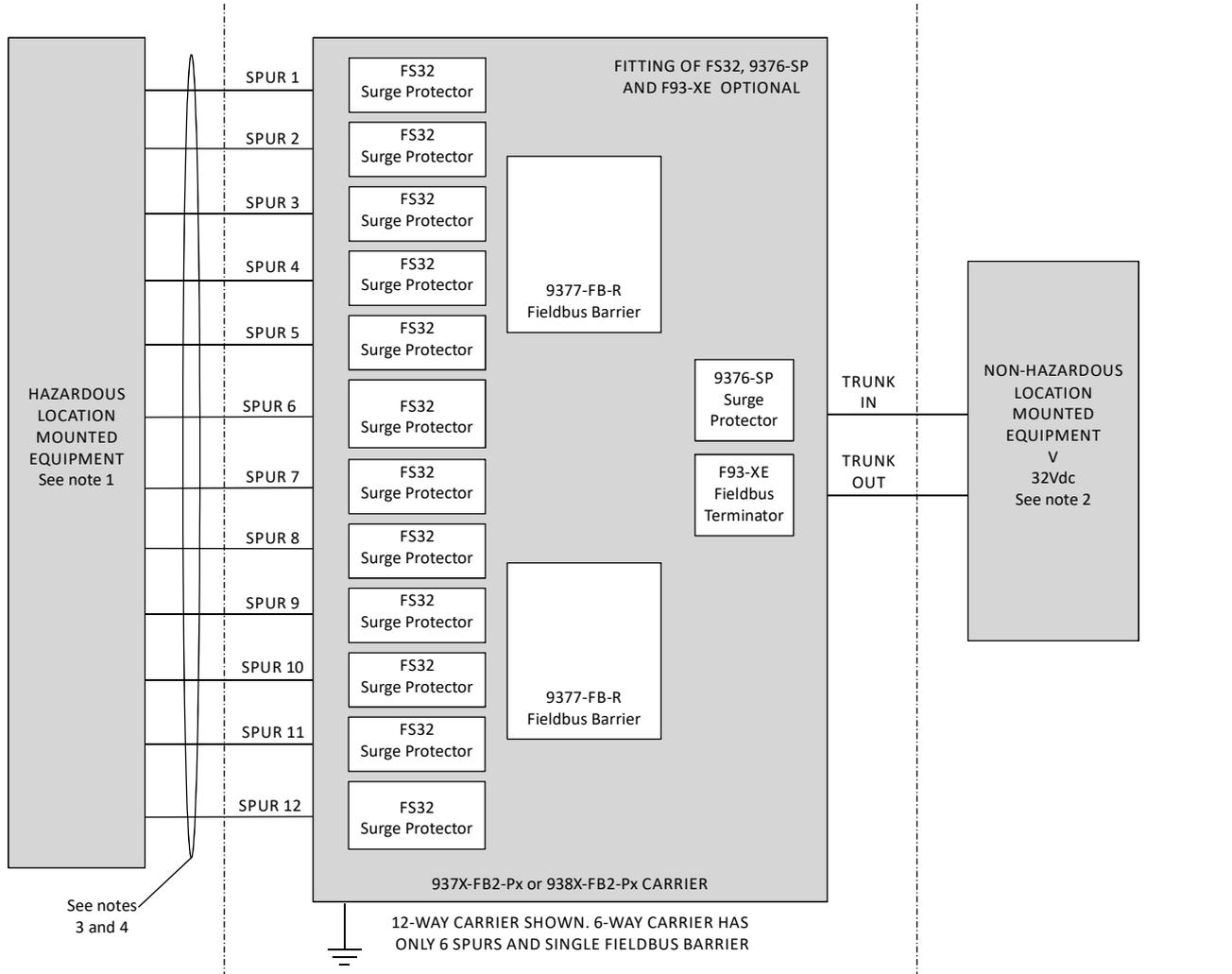


1	2	3	4
Third Angle Projection		Do Not Scale	
		All Dimensions in mm	
Date	Modification	Eaton Electric Limited, Great Marlings, Butterfield, Luton, Bedfordshire, England, LU2 8DL Telephone: +44 (0)1582 723633 Web: www.mtl-inst.com Email: mtl enquiry@eaton.com	
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← HAZARDOUS LOCATION (See note 5)
NON-HAZARDOUS or DIVISION 2 or ZONE 2 HAZARDOUS LOCATION (See notes 6 & 7)
→ NON-HAZARDOUS LOCATION

Class I Zone 1, AEx db eb ib mb [ia Ga] IIC T4 Gb
Class I Division 2, Groups ABCD T4
Class II Zone 22, AEx tc IIIB T80°C Dc
Class II Division 2, Groups FG T80°C
Class III Division 2
Class I Div 1 Groups ABCD
Class II Div 1 Groups FG
Class I Zn 0 AEx IIC Ga
Class II Zn 21 AEx IIIB Db

Non-hazardous locations
Class I Zone 1, AEx IIC T4 Gb
Class I Division 2, Groups ABCD T4
Class II Zone 22, AEx IIIB T80°C Dc
Class II Division 2, Groups FG T80°C
Class III Division 2

