



Explosion Protection Certification

Certificate No.: GYJ13.1296X

Products manufactured by Topworx Inc.

(Address: 3300 Fern Valley Road, Louisville, Kentucky 40213, USA)

Name Limit switch

Model specification TXP, TXS series

Explosion-proof sign See attachment to Explosion Protection Certificate for details

Product standard /

Drawing No. CERT-ES-01498-1 Rev.8

After examining the drawing and technical documentation as well as sample testing, it has been confirmed that the above-mentioned products are in compliance with the GB 3836.1-2010, GB 3836.2-2010 and GB 12476.1-2000 standards and this certificate is hereby issued.

This certificate is valid from September 30, 2013 to September 29, 2018

Remarks: 1. See attachment to this certificate for caution when using product.
 2. See attachment to this certificate for specific model specifications.
 3. This certificate also applies to products with the same model number manufactured by Emerson Machinery Equipment (Shenzhen) Co., Ltd. (address: Bao Heng Technology Industry Park, North Hong Lang 2nd Road, Bao'an District, Shenzhen) and Emerson Process Management Magyarorszag Kft. (address: H-8001 Szekesfehervar Berenyi U 72-100, Hungary).

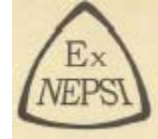
Director [Signature - illegible]
National Supervision and Inspection Center for
Explosion Protection and Safety of Instrumentation
Date of issue: September 30, 2013
[Seal – National Supervision and Inspection Center for
Explosion Protection and Safety of Instrumentation]

This certificate is valid only for products matching the approved documentation and sample.

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EXPLOSION PROTECTION CERTIFICATE OF CONFORMITY

Cert No. GYJ13.1296X

This is to certify that the product

Limit Switch Enclosure

manufactured by Topworx Inc.

(Address: 3300 Fern Valley Road, Louisville, Kentucky 40213, USA)

which model is TXP and TXS series

Ex marking See attachment to this certification

product standard /

drawing number CERT-ES-01498-1 Rev.8

has been inspected and certified by NEPSI, and that it conforms to GB 3836.1-2010, GB 3836.2-2010, GB 12476.1-2000

This approval shall remain in force until September 29, 2018

Remarks

- 1. Conditions for safe use are specified in the attachment to this certificate.**
- 2. Safe parameters specified in the attachment to this certificate.**
- 3. This certificate is also applicable for the product with the same type manufacturing by Emerson Machinery Equipment (Shenzhen) Co., Ltd. (address: Bao Heng Technology Industry Park, North Hong Lang 2nd Road, District 68, Bao'an District, Shenzhen P.R. China.) and Emerson Process Management Magyarorszag Kft. (address: H-8001 Szekesfehervar Berenyi U 72-100, Hungary).**

Director [Signature - illegible]
**National Supervision and Inspection Center for
Explosion Protection and Safety of Instrumentation**
Issued Date September 30, 2013
**[Seal – National Supervision and Inspection Center for
Explosion Protection and Safety of Instrumentation]**

This certificate is valid only for products compatible with the documents and samples approved by NEPSI..

National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation

(GYJ13.1296X)

(Attachment I)

GYJ13.1296X Explosion Protection Certificate Attachment I

The TXP, TXS series limit switch enclosures manufactured by Emerson Machinery Equipment (Shenzhen) Co., Ltd. and Emerson Process Management Magyarorszag Kft., have been found to be in compliance with the following standards:

GB3836.1-2010 Explosive Atmosphere Part 1: Equipment General Requirements

GB3836.2-2010 Explosive Atmosphere Part 2: Equipment protected by explosion protection type "d"

GB12476.1-2000 Electrical equipment used in combustible dust atmosphere Part 1:

Electrical equipment protected by enclosure and surface temperature limitation Section 1:
Technical requirements for electrical equipment

The TXP, TXS series limit switch enclosures without electromagnetic switch have the explosion protection label of Ex d II C T4 Gb, DIP A21 T_A, T4 Db, IP66/IP67; and the TXP, TXS series limit switch enclosures with electromagnetic switch have the explosion protection label of Ex d II B T4 Gb, DIP A21 T_A, T4 Db, IP66/IP67. The explosion protection certificate number is GYJ13.1296X.

