Certificate of Compliance

Certificate: 1345550 **Master Contract:** 152423

Project: 70094932 **Date Issued:** December 15, 2016

Issued to: **Eaton Electric Ltd.**
Great Marlings
Butterfield, Luton
Bedfordshire
LU2 8DL
United Kingdom

Attention: **Mr. Peter Rigling**

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

Issued by: David Holton

PRODUCTS

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations
CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations to U.S. Requirements

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

MTL7700 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; Class I, Zone 0, AEx ia IIC; per Drawing SCI-969. 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
MTL7706+	3-4	28	93	0.65	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C
MTL7710+/-	3-4	10	200	0.5	3.0/20/100	0.91/2.72/7.25	T4 @ 60°C
MTL7715+/-	3-4	15	150	0.56	0.58/3.55/14	1.45/7.22/14	T4 @ 60°C
MTL7715P+/-	3-4	15	291	1.09	0.58/3.55/14	0.33/0.99/2.64	T4 @ 60°C
MTL7722+/-	3-4	22	147	0.81	0.165/1.14/4.2	1.45/7.22/14	T4 @ 60°C
MTL7728+/-/ac	3-4	28	93	0.65	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C
MTL7728P+/-	3-4	28	119	0.83	0.083/0.65/2.15	2.51/7.53/20	T4 @ 60°C

