1 EU - Type Examination Certificate

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: ExVeritas 20ATEX0665X Issue: 2

4 Equipment: Deeter Zener Barrier

5 Manufacturer: Deeter Electronics

6 Address: Deeter House, Valley Road, Hughenden Valley, Bucks, HP14 4LW, UK

7 This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

8 ExVeritas, Notified Body number 2804 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems for use in potentially explosive atmospheres given in Annex II to the Directive

9 Compliance with the applicable Essential Health and Safety Requirements has been assured by compliance with the following Standards and section 16 of this certificate:

EN IEC 60079-0: 2018 EN 60079-11:2012

10 If the sign “X” is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design, construction, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment shall be marked according to the markings listed in part 13.

DANAK
PROD Reg.No. 7044
Member of EA MLA

On behalf of ExVeritas

Peter Lauritzen
Managing Director

Schedule

13 Description of Equipment or Protective System

The DZB (Deeter Zener Barrier) is designed for fixed installation into a DIN Rail with a rating of Um = 250 V. The barrier has one, two, or three channels which have identical electrical parameters for Current, Voltage, and Power on each channel. There are also a select few variants which have 'mixed' channels where each of the two or three channels may have a differing electrical parameters to the alternate channels. The product types are differentiated using the following product code:

Product name: DZB ─ □ CH □ ─ □□V ─ □□ mA

The product name uses the character '□' to reveal the barrier characteristics following from left to right:

- □ CH □ Number of channels (Prefix is either 1, 2 or 3 and/or with the postfix 'M' indicating mixed voltages/currents on individual channels)
- □□ Vdc Potential difference (Volts) per individual channel
- □□ mA Current in milliampere per individual channel

Given that each barrier has up to 3 channels, and also given the electrical characteristics the entity parameters in each case is calculated considering the channels combined. When using and installing the device the parameters must be considered in consonance with IEC 60079-11 Cl, 10.1.5.2. where:

1. The external circuit contains no combined lumped inductance 'Li' and capacitance 'Ci' greater than 1% of the values in the table below or;
2. The inductance and capacitance are distributed as in a cable or;
3. The external circuit contains either only lumped inductance or lumped capacitance in combination with a cable.

In all other situations e.g. the external circuit combined lumped inductance and lumped capacitance, up to 50% of each of the Lo and Co values is allowed.

Excluding the models listed below, all the models are marked as:

- I (M1) [Ex ia Ma] I
- II (1)G [Ex ia Ga] IIC
- II (1)D [Ex ia Da] IIIC

The models DZB-1CH-24V-160mA, DZB-1CH-28V-100mA, DZB-1CH-28V-125mA, DZB-1CH-36V-80mA, DZB-1CH-36V-100mA, DZB-2CH-28V-50mA, DZB-2CH-36V-50mA, DZB-3CH-24V-50mA and DZB-3CH-28V-50mA are marked as:

- I (M1) [Ex ia Ma] I
- II (1)G [Ex ia Ga] IIB
- II (1)D [Ex ia Da] IIIC

The model DZB-3CH-36V-50mA is marked as:

- I (M1) [Ex ia Ma] I
- II (1)G [Ex ia Ga] IIA

1, 2, and 3 channel variants (same currents and voltages per channel), entity parameters calculated with the channels associated in parallel:

