

420-0004-324		Sht. of	1 2	APP'D BY	SGA
ISSUE	EDO NO.	APP'D		DATE	
1	11-05-217	SGA		11/14/05	
2	7-11-111	JHP		7/20/11	



Member of the FM Global Group

FM Approvals
 1151 Boston Providence Turnpike
 P.O. Box 9102 Norwood, MA 02062 USA
 T: 781 762 4300 F: 781-762-9375 www.fmapprovals.com

CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

Model USR-ab1c-0def-0ghi. USonic R Series Receiver

AIS / I,II,III / 1 / ABCDEFG / T4 Ta = 70 °C; - 420-0004-309-CD Entity; Type 4, 4X, IP65
 I / 0 / AEx [ia] IIC / T4 Ta = 70 °C; - 420-0004-309-CD Entity; Type 4, 4X, IP65
 NI / 1 / 2 / ABCD; S / II,III / 2 / EFG / T4 Ta = 70 °C; Type 4, 4X, IP65
 I / 2 / IIC / T4 Ta = 70 °C; - 420-0004-309-CD Entity; Type 4, 4X, IP65

Entity Parameters:

Output Entity Parameters:

Uo (Voc) = 25.9 V, Io (Isc) = 69.5 mA, Po = 0.45 W, Co (Ca) = 100 nF, Lo (La) = 7.4 mH
 Vt = 25.9 V, It = 139 mA, Po = 0.9 W, Ca = 100 nF, La = 1.8 mH
 a = Power: 1, 2.
 b = Output: 1, 2.
 c = Sensor: 0, 1, 2, 3, 4.
 d = Cable Length: 0, 1, 2, 3.
 e = Cable Length: 0, 2, 5.
 f = Cable Length: 0, 5.
 g = Cable Length: 0, 1, 2, 3.
 h = Cable Length: 0, 2, 5.
 i = Cable Length: 0, 5.

Model USS-1a-0cde. USonic USS Series Sensor

IS / I,II,III / 1 / ABCDEFG / T4 Ta = 70 °C; - 420-0004-309-CD Entity; Type 4, 4X, IP68
 I / 0 / AEx ia IIC / T4 Ta = 70 °C; - 420-0004-309-CD Entity; Type 4, 4X, IP68
 NI / 1 / 2 / ABCD; S / II,III / 2 / EFG / T4 Ta = 70 °C; Type 4, 4X, IP68
 I / 2 / IIC / T4 Ta = 70 °C; - 420-0004-309-CD Entity; Type 4, 4X, IP68

Entity Parameters:

Ui (Vmax) = 30 V, Ii (Imax) = 150 mA, Pi = 1 W, Ci = 0, Li = 0
 where
 a = Mounting: 1, 2.
 c = Cable Length: 0, 1, 2, 3.
 d = Cable Length: 0, 2, 5.
 e = Cable Length: 0, 5.

Specific Conditions of Use:

Potential Electrostatic Charging Hazard – The enclosure is constructed from plastic. To prevent the risk of electrostatic sparking the plastic surface should only be cleaned only with a damp cloth.



Equipment Ratings:

USonic R Series Receiver - Intrinsically Safe for use in Class I, II and III, Division 1, Groups A, B, C, D, E, F and G and Class I, Zone 0, Group IIC in accordance with Entity requirements and Control Drawing 420-0004-309-CD; Nonincendive for use in Class I, II, III, Division 2, Groups A, B, C, D, E, F & G and Class I, Zone 2, Group IIC; Indoor and Outdoor, Type 4, 4X, IP65 Hazardous (Classified) Locations

USonic USS Series Sensor - Intrinsically Safe for use in Class I, II and III, Division 1, Groups A, B, C, D, E, F and G and Class I, Zone 0, Group IIC in accordance with Entity requirements and Control Drawing 420-0004-309-CD; Nonincendive for use in Class I, II, III, Division 2, Groups A, B, C, D, E, F & G and Class I, Zone 2, Group IIC; Indoor and Outdoor, Type 4, 4X, IP68 Hazardous (Classified) Locations

FM Approved for:

AMETEK Drexelbrook
Horsham, PA USA

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

Class 3600	1998
Class 3610	2010
Class 3611	2004
Class 3810	2005
ANSI/NEMA 250	1991
IEC 60529	1999

Original Project ID: 3024155

Approval Granted: October 26, 2005

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3042846	July 19, 2011		

FM Approvals LLC

J. E. Marquedant
Group Manager, Electrical

19 July 2011
Date