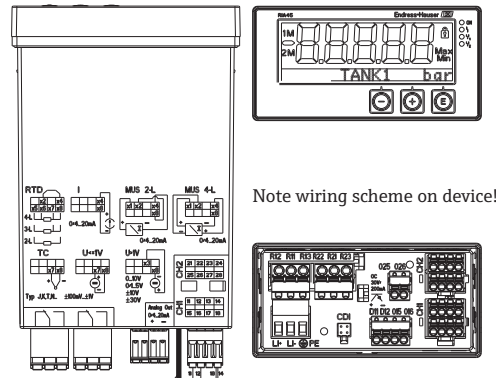
Hazardous (Classified) Locations
I,II,II/1+2/ABCDEFG
I, Zone 0 IIC

Nonhazardous Locations



Note wiring scheme on device!

CSA approved intrinsically safe apparatus

Rating of enclosure at least NEMA 4X or Type 4X when installed in Divison 2

Temperature range

Ta -20˚C ... +60˚C

ASSOCIATED INTRINSICALLY SAFE **Class I, Zone 0 [Ex ia] IIC**
Class I, Zone 2 Ex nA[ia] IIC

ASSOCIATED NONINCENDIVE **Class I / Div. 2 / Groups ABCD**

T4 -20˚C ... +60˚C

Installation Notes RIA45

- CSA Approved Apparatus must be installed in accordance with manufacturer's instructions.
- Depending on location install per National Electrical Code (CEC) using wiring methods.
- Use supply wires suitable for 5˚C above surroundings.
- For Non-hazardous area install the device of Protection Ratings of least NEMA 1, Type 1
- For hazardous area Class I, II install the device of Protection Ratings of least NEMA 4X, Type 4X.
- For Class II keep tight when circuits alive.
- The unit is installed in Class I, Division 2 area with two I.S. output channels (1 & 2), with cables clearance of
  2 mm minimum.
- Warning: Substitution of components may impair suitability for Class I, Division 2.

INTRINSICALLY SAFE **Class I / Zone 0 [Ex ia] IIC**

- The device is an Associated intrinsically safe equipment and must be installed in Division 2 or non-hazardous
  Locations only.
- Installation should be in accordance with the Canadian Electrical Code (CEC).
- For entity installations use certified equipment that satisfy the following condition
  Uo/Voc ≤ Vmax/Ui Io/Isc ≤ Imax/Ii Po ≤ Pi Co/Ca ≥ Ci + Ccable Lo/ La ≥ Li + Lcable
- The Terminal of the intrinsically safe circuit must be placed at least a distance of 50mm from terminals of the non intrinsically safe circuits, or adequate separators (e.g. ground metal partitions) must be used.

NONINCENDIVE Field WIRING INSTALLATION **Class I / Div. 2 / Groups ABCD**

- The device is an Associated Nonincendive safe equipment and must be installed in Division 2 or non-hazardous Locations only.
- The Nonincendive Field Wiring Circuit Concept allows interconnection of Nonincendive Field Wiring Apparatus with Associated Nonincendive Field Wiring Apparatus or Associated Intrinsically Safe Apparatus or Associated Apparatus not specifically examined in combination as a system using any of the wiring methods permitted for unclassified locations, when Voc ≤ Vmax, Ca ≥ Ci + Ccable, La ≥ Li + Lcable.
- For entity installations use certified equipment that satisfy the following condition
  Uo/Voc ≤ Vmax/Ui Io/Isc ≤ Imax/Ii Po ≤ Pi Co/Ca ≥ Ci + Ccable Lo/ La ≥ Li + Lcable

	Approved	Date (yyyy-mm-dd)	Drawing No.	Dwg.rev.	Revision no.	Revision date (yyyy-mm-dd)	Name	Material	
	Pfanzelt	2009-05-12	12 03 00 112	A	W10618	2010-06-08	MP	71540267 XA02311R/09/EN/01.20	Endress+Hauser
Volume (mm³)	Designed	Date (yyyy-mm-dd)	Unit	Scale	Title			Serie	
	Pfanzelt	2009-05-11	RIA45	1:1	CONTROL DRAWING CSA AIS				
Refer to protection notice ISO 16016	Edge of working parts ISO 13715	Geometrical tolerancing ISO 2768-mH-E	Part No. -	Format A4				Objekt version / Sheet 1 of 2	Endress + Hauser Wetzer GmbH+Co. KG Nesselwang / Germany

Power supply Terminal L / +, L / -, PE	U ≤ 24...230 V AC/DC (-20%/+10%) 50/60 Hz	
Output circuit limit relays Terminal R12, R11, R13 or R22, R21, R23	Umax ≤ 250 VAC Umax ≤ 30 DC	Imax ≤ 3A Imax ≤ 3A
CDI interface for device configuration		
Impulse or Current output Terminal O15, O16 or O25, O26	0/4...20 mA Um ≤ 250 V	
Output collector Terminal D11, D12	Imax ≤ 200 mA Um ≤ 30 VDC	

ASSOCIATED INTRINSICALLY SAFE **Cl. I, Gps ABCD**
Cl. II, Gps EFG, Cl. III
Cl. I, Zone 0, IIC

Voc ≤ Vmax Isc ≤ Imax Po ≤ Pi
Ca ≥ Ci + Ccable La ≥ Li + Lcable

ASSOCIATED NONINCENDIVE FIELD WIRING **I,II,III/2/ABCDEFG**

Voc ≤ Vmax Ca ≥ Ci + Ccable La ≥ Li + Lcable

Entity parameters for channel 1&2 – Only one connected at a time:

2-wire transmitter power supply: Terminal 11, 14, 12, 18 or Terminal 21, 24, 22, 28	Voc ≤ 27.3 V Isc ≤ 96.5 mA Po = 659 mW	
Group A, B resp. IIC Group C, D resp. IIB, IIA	Ca = 80 nF Ca = 675 nF	La = 4.125 mH La = 17.025 mH
4-wire transmitter power supply: Terminal 11, 12 or Terminal 21, 22	Voc ≤ 27.3 V Isc ≤ 91.1 mA Po = 622 mW	
Group A, B resp. IIC Group C, D resp. IIB, IIA	Ca = 80 nF Ca = 675 nF	La = 4.625 mH La = 19.125 mH
4-wire transmitter power supply: Terminal 14, 18 or Terminal 24, 28	Voc ≤ 27.3 V Isc ≤ 5 mA Po = 34.2 mW	
Group A, B resp. IIC Group C, D resp. IIB, IIA	Ca = 80 nF Ca = 675 nF	La = 1.525 H La = 6.325 H
temperature input (RTD, TC): Terminal 15, 16, 17, 18 and 12, 14 or Terminal 25, 26, 27, 28 and 22, 24	Voc ≤ 27.3 V Isc ≤ 22.1 mA Po = 151 mW	
Group A, B resp. IIC Group C, D resp. IIB, IIA	Ca = 80 nF Ca = 675 nF	La = 81.725 mH La = 327.425 mH
Current input: Terminal 14, 18 or Terminal 24, 28	Voc ≤ 27.3 V Isc ≤ 5 mA Po = 34.2 mW	
Group A, B resp. IIC Group C, D resp. IIB, IIA	Ca = 80 nF Ca = 675 nF	La = 1.525 H La = 6.325 H
Voltage input: Terminal 17, 18 and 13, 18 or Terminal 27, 28 and 23, 28	Voc ≤ 27.3 V Isc ≤ 5 mA Po = 34.2 mW	
Group A, B resp. IIC Group C, D resp. IIB, IIA	Ca = 80 nF Ca = 675 nF	La = 1.525 H La = 6.325 H

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