Remote Controlled HART® SMART™ Two-Wire pH/ORP Transmitter

ESSENTIAL INSTRUCTIONS

Read this page before proceeding!

Your purchase from Rosemount Analytical, Inc. has resulted in one of the finest instruments available for your particular application. These instruments have been designed, and tested to meet many national and international standards. Experience indicates that its performance is directly related to the quality of the installation and knowledge of the user in operating and maintaining the instrument. To ensure their continued operation to the design specifications, personnel should read this manual thoroughly before proceeding with installation, commissioning, operation, and maintenance of this instrument. If this equipment is used in a manner not specified by the manufacturer, the protection provided by it against hazards may be impaired.

- Failure to follow the proper instructions may cause any one of the following situations to occur: Loss of life; personal injury; property damage; damage to this instrument; and warranty invalidation.
- Ensure that you have received the correct model and options from your purchase order. Verify that this manual covers your model and options. If not, call 1-800-854-8257 or 949-757-8500 to request correct manual.
- For clarification of instructions, contact your Rosemount representative.
- Follow all warnings, cautions, and instructions marked on and supplied with the product.
- Use only qualified personnel to install, operate, update, program and maintain the product.
- Educate your personnel in the proper installation, operation, and maintenance of the product.
- Install equipment as specified in the Installation section of this manual. Follow appropriate local and national codes. Only connect the product to electrical and pressure sources specified in this manual.
- Use only factory documented components for repair. Tampering or unauthorized substitution of parts and procedures can affect the performance and cause unsafe operation of your process.
- All equipment doors must be closed and protective covers must be in place unless qualified personnel are performing maintenance.
- If this equipment is used in a manner not specified by the manufacturer, the protection provided by it against hazards may be impaired.

CAUTION

If a 475 Universal Hart® Communicator is used with these transmitters, the software within the Model 475 may require modification.

If a software modification is required, please contact your local Emerson Process Management Service Group or National Response Center at 1-800-654-7768.

SPECIAL CONDITION FOR INTRINSICALLY SAFE USE

The 5081 enclosure is made of aluminum alloy and given a protective polyurethane finish; however, care must be taken to protect it from impact, abrasion or friction with other metal surfaces if located in zone 0.

ROSEMOUNT® Analytical

EMERSON™ Process Management

Specifications

GENERAL SPECIFICATIONS

Housing: Cast aluminum with epoxy coating. Type 4X (IP65). Neoprene O-ring cover seals.

Dimensions: 6.3 in. x 6.9 in. x 6.4 in. (160 mm x 175 mm x 161 mm); diameter 6.1 in (155 mm) [see drawing on page 6]

Conduit Openings: 3/4 in. FNPT

Reference Impedance: Transmitter accepts high impedance (i.e. glass) reference electrodes as well as low impedance (i.e. silver-silver chloride) reference electrodes.

Output: Two-wire 4-20 mA output with superimposed HART digital signal.

Output can be programmed to go to any value between 3.8 and 22.0 mA to indicate a fault or hold condition.

Response Time: Display reaches 95% of final reading within 10 seconds.

Temperature Sensors: The following RTDs can be used with the 5081-P pH/ORP transmitter:

3 and 4 wire Pt 100 RTDs

3 and 4 wire Pt 1000 RTDs

Transmitter can also be used with two-wire RTDs.

Temperature Range: 5°F to 248°F (-15°C to 130°C)

Local Display: Two line LCD; first line shows process variable (pH or ORP), second line shows temperature and output signal. When triggered, fault and warning messages alternate with temperature and output readings.

Process variable: 7 segment LCD, 0.8 in. (20 mm) high

Temperature/output: 7 segment LCD, 0.3 in. (7 mm) high

Display board can be rotated 90 degrees clockwise or counterclockwise.

During calibration and programming, messages and prompts appear in the temperature/output area.

Power Supply and Load Requirements: See graph below. A minimum loop resistance of 250 W and a minimum power supply voltage of 18 Vdc is required for HART communication. Maximum power supply voltage for intrinsically safe and explosion-proof operation is 42.4 Vdc.

Security: User selected security code prevents accidental changes to program settings.

Ambient Temperature: -4 to 149°F (-20 to 65°C)

Relative Humidity: 0 to 95% (with covers sealed)

Storage Temperature: -22 to 176°F (-30 to 80°C)

EMI/RFI: Meets the requirements of EN-61326 CE

HAZARDOUS AREA CLASSIFICATION:

mCERTS Sira MC070112/00

Intrinsic Safety:

FM APPROVED
Class I, II, III, Div. 1
Groups A-G
T4 Tamb = 70°C

Exia Entity
Class I, Groups A-D
Class II, Groups E-G
Class III
T4 Tamb = 70°C

IECEx BAS 09.0159X
Ex ia IIC T4 Ga

ATEX
CE 0600 II 1 G
Baseefa03ATEX0099
EEx ia IIC T4
Tamb = -20°C to +65°C

Non-Incendive:

FM APPROVED
Class I, Div. 2, Groups A-D
Dust Ignition Proof
Class II & III, Div. 1, Groups E-G
Type 4X Enclosure

Class I, Div. 2, Groups A-D
Suitable for Class II, Div. 2, Groups E-G
T4 Tamb = 70°C

Explosion-Proof:

FM APPROVED
Class I, Div. 1, Groups B-D
Class II, Div. 1, Groups E-G
Class III, Div. 1

Class I, Groups B-D
Class II, Groups E-G
Class III
Tamb = 65°C max

SPECIFICATIONS - PH

pH Input Range: 0 to 14 pH

Temperature Input Range: 5°F to 266°F (-15°C to 130°C)

Output Scale Expansion: Continuously expandable between pH 0 and 14

Accuracy at 25°C: ±0.01 pH

Repeatability at 25°C: ±0.01 pH

Resolution: 0.01 pH and 0.1°C or °F

Stability at 25°C: 0.25% per year

Temperature Compensation: Automatic or manual between 5°F to 266°F (-15°C to 130°C)

Solution Temperature Compensation: Transmitter will convert pH measured at any temperature to the pH at 25°C. Temperature coefficient is programmable between -0.044 pH/°C and 0.028 pH/°C

Calibration: Automatic two-point and manual two-point buffer calibration. For automatic calibration, the transmitter recognizes NIST, DIN 19266 and 19267, JIS 8802, BSM, Merck, and Ingold buffers.

SPECIFICATIONS - ORP

ORP Input Range: -1400 to 1400 mV

Temperature Input Range: 5°F to 266°F (-15°C to 130°C)

Output Scale Expansion: Continuously expandable between -1400 and 1400 mV

Accuracy at 25°C: ±1 mV

Repeatability at 25°C: ±1 mV

Resolution: 1 mV and 0.1°C or °F

Stability at 25°C: 0.25% per year

Wiring

Wire sensor per Figure 1. Refer to the sensor instruction manual for more details.

If your sensor has an integral preamplifier or you are using a remote preamplifier, you will need to change the preamplifier location in the program menu. Please see Figure 14. Select "trAnS" for integral preamplifier or "SnSr" for J-box or sensor preamplifier.

WIRING THROUGH A JUNCTION BOX WITH REMOTE PREAMPLIFIER

Wire sensor as shown in Figure 5. Refer to the sensor instruction manual for more details.

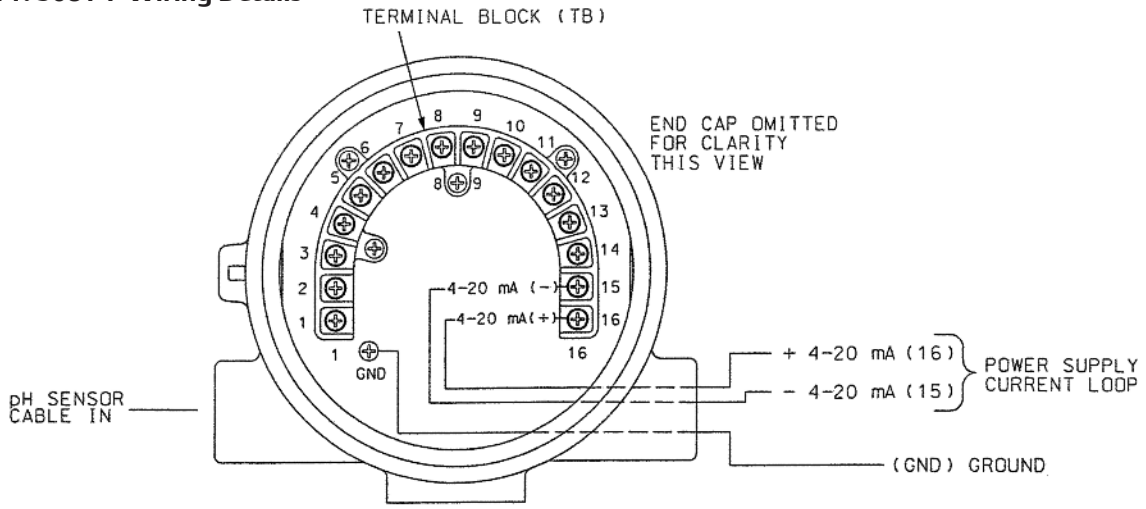
WIRING THROUGH A JUNCTION BOX

Sensors with integral preamplifiers can be wired to the analyzer through a remote junction box (PN 23550-00). Wire the extension cable and sensor cable point-to-point. Refer to the sensor instruction manual for more details.

POWER WIRING

For general purpose areas, wire power as shown in Figure 1. For hazardous areas, please see hazardous area installation drawings.

