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 04.0031X**

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Certificate history:
Issue 4 (2017-04-11)
Issue 3 (2009-08-20)
Issue 2 (2009-05-28)
Issue 1 (2009-05-06)
Issue 0 (2004-10-18)

Status: **Current**

Issue No: 5

Date of Issue: 2020-04-22

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

Equipment: **9121-IS FISCO Power Supply - IIC / 9122-IS FISCO Power Supply - IIB**

Optional accessory:

Type of Protection: **Intrinsic Safety / FISCO**

Marking: **[Ex ib Gb] IIC (9121-IS & 9121-IS-CM Models)**
[Ex ib Gb] IIB (9122-IS & 9122-IS-CM Models)
[Ex ib Db] III C (All Models)
(-40°C ≤ Ta ≤ +70°C) (9121-IS & 9122-IS Models)
(-20°C ≤ Ta ≤ +60°C) (9121-IS-CM & 9122-IS-CM Models)

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

Position: **Technical Manager**

Signature: (for printed version)

Date: 23/4/20

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Certificate issued by:

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

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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 60079-0:2017 Edition:7.0 — Explosive atmospheres - Part 0: Equipment - General requirements

IEC 60079-11:2011 Edition:6.0 — Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

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 Report:

GB/BAS/ExTR20.0068/00

Quality Assessment Reports:

GB/BAS/QAR06.0022/08 GB/BAS/QAR07.0017/08

IECEx ATR:
UK/BAS/04/0439
GB/BAS/ExTR09.0041/00
GB/BAS/ExTR09.0141/00

File reference:
04/0439
GB/BAS/ExTR09.0042/00
GB/BAS/ExTR16.0304/00

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

The 9121-IS FISCO Power Supply – IIC and 9122-IS FISCO Power Supply – IIB are designed for use in Fieldbus applications. As well as providing isolated power to devices in the hazardous area, it also provides isolation for the Fieldbus signal in both directions between the non-hazardous and hazardous area. The maximum power supply input voltage is 30V d.c.

The 9121-IS FISCO Power Supply – IIC and 9122-IS FISCO Power Supply – IIB comprises electronic components mounted on two printed circuit boards within a moulded plastic enclosure. The enclosure is designed for DIN rail mounting with electrical connections made via plug-in screw terminals.

The 9121-IS-CM FISCO Power Supply – IIC & 9122-IS-CM FISCO Power Supply - IIB variants comprise the same circuitry as the 9121-IS and 9122-IS variants respectively but instead of being designed to be mounted on a DIN rail and having plug-in screw terminals, the variants are fitted with socket connections in the base of the equipment and is designed to be mounted on a certified backplane arrangement, through which its external connections are made.

For equipment parameters see data in the Annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The Power In connection, for the FISCO product must be supplied from either safety extra low-voltage (SELV) or protective extra low-voltage (PELV) circuits; for example equipment complying with the requirements of either the IEC 60950 series, IEC 61010-1 or a technically equivalent standard.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Variation 5.1

To Permit:

Update of assessment standard to IEC 60079-0:2017

Update to permit the use of some alternative components and changes to the PCB

The Um parameter for Power In (CON2) is reduced to 40V dc and a condition of use is introduced.

ExTR: **GB/BAS/ExTR20.0068/00**	File Reference: **19/0479**

Annex:

IECEx BAS 04.0031X Annex issue 3.pdf

9121-IS FISCO Power Supply - IIC

Input Power Supply Connector Power Pins 1, 2, & 3 (CON2 Pins 1 to 3)

U_m = 40V d.c

The circuit connected to the safe area terminals CON2 is designed to operate from a d.c. supply voltage up to 30V.

Host Output Connector Host Pins 4, 5 & 6 (CON3 Pins 1 to 3)

U_m = 253V r.m.s

The circuit connected to the safe area terminals CON3 is designed to operate from a d.c. supply voltage up to 32V.

FISCO Power Supply I.S. Pins 7, 8 & 9 (CON1 Pin 3 w.r.t. 1)

U_o = 14V C_o = 0.20µF
I_o = 180mA @ 14V L_o = 300µH
P_o = 2.52W

When used in accordance with Annex G of EN 60079-11, there is no need to take into consideration C_o and L_o.

9122-IS FISCO Power Supply - IIB

Input Power Supply Connector Power Pins 1, 2, & 3 (CON2 Pins 1 to 3)

U_m = 40V d.c

The circuit connected to the safe area terminals CON2 is designed to operate from a d.c. supply voltage up to 30V.

Host Output Connector Host Pins 4, 5 & 6 (CON3 Pins 1 to 3)

U_m = 253V r.m.s

The circuit connected to the safe area terminals CON3 is designed to operate from a d.c. supply voltage up to 32V.

FISCO Power Supply I.S. Pins 7, 8 & 9 (CON1 Pin 3 w.r.t. 1)

U_o = 14.8V C_o = 0.50µF
I_o = 359mA @ 14.8V L_o = 550µH
P_o = 5.31W

When used in accordance with Annex G of EN 60079-11, there is no need to take into consideration C_o and L_o.

9121-IS-CM FISCO Power Supply – IIC

Input Power Supply Connector Power CON2 Pins 1 to 4

U_m = 40V d.c

The circuit connected to the safe area connector CON2 is designed to operate from a d.c. supply voltage up to 30V.

Host Output Connector Host CON3 Pins 1 to 4

U_m = 253V r.m.s

The circuit connected to the safe area connector CON3 is designed to operate from a d.c. supply voltage up to 32V.

FISCO Power Supply I.S. CON1 Pins 2 / 4 w.r.t. 1 / 3

U_o = 14V C_o = 0.20µF
I_o = 180mA @ 14V L_o = 300µH
P_o = 2.52W

When used in accordance with Annex G of EN 60079-11, there is no need to take into consideration C_o and L_o.

9122-IS-CM FISCO Power Supply – IIB

Input Power Supply Connector Power CON2 Pins 1 to 4

U_m = 40V d.c

The circuit connected to the safe area connector CON2 is designed to operate from a d.c. supply voltage up to 30V.

Host Output Connector Host CON3 Pins 1 to 4

U_m = 253V r.m.s

The circuit connected to the safe area connector CON3 is designed to operate from a d.c. supply voltage up to 32V.

FISCO Power Supply I.S. CON1 Pins 2 / 4 w.r.t. 1 / 3

U_o = 14.8V C_o = 0.50µF
I_o = 359mA @ 14.8V L_o = 550µH
P_o = 5.31W

When used in accordance with Annex G of EN 60079-11, there is no need to take into consideration C_o and L_o.