Table key: * = Not suitable for IIC, ** = Not suitable for IIB

Schedule

Barrier Type	Uo (V)	Io (mA)	Po (mW)	Lo/Ro (mH/Ω) IIC	Lo/Ro (mH/Ω) IIB	Lo/Ro (mH/Ω) IIA	Lo/Ro (mH/Ω) I
DZB-1CH-6V-50mA	6.3	63.64	100.24	0.35	1.41	2.83	4.65
DZB-1CH-6V-80mA	6.3	84.85	133.64	0.26	1.06	2.12	3.49
DZB-1CH-6V-100mA	6.3	102.64	161.66	0.21	0.87	1.75	2.88
DZB-1CH-6V-125mA	6.3	124.78	196.53	0.18	0.72	1.44	2.37
DZB-1CH-6V-160mA	6.3	163.18	257.01	0.13	0.55	1.1	1.81
DZB-1CH-10V-50mA	10.5	53.04	139.23	0.25	1.02	2.04	3.35
DZB-1CH-10V-80mA	10.5	85.54	224.55	0.15	0.63	1.26	2.07
DZB-1CH-10V-100mA	10.5	106.07	278.44	0.12	0.51	1.02	1.67
DZB-1CH-10V-125mA	10.5	129.35	339.55	0.1	0.41	0.83	1.37
DZB-1CH-10V-160mA	10.72	164.07	439.71	0.08	0.32	0.64	1.06
DZB-1CH-12V-50mA	12.6	57.86	182.26	0.19	0.78	1.56	2.56
DZB-1CH-12V-80mA	12.6	79.55	250.59	0.14	0.56	1.13	1.86
DZB-1CH-12V-100mA	12.6	106.07	334.13	0.1	0.42	0.85	1.39
DZB-1CH-12V-125mA	12.6	127.28	400.94	0.08	0.35	0.7	1.16
DZB-1CH-12V-160mA	12.6	163.18	514.02	0.06	0.27	0.55	0.9
DZB-1CH-18V-50mA	18.9	53.04	250.62	0.14	0.56	1.13	1.86
DZB-1CH-18V-80mA	18.9	79.55	375.88	0.09	0.37	0.75	1.24
DZB-1CH-18V-100mA	18.9	104.9	495.66	0.07	0.28	0.57	0.94
DZB-1CH-18V-125mA	18.9	127.28	601.4	0.05	0.23	0.47	0.77
DZB-1CH-18V-160mA	18.9	153.96	727.47	0.04	0.19	0.39	0.64
DZB-1CH-24V-50mA	25.2	54.16	341.21	0.1	0.41	0.83	1.36
DZB-1CH-24V-80mA	25.2	70.71	445.48	0.07	0.31	0.63	1.04
DZB-1CH-24V-100mA	25.2	106.07	668.25	0.05	0.21	0.42	0.69
DZB-1CH-24V-125mA	25.8	118.46	764.07	0.04	0.18	0.37	0.61
DZB-1CH-24V-160mA	25.8	158.91	1024.97	(*)	0.13	0.27	0.45
DZB-1CH-28V-50mA	29.4	53.04	389.85	0.09	0.36	0.72	1.19
DZB-1CH-28V-80mA	29.4	82.5	606.38	0.05	0.23	0.46	0.76
DZB-1CH-28V-100mA	31.5	106.07	835.31	(*)	0.17	0.34	0.55
DZB-1CH-28V-125mA	31.5	144.63	1138.97	(*)	0.12	0.24	0.4
DZB-1CH-36V-50mA	37.8	57.86	546.78	0.06	0.26	0.52	0.85
DZB-1CH-36V-80mA	37.8	79.55	751.75	(*)	0.18	0.37	0.62
DZB-1CH-36V-100mA	37.8	106.07	1002.37	(*)	0.14	0.28	0.46
DZB-2CH-6V-50mA	6.3	127.28	200.47	0.35	1.41	2.83	4.65
DZB-2CH-6V-80mA	6.3	169.7	267.28	0.26	1.06	2.12	3.49
DZB-2CH-6V-100mA	6.3	212.13	334.11	0.21	0.85	1.7	2.79
DZB-2CH-6V-125mA	6.3	265.16	417.63	0.17	0.68	1.36	2.23
DZB-2CH-6V-160mA	6.3	318.19	501.15	0.14	0.56	1.13	1.86
DZB-2CH-10V-50mA	10.5	106.07	278.44	0.25	1.02	2.04	3.35
DZB-2CH-10V-80mA	10.5	171.07	449.06	0.15	0.63	1.26	2.07
DZB-2CH-10V-100mA	10.5	207.97	545.93	0.13	0.52	1.04	1.7
DZB-2CH-10V-125mA	10.5	271.96	713.9	0.09	0.39	0.79	1.3
DZB-2CH-10V-160mA	10.72	328.13	879.39	0.08	0.32	0.64	1.06
DZB-2CH-12V-50mA	12.6	115.71	364.49	0.19	0.78	1.56	2.56
DZB-2CH-12V-80mA	12.6	155.22	488.95	0.14	0.58	1.16	1.9
DZB-2CH-12V-100mA	12.6	205.28	646.64	0.1	0.43	0.87	1.44
DZB-2CH-12V-125mA	12.6	249.56	786.12	0.09	0.36	0.72	1.18
DZB-2CH-18V-50mA	18.9	106.07	501.19	0.14	0.56	1.13	1.86
DZB-2CH-18V-80mA	18.9	159.1	751.75	0.09	0.37	0.75	1.24

