

1 **UK-TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 UK-Type Examination Certificate Number: **BAS21UKEX0668X**
4 Product: **Series 80 GO Switch**
5 Manufacturer: **Topworx Incorporated**
6 Address: **3300 Fern Valley Road, Louisville, Kentucky, 40213 United States of America**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 SGS Baseefa, Approved Body number 1180, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR22.0194/00**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN 60079-11: 2012

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following :

 See Certificate Schedule

SGS Baseefa Customer Reference No. **2191**

Project File No. **21/0357**

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0191

R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13

Schedule

14

Certificate Number BAS21UKEX0668X

15 Description of Product

The Series 80 GO Switch are a range of magnetically operated switches which are actuated by the presence of an external ferrous body. The range includes a number of different switch configurations with single pole double throw or double pole double throw switches within a switch body.

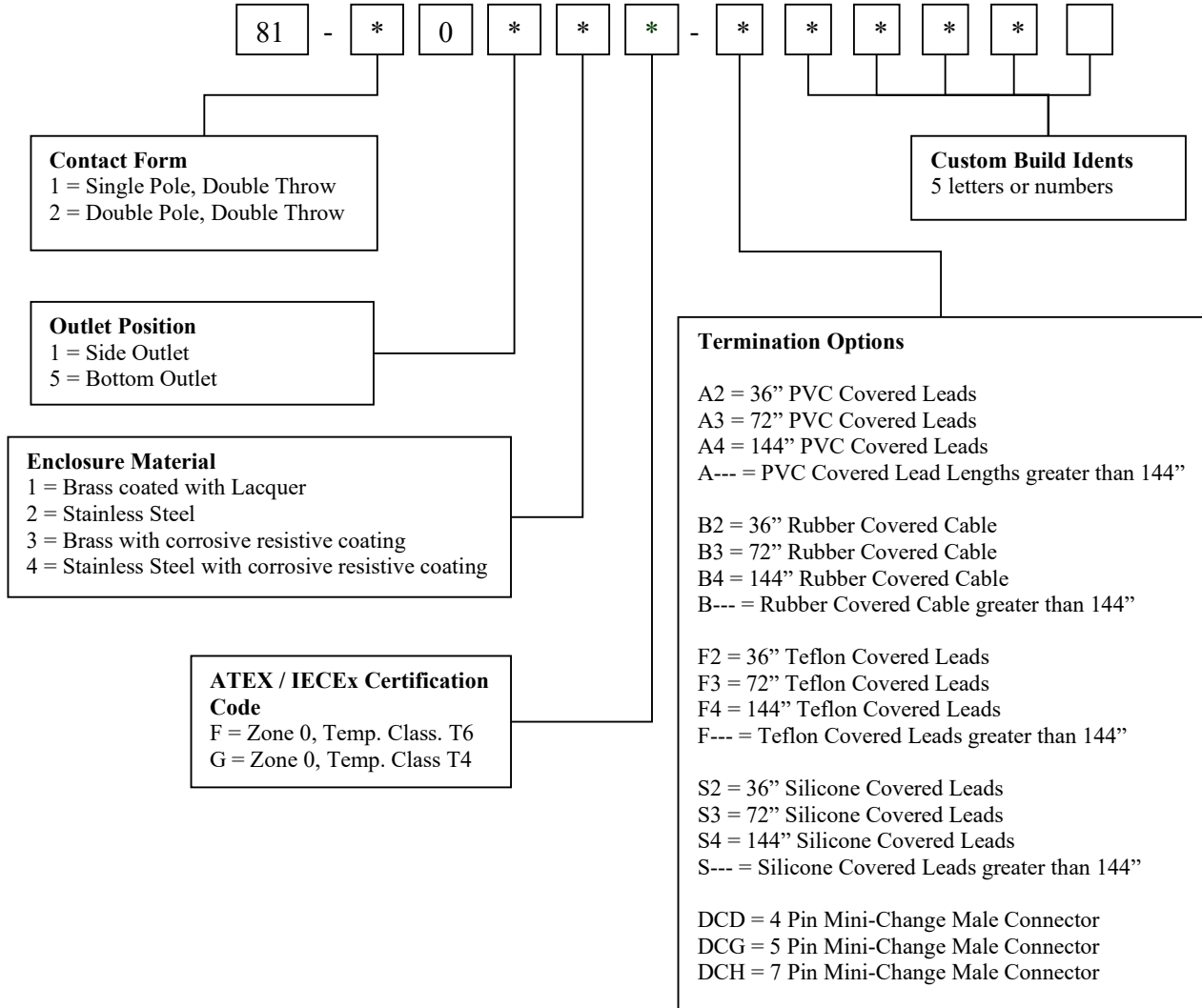
The switches comprise a rectangular stainless steel or lacquered brass enclosure housing the switch mechanism sealed in the top of the enclosure with the sensing magnets located below. These, and the integral connections to the switch mechanism are potted in the enclosure with external connections to the switch made either by a threaded entry on the side or bottom of the switch enclosure. The switch is mounted in place using two mounting points that pass through the enclosure.

