

# NEPSI Hazardous Area Approval for Fisher® 582i Electro-Pneumatic Converter and 3582i Positioners

This supplement provides NEPSI Hazardous Area Approval information for the 582i electro-pneumatic converter and the 3582i positioner. Use this in conjunction with information provided in the [Fisher 3582 and 3582i Positioners, 582i Electro-Pneumatic Converter, and 3583 Valve Stem Position Transmitter instruction manual \(D200138X012\)](#).

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 3582 and 3582i positioners, 582i electro-pneumatic converters, and 3583 valve stem position transmitters. If additional information regarding these products are required, contact your [Emerson Process Management sales office](#).



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## Note

This information supplements the nameplate markings affixed to the product.

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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### Intrinsically Safe

Cert NO. GYJ15.1101X

Ex ia IIC T4/T5/T6 Ga

Ex iaD 20 T109°C/T100°C/T85°C

### 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:

For EPL Ga applications, at the metallic parts of the products made of light metal there is a danger of ignition by impact or friction.



### Conditions for Safe Use

1. The external earth connection facility shall be connected reliably.
2. The relationship between the temperature class, maximum surface temperature and ambient temperature range is shown as following:

Temperature Class	T6	T5	T4
Max Surface Temperature	T85	T100	T109
Ambient Temperature	-40°C ~ +47°C	-40°C ~ +62°C	-40°C ~ +71°C

3. This product should be used in explosive gas atmospheres/combustible dust atmospheres together with approved associated apparatus, follow the instruction manual of this product and associated apparatus when connecting the wiring. Connect the wiring terminals correctly.
4. The intrinsically safe parameters are shown as follows:

Ui (V)	Ii (mA)	Pi (W)	Ci (nF)	Li (mH)
30	150	1.25	0	0

5. Connecting cable between this product and associated apparatus should be insulated screen cable; connect the cable screen functionally to earth ground.
6. Install and maintain the product only when no combustible dust exists.
7. Clean the surface of this product whenever used in combustible dust atmosphere.
8. After installation, degree of protection of enclosure is at least IP64 according the GB4208-2008.
9. The user shall not change the configuration in order to maintain/ensure the explosion protection performance of the equipment. Any change may impair safety.
10. For installation, use and maintenance of this product, the end user shall 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”.
  - GB3836-13-2013 “Explosive atmospheres- Part 13: Equipment repair, overhaul and reclamation”.
  - GB3836.15-2000 “Electrical apparatus for explosive gas atmospheres- Part 15: Electrical installations 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”.
  - GB15577-2007 “Safety regulations for dust explosion prevention and protection”. (Only if installed in dust hazardous areas).
  - GB12476.2-2010 “Electrical apparatus for use in the presence of combustible dust- Part 2: Selection and installation”. (Only if installed in dust hazardous areas).

### Flameproof

Cert NO. GYJ15.1100X

Ex d IIC T6 Gb

Ex tD A21 IP64 T74°C

### 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:

For information on the dimensions of the flameproof joints contact the manufacturer.

### Conditions for Safe Use

1. The external earth connection facility should be connected reliably.
2. Ambient temperature range: (-40 ~ +71) °C
3. Electrical data:  $U \leq 30 \text{ V}$ ,  $I \leq 20 \text{ mA}$ .
4. As the flameproof product, suitable certified cable glands or blanking plugs for unused holes approved by ExTL according to GB3836.1-2010 and GB3836.2-2010 with Ex marking "Ex d IIC Gb" shall be used and correctly installed; as the dust product, suitable certified cable glands or blanking plugs for unused holes approved by ExTL according to GB12476.1-2013 and GB12476.5-2013 with Ex marking "Ex tD A21 IP64" shall be used and correctly installed, after installation, degree of protection of enclosure is at least IP64 according to GB4208-2008.
5. Any maintenance shall be performed only when the warning of "Do not open when energized" is observed.
6. Install and maintain the product only when no combustible dust exists.
7. Clean the surface of this product whenever used in combustible dust atmosphere.
8. The user shall not change the configuration in order to maintain/ensure the explosion protection performance of this product. Any change may impair safety.
9. 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".
  - GB3836-13-2013 "Explosive atmospheres- Part 13: Equipment repair, overhaul and reclamation".
  - GB3836.15-2000 "Electrical apparatus for explosive gas atmospheres- Part 15: Electrical installations 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)".
  - GB15577-2007 "Safety regulations for dust explosion prevention and protection". (Only if installed in dust hazardous areas).
  - GB12476.2-2010 "Electrical apparatus for use in the presence of combustible dust- Part 2: Selection and installation". (Only if installed in dust hazardous areas).

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Emerson Process Management  
Marshalltown, Iowa 50158 USA  
Sorocaba, 18087 Brazil  
Chatham, Kent ME4 4QZ UK  
Dubai, United Arab Emirates  
Singapore 128461 Singapore

[www.Fisher.com](http://www.Fisher.com)