

ENTITY PARAMETERS

$V_{max} = 28 \text{ V}$
 $I_{max} = 93 \text{ mA}$
 $C_i = 12 \text{ nF}$
 $L_i = 56 \mu\text{H}$
 $P_{max} = 0.651 \text{ W}$

**DIVISION 1
HAZARDOUS LOCATION**

CLASS I, GROUPS A,B,C & D;
 CLASS II, GROUPS E,F & G;
 CLASS III, T5
 $-40^\circ\text{C} \leq T_{amb} \leq 85^\circ\text{C}$

**DIVISION 2 OR
NON HAZARDOUS LOCATION**

I.S. BARRIER MUST BE INSTALLED IN ACCORDANCE WITH BARRIER MANUFACTURER'S CONTROL DRAWINGS. THE WIRING OF THE INTRINSICALLY SAFE CIRCUIT MAY BE INSTALLED IN ACCORDANCE WITH ARTICLE 504 OF NATIONAL ELECTRICAL CODE, ANSI/NFPA 70, OR ACCORDING TO NATIONAL INSTALLATION REQUIREMENTS.

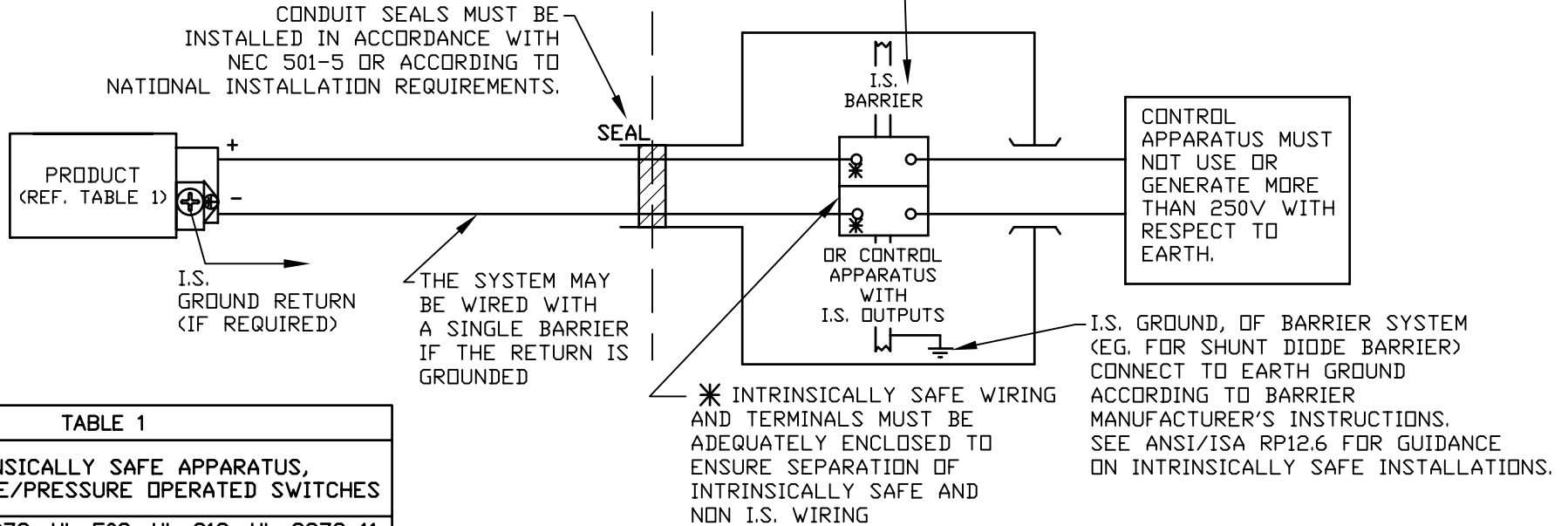


TABLE 1	
INTRINSICALLY SAFE APPARATUS, TEMPERATURE/PRESSURE OPERATED SWITCHES	
UL 50, UL 873, UL 508, UL 913, UL 2279-11	C22.2 No.
HAZ. LOC. PRODUCT(S)	157-92, C5A E79-11
ONE SERIES 2-WIRE SWITCH SERIES	

NOTES:

- A. SELECTED BARRIERS MUST HAVE ENTITY PARAMETERS SUCH THAT:
 $V_{oc} \leq V_{max}$, $I_{sc} \leq I_{max}$
 $C_a \geq C_i + C_{cable}$, $L_a \geq L_i + L_{cable}$
 $P_o \leq P_{max}$, IF P_o OF THE BARRIER IS NOT KNOWN, IT MAY BE CALCULATED USING THE FORMULA, $P_o = (V_{oc} * I_{sc})/4$.
- B. FOR C_{cable} AND L_{cable} , IF THE CAPACITANCE PER FOOT OR THE INDUCTANCE PER FOOT IS NOT KNOWN, THEN THE FOLLOWING VALUES SHALL BE USED:
 $C_{cable} = 60 \mu\text{F}/\text{ft}$
 $L_{cable} = 0.20 \mu\text{H}/\text{ft}$
 THE TOTAL MAXIMUM LENGTH OF THE CABLE MUST NOT EXCEED 5,000 ft.
- C. THE PRESSURE SWITCH SERIES PROVIDES 500 V ISOLATION WITH RESPECT TO EARTH.
- D. SELECTED ASSOCIATED APPARATUS MUST BE THIRD PARTY APPROVED AS PROVIDING INTRINSICALLY SAFE CIRCUITS FOR THE APPLICATION.

AGENCY CRITICAL COMPONENT,
 NO SUBSTITUTIONS ALLOWED
 WITHOUT UEC ENGINEERING APPROVAL.

THIS DOCUMENT IS PROPRIETARY PROPERTY OF UNITED ELECTRIC CONTROLS. UNAUTHORIZED USE IS STRICTLY PROHIBITED.

SYM	DESCRIPTION	DATE	DWN	APPD
B	ADDED UL50, UL873 & UL508 TO TABLE 1. ENTITY PARAMETERS, C_1 WAS 8nF. ECN# E0581	12/17/03	PLW	H.N.
A	FIRST ISSUE. ECN# C9547	1-30-02	S.R.	G.W.

REVISIONS

ORIGINAL DATE	1-30-02
DRWN	S.R.
CHKD	AB
APPD	G. WALKEAPAA
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS $\pm 1/64$ 2 PLACE DEC 3 PLACE DEC ANGLES ± 0.010 ± 0.005 $\pm 1/2^\circ$	
DO NOT SCALE THIS DRAWING	

TITLE	INTRINSICALLY SAFE (I.S.) CONTROL (cULus)
USED ON:	2-WIRE
SCALE	N.T.S.

DF001 REV. C	UNITED ELECTRIC CONTROLS COMPANY WATERTOWN * MASSACHUSETTS
DWG NO	A-62174-19