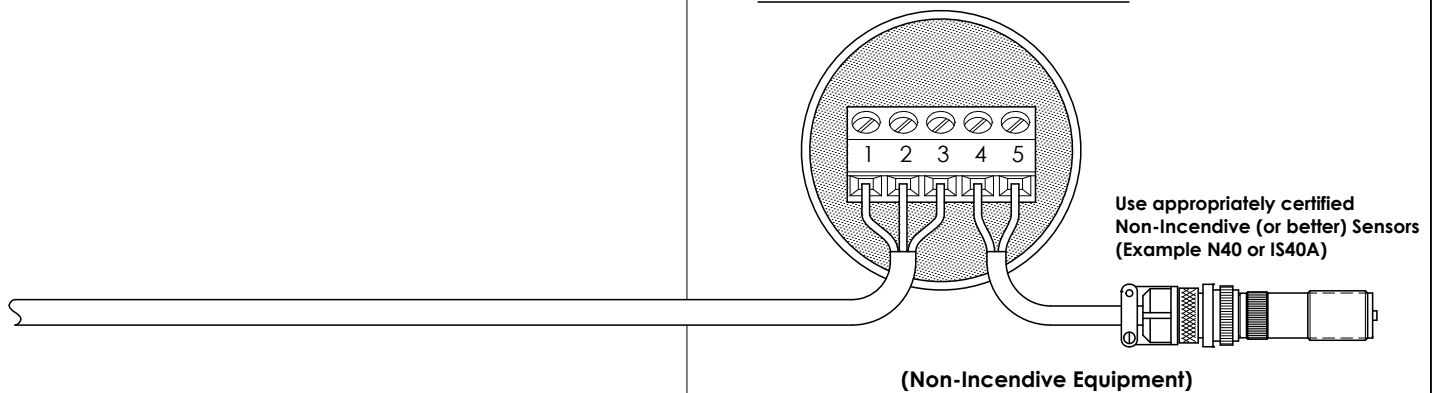


## Non-Hazardous Location



## Hazardous Location





(Non-Incendive Equipment)


$V_{max}, U_i = 30 \text{ Vdc}$   
 $I_{max}, I_i = 100 \text{ mA}$   
 $C_i = 1 \text{ nF}$  (For N4022)  
 $C_i = 12 \text{ nF}$  (For N4027)  
 $C_i = 14 \text{ nF}$  (For N4028)  
 $L_i = 0 \text{ mH max.}$   
 $P_{max}, P_i = 0.66 \text{ watts}$


## Certifications for N4022, N4027 & N4028

**ATEX:**  II 3 G Ex ec IIC T6...T4 Gc  
 FM08ATEX0069X 

**UKEX:**  II 3 G Ex ec IIC T6...T4 Gc APPROVED  
 FM22UKEX0111X

**CE:**  Compliance with  
 EN50081-1, EN50082-1 (For N4022)  
 EN55011, EN50082-2 (For N4027 & N4028)

**IECEx:**  Ex ec IIC T6...T4 Gc  
 IECEx FMG 16.0003X  
 $T_4 @ -40^\circ\text{C} \leq T_{amb} \leq +85^\circ\text{C}$   
 $T_5 @ -40^\circ\text{C} \leq T_{amb} \leq +80^\circ\text{C}$   
 $T_6 @ -40^\circ\text{C} \leq T_{amb} \leq +60^\circ\text{C}$

**USA:** Class I, II, III, Division 2  
 Group ABCDEFG T6...T4  
 Class I, Zone 2, AEx nC IIC T6...T4  APPROVED

**Canada:** Class I, Division 2  
 Group ABCD T6...T4  
 Class I, Zone 2, Ex nL IIC T6...T4  
 $T_4 @ -40^\circ\text{C} \leq T_{amb} \leq +85^\circ\text{C}$   
 $T_5 @ -40^\circ\text{C} \leq T_{amb} \leq +80^\circ\text{C}$   
 $T_6 @ -40^\circ\text{C} \leq T_{amb} \leq +60^\circ\text{C}$

### NOTES:



- The preamp shall be installed in an enclosure. It shall also be installed in compliance with the enclosure, mounting, spacing, and segregation requirements of the ultimate application.

For ATEX, UKEX, and IECEx installations the enclosure shall maintain an ingress protection rating of IP54 (or greater according to the intended use and environmental conditions) and meets the enclosure requirements of EN 60079-0 and EN 60079-7 (for UKEX installations BS EN IEC 60079-0 and BS EN IEC 60079-7, for IECEx installations IEC 60079-0 and IEC 60079-7).

**Installation** shall also be in accordance with the following standards:

for US installations follow ANSI/ISA RP12.6 and the National Electrical Code ANSI/NFPA 70,  
 for Canadian installations follow the Canadian Electrical Code,  
 for ATEX & UKEX installations follow EN 60079-14, for IECEx installations follow IEC 60079-14.

- Control Equipment** connected to associated equipment must not use or generate more than 250V.
- The non-metallic cover of the preamp is considered an electrostatic discharge hazard. Clean only with a damp cloth.
- Preamplifier should be de-energized** before separating connections.

 THUNDERBIRD INTERNATIONAL CORPORATION P.O. Box 360 • Emigrant, MT 59027 406-333-4967 • FAX: 406-333-4259	<b>DO NOT ALTER WITHOUT AGENCY APPROVAL</b>		DRAWN BY	JE	
	<b>N</b> PREAMPLIFIER AND CONVERTER FOR PASSIVE MAGNETIC SPEED SENSOR		APPROVED BY		
	TITLE		AGENCY APPROVAL DATE	NUMBER	
	NON-INCENDIVE INSTALLATION INSTRUCTIONS		Feb 17th, 2023	85049N	
	REV.	DATE			
	4	11-15-2022			