

DESCRIPTIVE SYSTEM DOCUMENT FOR CERTIFICATE NUMBER DEMKO 06 ATEX 137480X

TLS-300 CONSOLE

AMBIENT TEMPERATURE RANGE
 $0^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$

Ex II (1) G [EEx ia] IIA

TLS-300 CONSOLE
 CERTIFICATE NO.:
 DEMKO 06 ATEX 137484X

NON-HAZARDOUS AREA

ASSOCIATED APPARATUS

HAZARDOUS AREA

INTRINSICALLY SAFE (I.S.) APPARATUS

AMBIENT TEMPERATURE RANGE
 $-40^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$

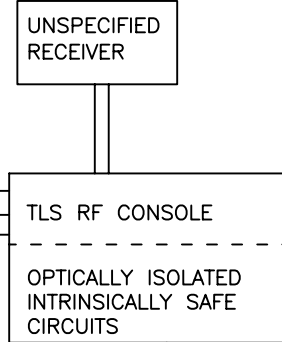
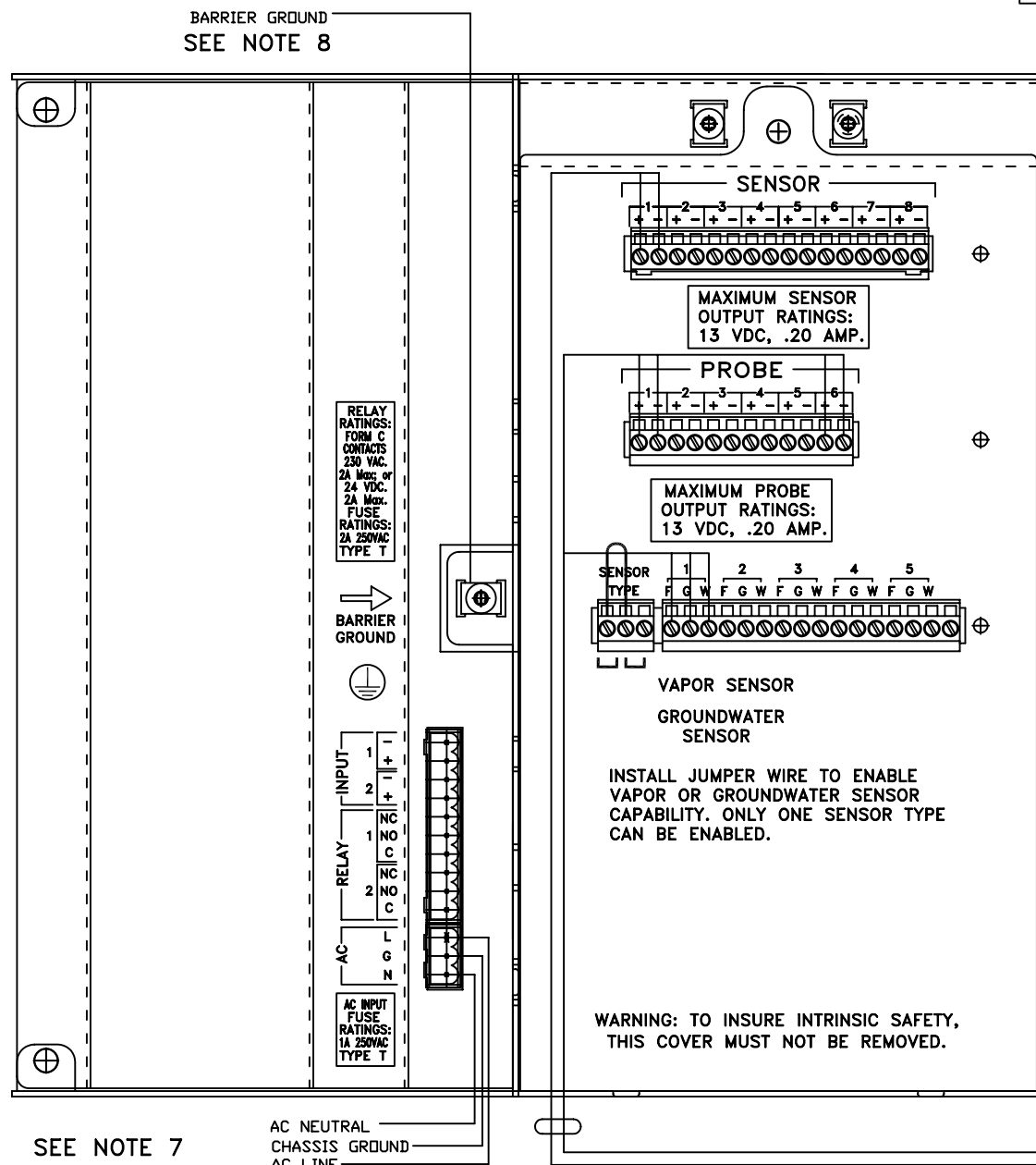
Ex II 1 G EEx ia IIA T4

