FM Approvals
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CERTIFICATE OF COMPLIANCE

HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS

This certificate is issued for the following equipment:

R96-5abc-def-RAg-hij-k00. Pulsar R96 Radar Level Transmitter / Pulsar Radar level Probe.
IS/I,II,III/1/ABCDEFG/T4 Ta = -40°C to +70°C – 099-5061; Entity; FISCO; Type 4X, IP67;
XP-IS/I/1/BCD/T4 Ta = -40°C to +70°C; Type 4X, IP67;
DIP-IS/II,III/1,2/EFG/T5 Ta = -15°C to 70°C; Type 4X, IP67;
NI/I/2/ABCD/ T4 Ta = -40°C to 70°C; Type 4X, IP67;
I/0/Ex ia/IIC/T4…T1 Ga Ta = -40ºC to +70ºC – 099-5061; Type 4X, Entity; IP67**;**
I/1/Ex d ia/IIB+H_2/T4…T1 Gb Ta = -40ºC to +70ºC – 099-0561; Entity; FISCO; Type 4X, IP67;
I/2/Ex ic/IIC/T4…T1 Gc Ta = -15ºC to +70ºC– 099-5061; Entity; FNICO; Type 4X, IP67;
I/2/Ex nA/IIC/ T4…T1 Gc Ta = -15ºC to +70ºC; Type 4X, IP67;
Entity Parameters:
Ui = 28.6V, Ii = 140mA, Pi = 1W, Ci = 4.4nF, Li = 2.7µH
a = Signal Out: 1 or 2.
b = Options: 0 or 1.
c = Accessories: 0 or A.
d = Classification: 1, 3 (when a = 1 or 2), 0, A, B or C.
e = Housing/Conduit Connection: 1 or 2.
f = Options: 0, 2 or 3.
g = Configuration Style: A, B, C, 3, 4, or 6.
h = Material of Construction. Antenna/ Mounting Nut: A, B, C, G, L or K.
i = Process Connection Size Type: 31, 32, 43, 44, 45, 53, 54, 55, 63, 64, 65, 73, 74, 75, 83, 84, 85, DA, DB, DD, EA, EB, ED, FA, FB, FD, GA, GB, GD, HA, HB, HD, 3P, 4P, 5P, 6P or 7P.
j = O rings: 0, 1, 2 or 8.
k = Maximum Nozzle Length: 0, 1, 2 or 3.

Special Conditions of Use:

1. *The enclosure contains aluminum and is considered to present a potential risk of ignition by impact or friction. Care must be taken during installation and use to prevent impact or friction.*
2. *To maintain the T4 to T1 temperature code care shall be taken to ensure the enclosure temperature does not exceed 70ºC.*
3. *The risk of electrostatic discharge shall be minimized at installation, following the direction given in the instruction.*
4. *Contact the original manufacturer for information in the dimensions of flameproof joints.*
5. *For Installation with ambient temperature of 70ºC, refer to the manufacturer's instructions for guidance on proper selection of conductors.*
6. *Provisions shall be made to provide transient overvoltage protection to a level not to exceed 119Vdc.*
7. *The sensor probes are suitable for connections to Class I, II, III, Division 1 Groups A, B, C, D, E, E, F and G and Class I, Zone 0, Group IIC, Ga Hazardous Locations*
8. *Temperature codes for the ratings Ex d ia IIB+H_2, Ex ia IIC, Ex nA IIC and Ex ic IIC are defined by the following table:*

Process temperature(PT)	*Temperature Code-TCG (GAS)*
From 0°C to 110°C	*T4*
From 110°C to 175°C	*T3*
From 175°C to 275°C	*T2*
From 275°C to 425°C	*T1*

Equipment Ratings:

Intrinsically Safe (Entity) (FISCO) for Class I, II and III Division 1, Groups A, B, C, D, E, F and G, Temperature Class T4 Ta = -40ºC to +70ºC in accordance with drawing 099-5061; Intrinsically Safe (Entity) (FISCO) for Class I, Zone 0, Ex ia IIC T4…T1 Ga Ta = -40ºC to +70ºC in accordance with control drawing 099-5061; Explosionproof with Intrinsic Safety for Class I, Division 1, Groups B, C and D; Temperature Class T4 Ta = -40ºC to +70ºC; Flameproof with Intrinsic Safety for Class I, Zone 1, Ex d ia IIB+H_2 T4…T1 Gb Ta = -40ºC to +70ºC; Dust-ignitionproof with Intrinsic Safety for Class II and III, Division 1, Groups E, F and G; Temperature Class T5, Ta = -15ºC to +70ºC; Nonincendive for Class I, Division 2, Groups A, B, C, and D Temperature Class T4, Ta = -40ºC to +70ºC; Non-Sparking for Class I, Zone 2 Ex nA IIC T4…T1 Gc Ta = -15ºC to + 70ºC hazardous locations; Intrinsically Safe (Entity) (FNICO) for Class I, Zone 2, Ex ic IICT4…T1 Gc Ta = -15ºC to +70ºC in accordance with control drawing 099-5061 hazardous locations, indoors and outdoors (Type 4X and IP67).

FM Approved for:

Magnetrol International Inc
Aurora, IL United States

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

CSA C22.2 No. 0.4	R2013
CSA C22.2 No. 0.5	R2012
CSA C22.2 No. 25	R2014
CSA C22.2 No. 30	R2012
CSA C22.2 No. 94	R2011
CSA C22.2 No. 157	2012
CSA C22.2 No. 213	2013
CSA C22.2 No. 1010.1	2004
CSA C22.2 No. 60529	R2015
CAN/CSA 60079-0	2011
CAN/CSA 60079-1	2011
CAN/CSA 60079-11	2014
CAN/CSA 60079-15	2012

Original Project ID: 3054552C Approval Granted: January 22, 2016

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date

FM Approvals LLC

J.E. Marquedant
Manager of Electrical Systems

22 January 2016
Date