

UK-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1

- UK-Type Examination Certificate Number: **BAS21UKEX0642 – Issue 1**
- Product: **Type 27 & 77 Solenoid Operator**
- Manufacturer: **Bifold Fluidpower Limited**
- Address: **Chadderton, Oldham, Greater Manchester, OL9 9XA**
- This re-issued certificate extends UK-Type Examination Certificate No. BAS21UKEX0642 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.
- 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 by UKSI 2019:696), 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. **See Certificate History**
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-31:2014**
- except in respect of those requirements listed at item 18 of the Schedule.
- 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.
- 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.
- The marking of the product shall include the following:

**⊕ II 2GD Ex db IIC T6 Gb (Tamb -60°C to +40°C)*
Ex tb IIIC T85°C Db (Tamb -60°C to +40°C)* IP66/67**
***alternative Temperature class/Ambient combinations may also be marked, see schedule**

SGS Baseefa Customer Reference No. **1688**

Project File No. **22/0377**

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R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa
Limited

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Schedule

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Certificate Number BAS21UKEX0642 – Issue 1

15 Description of Product

The Type 77 and Type 27 Solenoid Operator is rated at up to 240Vac or dc and has a maximum power dissipation of 14W. The Type 77 Solenoid Operator comprises a stainless steel cylindrical enclosure, whereas the Type 27 comprises an aluminium cylindrical enclosure, both have a spigot cover fitted with a silicone rubber seal.

In addition to the above there is also two winding alternative designated the 'Pulse-Pulse Solenoid operator' which has a maximum combined coil rating limited to 20.5W.

The base of the enclosure is fitted with an adaptor bush which incorporates venting holes to allow the unit to be fitted onto a valve assembly rated up to a maximum pneumatic pressure of 10 bar. For hydraulic valves and valves with pneumatic pressures greater than 10 bar the top of the valve is provided with additional venting holes.

Internally the unit is fitted with a coil holder, coil, and armature onto which is mounted an adjusting rod which forms a cylindrical joint with the adaptor bush and operates the valve when the solenoid is activated.

The cover may be fitted with a pushbutton or a rotary operator which can be used to operate the valve manually either momentarily or permanently.

The cover is secured using four stainless steel socket head cap screws grade of grade A4-70.

The equipment is marked:

Ex db IIC T6 Gb (Tamb -60°C to +40°C)*

Ex tb IIIC T85°C Db (Tamb -60°C to +40°C)* IP66/67

*The following alternative Temperature class/Ambient combinations may also be marked

T5/T100°C (Tamb -60°C to +55°C)

T4/T135°C (Tamb -60°C to +90°C)

An M20 or ½" NPT cable entry hole is provided as specified on the certified drawings for the accommodation of suitable IECEx Equipment (not a Component) certified cable entry device, with or without the interposition of a suitable IECEx Equipment certified (not a Component) flameproof thread adapter.

An M20 cable entry is provided unless the marking 'K85' appears in the Model No. marked on the label, in which case a ½" NPT cable entry hole is provided.

16 Report Number

See Certificate History

17 Specific Conditions of Use

None

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
21 (1)	External effects
21 (2)	Aggressive substances etc.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Issue	Date	Description
0-SC0070	0	2022.06.30	TYPE 27 & 77 SOLENOID LABEL - ROTORK BRAND - L240

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
0-SL0056	-	4	13.01.22	Type 27 & 77 Solenoid housing label Ex d
0-SL0058	-	5	2022.02.07	Type 27 & 77 Solenoid housing label Ex d
0-SL0068	-	0	2022.01.17	Label Type 27 and 77 Solenoid Operator

For all other drawings related to the product see certificate Baseefa10ATEX0026.

20 Certificate History

Certificate No.	Date	Comments
BAS21UKEX0642	08 February 2022	The release of the prime certificate. The associated test and assessment against the requirements of EN IEC 60079-0:2018, EN 60079-1:2014 and EN 60079-31:2014 is documented in Test Report No. 21(C)0539.
BAS21UKEX0642 Issue 1	2 November 2022	To permit the use of an alternative marking drawing with an alternative manufacturer branding. Assessment is covered in test report GB/BAS/ExTR22.0138/00

For drawings applicable to each issue, see original of that issue.