

REV	DESCRIPTION	BY	DATE	ECO
A	INITIAL RELEASE	CAR	10/28/03	DEMR-069
B	INCORPORATED CHANGES PER MARK-UP	K.G.	09/02/10	CN-01924

ELECTRONIC METER REGISTER

NON-HAZARDOUS AREA

ASSOCIATED APPARATUS

Ex II (1) G [Ex ia] IIA

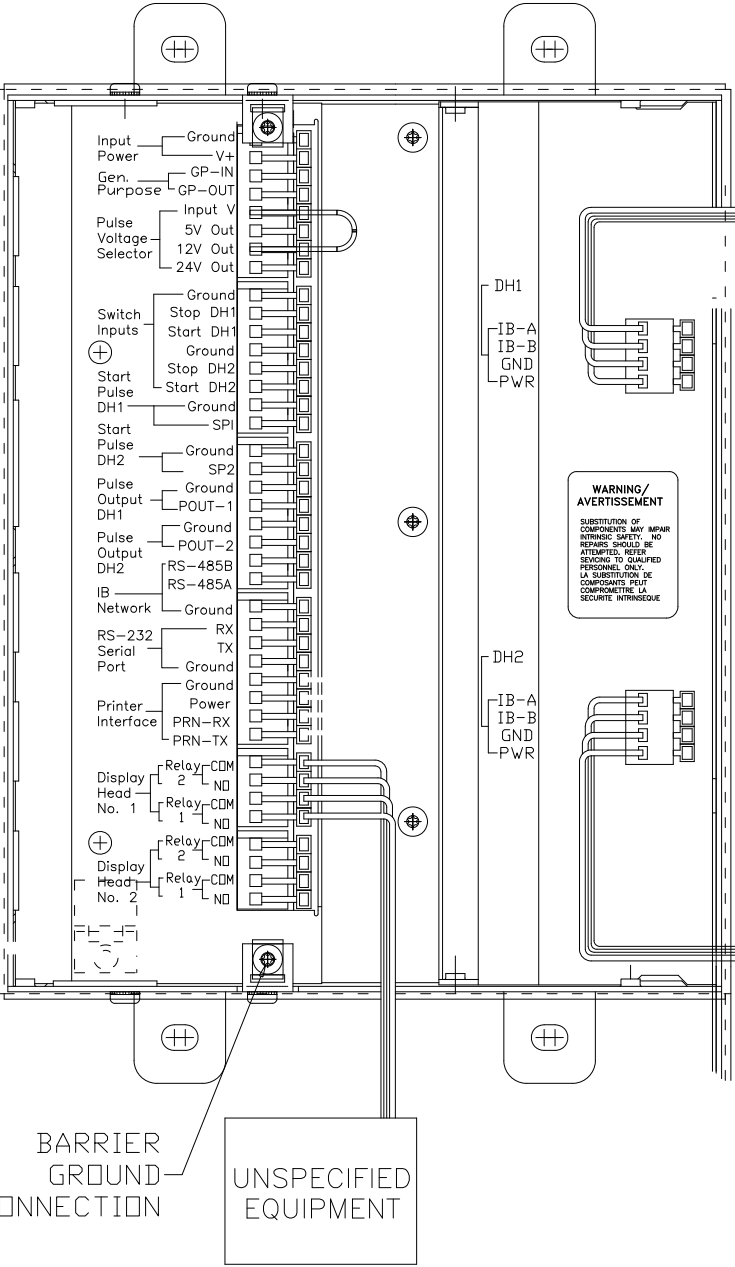
HAZARDOUS AREA

INTRINSICALLY SAFE (I.S.) APPARATUS

Ex II 1 G Ex ia IIA T4

EMR3 (IB)
INTERCONNECTION BOX
8458 SERIES

CERTIFICATE NO.:
DEMKO 10 ATEX 1006740X

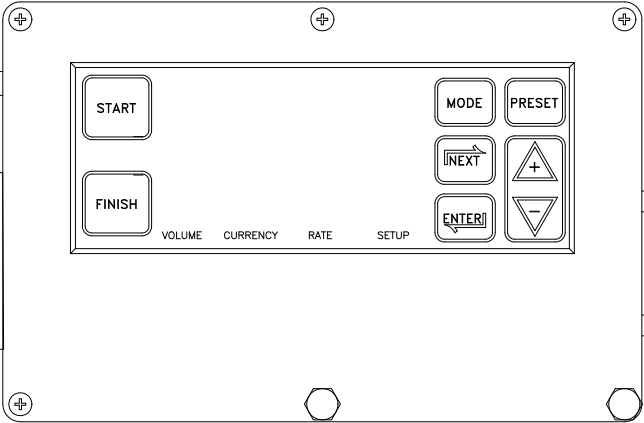


DISPLAY HEAD #1
8456 SERIES

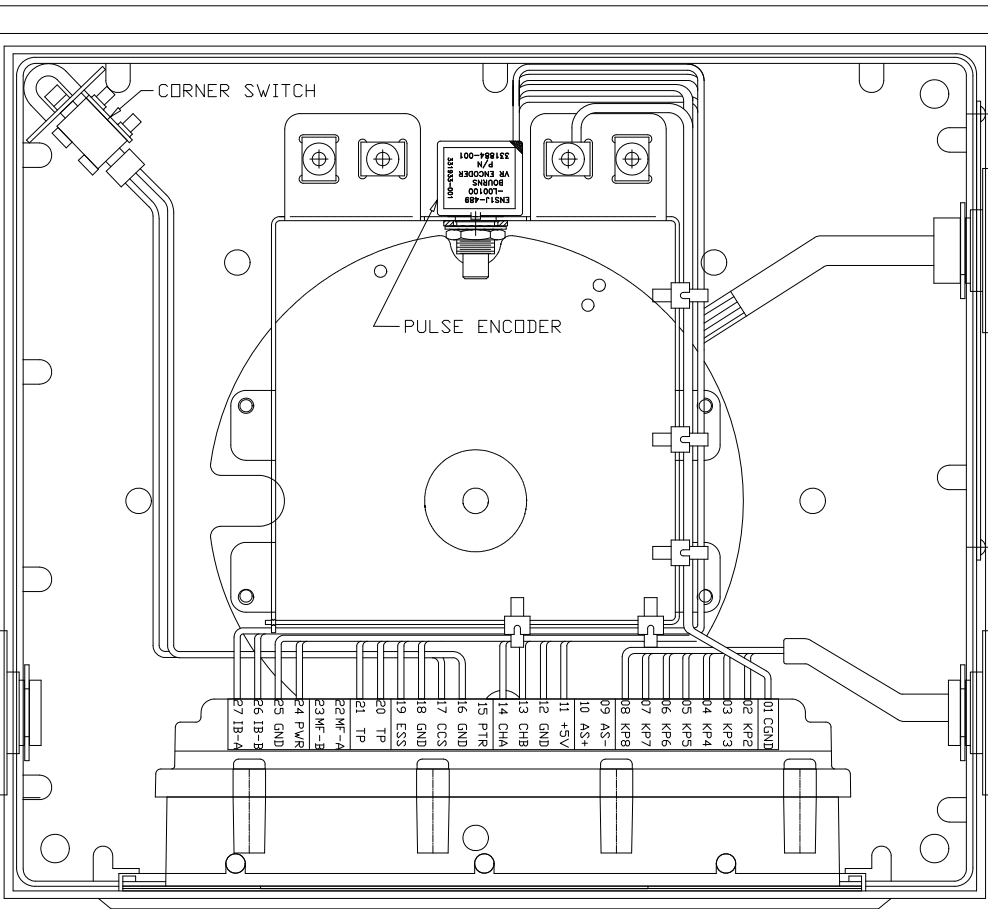
CERTIFICATE NO.:
DEMKO 10 ATEX 1006740X

I.S.

KEYPAD (OPTIONAL)



REMOTE DISPLAY HEAD
FOR REAR VIEW SEE PAGE 3



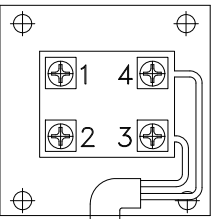
ESS SWITCH

EMERGENCY
STOP SWITCH

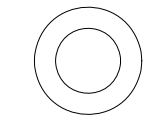
ENCODER

THERMOPROBE

ESS SWITCH



