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**For Safety barriers
9004/0-...-...-1 and
9004/5-...-...-1
(see Table 1)**

Class I, Zone 1; Group IIC/IIB
Hazardous Locations

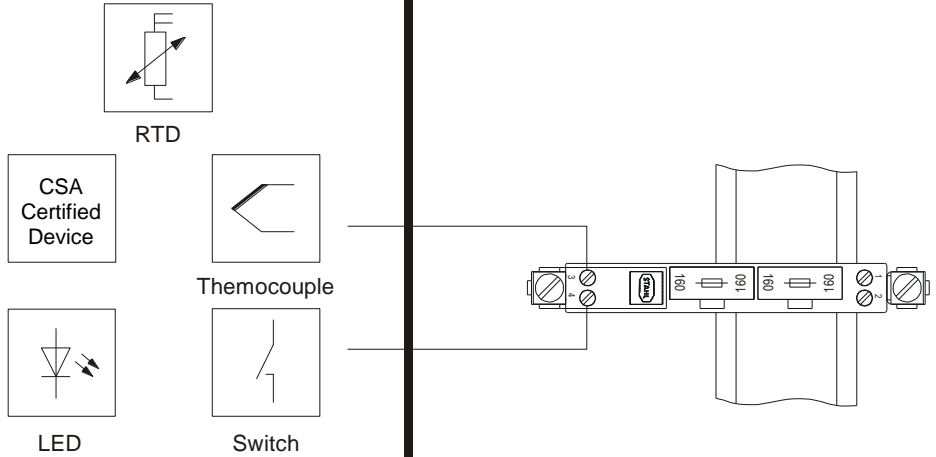
Non-hazardous or Zone 2
Hazardous Locations

**For Safety barriers
9004/61-...-...-1
(see Table 2)**

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

Non-hazardous, Division 2 or Zone 2
Hazardous Locations

Intrinsic Safe Apparatus
or Simple Apparatus



Notes:

- Intrinsically safe apparatus may be switches, thermocouples, LEDs, RTDs, or a CSA Certified 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:

U_o or $V_{oc} \leq V_{max}$	C_o or $C_a \geq C_i + C_{leads}$
I_o or $I_{sc} \leq I_{max}$	L_o or $L_a \geq L_i + L_{leads}$
- 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 the Canadian Electrical Code, Part I.
- The system shall be installed in a suitable enclosure per the Authority Having Jurisdiction.
- Maximum barrier operating temperature is 60°C

WARNING: DO NOT DISCONNECTED NON I.S. CIRCUITS OR REPLACE FUSES UNLESS POWER HAS BEEN REMOVED OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.

AVERTISSEMENT: NE DÉCONNECTER DES CIRCUITS NON INTRINSÈQUES OU REMPLACER DES FUSIBLES QUE S'ILS SONT HORS TENSION OU SI L'ATMOSPHÈRE EST EXEMPTÉ DE CONCENTRATIONS INFLAMMABLES.

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F 4830 503

				Date	Name	Certification drawing Intrinsic Safety Barrier Type 9004/...-...-...-1	Scale	
				Drawn by 7/2003	T. Walter		none	
				Checked 6/2020	Baqusch		Sheet 1 of 2	
					STAHL	90 046 11 31 2	Agency CSA	
Index	Date	Name				Rep. f.	Rep. t.	A4
02	25.08.2020	T. Stahl						
01	03.11.2003	T. Stahl						

Safety Barriers Types 9004/0.-...-...1 and 9004/5.-...-...1

The Intrinsic Safety Barriers Types 9004/0. and 9004/5. are associated apparatus located in a non-hazardous or Zone 2 locations and provide intrinsically safe connections for device(s) located in Class I, Zone 1, Group IIC/IIB Hazardous (Classified) Locations.

Table 1 - Barrier Types and Parameters suitable for Zone 1 Installations:

Type	U _o [V]	I _o [mA]	P _o [mW]	Group IIC		Group IIB	
				L _o [mH]	C _o [μF]	L _o [mH]	C _o [μF]
9004/0a-086-030-001	8.6	30	258	2.0	0.86	2.5	5.0
9004/0a-086-050-001	8.6	50	430	2.0	0.69	2.5	4.5
9004/0a-086-100-001	8.6	100	860	1.0	0.63	2.5	3.4
9004/0a-086-150-001	8.6	150	1290	0.97	0.38	2.5	2.3
9004/0a-168-030-001	16.8	30	504	2.0	0.22	2.5	1.3
9004/0a-168-050-001	16.8	50	840	0.86	0.16	2.5	1.2
9004/0a-168-100-001	16.8	100	1680	-	-	1.6	1.1
9004/0a-172-140-001	17.2	140	2408	-	-	0.17	1.2
9004/0a-200-030-001	20	30	600	2.0	0.082	2.5	0.80
9004/0a-200-050-001	20	50	1000	-	-	2.5	0.68
9004/0a-200-095-001	20	95	1900	-	-	0.2	0.88
9004/0a-263-025-001	26.3	25	657.5	0.17	0.097	2.5	0.33
9004/0a-263-030-001	26.3	30	789	-	-	2.5	0.31
9004/0a-263-050-001	26.3	50	1315	-	-	1.3	0.33
9004/0a-280-025-001	28	25	700	-	-	2.5	0.28
9004/0a-280-045-001	28	45	1260	-	-	1.5	0.28
9004/0a-315-022-001	31.5	22	693	-	-	2.5	0.24
9004/0a-315-025-001	31.5	25	787.5	-	-	2.5	0.23
9004/5a-206-030-001	20.6	30	618	2.0	0.072	2.5	0.72
9004/5a-206-050-001	20.6	50	1030	-	-	2.5	0.58
9004/5a-206-085-001	20.6	85	1751	-	-	0.37	0.68
9004/5a-220-030-001	22	30	660	1.3	0.073	2.5	0.55

a = Polarity: 0 (negative) or 1 (positive)

Safety Barriers Types 9004/61-...-...1

The Intrinsic Safety Barriers Types 9004/61 are associated apparatus located in a non-hazardous or Div. 2 or Zone 2 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 1, Group IIC/IIB Hazardous (Classified) Locations.


Table 2 - Barrier Types and Parameters suitable for Division 1 and Zone 1 Installations

Type	V _{oc} (U _o) [V]	I _{sc} (I _o) [mA]	P _o [mW]	Group A, B, E Group IIC		Group C, D, F, G Group IIB	
				L _o / L _a [mH]	C _o / C _a [μF]	L _o / L _a [mH]	C _o / C _a [μF]
9004/61-220-035-001	22	35	770	0.05	0.165	2.5	0.52
9004/61-232-028-041	23.2	28	649.6	1.0	0.075	2.5	0.46

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