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Dual, three or four channel barrier, each channel to separate devices, with separate 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
MTL7707+	3-gnd	28	93	0.65	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C
MTL7707+	4-gnd	28	0	-	0.083/0.65/2.15	-	T4 @ 60°C
MTL7707P+	4-gnd	28	0	-	0.083/0.65/2.15	-	T4 @ 60°C
MTL7755ac	3-gnd 4-gnd	3	300	0.225	100/1000/1000	0.46/1.37/3.66	T4 @ 65°C
MTL7756ac	3-gnd 4-gnd 7-gnd	3	300	0.225	100/1000/1000	0.46/1.37/3.66	T4 @ 65°C
MTL7758+/-	3-gnd 4-gnd	7.5	750	1.4	11.1/174/1000	0.07/0.20/0.54	T4 @ 60°C
MTL7760ac	3-gnd 4-gnd	10	200	0.5	3.0/20.2/100	0.91/2.72/7.25	T4 @ 60°C
MTL 7761 ac	3-gnd 4-gnd	9	100	0.225	4.9/40/500	3.72/15/500	T4 @ 60°C
MTL 7761Pac	3-gnd 4-gnd	9	26	0.058	4.9/40/500	56/208/419	T4 @ 60°C
MTL7764+/-	3-gnd 4-gnd	12	12	0.036	1.41/9/36	240/932/1000	T4 @ 60°C
MTL7764ac	3-gnd 4-gnd	12	12	0.036	1.41/9/36	240/932/1000	T4 @ 60°C
MTL7765ac	3-gnd 4-gnd	15	150	0.56	0.58/3.55/14.0	1.45/7.22/14.0	T4 @ 60°C
MTL7766ac	3-gnd 4-gnd	12	80	0.24	1.41/9/36	5.8/23/48	T4 @ 60°C
MTL7766Pac	3-gnd 4-gnd	12	157	0.471	1.41/9/36	1.47/4.4/11	T4 @ 60°C
MTL7767+/-	3-gnd 4-gnd	15	150	0.56	0.58/3.55/14	1.45/7.22/14	T4 @ 60°C
MTL7778ac	3-gnd 4-gnd	28	47	0.33	0.083/0.65/2.15	16/62/130	T4 @ 60°C
MTL7779+/-	3-gnd 4-gnd	28	93	0.65	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C
MTL7787+/-	3-gnd	28	93	0.65	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C
MTL7787+/-	4-gnd	28	0	-	0.083/0.65/2.15	-	T4 @ 60°C
MTL7787P+/-	3-gnd	28	119	0.83	0.083/0.65/2.15	2.51/7.53/20	T4 @ 60°C
MTL7787P+/-	4-gnd	28	0	-	0.083/0.65/2.15	-	T4 @ 60°C
MTL7788+/-	3-gnd	28	93	0.65	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C
MTL7788+/-	4-gnd	10	200	0.5	3.0/20/100	0.91/2.72/7.25	T4 @ 60°C
MTL7788R+/-	3-gnd	28	93	0.65	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C
MTL7788R+/-	4-gnd	10	200	0.5	3.0/20/100	0.91/2.72/7.25	T4 @ 60°C
MTL7789+/-	3-gnd 7-gnd	28	46.5	0.33	0.083/0.65/2.15	16/63/133	T4 @ 60°C
MTL7789+/-	4-gnd 8-gnd	28	0	-	0.083/0.65/2.15	-	T4 @ 60°C
MTL7796+/-	3-gnd	26	87	0.56	0.1/0.77/2.6	4.91/20/40	T4 @ 60°C
MTL7796+/-	4-gnd	20	51	0.26	0.22/1.41/5.5	13/51/108	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
MTL7707+	3-4	29.4	93	0.65	0.071/0.58/1.91	4.2/12.6/33.6	T4 @ 60°C
MTL7741	3-4	10	19	0.039	2.86/20/100	96/365/696	T4 @ 60°C
MTL7742	3-4	10	19	0.039	2.86/20/100	96/365/696	T4 @ 60°C
MTL7743	3-4 7-8	10	19	0.039	2.86/20/100	96/365/696	T4 @ 60°C
MTL7744	3-4 7-8	10	19	0.039	2.86/20/100	96/365/696	T4 @ 60°C
MTL7745	3-4	10	19	0.039	2.86/20/100	96/365/696	T4 @ 60°C
MTL7755ac	3-4	6	600	0.45	40/1000/1000	0.13/0.39/1.03	T4 @ 65°C
MTL7756ac	3-4 4-7 3-7	6	600	0.45	40/1000/1000	0.13/0.39/1.03	T4 @ 65°C
MTL7758+/-	3-4	7.9	1500	2.8	8.8/115/1000	0.02/0.05/0.14	T4 @ 60°C
MTL7760ac	3-4	10	400	1.0	3.0/20.2/100	0.2/1.0/1.8	T4 @ 60°C
MTL7761ac	3-4	18	200	0.45	0.31/1.78/7.6	0.91/2.72/7.2	T4 @ 60°C
MTL7761Pac	3-4	18	52	0.115	0.31/1.78/7.6	14/55/116	T4 @ 60°C
MTL7764+/-	3-4	13	24	0.072	1.0/6.2/22.5	61/226/452	T4 @ 60°C
MTL7764ac	3-4	24	24	0.072	0.125/0.93/3.35	61/226/452	T4 @ 60°C
MTL7765ac	3-4	15	300	1.12	0.58/3.55/14	0.32/0.95/2.54	T4 @ 60°C
MTL7766ac	3-4	24	160	0.48	0.125/0.93/3.35	1.47/4.4/11	T4 @ 60°C
MTL7766Pac	3-4	24	314	0.942	0.125/0.93/3.35	0.34/1.02/2.71	T4 @ 60°C
MTL7767+/-	3-4	15	300	1.125	0.58/3.55/14	0.32/0.95/2.54	T4 @ 60°C
MTL7778ac	3-4	28	93	0.654	0.083/0.65/2.15	4.2/12.6/33.6	T4 @ 60°C
MTL7787+/-	3-4	29.4	93	0.65	0.071/0.58/1.91	4.2/12.6/33.6	T4 @ 60°C
MTL7787P+/-	3-4	28.5	119	0.835	0.078/0.627/2.05	2.51/7.53/20	T4 @ 60°C
MTL7788+/-	3-4	28	294	0.92	0.083/0.65/2.15	0.33/0.99/2.64	T4 @ 60°C
MTL7788R+/-	3-4	28	294	0.92	0.083/0.65/2.15	0.33/0.99/2.64	T4 @ 60°C
MTL7789+/-	3-4 7-8	28	46.5	0.33	0.083/0.65/2.15	16/63/133	T4 @ 60°C
MTL7796+/-	3-4	26.4	138	0.81	0.096/0.74/2.48	1.94/8.5/16	T4 @ 60°C

Three channel barrier, three channel 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
MTL7756ac	3-4-7	6	900	0.675	40/1000/1000	0.06/0.19/0.49	T4 @ 65°C

