

No.: 2021312315000488

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** 

GO Switch

Model/Type

\*1-\*\*\*F-\*\*\*\*\*, \*1-\*\*\*G-\*\*\*\*\*\*, \*1-\*\*\*H-\*\*\*\*\*\*

Ex marking

Ex ia IIC T6/T4/T3 Ga, Ex ia IIIC T85℃/T135℃/T200℃ Da

**Reference Standards** 

GB/T3836.1-2021, GB/T3836.4-2021

**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 CNEX-C2301-2019 Guideline of China Compulsory Certification Implementation Rule on Explosion Protected Electrical Product.

See Annex for the detailed product information (7 pages)

Initial issue date: 2021-10-25

Issued date: 2023-03-20

Valid to: 2026-10-24

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.



http://www.ccc-cnex.com ccc.china-ex.com

Add: No. 20, North Zhongjing Road, Nanyang, Henan, P. R. China P.C.: 473008 Tel: 0377-63239734 Email: ccc@cn-ex.com

CN 0001624



(Annex)

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### **Product information:**

- 1. This certificate covers the following models:
  - \*1-\*\*\*F-\*\*\*\*\*, \*1-\*\*\*G-\*\*\*\*\*\*, \*1-\*\*\*H-\*\*\*\*\*

### 'F' or 'G' Model Range:

*1	- 5	*	*	*	*	F/G	N.T.	*	*	*****
(1)	3000	(2)	(3)	(4)	(5)	(6)		(7)	(8)	(9)

- (1) Model:
  - 11=Size 1½" Square × 4 9/16" Length(add ½" for bottom outlet)
  - 21=Size 1½" Square × 3 13/16" Length (add ½" for bottom outlet)
- (2) Contact Form:
  - 1 = Single Pole, Double Throw
  - 3 = Single Pole, Double Throw Latching
  - 5 = Double Make, Double Break, 2 Circuit Form Z
  - 6 = Double Make, Double Break, 2 Circuit Form Z Latching
- (3) Sensing Range:
  - 1 = Standard 3/8"
  - 2 = Extended 9/16"
  - 7 = Precision 1/4"
- (4) Outlet Position:
  - 1 = Behind Sensing Area
  - 2 = Left of Sensing Area
  - 3 = Right of Sensing Area
  - 4 = Same Side as Sensing Area
  - 5 = Bottom Outlet
- (5) Enclosure Material
  - 1 = Stainless Steel
  - 2 = 316 Stainless Steel

Issued date: 2023-03-20

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(6) Certification Code F = Zone 0, Temp. Class. T6 G = Zone 0, Temp. Class T4

(7) Wiring Options

00 = Terminal Block with ½"-14 NPT Conduit Entry 00M = Terminal Block with 20mm Conduit Entry

A2 or A2M= 3' PVC Covered Leads

A3 or A3M= 6' PVC Covered Leads

A4 or A4M= 12' PVC Covered Leads

A5 or A5M = 25' PVC Covered Leads

A6 or A6M = 50' PVC Covered Leads

A7 or A7M = 100' PVC Covered Leads

A8 or A8M = 250' PVC Covered Leads

B2 or B2M= 3' Rubber Covered Cable

B3 or B3M= 6' Rubber Covered Cable

B4 or B4M= 12' Rubber Covered Cable

B5 or B5M = 25' Rubber Covered Cable

B6 or B6M = 50' Rubber Covered Cable

B7 or B7M = 100' Rubber Covered Cable

B8 or B8M = 250' Rubber Covered Cable

F2 or F2M= 3' Teflon Covered Leads

F3 or F3M= 6' Teflon Covered Leads

F4 or F4M= 12' Teflon Covered Leads

F5 or F5M = 25' Teflon Covered Leads

F6 or F6M = 50' Teflon Covered Leads

F7 or F7M = 100' Teflon Covered Leads

F8 or F8M = 250' Teflon Covered Leads

S2 or S2M= 3' Silicone Covered Leads

S3 or S3M= 6' Silicone Covered Leads

S4 or S4M= 12' Silicone Covered Leads

S5 or S5M = 25' Silicone Covered Leads

S6 or S6M = 50' Silicone Covered Leads

S7 or S7M = 100' Silicone Covered Leads

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S8 or S8M = 250' Silicone Covered Leads DBA = 3 Pin Micro-Change Male Connector DBD = 4 Pin Micro-Change Male Connector DBG = 5 Pin Micro-Change Male Connector DCA = 3 Pin Mini-Change Male Connector DCD = 4 Pin Mini-Change Male Connector DCG = 5 Pin Mini-Change Male Connector

(8) Regional Cert

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)

(9) Custom Build Indents

6 digits (without relevance for explosion protection.)

The product is powered by Ex ia IIC intrinsically safe power supply that meets the GB/T3836.4 standard.

