



Certificate of Compliance

Certificate: 80052102

Master Contract: 171050

Project: 80052102

Date Issued: 2020-08-26

Issued To: R. Stahl Schaltgeraete GmbH
Am Bahnhof 30
Waldenburg, Baden-Württemberg, 74638
Germany

Attention: Andreas Bagusch

The products listed below are eligible to bear the CSA Mark shown

Issued by: *Jignesh Dabhi*
Jignesh Dabhi



PRODUCTS

CLASS - C225804 - PROCESS CONTROL EQUIPMENT Intrinsically Safe, Entity - For Hazardous Locations

CLASS - C225803 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non Incendive Systems - For Hazardous Locations

Class I, Groups A, B, C and D; Class II, Groups E, F and G; Class III:

Zener Barrier Devices, Type 9002 series model numbers are in the form 9002/ab-ccc-ddd-ee1 as shown below. Provides intrinsically safe circuits with parameters as tabulated below, when connected per installation drawing 9002611312. These devices must be mounted in a suitable enclosure in non-hazardous locations or Class I, Div. 2, Group A, B, C, D hazardous locations. Maximum safe area voltage must not exceed 250Vrms.



Certificate: 80052102
Project: 80052102

Master Contract: 171050
Date Issued: 2020-08-26

Type 9002/...	Trml	System		Entity Parameters						
		Vmax (V)	Rmin (ohms)	Voc (V)	Isc (mA)	Po (W)	Ca (uF)		La (mH)	
							A,B,E	C,D,F,G	A,B,E	C,D,F,G
00-120-024-001	3-gnd	11.6	1020	11.6	11.4	0.04	1.8	5.5	247	862
	4-gnd	11.6	1020	11.6	11.4	0.04	1.8	5.5	247	862
	3-4	-	-	12.4	23	0.07	1.4	4.3	64	226
00-260-138-001	3-gnd	25.8	330	25.8	82	0.54	0.17	0.5	5.3	21.0
	4-gnd	20.1	430	20.1	49	0.245	0.31	0.96	14.7	54
	3-4	-	-	27.4	132	0.785	0.14	0.43	8.9	1.9
00-280-186-001	3-gnd	28.0	330	28	91	0.65	0.14	0.43	4.5	18.1
	4-gnd	28.0	330	28	91	0.65	0.14	0.43	4.5	18.1
	3-4	-	-	30.4	183	1.3	-	0.34	-	5.0
10-187-020-001	3-gnd	9.3	475	9.3	19.8	0.05	4.3	12.9	83.4	301
	4-gnd	9.3	475	9.3	19.8	0.05	4.3	12.9	83.4	301
	3-4	-	-	18.7	22	0.09	0.39	1.17	68.3	248
10-187-270-001	3-gnd	9.3	39	9.3	251.8	0.63	4.3	12.9	0.27	2.4
	4-gnd	9.3	39	9.3	251.8	0.63	4.3	12.9	0.27	2.4
	3-4	-	-	18.7	278.8	1.26	0.39	1.17	0.21	2.0
10-210-030-001	3-gnd	10.5	350	10.5	30	0.08	2.41	16.8	40	150
	4-gnd	10.5	350	10.5	30	0.08	2.41	16.8	40	150
	3-4	-	-	21	30	0.16	0.188	1.27	40	150
11-120-024-001	3-gnd	11.6	1020	11.6	11.4	0.04	1.8	5.5	247	862
	4-gnd	11.6	1020	11.6	11.4	0.04	1.8	5.5	247	862
	3-4	-	-	12.4	23	0.07	1.4	4.3	64	226
11-130-360-001	3-gnd	13	41	13	321	1.04	1	6.2	0.19	1.6
	4-gnd	1.6	41	1.6	39	0.016	100	1000	24	91
	3-4	-	-	13.7	360	1.17	0.79	5	0.17	1.3
11-137-029-001	3-gnd	13.7	945	13.7	14.5	0.05	0.79	5	160	560
	4-gnd	13.7	945	13.7	14.5	0.05	0.79	5	160	560
	3-4	-	-	14.4	29	0.1	0.67	4.18	43	160
11-199-030-001	3-gnd	19.9	1400	19.9	14.4	0.075	0.34	1	157	511
	4-gnd	19.9	1400	19.9	14.4	0.075	0.34	1	157	511
	3-4	-	-	20.6	29	0.15	0.30	0.9	40.5	149
11-260-138-001	3-gnd	25.8	330	25.8	82	0.54	0.17	0.5	5.3	21
	4-gnd	20.1	430	20.1	49	0.245	0.32	0.96	14.7	54
	3-4	-	-	27.4	132	0.785	0.14	0.43	1.9	8.9
11-280-112-001	3-gnd	28	257	28	109	0.76	0.083	0.65	1.3	9
	4-gnd	28	14k	28	3	0.02	0.083	0.65	50	150
	3-4	-	-	30.1	112	0.78	0.065	0.551	0.76	8.4



