

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, ET310C, 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 ET210 Corrosion Transmitter
- Rosemount Wireless Permasense ET310 Corrosion Transmitter
- Rosemount Wireless Permasense ET310C Corrosion Transmitter
- Rosemount Wireless Permasense ET410 Corrosion Transmitter
- Rosemount Wireless Permasense WT210 Corrosion Transmitter

Intrinsically safe power solution

- Rosemount 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

Contents

Rosemount BP20E Power Module.....	2
Ordering information.....	3
Specifications.....	3
Product certifications.....	5
Dimensional drawings.....	8

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.

Spare part number	Product description
BP20E-5100-0001	BP20E Power Module, SGSus-c
BP20E-5100-0002	BP20E Power Module, ATEX, IECEx
BP20E-5100-0003	BP20E Power Module, EAC Ex
BP20E-5100-0004	BP20E Power Module, Japan
BP20E-5100-0005	BP20E Power Module, Brazil
BP20E-5100-0006	BP20E Power Module, Korea
BP20E-5100-0007	BP20E Power Module, China

Specifications

Functional specifications

Life expectancy

Up to nine years when utilizing two measurements per 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 in the section [Rosemount BP20E Power Module](#) above.

Nominal voltage

7.2 V

Nominal capacity

19 Ah

Weight

0.82 lb. (370 g)

Materials of construction**Primary cell**

Lithium-thionyl chloride

Housing

PC/PBT

Potting compound

Polyurethane

Retaining bolts

A4 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. Power modules should be stored in a cool, dry area and away from open flames.

Product certifications

Rev 0.1

Directive information

A copy of the Declaration of Conformity can be found at the end of the Quick Start Guide. The most recent revision of the Declaration of Conformity can be found at [Emerson.com/Rosemount](https://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.

USA

Certificate:	SGSNA/19/BAS/0003
Standards:	UL 913 - 8th Edition, Revision Dec 6 2013
Markings:	CLASS I, DIV 1, GP ABCD, T4, T _{amb} = -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, T _{amb} = -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, T _{amb} = -50 °C to +75 °C, IP67

Specific Condition for Safe Use (X):

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
Standards:	IEC 60079-0:2017 Edition 7.0, IEC 60079-11: 2011 Edition 6.0
Markings:	Ex ia IIC T4 Ga, T _{amb} = -50 °C to +75 °C, IP67

Specific Conditon For Safe Use (X):

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

Brazil

Safety - UL

Certificate:	UL 19.1144X Issue 1
Standards:	ABNT NBR IEC 60079-0:2013, ABNT NBR IEC 60079-11:2013
Markings:	Ex ia IIC T4 Ga (-50 °C ≤ T _{amb} ≤ +75 °C)

Specific Condition for Safe Use (X):

See certificate.

China

China (NEPSI)

Certificate:	GYJ20.1347X
Standards:	GB3836.1-2010, GB3836.4-2010, GB3836.20-2010
Markings:	Ex ia IIC T4 Ga

Specific Condition For Safe Use (X):

See certificate for specific conditions of safe use.

China (CCC)

Certificate:	2020322303000948
Standards:	GB3836.1-2010, GB3836.4-2010
Markings:	Ex ia IIC T4 Ga

EAC - Kazakhstan

IM (EAC) Intrinsic Safety

Included on sensor certificates:	RU C-GB.AX58.B.01828/21
Standards:	TP TC 012/2011

Specific condition for safe use (X):

See certificate for specific conditions of safe use.

Korea

IP Korea (KCs) Intrinsic Safety

Certificate:	20-KA4BO-0501X
Markings:	Ex ia IIC T4

Specific Condition For Safe Use (X):

See certificate for specific conditions of safe use.

India

Safety - PESO

Equipment reference number:	P539646/1
Applicable standards:	IEC 60079-0:2017, IEC 60079-11:2011
Markings:	Ex ia IIC T4 Ga

Specific condition for safe use (X):

See certificate.

Japan

I4 CML Intrinsically Safe (IS)

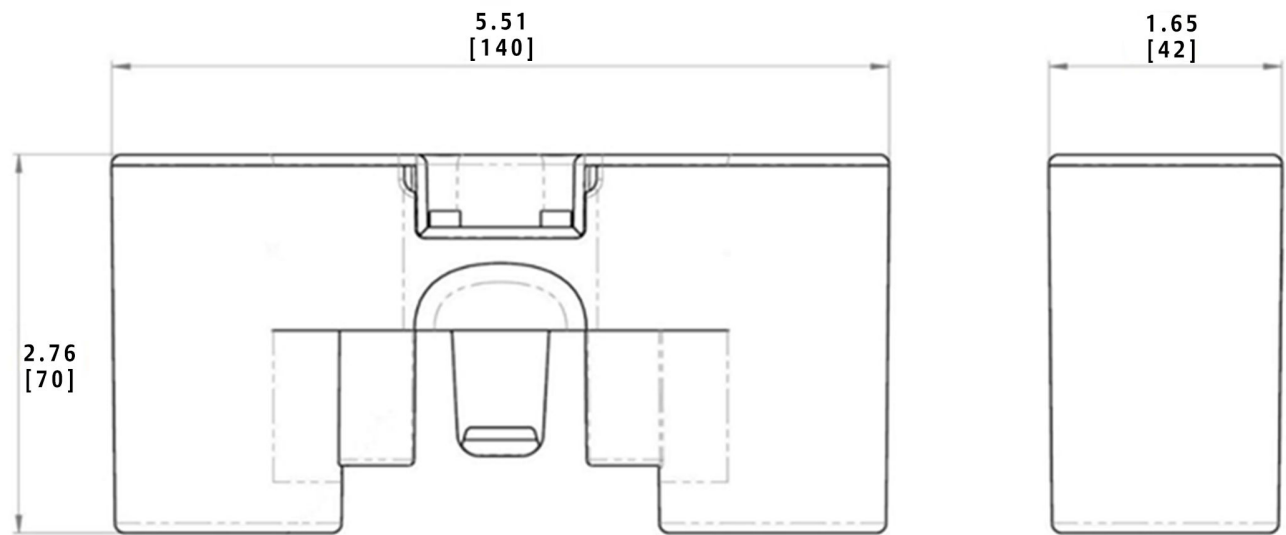
Included on sensor certificates:	CML 17JPN2097X, CML 19JPN2339X, CML 17JPN2140X, CML 22JPN2619X
Markings:	Ex ia IIC T4 Ga (-50 °C ≤ T _{amb} ≤ +75 °C)

Specific condition for safe use (X):

See certificate for specific conditions of safe use.

Dimensional drawings

Figure 1: Rosemount BP20E Power Module



Note
Dimensions are in inches (mm).

For more information: [Emerson.com](https://www.emerson.com)

©2023 Emerson. All rights reserved.

Emerson Terms and Conditions of Sale are available upon request. The Emerson logo is a trademark and service mark of Emerson Electric Co. Rosemount is a mark of one of the Emerson family of companies. All other marks are the property of their respective owners.

ROSEMOUNT™

