

Certificate of Compliance

Certificate: 2147172

Master Contract: 246242

Project: 2147172

Date Issued: April 22, 2009

Issued to: Turck Inc
 3000 Campus Dr
 Plymouth, MN 55441-2656
 USA

Attention: Mr. Brad Larson

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



Issued by: K. Atkins

Authorized by: 
 Stephen Morley
 Product Group Manager

PRODUCTS

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

Class I, Division 2, Groups A,B,C,D; Ex nA [ia] IIC T4;

● MZB Series barriers for use in Class I, Division 2, Groups A,B,C,D; Ex nA IIC T4; CL I, Zone 2, AEx nA IIC T4; with IS connections to Class I, II, III; Groups A,B,C,D,E,F,G; Ex ia IIC; per Drawing IS-1.907. Entity parameters as follows

Single channel barrier to one device with ground return

Model	Term	Voc, Uo (V)	Isc, Io (mA)	Po (W)	Ca, Co (uF) AB(IIC)/CE(IIB) /DFG(IIA)	La, Lo (mH) AB(IIC)/CE(IIB) /DFG(IIA)	Div 2 / Zone 2 T-Code
MZB06	3-4	28	93	0.65	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C
MZB10P	3-4	10	200	0.5	3.0/20/100	0.91/2.72/7.25	T4 @ 60°C
MZB15P	3-4	15	150	0.56	0.58/3.55/14	1.45/7.22/14	T4 @ 60°C
MZB15PX	3-4	15	291	1.09	0.58/3.55/14	0.33/0.99/2.64	T4 @ 60°C
MZB28P	3-4	28	93	0.65	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C
MZB28PX	3-4	28	119	0.83	0.083/0.65/2.15	2.51/7.53/20	T4 @ 60°C

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Model	Term	Voc, Uo (V)	Isc, Io (mA)	Po (W)	Ca, Co (uF) AB(IIC)/CE(IIB) /DFG(IIA)	La, Lo (mH) AB(IIC)/CE(IIB) /DFG(IIA)	Div 2 / Zone 2 T-Code
MZB58P	3-gnd 4-gnd	7.5	750	1.4	11.1/174/1000	0.07/0.20/0.54	T4 @ 60°C
MZB60A	3-gnd 4-gnd	10	200	0.5	3.0/20.2/100	0.91/2.72/7.25	T4 @ 60°C
MZB61A	3-gnd 4-gnd	9	100	0.225	4.9/40/500	3.72/15/500	T4 @ 60°C
MZB61AX	3-gnd 4-gnd	9	26	0.058	4.9/40/500	56/208/419	T4 @ 60°C
MZB64A	3-gnd 4-gnd	12	12	0.036	1.41/9/36	240/932/1000	T4 @ 60°C
MZB65A	3-gnd 4-gnd	15	150	0.56	0.58/3.55/14.0	1.45/7.22/14.0	T4 @ 60°C
MZB66A	3-gnd 4-gnd	12	80	0.24	1.41/9/36	5.8/23/48	T4 @ 60°C
MZB66AX	3-gnd 4-gnd	12	157	0.471	1.41/9/36	1.47/4.4/11	T4 @ 60°C
MZB67P	3-gnd 4-gnd	15	150	0.56	0.58/3.55/14	1.45/7.22/14	T4 @ 60°C
MZB79P	3-gnd 4-gnd	28	93	0.65	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C
MZB887P	3-gnd	28	93	0.65	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C
MZB887P	4-gnd	28	0	-	0.083/0.65/2.15	-	T4 @ 60°C
MZB87PX	3-gnd	28	119	0.83	0.083/0.65/2.15	2.51/7.53/20	T4 @ 60°C
MZB87PX	4-gnd	28	0	-	0.083/0.65/2.15	-	T4 @ 60°C
MZB89P	3-gnd 7-gnd	28	46.5	0.33	0.083/0.65/2.15	16/63/133	T4 @ 60°C
MZB89P	4-gnd 8-gnd	28	0	-	0.083/0.65/2.15	-	T4 @ 60°C

Dual, three or four channel barrier, two channels to same device, with or without ground returns

Model	Term	Voc, Uo (V)	Isc, Io (mA)	Po (W)	Ca, Co (uF) AB(IIC)/CE(IIB) /DFG(IIA)	La, Lo (mH) AB(IIC)/CE(IIB) /DFG(IIA)	Div 2 / Zone 2 T-Code
MZB41R	3-4	10	19	0.039	2.86/20/100	96/365/696	T4 @ 60°C
MZB42T	3-4	10	19	0.039	2.86/20/100	96/365/696	T4 @ 60°C
MZB43R	3-4 7-8	10	19	0.039	2.86/20/100	96/365/696	T4 @ 60°C
MZB44T	3-4 7-8	10	19	0.039	2.86/20/100	96/365/696	T4 @ 60°C
MZB45R	3-4	10	19	0.039	2.86/20/100	96/365/696	T4 @ 60°C
MZB56A	3-4 4-7 3-7	6	600	0.45	40/1000/1000	0.13/0.39/1.03	T4 @ 65°C