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

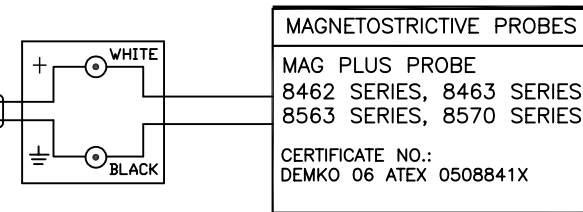
REV	DESCRIPTION	BY	DATE	ECO
A	INITIAL RELEASE	CAR	4/23/03	T357-006
B	UPDATED TO REFLECT TLS RF ADDED SHEET 2 FOR NOTES	CAR	02/21/06	P043-003

INTRINSICALLY SAFE
 MODULES

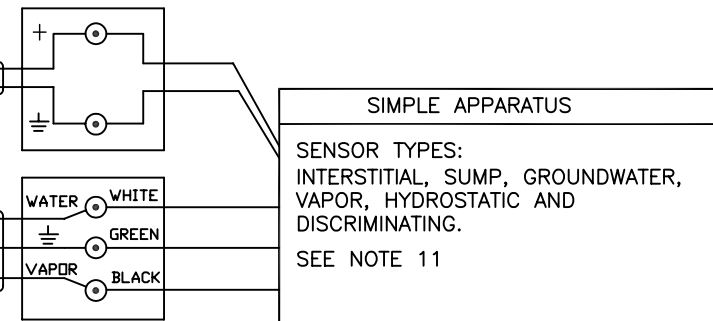
WHERE APPLICABLE, INTRINSICALLY SAFE
 EQUIPMENT MUST BE GROUNDED IN
 ACCORDANCE WITH LOCAL CODES.



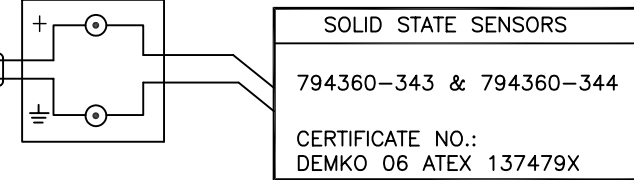
SEE NOTE 9



MAGNETOSTRICTIVE PROBES
 MAG PLUS PROBE
 8462 SERIES, 8463 SERIES
 8563 SERIES, 8570 SERIES
 CERTIFICATE NO.:
 DEMKO 06 ATEX 0508841X



SENSOR TYPES:
 INTERSTITIAL, SUMP, GROUNDWATER,
 VAPOR, HYDROSTATIC AND
 DISCRIMINATING.
 SEE NOTE 11



SOLID STATE SENSORS
 794360-343 & 794360-344
 CERTIFICATE NO.:
 DEMKO 06 ATEX 137479X

SEE NOTES 1 THRU 5

SEE SHEET 2 FOR NOTES

SEE NOTE 7

AC NEUTRAL
 CHASSIS GROUND
 AC LINE


WARNING: IN INSTALLATION AND USE OF THIS PRODUCT, COMPLY WITH ALL ELECTRICAL CODES. IN ADDITION, TURN OFF POWER AND TAKE OTHER NECESSARY PRECAUTIONS DURING INSTALLATION, SERVICE AND REPAIR TO PREVENT PERSONAL INJURY, PROPERTY LOSS AND EQUIPMENT DAMAGE.

WARNING: DISCONNECT ALL POWER BEFORE MAKING ANY CONNECTIONS TO PREVENT DEATH, SERIOUS INJURY, EXPLOSION, OR ELECTRICAL SHOCK. CONSOLE MUST NEVER BE OPERATED UNLESS THE FRONT COVER IS CLOSED OVER THE BARRIER TERMINALS IN THE INTRINSICALLY SAFE AREA.

