

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 Switchboxes

Type DX*-*1/C *****

Marking Ex d IIC T3/T4/T5/T6 Gb , Ex d IIB+H₂ T3/T4/T5/T6 Gb ,
Ex tD A21 IP66/67 T85°C/T100°C/T135°C

Standard(s) --

Drawing No. ES-01141-1

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 3836.2-2014 Explosive atmospheres - Part 2: Equipment protection by flameproof enclosure "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 enclosure "tD"

Note:

See Annex (4 pages in total).

Director

Date:

2022-03-07

Valid until:

2027-03-06



南阳防爆电气研究所
NANYANG EXPLOSION PROTECTED ELECTRICAL APPARATUS RESEARCH INSTITUTE
国家防爆电气产品质量检验检测中心
CHINA NATIONAL QUALITY SURVEY AND TEST CENTER FOR EXPLOSION PROTECTED ELECTRICAL PRODUCTS
Address: No.20 North Zhongjing Rd, Nanyang, Henan(473008), P.R.China
Tel:0377 63208664 Fax:0377 63208175 Web:www.china-ex.com

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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 number: CNEx22.0541X

防爆合格证 (附页)

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Page 1 of 4

1.This product has been certified, under certificate number IECEx SIR 07.0093X, issue 15, dated 2021-07-08.

2.Type designation:

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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Page 2 of 4

- 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+H₂, C=IIC
- 5) Visual Display:
 ANY NUMBER OR LETTER
- 6) Shaft:
 ANY NUMBER OR LETTER
- 7) Conduit Entries:
 ANY NUMBER OR LETTER

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- 8) O-Rings:
B=BUNA
E=EPDM
S=SOLICONE
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 = CCEx (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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Page 4 of 4

3. Rating: 240V, 15A

4. Ingress protection: IP66/67

5. Ex marking: Ex d IIC T6 Gb, Ex d IIB+H₂ T6 Gb, Ta=-60°C to +60°C;
 Ex d IIC T5 Gb, Ex d IIB+H₂ T5 Gb, Ta=-60°C to +75°C;
 Ex d IIC T4 Gb, Ex d IIB+H₂ T4 Gb, Ta=-60°C to +110°C;
 Ex d IIC T3 Gb, Ex d IIB+H₂ T3 Gb, Ta=-60°C to +175°C;
 Ex tD A21 IP66/67 T85°C, Ta = -50°C to +60°C;
 Ex tD A21 IP66/67 T100°C, Ta = -50°C to +75°C;
 Ex tD A21 IP66/67 T135°C, Ta = -50°C to +110°C

6. Specific conditions of safety use:

- 1) The IIC enclosures are excluded from use in carbon disulphide atmospheres.
- 2) The air pressure to the valve block, when fitted, shall not exceed 10.0 bar.
- 3) For ambient temperatures above 110°C, the degrees of ingress protection IP66 and IP67 are not endorsed.
- 4) The slotted hexagonal head cover screws are not of standard form; they shall only be replaced with identical screws sourced from the equipment manufacturer.
- 5) The hexagonal head cover screws are to be replaced only with stainless steel A2-70 or A4-80 screws to GB/T3098.6.
- 6) Cover fasteners are to be tightened to a torque value of 10.85 Nm (8ft/lbs) minimum.
- 7) Before application, certified 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.
- 8) 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.

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