

NONHAZARDOUS LOCATION

or

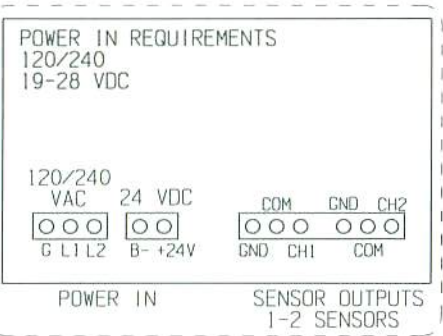
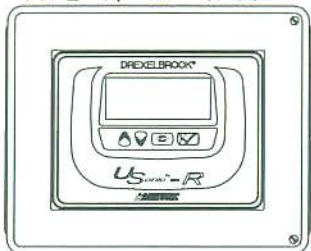
Hazardous (Classified) Location

CLASS I, II, III, DIVISION 2, GROUPS A, B, C, D, F AND G
 CLASS I, ZONE 2, GROUP IIC AMB. TEMP. -40°C TO 70°C....T4

U-SONIC R SERIES

SINGLE OUTPUT			COMBINED OUTPUTS		
U _o = 25.9 V			U _o = 25.9 V		
I _o = 69.5 mA			I _o = 139 mA		
P _o = 0.45 mW			P _o = 0.9 W		
GAS GROUPS	C_a	L_a	GAS GROUPS	C_a	L_a
A, B	100 nF	7.4 mH	A, B	100 nF	1.8 mH
C	0.77 uF	29 mH	C	0.77 uF	7.8 mH
D	2.63 uF	58 mH	D	2.63 uF	15 mH

TYPE 4, 4X IP65



U-SONIC R CERTIFIED MODEL #s

USR-ablc-0def-0ghi

- 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

NOTES:

1. V_{max} OR U_i > V_t; I_{max} OR I_i > I_t; (C_i OF ALL LOOPS + C_{cabl}) < C_a OR C_o; (L_i OF ALL LOOPS + L_{cabl}) < L_a OR L_o; P_{max} OR P_i > P_o.
2. THE CONFIGURATION OF ASSOCIATED APPARATUS MUST BE FM APPROVED (CSA CERTIFIED WHEN INSTALLED IN CANADA) UNDER ENTITY CONCEPT.
3. U-SONIC R SERIES MAY BE INSTALLED WITHIN THE HAZARDOUS (CLASSIFIED) LOCATION FOR WHICH IT IS APPROVED.
4. INSTALLATION SHOULD BE IN ACCORDANCE WITH ANSI/ISA RP 12.06.01 "INSTALLATION OF INTRINSICALLY SAFE SYSTEMS FOR HAZARDOUS (CLASSIFIED) LOCATIONS" AND THE NATIONAL ELECTRICAL CODE® (ANSI/NFPA 70).
5. INSTALLATION IN CANADA SHOULD BE IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE, CSA C22.1, PART 1, APPENDIX F.
6. NO REVISION TO THIS DRAWING IS PERMITTED WITHOUT FM OR CSA APPROVAL.
7. DUST-TIGHT CONDUIT SEAL MUST BE USED WHEN INSTALLED IN CLASS II AND CLASS III ENVIRONMENTS.

HAZARDOUS (CLASSIFIED) LOCATION

CLASS I, DIVISION 1, GROUPS A, B, C AND D
 CLASS I, ZONE 0, GROUP IIC
 CLASS II, DIVISION 1, GROUPS E, F AND G
 CLASS III, DIVISION 1
 CLASS I, II, III, DIVISION 2, GROUPS A, B, C, D, F AND G
 CLASS I, ZONE 2, GROUP IIC
 AMB. TEMP. -40°C TO 70°C....T4

MAX CABLE LENGTH 1200 FT



USS SERIES
 TYPE 4, 4X
 IP 68

**USS SERIES
 I.S. ENTITY PARAMETERS**

V _{max} OR U _i = 30 VDC
I _{max} OR I _i = 150 mA
C _i = 0
L _i = 0
P _{max} OR P _i = 1W

USS SERIES CERTIFIED MODEL #s

- USS-1a-0cde
- a = MOUNTING = 1, 2
- c = CABLE LENGTH = 0, 1, 2, 3
- d = CABLE LENGTH = 0, 2, 5
- e = CABLE LENGTH = 0, 5

CABLE CAPACITANCE = 52 pF/FOOT
 CABLE INDUCTANCE = .19 uH/FOOT
 (AT MAXIMUM CABLE LENGTH OF 1200 FEET WITH CABLE SUPPLIED)

CERTIFIED	by _____				
PD # _____					
ENG _____					
USER _____					
ISS. EDO/DSR NO.	1	6-05-217	APP' D	DATE	1/23/06

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AMETEK DREXELBROOK
SCALE NONE
UNLESS OTHERWISE STATED
ALL DIMENSIONS IN INCHES (MM)
DR. JJS 1-5-06
CK. _____



