



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx SIR 06.0054 issue No.:2
Status: Current
Date of Issue: 2011-10-19 Page 1 of 6

Certificate history:
Issue No. 2 (2011-10-19)
Issue No. 1 (2009-10-14)
Issue No. 0 (2007-1-30)

Applicant: **TopWorx Inc.**
3300 Fern Valley Road
Louisville
Kentucky
KY 40213
United States of America

Electrical Apparatus: **TXP and TXS Mechanical Switches**
Optional accessory:

Type of Protection: **Flameproof and Dust**

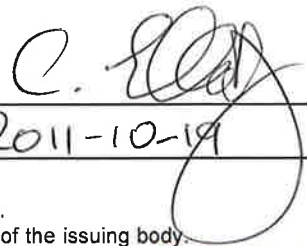
Marking: **TXP and TXS without solenoid**
Ex d IIC T4
Ex tD A21 IP6X T135°C
Ta = -50°C to +80°C
TXP and TXS with solenoid
Ex d IIB T4
Ex tD A21 IP6X T135°C
Ta = -50°C to +80°C

Approved for issue on behalf of the IECEx Certification Body: C Ellaby

Position: Deputy Certification Manager

Signature:
(for printed version)

Date:


2011-10-19

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom

sira
CERTIFICATION



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Manufacturer: **TopWorx Inc**
3300 Fern Valley Road
Louisville
Kentucky
KY 40213
United States of America

Manufacturing location(s):

**Emerson Machinery
Equipment (Shenzhen)
Co. Ltd**
Fisher Controls Division
Bao Heng Technology
Industry Park
North Hong Long 2nd Road
District 68, Boan District
Shenzhen
518101
China

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-1 : 2003 Edition: 5	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-1 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/SIR/ExTR06.0196/00](#)

[GB/SIR/ExTR09.0146/00](#)

[GB/SIR/ExTR11.0263/00](#)

Quality Assessment Report:

[GB/BAS/QAR06.0020/02](#)

[GB/SIR/QAR07.0025/04](#)

[US/UL/QAR06.0009/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Type TXP Limit Switch Enclosure, is intended to indicate the position of a valve or actuator to which it is connected. The equipment comprises a rectangular enclosure manufactured from die cast aluminium with the cover being fixed to the body via four M5 x 20 hexagon socket-head fasteners. The body contains two, single pole, double throw, limit switches, which make and break via a rotating armature connected to the operating shaft. The operating shaft passes through a bronze bushing and the position of the valve or actuator to which it is connected is transferred. There are one, two or three M20 x 1.5 cable entry points, with a maximum of one per side, via which electrical connection to external circuitry is made. The Type TXS Solenoid Switches are similar to the Type TXP Limit Switch Enclosure but are fitted with a pilot operated solenoid valve.

Designations

Suffix	Card Type
A	ASI
B	Profibus DP
C	Profibus PA
D	Foundation Fieldbus
E	Position Transmitter
F	Devicenet
G	Modbus

CONDITIONS OF CERTIFICATION: NO



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EQUIPMENT(continued):

Design Options

- The cable entry points may have the threadform ½" x 14 NPT.
- The Type TXP Limit Switch Enclosure may contain up to four limit switches and a 1 KΩ potentiometer in varying combinations.
- The Type TXP and TXS may be fitted with a venting/breathing device.
- The Type TXP and Type TXS may be fitted with 'Go' Switches.
- The Types TXP and TXS may be manufactured from stainless steel to become Types TXP-S/S and TXS-S/S respectively.
- The Type TXP and Type TXP-S/S may have their switches replaced by two Pepperl & Fuchs Type NJ2-SN 8 V dc 3 mA proximity sensors to become Types TXP-1 and TXP-1-S/S respectively.
- The Types TXP, TXP-S/S, TXS and TXS-S/S may be fitted with the following Bus Network Cards introducing the following suffix:

Condition of Manufacture

The Manufacturer shall comply with the following condition of manufacture:

1. The manufacturer shall conduct a routine overpressure test on each IIC unit at 16.6 bar for at least 10 s as required by clause 16.1 of IEC 60079-1:2003. There shall be no permanent damage or deformation to the enclosure.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1 – this Issue introduced the following changes:	
1.	Topworx were recognised to have ownership the of the intellectual rights of these products.
2.	The addition of an alternative manufacturing site in Shenzhen China was recognised.
3.	The equipment was allowed to be used in the presence of combustible dust.
4.	The ambient temperature range (-50°C to +40°C) is increased to -50°C to +80°C, the temperature class is raised to T4 as a result of this change.
5.	The recognition of minor drawing modifications; these changes relate to the securing arrangements and are not detrimental to explosion safety.
6.	The condition of manufacture has been clarified.
Issue 2 – this Issue introduced the following change:	
1.	This Issue of the certificate shows that the ExCB responsible for the QAR has been changed.



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Additional information:

Conditions of manufacture:

The manufacturer shall conduct a routine overpressure test on each unit manufactured at 16.6 bar for at least 10 s as required by clause 16.1 of IEC 60079-1:2003. There shall be no permanent damage or deformation to the enclosure.