**Input Parameters:** 

Switch Variants with Wiring Options 00, DBA, DBD, DBG, DCA, DCD & DCG:

Ui=30V, Ci=0, Ii=0.25A, Li=0

Switch Variants with Wiring Options A\*, B\*, S\* F\*:

Ui=30V, Ci=33nF, Ii=0.25A, Li=200µH

### 'H' Model Range:

*1	-	*	*	*	*	Him		*	*	*****	
							Tre	(e			
ued da	te: 20	023-03	-20								

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1 1 1	(-)	(4)	(1)	(0)	(4)	111111111111111111111111111111111111111	(0)	(0)

(1) Model:

11=Size  $1\frac{1}{2}$ " Square x 4 9/16" Length(add  $\frac{1}{2}$ " for bottom outlet) 21=Size  $1\frac{1}{2}$ " Square x 3 13/16" Length (add  $\frac{1}{2}$ " for bottom outlet)

- (2) Contact Form:
  - 1 = Single Pole, Double Throw
  - 3 = Single Pole, Double Throw Latching
  - 5 = Double Make, Double Break, 2 Circuit Form Z
  - 6 = Double Make, Double Break, 2 Circuit Form Z Latching
- (3) Sensing Range:
  - 1 = Standard 3/8"
  - 2 = Extended 9/16"
  - 7 = Precision 1/4"
- (4) Outlet Position:
  - 1 = Behind Sensing Area
  - 2 = Left of Sensing Area
  - 3 = Right of Sensing Area
  - 4 = Same Side as Sensing Area
  - 5 = Bottom Outlet
- (5) Enclosure Material
  - 1 = Stainless Steel
  - 2 = 316 Stainless Steel
- (6) H = Zone 0, Temp. Class. T3
- (7) Wiring Options

F2 or F2M = 3' Teflon Covered Leads

F3 or F3M= 6' Teflon Covered Leads

F4 or F4M= 12' Teflon Covered Leads

F5 or F5M = 25' Teflon Covered Leads

F6 or F6M = 50' Teflon Covered Leads

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F7 or F7M = 100' Teflon Covered Leads
F8 or F8M = 250' Teflon Covered Leads
S2 or S2M= 3' Silicone Covered Leads
S3 or S3M= 6' Silicone Covered Leads
S4 or S4M= 12' Silicone Covered Leads
S5 or S5M = 25' Silicone Covered Leads
S6 or S6M = 50' Silicone Covered Leads
S7 or S7M = 100' Silicone Covered Leads
S8 or S8M = 250' Silicone Covered Leads

(8) Regional Cert

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)

### (9) Custom Build Indents

6 digits (without relevance for explosion protection.)

The product is powered by Ex ia IIC intrinsically safe power supply that meets the GB/T3836.4 standard.

Input Parameters: Ui=30V, Ci=33nF, Ii=0.25A, Li=200µH

### Model Temperature Classification:

10/20 Series models with a 'F' as the seventh character in the model number	Ex ia IIC T6 Ga(-40°C ≤ Ta ≤ +50°C) Ex ia IIIC T85°C Da(-40°C ≤ Ta ≤ +50°C)				
10/20 Series models with a 'G' as the seventh character in the model number	Ex ia IIC T4 Ga(-40°C ≤ Ta ≤ +100°C) Ex ia IIIC T135°C Da(-40°C ≤ Ta ≤ +100°C)				

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10/20 Series models with a 'H' as the seventh character in the model number

Ex ia IIC T3 Ga(-40°C ≤ Ta ≤ +150°C) Ex ia IIIC T200°C Da(-40°C ≤ Ta ≤ +150°C)

Ex marking: Ex ia IIC T6/T4/T3 Ga, Ex ia IIIC T85℃/T135℃/T200℃ Da

- Producers should organize production in accordance with the technical documents approved by the certification body.
- 2. Specific conditions of safety use:
  - Ingress protection: IP54.
  - Both contacts of the Double Throw and the separate poles of the Double Pole switch, within one switch must form part of the same intrinsically safe circuit.
  - The proximity switches do not require a connection to earth for safety purposes, but an earth connection is provided which is directly connected to the metallic enclosure. Normally an intrinsically safe circuit may be earthed at one point only. If the earth connection is used, the implication of this must be fully considered in any installation, e.g. by use of a galvanically isolated interface.
  - When using this product, it must be powered by an Ex ia IIC intrinsically safe power supply that meets the GB/T3836.4 standard and has obtained CCC certification.
  - The flying leads must be terminated in a manner suitable for the zone of installation.
  - The terminal block variants of the equipment are fitted with a non-metallic cover that constitutes a potential electrostatic hazard and must only be cleaned with a damp cloth.
  - See instruction for other information.
- Certificate related report(s):
  - Type test report: CQST2106C213, CQST2106C213/01
  - Factory inspection report: CN2021Q010370

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

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