

[1]

TYPE EXAMINATION CERTIFICATE



[2]

Component intended for use on/in an Equipment or Protective System Potentially Explosive Atmospheres Directive 2014/34/EU

[3]

Type Examination Certificate Number: **UL 22 ATEX 2897U Rev. 0**

[4]

Component: **Refrigerator Door Switches, Series 3100**

[5]

Manufacturer: **Bulgin Ltd.**

[6]

Address: **200 Science Park Milton Rd., Cambridge, CB4 0GZ UK**

[7]

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

[8]

UL International Demko A/S 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 Directive 2014/34/EU of 26 February 2014.

The examination and test results are recorded in confidential report number: **4790566146.1.1.**

[9]

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

EN IEC 60079-0:2018

EN IEC 60079-15: 2019

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

[10]

The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

[11]

This Type Examination Certificate relates only to the design of the specified component, and not to specific items of component subsequently manufactured.

[12]

The marking of the component shall include the following:

 **II 3 G Ex nC IIA Gc**

Certification Manager

Jan-Erik Storgaard

This is to certify that the sample(s) of the Component described herein ("Certified Component") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the component sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the component. The Manufacturer are solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2022-11-04

Certification Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com



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[14]

Schedule TYPE EXAMINATION CERTIFICATE No. UL 22 ATEX 2897U Rev. 0

[15]

Description of Component:

Refrigerator Door Switches intended for use wholly within the end use enclosure in end application, Series 3100.

Nomenclature:

I	II	III	IV	V	VI
E	3100	A	A	W	xxx

I	- Terminal type	E – 4.8x7.9x0.5 mm QC (3101, 3102 and 3111 only) H – 4.8x8.0x0.8 mm (3141, 3145 and 3146 only) K – 2.8x8.0x0.8 mm (3141, 3145 and 3146 only) HK – Combination of H and K terminals above, H in positions 1 and 2, K in positions 3 and 4 (3141 only) KH – Combination of H and K terminals above, K in positions 1 and 2, H in positions 3 and 4 (3141 only)
II	- Model	3101 – 2 Pin. Momentary NO contacts 3102 – 2 Pin. Momentary NC contacts 3111 – 3 Pin. Momentary switchover, pins 1 and 2 NC, pins 1 and 3 NO 3141 – 4 Pin. Momentary switchover, pins 1 and 2 NO, pins 3 and 4 NC 3145 – 2 Pin. Momentary NC contacts, pins 3 and 4 3146 – 2 Pin. Momentary NO contacts, pins 1 and 2
III	- Actuator	A, B, C or D. Actuator shape description
IV	- Body	A – 27.31/27.56 x 22.73/22.99 mm cutout size B – 27.31/27.56 x 22.73/22.99 mm cutout size, with drain hole at the bottom
V	- Colour	W – White B – Black PW – Polar white
VI	- Options	Blank – No options covered XXXX – Any alphanumeric characters that describe special additional options and features that do not have any effect on the Certification, e.g. plated terminals, gold plated terminals, sealed terminals etc.

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is not covered in this certificate.

Temperature range:

The service temperature range is -25°C ≤ Ta ≤ +85°C

Electrical data

250Vac, 2.5A, >0.9 PF (resistive).

Routine tests:

None

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this Type Examination Certificate.

[17]

Schedule of Limitations:

- Switch shall be installed completely within the end use enclosure, and shall not be exposed to impact, static or UV risks in end application.
- Switch is intended for refrigerator door application and shall not be used for any other means.
- Service temperature range -25°C ≤ Ta ≤ +85°C.
- Maximum electrical ratings: 250Vac, 2.5A, >0.9PF (resistive).

[18]

Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information



The trademarks , “ARCOELECTRIC”, “Arcoelectric”, “ARCOELECTRONIC”, “BULGIN”, “ARCO”,



, and may be used as the company identifier on the marking label.