Schedule

Barrier Type	Uo (V)	Io (mA)	Po (mW)	Lo/Ro (mH/Ω) IIC	Lo/Ro (mH/Ω) IIB	Lo/Ro (mH/Ω) IIA	Lo/Ro (mH/Ω) I
DZB-2CH-18V-100mA	18.9	209.8	991.31	0.07	0.28	0.57	0.94
DZB-2CH-24V-50mA	25.2	106.07	668.25	0.1	0.42	0.85	1.39
DZB-2CH-28V-50mA	29.4	109.99	808.43	(*)	0.35	0.7	1.15
DZB-2CH-36V-50mA	37.8	115.71	1093.46	(*)	0.26	0.52	0.85
DZB-3CH-6V-50mA	6.3	190.91	300.69	0.35	1.41	2.83	4.65
DZB-3CH-6V-80mA	6.3	254.55	400.92	0.26	1.06	2.12	3.49
DZB-3CH-6V-100mA	6.3	318.19	501.15	0.21	0.85	1.7	2.79
DZB-3CH-6V-125mA	6.3	397.73	626.43	0.17	0.68	1.36	2.23
DZB-3CH-6V-160mA	6.3	477.28	751.72	0.14	0.56	1.13	1.86
DZB-3CH-10V-50mA	10.5	159.1	417.64	0.25	1.02	2.04	3.35
DZB-3CH-10V-80mA	10.5	256.6	673.58	0.15	0.63	1.26	2.07
DZB-3CH-10V-100mA	10.5	311.95	818.87	0.13	0.52	1.04	1.7
DZB-3CH-10V-125mA	10.5	407.93	1070.82	0.09	0.39	0.79	1.3
DZB-3CH-10V-160mA	10.72	492.2	1319.1	0.08	0.32	0.64	1.06
DZB-3CH-12V-50mA	12.6	173.56	546.72	0.19	0.78	1.56	2.56
DZB-3CH-12V-80mA	12.6	232.82	733.39	0.14	0.58	1.16	1.9
DZB-3CH-12V-100mA	12.6	307.92	969.95	0.1	0.43	0.87	1.44
DZB-3CH-12V-125mA	12.6	374.34	1179.18	0.09	0.36	0.72	1.18
DZB-3CH-18V-50mA	18.9	159.1	751.75	0.14	0.56	1.13	1.86
DZB-3CH-18V-80mA	18.9	238.64	1127.58	0.09	0.37	0.75	1.24
DZB-3CH-18V-100mA	18.9	314.69	1486.92	0.07	0.28	0.57	0.94
DZB-3CH-24V-50mA	25.2	159.1	1002.33	(*)	0.42	0.85	1.39
DZB-3CH-28V-50mA	29.4	164.99	1212.68	(*)	0.35	0.7	1.15
DZB-3CH-36V-50mA	37.8	173.56	1640.15	(**)	(**)	0.52	0.85

