MOORE INDUSTRIES

DO NOT SCALE DRAWING

TOLERANCES (UNLESS NOTED)		DRAWN	Gus H. Elias	10/00
DECIMALS = ±inch/mm		CHECKED	W.Ho	10/00
.X	= ±.1 /2.54	ENGINEER	Gus H. Elias	10/00
.XX	= ±.03 /0.76	SCALE	NONE	
.XXX	= ±.010/0.25			
HOLES:=+.003-.002/+.08-.05				
ANGLES:	= ± 30'			

CATEGORY: CONTROL DRAWING

TITLE: **Field Installation Diagram: ATEX: SDY-ISE & TDY-ISE Intrinsically Safe System For Hazardous Areas**

DRAWING NUMBER	REVISED BY	DATE	BY	REVISION / APPROVAL
100-100-59	ECO 13168	10/00	G.E.	**B** / ***CB***

CERTIFIED PRODUCT

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

Hazardous Area

CENELEC/ATEX '94/9/EC' Classifications

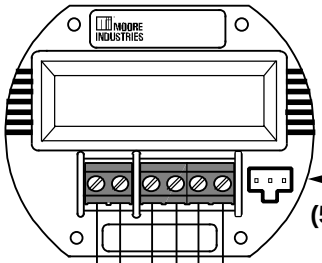
Intrinsically Safe: ⟨Ex⟩ **II 2G EEx ia IIC**

HSE-EECS/BASEEFA Cert. No.: BAS99ATEX2282X

T Code: **T4 @ 60°C** Max. Operating Ambient Temp.

Ambient Temperature Range: -40°C ≤ $T_{amb.}$ ≤ +60°C

SDY or TDY



The 'COM' Port Must Not Be Used In Hazardous Areas

(5)

Manufacturer's Declaration: MII declares that Models SDY/TDY Hockey-Puck style apparatus are designed and manufactured so as to: a) not give rise to physical injury or other harm due to contact; b) not to produce excessive surface temperature, infra-red, electro-magnetic, ionizing radiation and; c) have no non-electrical dangers.

Warning: Substitution of components may impair the Intrinsic Safety of the unit. DO NOT open the unit when either energized or when an explosive gas/dust atmoshpere is present. Disconnect power before servicing. Also read, understand and adhere to the manufacturer's installation and operating procedures.

Non-Hazardous Safe Area

Unspecified Apparatus **(1)**

Barrier or other Associated Apparatus **(2)**

+PS

-PS

(3)

4

3

2

1

(4)

RTD, T/C, mA, mV, A, V, Ω, POT.

Ground Path Resistance Must Not Exceed 1 Ω

Model SDY: PC-Programmable Signal Isolator/Converter with Display.

Model TDY: PC-Programmable Temperature Transmitter with Display.

Notes:

(1) Apparatus which is unspecified except that it **must not** be supplied from nor contain in normal or abnormal conditions a source of potential with respect to earth in excess of 250 Volts R.M.S. or 250 Volts DC.

(2) Any Single Channel Shunt Zener Diode Safety Barrier or any Single Channel of a Dual Channel Shunt Barrier certified by BASEEFA or any EEC Approved Body to [EEx ia] IIC having the following output parameters: **U_o = 28 VDC, I_o = 100 mA, P_o = 0.66 Watts**. In any safety barrier used, the output current must be limited by a resistor "R" such that Io = Uo/R.

(3) The Capacitance and either the Inductance OR the Inductance to Resistance ratio (L/R) of the cable connected to terminals +PS and -PS **must not** exceed the following values:

Group	Capacitance (µF)	Inductance (mH)	OR	L/R Ratio (µH/Ω)
IIC	0.046	3.72		52
IIB	0.613	15.51		198
IIA	2.113	31.35		418

(4) The Capacitance and either the Inductance OR the Inductance to Resistance ratio (L/R) of the cable connected to terminals 1, 2, 3 and 4 **must not** exceed the following values:

Group	Capacitance (µF)	Inductance (mH)	OR	L/R Ratio (µH/Ω)
IIC	2.00	2.97		101
IIB	480	12.59		387
IIA	980	25.23		817

(5) The terminals +PS, -PS, 1 through 4 are not protected to at least IP20. Models SDY & TDY hockey-puck style units must be housed in an enclosure meeting the requirements of Clauses 7.3.2 and 8 of EN 50014:1997 plus Amendments 1 and 2, and Clause 6.1 of EN 50020:1994.

6- The installation must comply with the appropriate national installation requirements (e.g. in the UK to EN 60079-14:1997).

7- The system must be marked with a durable label. The label should appear on or adjacent to the principal item of electrical apparatus in the system or at the interface between the Intrinsically Safe and non-Intrinsically Safe circuits. This marking shall include the word 'SYST' or 'SYSTEM' (e.g. "BAS SYSTEM No. Ex 99E2283" or "BAS No. Ex 99E2283 SYST").