EMERGENCY




STOP SWITCH

THERMOPROBE

KEYPAD (OPTIONAL)

Certified Product
No changes permitted without reference to the "Notified Body (NB)"

NOTES: SEE PAGE 2
WIRE TABLE: SEE PAGE 2

DO NOT SCALE DRAWING				
	NAME	DATE	NEXT GRP.	-----
DESIGNER	C.ROUTHIER	10/28/03	ASSEMBLY	-----
PROJECT	B.ANDREW	10/28/03	FORM NO	-----
MATERIAL	 VEEDER-ROOT TM		SIMSBURY, CONNECTICUT 06070 U.S.A.	
NOTICE - THIS DOCUMENT IS THE PROPERTY OF THE VEEDER-ROOT COMPANY AND IS NOT TO BE DISCLOSED, REPRODUCED IN WHOLE OR IN PART, OR USED FOR MANUFACTURE BY ANYONE WITHOUT VEEDER-ROOT'S WRITTEN CONSENT.				
REFERENCE MFG. SPEC. VRS 81005 WHERE IT IS APPLICABLE				
UNSPECIFIED TOLERANCES +/- 0.005				
SYSTEM DESCRIPTIVE DOCUMENT ATEX EMR3				
SIZE	DRAWING NUMBER		REV.	STATUS
D	331940-004		B	REL
SCALE		NONE	SHEET	1 OF 3

