

4

3

2

1

IS CERTIFIED PRODUCT
 No modifications permitted without
 reference to Approval Agency

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
0		PRODUCTION RELEASE		
1		ECN PER 3817		
2		ECN PER 3944	05/30/08	E.P. LOVENHAR
3		ECN PER 4183	11/12/09	C. BASCARA
4		ECN PER 4285	05/05/10	C. BASCARA
5		ECN PER 5349	04/24/14	C. BASCARA
6		ECN PER 5934	01/23/17	C. BASCARA
7		PER CHANGE ORDER 10212	05/17/21	EPL

HAZARDOUS AREA

SENSOR WITH INTEGRAL PREAMP

SENSOR TYPE:
 OPERATING TEMP -55 to +70°C
 ISPK3I / ISPK3I-6dB
 ISPK6I / ISPK6I-6dB
 ISPK15I / ISPK15I-6dB
 ISPKF15I / ISPKF15I-6dB
 ISPK30I / ISPK30I-6dB
 ISPKF30I / ISPKF30I-6dB
 ISPK50I / ISPK50I-6dB
 ISPKF50I / ISPKF50I-6dB
 ISPKWDI / ISPKWDI-6dB
 2nd line of sensor label:
 II 1 (1) G Ex ia IIC T6 Ga
 II 1 (1) D Ex ia IIIC T85C Da

CONFIGURATION 1

CABLE (SEE NOTE 4)
 (ANY SCREENS FITTED, CONNECTED AT SAFE ARE END ONLY)

SENSOR WITH INTEGRAL PREAMP FOR UNDER WATER

SENSOR TYPE:
 OPERATING TEMP -55 to +70°C
 ISPK3IUC / ISPK3IUC-6dB
 ISPK6IUC / ISPK6IUC-6dB
 ISPK15IUC / ISPK15IUC-6dB
 ISPKF15IUC / ISPKF15IUC-6dB
 ISPK30IUC / ISPK30IUC-6dB
 ISPKF30IUC / ISPKF30IUC-6dB
 ISPK50IUC / ISPK50IUC-6dB
 ISPKF50IUC / ISPKF50IUC-6dB
 ISPKWDIUC / ISPKWDIUC-6dB
 2nd line of sensor label:
 II 1 (1) G Ex ia IIC T6 Ga
 II 1 (1) D Ex ia IIIC T85C Da

CONFIGURATION 2

CABLE (SEE NOTE 8)

HI-TEMP SENSOR AND EXTERNAL PREAMP

SENSOR TYPE:
 OPERATING TEMP -55 to +150°C (T3)
 OPERATING TEMP -55 to +70°C (T6)
 ISR3CA-HT ISR6CA-HT ISR15CA-HT
 ISRF15CA-HT ISRF30CA-HT ISRF30CA-HT
 ISRF50CA-HT ISRF50CA-HT ISWDCA-HT
 2nd/3rd line of sensor label:
 II 1 (1) G Ex ia IIC T3-T6 Ga MAX AMBIENT 150C(T3)/75C(T4-T6)
 II 1 (1) D Ex ia IIIC T200C Da MAX AMBIENT 150C

OPERATING TEMP -55 to +70°C
 ISPK-3S / ISPK-3S-6dB PREAMP
 ISPK-6S / ISPK-6S-6dB PREAMP
 ISPK-15S / ISPK-15S-6dB PREAMP
 ISPK-30S / ISPK-30S-6dB PREAMP
 ISPK-WS / ISPK-WS-6dB PREAMP
 II 1 (1) G Ex ia IIC T6 Ga
 II 1 (1) D Ex ia IIIC T85C Da

CABLE (SEE NOTE 5)

1281 / 1281-LP
 I.S. BARRIER
 AND
 PREAMP INTERFACE
 OPERATING TEMP -40 to +70°C
 II (1) G [Ex ia] IIC Ga
 II (1) D [Ex ia] IIIC Da

SAFE AREA
 APPARATUS
 SEE NOTE 3


NON-HAZARDOUS (SAFE) AREA

BARRIER EARTH CONNECTION
 SEE NOTE 6

- NOTES:
1. THE INSTALLATION MUST CONFORM TO THE NATIONAL REQUIREMENT OF THE COUNTRY OF USE.
 2. THE ELECTRICAL CIRCUIT IN THE HAZARDOUS AREA MUST WITHSTAND AN AC TEST VOLTAGE OF 500V RMS TO EARTH OR FRAME OF APPARATUS FOR ONE MINUTE WITHOUT BREAKDOWN.
 3. NON-HAZARDOUS (SAFE) AREA APPARATUS, UNSPECIFIED, EXCEPT THAT IT MUST NOT BE SUPPLIED NOR CONTAIN UNDER NORMAL OR ABNORMAL CONDITIONS, A SOURCE OF POTENTIAL WITH RESPECT TO EARTH IN EXCESS OF 250V AC RMS OR 250 DC.
 4. CABLE AND CABLE PARAMETERS. THE CAPACITANCE SHALL NOT EXCEED 10 UF AND THE INDUCTANCE TO RESISTANCE RATIO SHALL NOT EXCEED 200 UH/OHM THE CABLE USED MAY BE A SEPARATE CABLE OR MAYBE INSTALLED IN A TYPE 'A' OR TYPE 'B' MULTI-CORE CABLE PROVIDED THAT THE PEAK VOLTAGE OF ANY CIRCUIT WITHIN THE TYPE B MULTI-CORE CABLE DOES NOT EXCEED 60V.
 5. SENSOR TO PREAMPLIFIER CABLE TO BE INTEGRAL TO SENSOR, AND HAVE MAXIMUM LENGTH OF 5 METERS.
 6. THE BARRIER MUST BE CONNECTED TO EARTH VIA A HIGH INTEGRITY CONNECTION, USING AN INSULATED CONDUCTOR EQUIVALENT TO A 4mm COPPER CONDUCTOR, SUCH THAT THE IMPEDANCE FROM THE POINT OF CONNECTION, TO THE MAIN POWER SYSTEM EARTH IS LESS THAN 1 OHM.
 7. THE SYSTEM MUST BE MARKED WITH A DURABLE LABEL. THE LABEL SHOULD APPEAR ON OR ADJACENT TO THE PRINCIPAL ITEM OF ELECTRICAL APPARATUS IN THE SYSTEM OR AT THE INTERFACE BETWEEN THE INTRINSICALLY SAFE AND NON-INTRINSICALLY SAFE CIRCUIT.
 8. SENSOR TO BARRIER CABLE INTEGRAL TO SENSOR, AND HAVE MAXIMUM LENGTH NOT TO EXCEED PARAMETERS AS DESCRIBED IN NOTE 4.

COMPANY PRIVATE

This document contains proprietary information which is the property of Mistras Group Inc and is delivered to you with our products solely for the purpose of properly operating them and maintaining them. This information shall not be duplicated, used or disclosed in whole or in part without written permission of the Mistras Group Inc.

PROJECT NO. 2-152		 Products and Systems © 2012	
APPROVALS	DATE	1281 SYSTEM CONNECTIONS	
DRAWN CDB	03/14/08		
OPTION			
ENG CDB	05/29/08	SIZE	CODE IDENT NO. DRAWING NO.
PROJECT MGT. E.P. LOVENHAR	05/30/08	B	1281-6000
MEG M. FARAHANI	05/30/08		
QA N. SUNDHEIM	05/30/08	1281-6000_R7.DWG	SCALE NTS SHEET 1 OF 1

D

D

C

C

B

B

A

A

4

3

2

1