



# CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

No.: 2022312304001290

**Applicant** Topworx Incorporated  
**Address** 3300 Fern Valley Road, Louisville, Kentucky 40213, United States of America  
**Manufacturer** Topworx Incorporated  
**Address** 3300 Fern Valley Road, Louisville, Kentucky 40213, United States of America  
**Production Factory** Topworx Incorporated  
**Production Address** 3300 Fern Valley Road, Louisville, Kentucky 40213, United States of America  
**Product** Switchboxes  
**Model/Type** DX\*-1/C \*\*\*\*\*  
**Ex marking** Ex db IIC T3/T4/T5/T6 Gb, Ex db IIB+H<sub>2</sub> T3/T4/T5/T6 Gb,  
Ex tb IIIC T85°C/T100°C/T135°C Db  
**Reference Standards** GB/T3836.1-2021, GB/T3836.2-2021, GB/T3836.31-2021  
**Certification mode** Type Test + Initial Factory Inspection + Post-Certification Surveillance

The product(s) is verified and certified according to CNCA-C23-01: 2019 *China Compulsory Certification Implementation Rule on Explosion Protected Electrical Product* and CNEC-C2301-2019 *Guideline of China Compulsory Certification Implementation Rule on Explosion Protected Electrical Product*.

See Annex for the detailed product information (5 pages)

Initial issue date: 2022-02-28

Issued date: 2023-03-20

Valid to: 2027-02-27

The validity of this certificate is maintained through the regular supervision of the issuing authority during the validity period.

Where any discrepancy arises between the English translation and the original Chinese version, the Chinese version shall prevail.

Director:



Nanyang Explosion Protected Electrical Apparatus Research Institute Co.,Ltd.



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CN 0001634





# CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION (Annex)

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**Product information:**

1. This certificate covers the following models:

- DX\*-1/C \*\*\*\*\*

DX	*	-	*	1/C	*	*	*	*	*	*	*	*	*	*****
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)

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

B1, B2, B3, B4 = P+F NJ2-12GK-SN

D0 = Devicenet (no switches)

DN = Devicenet w/(2) SPDT GO Switches

E1, E2, E3, E4, E5, E6 = P+F NJ2-V3-N

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

EH = (2) P+F NJ2-V3-N w/HART Transmitter

ES = Emergency Shutdown Device w/(2) SPDT GO Switches

F1, F2 = P+F NJ2-12GK-N

FF = Foundation Fieldbus w/0-10k Potentiometer

FL = Foundation Fieldbus w/(2) GO Switches

FP = Foundation Fieldbus w/(2) GO Switches & 0-10k Potentiometer

J1, J2 = P+F NJ2-11-SN-G

K1, K2, K3, K4, K5, K6 = MECH SWITCH SPDT w/GOLD CONTACTS

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

KH or HK = (2) MECH SWITCH SPDT w/HART Transmitter

L1, L2, L3, L4 = GO SWITCH SPDT

LX = (2) GO SWITCH SPDT w/4-20mA Transmitter

LH or HL = (2) GO SWITCH SPDT w/HART Transmitter

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M1, M2, M3, M4, M5, M6 = MECH SWITCH SPDT  
 MX = (2) MECH SWITCH SPDT w/4-20mA Transmitter  
 MH or HM = (2) MECH SWITCH SPDT w/HART Transmitter  
 N1, N2, N3, N4, N5, N6 = ANY NAMUR SWITCH  
 NX = (2) ANY NAMUR SWITCH w/4-20mA Transmitter  
 NH = (2) ANY NAMUR SWITCH w/HART Transmitter  
 P0 = Profibus (no switches)  
 PB = PROFIBUS w/(2) SPDT GO Switches  
 T2 = MECH SWITCH DPDT  
 TX = MECH SWITCH DPDT w/4-20mA Transmitter  
 V1, V2, V3, V4 = P+F NJ3-18GK-S1N  
 Z1, Z2, Z3, Z4 = GO SWITCH DPDT  
 ZX = (2) GO SWITCH DPDT w/4-20mA Transmitter  
 ZH = (2) GO SWITCH DPDT w/HART Transmitter  
 00 = NO SWITCH  
 31, 32, 33, 34 = P+F NJ5-30GK-S1N  
 41, 42, 43, 44 = P+F NBB2-V3-E2  
 51, 52, 53, 54 = P+F NBB3-V3-Z4  
 61, 62, 63, 64 = P+F NBB4-12GM40-Z0  
 71, 72, 73, 74 = P+F NJ2-12GM40-E2  
 81, 82, 83, 84 = ITW MECH SWITCH DPDT

- 4) Area Class  
1=IIB+H<sub>2</sub>, C=IIC
- 5) Visual Display:  
ANY NUMBER OR LETTER
- 6) Shaft:  
ANY NUMBER OR LETTER
- 7) Conduit Entries:  
ANY NUMBER OR LETTER
- 8) O-Rings:  
B=BUNA

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E=EPDM  
S=SILICONE  
V=VITON

9) Pilot

0 or Blank = No Pilot  
1=24VDC FAIL Open/Closed  
2=24VDC FAIL Last Position  
4=220VAC FAIL Open/Closed  
5=220VAC FAIL Last Position  
7=110VAC FAIL Open/Closed  
8=110VAC FAIL Last Position  
P=PIEZO FAIL Open/Closed  
R=PIEZO FAIL Last Position

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)  
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)

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Rating: 240V, 15A

Ex marking: Ex db IIC T6 Gb, Ex db IIB+H<sub>2</sub> T6 Gb, Ta=-60°C to +60°C;

Ex db IIC T5 Gb, Ex db IIB+H<sub>2</sub> T5 Gb, Ta=-60°C to +75°C;

Ex db IIC T4 Gb, Ex db IIB+H<sub>2</sub> T4 Gb, Ta=-60°C to +110°C;

Ex db IIC T3 Gb, Ex db IIB+H<sub>2</sub> T3 Gb, Ta=-60°C to +175°C;

Ex tb IIIC T85°C Db, Ta = -50°C to +60°C;

Ex tb IIIC T100°C Db, Ta = -50°C to +75°C;

Ex tb IIIC T135°C Db, Ta = -50°C to +110°C.

- Producers should organize production in accordance with the technical documents approved by the certification body.

2. Specific conditions of safety use:

- Ingress protection: IP66/IP67.

- The IIC enclosures are excluded from use in carbon disulphide atmospheres.

- The air pressure to the valve block, when fitted, shall not exceed 10.0 bar.

- For ambient temperatures above 110°C, the degrees of ingress protection IP66 and IP67 are not endorsed.

- The slotted hexagonal head cover screws are not of standard form; they shall only be replaced with identical screws sourced from the equipment manufacturer.

- The hexagonal head cover screws are to be replaced only with stainless steel A2-70 or A4-80 screws to GB/T3098.6.

- Cover fasteners are to be tightened to a torque value of 10.85 Nm (8ft/lbs) minimum.

- Before application, CCC certified Ex db IIC Gb, Ex tb IIIC Db cable gland (IP66/IP67) and/or stopping plug (IP66/IP67) must be applied, suitable for the conditions of use

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and correctly installed.

- Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.

- See instruction for other information.

3. Certificate related report(s):

- Type test report: CQST2109C053, CQST2109C053/01

- Factory inspection report: CN2021Q010370

4. Certificate change information:

- 1st change on March 20, 2023: Updated the standards for certification.

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