Certificate: 80052102
Project: 80052102

Master Contract: 171050
Date Issued: 2020-08-26

Type 9002/...	Trml	System		Entity Parameters						
		Vmax (V)	Rmin (ohms)	Voc (V)	Isc (mA)	Po (W)	Ca (uF)		La (mH)	
							A,B,E	C,D,F,G	A,B,E	C,D,F,G
11-280-186-001	3-gnd	28	330	28	91	0.65	0.14	0.43	4.5	18.1
	4-gnd	28	330	28	91	0.65	0.14	0.43	4.5	18.1
	3-4	-	-	30.4	183	1.3	-	0.34	-	5
11-280-244-001	3-gnd	28	152	28	184	1.29	-	0.65	-	2.9
	4-gnd	28	480	28	60	0.42	-	0.65	-	25
	3-4	-	-	28.7	244	1.71	-	0.62	-	1.1
11-280-293-001	3-gnd	28	330	28	91	0.63	0.14	0.43	4.5	18.1
	4-gnd	9.6	56	9.6	181	0.43	4.2	12.7	0.7	5.2
	3-4	-	-	28.8	272	1.05	0.13	0.4	0.23	2.2
11-280-293-021	3-gnd	28	330	28	91	0.63	0.14	0.43	4.5	18.1
	4-gnd	9.6	56	9.6	181	0.43	4.2	12.7	0.7	5.2
	3-4	-	-	28.8	272	1.05	0.13	0.4	0.23	2.2
13-199-225-001	3-gnd	19.8	95	19.8	220.3	1.1	0.33	1	0.35	3.1
	4-gnd	8.6	*	8.6	0	0.015	5.5	16.5	1000	1000
	3-4	-	-	20.7	221	1.12	0.3	0.9	0.35	2.8
13-252-121-041	3-gnd	25.1	220	25.1	120.1	0.74	0.17	0.51	2.5	9.8
	4-gnd	25.1	*	25.1	0	0.02	0.17	0.51	1000	1000
	3-4	-	-	25.9	120	0.76	0.14	0.42	2.5	9.8
13-280-093-001	3-gnd	28	330	28	91	0.63	0.14	0.43	4.4	17.2
	4-gnd	28	*	28	0	0.021	0.14	0.43	1000	1000
	3-4	-	-	30.4	91	0.651	0.1	0.3	4.4	17.2
13-280-100-041	3-gnd	28	300	28	99	0.68	0.13	0.39	3.7	14.4
	4-gnd	28	*	28	0	0.021	0.13	0.39	1000	1000
	3-4	-	-	28.8	99	0.7	0.11	0.33	3.7	14.4
13-280-110-001	3-gnd	28	270	28	110	0.749	0.13	0.39	2.9	11.6
	4-gnd	28	*	28	0	0.021	0.13	0.39	1000	1000
	3-4	-	-	28.8	110	0.77	0.11	0.33	2.9	11.6
13-280-188-001	3-gnd	28	151	28	185	1.295	-	0.65	-	2.85
	4-gnd	28	9333	28	3	0.021	-	0.65	-	150
	3-4	-	-	28.3	188	1.316	-	0.635	-	2.7
22-016-383-111	3-gnd	0.8	4.22	0.8	239	0.038	1800	1800	0.55	4.1
	4-gnd	0.8	4.22	0.8	239	0.038	1800	1800	0.55	4.1
	3-4	-	-	1.6	380.6	0.077	1800	1800	0.16	1.1
22-032-300-111	3-gnd	1.6	13	1.6	155	0.06	1800	1800	2.2	8.7
	4-gnd	1.6	13	1.6	155	0.06	1800	1800	2.2	8.7
	3-4	-	-	3.2	311	0.12	1800	1800	0.26	2.3



