

1 **EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU**

3 EU - Type Examination Certificate **Baseefa12ATEX0187X – Issue 2**
Number:

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

4 Product: **Series 10 and 20 GO Switch**

5 Manufacturer: **Topworx Incorporated**

6 Address: **3300 Fern Valley Road, Louisville, Kentucky, 40213 United States of America**

7 This re-issued certificate extends EC Type Examination Certificate No. **Baseefa12ATEX0187X** to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

8.1 The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **See Certificate History**

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 EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive 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 Fimko Oy Customer Reference No. **2191**


Project File No. **21/0357**

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Tuomas Hänninen
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Schedule

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15 Description of Product

The Series 10 & 20 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.

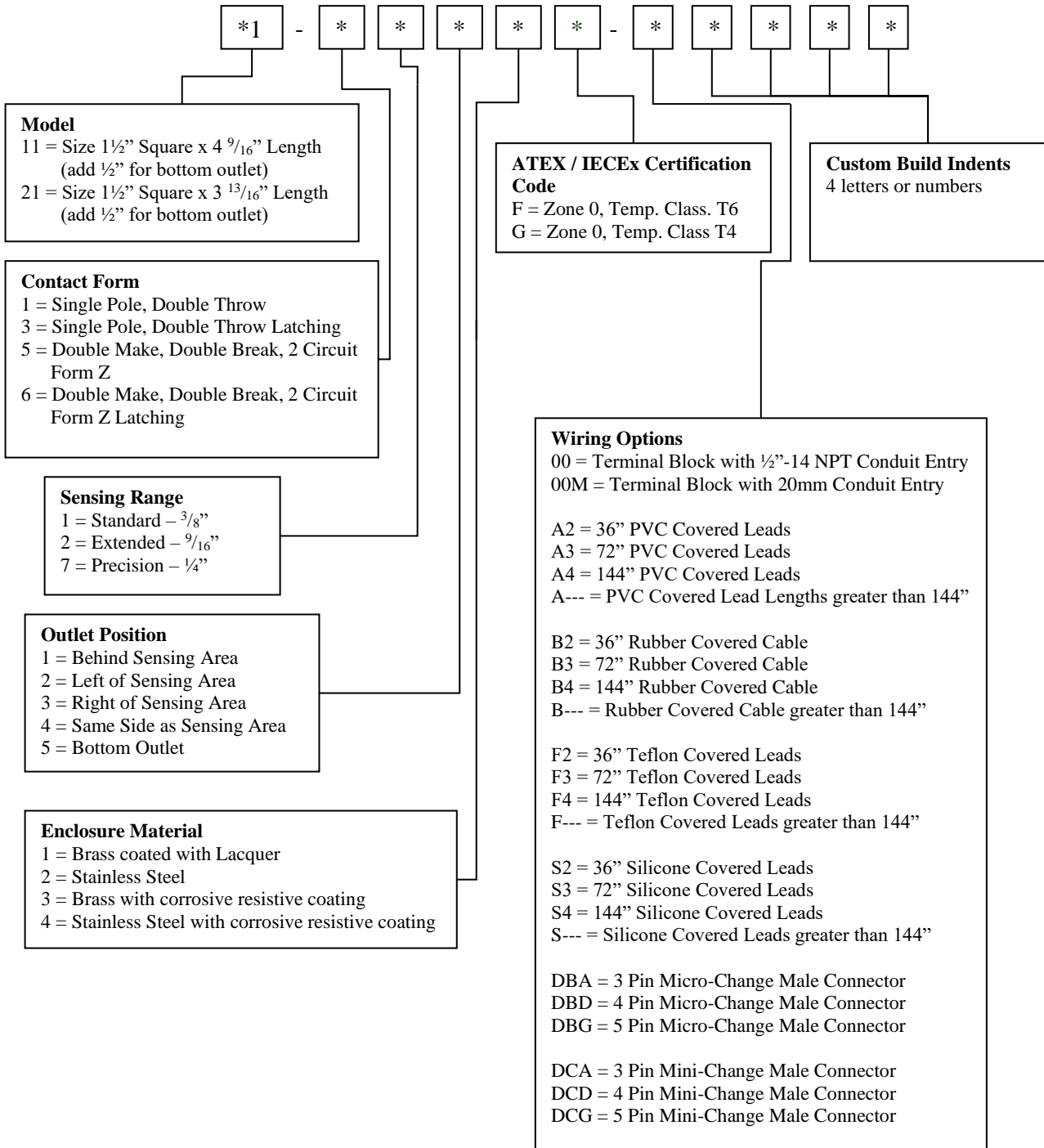
The switches comprise a rectangular stainless steel or lacquered brass enclosure housing the switch mechanism sealed in the top of the enclosure with the sensing magnets located below. These, and the integral connections to the switch mechanism are potted in the enclosure with external connections to the switch made 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. Both sides of each double throw switch and each pole of a double pole switch, within one proximity switch, must form part of the same intrinsically safe circuit. The switched circuit is capable of withstanding a 500V test to earth.