Barrier Type	Co (µF) IIC	Co (µF) IIB	Co (µF) IIA	Co (µF) I	Lo (mH) IIC	Lo (mH) IIB	Lo (mH) IIA	Lo (mH) I
DZB-1CH-6V-50mA	31.000	720.000	1000.000	1000.000	8.77	35.11	70.23	115.22
DZB-1CH-6V-80mA	31.000	720.000	1000.000	1000.000	4.93	19.75	39.50	64.81
DZB-1CH-6V-100mA	31.000	720.000	1000.000	1000.000	3.37	13.50	27.00	44.29
DZB-1CH-6V-125mA	31.000	720.000	1000.000	1000.000	2.28	9.13	18.26	29.97
DZB-1CH-6V-160mA	31.000	720.000	1000.000	1000.000	1.33	5.34	10.68	17.52
DZB-1CH-10V-50mA	2.410	16.800	75.000	95.000	12.63	50.55	101.10	165.88
DZB-1CH-10V-80mA	2.410	16.800	75.000	95.000	4.85	19.43	38.87	63.77
DZB-1CH-10V-100mA	2.410	16.800	75.000	95.000	3.16	12.64	25.28	41.47
DZB-1CH-10V-125mA	2.410	16.800	75.000	95.000	2.12	8.50	17.00	27.89
DZB-1CH-10V-160mA	2.140	15.000	66.000	80.000	1.32	5.28	10.56	17.33
DZB-1CH-12V-50mA	1.150	7.400	27.000	32.000	10.62	42.48	84.96	139.39
DZB-1CH-12V-80mA	1.150	7.400	27.000	32.000	5.61	22.47	44.94	73.74
DZB-1CH-12V-100mA	1.150	7.400	27.000	32.000	3.16	12.64	25.28	41.47
DZB-1CH-12V-125mA	1.150	7.400	27.000	32.000	2.19	8.77	17.55	28.80
DZB-1CH-12V-160mA	1.150	7.400	27.000	32.000	1.33	5.34	10.68	17.52
DZB-1CH-18V-50mA	0.262	1.600	6.390	9.070	12.63	50.55	101.10	165.88
DZB-1CH-18V-80mA	0.262	1.600	6.390	9.070	5.61	22.47	44.94	73.74
DZB-1CH-18V-100mA	0.262	1.600	6.390	9.070	3.23	12.92	25.84	42.40
DZB-1CH-18V-125mA	0.262	1.600	6.390	9.070	2.19	8.77	17.55	28.80
DZB-1CH-18V-160mA	0.262	1.600	6.390	9.070	1.50	6.00	12.00	19.68
DZB-1CH-24V-50mA	0.107	0.820	2.900	4.800	12.12	48.48	96.97	159.09

