

ATEX/IECEX Hazardous Area Approvals - Fisher™ FIELDVUE™ 4400 Digital Position Transmitter

Hazardous Area Approvals and Special Instructions for “Safe Use” and Installations in Hazardous Locations

Certain nameplates may carry more than one approval, and each approval may have unique installation/wiring requirements and/or conditions of “safe use”. These special instructions for “safe use” are in addition to, and may override, the standard installation procedures. Special instructions are listed by approval type.

NOTE

This information supplements the nameplate markings affixed to the product and the 4400 Instruction Manual (D104738X012), available from your [Emerson sales office](#) or at [Fisher.com](#).

Always refer to the nameplate itself to identify the appropriate certification.

WARNING

Failure to follow these conditions of “safe use” could result in personal injury or property damage from fire or explosion and area re-classification.

WARNING

To avoid static discharge from the enclosure when flammable gases or dust are present, do not rub or clean with solvents. To do so could result in a spark that may cause the flammable gases or dust to explode, resulting in personal injury or property damage. Clean with a mild detergent and water only.

WARNING

COVER TIGHT WHILE CIRCUITS ARE ALIVE.

REFER TO MANUAL FOR ADDITIONAL CAUTION /WARNINGS.

POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS.

AFTER DE-ENERGIZING, DELAY ONE MINUTE BEFORE OPENING.

ATEX  II 1 GD - II 2 G - II 3 G

CSANe 23ATEX1221X

Flameproof, Intrinsically Safe, Dust by Enclosure

Covered by Standard(s):

EN IEC 60079-0:2018

EN 60079-1:2014

EN IEC 60079-11: 2024 Ed 7

EN IEC 60079-31: 2024 Ed 3

Ex db IIC T5($T_a \leq 80^\circ\text{C}$), T6($T_a \leq 75^\circ\text{C}$) Gb

Ex ia IIC T4($T_a \leq 80^\circ\text{C}$), T5($T_a \leq 60^\circ\text{C}$), T6($T_a \leq 45^\circ\text{C}$) Ga

Ex ic IIC T4($T_a \leq 80^\circ\text{C}$), T5($T_a \leq 60^\circ\text{C}$), T6($T_a \leq 45^\circ\text{C}$) Gc

Ex ta IIC T₂₀₀ 120°C($T_a \leq 80^\circ\text{C}$) Da

See Figure 1 for the ATEX/IECEx approval nameplate and Figure 2 and 3 for the 4400 loop schematic GK10608.

IECEx

IECEx CSAE 23.0055X

Flameproof, Intrinsically Safe, Dust by Enclosure

Covered by Standard(s):

IEC 60079-0:2017

IEC 60079-1:2014

IEC 60079-11:2023

IEC 60079-31:2022/COR1:2023

Ex db IIC T5($T_a \leq 80^\circ\text{C}$), T6 ($T_a \leq 75^\circ\text{C}$) Gb

Ex ia IIC T4($T_a \leq 80^\circ\text{C}$), T5($T_a \leq 60^\circ\text{C}$), T6($T_a \leq 45^\circ\text{C}$) Ga

Ex ic IIC T4($T_a \leq 80^\circ\text{C}$), T5($T_a \leq 60^\circ\text{C}$), T6($T_a \leq 45^\circ\text{C}$) Gc

Ex ta IIC T₂₀₀ 120°C($T_a \leq 80^\circ\text{C}$) Da

See Figure 1 for the ATEX/IECEx approval nameplate and Figure 2 and 3 for the 4400 loop schematic GK10608.

Specific Conditions of Use

CSANe 23ATEX1221X and IECEx CSAE 23.0055X

1. Installation per instruction manual D104738X012 and DWG GK10608.
2. This equipment to be used as Flameproof device certified based on IEC 60079-1:2014 Ed 7 shall be installed with a suitably certified conduit sealing device within 50 mm (2 inches) of the enclosure and where it enters or leaves a hazardous area, to prevent the transmission of gases or liquids from the hazardous areas to non-hazardous areas. There shall be no union, coupling or other fittings between the sealing device and the hazardous area's boundary.
3. The equipment to be used as Flameproof device certified based on IEC 60079-1:2014 Ed 7 is powered via Class 2 or limited energy power source with operating voltages not exceeding limits of 30Vrms, 42.4Vp-p and 60Vdc.
4. The equipment to be used as Intrinsically Safe device certified based on IEC 60079-11:2023 Ed 7 shall be installed according to Control Drawing GK10608.

