMs are not interchangeable.

## **3U Power Input Module**

Ordering Option	Description
60R/PIM01-AAA-B •	Power Input Module

#### AAA – Hazardous Area Certifications

Area Cerunications
No Hazardous Area
CSA/NRTL/C (Class I, Div 2)
Multi (CSA, ATEX, IECEx)
Country Specific Approvals
No SIL

## **6U Power Input Module**

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Ordering Option	Description	
60R/PIM02-AAA-B • Power Input Module		
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	

No SIL



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