



Member of the FM Global Group

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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

9002/ab-c-d-e. Intrinsic Safety Barrier.

NI/II/2/ABCD/T4 Ta = 60°C; I/2/IIC/T4; AIS/I,II,III/1/ABCDEFG; [I/0]/AEx [ia] IIC - Entity, 90 026 11 31 1;

a = Channel A (Terminals 3 to Gnd): 0 (negative), 1 (positive), 2 (ac), 3 (diode return +), 4 (diode return -), 7 (star connected).

b = Channel B (Terminals 4 to Gnd): 0 (negative), 1 (positive), 2 (ac), 3 (diode return +), 4 (diode return -), 7 (star connected).

c = Safe maximum voltage for interconnection of channels A & B in 1/10V.

d = Safe short circuit current for interconnection of channels A & B in mA.

e = Suffix 001, 021, 041 or 111.

Special Conditions of Use:

1. The apparatus shall be installed in a suitable enclosure in accordance with the applicable requirements of the National Electrical Code, ANSI/NFPA 70, and ANSI/ISA-S82.02.01-1999 and ISA S82.03.

Equipment Ratings:

Nonincendive apparatus for use in Class I, Division 2, Group A, B, C, D and Class I, Zone 2, Group IIC with intrinsically safe connections for Class I, II, III, Division 1, Groups A, B, C, D, E, F, G and Class I, Zone 0, Group IIC hazardous (classified) locations when installed in accordance with Certification Drawing 90 026 11 31 1.

FM Approved for:

R. STAHL Schaltgeraete GmbH
Am Bahnhof 30
D-74638 Waldenburg, Germany



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This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	1998
Class3610	2010
Class 3611	1999
Class 3810	1998
including Supplement #1	2005

Original Project ID: 3010778

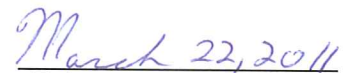
Approval Granted: May 29, 2001

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
090216	May 14, 2009		
110214	March 22, 2011		

FM Approvals LLC


Patrick Byrne
Technical Team Manager

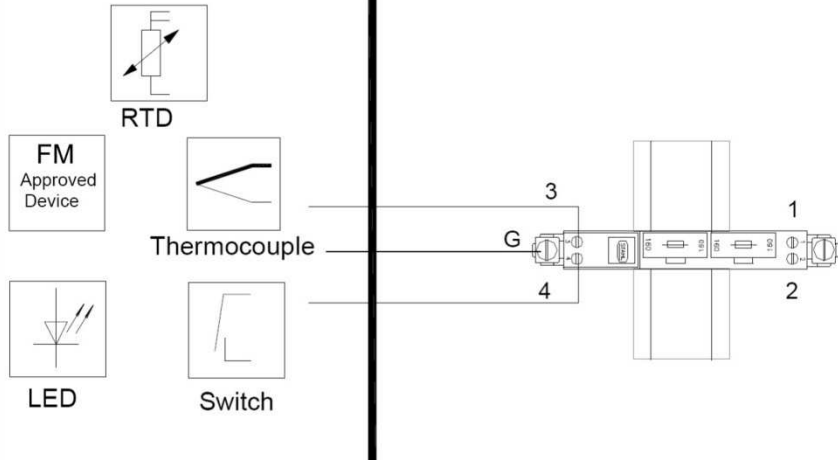

Date

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Class I, II, III, Div. 1, Group A - G
or Class I, Zone 0, Group IIC/IIB
Hazardous Locations

Nonhazardous or Class I, Div. 2, Group A, B, C, D
or Class I, Zone 2, Group IIC
Hazardous Locations

Intrinsically Safe Apparatus
or Simple Apparatus



The Intrinsic Safety Barriers are associated apparatus located in a Nonhazardous or Class I, Div. 2, Group A, B, C, D or Class I, Zone 2, Group IIC locations and provide intrinsically safe connections for device(s) located in Class I, Div. 1, Group A, B, C, D; Class II, Div. 1, Group E, F & G; Class III, Div. 1; or Class I, Zone 0, Group IIC/IIB Hazardous (Classified) Locations.

Notes:

- Intrinsically safe apparatus may be switches, thermocouples, LEDs, RTDs, or a FM Approved System or Entity device connected in accordance with the manufacturer's installation instructions.
- For Entity concept use the appropriate parameters from above to ensure the following:

$$V_t \text{ or } V_{OC} \leq V_{max} \quad C_a \geq C_i + C_{leads}$$

$$I_t \text{ or } I_{SC} \leq I_{max} \quad L_a \geq L_i + L_{leads}$$
- Electrical apparatus connected to non-IS side of barrier should not use or generate voltages > 250 V (U_{max}).
- Installation should be in accordance with Article 504/505 of the National Electrical Code, ANSI/NFPA 70 and ANSI/ISA RP 12.6.
- Use a general purpose enclosure meeting the requirements of ANSI/ISA S82.02.01 for use in nonhazardous locations.
- Maximum barrier operating temperature is 60°C except as follows:
 $T_a = 50^\circ\text{C}$: 9002/77-220-146-001
 9002/77-220-296-001

WARNING: To prevent ignition of flammable or combustible atmospheres disconnect power before servicing

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F 4830 503

			2001	Date	Name	Certification drawing Intrinsic Safety Barrier (ATEX) Type 9002/...-...-... 1	Scale
			Drawn by	5/01	Tobey		none
			Checked	5/01	Feindel		Sheet
						90 026 11 31 1	1 of 4
02	14.03.11	Reistle					Agency
01	06.03.09	Einsiedler					FM
Index	Date	Name				Rep. f.	Rep. t.
							A4