Certificate: 80052102
Project: 80052102

Master Contract: 171050
Date Issued: 2020-08-26

Type 9002/...	Trml	System		Entity Parameters						
		Vmax (V)	Rmin (ohms)	Voc (V)	Isc (mA)	Po (W)	Ca (uF)		La (mH)	
							A,B,E	C,D,F,G	A,B,E	C,D,F,G
22-048-442-111	3-gnd	2.4	10.9	2.4	221	0.133	100	1000	0.4	3.19
	4-gnd	2.4	10.9	2.4	221	0.133	100	1000	0.4	3.19
	3-4	-	-	4.8	442	0.266	100	1000	0.12	0.54
22-158-200-001	3-gnd	7.9	79	7.9	100	0.198	8.8	115	4.0	15
	4-gnd	7.9	79	7.9	100	0.198	8.8	115	4.0	15
	3-4	-	-	15.8	200	0.395	0.478	2.88	0.5	4
22-240-024-001	3-gnd	11.3	1020	11.3	11.4	0.04	2.0	6	258	899
	4-gnd	11.3	1020	11.3	1.9	0.04	2.0	6	258	899
	3-4	-	-	22.6	23	0.08	0.23	0.7	67	236
22-240-160-001	3-gnd	11.3	160	11.3	76	0.24	2.0	6	6.5	25
	4-gnd	11.3	160	11.3	1.9	0.24	2.0	6	6.5	25
	3-4	-	-	22.6	152	0.48	0.23	0.7	1.2	7.1
33-280-000-001	3-gnd	28	*	28	0	0	0.14	0.43	1000	1000
	4-gnd	28	*	28	0	0	0.14	0.43	1000	1000
	3-4	-	-	28.5	0	0	0.14	0.4	1000	1000
34-280-000-001	3-gnd	19.8	*	19.8	0	0	0.33	1	1000	1000
	4-gnd	7.9	*	7.9	0	0	9.1	27.4	1000	1000
	3-4	-	-	27.7	0	0	0.14	0.42	1000	1000
77-093-040-001	3-gnd	9.4	475	9.3	20	0.05	4.1	31	90	330
	4-gnd	9.4	475	9.3	20	0.05	4.1	31	90	330
	3-4	-	-	9.3	40	0.09	4.1	31	23	87
77-093-300-001	3-gnd	9.4	68	9.3	150	0.35	4.1	31	1.3	7
	4-gnd	9.4	68	9.3	150	0.35	4.1	31	1.3	7
	3-4	-	-	9.3	300	0.7	4.1	31	0.2	1.8
77-100-400-001	3-gnd	9.9	56	9.9	190	0.5	3.3	9.9	0.59	4.6
	4-gnd	9.9	56	9.9	190	0.5	3.3	9.9	0.59	4.6
	3-4	-	-	9.9	380	1	3.3	9.9	0.16	0.9
77-150-300-001	3-gnd	14.5	110	14.5	140	0.56	0.58	2.5	1.6	8.1
	4-gnd	14.5	110	14.5	140	0.56	0.58	2.5	1.6	8.1
	3-4	-	-	14.5	280	1.13	0.58	2.5	0.21	2.0
77-220-146-001	3-gnd	21.8	330	21.8	70	0.4	0.25	0.76	7.4	28.5
	4-gnd	21.8	330	21.8	70	0.4	0.25	0.76	7.4	28.5
	3-4	-	-	21.8	140	0.8	0.25	0.76	1.6	8.1
77-220-296-001	3-gnd	21.8	160	21.8	145	0.81	0.25	0.76	1.4	7.6
	4-gnd	21.8	160	21.8	145	0.81	0.25	0.76	1.4	7.6
	3-4	-	-	21.8	290	1.63	-	0.76	-	1.8