FIGURE 1. 5081-P Wiring Details



TB-1	EARTH GROUND-OUTER DRAIN	
-2	SHIELD INNER DRAIN	
-3	RTD RTN WHITE	
4	- RTD SN WHITE/RED	
-5	RTD IN RED	
-6	REF GROUND WHITE/GRAY	
-7	REF IN GRAY	
-8	SOL GROUND BLUE	pH/ORP SENSOR
-9	pH/ORP GUARD WHITE/BLACK	
-10	pH/ORP IN BLACK	
-11	- 5V BROWN	
-12	+ 5V GREEN	
-13	+ RTL SN	
-14		
-15	- 4-20mA	POWER SUPPLY
TB-16	+ 4-20mA	

⚠1

NOTE: REF wire covered with sleeving. To prevent depletion of KCL if other wires touched, remove sleeving before wiring to TB-7.

FIGURE 2. Exploded View of 5081-P

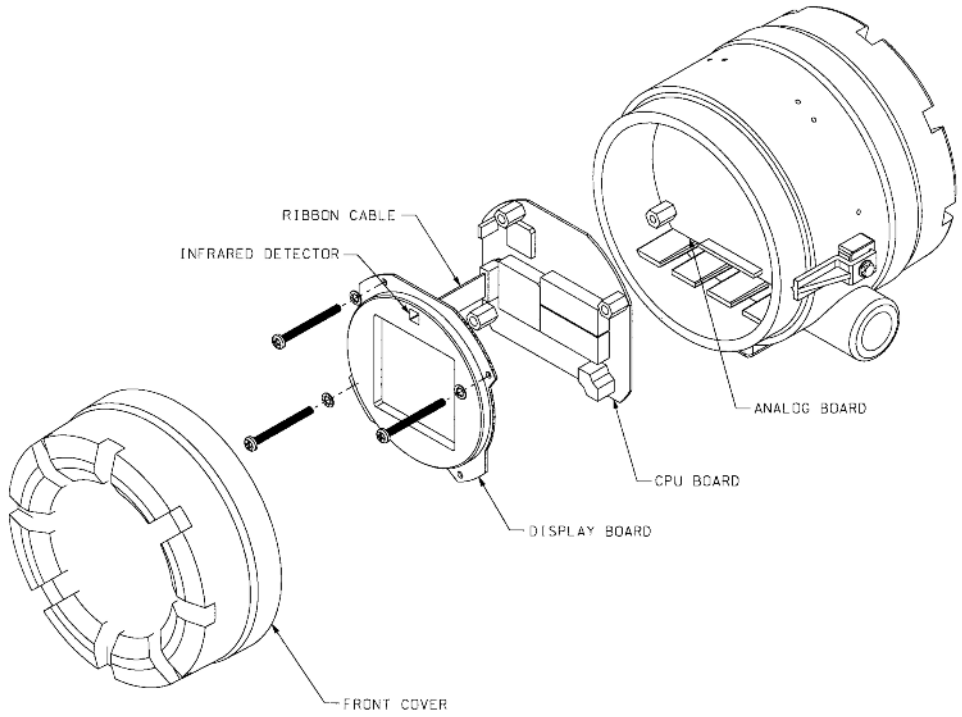
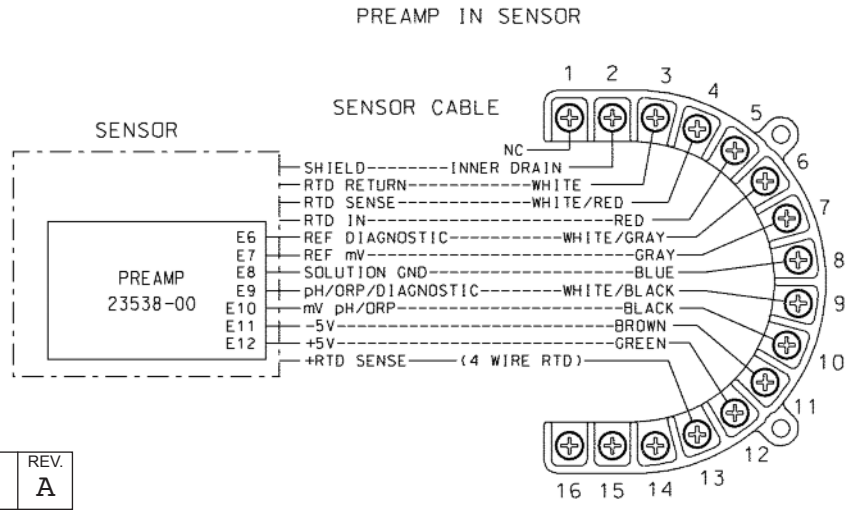


FIGURE 3. Wiring diagram — sensor with preamplifier



DWG. NO.	REV.
45081P30	A

FIGURE 4. Wiring diagram – sensor 381+ with preamplifier

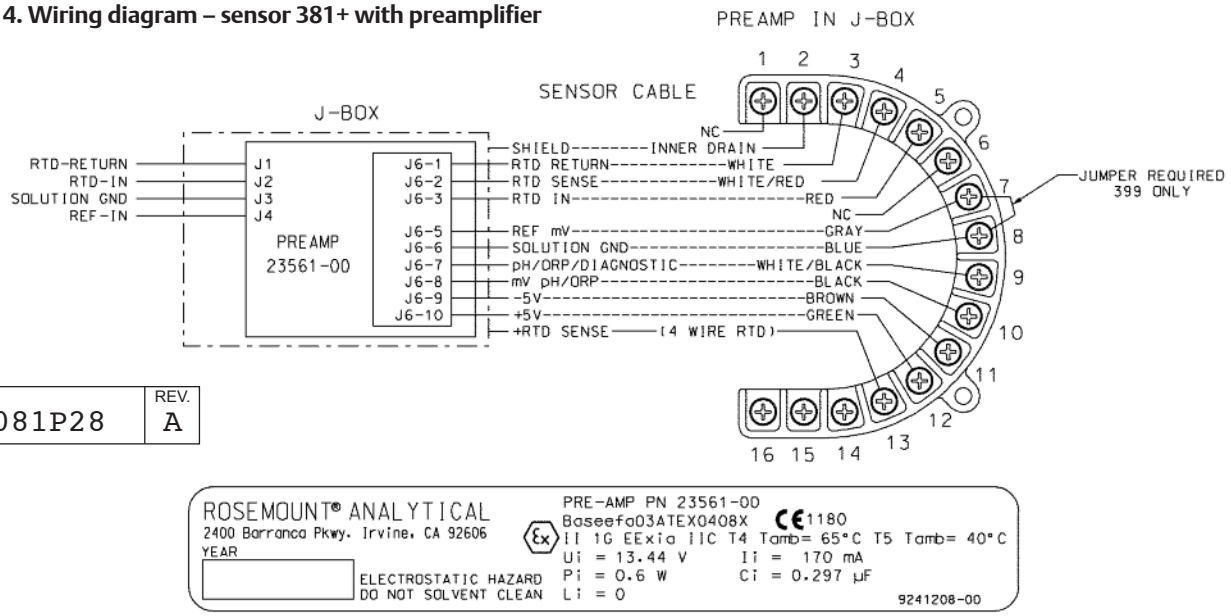
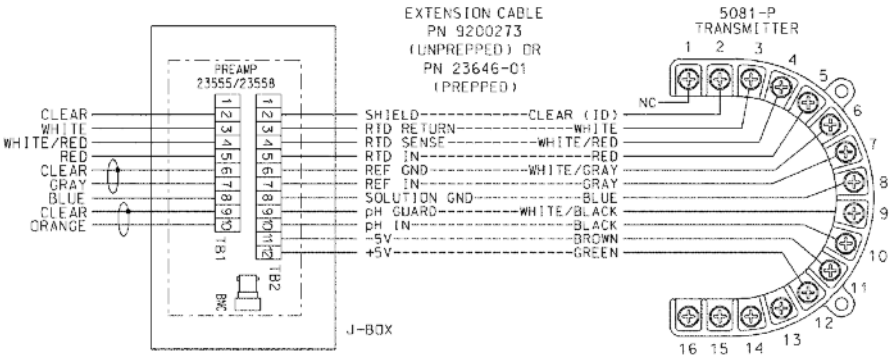
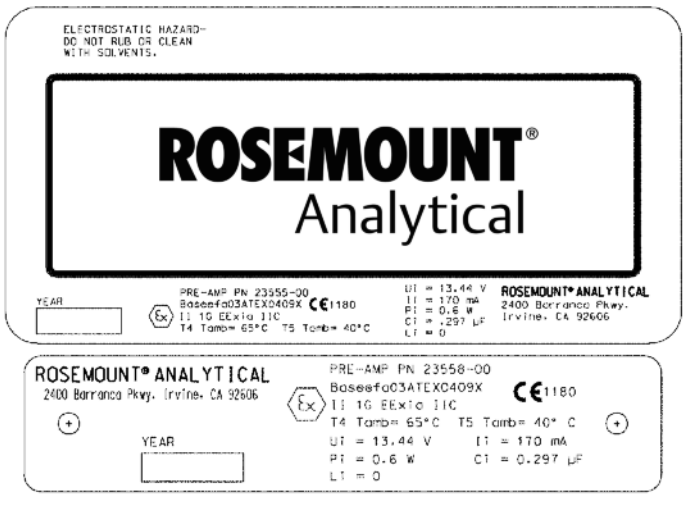


FIGURE 5. Wiring Through a Junction Box with Remote Preamplifier





DWG. NO. 45081P29 | REV. A

WIRING THROUGH A JUNCTION BOX WITH REMOTE PREAMPLIFIER

Wire sensor as shown in Figure 5. Refer to the sensor instruction manual for more details.