205 KEITH VALLEY RD
 HORSHAM, PA 19044-9986

215-674-1234
 FAX 215-674-2731

U-SONIC 'R' SERIES RECEIVER
 USS SERIES SENSOR
 FM & CSA CONTROL DRAWING

420-0004-309-CD

SHT. 1 OF 2
 ISS. 1 OF 2

No. 420-0004-309-CD

SHT 1 OF 2


NONHAZARDOUS LOCATION
or
Hazardous (Classified) Location

FM APPROVED
ASSOCIATED APPARATUS
(SEE NOTES BELOW)

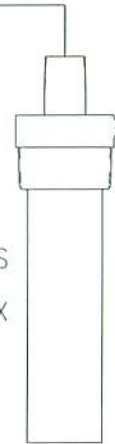
HAZARDOUS (CLASSIFIED) LOCATION

CLASS I, DIVISION 1, GROUPS A, B, C AND D
CLASS I, ZONE 0, GROUP IIC
CLASS II, DIVISION 1, GROUPS E, F AND G
CLASS III, DIVISION 1
CLASS I, II, III, DIVISION 2, GROUPS A, B, C, D, F AND G
CLASS I, ZONE 2, GROUP IIC
AMB. TEMP. -40°C TO 70°C...T4

USS SERIES
I.S. ENTITY PARAMETERS

V_{max} OR $U_i = 30$ VDC
 I_{max} OR $I_i = 150$ mA
 $C_i = 0$
 $L_i = 0$
 P_{max} OR $P_i = 1$ W 

USS SERIES
TYPE 4, 4X
IP68




USS SERIES CERTIFIED MODEL #s

USS-1a-0cde
a = MOUNTING = 1, 2
c = CABLE LENGTH = 0, 1, 2, 3
d = CABLE LENGTH = 0, 2, 5
e = CABLE LENGTH = 0, 5

CABLE CAPACITANCE = 52 pF/FOOT
CABLE INDUCTANCE = .19 uH/FOOT

NOTES:

- V_{max} OR $U_i > V_t$; I_{max} OR $I_i > I_t$; $(C_i$ OF ALL LOOPS + $C_{cable}) < C_a$ OR C_o ; $(L_i$ OF ALL LOOPS + $L_{cable}) < L_a$ OR L_o ; P_{max} OR $P_i > P_o$.
- THE CONFIGURATION OF ASSOCIATED APPARATUS MUST BE FM APPROVED (CSA CERTIFIED WHEN INSTALLED IN CANADA) UNDER ENTITY CONCEPT.
- I.S. BARRIER OR EQUIPMENT MUST BE FM APPROVED (CSA CERTIFIED WHEN INSTALLED IN CANADA).
- I.S. BARRIER OR EQUIPMENT MAY BE INSTALLED WITHIN THE HAZARDOUS (CLASSIFIED) LOCATION FOR WHICH IT IS APPROVED.
- I.S. BARRIER OR EQUIPMENT AND HAZARDOUS LOCATION LOOP APPARATUS MANUFACTURER'S CONTROL DRAWINGS MUST BE FOLLOWED WHEN INSTALLING A SYSTEM.
- CONTROL EQUIPMENT CONNECTED TO THE ASSOCIATED APPARATUS MUST NOT USE OR GENERATE MORE THAN 250 V_{rms} OR V_{dc} .
- INSTALLATION SHOULD BE IN ACCORDANCE WITH ANSI/ISA RP 12.06.01 "INSTALLATION OF INTRINSICALLY SAFE SYSTEMS FOR HAZARDOUS (CLASSIFIED) LOCATIONS" AND THE NATIONAL ELECTRICAL CODE® (ANSI/NFPA 70).
- INSTALLATION IN CANADA SHOULD BE IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE, CSA C22.1, PART 1, APPENDIX F.
- NO REVISION TO THIS DRAWING IS PERMITTED WITHOUT FM OR CSA APPROVAL.
- AE_x '[ib]' IS SUITABLE ONLY FOR CONNECTING TO CLASS I, ZONE 1 HAZARDOUS (CLASSIFIED) LOCATIONS AND NOT CLASS I, ZONE 0, OR CLASS I, DIVISION 1 HAZARDOUS (CLASSIFIED) LOCATIONS.

CERTIFIED	by _____					COPYRIGHT 2005		U-SONIC 'R' SERIES RECEIVER USS SERIES SENSOR FM & CSA CONTROL DRAWING
PO #	_____					AMETEK DREXELBROOK		
ENC	_____					SCALE NONE		
USER	_____					UNLESS OTHERWISE STATED ALL DIMENSIONS IN INCHES (MM)		
DE #	_____	1	6-05-217	97	1/26/06	DR. JJS 1-5-06	205 KEITH VALLEY RD HDRSHAM, PA 19044-9986	215-674-1234 FAX 215-674-2731
		ISS.	EDD/DSR NO.	APP'D	DATE	CK.		420-0004-309-CD
								SHT. 2 OF 2 ISS. 1

No. 420-0004-309-CD

SHT 2 OF 2