Schedule

Barrier Type	Co (µF) IIC	Co (µF) IIB	Co (µF) IIA	Co (µF) I	Lo (mH) IIC	Lo (mH) IIB	Lo (mH) IIA	Lo (mH) I
DZB-1CH-24V-80mA	0.107	0.820	2.900	4.800	7.11	28.44	56.88	93.33
DZB-1CH-24V-100mA	0.107	0.820	2.900	4.800	3.16	12.64	25.28	41.47
DZB-1CH-24V-125mA	0.101	0.780	2.670	4.570	2.53	10.13	20.27	33.25
DZB-1CH-24V-160mA	(*)	0.780	2.670	4.570	(*)	5.63	11.26	18.48
DZB-1CH-28V-50mA	0.071	0.587	1.910	3.270	12.63	50.55	101.10	165.88
DZB-1CH-28V-80mA	0.071	0.587	1.910	3.270	5.22	20.89	41.79	68.56
DZB-1CH-28V-100mA	(*)	0.497	1.620	2.810	(*)	12.64	25.28	41.47
DZB-1CH-28V-125mA	(*)	0.497	1.620	2.810	(*)	6.79	13.59	22.30
DZB-1CH-36V-50mA	0.037	0.339	1.070	1.930	10.62	42.48	84.96	139.39
DZB-1CH-36V-80mA	(*)	0.339	1.070	1.930	(*)	22.47	44.94	73.74
DZB-1CH-36V-100mA	(*)	0.339	1.070	1.930	(*)	12.64	25.28	41.47
DZB-2CH-6V-50mA	31.000	720.000	1000.000	1000.000	2.19	8.77	17.55	28.80
DZB-2CH-6V-80mA	31.000	720.000	1000.000	1000.000	1.23	4.93	9.87	16.20
DZB-2CH-6V-100mA	31.000	720.000	1000.000	1000.000	0.79	3.16	6.32	10.37
DZB-2CH-6V-125mA	31.000	720.000	1000.000	1000.000	0.50	2.02	4.04	6.63
DZB-2CH-6V-160mA	31.000	720.000	1000.000	1000.000	0.35	1.40	2.80	4.60
DZB-2CH-10V-50mA	2.410	16.800	75.000	95.000	3.16	12.64	25.28	41.47
DZB-2CH-10V-80mA	2.410	16.800	75.000	95.000	1.21	4.85	9.71	15.94
DZB-2CH-10V-100mA	2.410	16.800	75.000	95.000	0.82	3.28	6.57	10.78
DZB-2CH-10V-125mA	2.410	16.800	75.000	95.000	0.48	1.92	3.84	6.30
DZB-2CH-10V-160mA	2.140	15.000	66.000	80.000	0.33	1.32	2.64	4.33
DZB-2CH-12V-50mA	1.150	7.400	27.000	32.000	2.65	10.62	21.24	34.85
DZB-2CH-12V-80mA	1.150	7.400	27.000	32.000	1.47	5.90	11.80	19.36
DZB-2CH-12V-100mA	1.150	7.400	27.000	32.000	0.84	3.37	6.75	11.07
DZB-2CH-12V-125mA	1.150	7.400	27.000	32.000	0.57	2.28	4.56	7.49
DZB-2CH-18V-50mA	0.262	1.600	6.390	9.070	3.16	12.64	25.28	41.47
DZB-2CH-18V-80mA	0.262	1.600	6.390	9.070	1.40	5.61	11.23	18.43
DZB-2CH-18V-100mA	0.262	1.600	6.390	9.070	0.80	3.23	6.46	10.60
DZB-2CH-24V-50mA	0.107	0.820	2.900	4.800	3.16	12.64	25.28	41.47
DZB-2CH-28V-50mA	(*)	0.587	1.910	3.270	(*)	11.75	23.51	38.57
DZB-2CH-36V-50mA	(*)	0.339	1.070	1.930	(*)	10.62	21.24	34.85
DZB-3CH-6V-50mA	31.000	720.000	1000.000	1000.000	0.97	3.90	7.80	12.80
DZB-3CH-6V-80mA	31.000	720.000	1000.000	1000.000	0.54	2.19	4.38	7.20
DZB-3CH-6V-100mA	31.000	720.000	1000.000	1000.000	0.35	1.40	2.80	4.60
DZB-3CH-6V-125mA	31.000	720.000	1000.000	1000.000	0.22	0.89	1.79	2.95
DZB-3CH-6V-160mA	31.000	720.000	1000.000	1000.000	0.15	0.62	1.24	2.04
DZB-3CH-10V-50mA	2.410	16.800	75.000	95.000	1.40	5.61	11.23	18.43
DZB-3CH-10V-80mA	2.410	16.800	75.000	95.000	0.54	2.16	4.32	7.08
DZB-3CH-10V-100mA	2.410	16.800	75.000	95.000	0.36	1.46	2.92	4.79
DZB-3CH-10V-125mA	2.410	16.800	75.000	95.000	0.21	0.85	1.70	2.80
DZB-3CH-10V-160mA	2.140	15.000	66.000	80.000	0.14	0.58	1.17	1.92
DZB-3CH-12V-50mA	1.150	7.400	27.000	32.000	1.18	4.72	9.44	15.49
DZB-3CH-12V-80mA	1.150	7.400	27.000	32.000	0.65	2.62	5.24	8.60
DZB-3CH-12V-100mA	1.150	7.400	27.000	32.000	0.37	1.50	3.00	4.92
DZB-3CH-12V-125mA	1.150	7.400	27.000	32.000	0.25	1.01	2.02	3.33
DZB-3CH-18V-50mA	0.262	1.600	6.390	9.070	1.40	5.61	11.23	18.43
DZB-3CH-18V-80mA	0.262	1.600	6.390	9.070	0.62	2.49	4.99	8.19
DZB-3CH-18V-100mA	0.262	1.600	6.390	9.070	0.35	1.43	2.87	4.71
DZB-3CH-24V-50mA	(*)	0.820	2.900	4.800	(*)	5.61	11.23	18.43