Installation

UNPACKING AND INSPECTION

Inspect the shipping container. If it is damaged, contact the shipper immediately for instructions. Save the box. If there is no apparent damage, unpack the container. Be sure all items shown on the packing list are present. If items are missing, notify Rosemount Analytical immediately.

ROTATING THE DISPLAY

The 5081-P display can be rotated 90° left or right. Disengage the cover lock and remove the front cover. Remove the three screws holding the PCB stack and gently lift the display board. Do not disengage the ribbon cable between the display board and the CPU board. Rotate the display. The black infrared sensor will be at the top of the display.

INSTALLATION See Figure 6.

1. Although the analyzer is suitable for outdoor use, do not install it in direct sunlight or in areas of extreme temperatures.
2. Install the analyzer in an area where vibrations and electromagnetic and radio frequency interference are minimized or absent.
3. Keep the analyzer and sensor wiring at least one foot from high voltage conductors. Be sure there is easy access to the analyzer.
4. The conduit connections on the sides of the 5081-P housing should be sealed to prevent moisture from entering the enclosure.
5. The transmitter must not be mounted with both conduit openings at the top.

FIGURE 6. Mounting 5081-P

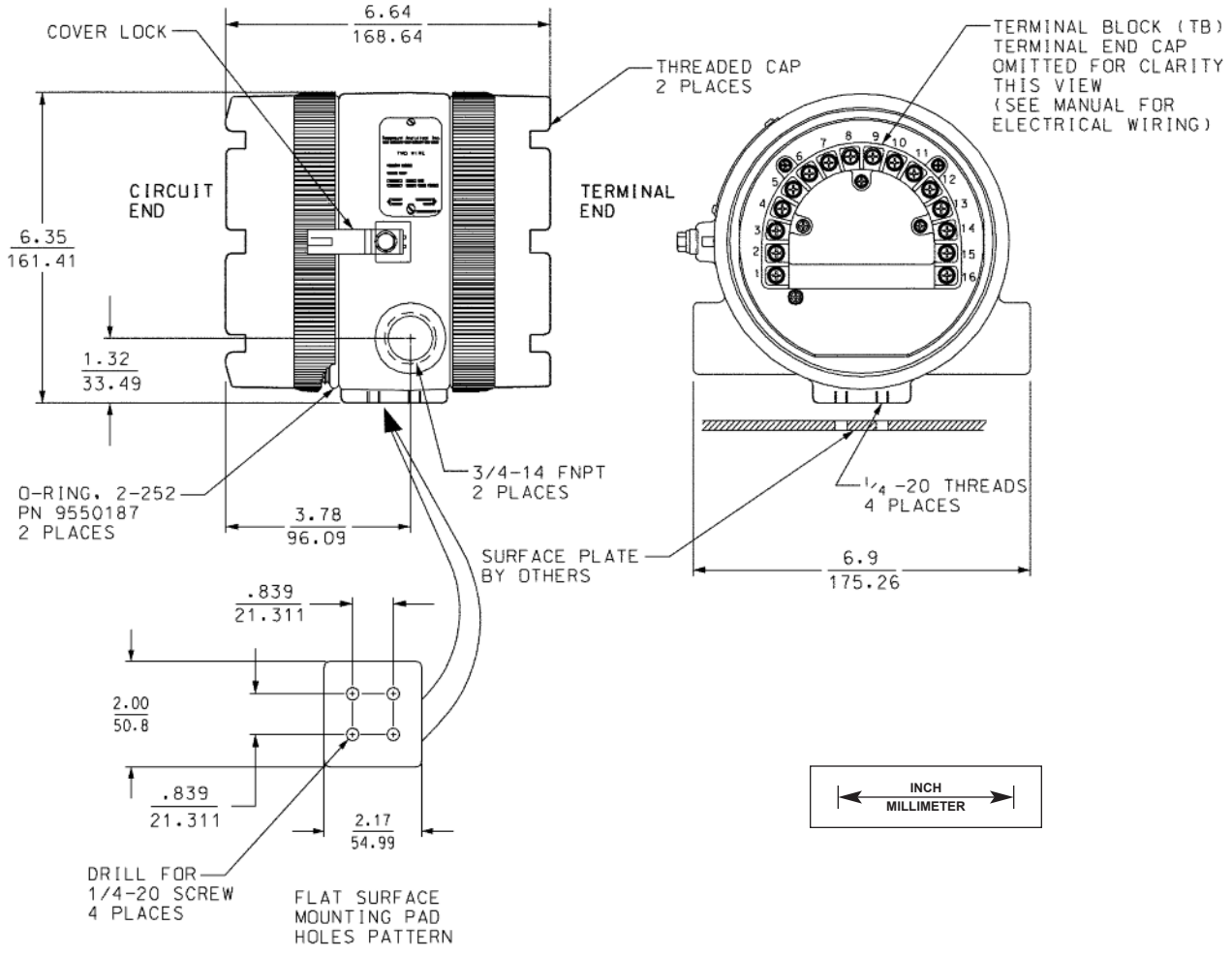


FIGURE 7. FMRC Explosion-Proof Installation

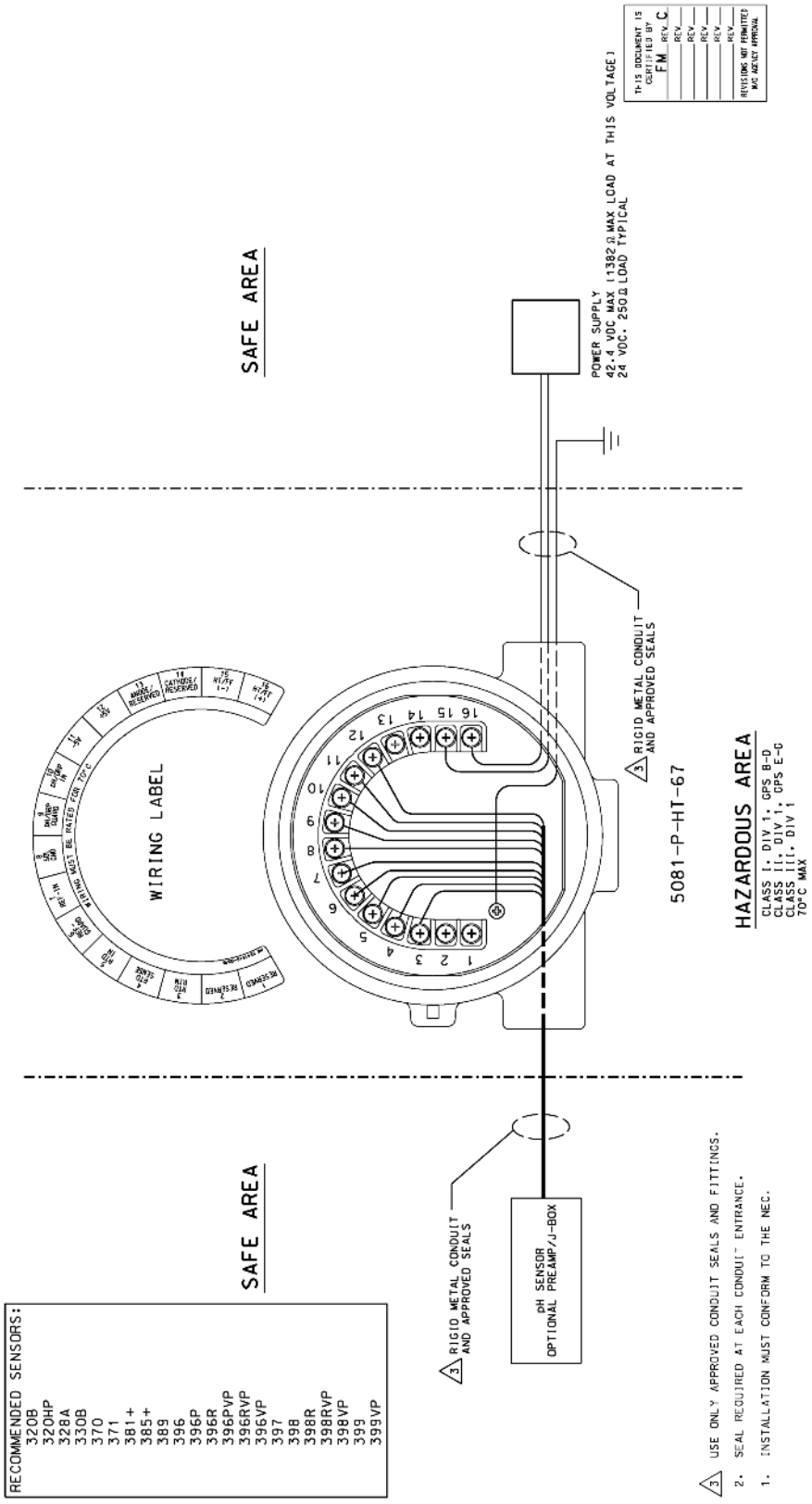
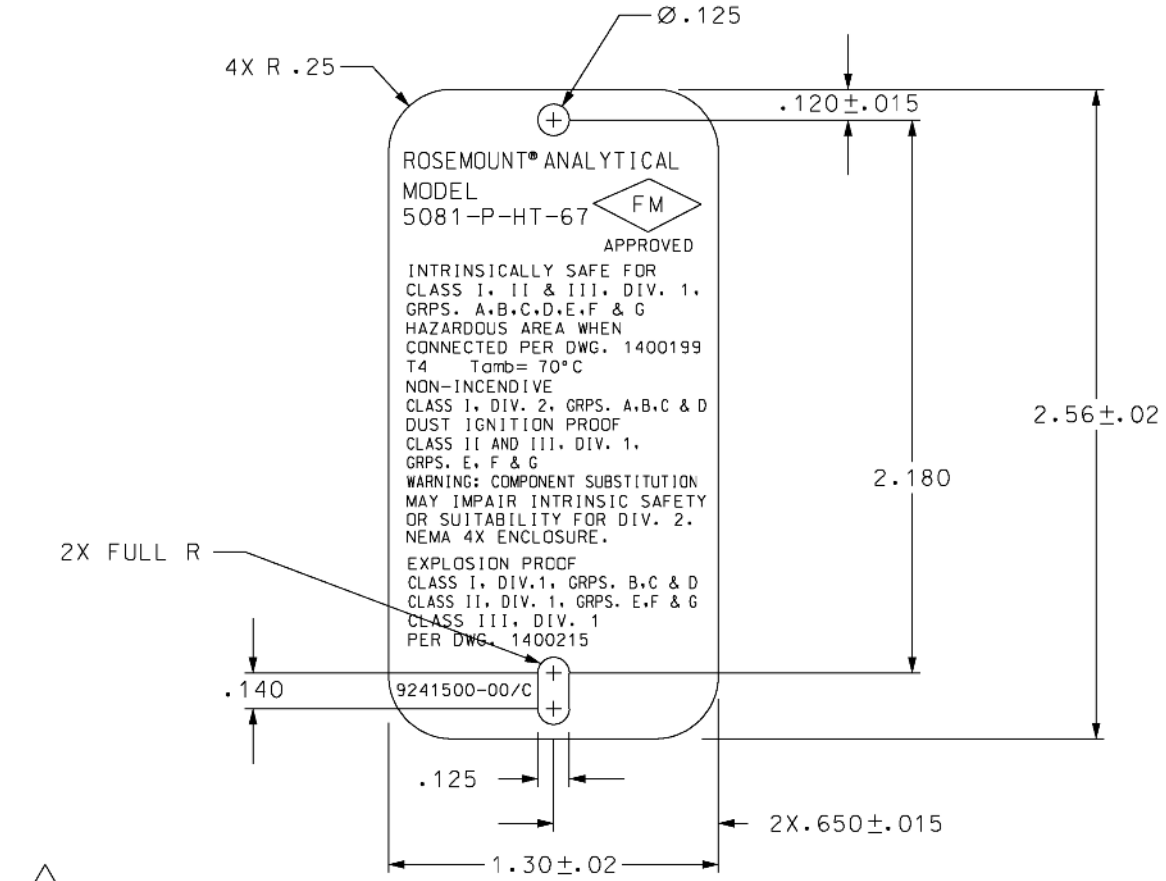


