

IECEx Hazardous Area Approvals Fisher™ 646 Electro-Pneumatic Transducer

Hazardous Area Classifications and Special Instructions for “Safe Use” and Installation 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.

Note

This information supplements the nameplate markings affixed to the product and the 646 instruction manual ([D101351X012](#)), available from your Emerson sales office or Local Business Partner, 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.

Conditions of Certification

Intrinsically Safe

⚠ WARNING

Substitution of components may impair intrinsic safety.

$-40^{\circ}\text{C} \leq T_a \leq +71^{\circ}\text{C}$; T5 ($T_a \leq +40^{\circ}\text{C}$) ; T4 ($T_a \leq +71^{\circ}\text{C}$)

Entity Parameters: $U_i = 30\text{ V}$, $I_i = 150\text{ mA}$, $P_i = 1.0\text{ W}$, $C_i = 0\text{ nF}$, $L_i = 0\text{ mH}$

Flameproof**⚠ WARNING****Disconnect power before opening.** $-40^{\circ}\text{C} \leq T_a \leq +71^{\circ}\text{C}$; T6 ($T_a \leq +71^{\circ}\text{C}$)**Type n****⚠ WARNING****Disconnect power before opening.** $-40^{\circ}\text{C} \leq T_a \leq +71^{\circ}\text{C}$; T6 ($T_a \leq +71^{\circ}\text{C}$)

Refer to table 1 for additional information.

Table 1. Approval Information

Certificate	Certification Obtained	Entity Rating	Temperature Code
IECEX	Intrinsically Safe Gas Ex ia IIC T4/T5 Ga	$U_i = 30 \text{ VDC}$ $I_i = 150 \text{ mA}$ $P_i = 1.0 \text{ W}$ $C_i = 0 \text{ nF}$ $L_i = 0 \text{ mH}$	T4 ($T_{amb} \leq 71^{\circ}\text{C}$) T5 ($T_{amb} \leq 40^{\circ}\text{C}$)
	Flameproof Gas Ex d IIC T6 Gb	---	T6 ($T_{amb} \leq 71^{\circ}\text{C}$)
	Type n Gas Ex nA IIC T6 Gc	---	T6 ($T_{amb} \leq 71^{\circ}\text{C}$)

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