NOTES:


1. EACH CABLE RUN (OR WIRING) USED TO CONNECT I.S. DEVICES TO THE IB MUST NOT EXCEED A RATED CAPACITANCE OF 328 pf/METER OR 100 pf/FOOT.
2. EACH CABLE RUN MUST NOT EXCEED A RATED INDUCTANCE OF 0,656 μ H/METER OR 0,2 μ H/FOOT.
3. DELETED
4. DELETED
5. INTRINSICALLY SAFE DEVICE CONNECTIONS: CONNECT ONLY 1 ELECTRONIC METER REGISTER DISPLAY HEAD OR REMOTE DISPLAY TO THE DH1 TERMINALS. CONNECT ONLY 1 ELECTRONIC METER REGISTER DISPLAY HEAD OR REMOTE DISPLAY TO THE DH2 TERMINALS.
6. NON-HAZARDOUS AREA APPARATUS WHICH IS UNSPECIFIED EXCEPT THAT IT MUST NOT BE SUPPLIED FROM OR CONTAIN, UNDER NORMAL OR ABNORMAL CONDITIONS, A SOURCE OF POTENTIAL WITH RESPECT TO EARTH IN EXCESS OF 250V RMS OR 250V dc, Um=250V.
7. CONNECT THE BARRIER GROUND TO THE EARTH GROUND BUS AT THE POWER DISTRIBUTION PANEL WITH 4mm² (10 AWG) OR LARGER CONDUCTOR. GROUNDING MUST COMPLY WITH EN 60079-14, CLAUSE 6.3.
8. A MAXIMUM CABLE LENGTH OF 305 METERS OR 1,000 FEET IS ALLOWED TO CONNECT ANY SINGLE I.S. DEVICE TO THE ASSOCIATED APPARATUS. THE TOTAL ALLOWABLE CABLE LENGTH USED TO CONNECT ALL OF THE I.S. DEVICES TO THE ASSOCIATED APPARATUS IS 610 METERS OR 2,000 FEET. THE CABLE BETWEEN THE EMR3 DISPLAY HEAD AND THE EMERGENCY STOP SWITCH, CORNER SWITCH, THERMOPROBE, PULSE ENCODER AND THE KEY PAD MUST BE< 35 METERS OR 113 FEET TOTAL.
9. A RISK ANALYSIS MUST BE PREFORMED TO DETERMINE IF THE INSTALLATION LOCATION IS SUSCEPTIBLE TO LIGHTNING OR OTHER SURGES. IF NECESSARY, ADD PROTECTION AGAINST LIGHTNING AND OTHER ELECTRICAL SURGES IN ACCORDANCE WITH EN 60079-25, SECTION 10.
10. THE AMBIENT TEMPERATURE RANGE FOR THE INTERCONNECT BOX IS -25°C TO +50°C. THE AMBIENT TEMPERATURE FOR THE DISPLAY HEAD, EMERGENCY STOP SWITCH, THERMOPROBE, CORNER SWITCH, ROTARY PULSE ENCODER AND KEYPAD IS -40°C TO +60°C.
11. SPECIAL CONDITIONS, SAFE USE, AS APPLICABLE AND AS DEFINED IN THE CERTIFICATE OF CONFORMITY, INSTALLATION INSTRUCTIONS AND THE SYSTEM DESCRIPTIVE DOCUMENT, 331940-004, MUST BE TAKEN INTO ACCOUNT.

THE EMR DISPLAY HEAD, REMOTE DISPLAY HEAD, KEYPAD, PULSE ENCODER, THERMOPROBE, ESS SWITCH AND CORNER SWITCH CONTAIN ALUMINUM. CARE MUST BE TAKEN TO AVOID IGNITION HAZARDS DUE TO IMPACT OR FRICTION.

THE DEVICES HAVE NOT BEEN EVALUATED FOR USE ACROSS A BOUNDARY WALL.