Figure 8. FM Intrinsically Safe Installation Label



4 FINISH:SILKSCREEN BLACK EPOXY PAINT (BAKED).

3. ARTWORK IS SHEET 2 OF 2.

2. NO CHANGE WITHOUT FM APPROVAL.

1 MATERIAL: AISI 300 SERIES STAINLESS STEEL .015+/-.005 THICK. MATERIAL TO BE ANNEALED & PASSIVATED. MAXIMUM HARDNESS BRINELL 190.

Figure 9. FM Intrinsically Safe Installation (1 of 2)

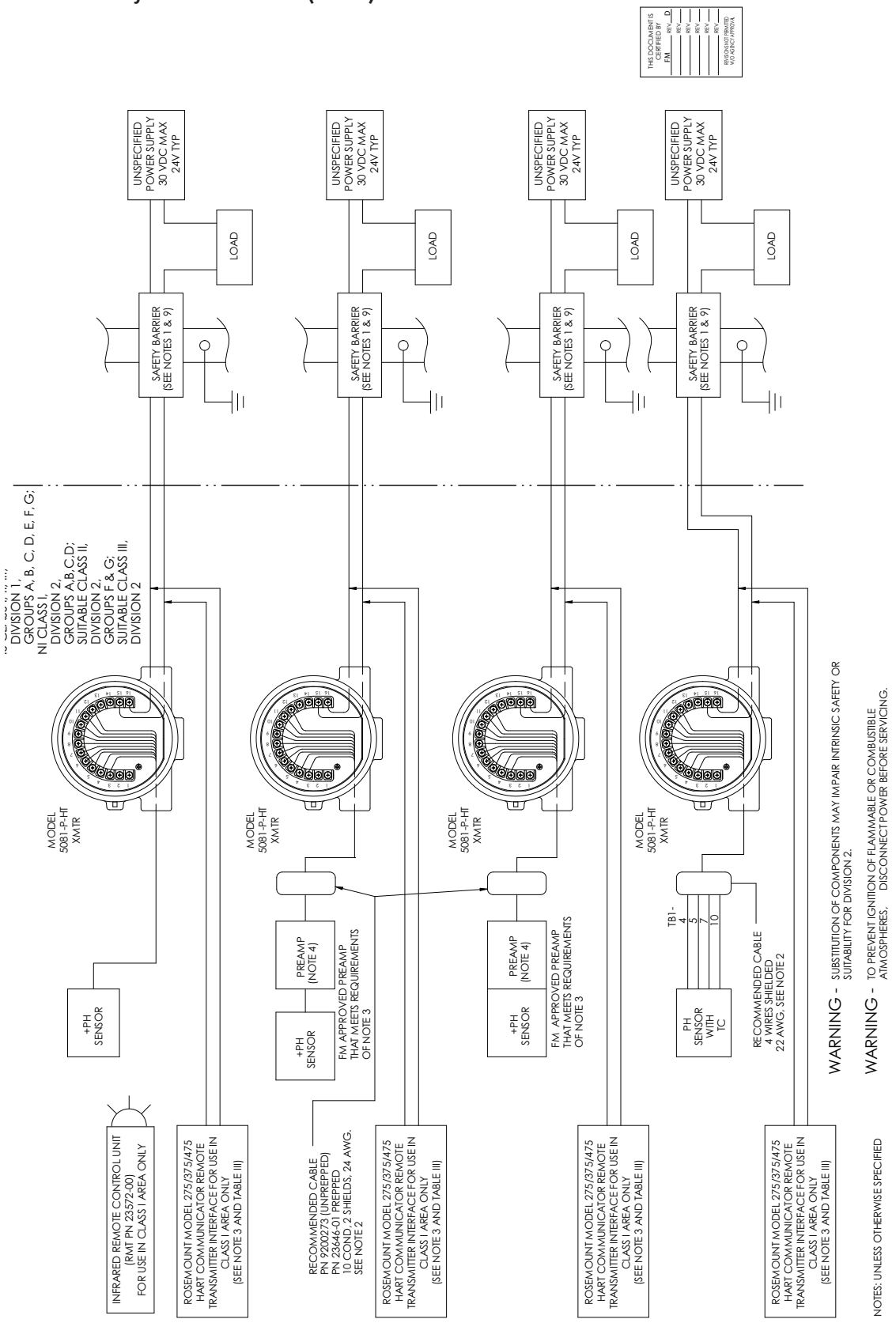


FIGURE 10. FM Intrinsically Safe Installation (2of 2)

