



**DO NOT SCALE DRAWING**

**TOLERANCES (UNLESS NOTED)**  
 DECIMALS = ±inch /mm  
 .X = ±.1 /2.54  
 .XX = ±.01 /0.25  
 .XXX = ±.005 /0.125  
 HOLES = ±.003 /0.080  
 ANGLES = ±1/2°

DRAWN	C. Whan	6/09
CHECKED	VG	6/09
ENGINEER	H. Elsayed	6/09
SCALE	NONE	

CATEGORY  
**CONTROL DRAWING**

TITLE  
**Field Installation Diagram:  
TS200 Device Coupler  
- cFMus -**

DRAWING NUMBER  
**100-100-76 SHEET 1 OF 2**

REVISION  
**B**

REVISED BY <b>ECO 16973</b>	DATE <b>9/13</b>	BY <b>CW</b>	APPROVAL <b>CB</b>
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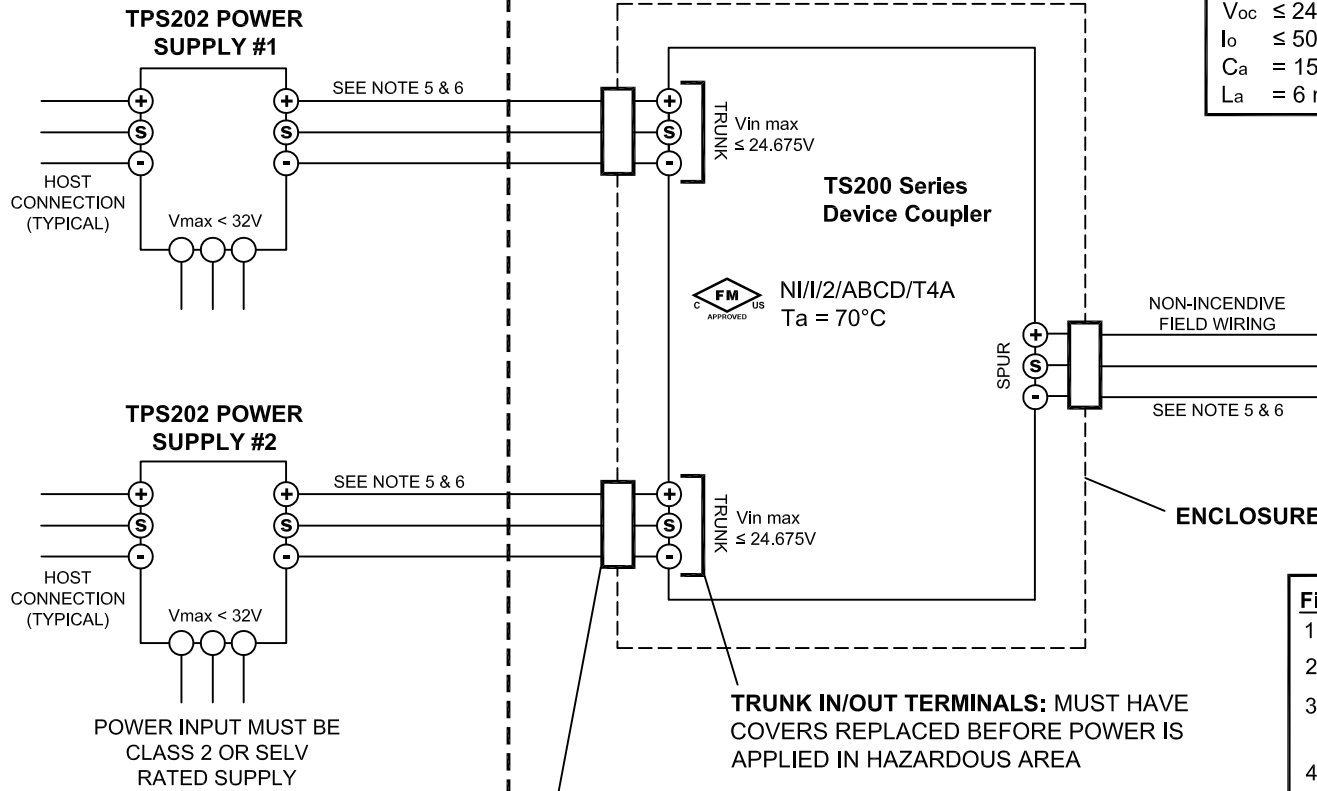
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**UNCLASSIFIED LOCATION**

**HAZARDOUS LOCATION**

CLASS I, DIVISION 2, GROUPS A, B, C & D  
 $-45^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$

INSTALLATION SHALL BE CARRIED OUT BY SUITABLY TRAINED PERSONNEL AND IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (ANSI/NFPA 70) OR CODES OF PRACTICE. USER REPAIR OF TS200 UNITS IS NOT POSSIBLE.  
**WARNING: SUBSTITUTION OF ANY COMPONENT MAY IMPAIR SUITABILITY FOR DIVISION 2.**



**Spur Connections:**  
 $V_{oc} \leq 24V$  : for  $V_{in\ max} \leq 24.675V$   
 $I_o \leq 50mA$   
 $C_a = 150nF$   
 $L_a = 6\ mH$

**Non-Incendive Connections:**  
 Spurs are Non-Incendive if cable parameters quoted are not exceeded. Non-Incendive Spurs may be disconnected and reconnected under power.

**FIELDBUS DEVICE**  
 Any FM (Entity) Approved Apparatus for Class I Division 2 Non-Incendive, Class I Division 1 Intrinsically Safe. Only 1 Device may be connected per Spur, using shielded single twisted pairs only, either as single shielded cables or within a multicore where each pair is shielded. Device maximum rated voltage and current must not be exceeded.