This component / assembly to be in compliance with RoHS & REACH regulations.			Sheet: 1 of 4
Tolerance (Unless Otherwise Stated): N/A	Scale: 1:1	Drawn by: PT	Drawn Date: 7.22
Title: Control Drawing for 937x-FB2-Px-SS & 938x-FB2-Px-SS Fieldbus Barrier Systems		Drawing Number: SCI-1085	Revision: 1

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Note 1

The intrinsically safe concept allows the interconnection of suitably certified intrinsically safe devices with entity parameters not specifically examined in combination as a system when:

Associated Apparatus	Hazardous Location Mounted Equipment
----------------------	--------------------------------------

U_o or V_{oc} or V_t	\leq	V_{max} or U_i
I_o or I_{sc} or I_t	\leq	I_{max} or I_i
C_a or C_o	\leq	$C_i + C_{cable}$
L_a or L_o	\leq	$L_i + L_{cable}$
P_o	\leq	P_i or P_{max}

The associated apparatus may also be connected to simple apparatus as defined in National Electrical Code (ANSI/NFPA 70) Section 504.2, or Canadian Electrical Code Part 1, as applicable.

Note 2

The non-hazardous location mounted equipment must not generate or use more than 32Vdc unless it has been determined that the voltage has been adequately isolated from the Associated Apparatus.

Note 3

Installation should be in accordance with ANSI/ISA RP 12.06.01 and the National Electrical Code (ANSI/NFPA 70) Sections 504 and 505, or Canadian Electrical Code Part 1 and CAN/CSA C22.1, as applicable. All cable glands, stopping plugs and breathers installed must be suitable for use in the hazardous locations listed in Note 6.

Note 4

Non-hazardous location terminals

Trunk In and Trunk Out

$$U_m = 32Vdc$$

Hazardous location terminals - Entity Parameters

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

$U_o = V_{oc}$	= 16.4V
$I_{o\ peak} = I_{sc\ peak}$	= 249.5mA
$I_{o\ continuous} = I_{sc\ continuous}$	= 109mA
P_o	= 898mW
U_i	= 16.4V
C_i	= 0
L_i	= 0

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<p>Hazardous location terminals - Load Parameters</p> <p>SPUR +ve and Shield Terminal w.r.t Spur -ve (each channel)</p> <table border="1"> <thead> <tr> <th>Group</th> <th>Capacitance (µF)</th> <th>Inductance (mH)</th> <th>L/R Ratio (uH/ohm)</th> </tr> </thead> <tbody> <tr> <td>A & B</td> <td>0.424</td> <td>0.57</td> <td>34.7</td> </tr> <tr> <td>C & E</td> <td>2.51</td> <td>2.28</td> <td>138</td> </tr> <tr> <td>D, F & G</td> <td>10.0</td> <td>4.56</td> <td>277</td> </tr> </tbody> </table> <p>The above load parameters apply where:</p> <ol style="list-style-type: none"> The external circuit contains no combined lumped inductance L_i and capacitance C_i greater than 1% of the above values, or The inductance and capacitance are distributed as in a cable, or The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable. In all other situations e.g. the external circuit contains combined lumped inductance and lumped capacitance, up to 50% of each of the L and C values is allowed. <p>Note 5 The field outputs of this Associated Apparatus are suitable for connection to IS equipment mounted in the following locations: Class I Zone 1, AEx db eb ib mb [ja Ga] IIC T4 Gb Class I Division 2, Groups ABCD T4 Class II Zone 22, AEx tc IIIB T80°C Dc Class II Division 2, Groups FG T80°C Class III Division 2 Class I Div 1 Groups ABCD Class II Div 1 Groups FG Class I Zn 0 AEx IIC Ga Class II Zn 21 AEx IIIB Db</p> <p>Note 6 This Associated Apparatus is suitable for installation in the following locations: Non-Hazardous Locations Class I Zone 1, AEx db eb ib mb [ja Ga] IIC T4 Gb Class I Division 2, Groups ABCD T4 Class II Zone 22, AEx tc IIIB T80°C Dc Class II Division 2, Groups FG T80°C Class III Division 2</p> <p>Note 7 When mounted in Class I Division or Class I Zone locations, this Associated Apparatus must be installed in accordance with the National Electrical Code or the Canadian Electrical Code, as appropriate.</p>				Group	Capacitance (µF)	Inductance (mH)	L/R Ratio (uH/ohm)	A & B	0.424	0.57	34.7	C & E	2.51	2.28	138	D, F & G	10.0	4.56	277
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<p>Note 8 WARNING: Explosion Hazard - When installed in Division or Zone hazardous locations do not connect/disconnect Trunk In or Trunk Out connections unless the equipment is de-energized or the area is known to be non-hazardous.</p> <p>Note 9 WARNING: Explosion Hazard - Substitution of components may impair intrinsic safety or suitability for mounting in hazardous locations.</p> <p>Note 10 Specific conditions of Use for this equipment are shown below:</p> <ol style="list-style-type: none"> 1. The equipment shall only be powered from supplies conforming to IEC 61158. 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 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. 								B	
								C	
								D	
								E	
This component / assembly to be in compliance with RoHS & REACH regulations.						Sheet: 4 of 4		F	
Tolerance (Unless Otherwise Stated): N/A				Scale: 1:1		Drawn by: PT		Drawn Date: 7.22	
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