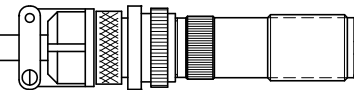


## Non-Hazardous Location

## Hazardous Location



(Non-Incendive Equipment)

$V_{max}, U_i = 30 \text{ Vdc}$

$I_{max}, I_i = 100 \text{ mA}$

$C_i = 0 \text{ nF}$  (For N100, N101, N220 & N221)

$C_i = 12 \text{ nF}$  (For N90, N91, N160, N161, N170 & N171)

$L_i = 0 \text{ mH max.}$

$P_{max}, P_i = 0.66 \text{ watts}$

### Certifications for N90 & N91, N100 & N101, N160 & N161, N170 & N171, N220 & N221

#### ATEX & IECEx:

II 3 G Ex ec IIC T6...T3 Gc

FM08ATEX0067X

IECEx FMG 16.0003X

T3 @  $-40^\circ\text{C} \leq T_{amb} \leq +135^\circ\text{C}$

T4 @  $-40^\circ\text{C} \leq T_{amb} \leq +120^\circ\text{C}$

T5 @  $-40^\circ\text{C} \leq T_{amb} \leq +85^\circ\text{C}$

T6 @  $-40^\circ\text{C} \leq T_{amb} \leq +65^\circ\text{C}$

#### USA: For N90, N100, N160, N170, & N220:

Class I, Division 2

Group ABCD T6...T5

Class I, Zone 2, AEx nC IIC T6...T5

#### For N91, N101, N161, N171, & N221:

Class I, II, III, Division 2

Group ABCDEFG T6...T5

Class I, Zone 2, AEx nC IIC T6...T5

#### CE: Compliance with

EN55011, EN50082-2

#### Canada: Class I, Division 2

Group ABCD T6...T5

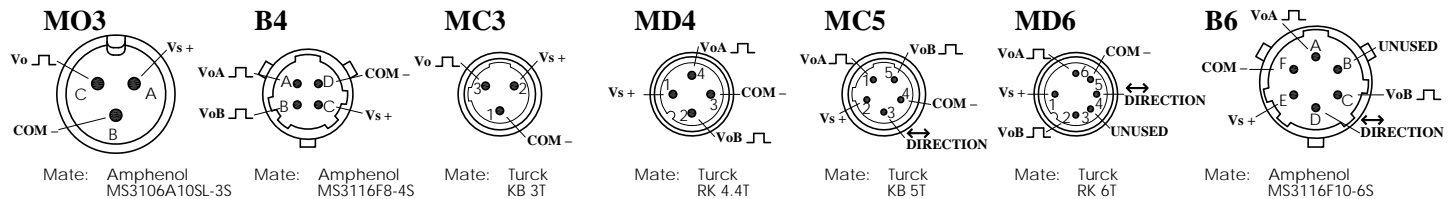
Class I, Zone 2, Ex nL IIC T6...T5

T5 @  $-40^\circ\text{C} \leq T_{amb} \leq +85^\circ\text{C}$

T6 @  $-40^\circ\text{C} \leq T_{amb} \leq +65^\circ\text{C}$

#### NOTES:

- Installation** to 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 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.
- Sensor must be mounted as part of a bonded structure.**
- Sensor should be de-energized** before separating connector and sensor.
- Aluminum housings: The mounting bracket contains aluminum and is considered to constitute a potential risk of ignition by impact or friction and must be taken into account during installation.**
- Lead Wires:** Red/Vs+, Black/Common-, White/Vo Output A, Yellow/Vo Output B, Green/Direction  
**Connector:**



**SPECTEC**  
THUNDERBIRD INTERNATIONAL CORPORATION

P.O. Box 360 • Emigrant, MT 59027  
406-333-4967 • FAX: 406-333-4259

DO NOT ALTER WITHOUT AGENCY APPROVAL

**N**

DIGISPEC SPEED AND  
POSITION SENSOR



TITLE  
NON-INCENDIVE  
INSTALLATION INSTRUCTIONS

AGENCY APPROVAL DATE  
Feb 03, 2017  
REV. 4    DATE 11-29-16

DRAWN BY JE

APPROVED BY *JE*  
SCALE PROCESS SPEC.

NUMBER  
**85047N**