

The Type 9411/21-2**-*1 Field Device Coupler is an Explosion-protected device for installation in Non-Hazardous, Class I, II, III, Division 2, Groups A-G or Class I, Zone 1 Hazardous (Classified) Locations and provides intrinsically safe connections for four or eight field devices located in Class I, II, III, Division 1, Group A-G or Class I, Zone 0, [AEx ia] Group IIC/IIB hazardous locations according to NEC Article 504/505 as listed below.

Field device coupler Type 9411/21-2de-f1

d = numeral 1, 2 or 3 for design of terminal

e = numeral 0, 3 or 4 for Protective Enclosure

f = numeral 3 or 4 for number of Channels

- 1 = Screw type terminals;
- 2 = Cage clamp terminals
- 3 = detachable terminal blocks (at SPURs only)
- 0 = without;
- 3 = Plastic (Type 8146);
- 4 = Metal (Type 8125)
- 3 = 4 Channels;
- 4 = 8 Channels

Nominal values are as follows:

	V _{nom}	I _{nom} (4 channels)	I _{nom} (8 channels)
Terminal: TRUNK + / -	24 V DC; (16 V to 32 V DC)	130 mA; (200 mA to 100 mA)	160 mA; (255 mA to 120 mA)

Entity parameters for wiring configurations are as follows:

Terminals SPUR 1 to 4 (8): + / -	V _{OC} [V]	I _{SC} [mA]	P _O [mW]	L _o CL I, DIV 1, GP A, B / Zone 0, GP IIC	L _o CL I, DIV 1, GP C-G / Zone 0, GP IIB	C _o CL I, DIV 1, GP A, B / Zone 0, GP IIC	C _o CL I, DIV 1, GP C - G / Zone 0, GP IIB	L _o /R _o CL I, DIV 1, GP A, B / Zone 0, GP IIC	L _o /R _o CL I, DIV 1, GP C-G / Zone 0, GP IIB
	15,7	245	960	0,58 mH	2,9 mH	476 nF	2878 nF	37 µH/Ω	148 µH/Ω

Notes:


- For Connections refer to chapter 10 of Operation instruction.
- Intrinsically safe apparatus may be one of the following: switches, thermocouples, LEDs, RTDs, or Entity device connected in accordance with the manufacturer's installation instructions.
- For Entity concept use the appropriate parameters to ensure the following:

V_i or $V_{OC} \leq V_{max}$	$C_o, C_a \geq C_i + C_{cable}$	$P_o \leq P_i$
I_i or $I_{SC} \leq I_{max}$	$L_o, L_a \geq L_i + L_{cable}$	
- Electrical apparatus connected to the non-intrinsically safe Connections (Trunk IN, Trunk Out, and Term) shall 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 12.06.01
- Installation in Canada should be in accordance with the Canadian Electrical Code, CSA C22.1, Part 1, Appendix F.
- Each channel shall be installed within a separately shielded cable or a single cable with a separate shield for each channel.
- Alternatively use Terminal "S" for connection of the cable shield for capacitive (≤ 5,2 nF) decoupled grounding or use ground busbar terminals for direct ground connection.
- Ambient temperature:
 - 40°C ... +75°C (Type 9411/ 21-2d0-c1)
 - 20°C ... +70°C (Type 9411/21-2de-f1, e = 3, 4)
- The following only applies for Type 9411/21-2d0-f1
 - Use a general purpose enclosure meeting the requirements of ANSI/ISA S82.02.01 for use in non-hazardous or Class I, Division 2, hazardous (classified) locations.
 - Use an FM Approved Dust-ignition proof enclosure appropriate for environmental protection in Class II, Division 1, Groups E, F and G; and Class III, hazardous (classified) locations.
 - The FDC Types 9411/21-2d0-f1 are to be snap mounted on DIN rail or screw mounted on a rail or plate.

WARNING : Substitution of components may impair Intrinsic Safety.
Do not disconnect non I.S. Trunk when a flammable or combustable atmosphere is present.

AVERTISSEMENT: Substitution de composants peut compromettre la sécurité intrinsèque.
Ne pas débrancher la jonction non de sécurité intrinsèque en présence d'atmosphère inflammable ou combustible.

The safety relevant statements of this document may be transferred into the operating instructions.
Transferring the text, editorial changes of equivalent meaning are allowed.

Version	Date	Name	Certification drawing		Scale
	2006	Date	IS bus - Field Device Coupler Type 9411/21-2**-*1		none
	drawn	24.05.			
	checked				Kaiser
04	19.02.13	Bader		9411 6 031 001 1	
03	04.10.11	Reistle			
02	20.09.10	Reistle			
01	19.09.06	Einsiedler			
					Sheet 1 of 1
					Agency FM
				Ers. f.	Ers. d.
					A4