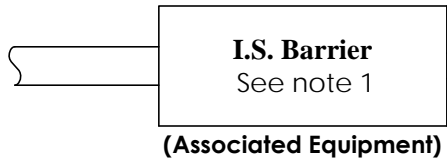


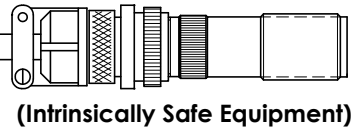
Non-Hazardous Location



$$\begin{aligned} V_{max}, U_i &\geq U_o, V_{oc} \text{ or } V_t \\ I_{max}, I_i &\geq I_o, I_{sc} \text{ or } I_t \\ C_o \text{ or } C_a &\geq C_i + C_c \\ L_o \text{ or } L_a &\geq L_i + L_c \\ P_t \text{ or } P_o &\leq P_i \end{aligned}$$

Hazardous Location

Cable seal



$$\begin{aligned} V_{max}, U_i &= 30 \text{ Vdc} \\ I_{max}, I_i &= 100 \text{ mA} \\ C_i &= 0 \mu\text{F} \\ L_i &= 1.50 \text{ mH max.} \\ P_{max}, P_i &= 0.66 \text{ watts} \end{aligned}$$

Certifications for IS70A & IS71A

ATEX: II 1 G Ex ia IIC T6...T4 Ga
FM08ATEX0066X

IECEX: Ex ia IIC T6...T4 Ga
IECEX FMG 16.0003X

T4 @ $-40^\circ\text{C} \leq T_{amb} \leq +100^\circ\text{C}$

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

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

CE: Compliance with
EN55011, EN50082-2

Certifications for IS70 & IS71

USA: Intrinsically Safe
Class I, II, III, Division 1
Group ABCDEFG T6...T5
Class I, Zone 0, AEx ia IIC T6...T5

Canada: Intrinsically Safe
Class I, Division 1
Group ABCD T6...T5
Class I, Zone 0, Ex ia IIC T6...T5

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

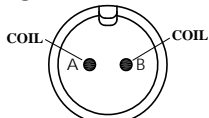
T6 @ $-40^\circ\text{C} \leq T_{amb} \leq +65^\circ\text{C}$

NOTES:

- Barrier must satisfy the electrical requirements listed above.**
Barrier manufacturer's installation drawing must be followed when installing the system.
For US installations, the barrier configuration must be FM Global approved.
- 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.
- Lead Wires:** Black and/or White

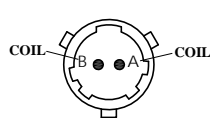
Connector:

MO



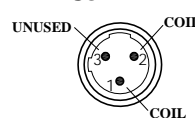
Mate: Amphenol
MS3106A10SL-4S

B



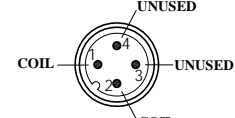
Mate: Amphenol
MS3116F8-2S

MC3



Mate: Turck
KB 3T

MD4



Mate: Turck
RK 4.4T

SPECTEC
THUNDERBIRD INTERNATIONAL CORPORATION

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

DO NOT ALTER WITHOUT AGENCY APPROVAL

IS

RF SPEED AND
POSITION SENSOR



TITLE
INTRINSICALLY SAFE
INSTALLATION INSTRUCTIONS

AGENCY APPROVAL DATE
Feb 03, 2017
REV. 11 DATE 01-05-17

DRAWN BY JE

APPROVED BY *JE*
SCALE PROCESS SPEC.

NUMBER
85046