CERTIFICATE OF CONFORMITY

1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** **FM16US0446X**
3. **Equipment:** ***9188, 9189, 9181. 8-segment*** **Redundant Fieldbus Power Supplies.**
   (Type Reference and Name)

   9191-FP. **Fieldbus Power Supply Module.**

   9197-BLK. **Fieldbus Blanking Module.**
4. **Name of Listing Company:** **Eaton Electric Limited**
5. **Address of Listing Company:** **Great Marlings, Butterfield**
   Luton, Bedfordshire, LUS 8DL
   United Kingdom
6. The examination and test results are recorded in confidential report number:

   3046854 dated 3rd July 2013
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 60079-0:2009, ANSI/UL 60079-15:2009
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.

Certificate issued by:

J. E. Marquedant
Manager, Electrical Systems

30 December 2016
Date

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

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10. Equipment Ratings:

Class I, Division 2, Groups A, B, C, and D, temperature code T4 at 60°C; AEx nA nC IIC, T4, Ta = -20°C to 60°C for hazardous (classified) locations.

11. The marking of the equipment shall include:

Class I, Division 2, Group ABCD T4 Ta = -20°C to 60°C
Class I, Zone 2 AEx nA nC IIC T4 Ta = -20°C to 60°C

12. **Description of Equipment:**

General – The 9188, 9189, and 9181 Redundant Fieldbus Power Supplies are designed to provide redundant power for eight Foundation fieldbus H1 Segments. The only difference between the 9188, 9189, and 9181 Redundant Fieldbus Power Supply models are different external connection fascilites.

The 9191-FP Fieldbus Power Supply Module is designed to provide Fieldbus supply to 4 separate Fieldbus segments.

The 9197-BLK blanking module is fitted into unused positions on the 918* carriers.

Construction – All versions of the 9188, 9189, and 9181 Redundant Fieldbus Power Supply models require installation in a tool scured enclosure.

The 9191-FP is comprised of a PCB mounted in with a molded plastic enclosure, which requires installation in a tool scured enclosure.

The 9197-BLK, as noted above, fitted into unused positions on the 918* carriers, and requires installation in a tool scured enclosure.

Ratings
***9188, 9189, 9181. 8-segment* Redundant Fieldbus Power Supplies.**
The 918* Fieldbus Power Supply Carriers are powered by one or two certified power supplies located in an Unclassified area. The maxium input supply voltage is 30Vdc. Carriers are fitted with up to six 9191-FP power supplies and can provide a maximum current of 500 mA per segment.

***9191-FP.* Fieldbus Power Supply Module.**
The 9191-FP module has a maxium output voltage of 32 Vdc and a maximum current output of 250mA.

***9197-BLK.* Fieldbus Blanking Module.**
The 9197-BLK is fitted into unused positions on the 918* carriers in order to maintain continuity of the alarm circuit.

Tempature rating for all devices is -20°C to 60°C.

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13. **Specific Conditions of Use:**

***9188, 9189, 9181. 8-segment* Redundant Fieldbus Power Supplies.**
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).
2) In Class I, Zone 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, Zone 2 wiring methods specified in the National Electrical Code (ANSI/NFPA 70) and having a minimum ingress protection rating of IP54.
3) The installer shall ensure that the insulation of field wiring is rated for the temperatures present within the cabinet/enclosure in which the equipment is installed.
4) All external connections to the equipment and internal connections between the modules forming the equipment must not be inserted or removed unless either the area in which the equipment is installed is known to be non-hazardous or the circuits connected have been de-energized.
5) The F809F/F809F-Plus Communication Diagnostic Segment Connection must be fitted with transient protection devices to ensure that the rated voltage cannot exceed 140% of the peak rated voltage.

***9191-FP.* Fieldbus Power Supply Module.**
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).
2) In Class I, Zone 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, Zone 2 wiring methods specified in the National Electrical Code (ANSI/NFPA 70) and having a minimum ingress protection rating of IP54.
3) The installer shall ensure that the insulation of field wiring is rated for the temperatures present within the cabinet/enclosure in which the equipment is installed.
4) The component must not be inserted or removed unless either the area in which the component is installed is known to be non-hazardous or the circuits to which it is connected have been de-energized.

***9197-BLK.* Fieldbus Blanking Module.**
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).
2) In Class I, Zone 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, Zone 2 wiring methods specified in the National Electrical Code (ANSI/NFPA 70) and having a minimum ingress protection rating of IP54.
3) The installer shall ensure that the insulation of field wiring is rated for the temperatures present within the cabinet/enclosure in which the equipment is installed.
4) The component must not be inserted or removed unless either the area in which the component is installed is known to be non-hazardous or the circuits to which it is connected have been de-energized.

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

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

15. **Schedule Drawings**

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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
3rd July 2013	Original Issue.
30th December 2016	Supplement 1: Report Reference: – RR207226 dated 30th December 2016 Description of the Change: Company name change. Reformat of Certificate.