

防爆合格证

Electrical Apparatus for Explosive Atmospheres CERTIFICATE OF CONFORMITY



国家防爆

Manufacturer Topworx Incorporated
3300 Fern Valley Road, Louisville, Kentucky, 40213, United States of America

Product Switchbox

Type TX*-*1***M*****

Marking Ex d IIB T6/T5/T4 Gb, Ex tD A21 IP66/67 T85°C/T100°C/T135°C

Standard(s) --

Drawing No. CERT-ES-02477-1

The drawings, technical documents and the samples are verified and certified according to standard(s) for safety as below:

GB 3836.1-2010 Explosive atmospheres - Part 1: Equipment - General requirements
GB 3836.2-2010 Explosive atmospheres - Part 2: Equipment protection by flameproof enclosures "d"
GB12476.1-2013 Electrical apparatus for use in the presence of combustible dust - Part 1: General requirements
GB12476.5-2013 Electrical apparatus for use in the presence of combustible dust - Part 5: Protection by enclosures "tD"

Note:

See Annex (4 pages in total).

Director

Date:

2022-03-07

Valid until:

2027-03-06



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Note: This certificate is only valid for products which are identical with the sample(s) tested and verified. Holder of this certificate has the responsibility to ensure the products comply with relevant standards.



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CERTIFICATE OF CONFORMITY

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1. This product has been IECEx certified, certificate No. IECEx SIR 06.0054X, issue 13, dated 2021-05-19.

2. Type designation:

TX	*	-	*	1	*	*	*	M	*	*	*	*	*	*
1)	2)		3)	4)	5)	6)	7)	8)	9)	10)	11)	12)	13)	14)

1) Enclosure

2) Enclosure Material:

P=Aluminum

S=316SS

3) Bus/Sensor

A0 = AS-i (no switches)

A4 = AS-I w/(2) P+F NBB2-V3-E2

A5 = AS-I w/(2) P+F NBB3-V3-Z4

AM = AS-I w/(2) MECH SWITCH SPDT

AS = AS-I w/(2) SPDT GO Switches

D0 = Devicenet (no switches)

D2, D4 = 36SD SERIES GO SWITCH 1 AMP

DM = Devicenet w/(2) MECH SWITCH SPDT

DN = Devicenet w/(2) SPDT GO Switches

E1, E2, E3, E4 = P+F NJ2-V3-N

EX = (2) P+F NJ2-V3-N w/4-20mA Transmitter

K1, K2, K3, K4 = MECH SWITCH SPDT w/GOLD CONTACTS

KX = (2) MECH SWITCH SPDT w/4-20mA Transmitter

L1, L2 = GO SWITCH SPDT

M1, M2, M3, M4 = MECH SWITCH SPDT

MX = (2) MECH SWITCH SPDT w/4-20mA Transmitter

N1, N2, N3, N4 = ANY NAMUR SWITCH

NX = (2) ANY NAMUR SWITCH w/4-20mA Transmitter

P0 = Profibus (no switches)

P1, P2, P3, P4 = 3 AMP REED SWITCH

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PM = PROFIBUS w/(2) MECH SWITCH SPDT
 PB = PROFIBUS w/(2) SPDT GO Switches
 R1, R2, R3, R4 = 1 AMP REED SWITCH
 S2, S4 = 36SD SERIES GO SWITCH 3 AMP
 T2 = MECH SWITCH DPDT
 TX = MECH SWITCH DPDT w/4-20mA Transmitter
 00 = NO SWITCH
 0X = 4-20mA Transmitter
 21, 22 = HIGHLY TS18-08P-1
 41, 42, 43, 44 = P+F NBB2-V3-E2
 51, 52, 53, 54 = P+F NBB3-V3-Z4

4) Area Class

1 = Ex d IIB T6/T5/T4 Gb, Ex tD A21 IP66/67 T85°C/T100°C/T135°C

5) Visual Display: ANY NUMBER OR LETTER

6) Shaft: ANY NUMBER OR LETTER

7) Conduit Entries: ANY NUMBER OR LETTER

8) O-Rings:

M = SILICONE

9) Pilot

0 or BLANK = No Pilot

1=24VDC FAIL Open/Closed

4=220VAC FAIL Open/Closed

7=110VAC FAIL Open/Closed

10) Spool: ANY NUMBER OR LETTER OR BLANK

11) Valve Cv: ANY NUMBER OR LETTER OR BLANK

12) Override: ANY NUMBER OR LETTER OR BLANK

13) Regional Certs:

0 or BLANK = UL (North America), IECEx, ATEX

B = InMetro (Brazil)

K = KCs (Korea)

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- N = CCCEX (China)
- P = PESO (India)
- R = EAC (Eurasian Economic Union)
- T = ITRI (China Taiwan)

14) Custom Build Indents
6 digits (without relevance for explosion protection)

3. The cable entry points may have the thread form 1/2" 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.

4. The Types TXP, TXP-S/S, TXS and TXS-S/S may be fitted with the following Bus Network Cards introducing the following suffix:

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

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5. Ex marking: Ex d IIB T6/T5/T4 Gb, Ex tD A21 IP66/67 T85°C/T100°C/T135°C

6. The corresponding relationship between ambient temperature and temperature class is shown in the following table:

	ambient temperature	Temperature class
Gas	-65°C to +40°C	T6
	-65°C to +60°C	T5
	-65°C to +80°C	T4
Dust	-50°C to +40°C	T85°C
	-50°C to +60°C	T100°C
	-50°C to +80°C	T135°C

7. Specific conditions of safety use:

- 1) The slotted hexagonal head cover screws are not of standard form; they shall only be replaced with identical screws sourced from the equipment manufacturer.
- 2) The hexagonal head cover screws are to be replaced only with stainless steel A2-70 or A4-80 screws to GB/T3098.6.
- 3) Cover fasteners are to be tightened to a torque value of 10.85 Nm (8ft/lbs) minimum.
- 4) Before application, certified Ex d IIB Gb or Ex d IIC Gb, Ex tD A21 IP66/67 cable gland and/or stopping plug must be applied, suitable for the conditions of use and correctly installed.

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