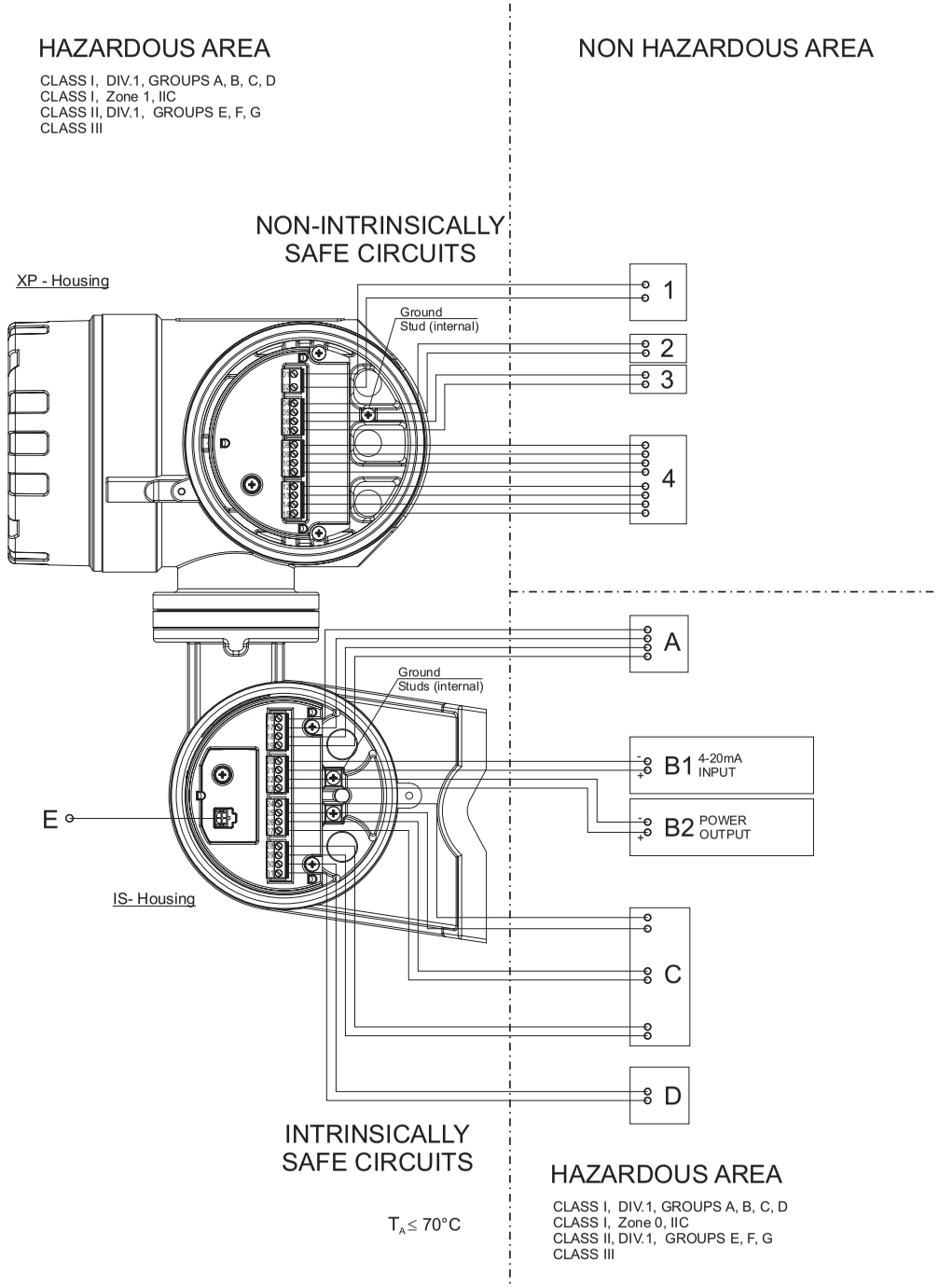
ZD 085F/00/ae/02.04/CCS
FM

52022802

Wiring diagram
960522-1051 B

Tank Side Monitor NRF590
IS 4-20mA Option Module

Endress + Hauser
The Power of Know How



Notes

Intrinsically safe (Entity). Class I. DIV. I, GROUPS A, B, C, D
Hazardous location installations:

1. Control room Equipment may not use or generate over 250V.
2. The maximum permissible values of voltage and current as well as the maximum permissible external capacitance and inductance are shown in the following table.
   ($C_a \geq C_i + C_{cable}$, $L_a \geq L_i + L_{cable}$)

Intrinsic safe circuits:

					Linear Characteristics			Group A/B (IIC)		Group C (IIA/IIB)	
		V_{OC} in V	I_{SC} in mA	P_O in mW	V_{OC} in V	I_{SC} in mA	P_O in mW	C_a in nF	L_a in µH	C_a in nF	L_a in mH
SPOT temp.	A	Refer to NRF 590 WIRING DIAGRAM 960522-1050									
IS Option		IS 4-20 mA Option Module									
4-20 mA INPUT	B1	30.0	53.0	800.0				37.4	150	224	2.0
					7.5	7.0	13.2	1300	5000	6900	5.0
POWER OUTPUT	B2				29.8	95.0	707.3	68.0	62	390	0.5
HART BUS	C	Refer to NRF 590 WIRING DIAGRAM 960522-1050									
RADAR PWR	D	Refer to NRF 590 WIRING DIAGRAM 960522-1050									
SERVICE PORT	E	Refer to NRF 590 WIRING DIAGRAM 960522-1050									

3. Installation should be in accordance with ANSI / ISA RP12.06.01 Installation of intrinsically safe systems for Hazardous (Classified) location's and the National Electrical Code (ANSI/NFPA 70)
4. Warning: substitution of components may impair intrinsic safety.
5. Use supply wires suitable for 5°C above surrounding ambient.
6. The input circuit B1 of the option module may be used in two ways:
   a) with external source (active sensor) connected to B1 (+) and B1 (-): Maximum input values of table apply
   b) loop powered (passive) sensor connected B2 (+) and B1 (+): Entity values of power output B2 as given in the table apply.

NONINCENDIVE, CLASS I, DIV.2, GROUPS A, B, C, D and DIP for CLASS II and III, DIV. I, GROUPS E, F, G HAZARDOUS LOCATION INSTALLATION.

1. Install per National Electrical Code (NEC) using threaded metal conduit. Intrinsic safety barrier not required. Max. supply voltage 30V for input circuit B1.

2. A dust tight seal must be used at the conduit entry when the transmitter is used in a Class II or III location.

3. Warning: Explosion Hazard - Do not disconnect equipment unless power has been switched off or the area is known to be Non-Hazardous. Warning: substitution of components may impair suitability for class I, Division 2.