Schedule

Barrier Type	Co (µF) IIC	Co (µF) IIB	Co (µF) IIA	Co (µF) I	Lo (mH) IIC	Lo (mH) IIB	Lo (mH) IIA	Lo (mH) I
DZB-3CH-28V-50mA	(*)	0.587	1.910	3.270	(*)	5.22	10.44	17.14
DZB-3CH-36V-50mA	(**)	(**)	1.070	1.930	(**)	(**)	9.44	15.49

Mixed variants (different currents and potentials per channel)

Barrier Type	Uo (V)	Io (mA)	Po (mW)	Lo/Ro (mH/Ω) IIC	Lo/Ro (mH/Ω) IIB	Lo/Ro (mH/Ω) IIA	Lo/Ro (mH/Ω) I
DZB-2CHM-24/5-4/20	25.2	151.19	952.5	0.018	0.071	0.142	0.233
DZB-2CHM-24/5	25.2	108.32	682.4	0.048	0.193	0.387	0.635
DZB-2CHM-24/10	25.2	110.49	696.03	0.048	0.193	0.387	0.635

Barrier Type	Co (µF) IIC	Co (µF) IIB	Co (µF) IIA	Co (µF) I	Lo (mH) IIC	Lo (mH) IIB	Lo (mH) IIA	Lo (mH) I
DZB-2CHM-24/5-4/20	0.107	0.820	2.900	4.800	1.55	6.22	12.44	20.41
DZB-2CHM-24/5	0.107	0.820	2.900	4.800	3.03	12.12	24.24	39.77
DZB-2CHM-24/10	0.107	0.820	2.900	4.800	2.91	11.65	23.3	38.23

Barrier Type	Uo (V)	Io (mA)	Po (mW)	Lo/Ro (mH/Ω) IIC	Lo/Ro (mH/Ω) IIB	Lo/Ro (mH/Ω) IIA	Lo/Ro (mH/Ω) I
DZB-3CHM-24/5/5	25.2	153.45	966.74	0.017	0.069	0.137	0.225
DZB-3CHM-24/10/10	25.2	88.39	556.82	0.056	0.224	0.448	0.735

Barrier Type	Co (µF) IIC	Co (µF) IIB	Co (µF) IIA	Co (µF) I	Lo (mH) IIC	Lo (mH) IIB	Lo (mH) IIA	Lo (mH) I
DZB-3CHM-24/5/5	0.107	0.820	2.900	4.800	1.5	6.03	12.07	19.81
DZB-3CHM-24/10/10	0.107	0.820	2.900	4.800	4.55	18.2	36.41	59.73

14 Descriptive Documents

14.1 Associated Report and Certificate History:

Report	Date	Issue	Comment
R2595/A/1	27/04/2021	0	Initial issue of the Prime Certificate
R4537/A/1	21/04/2023	1	Updated to include new enclosure material
R5075/A/1	05/02/2024	2	Further update to include new enclosure material

14.2 Compliance Drawings:

Technical Documents			
Title	Drawing	Revision	Date
Electronic schematic	LP700494	H1	22/02/2021
Printed circuit board artwork (Gerbers)	LP700494L	H1	14/08/2020
Bill of materials	BOM700494	1	24/02/2021
General assembly drawings *	D600806_1	5	01/11/2023
General assembly drawings *	D600806_2	5	01/11/2023
General assembly drawings *	D600806_3	5	01/11/2023
Instruction manual	DZB Manual	1	09/04/2021
DZB Control drawing, 1 channel 6 V, 50 mA to 160 mA versions	D600807	1	12/02/2020
DZB Control drawing, 1 channel 10 V, 50 mA to 160 mA versions	D600808	1	12/02/2020

