

CERTIFICATE OF CONFORMITY



- HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
- Certificate No:** FM22CA0009X
- Equipment:** Model 4510 Display/Programming Front and Model 4511 Modbus Communication Enabler
(Type Reference and Name)
- Name of Listing Company:** PR electronics A/S
- Address of Listing Company:** Lerbakken 10
Roende DK-8410
Denmark
- The examination and test results are recorded in confidential report number:
3049132 dated 10th June 2013
- 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. 213:2017, CSA-C22.2 No. 60079-0:2019, CAN/CSA-C22.2 No. 60079-7:2018,
CAN/CSA-C22.2 No. 61010-1:2015
- 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.

Certificate issued by:

J.E. Marquedant
VP, Manager - Electrical Systems

19 April 2022

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
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SCHEDULE

Canadian Certificate Of Conformity No: FM22CA0009X

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:

See Annex

11. The marking of the equipment shall include:

See Annex

12. **Description of Equipment:**

General – The 4511 is a detachable front programming display adding Modbus RTU RS-485 serial communication to all available PR System 4000/9000 units. The 4511 converts a wide array of sensor and analog device signals such as uni- and bipolar mA and Voltage signals, Potentiometer, Lin R, RTD and TC, to a Modbus communication line signal.

The 4511 allows configuration of operating parameters for the PR System 4000/9000 units using Modbus communication or by use of the front display menu. The display offers signal readout for performing output signal simulation including internal unit or external input signal errors.

The Model 4510 is identical to the Model 4511 with the Modbus communication interface removed and where the display can only be used to monitor and program the 4000 and 9000 modules on the locally attached display

Operation Temperature Ranges:

The ambient operating temperature range of the Model 4510 and 4511 Modbus Communication Enabler is -20°C to 60°C.

Electrical data:

The Model 4510 Display/Programming Front and Model 4511 Modbus Communication Enabler has the following electrical ratings;

$V_{\max} \leq 10\text{-}20\text{Vdc}$; $I_{\max} = 7.5\text{mA}$; $P_{\max} \leq 150\text{mW}$

13. **Specific Conditions of Use:**

See Annex

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

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

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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
10 th June 2013	Original Issue.
19 th April 2022	<u>Supplement 1:</u> Report Reference: – PR462164 dated 19 th April 2022. Description of the Change: <ol style="list-style-type: none">1) Addition of Model 45102) CAN/CSA C22.2 No. 60079-0:2011 updated to CSA C22.2 No. 60079-0:20193) CAN/CSA C22.2 No. 213-M1987:2004 updated to CAN/CSA C22.2 No.213:20174) CAN/CSA C22.2 No. 61010-1:2004 updated to CAN/CSA C22.2 No. 61010-1:20155) CAN/CSA C22.2 No. 60079-15:2012 removed from standards list6) CAN/CSA C22.2 No. 157-92:2006 removed from standards list7) CAN/CSA C22.2 No. 60079-7:2018 added to standards list8) Certificate updated to new format

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ANNEX

Model 4510 Display/Programming Front

Equipment ratings

Nonincendive for use in Class I, Division 2 Groups A, B, C, and D hazardous (classified) indoor locations, T5, Ta = -20°C to +60°C

Increased safety protection for Class I, Zone 2, Ex ec IIC T5 Gc; Ta = -20°C to +60°C

Equipment markings

Class I, Division 2, Groups A, B, C and D; T5; Ta = -20°C to +60°C
Ex ec IIC T5 Gc; Ta = -20°C to +60°C

Electrical Ratings

The Model 4511 Modbus Communication Enabler have the following electrical ratings;

$V_{max} \leq 10\text{-}20\text{Vdc}$; $I_{max} = 7.5\text{mA}$; $P_{max} \leq 150\text{mW}$

Specific Conditions of Use:

For Class I, Division 2

1. In Class I, Division 2 installations, the subject equipment shall be mounted within a tool-secured enclosure which is capable of accepting one or more of the Class I, Division 2 wiring methods specified in the National Electrical Code (ANSI/NFPA 70).

For Class I, Zone 2

1. The equipment shall be installed within an enclosure that provides a minimum ingress protection of IP54 in accordance with CSA C22.2 No. 60079-0.
2. The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1
3. Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment

Model 4511 Modbus Communication Enabler

Equipment ratings

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Equipment markings

Class I, Division 2, Groups A, B, C and D; T5; Ta = -20°C to +60°C
Ex ec IIC T5 Gc; Ta = -20°C to +60°C

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