

CERTIFICATE OF CONFORMITY



- 1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
- 2. **Certificate No:** FM18US0268X
- 3. **Equipment:** Type 4512 Module, Bluetooth Communication Enabler
(Type Reference and Name)
- 4. **Name of Listing Company:** PR electronics A/S
- 5. **Address of Listing Company:** Lerbakken 10
DK-8410 Roende, Djursland
Denmark

6. The examination and test results are recorded in confidential report number:
PR451634 dated 24th January 2019

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2011, FM Class 3611:2004, FM Class 3810:2005, ANSI/ISA-61010-1:2004

8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.


9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

10. **Equipment Ratings:**

In type of protection nonincendive equipment, the bluetooth communication enabler module (Type 4512) equipment is certified to the following classification(s).

Nonincendive equipment for use in Class I, Division 2, Groups A, B, C and D; nonincendive for use in Class I, Zone 2, Group IIC, hazardous (classified) locations; and ordinary (unclassified) locations with an ambient temperature rating of -20 °C to +60 °C, indoor environments.

Certificate issued by:



J.E. Marquedant
VP, Manager, Electrical Systems

24th January 2019

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com

SCHEDULE



to US Certificate Of Conformity No: FM18US0268X

11. The marking of the equipment shall include:

In type of protection nonincendive equipment, the bluetooth communication enabler module (Type 4512) equipment is labelled with the following marking(s).

CI I, Div 2, Gp A, B, C, D T5

CI I, Zn 2, Grp IIC T5

Ta = -20 °C to +60 °C

WARNING – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR DIVISION 2

12. **Description of Equipment:**

General – The bluetooth communication enabler module is designed for industrial and hazardous (classified) location applications. The type 4512 module is a detachable front programming display adding bluetooth BLE 4.2 communication to all available PR System 4000/9000 units. The 4512 converts a wide array of sensor and analog device signals such as uni- and bipolar milliampere and voltage signals, potentiometer, Lin R, RTD and TC, to a bluetooth communication signal.

The type 4512 module allows configuration of operating parameters for the PR System 4000/9000 units using bluetooth communication or by use of the front display menu. The four line LCD dot display offers signal readout for performing scaled process values, selected engineering units, analog output or TAG number, and status for communication and signal trending.

Construction – The type 4512 bluetooth communication enabler module consists of two printed circuit boards which are housed in a standard housing used for rail mounting, consisting of two parts (base and cover) constructed of plastic.

For more specifics concerning construction and description details of the bluetooth communication enabler module, reference the manufacturer's sales literature and specification sheets.

Ratings – The equipment is certified to the following ratings.

The ambient operating temperature range is -20 °C to +60 °C (Type 4512) in type of protection nonincendive equipment, when properly mounted and installed.

The equipment is designated for installation transient overvoltages up to levels of overvoltage category II, and environmentally classified as pollution degree 2 inside the enclosure.

In type of protection nonincendive equipment, the bluetooth communication enabler module (Type 4512) equipment is connected to limited output Class 2 circuits and power source, PR electronics 4000 and 9000 series only, with the following nominal external supply values.

Supply Terminals:

V_{max} = 6.5-20 VDC, P_i = 150 mW maximum

Model Codes – The equipment is identified with the following model code structure.

In type of protection nonincendive equipment, the bluetooth communication enabler module (Type 4512) equipment is designated with the following model code(s).

Type 4512, Bluetooth Communication Enabler.

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13. **Specific Conditions of Use:**

In type of protection nonincendive equipment, the bluetooth communication enabler module (Type 4512) equipment is designated with the following specific conditions of use.

1. The equipment shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application, including a tool removable cover.

14. **Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. **Schedule Drawings:**

A copy of the technical documentation has been kept by FM Approvals.

16. **Certificate History:**

Details of the supplements to this certificate are described below:

Date	Description
24 th January 2019	Original Issue.

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CERTIFICATE OF CONFORMITY



1. **HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
2. **Certificate No:** FM18CA0129X
3. **Equipment:** Type 4512 Module, Bluetooth Communication Enabler
(Type Reference and Name)
4. **Name of Listing Company:** PR electronics A/S
5. **Address of Listing Company:** Lerbakken 10
DK-8410 Roende, Djursland
Denmark
6. The examination and test results are recorded in confidential report number:

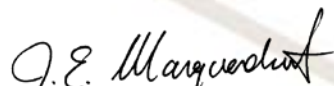
PR451634 dated 24th January 2019
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

CAN/CSA-C22.2 No. 213-16:2016, CAN/CSA-C22.2 No. 1010-1:2004
8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
10. **Equipment Ratings:**

In type of protection suitable equipment, the bluetooth communication enabler module (Type 4512) equipment is certified to the following classification(s).

Suitable equipment for use in Class I, Division 2, Groups A, B, C and D, hazardous locations; and ordinary locations with an ambient temperature rating of -20 °C to +60 °C, indoor environments.

Certificate issued by:



J.E. Marquedant
VP, Manager, Electrical Systems

24th January 2019

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to Canadian Certificate Of Conformity No: FM18CA0129X

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CI I, Div 2, Gp A, B, C, D T5

Ta = -20 °C to +60 °C

WARNING – EXPLOSION HAZARD. SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2

AVERTISSEMENT – RISQUE D'EXPLOSION. LE REMPLACEMENT DE COMPOSANTS PEUT NUIRE À LA CONFORMITÉ DE CLASSE I, DIVISION 2

12. **Description of Equipment:**

General – The bluetooth communication enabler module is designed for industrial and hazardous location applications. The type 4512 module is a detachable front programming display adding bluetooth BLE 4.2 communication to all available PR System 4000/9000 units. The 4512 converts a wide array of sensor and analog device signals such as uni- and bipolar milliampere and voltage signals, potentiometer, Lin R, RTD and TC, to a bluetooth communication signal.

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14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals Canadian Certification Scheme.

15. Schedule Drawings:

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History:

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