This certificate recognizes products with the specific model number: TX**a-b c d e f g h**

Where:

a indicates material for the enclosure, can be P or S;

b indicates main line and sensor, can be L, M, K, T, E, N, P or O;

c indicates whether they have HART protocol, can be X or 1~4;

d indicates the type of explosion protection, can be 1 which represents II B or C

which represents II C;

e f g h are parameters not related to explosion protection functions.

[Seam-riding seal]

I. Specific conditions for product safety

If the certificate No. is suffixed with a "X" after the certification number, it indicates that this product has special conditions for safety use.

II. Caution when using product

1. Relationship between product temperature groups and the ambient temperature:

Temperature Group T4	Without Electromagnetic Switch	With Electromagnetic Switch
Gas Ambient Temperature Range	-60°C ~ +80°C	-60°C ~ +80°C
Dust Ambient Temperature Range	-50°C ~ +60°C	-50°C ~ +60°C

2. When the ambient temperature is -60°C, the manufacturer should conduct 10s routine static pressure test before the product leaves the factory, the static pressure for the II C group is 2.6MPa, and 1.82MPa for II B group, the product's outer enclosure shall not have permanent damage or deformation.

3. The product's outer enclosure is equipped with the grounding terminal. When it is used by the user after installation, it may be grounded.

4. The installation site must comply with the principle of “open the cap after power is turned off”.

5. Harmful gases having a corrosive effect on aluminum alloy should not be present at the installation site.

6. When install product onsite, cables that have passed inspection at State designated testing laboratories with the explosive protection grade of Exd II C, spiral specification of 1/2NPT must be used for the cable entry point to lead into the device or blocking element, and redundant cable inlets must be effectively sealed by blocking element.

7. The user may not replace parts themselves, and should work with the product manufacturer to jointly resolve malfunctions occurred during operations to prevent the occurrence of damage.

8. Maintenance may proceed only when the installation site has been confirmed to not have harmful gases present.

9. When this product is used onsite, its surface should be cleaned regularly and the thickness of dust accumulation should not exceed 5mm.

10. The installation, use and maintenance of this product shall comply with the relevant provisions in the product manuals, GB3836.13-1997 “Electrical Equipment used in Explosive Gas Atmosphere Part 13: Inspection and Maintenance for Electrical Equipment used in Explosive Gas Atmosphere”, GB3836.15-2000 “Electrical Equipment used in Explosive Gas Atmosphere Part 15: Electrical Installation in Dangerous Places (excluding coal mines)”, GB3836.16-2006 “Electrical Equipment used in Explosive Gas Atmosphere Part 16: Inspection and Maintenance of Electrical Equipment (excluding coal mines)”, GB50257-1996 “Electrical Equipment Installation and Acceptance Standards for Electrical Equipment Installation in Dangerous Atmosphere of Explosion and Fire Hazard”, GB15577-2007 “Dust Explosion Protection Safety Regulation”, and GB12476.2-2006 “Electrical Equipment Used in Combustible Dust Atmosphere Part 1: Electrical Equipment Protected by Enclosures and Surface Temperature Limitation Section 2: The Selection, Installation and Maintenance of Electrical Equipment”.

III. Responsibilities of the manufacturer:

1. The product manufacturer must incorporate the special requirements and cautions mentioned above into the product manual;
2. The manufacturer must produce the product strictly in compliance with the documentation approved by NEPSI;
3. The product nameplate must at least include the following:
 - a) NEPSI approval label (see Explosion Protection Certificate)
 - b) Product explosion protection label
 - c) Explosion protection certificate number
 - d) Ambient temperature

[Seam-riding seal]

National Supervision and Inspection Center for
Explosion Protection and Safety of Instrumentation
September 30, 2013

[Seal – National Supervision and Inspection Center for
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