

# ATEX 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.

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### 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.

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### **⚠ 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.**

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### Standards Used for Certification

EN 60079-0: 2012    EN 60079-15: 2010    EN 61241-1: 2004  
EN 60079-1: 2007    EN 60079-31: 2009    EN 61241-11: 2006  
EN 60079-11: 2012    EN 61241-0: 2006

### Special Conditions for Safe Use

#### Intrinsically Safe

This equipment is intrinsically safe and can be used in potentially explosive atmospheres.

The electrical parameters of certified equipment which can be connected to the device must not exceed the following values:  $U_0 \leq 30$  VDC ;  $I_0 \leq 150$  mA ;  $P_0 \leq 1$  W

Ambient temperature: T5, at  $T_{amb} = 40^\circ\text{C}$  ; T4, at  $T_{amb} = 71^\circ\text{C}$

**Flameproof**

The flame path is other than required by EN 60079-1. Contact the manufacturer for information on the dimensions of the flameproof joints.

Electrical connections are typically made using either cable or conduit.

- If using a cable connection, the cable entry device shall be certified in type of explosion protection flameproof enclosure “d”, suitable for the conditions of use and correctly installed.

For ambient temperatures over 70°C, cables and cable glands suitable for at least 90°C shall be used.

- If using a rigid conduit connection, an Ex d certified sealing device such as a conduit seal with setting compound shall be provided immediately to the entrance of the enclosure.

For ambient temperatures over 70°C, the wiring and setting compound in the conduit seal shall be suitable for at least 90°C.

**Type n**

No special conditions for safe use.

Refer to table 1 for additional information.

**Table 1. Approval Information**

Certificate	Certification Obtained	Entity Rating	Temperature Code
ATEX	⊕ II 1 G & D		
	Intrinsically Safe Gas Ex ia IIC T4/T5 Ga	Ui = 30 VDC Ii = 150 mA Pi = 1.0 W	T4 (Tamb ≤ 71°C) T5 (Tamb ≤ 40°C)
	Dust Ex ia IIIC Da T155 °C (Tamb ≤ 71°C) / T124°C (Tamb ≤ 40°C)	Ci = 0 nF Li = 0 mH	---
	⊕ II 2 G & D		
	Flameproof Gas Ex d IIC T6 Gb	---	T6 (Tamb ≤ 71°C)
	Dust Ex tb IIIC T74 °C Db (Tamb ≤ 71°C)		---
	⊕ II 3 G & D		
	Type n Gas Ex nA IIC T6 Gc	---	T6 (Tamb ≤ 71°C)
Dust Ex tc IIIC T74 °C Dc (Tamb ≤ 71°C)		---	

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