



国家防爆

Certificate number: CNEx22.0564X

# 防爆合格证

## Electrical Apparatus for Explosive Atmospheres CERTIFICATE OF CONFORMITY

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

**Product** GO Switch

**Type** 81-\*0\*\*F-\*\*\*\*\* , 81-\*0\*\*G-\*\*\*\*\* , 81-\*0\*\*H-\*\*\*\*\*

**Marking** Ex ia IIC T6/T4/T3 Ga, Ex iaD 20 T85°C/T135°C/T200°C

**Standard(s)** --

**Drawing No.** CERT-ES-03565-1

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 3836.4-2010 Explosive atmospheres - Part 4: Equipment protection by intrinsic safety "i"
- GB12476.1-2013 Electrical apparatus for use in the presence of combustible dust - Part 1:General requirements
- GB12476.4-2010 Electrical apparatus for use in the presence of combustible dust - Part4: Protection by intrinsic safety "iD"

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  
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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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# 防爆合格证 (附页)

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1. This product has been IECEx certified, certificate No. IECEx BAS 12.0115X, issue 2, dated 2015-06-09.

2. Nomenclature of 81-\*0\*\*F/G-\*\*\*\*\*:

81	-	*	0	*	*	*	-	*	*	*****
		1)		2)	3)	4)		5)	6)	7)

- 1) Contact Form
  - 1=Single Pole, Double Throw
  - 2=Double Pole, Double Throw
- 2) Outlet Position
  - 1=Side Outlet
  - 5=Bottom Outlet
- 3) Enclosure Material
  - 1=Stainless Steel
  - 2=316L Stainless Steel
- 4) Certification Code
  - F=Zone 0, Temp.Class.T6
  - G=Zone 0, Temp.Class.T4
- 5) Termination Options
  - A2=3' PVC Covered Leads
  - A3=6' PVC Covered Leads
  - A4=12' PVC Covered Leads
  - A5=25' PVC Covered Leads
  - A6=50' PVC Covered Leads
  - A7=100' PVC Covered Leads
  - A8=250' PVC Covered Leads
  - B2=3' Rubber Covered Cable
  - B3=6' Rubber Covered Cable
  - B4=12' Rubber Covered Cable
  - B5=25' Rubber Covered Cable
  - B6=50' Rubber Covered Cable
  - B7=100' Rubber Covered Cable
  - B8=250' Rubber Covered Cable

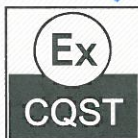
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# 防爆合格证 (附页)

## Electrical Apparatus for Explosive Atmospheres CERTIFICATE OF CONFORMITY

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F2= 3' Teflon Covered Leads  
 F3= 6' Teflon Covered Leads  
 F4= 12' Teflon Covered Leads  
 F5=25' Teflon Covered Leads  
 F6=50' Teflon Covered Leads  
 F7=100' Teflon Covered Leads  
 F8=250' Teflon Covered Leads  
 S2= 3' Silicone Covered Leads  
 S3= 6' Silicone Covered Leads  
 S4= 12' Silicone Covered Leads  
 S5=25' Silicone Covered Leads  
 S6=50' Silicone Covered Leads  
 S7=100' Silicone Covered Leads  
 S8=250' Silicone Covered Leads  
 DCD=4 Pin Mini-Charge Male Connector  
 DCG=5 Pin Mini-Charge Male Connector  
 DCH=7 Pin Mini-Charge Male Connector

- 6) 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)
- 7) 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 GB3836.4 standard.

### Input Parameters:

Switch Variants with Termination Options 'DCD', 'DCG' & 'DCH':

Ui=30V, li=0.25A, Ci=0nF, Li=0μH

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

Ui=30V, li=0.25A, Ci=33nF, Li=200μH

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# 防爆合格证 (附页)

## Electrical Apparatus for Explosive Atmospheres CERTIFICATE OF CONFORMITY

3. Nomenclature of 81-\*0\*\*H-\*\*\*\*\*:

81	-	*	0	*	*	H	-	*	*	*****
		1)		2)	3)	4)		5)	6)	7)

- 1) Contact Form  
1=Single Pole, Double Throw  
2=Double Pole, Double Throw
- 2) Outlet Position  
1=Side Outlet  
5=Bottom Outlet
- 3) Enclosure Material  
1=Stainless Steel  
2=316L Stainless Steel
- 4) Certification Code  
H=Zone 0, Temp.Class.T3
- 5) Termination Options  
F2= 3' Teflon Covered Leads  
F3= 6' Teflon Covered Leads  
F4= 12' Teflon Covered Leads  
F5=25' Teflon Covered Leads  
F6=50' Teflon Covered Leads  
F7=100' Teflon Covered Leads  
F8=250' Teflon Covered Leads  
S2= 3' Silicone Covered Leads  
S3= 6' Silicone Covered Leads  
S4= 12' Silicone Covered Leads  
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# 防爆合格证 (附页)

## Electrical Apparatus for Explosive Atmospheres CERTIFICATE OF CONFORMITY

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

- 7) 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 GB3836.4 standard.

Input Parameters:  $U_i=30V$ ,  $I_i=0.25A$ ,  $C_i=33nF$ ,  $L_i=200\mu H$

Ex marking:

Model Number	Marking
81-*0**F-*****	Ex ia IIC T6 Ga, Ex iaD 20 T85°C (-40°C ≤ Ta ≤ +50°C)
81-*0**G-*****	Ex ia IIC T4 Ga, Ex iaD 20 T135°C (-40°C ≤ Ta ≤ +100°C)
81-*0**H-*****	Ex ia IIC T3 Ga, Ex iaD 20 T200°C (-40°C ≤ Ta ≤ +150°C)

#### 4. Specific conditions of safety use:

- 1) All switch contacts within one limit switch assembly must form part of the same intrinsically safe circuit.
- 2) 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 implications of this must be fully considered in any installation. i.e. by the use of a galvanically isolated interface.
- 3) When using this product, it must be powered by an Ex ia IIC intrinsically safe power supply that meets the GB3836.4 standard and has obtained certification.
- 4) The flying leads must be terminated in a manner suitable for the zone of installation.

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