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MZB58P	3-4	7.9	1500	2.8	8.8/115/1000	0.02/0.05/0.14	T4 @ 60°C
MZB60A	3-4	10	400	1.0	3.0/20.2/100	0.2/1.0/1.8	T4 @ 60°C
MZB61A	3-4	18	200	0.45	0.31/1.78/7.6	0.91/2.72/7.2	T4 @ 60°C
MZB61AX	3-4	18	52	0.115	0.31/1.78/7.6	14/55/116	T4 @ 60°C
MZB64A	3-4	24	24	0.072	0.125/0.93/3.35	61/226/452	T4 @ 60°C
MZB65A	3-4	15	300	1.12	0.58/3.55/14	0.32/0.95/2.54	T4 @ 60°C
MZB66A	3-4	24	160	0.48	0.125/0.93/3.35	1.47/4.4/11	T4 @ 60°C
MZB66AX	3-4	24	314	0.942	0.125/0.93/3.35	0.34/1.02/2.71	T4 @ 60°C
MZB67P	3-4	15	300	1.125	0.58/3.55/14	0.32/0.95/2.54	T4 @ 60°C
MZB87P	3-4	29.4	93	0.65	0.071/0.58/1.91	4.2/12.6/33.6	T4 @ 60°C
MZB87PX	3-4	28.5	119	0.835	0.078/0.627/2.05	2.51/7.53/20	T4 @ 60°C
MZB89P	3-4 7-8	28	46.5	0.33	0.083/0.65/2.15	16/63/133	T4 @ 60°C

Three channel barrier, three channels to same device, with or without ground returns

Model	Term	Voc, Uo (V)	Isc, Io (mA)	Po (W)	Ca, Co (uF) AB(IIC)/CE(IIB) /DFG(IIA)	La, Lo (mH) AB(IIC)/CE(IIB) /DFG(IIA)	Div 2 / Zone 2 T-Code
MZB56A	3-4-7	6	900	0.675	40/1000/1000	0.06/0.19/0.49	T4 @ 65°C

Four channel barrier, four channels to same device, with or without ground returns

Model	Term	Voc, Uo (V)	Isc, Io (mA)	Po (W)	Ca, Co (uF) AB(IIC)/CE(IIB) /DFG(IIA)	La, Lo (mH) AB(IIC)/CE(IIB) /DFG(IIA)	Div 2 / Zone 2 T-Code
MZB43R	3-4-7-8	10	38	0.078	2.73/19.9/100	25/91/193	T4 @ 60°C
MZB44T	3-4-7-8	10	38	0.078	2.73/19.9/100	25/91/193	T4 @ 60°C
MZB89P	3-4-7-8	28	93	0.65	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C

Class I, Division 2, Groups A,B,C,D; Ex nA [ia IIB] IIC T4; AEx nA [ia IIB] IIC T4

- MZB Series barriers for use in Class I, Division 2, Groups A,B,C,D; Ex nA IIC T4; with IS connections to Class I, II, III; Groups C,D,E,F,G; Ex ia IIB; Class I, Zone 0, AEx ia IIB; per Drawing IS-1.907. Entity parameters as follows

Single channel barrier to one device with ground return

Model	Term	Voc, Uo (V)	Isc, Io (mA)	Po (W)	Ca, Co (uF) CE(IIB) /DFG(IIA)	La, Lo (mH) CE(IIB) /DFG(IIA)	Div 2 / Zone 2 T-Code
MZB29PX	3-4	28	170	1.19	0.65/2.15	5.65/11.34	T4 @ 60°C

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Dual, three or four channel barrier, two channels to same device, with or without ground returns

Model	Term	Voc, Uo (V)	Isc, Io (mA)	Po (W)	Ca, Co (uF) CE(IIB) /DFG(IIA)	La, Lo (mH) CE(IIB) /DFG(IIA)	Div 2 / Zone 2 T-Code
MZB79P	3-4	28.3	186	1.3	0.636/2.09	4.1/7.9	T4 @ 60°C

Note: The Model MZB Series I.S. barriers are for rail mounting in a suitable protective enclosure in a Class I, Div 2 or Zone 2 Hazardous Location, or a non-hazardous location and must be installed in accordance with the manufacturer's instructions. Terminals provide Intrinsically Safe circuits for switches, thermocouples, LED's and non-inductive resistive devices or Certified (Entity) Equipment.

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APPLICABLE REQUIREMENTS

C22.2 No 0 - M1991	General Requirements - Canadian Electrical Code Part II.
C22.2 No 0.4 - M1982	Bonding and Grounding of Electrical Equipment (Protective Grounding).
C22.2 No 142 - M1987	Process Control Equipment.
C22.2 No 157 - M1992	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations.
C22.2 No 213 - M1987	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations.
CAN/CSA E60079-0:02	Electrical apparatus for explosive gas atmospheres. PART 0: General requirements.
CAN/CSA E60079-11:02	Electrical apparatus for explosive gas atmospheres. PART 11: Intrinsic safety "i".
CAN/CSA E60079-15:02	Electrical apparatus for explosive gas atmospheres. PART 15: Type of protection "n"

MARKINGS

Manufacturer's Name

Model Number

Serial Number

Hazardous Locations Designations

For use in CL I, DIV 2, GR ABCD, T4; Ex nA IIC T4; with IS connections to CL I, II, III, DIV 1; GR ABCDEFG; Ex ia IIC; per Drawing IS-1.907

Entity Parameters Uo, Io, Um

Ambient Temperature Range

Reference to Control Drawing IS-1.907

CSA Mark

Note: The MZB29PX has I.S. outputs for GR CDEFG and IIB/IIA only.

Method of Marking

The marking shall be permanent, such as a 0.5-mm thick metal nameplate secured by drive pins or screws in bottomed holes, cast, etched, engraved, or CSA Accepted self adhesive nameplate material.