Figure 1. 4400 ATEX/IECEx Nameplate (GK16611)

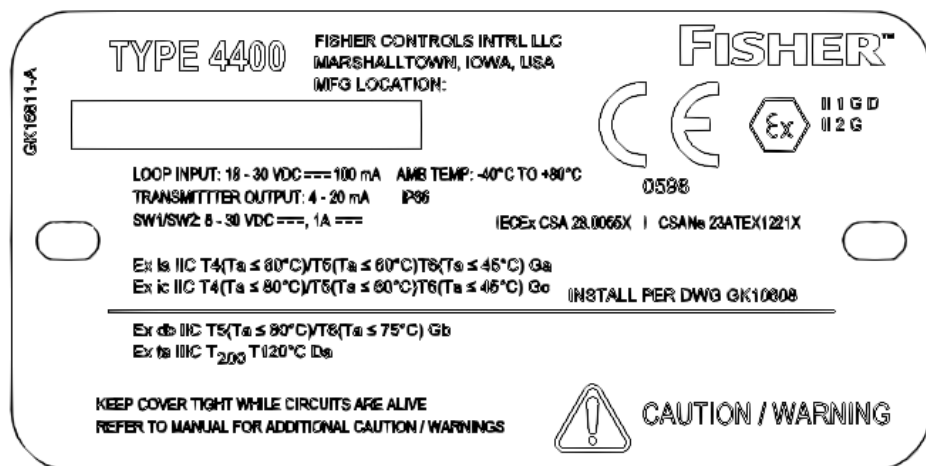


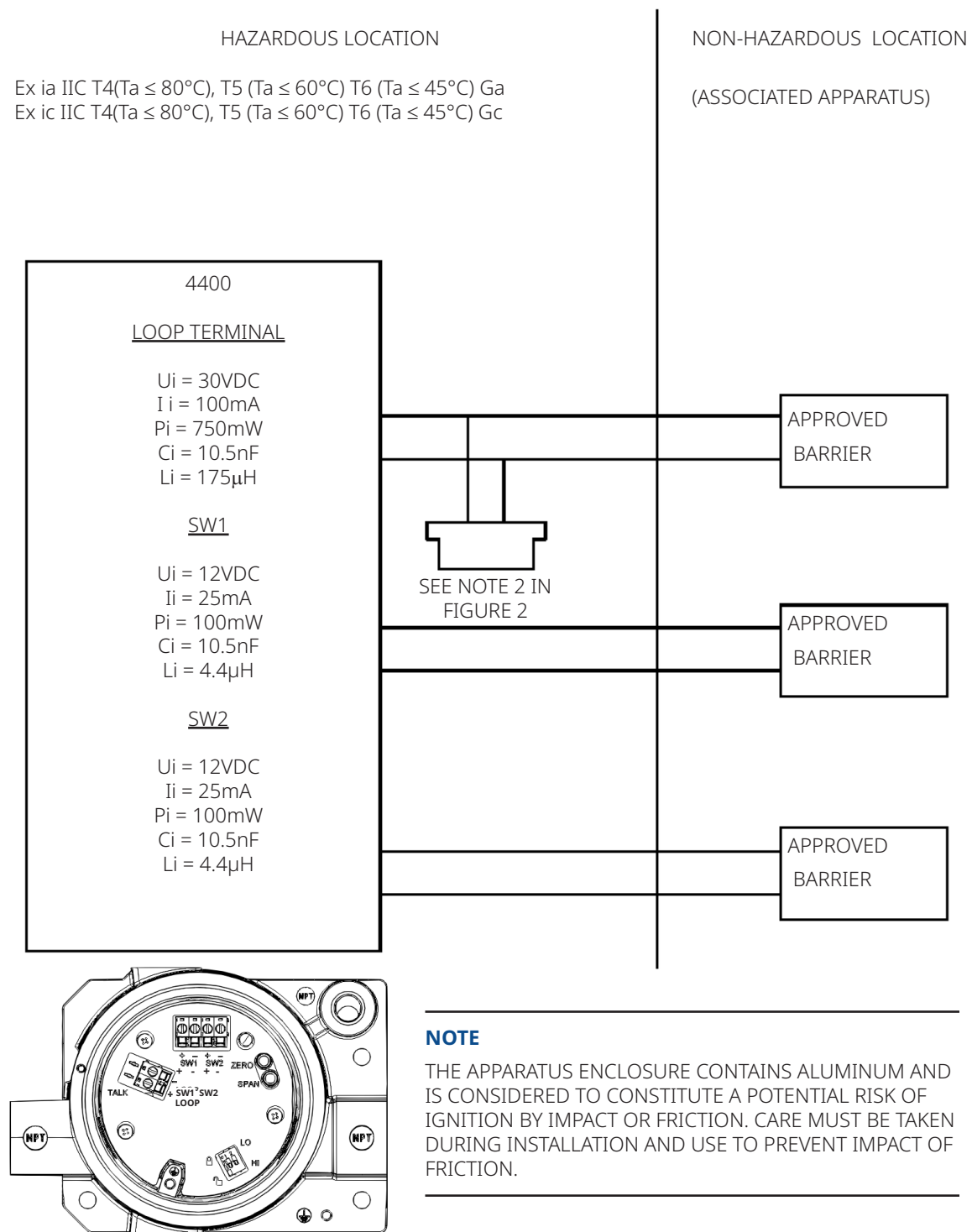
Figure 2. 4400 Loop Schematic (GK10608) (see NOTES in Figure 3)

