

# DO NOT SCALE DRAWING

TOLERANCES (UNLESS NOTED)	DRAWN	Gus H. Elias	09/00
	CHECKED	W. Ho	09/00
DECIMALS = 1/16, 1/32, 1/64	ENGINEER	Gus H. Elias	09/00
X = ±.1	SCALE	NONE	
XX = ±.03			
XXX = ±.005			
HOLE = ±.005			
ANGLES = ±30°			

CATEGORY

CONTROL DRAWING

DRAWING NUMBER

100-100-55

REVISION

E

**Field Installation Diagram**  
**PSD [HP]**  
**Intrinsically Safe System**  
**For Hazardous 'Classified' Locations**  
**(FM Intrinsically Safe)**

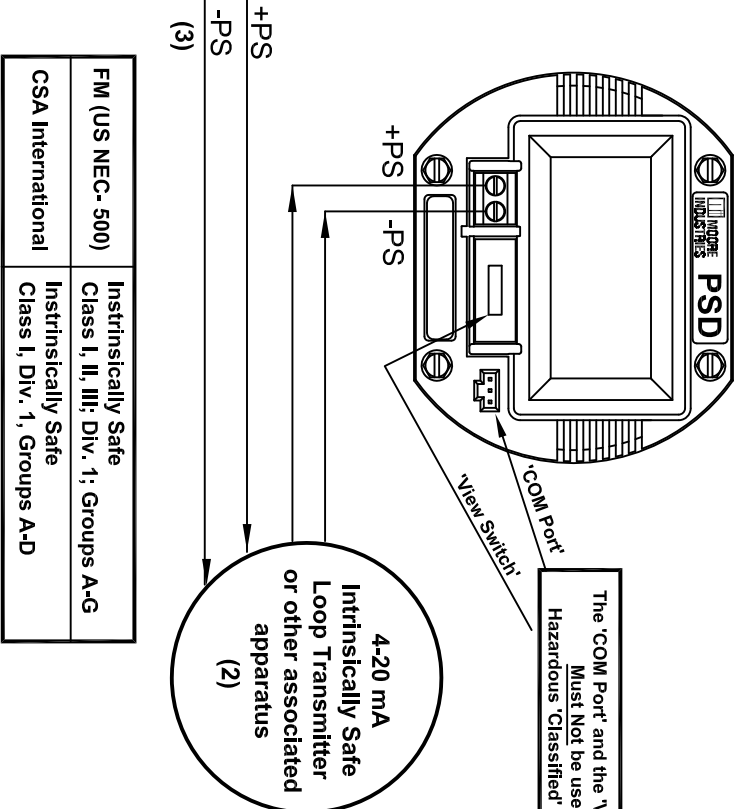
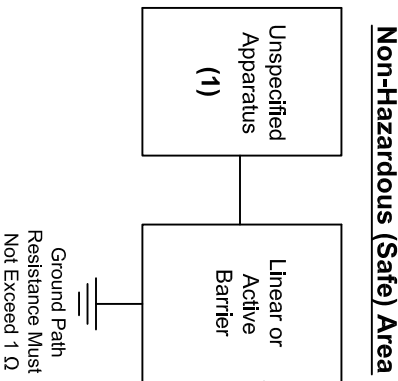
REVISED BY	DATE	BY	APPROVAL
ECO 17991	1/17	KD	CB

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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 Certifying Engineer (related drgs.) or the Certifying Agency (schedule drgs.).

PSD: PC-Programmable Loop Display

Hazardous (Classified) Location/Area



The 'COM Port' and the 'View Switch' Must Not be used in Hazardous 'Classified' Locations

**PSD Entity Parameters**  
(VDC Supply)

$V_{max}$  or  $U_i$  = 30 VDC  
 $I_{max}$  or  $I_l$  = 110 mA  
 $P_{max}$  or  $P_i$  = 0.65 W  
 $C_i$  = 0 nF  
 $L_i$  = 0 μH  
 $C_a$  or  $C_o$  ≥  $C_i$  +  $C_{cable}$   
 $L_a$  or  $L_o$  ≥  $L_i$  +  $L_{cable}$   
 $V_{max}$  or  $U_i$  ≥  $V_{oc}$  or  $V_t$   
 $I_{max}$  or  $I_l$  ≥  $I_{sc}$  or  $I_t$

This device must be agency approved (CSA, FM, LClE, etc.) as Intrinsically Safe.

T. Code: **T4 @ 85°C** Maximum Operating Ambient Temperature Range: **-40°C ≤ Tamb. ≤ +85°C**

**Notes:**

- 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.
- The Barrier or other Associated Apparatus **must** be approved by the "specific" (CSA/FM/LClE, etc.) certifying agency for I.S. connections. The output voltage **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.
- The combined Capacitance and Inductance of the inter-connecting cables and the PC Prog. Transmitters **must not** exceed the values indicated on the Associated Apparatus.  
 For FM applications, installation **must** be in accordance to **ANSI-IP12.6** (Installation of I.S. Systems for Hazardous 'Classified' Locations) and the National Electric Code **ANSI/NFPA 70**. For CSA applications, adhere to the Canadian Electric Code C22.1 'most current publication on I.S. installation guidelines'. For CENELEC/ATEX applications, adhere to 'EN 60079-14' or any equivalent, most current and pertaining publication on I.S. installation guidelines.
- Warning:** Substitution of components may impair the Intrinsic Safety of the unit. DO NOT open the unit when either energized or if an explosive gas atmosphere is present. Disconnect power before servicing. Also read, understand and adhere to the manufacturer's installation and operating procedures.
- The maximum power parameters of the COM port (to be used only in safe/non-hazardous areas) are:  $V_{max} = 3.0$  VDC,  $I_{max} = 300$  μA,  $P_{max} = 240$  μW.