Rosemount™ BP20E Power Module for Wireless Corrosion Transmitters

- Intrinsically safe and replaceable in the hazardous zone
- Compatible with these Rosemount Wireless Permasense Corrosion Sensors: WT100, WT210, ET210, ET310 and ET410
- Backed by proven experience in wireless field instrumentation and expert technical support from Emerson
Rosemount BP20E Power Module

**Hazardous location compatibility (consult factory if requested certificate is not listed)**
Permasense WT100 Wireless Corrosion Transmitter
Rosemount Wireless Permasense WT210 Corrosion Transmitter
Rosemount Wireless Permasense ET210 Corrosion Transmitter
Rosemount Wireless Permasense ET310 Corrosion Transmitter
Rosemount Wireless Permasense ET410 Corrosion Transmitter

**Instrinsically safe power solution**
- BP20E Power Modules can be changed in hazardous areas
- No need to remove transmitter from process to change power module

**Predictable life**
- Life expectancies specified under installed conditions
- Up to nine-year life depending on update rate

**Easy maintenance**
- Keyed connections for easy replacement and fail-safe connection

**Safe, robust design**
- No special training required
- Designed for harsh environments

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Ordering information

Table 1: Rosemount BP20E Ordering Information
The Rosemount BP20E Power Module is only available as a spare part at this time. The spare part number depends on the approval rating as seen in the product description.

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<thead>
<tr>
<th>Spare part number</th>
<th>Product description</th>
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<tr>
<td>BP20E-5100-0001</td>
<td>BP20E Power Module, SGSus-c</td>
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<tr>
<td>BP20E-5100-0002</td>
<td>BP20E Power Module, ATEX, IECEx</td>
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<td>BP20E-5100-0003</td>
<td>BP20E Power Module, EAC Ex</td>
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<tr>
<td>BP20E-5100-0004</td>
<td>BP20E Power Module, Japan</td>
</tr>
</tbody>
</table>

Specifications

Functional specifications

Life expectancy
Up to nine years with two measurements a day.

Enclosure ratings
IP67

Physical specifications

Material selection
Emerson provides a variety of Rosemount products with various product options and configurations including materials of construction that can be expected to perform well in a wide range of applications. The Rosemount product information presented is intended as a guide for the purchaser to make an appropriate selection for the application. It is the purchaser’s sole responsibility to make a careful analysis of all process parameters (such as all chemical components, temperature, pressure, flow rate, abrasives, contaminants, etc.), when specifying product materials, options, and components for the particular application. Emerson is not in a position to evaluate or guarantee the compatibility of the process fluid or other process parameters with the product options, configuration, or materials of construction selected.

Electrical connections/power module
Rosemount BP20E power module was designed for use with various Rosemount Wireless Corrosion Transmitters listed on page 2.

Nominal voltage
7.2V

Nominal capacity
19 Ah

Weight
355 g (0.78 lb.)
Materials of construction

Primary cell
Lithium-thionyl chloride

Housing
PBT/PC

Potting compound
Polyurethane

Retaining bolts
A2 Stainless Steel

O-ring seal
Silicone rubber

Performance specifications

Temperature limits
Operating ambient temperature limits: –40 to 167 °F (–40 to 75 °C)

Storage
Power modules will self-discharge in storage causing a reduction in operating capacity. Self-discharge increases with storage temperature. Therefore, power modules should be stored in a cool, dry area away from open flames.
Product certifications

Rev 0.1

European Directive Information

A copy of the EU Declaration of Conformity can be found at the end of the Quick Start Guide. The most recent revision of the EU Declaration of Conformity can be found at Emerson.com/Rosemount.

Ordinary Location Certification

As standard, the Power Module has been examined and tested to determine that the design meets the basic electrical, mechanical, and fire protection requirements by a nationally recognized test laboratory (NRTL) as accredited by the Federal Occupational Safety and Health Administration (OSHA).

North America

The US National Electrical Code® (NEC) and the Canadian Electrical Code (CEC) permit the use of Division marked equipment in Zones and Zone marked equipment in Divisions. The markings must be suitable for the area classification, gas, and temperature class. This information is clearly defined in the respective codes.

Product certifications

USA

Certificate: SGSNA/19/BAS/0003
Markings: CLASS I, DIV 1, GP ABCD, T4, Tamb = -50 °C to +75 °C, IP67

Canada

Certificate: SGSNA/19/BAS/0003
Standards: CAN/CSA C22.2 No. 157-92 (R2012) +Upd1 +Upd2
Markings: CLASS I, DIV 1, GP ABCD, T4, Tamb = -50 °C to +75 °C, IP67

Europe

Certificate: Baseefa18ATEX0144X
Standards: EN IEC 60079-0:2018
EN 60079-11: 2012
Markings: II 1 G, Ex ia IIC T4 Ga, Tamb = -50 °C to +75 °C, IP67

Specific Conditions for Safe Use (X):

1. The polymer enclosure may present a potential electrostatic ignition hazard and must not be rubbed or cleaned with a dry cloth.
International

Certificate: IECEx BAS 18.0088X


Markings: Ex ia IIC T4 Ga, Tamb = -50 °C to +75 °C, IP67

Specific Conditions For Safe Use (X):

1. The polymer enclosure may present a potential electrostatic ignition hazard and must not be rubbed or cleaned with a dry cloth.
Dimensional drawing

Figure 1: Rosemount BP20E Power Module