The Series 10 & 20 GO Switch are available with a number of different switch configurations, sensing range and external connection outlet positions, all with either screw terminals, 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. The only difference between the Series 10 and 20 variants is the dimensions of the switch enclosure. In terms of intrinsic safety, all variants of the Series 10 & 20 switches are identical with exception of the potting used on the 'H' high temperature variants is suitable for the higher ambient temperature.

The Series 10 & 20 GO Switch model ranges covered by this certificate are defined on the next pages:-

'F' or 'G' Model Range



Input Parameters:

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

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

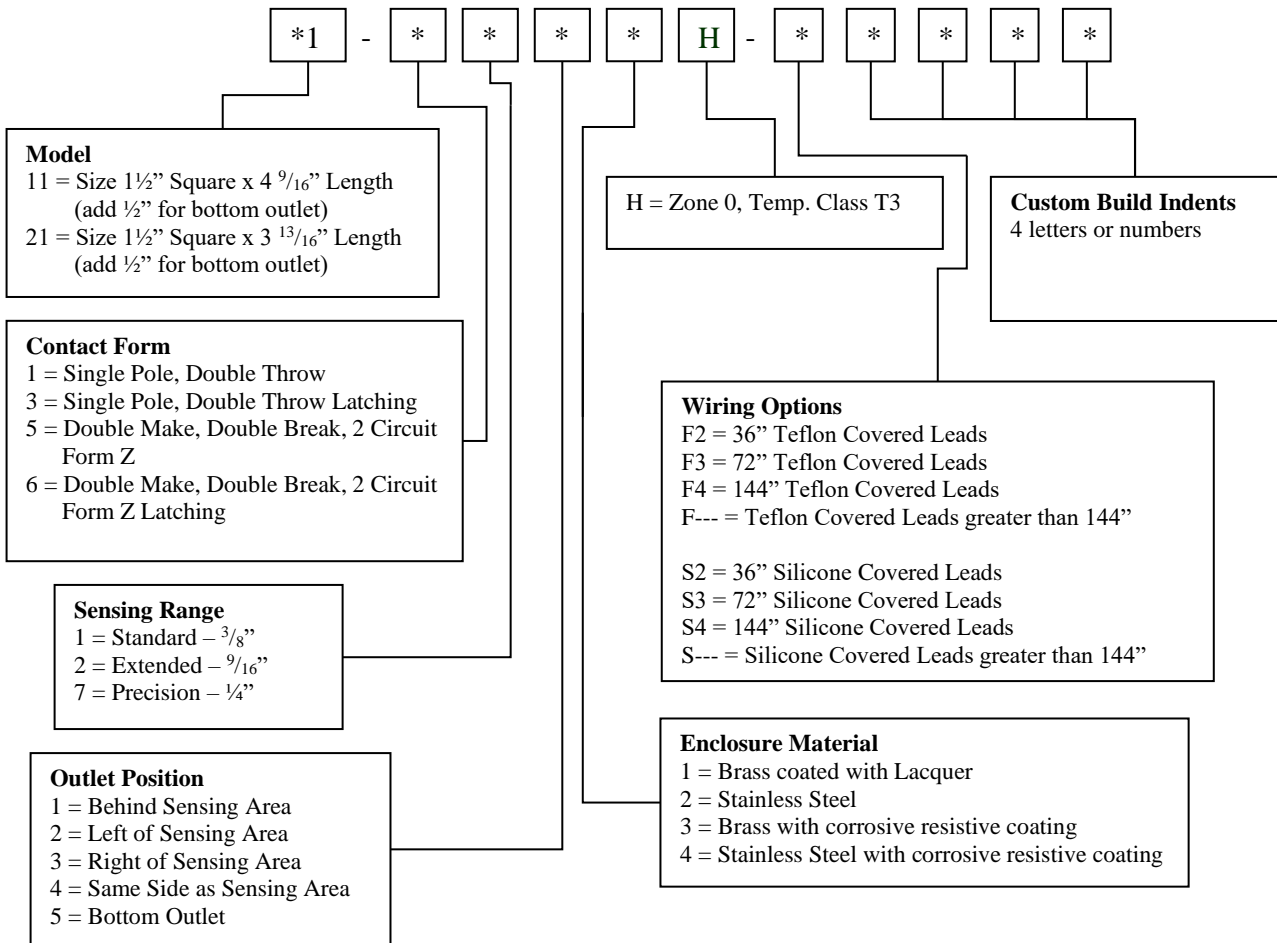
$$I_i = 0.25A \quad L_i = 0$$

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

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

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