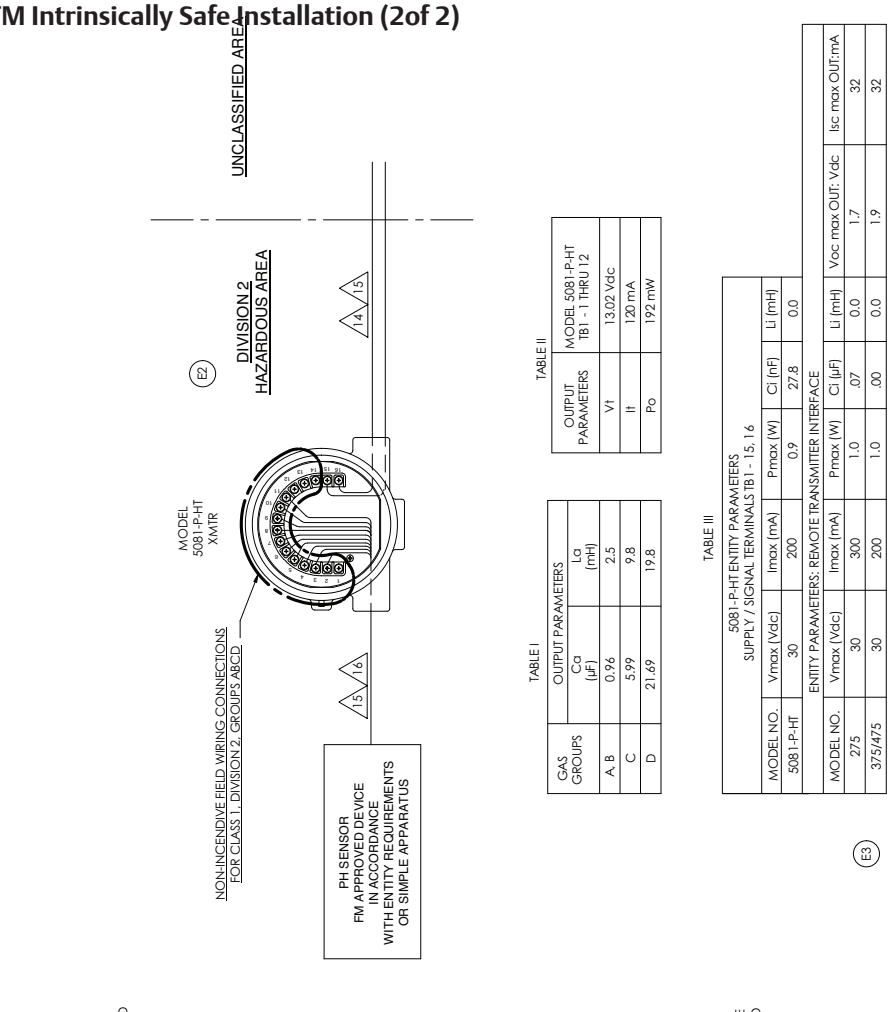


TABLE I

GAS GROUPS	OUTPUT PARAMETERS	
	Ca (µF)	La (mH)
A, B	0.96	2.5
C	5.99	9.8
D	21.69	19.8

TABLE II

OUTPUT PARAMETERS	MODEL 5081-P-HT TB1 - 1 THRU 12
Vt	13.02 Vdc
It	120 mA
Po	192 mW

TABLE III

5081-P-HT ENTITY PARAMETERS SUPPLY / SIGNAL TERMINALS TB1 - 15, 16					
MODEL NO.	Vmax (Vdc)	Imax (mA)	Pmax (W)	Ci (nF)	Li (mH)
5081-P-HT	30	200	0.9	27.8	0.0

ENTITY PARAMETERS: REMOTE TRANSMITTER INTERFACE							
MODEL NO.	Vmax (Vdc)	Imax (mA)	Pmax (W)	Ci (µF)	Li (mH)	Voc max OUT: Vdc	Isc max OUT: mA
275	30	300	1.0	.07	0.0	1.7	32
375/475	30	200	1.0	.00	0.0	1.9	32

16 NON-INCENDIVE FIELD WIRING METHODS MAY BE USED FOR CONNECTING SENSORS TO THE INSTRUMENT. ATTACHED SENSORS MUST BE FM APPROVED AS NON-INCENDIVE FOR CLASS 1, DIVISION 2, GROUPS ABCD WITH INPUT VALUES OF Vmax AND Imax ≥ Voc (Vt) AND Isc (It) LISTED IN TABLE II AND THE Ci AND Li OF THE SENSOR AND INTERCONNECTED WIRING MUST BE ≤ Ca AND La LISTED IN TABLE 1 OR BE CLASSIFIED AS "SIMPLE APPARATUS". SIMPLE APPARATUS ARE DEVICES WHICH ARE INCAPABLE OF GENERATING OR STORING MORE THAN 1.2 V, 0.1 A, 25 mW OR 20 µJ (pH SENSORS WITHOUT PREAMPS QUALIFY AS SIMPLE APPARATUS).

15 INSTALATION TO BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.

14 DIVISION 2 WIRING METHOD PER THE NEC (EXCLUDING NONINCENDIVE FIELD WIRING).

13. NO REVISION TO DRAWING WITHOUT PRIOR FM APPROVAL.
12. THE ASSOCIATED APPARATUS MUST BE FM APPROVED.
11. CONTROL EQUIPMENT CONNECTED TO ASSOCIATED APPARATUS MUST NOT USE OR GENERATE MORE THAN 250 Vrms OR Vdc.
10. ASSOCIATED APPARATUS MANUFACTURER'S INSTALLATION DRAWING MUST BE FOLLOWED WHEN INSTALLING THIS EQUIPMENT.
9. THE ENTITY CONCEPT ALLOWS INTERCONNECTION OF INTRINSICALLY SAFE APPARATUS WITH ASSOCIATED APPARATUS WHEN THE FOLLOWING IS TRUE:

FIELD DEVICE INPUT		ASSOCIATED APPARATUS OUTPUT
Vmax OR Ui	≥	Voc, Vt OR Uo
Imax OR Ii	≥	Isc, It OR Io
Pmax OR Pi	≥	Po
Ci+ Ccable	≤	Ca, C1 OR Co
Li+ Lcable.	≤	La, Lt OR Lo

8. RESISTANCE BETWEEN INTRINSICALLY SAFE GROUND AND EARTH GROUND MUST BE LESS THAN 1.0 Ohm.
7. DUST-TIGHT CONDUIT SEAL MUST BE USED WHEN INSTALLED IN CLASS II AND CLASS III ENVIRONMENTS.
6. SENSORS WITHOUT PREAMPS SHALL MEET THE REQUIREMENTS OF SIMPLE APPARATUS AS DEFINED IN ANSI/ISA RP 12.6 AND THE NEC, ANSI/NFPA 70. THEY CAN NOT GENERATE NOR STORE MORE THAN 1.2V, 0.1A, 25mW, AND 20µJ. SEE TABLES I AND II.
5. INSTALLATION SHOULD BE IN ACCORDANCE WITH ANSI/ISA RP12.06.01 "INSTALLATION OF INTRINSICALLY SAFE SYSTEMS FOR HAZARDOUS (CLASSIFIED) LOCATIONS" AND THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70).
4. PREAMPLIFIER TYPE 23546-00, 23538-00 OR 23561-00 MAY BE UTILIZED INSTEAD OF THE MODEL 5081-P-HT TRANSMITTER INTEGRAL PREAMPLIFIER CIRCUITRY. A WEATHER RESISTANT ENCLOSURE MUST HOUSE THE TYPE 23546-00 REMOTE PREAMPLIFIER.
3. INTRINSICALLY SAFE APPARATUS (MODEL 5081-P-HT, IRC TRANSMITTER AND MODEL 275/375/475) AND ASSOCIATED APPARATUS (SAFETY BARRIER) SHALL MEET THE FOLLOWING REQUIREMENTS: THE VOLTAGE (Vmax) AND CURRENT (Imax) OF THE INTRINSICALLY SAFE APPARATUS MUST BE EQUAL TO OR GREATER THAN THE VOLTAGE (Voc OR Vt) AND CURRENT (Isc OR It) WHICH CAN BE DELIVERED BY THE ASSOCIATED APPARATUS (SAFETY BARRIER). IN ADDITION, THE MAXIMUM UNPROTECTED CAPACITANCE (Ci) AND INDUCTANCE (Li) OF THE INTRINSICALLY SAFE APPARATUS, INCLUDING INTERCONNECTING WIRING, MUST BE EQUAL OR LESS THAN THE CAPACITANCE (Ca) AND INDUCTANCE (La) WHICH CAN BE SAFELY CONNECTED TO THE APPARATUS. (REF: TABLE I, II AND III).
2. THE MODEL 5081-P-HT TRANSMITTER INCLUDES INTEGRAL PREAMPLIFIER CIRCUITRY. AN EXTERNAL PREAMPLIFIER MAY BE ALSO USED. THE OUTPUT PARAMETERS SPECIFIED IN TABLE II ARE VALID FOR EITHER PREAMPLIFIER. THE CAPACITANCE AND INDUCTANCE OF THE LOAD CONNECTED TO THE SENSOR TERMINALS MUST NOT EXCEED THE VALUES SPECIFIED IN TABLE I WHERE Ca ≥ Ci (SENSOR) + Ccable
La ≥ Li (SENSOR) + Lcable.
1. ANY SHUNT ZENER DIODE SAFETY BARRIER APPROVED BY FM HAVING THE FOLLOWING OUTPUT PARAMETERS: SUPPLY/SIGNAL TERMINALS TB1 -15, 16
Voc OR Vt NOT GREATER THAN 30 V
Isc OR It NOT GREATER THAN 200 mA
Pmax NOT GREATER THAN 0.9 W

