2 Class I, Division 2, Groups ABCD Hazardous (Classified) Locations Non-hazardous area Class II, Division 1, Groups EFG Class II, Division 1, Groups EFG Class III Class III Class I, Zone O Group IIC Class I, Zone 2 Group IIC CSA approved intrinsically safe apparatus Rating of enclosure at least NEMA 4X or Type 4X CSA approved intrinsically safe apparatus RB223 loop power supply Temperature range -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 -20°C ... +60°C Transmission from Non-hazardous to hazardous (classified) area: Supply (Terminals 1+ H, 2+, 3- and optionally 4+ H, 5+, 6-)  $Um \le 30 \text{ VDC (loop powered)}$   $Im \le 100 \text{ mA}$ Output (Terminals 7 + 8 - and optionally 9+, 10-) Po = 626 mWUo or Voc = 27.3 VIo or Isc = 91.6 mAGroup A. B [Ex ial IIC Co or Ca = 88 nFLo or La = 4.7 mHGroup C [Ex ia] IIB Co or Ca = 683 nFLo or La = 19 mHGroup D resp. [Ex ia] IIA Co or Ca = 683 nFLo or La = 19 mH

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# Transmission from hazardous (classified) to Non-hazardous area:

(Terminals 1+ H, 2+, 3- and optionally 4+ H, 5+, 6-)  $Um \le 30 \ VDC \ (loop\ powered) \quad Im \le 100 \ mA$ 

(Terminals 7 + 8 – and optionally 9+, 10-)

 $Vmax or Ui \le 30V Ci = 0$ 

 $Imax \ or \ Ii \quad \leq 100 mA \qquad Li = 0$ 

Pi ≤ 750mW

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Uo or Voc = 0 Io or Isc = 0

## **Installation Notes RB223**

- 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.
- Warning: Substitution of components may impair suitability for Class I, Division 2.

#### INTRINSICALLY SAFE

#### Class I / Zone 0 [Ex ia] IIC

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- 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  $Uo/Voc \leq Vmax/Ui \quad Io/Isc \leq Imax/Ii \quad Po \leq Pi \quad Co/Ca \geq Ci + Ccable \quad Lo/La \geq Li + Lcable$
- 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  $Uo/Voc \leq Vmax/Ui \quad Io/Isc \leq Imax/Ii \quad Po \leq Pi \quad Co/Ca \geq Ci + Ccable \quad Lo/La \geq Li + Lcable$

וי		Approved	Date (yyyy-mm-dd)	Drawing No.	Dwg.rev.	Revision no.	Revision date (yyyy-mm-dd)	Name	Material 71	1540214		
		Pfanzelt	2007-02-19	02 20 00 112	-	-	-	-			Endress + Hause	r <b>(로</b> 비)
Volume (mm³)		Designed	Date (yyyy-mm-dd)	Unit	Scale	Title						
		Pfanzelt 2006-07-25 RB223		RB223	1:1	CONTROL DRAWING CSA			Series			
Г	Refer to protection notice	Edge of working parts	Geometrical tolerancing	Part No.	Format	IS, NI			Objekt version	Sheet	Endress + Hauser	Wetzer
	ISO 16016	ISO 13715	ISO 2768-mH-E	-	A4	1.5, 1.1.					GmbH+Co. KG Nesselwang	

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