'H' Model Range



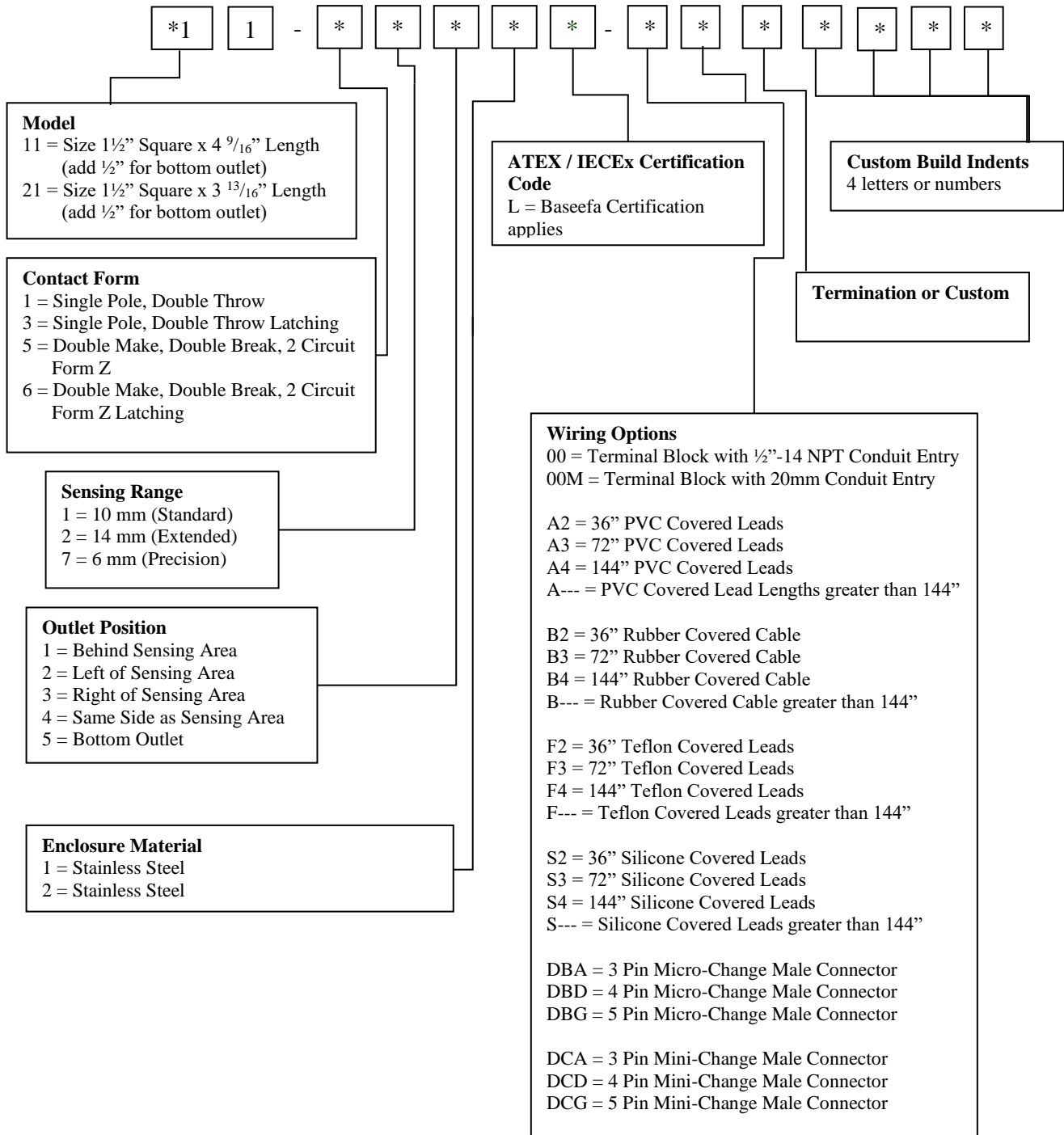
Input Parameters:

U_i = 30V C_i = 33nF
I_i = 0.25A L_i = 200µH

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

10/20 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)
10/20 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 ≤ 100°C)
10/20 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)

Model Range – Additionally Marked



Input Parameters:

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

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

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

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

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

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

All certification markings related to the models that are additionally marked are presented on the labels. For those carrying the additional marking the model nomenclature is not relied upon to define the certification parameters.

