



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx BAS 12.0020U Issue No: 0 Certificate history:
Issue No. 0 (2013-08-13)

Status: **Current** Page 1 of 4

Date of Issue: **2013-08-13**

Applicant: **GE Intelligent Platforms**
2500 Austin Drive
Charlottesville
Virginia 22911
United States of America

Electrical Apparatus: **8922-RB-IS Railbus Isolator with Railbus Isolator Carrier**
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **[Ex ia Ga] (-40°C ≤ Ta ≤ +70°C)**
[Ex ia Da] (-40°C ≤ Ta ≤ +70°C)

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

R S Sinclair

Position:

General 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 the [Official IECEx Website](http://www.iecex.com).

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 12.0020U Issue No: 0
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Manufacturer: **GE Intelligent Platforms**
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Additional Manufacturing
location(s):

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

*This Certificate **does not** indicate compliance with electrical 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/ExTR12.0025/00](#)

Quality Assessment Report:

[GB/FME/QAR11.0010/03](#)



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Certificate No: IECEx BAS 12.0020U

Issue No: 0

Date of Issue: 2013-08-13

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The 8922-RB-IS Railbus Isolator with Railbus Isolator Carrier consists of 8922-RB-IS Railbus Isolator and an 8723-CA-RB or 8725-CA-RB Railbus Isolator Carrier. The 8922-RB-IS Railbus Isolator is a module comprising electronic components on two printed circuit boards mounted within a moulded plastic enclosure. The component is designed to provide a galvanically isolated interface between unspecified safe area equipment (nominally 35V – potentially 375V peak) and certified voltage limited circuits. Galvanic isolation is provided by means of two certified opto-isolators and six isolating transformers supplied on the safe area side via a voltage clamp and fuse which limits the power to these devices. The voltages limited side of the railbus is supplied via an 18V crowbar clamped supply and a fuse which limits the power in the Railbus. The output of the Railbus Isolator is not to be considered as an intrinsically safe limited circuit.

A number of certified 8000 Input / Output (I/O) modules, mounted on carrier units, each being supplied via the above crowbar clamped power supply, provide the voltage and current limitation necessary to make the output suitable for connection within an Intrinsically Safe circuit.

The 8723-CA-RB and 8725-CA-RB Railbus Isolator Carriers are designed to provide a suitable mounting for the 8922-RB-IS Railbus Isolator Module. The carriers provides the means of connection between non-certified safe area carriers and certified voltage limited carriers each associated with the 8000 system. The Railbus Isolator Carriers have a suitable receptacle to mate with the Railbus Isolator Module, two female connectors interconnect with other carrier units and a printed circuit board providing the interconnections. The segregation requirements are met on the board and all of the connectors. The difference between the 8723-CA-RB and 8725-CA-RB Carriers is a link fitted on the common PCB that permits the connection of the additional signal on the 8725-CA-RB variant. In terms of the intrinsic safety both carriers are identical.

See the additional sheet for component's Input / Output parameters and Schedule of Limitations.

CONDITIONS OF CERTIFICATION: NO



IECEx Certificate of Conformity

Certificate No: IECEx BAS 12.0020U

Issue No: 0

Date of Issue: 2013-08-13

Page 4 of 4

EQUIPMENT (continued):

Input / Output Parameters

Supply to unspecified (safe area) side of Railbus Isolator

8723-CA-RB or 8725-CA-RB, Railbus Isolator Carrier CON1, pins 1 to 16 (a, b & c)

8922-RB-IS Railbus Isolator CON1 pins 1 to 34

$U_m = 253V$ r.m.s

The circuit connected to the unspecified (safe area) terminals CON1 is designed to operate from an operational d.c. supply voltage up to 35V.

Input to the galvanically isolated voltage limited side of the Railbus Isolator (Power Supply)

8723-CA-RB or 8725-CA-RB, Railbus Isolator Carrier CON4, pins 15 & 16 (a, b & c)

8922-RB-IS Railbus Isolator CON4 pin 2

Maximum Input Voltage of 18V

Output from galvanically isolated voltage limited side of Railbus Isolator (Data lines)

8723-CA-RB or 8725-CA-RB, Railbus Isolator Carrier CON4, pins 1 to 13 (a, b & c)

8922-RB-IS Railbus Isolator CON4 pins 6 to 34

Maximum Output Voltage of 18V

Maximum Output Power of 1.3W

Schedule of Limitations

1. The 8922-RB-IS Railbus Isolator output voltage requires further voltage and current limitation before it can be connected within an Intrinsically Safe Circuit.
2. This module must be segregated from any other Non-IS or IS circuits, by the requirements of Table 5 of IEC 60079-11: 2011.