IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx BAS 11.0119X**

Certificate history:
Issue 2 (2013-11-08)
Issue 1 (2013-03-13)
Issue 0 (2012-02-07)

Status: **Current**

Issue No: 3

Date of Issue: 2017-12-04

Applicant: **Eaton Electric Limited**
Great Marlings
Butterfield
Luton
Bedfordshire
LU2 8DL
United Kingdom

Equipment: **918* 8-Segment Redundant Fieldbus Power Supplies**

Optional accessory:

Type of Protection: **Type of Protection 'n'**

Marking: **Ex nA nC IIC T4 Gc**
-20°C ≤ Ta ≤ +60°C

Approved for issue on behalf of the IECEx Certification Body: **R. S. Sinclair**

Position: **Technical Manager**

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom

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Certificate No.: **IECEx BAS 11.0119X**

Date of issue: 2017-12-04 Issue No: 3

Manufacturer: **Eaton Electric Limited**
Great Marlings
Butterfield
Luton
Bedfordshire
LU2 8DL
United Kingdom

Additional manufacturing locations: **MTL Instruments Pvt Limited**
No 3 Old Mahabalipuram Road
Sholinganallur
Chennai 600119
India

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/BAS/ExTR11.0239/00 GB/BAS/ExTR13.0048/00 GB/BAS/ExTR13.0262/00
GB/BAS/ExTR16.0385/00

Quality Assessment Reports:

GB/BAS/QAR06.0022/07 GB/BAS/QAR07.0017/06

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The 918* 8-Segment Redundant Fieldbus Power Supplies are designed to provide redundant power for up to eight Foundation Fieldbus segments of up to 32V & up to 500mA per segment.

The equipment comprises of carrier fitted with two groups of up to three 919*-FP 4-Segment Fieldbus Power Supply Modules (either Model No. 9191-FP or 9192-FP) component certified under IECEx BAS 11.0113U operating in N+1 (load sharing) redundant configuration. For redundant applications requiring 250mA to 500mA per segment three 919*-FP modules of the same type require fitting on the carrier for each 4 segment group. For redundant applications only requiring up to 250mA per segment, only two 919*-FP modules require fitting for each 4 segment group. The output voltage of each segment is dependent on the 919*-FP module fitted.

When the carrier is not fully populated with 919*-FP modules, to enable correct functionality of the alarm output signal, a 9197-BLK Fieldbus Blanking Module must be fitted in place of the 919*-FP module in that group. The 9197-BLK Fieldbus Blanking Module comprises circuitry to bypass the alarm circuitry and is housed in a plastic enclosure with the same type of connector and mounting as the 919*-FP Modules.

In addition to the diagnostic information provided by each 919*-FP module, a F809F or F809F-Plus Foundation Fieldbus Diagnostic Module component certified under IECEx BAS 11.0110U can be fitted to the carrier. This module automatically collects and distributes additional diagnostic information for each of the eight segments.

The equipment is available in three model groups, the 9181, 9188 & 9189 Redundant Fieldbus Power Supplies. Each model group has its own carrier with different external connection facilities. The model number of the equipment defines the configuration of the power supply and the type of external connection facilities provided.

See the Certificate Annex for further equipment model details and parameters.

SPECIFIC CONDITIONS OF USE: YES as shown below:
1) The equipment must be installed in an area of not more than Pollution Degree 2 as defined in IEC 60664-1, and in an enclosure that provides a degree of protection of at least IP54 and meets the relevant requirements of IEC 60079-0 and IEC 60079-15.

2) The F809F or F809F-Plus Foundation Fieldbus Diagnostic Module connections must be fitted transient protection devices to ensure that the rated voltage cannot exceed 140% of the peak rated voltage.

3) 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-energised.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Variation 3.1

To permit change of manufacturer name from ‘Measurement Technology Limited’ to ‘Eaton Electric Limited’.