- Field Wiring Notes:**
- No revision to drawing may be made without prior FM Approval.
  - The Non-Incendive Apparatus must be FM approved.
  - Associated Apparatus manufacturer's installation drawing must be followed when installing this equipment.
  - The Non-Incendive Field Wiring Concept allows interconnection of Non-Incendive Apparatus with Associated Apparatus not specifically examined in combination as a system when:  
 $V_{max\ OR\ U_i} > V_{oc}$ ;  $V_t\ OR\ U_o$ ;  $C_a > C_i + C_{cable}$ ;  $L_a > L_i + L_{cable}$
  - Installation in the U.S. should be in accordance with the National Electrical Code (ANSI/NFPA 70). Division 2 wiring method must be installed as per NEC.
  - Installation in Canada should be in accordance with the latest edition of the C22.1 Canadian Electrical Code, Part I.
  - Any external enclosure shall meet the requirements of ANSI/ISA 61010-1.

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

**WARNING - EXPLOSION HAZARD**  
 DO NOT DISCONNECT AT TRUNK TERMINALS WHEN FLAMMABLE OR COMBUSTIBLE ATMOSPHERE IS PRESENT

**CABLE FITTINGS(S): MUST MAINTAIN IP RATING OF ENCLOSURE IN SERVICE FOR ALL ENTRIES**

**TRUNK IN/OUT TERMINALS: MUST HAVE COVERS REPLACED BEFORE POWER IS APPLIED IN HAZARDOUS AREA**



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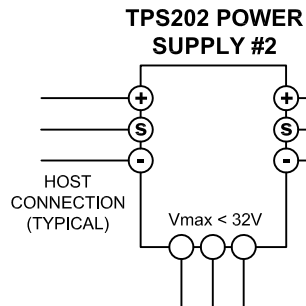
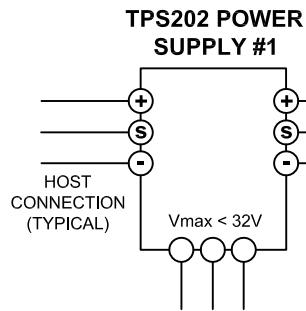
DRAWN	C. Whan	6/09
CHECKED	See Sht.1	
ENGINEER	See Sht.1	
SCALE	NONE	

CATEGORY CONTROL DRAWING  
 TITLE Field Installation Diagram:  
 TS200 Device Coupler  
 - IECEX -  
 - Legacy [nL] ATEX -

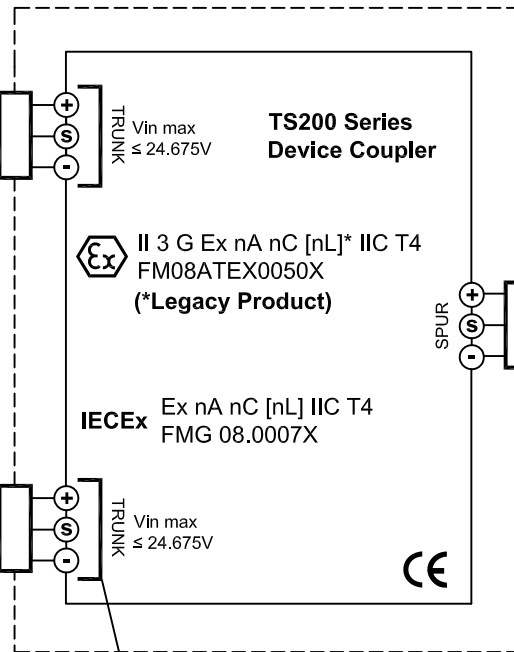
DRAWING NUMBER <b>100-100-76</b>		SHEET 2 OF 2		REVISION <b>B</b>
REVISED BY <b>SEE SHEET 1</b>	DATE	BY	APPROVAL	
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**UNCLASSIFIED AREA**

**EXPLOSIVE ATMOSPHERES**



POWER INPUT MUST BE CLASS 2 OR SELV RATED SUPPLY



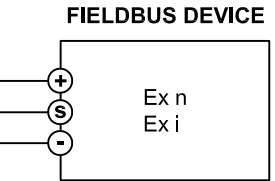
TRUNK IN/OUT TERMINALS: MUST HAVE COVERS REPLACED BEFORE POWER IS APPLIED IN HAZARDOUS AREA

CABLE FITTINGS(S): MUST MAINTAIN IP RATING OF ENCLOSURE IN SERVICE FOR ALL ENTRIES

INSTALLATION SHALL BE CARRIED OUT BY SUITABLY TRAINED PERSONNEL AND IN ACCORDANCE WITH THE LATEST EDITIONS OF THE WIRING PRACTICES FOR THE COUNTRY OF ORIGIN. USER REPAIR OF TS200 UNITS IS NOT POSSIBLE.

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DEVICE MAXIMUM RATED VOLTAGE AND CURRENT MUST NOT BE EXCEEDED

ENCLOSURE: EX E OR EX N OR OTHERWISE SUITABLE FOR CATEGORY 3 G D APPLICATIONS. IP54 MINIMUM FOR GAS HAZARDS. IP6X MINIMUM FOR DUST HAZARDS. MUST BE CLOSED BEFORE USE IN HAZARDOUS AREA.

NO ACCESS TO TRUNK IN/OUT WIRING UNDER POWER IS PERMITTED UNLESS THE AREA IS KNOWN TO BE NON-HAZARDOUS BY (FOR EXAMPLE) LOCAL GAS DETECTION

IF ANY OTHER CIRCUITS PRESENT: CREEPAGE/CLEARANCE > 1mm BETWEEN ANY WIRING AND GROUNDED METAL AND ANY LIVE PARTS SHROUDED TO IP30 MINIMUM (IF LIVE WHEN ENCLOSURE IS OPENED).

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