

SCHEDULE



to EC-Type Examination Certificate No. FM07ATEX0007X

13 Description of Equipment or Protective System:

The Model TFZ and TPZ are temperature transmitters which accept a direct input from RTD, T/C, Ohms, mV or potentiometer input sensors. The temperature transmitter then converts the input sensor signal for a true temperature reading. The Model TFZ temperature transmitter utilizes PROFIBUS communication and the Model TPZ temperature transmitter utilizes Fieldbus communication.

TFZ/a/H1/b/-c [d]. Temperature Transmitter.

Energy Limitation Parameters:

$V_{max} = 30V$, $I_{max} = 300mA$, $P_i = 1.3W$, $C_i = 0\mu F$, $L_i = 7.15\mu H$.

FISCO Parameters:

$V_{max} = 24V$, $I_{max} = 380mA$, $P_i = 5.32W$, $C_i = 0\mu F$, $L_i = 7.15\mu H$.

Field Sensor Energy Limitation Parameters:

$U_o = 6.6V$, $I_o = 35.24mA$, $P_o = 57.53mW$, $C_o = 20.53\mu F$, $L_o = 25mH$ (Group IIC).

$U_o = 6.6V$, $I_o = 35.24mA$, $P_o = 57.53mW$, $C_o = 498.53\mu F$, $L_o = 100mH$ (Group IIB).

$U_o = 6.6V$, $I_o = 35.24mA$, $P_o = 57.53mW$, $C_o = 998.54\mu F$, $L_o = 200mH$ (Group IIA).

a= Input: TPRG, J-, K-, E-, T-, R-, S-, N-, B-, C-, MV, R1-, R2-, R3-, R4-, R5-, R6-, R7-, R8-, R9-, R10-, R11-, R12-, R13-, R14-, RO- or POT-.

b= Power: 9-30DC (Intrinsically Safe), 9-24V (FISCO).

c= Options: VTB or VTD.

d= Housing options: DN, FL, HP, TW or VDN.

TPZ/a/PA/b/-c [d]. Temperature Transmitter.

Energy Limitation Parameters:

$V_{max} = 30V$, $I_{max} = 300mA$, $P_i = 1.3W$, $C_i = 0\mu F$, $L_i = 7.15\mu H$.

FISCO Parameters:

$V_{max} = 24V$, $I_{max} = 380mA$, $P_i = 5.32W$, $C_i = 0\mu F$, $L_i = 7.15\mu H$.

Field Sensor Energy Limitation Parameters:

$U_o = 6.51V$, $I_o = 35.39mA$, $P_o = 57.6W$, $C_o = 20\mu F$, $L_o = 25mH$ (Group IIC).

$U_o = 6.51V$, $I_o = 35.39mA$, $P_o = 57.6W$, $C_o = 498\mu F$, $L_o = 100mH$ (Group IIB).

$U_o = 6.51V$, $I_o = 35.39mA$, $P_o = 57.6W$, $C_o = 998\mu F$, $L_o = 200mH$ (Group IIA).

a= Input: TPRG, J-, K-, E-, T-, R-, S-, N-, B-, C-, MV, R1-, R2-, R3-, R4-, R5-, R6-, R7-, R8-, R9-, R10-, R11-, R12-, R13-, R14-, RO- or POT-.

b= Power: 9-30DC (Intrinsically Safe) 9-24V (FISCO).

c= Options: VTB or VTD.

d= Housing options: DN, FL, HP, TW or VDN.

14 Special Conditions for Safe Use:

1. *The Temperature Transmitter shall be installed in an enclosure which maintains an ingress protection rating of IP20.*
2. *For Zone 0 installations, the final enclosure shall not contain more than 10% in total of aluminum, magnesium, titanium and zirconium, or more than 7.5% in total of magnesium, titanium and zirconium; For Zone 1 installations, the final enclosure shall not contain 7.5% in total of magnesium.*
3. *Using the box provided on the nameplate, the user shall permanently mark the protection type chosen for the specific installation. Once the type of protection has been marked it shall not be changed.*
4. *The COM port shall not be used in the hazardous area.*

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

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15 Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16 Test and Assessment Procedure and Conditions:

This EC-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Ltd's ATEX Certification Scheme.

17 Approved Drawings

Drawing No:	Revision	Title / Description
100-100-72	A	Control Drawing: Field Installation Diagram: TFZ [HP] & TPZ [HP] Intrinsically Safe Systems
200-213-05	F	Fabrication: Bottom Case Cover
200-251-2251	A	Label: Rear ID label (TPZ)
200-251-2253	A	Label: Rear ID label (TFZ)
200-301-00	C	Fabrication: Blank Labels, Weber TIY Rear Panel
205-217-01	D	Fabrication: Front Panel TDY-HP
207-223-00	C	Mech. Assembly: TPZ Top Assembly[HP]
207-286-00	B	Mech. Assembly: TFZ Top Assembly [HP]
207-286-05	A	Fabrication: Front Panel Modified, TFZ
207-866-00	A	List of Materials: TFZ-HP, Mech Assy
238-405-00	A	Display Board PC1, TFZ [HP]
238-405-01	A	Schematic: TFZ [HP] CPU Board PC2
238-405-02	A	Schematic: TFZ [HP] Power Supply PC3
238-409-00	A	Schematic: Display Board PC1, TPZ [HP]
238-409-01	B	Schematic: TPZ [HP] CPU Board
238-409-02	B1	Schematic: TPZ [HP] Power Supply PC2
Drawing No:	Revision	Title / Description
238-506-00	A	PC Assembly: PC1 TFZ [HP]
238-507-00	A	PC Assembly: PC2, TFZ [HP]

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238-508-00	A	PC Assembly: PC3, TFZ [HP]
238-705-00	A	TFZ Programmable Foundation Fieldbus Temperature Transmitter Manual
238-705-04	A	Model Number Example (TFZ)
238-709-00	E	TPZ Programmable Profibus Temperature Transmitter Manual
238-709-04	D	Model Number Example (TPZ)
238-805-00	A	List of Materials: TFZ-HP, Top Assy
238-806-00	A	List of Materials: TFZ-HP, PC1 Assy Drawing
238-807-00	A	List of Materials: TFZ-HP, PC2 Assy Drawing
238-808-00	A	List of Materials: TFZ-HP, PC3 Assy Drawing
238-810-00	A	List of Materials: PC1 TPZ Display Board
238-811-00	A	List of Materials: PC2 TPZ Assy CPU
238-812-00	A1	List of Materials: PC3 Assy Power Supply
506-510-01	A2	PC Fabrication: PC1 TFZ/TPZ [HP]
508-585-01	A	PC Fabrication: PC1, TFZ/TPZ - HP
508-585-02	A	Board Layout: THZ/TPZ-HP PC1 Display
508-586-01	B1	PC2 Fabrication: PC2, TFZ/TPZ-HP
508-586-02	B	Board Layout: PC2 TFZ/TPZ CPU Board
508-587-01	A1	PC Fabrication: PC3, TFZ/TPZ-HP
508-587-02	A	Board Layout: PC3, TFZ/TPZ Power Supply
810-804-73	A1	Spec Control: Transformer TFZ/TPZ [DIN]

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