Certificate: 80052102
Project: 80052102

Master Contract: 171050
Date Issued: 2020-08-26

Type 9002/...	Trml	System		Entity Parameters						
		Vmax (V)	Rmin (ohms)	Voc (V)	Isc (mA)	Po (W)	Ca (uF)		La (mH)	
							A,B,E	C,D,F,G	A,B,E	C,D,F,G
77-280-094-001	3-gnd	28.1	680	28.1	44	0.33	0.14	0.41	18.5	67
	4-gnd	28.1	680	28.1	44	0.33	0.14	0.41	18.5	67
	3-4	-	-	28.1	88	0.66	0.14	0.4	4.8	19

9002 / ab-ccc-ddd-ee1

a – Position A

- = 0 - barrier negative potential
- = 1 - barrier positive potential
- = 2 - barrier alternating potential
- = 3 - diode return diode (+)
- = 4 - diode return diode (-)
- = 7 - star connected barrier

b – Position B

- = 0 - barrier positive potential
- = 1 - barrier positive potential
- = 2 - barrier alternating potential
- = 3 - diode return diode (+)
- = 4 - diode return diode (-)
- = 7 - star connected barrier

ccc = safe maximum voltage for the interconnection of positions A and B U_o in 1/10 V.
 (Example: a value of 280 equates to 28.0 V).

ddd = safe short circuit current for the interconnection of positions A and B I_o in mA.
 (Example: 244 equates to 244 mA).

ee = variants without influence on explosion protection.

Maximum barrier operating temperature is 60 deg. C except as follows:

T ambient = 50 deg. C:

- 9002/77-220-146-001
- 9002/77-220-296-001



Certificate: 80052102
Project: 80052102

Master Contract: 171050
Date Issued: 2020-08-26

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe Entity – For Hazardous Locations

Ex nA[ia] IIC/IIB T4:

Zener Barrier Devices, Type 9002 series model numbers are in the form 9002/ab-ccc-ddd-ee1 as shown below. Provides intrinsically safe circuits with parameters as tabulated below, when connected per installation drawing 9002611312. These devices must be mounted in a suitable enclosure in non-hazardous locations or Class I, Zone 2, Group IIC hazardous locations. Maximum safe area voltage must not exceed 250Vrms.

Type 9002/...	Trml	Entity Parameters						
		Uo (V)	Io (mA)	Po (W)	Co (uF)		Lo (mH)	
					IIC	IIB/IIA	IIC	IIB/IIA
00-120-024-001	3-gnd	12	12	0.04	1.41	9	240	850
	4-gnd	12	12	0.04	1.41	9	240	850
	3-4	12.7	24	0.07	1.1	7.1	63	230
00-260-138-001	3-gnd	26	83	0.54	0.099	0.77	2.7	15.5
	4-gnd	20	49	0.245	0.22	1.41	14	54
	3-4	27.4	132	0.785	0.087	0.67	0.81	5.1
00-280-186-001	3-gnd	28	93	0.65	0.083	0.65	2	13
	4-gnd	28	93	0.65	0.083	0.65	2	13
	3-4	30.1	186	1.3	-	0.551	-	2.8
10-187-020-001	3-gnd	9.33	20	0.05	3.9	29	90	330
	4-gnd	9.33	20	0.05	3.9	29	90	330
	3-4	18.7	20	0.09	0.27	1.64	90	330
10-187-270-001	3-gnd	9.33	270	0.63	3.9	29	0.23	2.2
	4-gnd	9.33	270	0.63	3.9	29	0.23	2.2
	3-4	18.7	270	1.26	0.27	1.64	0.23	2.2
10-210-030-001	3-gnd	10.5	30	0.08	2.41	16.8	40	150
	4-gnd	10.5	30	0.08	2.41	16.8	40	150
	3-4	21	30	0.16	0.188	1.27	40	150
11-120-024-001	3-gnd	12	12	0.04	1.41	9	240	850
	4-gnd	12	12	0.04	1.41	9	240	850
	3-4	12.7	24	0.07	1.1	7.1	63	230
11-130-360-001	3-gnd	13	321	1.04	1	6.2	0.19	1.6
	4-gnd	1.6	39	0.016	100	1000	24	91
	3-4	13.3	360	1.17	0.79	5	0.17	1.3
11-137-029-001	3-gnd	13.7	14.5	0.05	0.79	5	160	560
	4-gnd	13.7	14.5	0.05	0.79	5	160	560
	3-4	14.4	29	0.1	0.67	4.18	43	160
11-199-030-001	3-gnd	19.9	15	0.075	0.223	1.42	160	560
	4-gnd	19.9	15	0.075	0.223	1.42	160	560
	3-4	20.6	30	0.15	0.223	1.42	40	150