E1

Figure 11. CSA Intrinsically Safe Installation Label

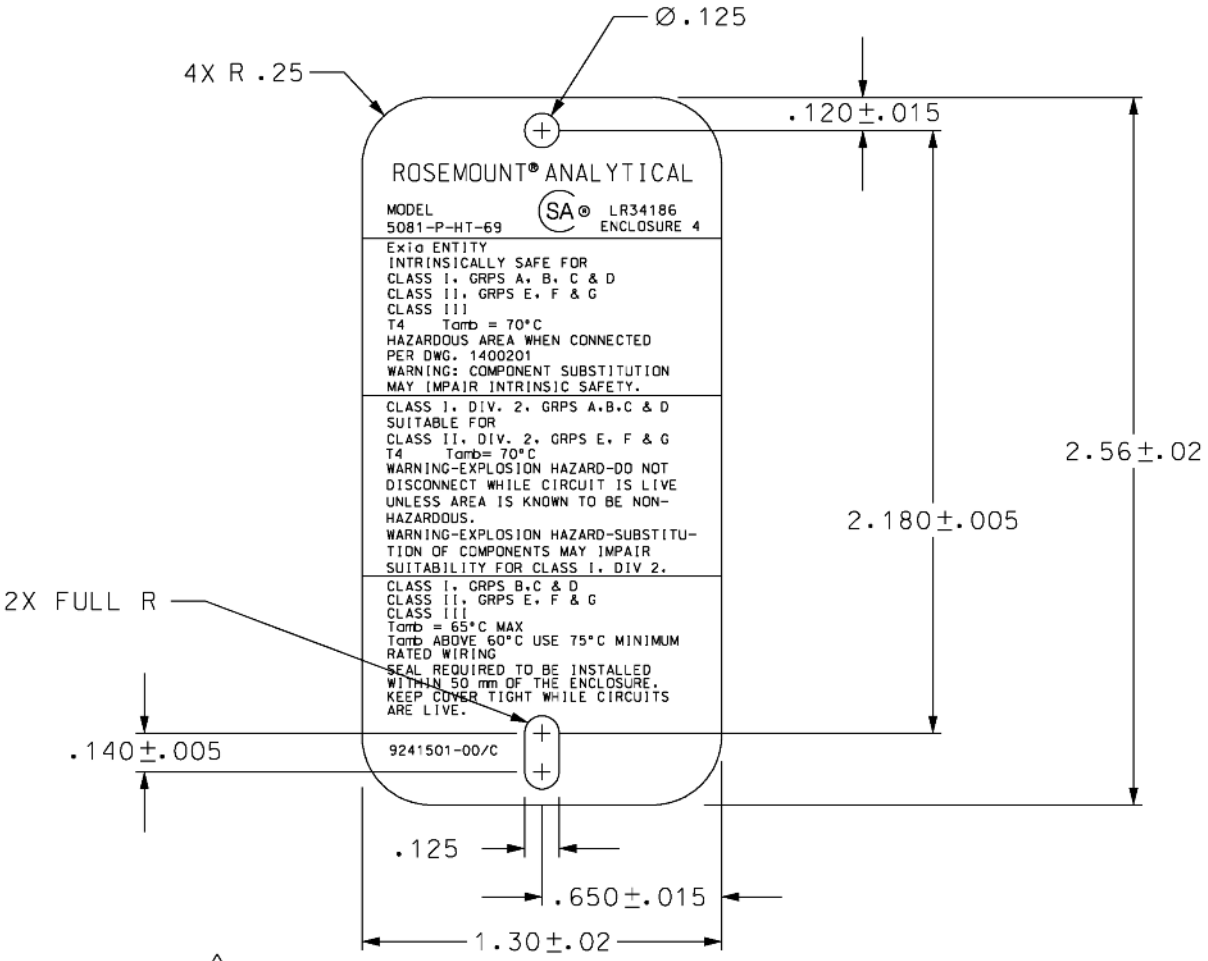


Figure 12. CSA Intrinsically Safe Installation (1 of 2)

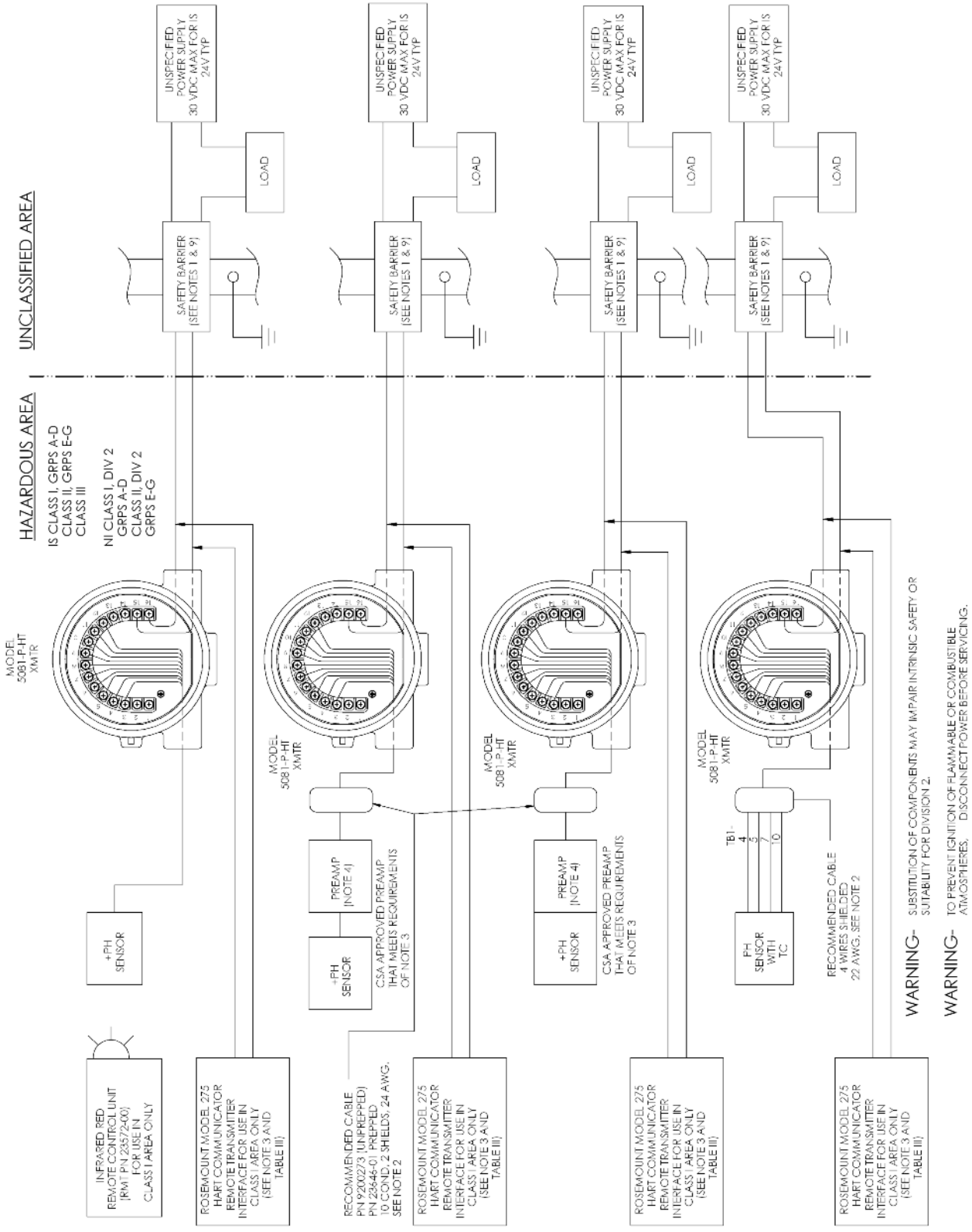


Figure 13. CSA Intrinsically Safe Installation (2 of 2)

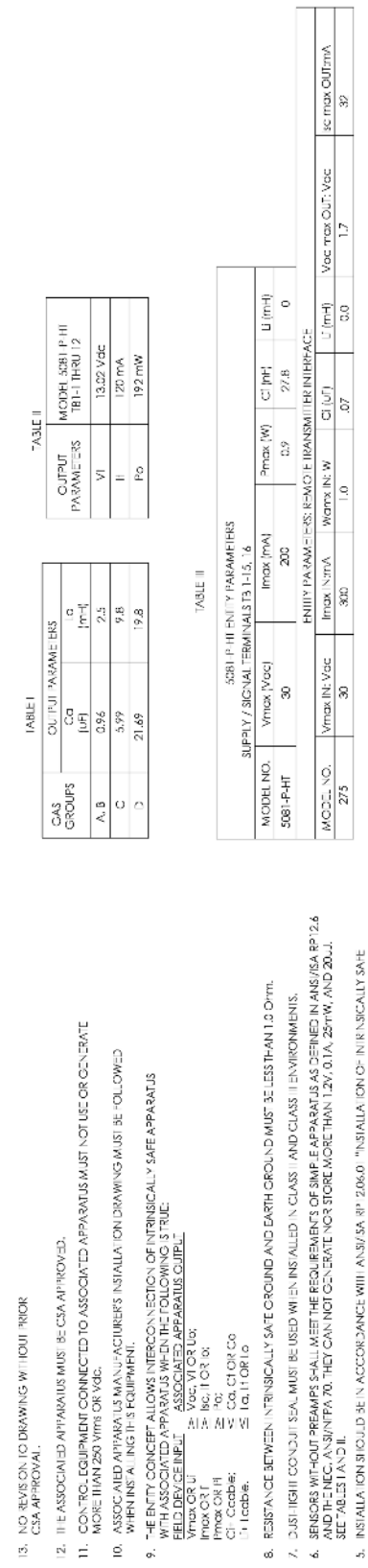
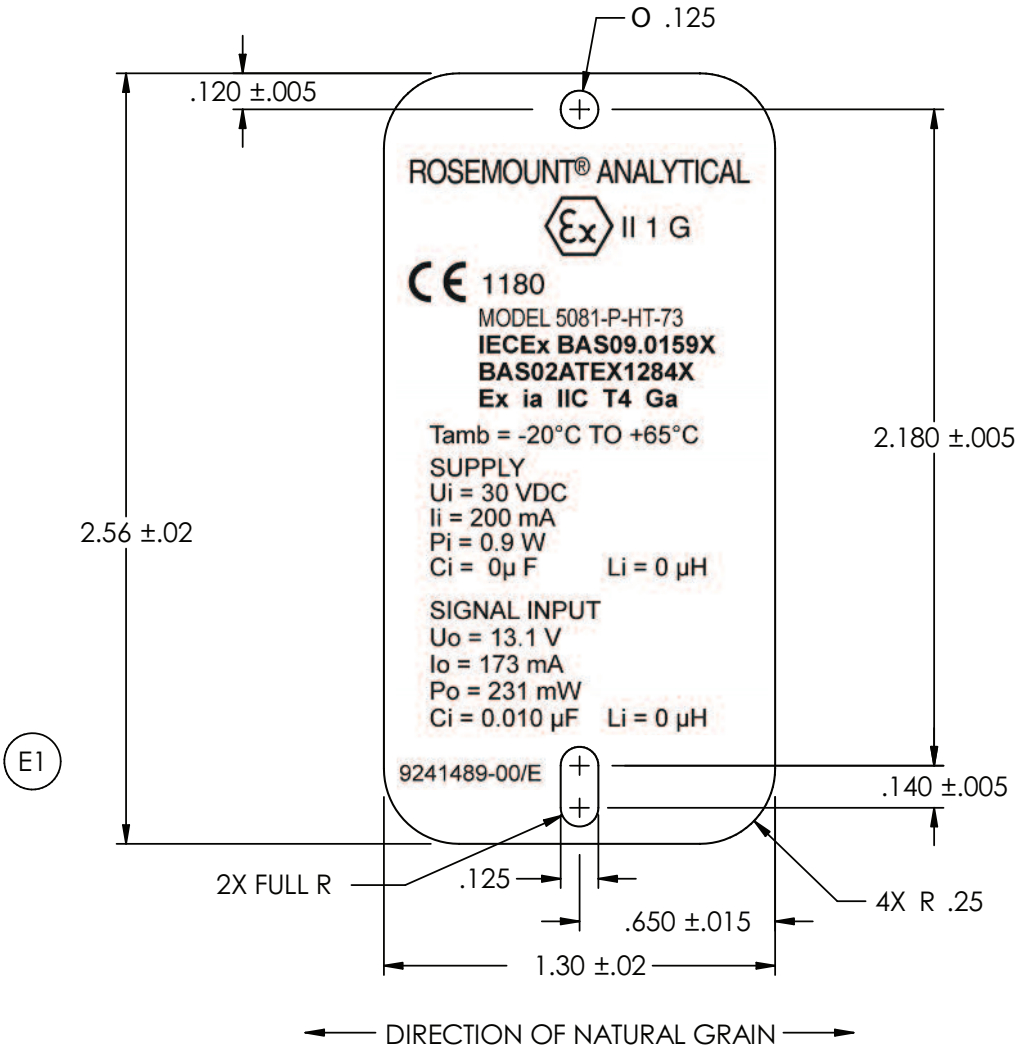


