



CERTIFICATE OF COMPLIANCE

Certificate Number: SGSNA/22/CA/00016X

Contract Number: 801113

Certificate Project Number: BAS-CERT220700006

Certified Product: Fieldbus Barrier System

Trademarks:

Model(s): 937X-FB2-**-** (where X = 1 or 3, and -**-** = -PC-SS or -PS-SS),
93ZX-FB2-XX-XX-XXX (where ZX = 87 or 88, and -**-** = -PC-SS or -PS-SS, &
-XXX denotes other characters not affecting certification)

Technical Data: 16-32V dc

Marking Codes

CI I Zn 1, AEx db eb ib mb [ja Ga] IIC T4 Gb
CI I Div 2, Groups ABCD T4
CI II Zn 22, AEx tc IIIB T80°C Dc
CI II Div 2, Groups FG T80°C
CI III Div 2

The field (spur) outputs are suitable for connection to IS equipment in the additional following hazardous locations:-

CI I Div 1 Grps ABCD
CI I Div 1 Grps FG
CI I Zn 0 AEx IIC Ga
CL II Zn 21 AEx IIIB Db

Certification temperature range (937X-FB2 models) = -40°C to +65°C

Certification temperature range (93ZX-FB2 models) = -40°C to +70°C



Certification Body

Connectivity & Products, a division of SGS North America Inc.
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Certificate Holder: Eaton Electric Limited
Great Marlings, Butterfield, LU2 8DL, Luton, United Kingdom

This certificate supercedes previous certificates issued with the same certificate number. Certification is valid when products are indicated on the SGS directory of certified products at www.sgs.com or using the QR code below. The product is certified according to ISO/IEC Guide 17067, Conformity assessment - Fundamentals of product certification, System 3, and in accordance with:

UL 60079-0, 7th Ed. Rev. March 26, 2019
 UL 60079-1, 7th Ed. Rev. September 18, 2015
 UL 60079-7, 5th Ed. Dated February 24, 2017
 UL 60079-11, 6th Ed. Rev. September 14, 2018
 ANSI/ISA/UL 60079-18
 UL 60079-31, 2nd Ed. June 12, 2015
 CAN/CSA C22.2 No. 60079-0:19
 CAN/CSA C22.2 No. 60079-1:16
 CAN/CSA C22.2 No. 60079-7:16
 CAN/CSA C22.2 No. 60079-11:14
 CAN/CSA C22.2 No. 60079-31:2015, 2nd Ed.
 CAN/CSA C22.2 No. 60079-18:16

Authorized by:

Effective date: 2 September 2022



Ron Sinclair
Certifier

Certification Body

Consumer and Retail Services, a division of SGS North America Inc.
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Product description

The 937X-FB2-**-** (where X = 1 or 3, and -**-** = -PC-SS or -PS-SS) and 93ZX-FB2-XX-XX-XXX (where ZX = 87 or 88, and -**-** = -PC-SS or -PS-SS, & -XXX denotes other characters not affecting certification) Fieldbus Barrier Systems comprise one or more 937X-FB2-**-** Fieldbus Barrier Module(s) mounted inside a stainless steel enclosure.

The 937X-FB2-**-** and 93ZX-FB2-XX-XX-XXX Fieldbus Barrier Systems are designed to be supplied from a power supply conforming to IEC 61158 and produce 6, 12, 18 or 24 Spur outputs that are each compliant with the FISCO Power Supply requirements. The Spur outputs are isolated from the input supply but are not isolated from each other. Electrical connections are made via screw or spring terminals.

Terminal Parameters - SPUR+ve Output Terminal and Shield Terminal w.r.t Spur-ve (each channel)

U_o	= 16.4V
I_o peak	= 249.5mA
I_o continuous	= 109mA
P_o	= 898mW
U_i	= 16.4V
C_i	= 0
L_i	= 0

The capacitance and either the inductance or inductance to resistance ratio (L/R) of the load connected to hazardous area terminals TB1 must not exceed the following values:

GROUP	CAPACITANCE C_o	INDUCTANCE L_o	OR	L/R RATIO
	(μ F)	(mH)		(μ H/ohm)
IIC	0.424	0.57		34.7
IIB	2.51	2.28		138
IIA	10.0	4.56		277

The above load parameters apply where:

The above parameters apply when one of the two conditions below is given:

- the total L_i of the external circuit (excluding the cable) is < 1% of the L_o value or
- the total C_i of the external circuit (excluding the cable) is < 1% of the C_o value.

The above parameters are reduced to 50% when both of the two conditions below are given:

- the total L_i of the external circuit (excluding the cable) \geq 1% of the L_o value and
- the total C_i of the external circuit (excluding the cable) \geq 1% of the C_o value.

Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1 μ F for Groups IIA & IIB, and 600nF for Group IIC.

The values of L_o and C_o determined by this method shall not be exceeded by the sum of all of the L_i plus cable inductances in the circuit and the sum of all of C_i plus cable capacitances respectively.

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CI II Div 2, Groups FG T80°C

CI III Div 2

Certification temperature range = -40°C to +65°C (937X models), or -40°C to +70°C (93ZX models),

Conditions of Acceptability

1. The equipment shall only be powered from supplies conforming to IEC 61158 or an equivalent standard.
2. When a Trunk Surge Module is fitted, the power input circuit will not withstand a 500V a.c. isolation test to earth. This must be taken into account during installation.
3. When one or more Spur Surge Modules are fitted, the spur outputs will not withstand a 500V a.c. isolation test to earth. This must be taken into account during installation.
4. Potential electrostatic hazard. Equipment fitted with a plastic certification label should only be cleaned with a damp cloth.
5. When the enclosure is fitted with a hinged lid fitted, it shall only be mounted in a vertical orientation on a flat surface, and care is required in the installation process and when opening the hinged lid to ensure the enclosure does not distort.
6. When the enclosure is fitted with a fully bolted lid the enclosure may be mounted in any orientation but it shall be on a flat surface and care is required in the installation process to ensure that the enclosure does not distort.

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