The switches are rated up to 30V peak a.c. or d.c., 0.25A and may be used to switch a circuit from a certified Ex ia IIC intrinsically safe source. All switch contacts within one limit switch assembly must form part of the same intrinsically safe circuit. The switched circuit is capable of withstanding a 500V test to earth.

The Series 80 GO Switch are available with both single or double pole switch configurations, and either a side or bottom external connection outlet position, all with either plug and socket or integral lead external connection options. When fitted with the integral leads, the external connections must be terminated within an enclosure provided with protection suitable for the zone of installation. In terms of intrinsic safety, all variants of the Series 80 GO Switch are identical with exception of the potting used on the 'H' high temperature variants is suitable for the higher ambient temperature.

The Series 80 GO Switch model range covered by this certificate is defined on the next page: -

'F' & 'G' Model Range



Input Parameters:

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

$$U_i = 30V \quad C_i = 0$$

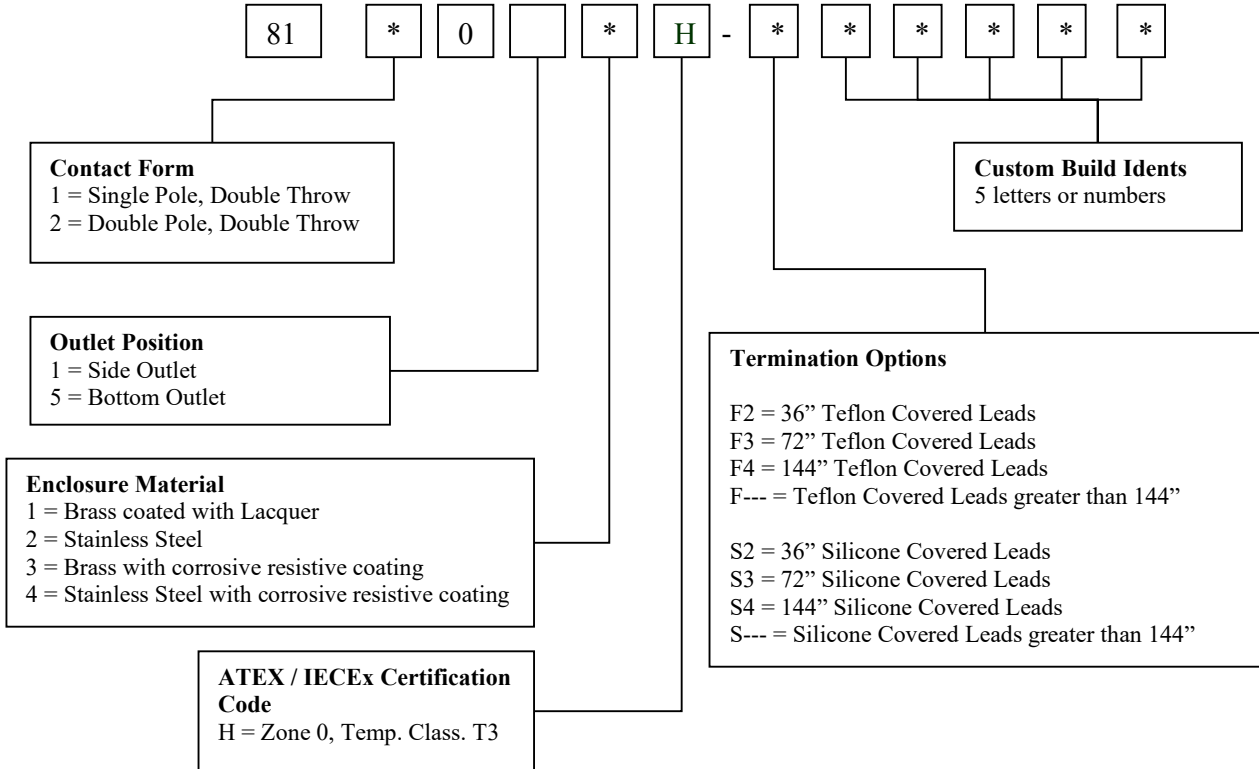
$$I_i = 0.25A \quad L_i = 0$$

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

$$U_i = 30V \quad C_i = 33nF$$

$$I_i = 0.25A \quad L_i = 200\mu H$$

'H' Model Range



Input Parameters:

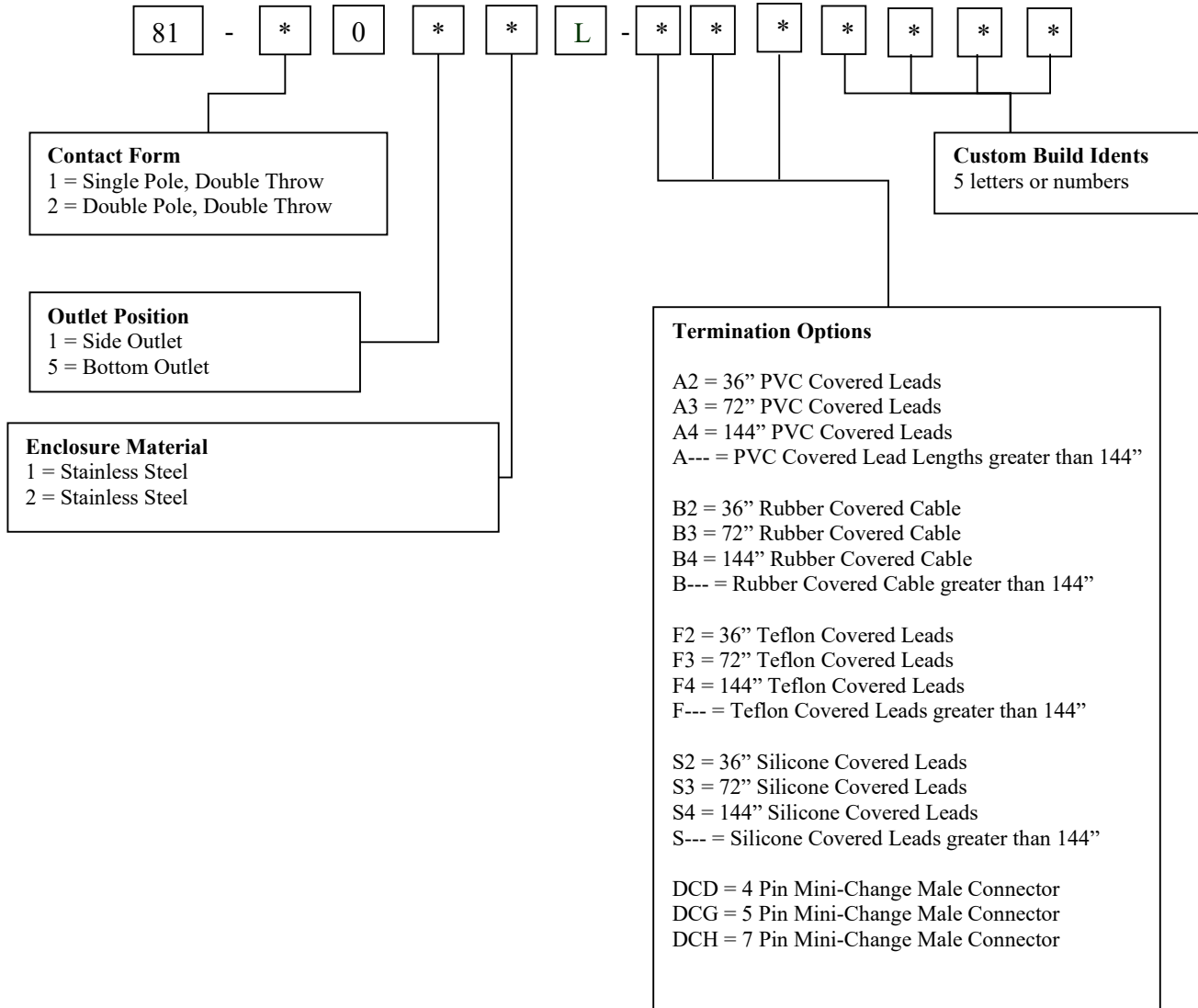
$$U_i = 30V \quad C_i = 33nF$$

$$I_i = 0.25A \quad L_i = 200\mu H$$

The seventh character in the model number defines the temperature classification and associated ambient temperature range of the model. These are as follows: -

80 Series models with a 'F' as the seventh character in the model number	⊕ II 1 GD	Ex ia IIC T6 Ga (-40°C ≤ T _a ≤ 50°C) Ex ia IIIC T ₂₀₀ 85°C Da (-40°C ≤ T _a ≤ 50°C)
80 Series models with a 'G' as the seventh character in the model number	⊕ II 1 GD	Ex ia IIC T4 Ga (-40°C ≤ T _a ≤ 100°C) Ex ia IIIC T ₂₀₀ 135°C Da (-40°C ≤ T _a ≤ 50°C)
80 Series models with a 'H' as the seventh character in the model number	⊕ II 1 GD	Ex ia IIC T3 Ga (-40°C ≤ T _a ≤ 150°C) Ex ia IIIC T ₂₀₀ 200°C Da (-40°C ≤ T _a ≤ 150°C)

‘F’ and ‘G’ Model Range – Additionally Marked



The model range described here includes an alternative label that carries third-party certification marks not ratified by SGS Baseefa. These models are identified by the inclusion of an "L" as the sixth character of the model number. For those carrying this character the model nomenclature is not relied upon to define the certification parameters.

Input Parameters:

Switch Variants with Termination Options ‘DCD’, ‘DCG’ & ‘DCH’

$$U_i = 30V \quad C_i = 0$$

$$I_i = 0.25A \quad L_i = 0$$

Switch Variants with Wiring Options ‘A*’, ‘B*’, ‘F*’ & ‘S*’

$$U_i = 30V \quad C_i = 33nF$$

$$I_i = 0.25A \quad L_i = 200\mu H$$

16 Report Number

GB/BAS/ExTR22.0194/00

17 Specific Conditions of 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 implication of this must be fully considered in any installation, e.g. by use of a galvanically isolated interface.
3. The switch must be supplied from a certified Ex ia IIC intrinsically safe source.
4. The flying leads must be terminated in a manner suitable for the zone of installation.
5. Prior to installation of the installer must inspect the device for damage to the applied coating that may expose the brass enclosure and install the device in a manner that protect or prevents impact to the enclosure of the device. Consult manufacturer should there be any damage to the applied coating exposing the brass enclosure.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
13	LVD type requirements
14	Overloading of equipment (protection relays, etc.)
21 (1)	External effects
21 (2)	Aggressive substances, etc.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
CERT-ES-09232-1	1 of 1	AA	10/27/2022	Label, 80 Series ATEX/IECEX/UKEX
CERT-ES-9584-1	1 of 1	AA	05/05/2023	Label, 80 Series ATEX/UL

For all other drawings refer to Baseefa12ATEX0214X.