

NEPSI Hazardous Area Approvals for Fisher® 4320 Wireless Position Monitor with On/Off Control Option

This supplement provides NESPI Hazardous Area Approval information for the 4320 Wireless Position Monitor with On/Off Control Option. Use this in conjunction with information provided in the 4320 Wireless Position Monitor with On/Off Control Option instruction manual (D103621X012).

NEPSI—National Supervision and Inspection Centre for Explosion Protection and Safety of Instrumentation. NEPSI approval is accepted in China.

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. Refer to the instruction manual for all other information regarding the 4320 wireless position monitor.

Note

This information supplements the nameplate markings affixed to the product.

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.

Standards Used for Certification

IEC 60079-0:2011	GB 3836.1-2010
IEC 60079-11:2011	GB 3836.4-2010
IEC 60079-26:2006	GB 3836.20-2010

Intrinsically Safe

Ex ia IIC T3/T4/T5 Ga (battery powered, without pneumatic output)

Ex ia IIC T4/T5/T6 Ga (battery powered, with pneumatic output)

Ex ia IIC T5 Ga (external powered, with or without pneumatic output)



Special Conditions for Safe Use

The suffix "X" placed after the certificate number indicates that this product is subject to special conditions for safe use, that is:

1. To avoid an ignition hazard due to mechanical impact or friction when the product is installed in zone 0.
2. The apparatus can only be powered with one of power supply model GE57654X012 or GE57655X012.
3. The piezo valve shall be used for control non-flammable medium only.
4. The apparatus may be powered externally via External Power module GE61615X012.

Conditions for Safe Use

1. The relationship between temperature class and ambient temperature range is shown as following:

Battery Powered, versions without pneumatic output

Temperature Class	T5	T4	T3
Ambient Temperature Range	-40°C ~ +40°C	-40°C ~ +75°C	-40°C ~ +85°C

Battery Powered, versions with pneumatic output

Temperature Class	T5	T4	T3
Ambient Temperature Range	-20°C ~ +31°C	-20°C ~ +46°C	-20°C ~ +50°C

External Powered, version without pneumatic output: -40°C ~ +80°C

External Powered, version with pneumatic output: -20°C ~ +50°C

2. Certified intrinsically safe handheld HART communication equipment can be connected to terminal WP1/WP2, its parameters are shown as following:
 $U_i = 6\text{ V}$, $I_i = 5\text{ mA}$, $P_i = 30\text{ mW}$, $C_i = 2.5\text{ nF}$, $L_i \approx 0$
 $U_o = 6\text{ V}$, $I_o = 14\text{ mA}$, $P_o = 84\text{ mW}$, $C_o = 39\text{ }\mu\text{F}$, $L_o = 150\text{ mH}$
 - 2.1 External power terminal (J5) parameters:
 $U_i = 28\text{ V}$, $I_i = 100\text{ mA}$, $P_i = 1\text{ W}$, $C_i = 78\text{ nF}$, $L_i = 2.63\text{ mH}$
3. The user shall not change the configuration in order to maintain/ensure the explosion protection performance of this product. Any change may impair safety.
4. For installation, use and maintenance of this product, the end user should observe the instruction manual and the following standards:

GB50257-1996: "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering".

GB3836.13-1997 "Electrical apparatus for explosive gas atmospheres Part 13: Repair and overhaul for apparatus used in explosive gas atmospheres".

GB3836.15-2000: "Electrical apparatus for explosive gas atmospheres Part 15: Electrical installation in hazardous area (other than mines)".

GB3836.16-2006: "Electrical apparatus for explosive gas atmospheres Part 16: Inspection and maintenance of electrical installation (other than mines)".

GB3836.18-2010: "Explosive atmospheres Part 18: Intrinsically safe system".

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