DO NOT SCALE DRAWING				
DESIGNER	NAME	DATE	NEXT GRP.	
C. ROUTHIER	C. ROUTHIER	4/23/03	ASSEMBLY	
B. ANDREW	B. ANDREW	4/23/03	FORM NO	
MATERIAL		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		DESCRIPTIVE SYS DOCUMENT ATEX TLS-300 CONSOLES		
UNSPECIFIED TOLERANCES +/-	SIZE D	DRAWING NUMBER 331940-002	REV. B	STATUS NFP
SCALE NONE		SHEET 1 OF 2		

NOTES:

1. 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 9,753 METERS OR 32,000 FEET.
2. EACH CABLE (OR WIRING) USED TO CONNECT I.S. DEVICES TO THE CONSOLE MUST NOT EXCEED A CAPACITANCE OF 328 pf/METER OR 100 pf/FOOT.
3. THE TOTAL CABLE CAPACITANCE, COMBINING ALL OF THE CABLE USED TO CONNECT THE INTRINSICALLY SAFE DEVICES TO THE ASSOCIATED APPARATUS, MUST NOT EXCEED 3,2 μ F.
4. EACH CABLE MUST NOT EXCEED AN INDUCTANCE OF 0,656 μ H/METER OR 0,2 μ H/FOOT.
5. THE L/R RATIO OF THE CABLE MUST NOT EXCEED 200 μ H/OHM.
6. FOR EACH TLS-300 CONSOLE INSTALLED THE MAXIMUM NUMBER OF I.S. DEVICES CONNECTED TO THE ASSOCIATED APPARATUS IS 32. A MAXIMUM OF TWO TLS RF CONSOLES CAN BE CONNECTED TO THE TLS-300 CONSOLE, WHERE EACH CONNECTED TLS RF CHANNEL EQUALS ONE I.S. DEVICE.
7. NON-HAZARDOUS ASSOCIATED APPARATUS IS AS SHOWN AND 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, $U_m = 250V$.
8. CONNECT THE BARRIER GROUND TO THE EARTH GROUND BUS AT THE POWER DISTRIBUTION PANEL WITH A 4mm² (10 AWG) (OR LARGER) CONDUCTOR. GROUNDING MUST COMPLY WITH EN 60079-14, CLAUSE 6.3.
9. THIS SYMBOL, \odot , DENOTES A FIELD WIRING CONNECTION INSIDE A WEATHERPROOF JUNCTION BOX.
10. 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.
11. IT IS THE RESPONSIBILITY OF THE END USER TO DETERMINE COMPLIANCE OF SIMPLE APPARATUS. SIMPLE APPARATUS USED WITH THIS SYSTEM MUST CONFORM TO THE FOLLOWING REQUIREMENTS:
 - A) CONSTRUCTED OF PASSIVE COMPONENTS ONLY, FOR EXAMPLE, SWITCHES, JUNCTION BOXES AND RESISTORS.
 - B) CONSTRUCTED WITHOUT ANY SOURCES OF STORED ENERGY SUCH AS BATTERIES, CAPACITORS AND INDUCTORS.
 - C) CONSTRUCTED WITHOUT SOURCES OF GENERATED ENERGY THAT PRODUCE MORE THAN 1.5V, AND 25mW OR SOURCES THAT CONTAIN A MEANS OF INCREASING THE VOLTAGE.
 - D) IF CONSTRUCTED WITH A METALLIC HOUSING THE SIMPLE APPARATUS SHALL BE CAPABLE OF WITHSTANDING THE TEST VOLTAGE TO EARTH IN ACCORDANCE WITH EN 50020, CLAUSE 6.4.12 AND ITS TERMINALS MUST CONFORM TO EN 50020, CLAUSE 6.3.1.
 - E) NONMETALIC ENCLOSURES AND ENCLOSURES OF LIGHT METALS MUST COMPLY WITH EN 50014 SECTIONS 7 & 8 AND EN 50284 CLAUSE 4.4.
 - F) BASED ON THE AVAILABLE POWER WITHIN THE SYSTEM, SIMPLE APPARATUS THAT HAVE ELECTRICAL COMPONENTS THAT EXCEED 20mm² IN TOTAL SURFACE AREA, MAY BE ASSESSED AS HAVING A T4 TEMPERATURE CODE, AT THE SPECIFIED AMBIENT TEMPERATURE RANGE OF $-40^{\circ}C \leq T_a \leq +60^{\circ}C$. OTHER TYPES OF SIMPLE APPARATUS MUST BE ASSESSED IN ACCORDANCE WITH EN 50020, SECTION 6.2.
12. SPECIAL CONDITIONS, SAFE USE, AS APPLICABLE AND AS DEFINED IN THE CERTIFICATE OF CONFORMITY AND INSTALLATION INSTRUCTIONS MUST BE TAKEN INTO ACCOUNT.

		SIMSBURY, CONNECTICUT 06070 U.S.A.	
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DESCRIPTIVE SYS DOCUMENT ATEX TLS-300 CONSOLES			
SIZE	DRAWING NUMBER	REV.	STATUS
D	331940-002	B	NFP
SCALE	NONE	SHEET	2 OF 2