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TOLERANCES (UNLESS NOTED)
 DECIMALS = ±.1 /2.54
 .X = ±.1 /2.54
 .XX = ±.03 /0.76
 .XXX = ±.010/0.25
 HOLES: ±.003-.002/+.08-.05
 ANGLES: = ± 30°

DRAWN	Gus H. Elias	03/03
CHECKED	W. Ho	03/03
ENGINEER	Gus H. Elias	03/03
SCALE	NONE	

CATEGORY
CONTROL DRAWING

TITLE
**Field Installation Diagram
 SPD: Prog. Loop Display
 Intrinsically Safe System
 For Hazardous 'Classified' Locations**

DRAWING NUMBER
100-100-66

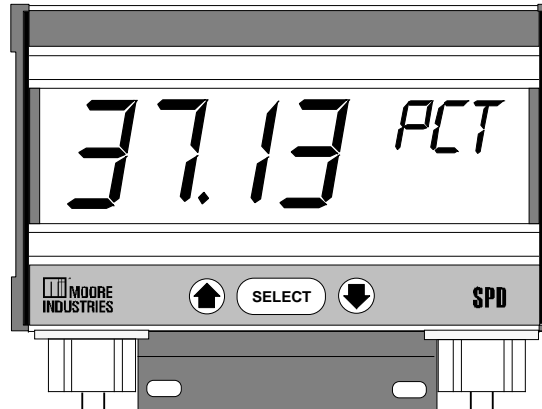
REVISION
A

REVISED BY	DATE	BY	APPROVAL
INITIAL RELEASE	03/03	G.E.	CB

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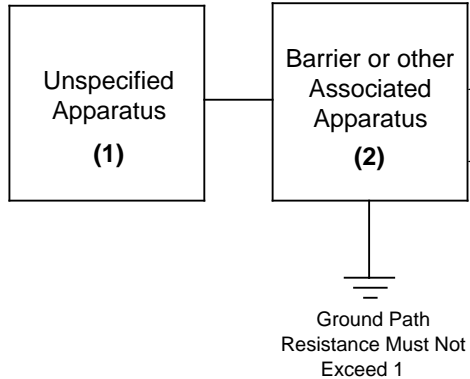
CERTIFIED PRODUCT
 This is a controlled 'Related' or 'Schedule' drawing. No modifications are permitted without the notification and final approval of the Certification Engineer (related dwgs.) or the Certifying Agency (schedule dwgs.).

SPD: Site/PC-Programmable Loop Display



Entity Parameters (4-20mA Loop & 24V)
 V_{max} or $U_i = 30$ VDC
 I_{max} or $I_i = 110$ mA
 P_{max} or $P_i = 0.55$ W
 $C_i = 0$ nF
 $L_i = 0$ μH
 C_a or $C_o = C_i + C_{cable}$
 L_a or $L_o = L_i + L_{cable}$
 V_{oc} or $V_t = 5.48$ VDC
 I_{sc} or I_t

Non-Hazardous / Safe Area



+24DC
 (-BL Option only)
 +24DCC
 (3)

+I(out)
 -I(out)
4-20 mA Intrinsically Safe Loop Transmitter (Signal Source)

Hazardous 'Classified' Locations/Areas
 US-NEC 500/505, Canada-C22.2/1010.1:
 Intrinsically Safe: Class I,II,III; Div. 1; Groups A-G.
 Class I, Zone 0, AEx ia IIC T5@85°C/T6@60°C.
 Non-Incendive: Class I, Div. 2, Groups A-D.
 Class II, Div. 2, Groups F & G and Class III, Div. 2.

CENELEC/ATEX: 94/9/EC Directive
 Intrinsically Safe: Ex II 1G EEx ia IIC T5/T6

Environmental Protection: IP66 & NEMA 4X

Operating Ambient: -40°C T_{amb.} +85°C

CAUTION:
 With the backlight (-BL) option, the 4-20mA signal and the +24VDC power source must be wired separately; through the two conduit entries located on the base plate of the SPD unit.

Notes:

- (1) 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 250 VRMS or 250 VDC which is considered to be the Safe Area's maximum voltage.
- (2) The Barrier or other Associated Apparatus **must** be approved by the "specific" (CSA/EECS/FM/LCIE/SAA/SIRA/TUV, etc..) certifying agency for I.S. connections in: "Class I-III, Division 1, Groups A-G" locations. The output voltage is **24 VDC (Voc, Vt or Vo) 30 VDC** & the output current (**Isc, It or Io**) **must not** exceed **110 mA**. Also, it **must** be installed per the manufacturer's guidelines. *A Shunt Zener Barrier is NOT required for Non-Incendive (or Class I, Division 2 or Type N) installations.*
- (3) The combined Capacitance and Inductance of the inter-connecting cables and the PC-Prog. Loop Display **must not** exceed the values indicated on the Associated Apparatus.
- 4- For applications in the US, installation **must** be in accordance to '**ANSI-P12.6**' (Installation of I.S. Systems for Hazardous 'Classified' Locations) and the National Electric Code '**ANSI/NFPA 70**'. Also, a dust-tight conduit seal **must** be used when installed in Class II/III environments. For applications in Canada, adhere to the 'Canadian Electric Code C22.1' most current publication on I.S. installation guidelines. For CENELEC/ATEX applications, adhere to 'BS5345 or EN 60079-14:1997' or any equivalent, most current and pertaining publication on I.S. installation guidelines.
- 5- **Warning:** Substitution of components may impair the Intrinsic Safety of the unit. **DO NOT** open the unit when energized or if an explosive gas/dust atmosphere is present. Disconnect power before servicing. Also read, understand and adhere to the manufacturer's installation and operating procedures. Keep surfaces clean and dry. Use +85°C suitable cabling.