

DESCRIPTIVE SYSTEM DOCUMENT FOR CERTIFICATE NUMBER DEMKO 06 ATEX 137480X

TLS-350(R) CONSOLE

NON-HAZARDOUS AREA

HAZARDOUS AREA

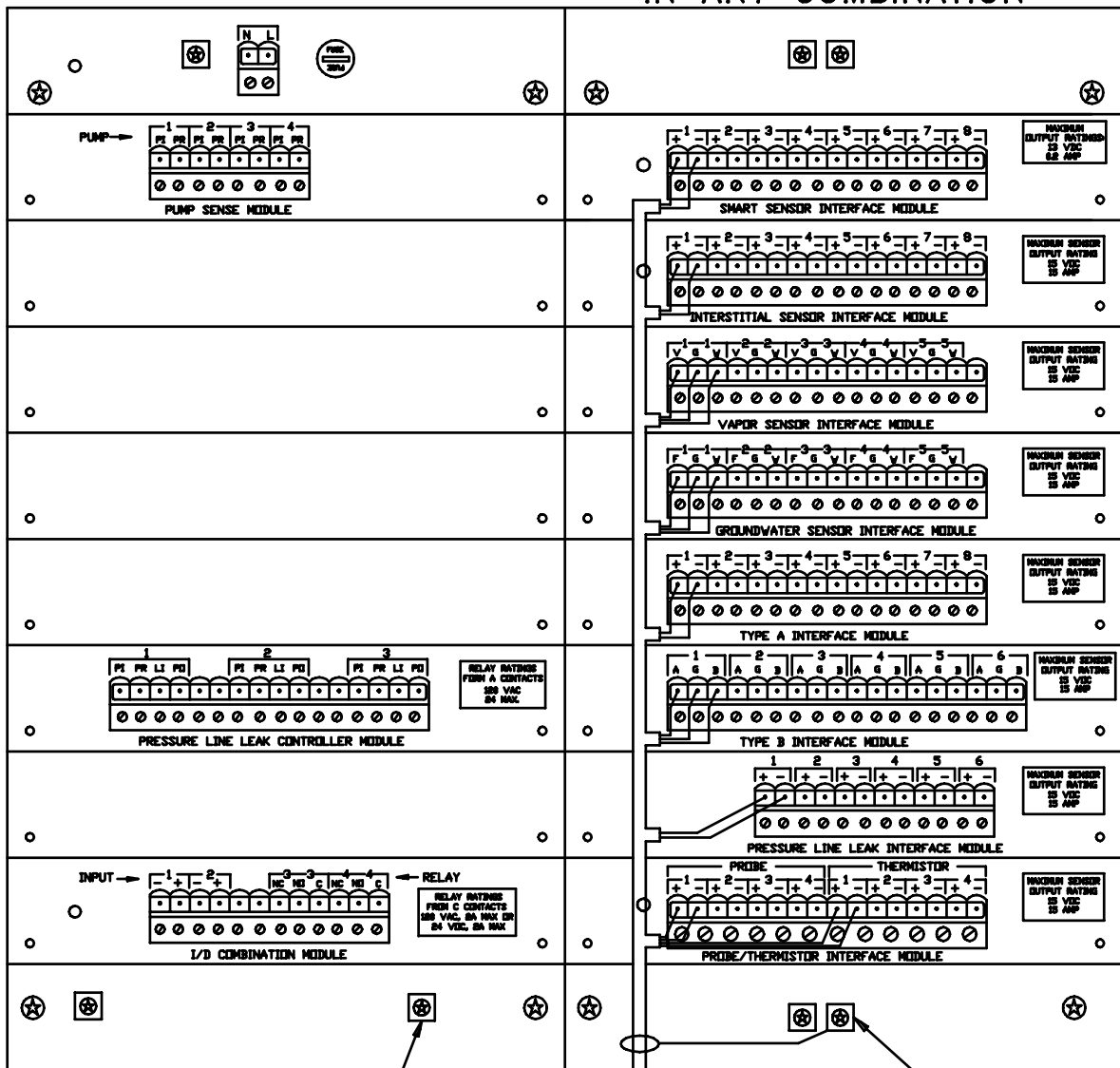
AMBIENT TEMPERATURE RANGE
0°C ≤ Ta ≤ 40°C