ExTR: **GB/BAS/ExTR16.0385/00** File Reference: **16/0371**

Annex:

IECEx BAS 11.0119X Annex Issue 2.pdf

SGS Baseefa Limited
Rockhead Business Park
Staden lane, Buxton, Derbyshire
SK17 9RZ
United Kingdom

ANNEX to IECEx BAS 11.0119X Issue No. 2 Date: 2013/11/07

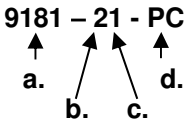
918* 8-Segment Redundant Fieldbus Power Supply

Model Range

The 918* 8-Segment Redundant Fieldbus Power Supply Range comprises of the following model groups: -

- 9181 8-Segment Redundant Fieldbus Power Supply, Invensys
- 9188 8-Segment Redundant Fieldbus Power Supply, Yokogawa
- 9189 8-Segment Redundant Fieldbus Power Supply

Each model group has a number of Configurations, Power Supply Module and Connection Facility options, identified in the model number as follows: -



Where: -

a. – Model Group (3 Options)

9181 = Redundant Fieldbus Power Supply, Invensys
9188 = Redundant Fieldbus Power Supply, Yokogawa
9189 = Redundant Fieldbus Power Supply

b. – Power Supply Configuration (4 Options)

2 = 4-Segment 250mA Power Supply
2 x 919*-FP Power Supply Modules & 1 x 9197-BLK Blanking Module fitted in Module Slots 1 to 3
3 x 9197-BLK Blanking Modules fitted in Module Slots 4 to 6

4 = 4-Segment 500mA Power Supply
3 x 919*-FP Power Supply Modules fitted in Module Slots 1 to 3
3 x 9197-BLK Blanking Modules fitted in Module Slots 4 to 6

6 = 8-Segment 250mA Power Supply
2 x 919*-FP Power Supply Modules & 1 x 9197-BLK Blanking Module fitted in Module Slots 1 to 3
2 x 919*-FP Power Supply Modules & 1 x 9197-BLK Blanking Module fitted in Module Slots 4 to 6

9 = 8-Segment 500mA Power Supply
3 x 919*-FP Power Supply Modules fitted in Module Slots 1 to 3
3 x 919*-FP Power Supply Modules fitted in Module Slots 4 to 6

c. – 919*-FP 4-Segment Fieldbus Power Supply Modules Fitted (2 Options)

1 = 9191-FP 4-Segment Fieldbus Power Supply Modules fitted
2 = 9192-FP 4-Segment Fieldbus Power Supply Modules fitted

d. – Fieldbus O/P Segment Connection Facilities (2 Options)

PC = Pluggable Spring Clamp Terminal Connections
PS = Pluggable Screw Clamp Terminal Connections

Input / Output Parameters

Power Supply Inputs: POWER A & POWER B and Alarm Connection: ALARM

Maximum Working Voltage = 30V d.c.

Host Output Terminals:

9181-**-P* Models: HOST J1 SEG 1 – 4 & HOST J2 SEG 5 - 8, pins 2 & 3, 5 & 6, 8 & 9, 11 & 12, 14 & 16, 17 & 19, 20 & 22 and 23 & 25
9188-**-P* Models: HOST 1A, HOST 1B, HOST 2A & HOST 2B pins 1 & 2, 7 & 8, 13 & 14 and 19 & 20
9189-**-P* Models: HOST 1 to HOST 8 pins 1 & 3

Maximum Working Voltage = 30V d.c.

F809F / F809F-Plus Communication Diagnostic Segment Connection: DIAGNOSTIC SEGMENT

Maximum Working Voltage = 32V d.c.

Fieldbus Segment Outputs: SEGMENT 1, SEGMENT 2, SEGMENT 3 & SEGMENT 4 Pins '+' & '-'
or
SEGMENT 5, SEGMENT 6, SEGMENT 7 & SEGMENT 8 Pins '+' & '-' (8-Segment models only)

Model No's.	Maximum O/P Voltage per Segment (V d.c.)	Maximum Current per Segment (mA)
918*-21-P*	32V	250mA
918*-41-P*	32V	500mA
918*-61-P*	32V	250mA
918*-91-P*	32V	500mA
918*-22-P*	22V	250mA
918*-24-P*	22V	500mA
918*-26-P*	22V	250mA
918*-29-P*	22V	500mA