16 Report Number

See Certificate History

17 Specific Conditions of Use

- 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.
- The switch must be supplied from a certified Ex ia IIC intrinsically safe source.
- 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.
- 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
1.2.7	LVD type requirements
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
CERT-ES-09224-1	1 of 1	AA	10/27/2022	Label, 10 Series ATEX/IECEX/UKEX
CERT-ES-9582-1	1 of 1	AA	05/10/2023	Label, 10/20 Series ATEX/UL

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
CERT-ES-03452-1	1 of 1	2	05/14/2015	Limit Switch Assembly 10 and 20 Series with Leads Potted in
CERT-ES-03453-1	1 of 1	2	05/19/2015	Limit Switch Assembly 10 and 20 Series SPDT without Terminal Blocks
CERT-ES-03480-1	1 of 1	2	05/19/2015	Limit Switch Assembly 10 and 20 Series DMDB without Terminal Blocks
CERT-ES-03483-1	1 of 1	2	05/19/2015	Limit Switch Assembly 10 and 20 Series DMDB with

Number	Sheet	Issue	Date	Description
				Terminal Blocks
CERT-ES-03451-1	1 of 1	1	12/03/12	Limit Switch Assembly 10 and 20 Series Terminal Block without leads
CERT-ES-03481-1	1 of 1	1	11/12/12	SPDT & DMDB Sub Assy “C” Form & “Z” Form
CERT-ES-03482-1	1 of 1	1	11/12/12	10/20 Series Diagram Latching & Non-Latching
SK-1612	1 of 1	1	11/20/12	10 Series General Assy W/ Quick Disconnects Mini & Micro-change
S-S10-0005	1 of 1	11	12/15/04	10 Series Enclosure for Models: 11- xx 1 or 4 xx – xx
S-S10-0070	1 of 1	11	12/15/04	10 Series Enclosure for Models: 10- xx 2 or 3 xx – xx
S-S10-0080	1 of 1	10	5/7/07	Go Switch 10 Series Enclosure (Brass)
S-S10-0190	1 of 1	11	5/14/2012	Number 5 in 4 th Group S.S. Body Tube with Model
S-S10-0191	1 of 1	15	5/14/2012	S.S. Body Tube with Conduit Hole in Standard Position with Model Number 1 or 4 in 4 th Group
S-S10-0192	1 of 1	15	5/14/2012	S.S. Body Tube with Conduit Hole with Model Numbers 2 or 3 in 4 th Group
S-S20-0221	1 of 1	14	5/14/12	S.S. Body Tube for 20 Series Switch
S-S20-0222	1 of 1	12	5/14/12	S.S. Body Tube for 20 Series Switch with 4 th Digit Number 2 or 3
S-S20-0223	1 of 1	13	5/14/12	S.S. Body Tube for 20 Series Switch with Bottom Conduit Outlet
S-S20-0257	1 of 1	10	12/16/04	20 Series Enclosure (Brass) for Models: 21 – xx – 1 or 4 xx – xx
S-S20-0258	1 of 1	10	12/16/04	20 Series Enclosure (Brass) for Models: 21 – xxx 2 or 3 x – xx
S-S20-0259	1 of 1	13	02/05/09	Go Switch 20 Series Enclosure (Brass)

These drawings are common to IECEx BAS 12.0106X and BAS21UKEX0666X.

20 Certificate History

Certificate No.	Date	Comments
Baseefa12ATEX0187X	8 January 2013	The release of the prime certificate. The associated test and assessment is documented in Certification Report No. GB/BAS/ExTR12.0238/00.
Baseefa12ATEX0187X Issue 1	9 June 2015	<p>i) To permit the equipment name to be changed from Series 10 and 20 Leverless Limit Switches to Series 10 & 20 GO Switches. The Equipment Title and Certificate Schedule were revised to list the new name. This change does not affect the original assessment.</p> <p>ii) To permit the addition of variants of the Series 10 & 20 GO Switches fitted with a silicone covered cable. The fitting of the silicone cable does not affect input parameters and previous test and assessment of the equipment. The certificate schedule have been updated to list the new variants denoted by an ‘S’ in the model number.</p> <p>iii) To permit the minimum ambient temperature of the ‘F’ models to be changed from -20°C to -40°C. This change does not affect the original assessment.</p> <p>iv) To permit minor drawing changes not affecting the original</p>



Certificate No.	Date	Comments
		<p>assessment.</p> <p>v) To confirm the current design of all variants of the Series 10 & 20 GO Switches were reviewed against the requirements of EN 60079-0: 2012 + A11: 2013 in respect of the differences from EN 60079-0: 2012, and none of the differences affect the equipment. The standards listed on page 1 of the certificate were updated.</p> <p>The above test and assessment is documented in IECEx ExTR No. GB/BAS/ExTR15.0139/00.</p>
<p>Baseefa12ATEX0187X Issue 2</p>	<p>12 September 2023</p>	<p>This issue of the certificate confirms the current design meets the requirements of EN IEC 60079-0: 2018 including the revision of the equipment marking in accordance with this standard. Additionally, the variation introduces alternative marking plates including third-party certification not ratified by SGS Baseefa Limited. The associated test and assessment is recorded in IECEx ExTR GB/BAS/ExTR22.0191/00 and held with project 21/0357.</p>
<p>For drawings applicable to each issue, see original of that issue.</p>		