Certificate: 80052102
Project: 80052102

Master Contract: 171050
Date Issued: 2020-08-26

Type 9002/...	Trml	Entity Parameters						
		Uo (V)	Io (mA)	Po (W)	Co (uF)		Lo (mH)	
					IIC	IIB/IIA	IIC	IIB/IIA
11-260-138-001	3-gnd	26	83	0.54	0.099	0.77	2.7	15.5
	4-gnd	20	49	0.245	0.22	1.41	14	54
	3-4	27.4	132	0.785	0.087	0.67	0.81	5.1
11-280-112-001	3-gnd	28	109	0.76	0.083	0.65	1.3	9
	4-gnd	28	3	0.02	0.083	0.65	50	150
	3-4	28.7	112	0.78	0.065	0.551	0.76	8.4
11-280-186-001	3-gnd	28	93	0.65	0.083	0.65	2	13
	4-gnd	28	93	0.65	0.083	0.65	2	13
	3-4	30.1	186	1.3	-	0.551	-	2.8
11-280-244-001	3-gnd	28	184	1.29	-	0.65	-	2.9
	4-gnd	28	60	0.42	-	0.65	-	25
	3-4	28.3	244	1.71	-	0.62	-	1.1
11-280-293-001	3-gnd	28	89	0.63	0.083	0.65	2.2	14
	4-gnd	9.56	180	0.43	3.6	26	0.6	5
	3-4	28.7	269	1.05	-	0.62	-	0.56
11-280-293-021	3-gnd	28	89	0.63	0.083	0.65	2.2	14
	4-gnd	9.56	180	0.43	3.6	26	0.6	5
	3-4	28.7	269	1.05	-	0.62	-	0.56
13-199-225-001	3-gnd	19.9	222	1.1	0.223	1.42	0.39	3.18
	4-gnd	19.9	3	0.015	0.223	1.42	1000	1000
	3-4	20.2	225	1.12	0.213	1.38	0.37	3.15
13-252-121-041	3-gnd	25.2	118	0.74	0.107	0.82	1.3	7.4
	4-gnd	25.2	0	0.02	0.107	0.82	50	150
	3-4	25.5	121	0.76	0.104	0.8	1.25	7.35
13-280-093-001	3-gnd	28	90	0.63	0.083	0.65	2.2	14
	4-gnd	28	3	0.021	0.083	0.65	50	150
	3-4	28.3	93	0.651	0.08	0.636	2	13
13-280-100-041	3-gnd	28	97	0.679	0.083	0.65	1.8	12
	4-gnd	28	0	0.021	0.083	0.65	50	150
	3-4	28.3	100	0.7	0.08	0.635	1.55	11
13-280-110-001	3-gnd	28	107	0.749	0.083	0.65	1.35	9.6
	4-gnd	28	3	0.021	0.083	0.65	50	150
	3-4	28.3	110	0.77	0.08	0.635	1.25	9
13-280-188-001	3-gnd	28	185	1.295	-	0.65	-	2.85
	4-gnd	28	3	0.021	-	0.65	-	150
	3-4	28.3	188	1.316	-	0.635	-	2.7
22-016-383-111	3-gnd	0.8	191.5	0.038	100	1000	0.54	4.4
	4-gnd	0.8	191.5	0.038	100	1000	0.54	4.4
	3-4	1.6	383	0.077	100	1000	0.16	0.96