Ex II (1) G [EEx ia] IIA

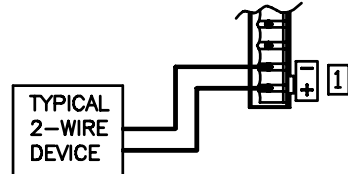
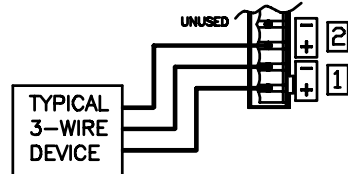
TLS-350 CONSOLE
TLS-350R CONSOLE
CERTIFICATE NO.:
DEMKO 06 ATEX 137481X

POWER MODULES
MAXIMUM OF 8
SEE NOTE 7

INTRINSICALLY SAFE
MODULES
MAXIMUM OF 8
IN ANY COMBINATION



BARRIER GROUND
SEE NOTE 8



TERMINATION
POINTS FOR
SHIELDED CABLE

ASSOCIATED APPARATUS

TLS RF CONSOLE
CERTIFICATE NOS.:
DEMKO 06 ATEX 137478X

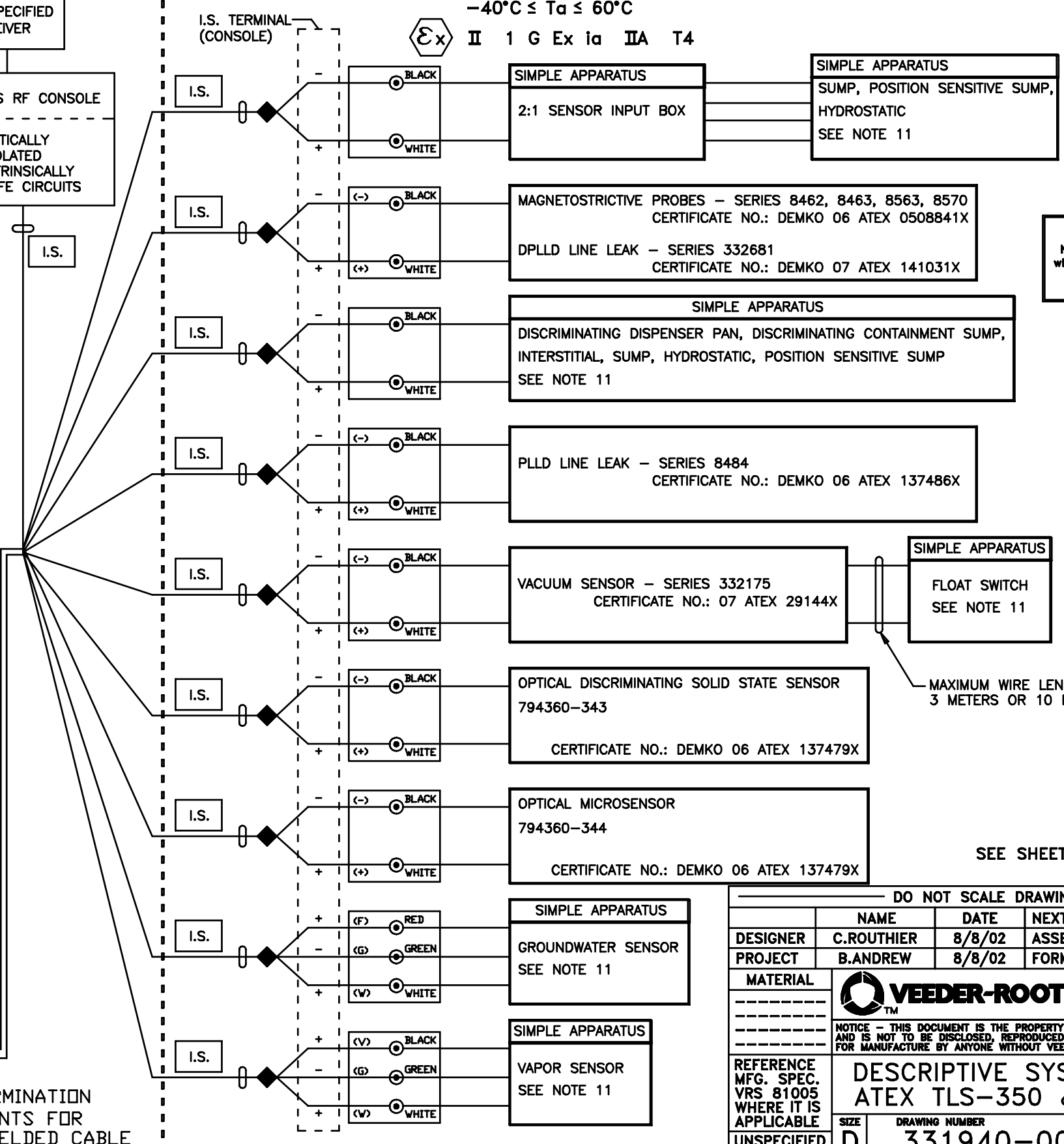
UNSPECIFIED
RECEIVER

TLS RF CONSOLE
OPTICALLY
ISOLATED
INTRINSICALLY
SAFE CIRCUITS

INTRINSICALLY SAFE (I.S.) APPARATUS

AMBIENT TEMPERATURE RANGE
-40°C ≤ Ta ≤ 60°C

Ex II 1 G Ex ia IIA T4



REV	DESCRIPTION	BY	DATE	ECO
E	UPDATED TO REFLECT TLS RF ADDED SHEET 2 FOR NOTES	CAR	02/21/06	P043-003
F	UPDATED TO REFLECT VAC SENSOR	CT	08/23/07	Z083-004

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


MAXIMUM WIRE LENGTHS:
3 METERS OR 10 FEET.

SEE SHEET 2 FOR NOTES

DO NOT SCALE DRAWING				
DESIGNER	NAME	DATE	NEXT GRP.	
C.ROUTHIER	C.ROUTHIER	8/8/02	ASSEMBLY	
