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REVISION					
LTR	ECO	DESCRIPTION	BY	DATE	CHK

D 1400227

MODEL
5081-G-HT
XMTR

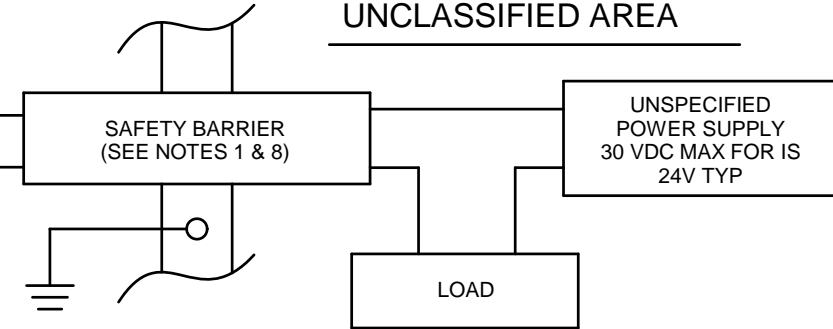
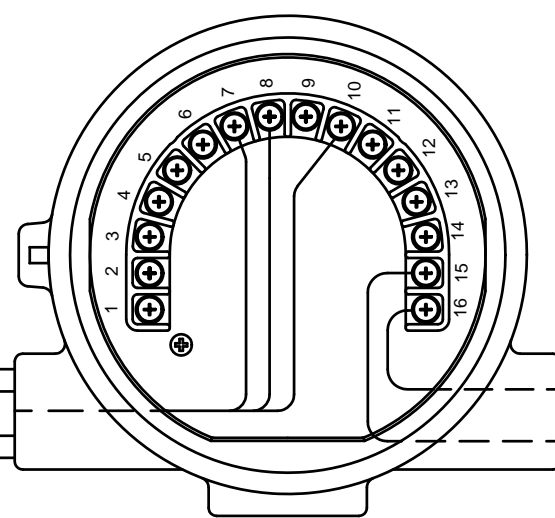
HAZARDOUS AREA

IS CLASS I, II, III,
DIVISION 1,
GROUPS A, B, C, D, E, F, G;
NI CLASS I,
DIVISION 2,
GROUPS A,B,C,D;
DIP
CLASS II & III, DIV 1
GROUPS E, F, G

INFRARED
REMOTE CONTROL UNIT
(RMT PN 23572-00)
FOR USE IN
CLASS I AREA ONLY

ANY FM APPROVED OR
SIMPLE APPARATUS
DEVICE

5081-G CABLE
SUPPLIED BY
ROSEMOUNT ANALYTICAL
ORRVILLE:
1ST WIRE PAIR: #20 AWG
2ND WIRE PAIR AND DRAIN: #22 AWG



UNCLASSIFIED AREA

- WARNING-** SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY OR SUITABILITY FOR DIVISION 2.
- WARNING-** TO PREVENT IGNITION OF FLAMMABLE OR COMBUSTIBLE ATMOSPHERES, DISCONNECT POWER BEFORE SERVICING.

THIS DOCUMENT IS
CERTIFIED BY
FM REV. A

REVISIONS NOT PERMITTED
W/O AGENCY APPROVAL

ITEM	PART NO.	DESCRIPTION	QTY
BILL OF MATERIAL			
APPROVALS		DATE	Uniloc <small>Rosemount Analytical, Uniloc Division 2400 Barranca Pkwy Irvine, CA 92606</small> TITLE SCHEMATIC, INSTALLATION MOD 5081-G-HT XMTR FM APPROVALS
DRAWN	N. KOUMBIS	07/10/03	
CHECKED	D. CROWLEY	08/05/03	
PROJECT ENGR APVD	D. CROWLEY	08/05/03	
THIS DWG CONVERTED TO SILID EDGE		DWG NO.	REV
02-06-04		8762	A
RELEASE DATE		ECO NO.	REV
SCALE NONE		TYPE	SHEET 1 OF 2

NOTES ON SHEET 2 OF 2
NOTES: UNLESS OTHERWISE SPECIFIED

- 12. NO REVISION TO DRAWING WITHOUT PRIOR FM APPROVAL.
- 11. THE ASSOCIATED APPARATUS MUST BE FM APPROVED.
- 10. CONTROL EQUIPMENT CONNECTED TO ASSOCIATED APPARATUS MUST NOT USE OR GENERATE MORE THAN 250 Vrms OR Vdc.
- 9. ASSOCIATED APPARATUS MANUFACTURER'S INSTALLATION DRAWING MUST BE FOLLOWED WHEN INSTALLING THIS EQUIPMENT.
- 8. 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+ C cable;	Ca, Ct OR Co
Li+ L cable.	La, Lt OR Lo

TABLE I

GAS GROUPS	OUTPUT PARAMETERS	
	Ca (uF)	La (mH)
A, B	10.63	4.28
C	488.63	17.9
D	10,000	34.9

TABLE II

OUTPUT PARAMETERS	MODEL 5081-G-HT TB1-1 THRU 12
Vt	6.51 V
It	86.8 mA
Po	141.27 mW

- 7. RESISTANCE BETWEEN INTRINSICALLY SAFE GROUND AND EARTH GROUND MUST BE LESS THAN 1.0 Ohm.
- 6. DUST-TIGHT CONDUIT SEAL MUST BE USED WHEN INSTALLED IN CLASS II AND CLASS III ENVIRONMENTS.
- 5. SENSORS SHALL MEET THE REQUIREMENTS OF SIMPLE APPARATUS AS DEFINED IN ANSI/ISA RP12.06.01 AND THE NEC, ANSI/NFPA 70. THEY CAN NOT GENERATE NOR STORE MORE THAN 1.5V, 0.1A, 25mW OR A PASSIVE COMPONENT THAT DOES NOT DISSIPATE MORE THAN 1.3W. SEE TABLES I AND II.

TABLE III

5081-G-HT ENTITY PARAMETERS SUPPLY / SIGNAL TERMINALS TB 1-15, 16					
MODEL NO.	Vmax (Vdc)	Imax (mA)	Pmax (W)	Ci (nF)	Li (mH)
5081-G-HT	30	200	0.9	27.9	0

- 4. 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).
- 3. INTRINSICALLY SAFE APPARATUS (MODEL 5081-G-HT, IRC TRANSMITTER) 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. TABLES I, II & III).
- 2. THE CAPACITANCE AND INDUCTANCE OF THE LOAD CONNECTED TO THE SENSOR TERMINALS MUST NOT EXCEED THE VALUES SPECIFIED IN TABLE I
 WHERE $Ca \geq Ci$ (SENSOR) + C cable;
 $La \geq Li$ (SENSOR) + L cable.

- 1. ANY SINGLE SHUNT ZENER DIODE SAFETY BARRIER APPROVED BY FM HAVING THE FOLLOWING OUTPUT PARAMETERS:
SUPPLY/SIGNAL TERMINALS TB1-15, 16
 Voc OR Vt GREATER THAN 13 V BUT NOT GREATER THAN 30 V
 Isc OR It NOT GREATER THAN 200 mA
 Pmax NOT GREATER THAN 0.9 W

NOTES: UNLESS OTHERWISE SPECIFIED