Certificate: 80052102
 Project: 80052102

Master Contract: 171050
 Date Issued: 2020-08-26

Type 9002/...	Trml	Entity Parameters						
		Uo (V)	Io (mA)	Po (W)	Co (uF)		Lo (mH)	
					IIC	IIB/IIA	IIC	IIB/IIA
22-032-300-111	3-gnd	1.6	150	0.06	100	1000	1.3	7
	4-gnd	1.6	150	0.06	100	1000	1.3	7
	3-4	3.2	300	0.12	100	1000	0.2	1.8
22-048-442-111	3-gnd	2.4	221	0.133	100	1000	0.4	3.19
	4-gnd	2.4	221	0.133	100	1000	0.4	3.19
	3-4	4.8	442	0.266	100	1000	0.12	0.54
22-158-200-001	3-gnd	7.9	100	0.198	8.8	115	4.0	15
	4-gnd	7.9	100	0.198	8.8	115	4.0	15
	3-4	15.8	200	0.395	0.478	2.88	0.5	4
22-240-024-001	3-gnd	12	12	0.04	1.41	9	240	850
	4-gnd	12	12	0.04	1.41	9	240	850
	3-4	24	24	0.08	0.125	0.93	41	145
22-240-160-001	3-gnd	12	80	0.24	1.41	9	6	22
	4-gnd	12	80	0.24	1.41	9	6	22
	3-4	24	160	0.48	0.125	0.93	0.7	4
33-280-000-001	3-gnd	28	0	0	0.083	0.65	1000	1000
	4-gnd	28	0	0	0.083	0.65	1000	1000
	3-4	28	0	0	0.083	0.65	1000	1000
34-280-000-001	3-gnd	20	0	0	0.22	1.41	1000	1000
	4-gnd	8	0	0	8.4	100	1000	1000
	3-4	28	0	0	0.083	0.65	1000	1000
77-093-040-001	3-gnd	9.3	20	0.05	4.1	31	90	330
	4-gnd	9.3	20	0.05	4.1	31	90	330
	3-4	9.3	40	0.09	4.1	31	23	87
77-093-300-001	3-gnd	9.3	150	0.35	4.1	31	1.3	7
	4-gnd	9.3	150	0.35	4.1	31	1.3	7
	3-4	9.3	300	0.7	4.1	31	0.2	1.8
77-100-400-001	3-gnd	10	200	0.5	3	20.2	0.5	4
	4-gnd	10	200	0.5	3	20.2	0.5	4
	3-4	10	400	1	3	20.2	0.15	0.8
77-150-300-001	3-gnd	15	150	0.56	0.58	3.55	1.3	7
	4-gnd	15	150	0.56	0.58	3.55	1.3	7
	3-4	15	300	1.13	0.58	3.55	0.2	1.8
77-220-146-001	3-gnd	22	73	0.4	0.165	1.14	7	26
	4-gnd	22	73	0.4	0.165	1.14	7	26
	3-4	22	146	0.8	0.165	1.14	1.4	7.4
77-220-296-001	3-gnd	22	148	0.81	0.165	1.14	1.35	7.2
	4-gnd	22	148	0.81	0.165	1.14	1.35	7.2
	3-4	22	296	1.63	0.165	1.14	0.24	1.84

Type 9002/...	Trml	Entity Parameters						
		Uo (V)	Io (mA)	Po (W)	Co (uF)		Lo (mH)	
					IIC	IIB/IIA	IIC	IIB/IIA
77-280-094-001	3-gnd	28	47	0.33	0.083	0.65	10.1	30
	4-gnd	28	47	0.33	0.083	0.65	10.1	30
	3-4	28	94	0.66	0.083	0.65	1.96	12.5