Figure 14. ATEX Intrinsically Safe Installation Label



4 FINISH: SILKSCREEN BLACK EPOXY PAINT (BAKED).

3. ARTWORK IS SUPPLIED BY ROSEMOUNT ANALYTICAL.

2. NO CHANGE WITHOUT BASEEFA APPROVAL.

1 MATERIAL: AISI 300 SERIES STAINLESS STEEL .015 ± .005 THICK. MATERIAL TO BE ANNEALED & PASSIVATED. MAXIMUM HARDNESS BRINELL 190.

NOTES: UNLESS OTHERWISE SPECIFIED

E2

INFRARED REMOTE CONTROLLER (IRC) – KEY FUNCTIONS

The infrared remote controller is used to calibrate and program the transmitter and to display diagnostic messages. See figure below for a description of the function of the keys.

Hold the IRC within 6 feet of the transmitter, and not more than 15 degrees from the center of the display window.

FIGURE 15. Infrared remote controller

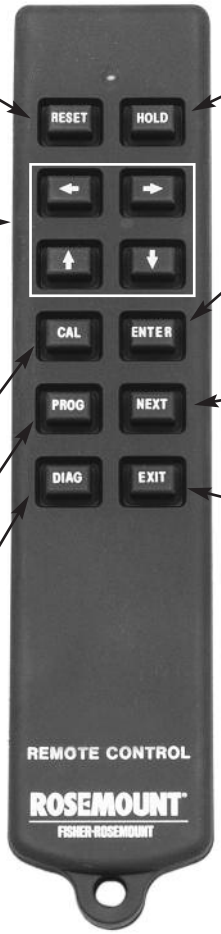
RESET - Press RESET to end the current operation and return to the main display. Changes will NOT be saved. **RESET does NOT return the transmitter to factory default settings.**

ARROW KEYS - Use ❸ and ❺ keys to increase or decrease a number or to scroll through items in a list. Use the ❷ or ❹ keys to move the cursor across a number. A flashing word or numeral shows the position of the cursor.

CAL - Press CAL to access the calibration menu.

PROG - Press PROG to access the program menu.

DIAG - Press DIAG to read diagnostic messages.



HOLD - Press HOLD to access the prompts used for turning on or off the hold function.

ENTER - Press ENTER to move from a submenu to the first prompt under the submenu. Pressing ENTER also stores changes in memory and advances to the next prompt.

NEXT - Press NEXT to advance to the next submenu or to leave a message screen.

EXIT - Press EXIT to end the current operation. Changes are NOT saved.

IRC – INFRARED REMOTE CONTROL

PN 24479-00

IS/I/1/ABCD T4 APPROVED
CLASS I ZONE 0 AEx ia IIC T4
-20°C ≤ Ta ≤ +50°C

IECEx BAS 13.0108
Baseefa02ATEX0198
II 1G Ex ia IIC T4 Ga
-20°C ≤ Ta ≤ +50°C
CE 1180

LR34186
Ex ia IIC T4
CLASS I ZONE 0 AEx ia IIC T4
INTRINSICALLY SAFE
SÉCURITÉ INTRINSÈQUE
CLASS I DIVISION 1
GROUPS A,B,C,D T4
-20°C ≤ Ta ≤ +50°C

WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY. TO PREVEVENT IGNITION, ONLY CHANGE BATTERIES IN NONHAZARDOUS AREA.

AVERTISSEMENT: LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SÈCURITÈ INTRINSÈQUE. POUR PREVENIR L'INFLAMMATION D'ATMOSPHERE, NE CHANGER LES BATTERIES QUE DANS DES EMPLACEMENTS DESIGNES NON DANGEREUX.

USE ONLY ENERGIZER E92/EN92 OR DURACELL MN2400/PC2400
(2) 1.5V AAA BATTERIES.

START-UP CONFIGURATION AND CALIBRATION — PH

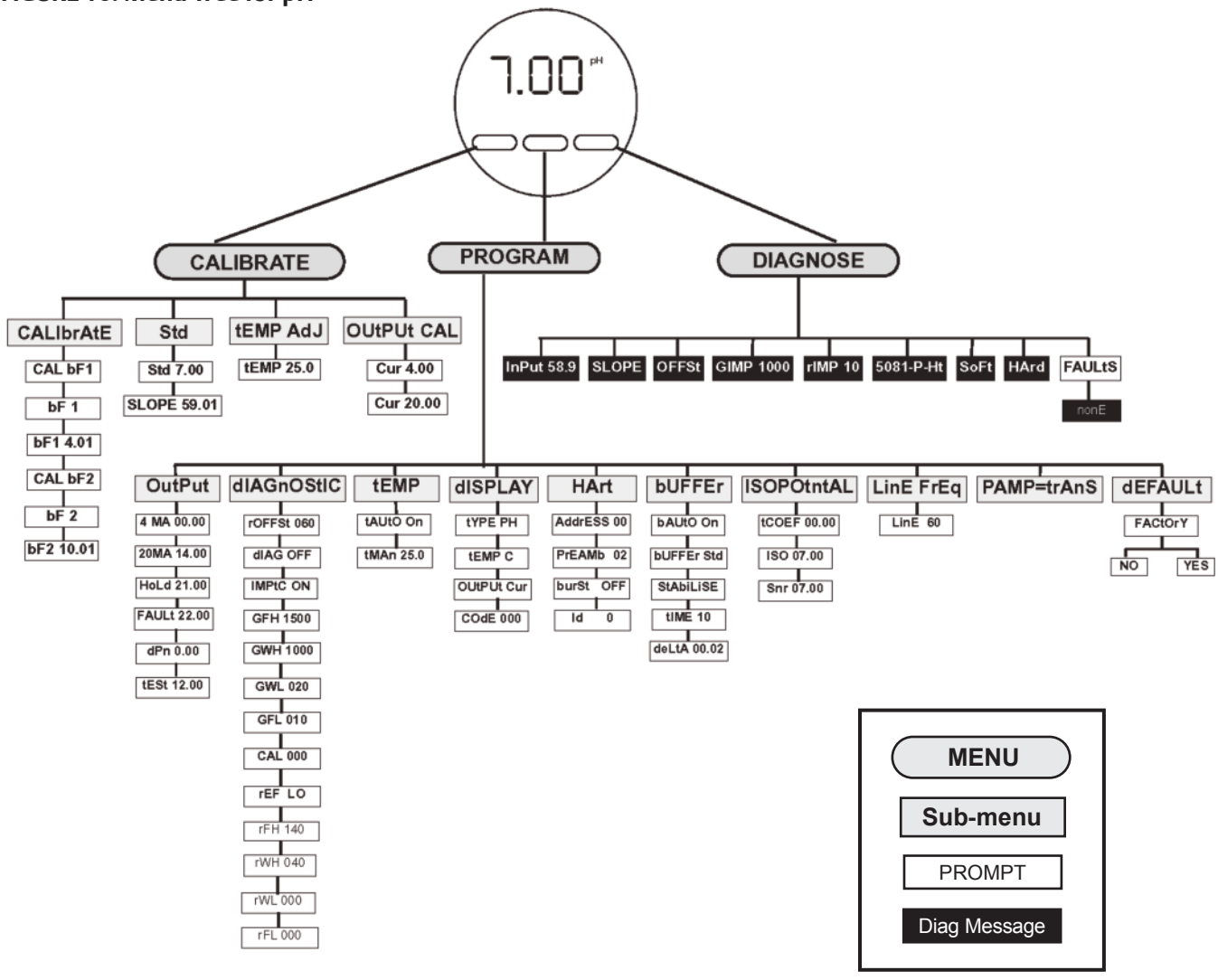
The 20 mA output is factory set to 0-14 pH. To change it, follow these steps:

1. Press PROG, ENTER.
2. Use the arrow buttons to enter the 4 mA value. Press ENTER.
3. Use the arrow buttons to enter the 20 mA value. Press ENTER.
4. Press RESET.