Figure 3. 4400 Loop Schematic (GK10608): NOTES

NOTES

- 1) BARRIERS MUST BE APPROVED WITH ENTITY PARAMETERS AND ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S I.S. INSTALLATION INSTRUCTIONS.
- 2) THE ENTITY CONCEPT ALLOWS INTERCONNECTION OF INTRINSICALLY SAFE APPARATUS TO ASSOCIATED APPARATUS, NOT SPECIFICALLY EXAMINED IN SUCH COMBINATION. THE CRITERIA FOR INTER CONNECTION IS THAT THE VOLTAGE (V_{max} or U_i) AND THE CURRENT (I_{max} or I_i) AND THE POWER (P_{max} or P_i) OF THE INTRINSICALLY SAFE APPARATUS MUST BE EQUAL TO OR GREATER THAN THE VOLTAGE (V_{oc} or U_o) AND CURRENT (I_{sc} or I_o) AND POWER (P_{out} or P_o) DEFINED BY THE ASSOCIATED APPARATUS. IN ADDITION, THE SUM OF THE MAXIMUM UNPROTECTED CAPACITANCE (C_i) AND INDUCTANCE (L_i) OF EACH INTRINSICALLY SAFE APPARATUS, AND THE INTERCONNECTING WIRING, MUST BE LESS THAN THE ALLOWABLE CAPACITANCE (C_a or C_o) AND INDUCTANCE (L_a or L_o) DEFINED BY THE ASSOCIATED APPARATUS. IF THESE CRITERIA ARE MET, THEN THE COMBINATION MAY BE CONNECTED.

$$V_{max} \text{ or } U_i \leq V_{oc} \text{ or } U_o$$

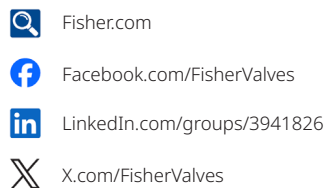
$$I_{max} \text{ or } I_i \leq I_{sc} \text{ or } I_o$$

$$P_{max} \text{ or } P_i \leq P_{out} \text{ or } P_o$$

$$C_i + C_{cable} \leq C_a \text{ or } C_o$$

$$L_i + L_{cable} \leq L_a \text{ or } L_o$$

- 3) IF HAND-HELD COMMUNICATOR OR MULTIPLEXOR IS USED, IT MUST BE APPROVED AND INSTALLED PER THE MANUFACTURER'S CONTROL DRAWING.
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Emerson
Marshalltown, Iowa 50158 USA
Sorocaba, 18087 Brazil
Cernay, 68700 France
Dubai, United Arab Emirates
Singapore 128461 Singapore

www.Fisher.com

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