B.ANDREW	B.ANDREW	8/8/02	FORM NO	
MATERIAL		SIMSBURY, CONNECTICUT 06070 U.S.A.		
NOTICE - THIS DOCUMENT IS THE PROPERTY OF THE VEEDER-ROOT COMPANY AND 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-350 & TLS-350R				
UNSPECIFIED TOLERANCES	SIZE	DRAWING NUMBER	REV.	STATUS
+/- 0.005	D	331940-001	F	REL
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 15,240 METERS OR 50,000 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 5,0 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-350 CONSOLE INSTALLED THE MAXIMUM NUMBER OF I.S. DEVICES CONNECTED TO THE ASSOCIATED APPARATUS IS 64. A MAXIMUM OF TWO TLS RF CONSOLES CAN BE CONNECTED TO THE TLS-350 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 60079-0 SECTIONS 7 & 8 AND EN 60079-26 CLAUSE 4.3.3.
 - 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.

 VEEDER-ROOT TM		SIMSBURY, CONNECTICUT 06070 U.S.A.	
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DESCRIPTIVE SYS DOCUMENT ATEX TLS-350 & TLS-350R			
SIZE	DRAWING NUMBER	REV.	STATUS
D	331940-001	F	REL
SCALE	NONE	SHEET	2 OF 2