



Member of the FM Global Group

FM Approvals  
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# CERTIFICATE OF COMPLIANCE

## HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

**Type 9413/28-210-84-FF, Digital I/O coupler**

NI / I / 2 / ABCD / T4 -20°C < Ta < 60°C

AIS / I, II, III / 1 / ABCDEFG / T4 -20°C < Ta < 60°C - 941360310011; Entity

I / 1 / AEx e mb [ia] / IIC, IIB / T4 -20°C < Ta < 60°C - 941360310011; Entity

**Group A/B and IIC**

Terminals	Uo	Io	Po	Lo	Co
OUT 1 to 4	27.4 V	100 mA	680 mW	0.5 mH	65 nF
IN 1 to 8	9.56 V	10.9 mA	25.9 mW	1 mH	1200 nF

**Group C-G and IIB**

Terminals	Uo	Io	Po	Lo	Co
OUT 1 to 4	27.4 V	100 mA	680 mW	1 mH	355 nF
IN 1 to 8	9.56 V	10.9 mA	25.9 mW	1 mH	6300 nF

**Special Conditions of Use:**

- The Digital I/O coupler shall be installed into an appropriate and FM approved housing.

**Type 9413/21-210-84-FF, Digital I/O coupler**

NI / I / 2 / ABCD / T4 -20°C < Ta < 65°C

AIS / I, II, III / 1 / ABCDEFG / T4 -20°C < Ta < 65°C - 941360310011; Entity

I / 1 / AEx e mb [ia] / IIC, IIB / T4 -20°C < Ta < 65°C - 941360310011; Entity

**Fieldbus Groups A-G and IIC**

Terminal	Type of Fieldbus	Ui	Li	Pi	Lo	Co

BUS (+),	FISCO	17.5 V	380 mA	5.32 W	10 $\mu$ H	5 nF
(-)	Entity	24 V	360 mA	1.04 W	10 $\mu$ H	5 nF

Fieldbus Groups C-G and IIB

Terminal	Type of Fieldbus	Ui	Li	Pi	Lo	Co
BUS (+),	Entity	24 V	380 mA	2.58 W	10 $\mu$ H	5 nF
(-)						

Group A/B and IIC

Terminals	Uo	Io	Po	Lo	Co
OUT 1 to 4	27.4 V	100 mA	680 mW	0.5 mH	65 nF
IN 1 to 8	9.56 V	10.9 mA	25.9 mW	1 mH	1200 nF

Group C-G and IIB

Terminals	Uo	Io	Po	Lo	Co
OUT 1 to 4	27.4 V	100 mA	680 mW	1 mH	355 nF
IN 1 to 8	9.56 V	10.9 mA	25.9 mW	1 mH	6300 nF

*Special Conditions of Use:*

1. *The Digital I/O coupler shall be installed into an appropriate and FM approved housing.*

Equipment Ratings:

Nonincendive Apparatus for Class I, Division 2, Groups A, B, C, and D hazardous (classified) locations; Associated Apparatus with Intrinsically Safe Connections for Class I, II, III Division 1, Groups A, B, C, D, E, F, and G hazardous (classified) locations in accordance with drawing 941360310011, Increased Safety and Encapsulation with Intrinsically Safe outputs for use in and connections to Class I, Zone 1, Group IIC hazardous (classified) locations

FM Approved for:

R. STAHL Schaltgeräte GmbH  
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	2011
Class 3610	2010
Class 3611	2004
Class 3810	2005
ANSI/ISA 61010-1	2004
ANSI/ISA 60079-0	2009
ANSI/ISA 60079-7	2008
ANSI/ISA 60079-11	2011
ANSI/ISA 60079-18	2012

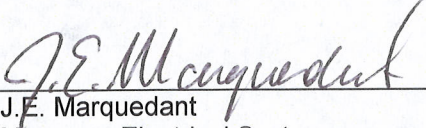
Original Project ID: 3050702

Approval Granted: July 31, 2014

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
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FM Approvals LLC

  
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 J.E. Marquedant  
 Manager, Electrical Systems

31 July 2014  
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 Date