9002 / ab-ccc-ddd-ee1

a – Position A

- = 0 - barrier negative potential
- = 1 - barrier positive potential
- = 2 - barrier alternating potential
- = 3 - diode return diode (+)
- = 4 - diode return diode (-)
- = 7 - star connected barrier

b – Position B

- = 0 - barrier positive potential
- = 1 - barrier positive potential
- = 2 - barrier alternating potential
- = 3 - diode return diode (+)
- = 4 - diode return diode (-)
- = 7 - star connected barrier

ccc = safe maximum voltage for the interconnection of positions A and B Uo in 1/10 V.
 (Example: a value of 280 equates to 28.0 V).

ddd = safe short circuit current for the interconnection of positions A and B Io in mA.
 (Example: 244 equates to 244 mA).

ee = variants without influence on explosion protection.

Maximum barrier operating temperature is 60 deg. C except as follows:

T ambient = 50 deg. C:

- 9002/77-220-146-001
- 9002/77-220-296-001



Certificate: 80052102
Project: 80052102

Master Contract: 171050
Date Issued: 2020-08-26

APPLICABLE REQUIREMENTS

CAN/CSA Standard C22.2 No. 0-M91 (<i>Reaffirmed 2001</i>)	General Requirements - Canadian Electrical Code, Part II
CAN/CSA-60079-0:07	Electrical apparatus for explosive gas atmospheres – Part 0: General requirements
CAN/CSA-E60079-11:02 (<i>Reaffirmed 2006</i>)	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety "i"
CAN/CSA-E60079-15:02 (<i>Reaffirmed 2006</i>)	Electrical apparatus for explosive gas atmospheres - Part 15: Type of protection "n"
CSA Standard C22.2 No. 213-M1987 (<i>Reaffirmed 2008</i>)	Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
CAN/CSA Standard C22.2 No. 157-92 (<i>Including update No. 2, June, 2003</i>)	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations.

MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark, without any adjacent indicators, indicating that products have been manufactured to the requirements of Canadian Standards.

Refer to Descriptive Documents List for marking drawings. The following marking details are silk screened **or laser etched** into the body of the barrier housing:

- Listee identification: "STAHL" or CSA Master Contract Number "171050" adjacent to the CSA mark in lieu of the manufacturer's name.
- Model number: as specified in the PRODUCTS section.
- Electrical ratings: as specified in the PRODUCTS section.
- Ambient temperature rating: as specified in the PRODUCTS section.
- Serial Number, traceable to month of manufacture, or Month and Year of Manufacture in MMY format.
- CSA Mark, as shown on the Certificate of Conformity.
- Hazardous Location Designation: as specified in the PRODUCTS section above.
- Temperature Code: "T4".
- Certificate No. reference (2002 1284580 X)



Certificate: 80052102
Project: 80052102

Master Contract: 171050
Date Issued: 2020-08-26

-
- Entity Parameters: The words “PROVIDES INTRINSICALLY SAFE CIRCUITS FOR CL. I, II, III FOR APPLICABLE GROUPS PER INSTALLATION DOCUMENT 90 026 11 31 2” or the equivalent.
 - The words “ASSOCIATED EQUIPMENT/APPAREILLAGE CONNEXE”.
 - The Symbol [Ex ia].
 - The phrase: Ex nA [ia] IIC/IIB
 - Reference to Installation Instructions.
 - Cautions re. disconnection of circuits etc. (the following text appears on referenced Installation Instructions).
 - “WARNING – DO NOT DISCONNECT NON-INTRINSICALLY SAFE WIRING OR REPLACE FUSES UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS” or the equivalent.



Supplement to Certificate of Compliance

Certificate: 80052102

Master Contract: 171050

*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Product Certification History

Project	Date	Description
80052102	2020-08-26	Update of report 1284580 to include laser etching as an alternate marking method and updated descriptive documents.
2170801	May 1, 2009	Update of Report 1284580 to correct typographical errors in report and certification documents for 9002 series of Zener barriers.
2148728	Apr 9, 2009	Update of Report 1284580 to reflect changes to drawings and resistor changes for 9002 series of Zener barriers.