Four channel barrier, four channel 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
MTL7743	3-4-7-8	10	38	0.078	2.73/19.9/100	25/91/193	T4 @ 60°C
MTL7744	3-4-7-8	10	38	0.078	2.73/19.9/100	25/91/193	T4 @ 60°C
MTL7789+/-	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

MTL7700 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 C,D,E,F,G; Ex ia IIB; Class I, Zone 0, AEx ia IIB; per Drawing SCI-969. 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
MTL7729P+/-	3-4	28	170	1.19	0.65/2.15	5.65/11.34	T4 @ 60°C

Dual, three or four channel barrier, each channel to separate devices, with separate 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
MTL7707P+	3-gnd	28	171	1.2	0.65/2.15	5.34/10.73	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) CE(IIB) /DFG(IIA)	La, Lo (mH) CE(IIB) /DFG(IIA)	Div 2 / Zone 2 T-Code
MTL7707P+	3-4	29.4	171	1.2	0.587/1.91	5.34/10.73	T4 @ 60°C
MTL7779+/-	3-4	28.3	186	1.3	0.636/2.09	4.1/7.9	T4 @ 60°C

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

MTL 7798 Power Feed Module; rated 26Vdc max, 800mA max; Maximum Ambient 60°C; Temperature Code T4.

Note: The Model 7700 Series I.S. barriers and Model 7798 Power Feed Module 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 (R 2006)	General Requirements - Canadian Electrical Code Part II.
C22.2 No 0.4 - 04 (R 2009)	Bonding and Grounding of Electrical Equipment (Protective Grounding).
C22.2 No 142 - M1987 (R 2004)	Process Control Equipment.
C22.2 No 157 - M1992 (R 2006)	Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations.
C22.2 No 213 - M1987 (R 2008)	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations.
CAN/CSA E60079-0:07	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”
UL 698, Thirteenth Edition	Industrial Control Equipment for Use in Hazardous (Classified) Locations.
UL 913, Seventh Edition	Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II, III, Division 1, Hazardous (Classified) Locations.
UL 1604, Fourth Edition	Electrical Equipment for Use in Class I and II, Division 2, And Class III Hazardous (Classified) Locations.
60079-0, Fourth Edition	Electrical apparatus for explosive gas atmospheres. PART 0: General requirements.
60079-11, First Edition	Electrical apparatus for explosive gas atmospheres. PART 11: Intrinsic safety "i".
60079-15, Fist Edition	Electrical apparatus for explosive gas atmospheres. PART 15: Type of protection “n”

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 shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

7700 Series I.S. Barriers

Manufacturer's Name
Model Number
Serial Number
Hazardous Locations Designations
For use in CL I, DIV 2, GR A,B,C,D, T4; Ex nA IIC T4; CL I, Zone 2, AEx nA IIC T4; with IS connections to CL I, II, III, DIV 1; GR A,B,C,D,E,F,G; Ex ia IIC; CL I; Zone 0; AEx ia IIC; per Drawing SCI-969
Ambient Temperature Range
Reference to Control Drawing
CSA Mark with the C/US qualifiers

Note: The 7729P has I.S. outputs for GR C,D,E,F,G and IIB/IIA only.

Model 7798 Power Feed Module

Manufacturer's Name
Model Number
Serial Number
Electrical Parameters
Hazardous Locations Designations
For use in CL I, DIV 2, GR A,B,C,D; Ex nA IIC T4; CL I, Zone 2, AEx nA IIC T4
Ambient Temperature Range
CSA Mark with the C/US qualifiers

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.

Note - Jurisdictions in Canada may require these markings to also be provided in French language. It is the responsibility of the manufacturer to provide bilingual marking, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities. It is the responsibility of the manufacturer to determine this requirement and have bilingual wording added to the "Markings".

Supplement to Certificate of Compliance

Certificate: 1345550 **Master Contract:** 152423

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
70094932	Dec 15, 2016	Update report 1345550 to change the company name from Measurement Technology Ltd to Eaton Electric Ltd.
2326530	Jul 15, 2010	Update report 1345550 to include the addition of Capacitors C19, C20 and C21.
2168255	Apr 28, 2009	Update to report 1345550 to remove entity parameter markings requirement on the label. Report in Documentum
History		
1345550	2003/03/18	7700 Series I.S. Barriers for hazardous locations.