



<b>DO NOT SCALE DRAWING</b>		CATEGORY CONTROL DRAWING	
TOLERANCES (UNLESS NOTED)		DRAWN C. Whan	
DECIMALS = 1/1000 X ±.1 XX ±.01 XXX ±.005		CHECKED V. Garcia	
FRACTIONS = 1/32 X ±.1/32 XX ±.0156 XXX ±.0078		ENGINEER W. Tchan	
ANGLES = ±1/2°		SCALE NONE	
		5/10	

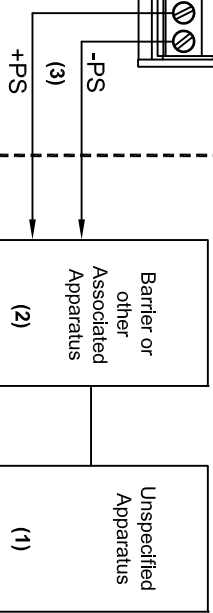
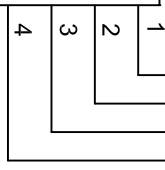
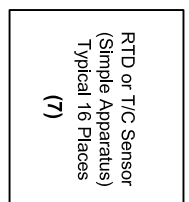
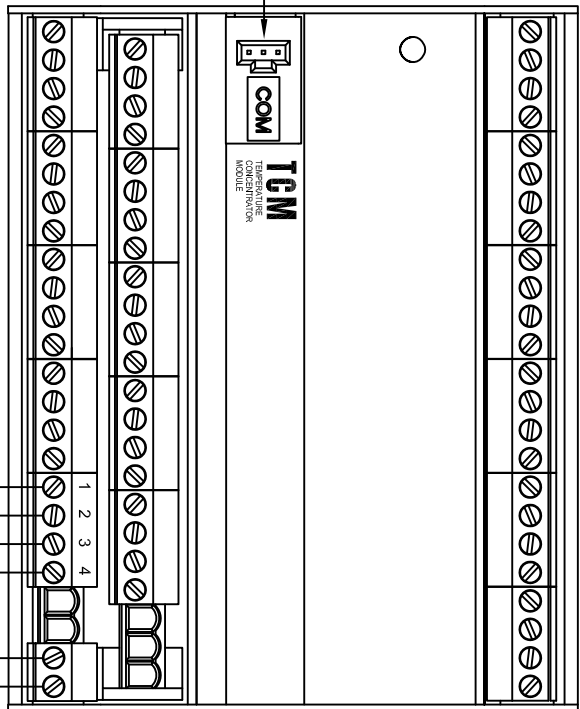
TITLE <b>Field Installation Diagram: TCM [DIN] Intrinsically Safe System</b>		DRAWING NUMBER <b>100-100-74</b>	
REVISION <b>B</b>		REVISED BY ECO 16096	
DATE 10/10		BY CW	
APPROVAL <i>CR</i>		NOTICE RE PROPRIETARY INFORMATION: This drawing and the information contained herein are the proprietary property of Moore Industries International, Inc. (MII) and should not be reproduced or disclosed to any third party without the written consent of an authorized officer of MII.	

**Hazardous Area / Explosive Atmosphere**

Entity Parameters	
Power/loop (+PS & -PS)	UI or Vmax = 30 VDC II or Imax = 110 mA PI or Pmax = 0.825 W LI = 0 µH
RTD, T/C, mV, Ω (1, 2, 3, 4)	Ca or Co = 396 µF La or Lo = 9.4 mH Voc or Vi = 4.0 VDC Isc or It = 254, 14 mA Po = 0.71738 W

**(6) Caution:**  
The COM Port Must Not Be Used In Hazardous 'Classified' Locations

Area Classification		"T" Rating	
Intrinsically Safe	Class I, Div. 1, Groups A-D Class I, Zone 0, AExIa IIC	T4 @ 85°C T5 @ 40°C	
	II 1 G Ex Ia IIC T4 ExIa IIC Ga		
Non-Incendive	Class I, Div. 2, Groups A-D		
Non-Sparking [Limited Energy]	II 3 G Ex na [nL] IIC Ex na [nL] IIC Gc		
Operating Temperature Range: <b>-40°C ≤ Tamb ≤ +85°C</b>			



Ground/Earth Path Resistance Must Not Exceed 1 Ω (Barrier must be Agency approved)

Entity Parameters	
Associated Apparatus	Ca or Co ≥ CI + Cable La or Lo ≥ LI + Cable UI or Vmax ≥ Voc or Vi PI ≥ Po

**Non-Hazardous Area**

**Notes:**

- Unspecified Apparatus must not be supplied from, or contain under normal or abnormal conditions, a source voltage in excess of 250 VRMS or 250 VDC.
- The Barrier or other Associated Apparatus must be agency-approved (FM/SIFRA/TUV, etc.) per the "specific" installation area for Intrinsically Safe connections (Zones 0/1, Class I / Div. 1). The output voltage (Voc, Vi or Vo) must not exceed 30 VDC and 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.
- The combined Capacitance and Inductance of the inter-connecting cables and the PC Programmable Transmitter must not exceed the values indicated on the Associated Apparatus.
- For US applications, installation must be in accordance to "ANSI/ISA-RP12.06.01" (Installation of I.S. Systems for Hazardous 'Classified' Locations) and the National Electric Code "ANSI/NFPA 70". For Canadian applications, adhere to the Canadian Electric Code C22.1 most current publication on I.S. Installation guidelines. For ATEX and IECEx applications, adhere to '60079-14' or any equivalent IEC-based, most current publication on I.S. Installation guidelines.
- Warning:** Substitution of components may impair the Intrinsic Safety of the units and/or the Non-Incendive circuit. DO NOT open or service the unit when either 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.
- The maximum power parameters of the COM port are: UI or Vmax = 3.0 VDC, II or Imax = 300 µA, PI or Pmax = 240 µW.
- Sensor outputs must be installed as separate Intrinsically Safe circuits OR the combined total of all the sensor outputs cannot exceed the sensor entity parameters of Uo = 4V, Io = 254, 14mA, Po = 717.38mW, Ca = 396µF, La = 9.4µH.

**Certified Product**

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