WIRE TABLE										
IB BOX CABLE CONNECTIONS			PULSE ENCODER WIRE CONNECTIONS			KEYPAD CABLE CONNECTIONS		CORNER SWITCH CABLE CONNECTIONS		
TERMINAL	SIGNAL	WIRE COLOR	TERMINAL	SIGNAL	WIRE COLOR	TERMINAL	WIRE COLOR	TERMINAL	SIGNAL	WIRE COLOR
24	PWR	RED	11	+5V	RED	02 KP2	RED	16	GND	YELLOW
25	GND	BLACK	12	GND	BLACK	03 KP3	BLACK	17	CCS	YELLOW
26	IB-B	WHITE	13	CHB	WHITE	04 KP4	WHITE			
27	IB-A	GREEN	14	CHA	GREEN	05 KP5	GREEN			
						06 KP6	YELLOW			
						07 KP7	BLUE			
						08 KP8	ORANGE			
ESS (OPTIONAL) SWITCH CONNECTIONS			THERMOPROBE (OPTIONAL) CABLE CONNECTIONS							
TERMINAL	SIGNAL	WIRE COLOR	TERMINAL	SIGNAL	WIRE COLOR					
18	GND	BLACK	20	TP	BLACK					
19	ESS	WHITE	21	TP	WHITE					

FOR I.S. CABLE AND WIRE DESCRIPTIONS SEE PAGE 3

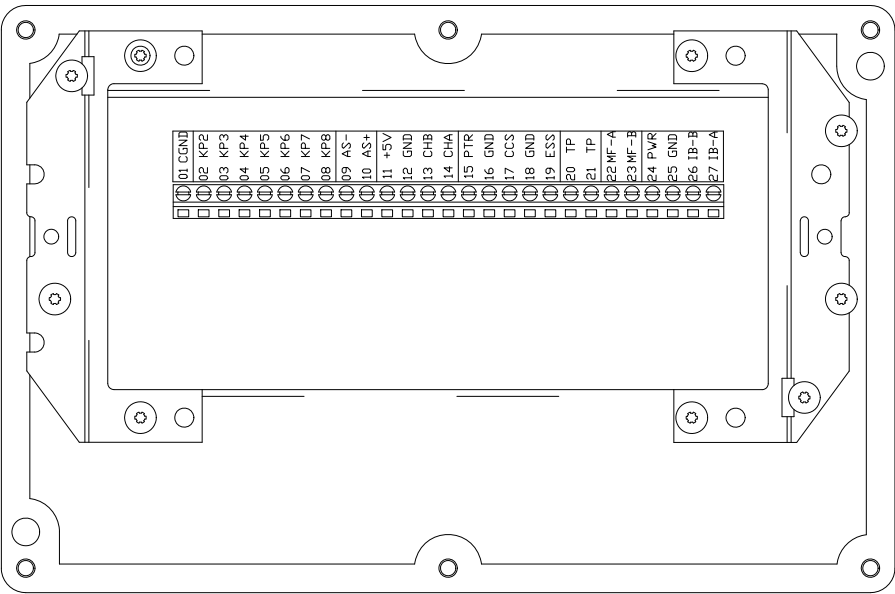
**VEEDER-ROOT**TM

SIMSBURY,
CONNECTICUT 06070
U.S.A.

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SYSTEM DESCRIPTIVE DOCUMENT
ATEX EMR3


SIZE	DRAWING NUMBER	REV.	STATUS
D	331940-004	B	REL
SCALE	NONE	SHEET	2 OF 3



REMOTE DISPLAY HEAD
(BODY REMOVED FOR CLARITY)
WIRING IDENTICAL TO DISPLAY HEAD

EMR3 I.S. CABLE AND WIRE DESCRIPTIONS

<u>SIMPLE APPARATUS</u>	<u>MAXIMUM LENGTH</u>	<u>TYPE</u>
THERMOPROBE	7,620 mm 25 FT	EXTERNAL CABLE, 2 CONDUCTOR
ROTARY ENCODER	10,668 mm 35 FT	INTERNAL WIRE, 4 CONDUCTOR
EMR MODE SWITCH	7,620 mm 25 FT	INTERNAL WIRE, 2 CONDUCTOR
OPTIONAL KEYPAD	915 mm 3 FT	INTERNAL WIRE, 7 CONDUCTOR
EMERGENCY STOP SWITCH	7,620 mm 25 FT	EXTERNAL CABLE, 2 CONDUCTOR
DISPLAY HEAD OR REMOTE DISPLAY HEAD	305 METERS 1000 FT	EXTERNAL CABLE, 4 CONDUCTOR

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ATEX EMR3

SIZE	DRAWING NUMBER	REV.	STATUS
D	331940-004	B	REL
SCALE	NONE	SHEET 3	OF 3