To perform a two-point buffer calibration, follow these steps:

1. Place the pH sensor in the first buffer solution.
2. On the remote, press CAL, ENTER, ENTER.
3. Use the arrow buttons to select the correct buffer value. Press ENTER.
4. Rinse the sensor and place it in the second buffer solution. Press ENTER.
5. Use the arrow buttons to select the correct buffer value. Press ENTER.

FIGURE 16. Menu Tree for pH



START-UP CONFIGURATION AND CALIBRATION — PH

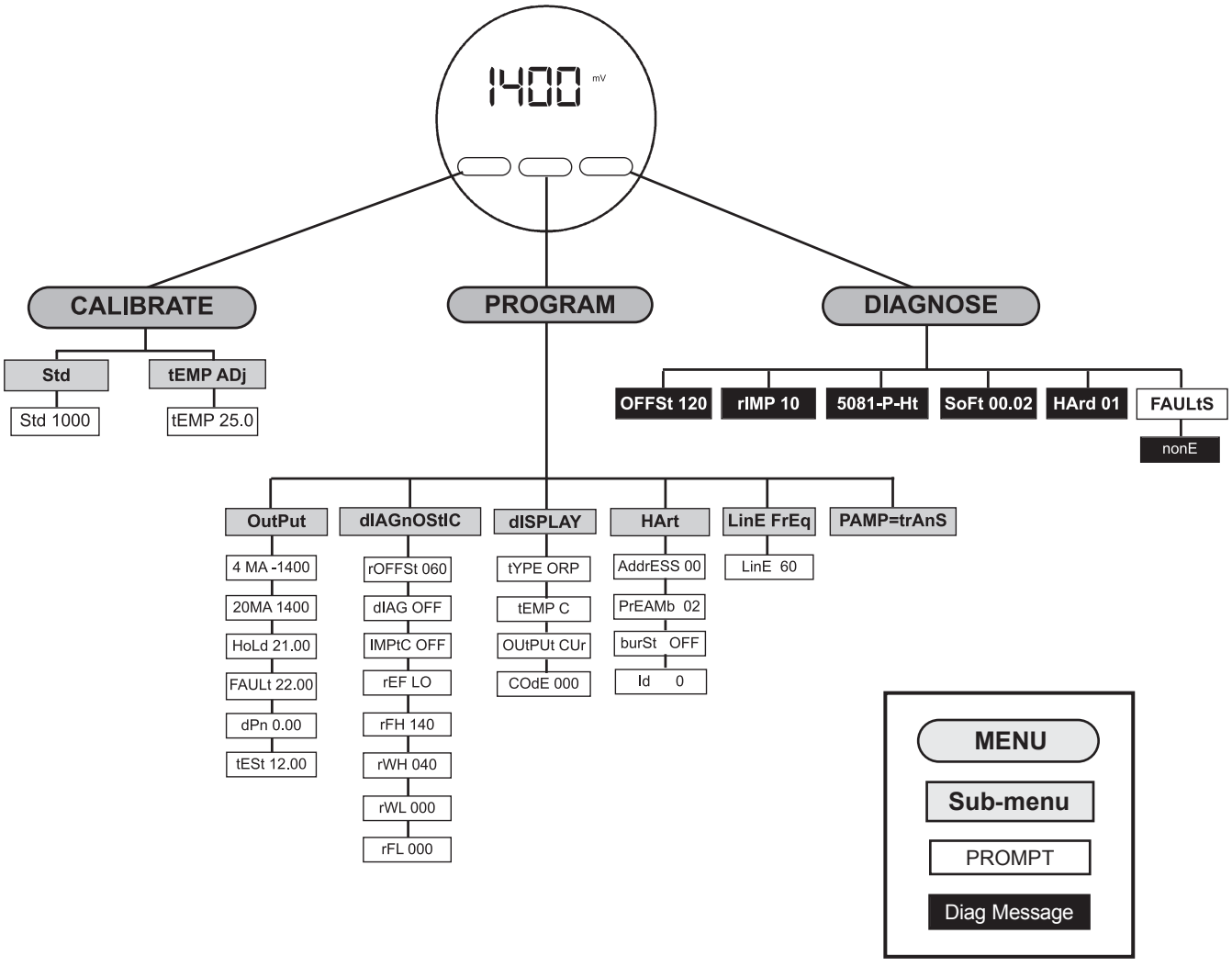
The 4-20mA output is factory set to 0-14pH to change it, follow these steps.

1. Press PROG.
2. Press NEXT three (3) times. **diSPLAY** is shown.
3. Press ENTER.
4. Press the up arrow button once to select ORP.
5. Press ENTER, RESET.
6. Press PROG, ENTER.
7. Use the arrow buttons to enter the 4mA value. Press ENTER.
8. Use the arrow buttons to enter the 20mA value. Press ENTER.
9. Press RESET.

To perform a one point standardization, follow these steps.

1. Place the ORP sensor in the ORP buffer solution.
2. On the Remote press CAL, ENTER, ENTER.
3. Use the arrow buttons to adjust the value. Press ENTER.
4. Press RESET.

FIGURE 17. Menu Tree for ORP



ROSEMOUNT® Analytical

CE

EC Declaration of Conformity

We, **Emerson Process Management, Blegistrasse 21, Barr, Switzerland CH 6341** declare under our sole responsibility that the product,

5081-A-HT	**Amperometric Transmitter, HART;**
5081-P-HT	**pH Transmitter,HART;**
5081-A-FF-73	**Amperometric Transmitter, Fieldbus;**
5081-P-FF-73	**pH Transmitter, Fieldbus;**
5081-A-FI-73	**Amperometric Transmitter, FISCO;**
5081-P-FI-73	**pH Transmitter, FISCO**

manufactured by, **Emerson Process Management, Rosemount Analytical**
2400 Barranca Parkway, Irvine, California 92606 USA
to which this declaration relates, is in conformity with the provisions of the European Community directives, including the latest amendments, as shown in the attached schedule.

Assumption of conformity is based on the application of the harmonized standards and, when applicable or required, a European Community notified body certification, as shown in the schedule.

(signature)

Vice President Analytical Europe
(function name printed)

Andy Kemish
(name printed)

January 23, 2012
(date of issue)

Schedule

EMC Directive (2004/108/EC)

5081-A-HT, 5081-P-HT	**(HART)**
5081-A-FF-73, 5081-P-FF-73	**(Fieldbus)**
5081-A-FI-73, 5081-P-FI-73	**(FISCO Fieldbus)**

Harmonized standard used: EN 61326-1: 2006

ATEX Directive (94/9/EC)

Provisions of the directive fulfilled by the equipment:

Equipment Group II, Category 1 G Ex ia IIC T4 Ga (-20°C ≤ Ta ≤ +65°C)

5081-A-HT, 5081-P-HT	**(HART)**
5081-A-FF-73, 5081-P-FF-73	**(Fieldbus)**
5081-A-FI-73, 5081-P-FI-73	**(FISCO Fieldbus)**

BAS02ATEX1284X -- Intrinsically Safe Certificate

Harmonized standards used: EN 60079-0:2006 EN 60079-11:2007

Special condition for safe use:
The apparatus enclosure may contain light metals. The apparatus must be installed in such a manner as to minimize the risk of impact or friction with other metal surfaces.

ATEX Notified Body for EC Type Examination Certificate & Quality Assurance:
Baseefa [Notified Body Number: 1180], Rockhead Business Park, Staden Lane Buxton, Derbyshire SK17 9RZ, United Kingdom

EMERSON. Process Management

PROGRAM MENU MNEMONICS

5081-P DISPLAY	MANUAL TEXT	MEANING
CAL ibrAtE	CALIbrAtE	Calibration menu
Std	Std	Standardize sensor
bF1 r bF2	bF1 / bF2	Buffer 1 / Buffer 2
SLOPE	SLOPE	Sensor slope
OUtPUt	OutPut	Output submenu
4 mA	4 MA	Set 4 mA value
20mA	20MA	Set 20 mA value
HoLd	HoLd	Set hold current
FAULt	FAULt	Set fault current
dPn	dPn	Set output dampening
d iAGnoSt ic	dIAGnoStic	Diagnostic submenu
rOFFSt	rOFFSt	Reference offset
IMPtC	IMPtC	Glass impedance temperature compensation
GFH	GFH	Glass fault high
GWH	GWH	Glass warning high
GFL	GFL	Glass fault low
GWL	GWL	Glass warning low
CAL	CAL	[Factory use only]
rEF	rEF	Set high/low impedance reference
rFH	rFH	Reference fault high
rWH	rWH	Reference warning high
rFL	rFL	Reference fault low
rWL	rWL	Reference warning low
tEmP	tEMP	Temperature compensation submenu
tEmP	tEMP	Temperature units
tAUtO	tAUtO	Automatic temperature compensation
tmAn	tMAn	Manual temperature compensation
tYPE	tYPE	Measurement type (pH/ORP)
d iSPLAY	diSPLAY	Display submenu

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