Schedule

Technical Documents			
Title	Drawing	Revision	Date
DZB Control drawing, 1 channel 12 V, 50 mA to 160 mA versions	D600809	1	12/02/2020
DZB Control drawing, 1 channel 18 V, 50 mA to 160 mA versions	D600810	1	12/02/2020
DZB Control drawing, 1 channel 24 V, 50 mA to 125 mA versions	D600811	1	12/02/2020
DZB Control drawing, 1 channel 24 V, 160 mA only	D600812	1	12/02/2020
DZB Control drawing, 1 channel 28 V, 50 mA & 80 mA versions	D600813	1	12/02/2020
DZB Control drawing, 1 channel 28 V, 100mA & 125 mA versions	D600814	1	12/02/2020
DZB Control drawing, 1 channel 36 V, 50 mA version only	D600815	1	12/02/2020
DZB Control drawing, 1 channel 36 V, 80 mA & 100 mA versions	D600816	1	12/02/2020
DZB Control drawing, 2 channel 6 V, 50 mA to 160 mA versions	D600817	1	12/02/2020
DZB Control drawing, 2 channel 10 V, 50 mA to 160 mA versions	D600818	1	12/02/2020
DZB Control drawing, 2 channel 12 V, 50 mA to 125 mA versions	D600819	1	12/02/2020
DZB Control drawing, 2 channel, 18 V 50 mA, 80 mA & 100 mA versions	D600820	1	12/02/2020
DZB Control drawing, 2 channel, 24 V 50 mA version only	D600821	1	12/02/2020
DZB Control drawing, 2 channel, 28 V 50 mA version only	D600822	1	12/02/2020
DZB Control drawing, 2 channel 36 V 50 mA version only	D600823	1	12/02/2020
DZB Control drawing, mixed version 24V 50 mA and 5 V 40 mA	D600825	1	12/02/2020
DZB Control drawing, mixed version 24 V 50 mA and 40 mA	D600826	1	12/02/2020
DZB Control drawing, 2 channel mixed version 24 V 50 mA and 10 V 40 mA	D600827	1	12/02/2020
DZB drawing, 3 channel mixed version 24V / 5V / 5V, 50 mA, 40 mA,40 mA	D600828	1	12/02/2020
DZB drawing, 3 channel mixed version 24 V / 10V / 10V, 50 mA, 40 mA, 40mA	D600829	1	12/02/2020
DZB drawing, 3 channel 6 V version 50 mA, 80 mA, 100 mA, 125 mA,160 mA	D600833	1	12/02/2020
DZB drawing, 3 channel 10 V version 50 mA, 80 mA, 100 mA, 125 mA, 160 mA	D600834	1	12/02/2020
DZB drawing, 3 channel 12 V version 50 mA, 80 mA, 100 mA, 125 mA	D600835	1	12/02/2020
DZB Control drawing, 3 channel 18 V version 50 mA, 80 mA, 100 mA	D600836	1	12/02/2020
DZB Control drawing, 3 channel 24 V 50 mA version only	D600837	1	12/02/2020
DZB Control drawing, 3 channel 28 V 50 mA version only	D600838	1	12/02/2020
DZB Control drawing, 3 channel 36 V 50 mA version only	D600839	1	12/02/2020
242 Series - Suitability for Encapsulation or Conformal Coating rev 3	N/A	3	20/12/2017

* indicates an update in this certificate issue.

15 Conditions of Certification

15.1 Special Conditions for Safe Use

1. The intrinsically safe circuits are not segregated from the ground circuit, all the limiting circuits are based on Zener barriers and therefore there is no insulation between the intrinsically safe circuits and the grounding circuit. Therefore, the barriers does not comply with the dielectric strength requirements from clause 6.3.13 of IEC 60079-11.

2. The barriers must be installed an enclosure meeting the requirements of IP20 in accordance with IEC 60529 or greater according to the intended use and environmental conditions.

15.2 Conditions for Use (Routine tests)

IEC 60079-11:2011 Cl, 11.1.1. – Routine tests for diode safety barriers (completed barriers)

16 Essential Health and Safety Requirements

Essential Health and Safety Requirements are addressed by the standards listed in section 9 and where required the report listed in section 14.1. The manufacturer shall inform the Notified Body of any modifications to the design of the product described by this schedule.