

420-0004-397		Sht. 1 of 4	APP'D BY SGA
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3	3-11-100	SGA	3/4/11
4	4-12-100	SGA	4-6-11



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CERTIFICATE OF COMPLIANCE

HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

Impulse Ta10b/GWe Series 2-wire TDR Level Measurement System

IS/I, II, III /1/CDEFG/T4 Ta = -40°C to 70°C; 420-0004-384-CD; Entity; I/O/Ex ia IIB -420-0004-384-CD;
Entity; NI/II/2/ABCD/T6 Ta = -40°C to 70°C; Type 4, 4X; IP67;

Entity Parameters:

$V_{Max} = 30\text{ V}$, $I_{Max} = 140\text{ mA}$, $P_1 = 1\text{ W}$, $C_1 = 0$, $L_1 = 0$

a = 1 or 2 (Signal Connection)

b = 0 or 1 (Electrical Connection)

e = 16 character numbering system which does not affect safety

Specific Conditions of Use:

1. It is the responsibility of the manufacturer to provide warning markings in French where required by local jurisdictions.
2. The apparatus enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction. Care must be taken during installation and use to prevent impact or friction.

Impulse Ta20b/GWe Series 2-wire TDR Level Measurement System

XP-IS/I /1/CD/T4 Ta = -40°C to 70°C; 420-0004-384-CD; I/O/Ex d ia IIB T4; DIP-IS/II/III/1/1EFG/T4 Ta = -40°C to 70°C; NI/II/2/ABCD/T4 Ta = -40°C to 70°C; Type 4, 4X; IP67

a = 1, 2 or 3 (Signal Connection)

b = 0 or 1 (Electrical Connection)

e = 16 character numbering system which does not affect safety

Specific Conditions of Use:

1. It is the responsibility of the manufacturer to provide warning markings in French where required by local jurisdictions.
2. The apparatus enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction. Care must be taken during installation and use to prevent impact or friction.
3. Consult the manufacturer if dimensional information on the flameproof joints is necessary.

Impulse Ta60b/GWe Series 2-wire TDR Level Measurement System with Dual Seal

IS/I, II, III /1/CDEFG/T4 Ta = -40°C to 70°C; 420-0004-384-CD; Entity; I/O/Ex ia IIB -420-0004-384-CD;



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Entity; NI/II/2/ABCD/T6 Ta = -40°C to 70°C; Type 4, 4X; IP67;

Entity Parameters:

$V_{Max} = 30 \text{ V}$, $I_{Max} = 140 \text{ mA}$, $P_i = 1 \text{ W}$, $C_i = 0$, $L_i = 0$

a = 1 or 2 (Signal Connection)

b = 0 or 1 (Electrical Connection)

e = 16 character numbering system which does not affect safety

Specific Conditions of Use:

1. *It is the responsibility of the manufacturer to provide warning markings in French where required by local jurisdictions.*
2. *The apparatus enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction. Care must be taken during installation and use to prevent impact or friction.*

Impulse Ta70b/GWe Series 2-wire TDR Level Measurement System with Dual Seal

XP-IS/I/1/CD/T4 Ta = -40°C to 70°C; 420-0004-384-CD; I/II/Ex d ia IIB T4; DIP-IS/II/III/1/1EFG/T4 Ta = -40°C to 70°C; NI/II/2/ABCD/T4 Ta = -40°C to 70°C; Type 4, 4X; IP67

a = 1, 2 or 3 (Signal Connection)

b = 0 or 1 (Electrical Connection)

e = 16 character numbering system which does not affect safety

Specific Conditions of Use:

1. *It is the responsibility of the manufacturer to provide warning markings in French where required by local jurisdictions.*
2. *The apparatus enclosure contains aluminum and is considered to constitute a potential risk of ignition by impact or friction. Care must be taken during installation and use to prevent impact or friction.*
3. *Consult the manufacturer if dimensional information on the flameproof joints is necessary.*

Equipment Ratings:

Impulse Ta10b

Intrinsically Safe Apparatus with entity parameters per installation drawing 420-0004-384-CD suitable for use in Class I, II & III Division 1 Groups C, D, E, F & G hazardous (classified) locations and Class I Zone 0 Group IIB and Nonincendive Electrical Apparatus suitable for use in Class I, Division 2 Groups A, B, C, D indoors and outdoor hazardous (classified) locations (Type 4, 4X & IP67) T-Class is T4 when the maximum ambient is 70°C.

Impulse Ta20b

Explosionproof – Intrinsically Safe Apparatus per installation drawing 420-0004-384-CD suitable for use in Class I, Division 1 Groups C & D hazardous (classified) locations; and Explosionproof – Intrinsically Safe Apparatus for Class I Zone 0 Group IIB; Dust-Ignition Protected – Intrinsically Safe for Class II/III, Division 1, Groups E, F and G hazardous (classified) locations and Nonincendive Electrical Apparatus suitable for use in Class I, Division 2 Groups A, B, C, D indoors and outdoor hazardous (classified) locations (Type 4, 4X & IP67) T-Class is T4 when the maximum ambient is 70°C.

Impulse Ta60b with Dual Seal per ANSI/ISA 12.27.01

Intrinsically Safe Apparatus with entity parameters per installation drawing 420-0004-384-CD suitable for use in Class I, II & III Division 1 Groups C, D, E, F & G hazardous (classified) locations and Class I Zone 0 Group IIB and Nonincendive Electrical Apparatus suitable for use in Class I, Division 2 Groups A, B, C, D indoors and outdoor hazardous (classified) locations (Type 4, 4X & IP67) T-Class is T4 when the maximum ambient is 70°C.

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Impulse Ta70b with Dual Seal per ANSI/ISA 12.27.01

Explosionproof – Intrinsically Safe Apparatus per installation drawing 420-0004-384-CD suitable for use in Class I, Division 1 Groups C & D hazardous (classified) locations; and Explosionproof – Intrinsically Safe Apparatus for Class I Zone 0 Group IIB; Dust-Ignition Protected – Intrinsically Safe for Class II/III, Division 1, Groups E, F and G hazardous (classified) locations and Nonincendive Electrical Apparatus suitable for use in Class I, Division 2 Groups A, B, C, D indoors and outdoor hazardous (classified) locations (Type 4, 4X & IP67) T-Class is T4 when the maximum ambient is 70°C.

FM Approved for:

Ametek Drexelbrook.
205 Keith Valley Rd
Horsham, PA, 19044 USA



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This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

CSA C22.2 No. 30	2003
CSA C22.2 No. 94	2006
CSA-C22.2 No.142	2004
CSA-C22.2 No. 157	2006
CSA-C22.2 No. 213	2008
CAN/CSA-E60079-0	2007
CAN/CSA-E60079-1	2007
NEMA Pub. 250	2003
ANSI/ISA 60079-0	2009
ANSI/ISA 60079-1	2009
CAN/CSA-E60079-11	2006
CSA-C22.2 No. 1010.1	2004
CSA-C22.2 No. 60529	2005
ANSI/ISA 12.27.01	2003

Original Project ID: 3038887

Approval Granted: April 20, 2010

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3040236	June 11, 2010		
101026	February 10, 2011		
120103	March 20, 2012		

FM Approvals LLC

J. E. Marquardt

 J. E. Marquardt
 Group Manager, Electrical

20 March 2012

 Date