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:	**BAS22UKEX0033**
4	Product:	**Type 57 and 67 Solenoid**
5	Manufacturer:	**Bifold Fluidpower Limited**
6	Address:	**Broadgate, Oldham Broadway Business Park, Chadderton, Oldham, Greater Manchester, OL9 9XA**

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. **21(C)0641**

9 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.

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 :

Ex See Description

SGS Baseefa Customer Reference No. **1688** Project File No. **21/0641**

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UKAS PRODUCT CERTIFICATION
0191

R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13 # Schedule

14 ## Certificate Number BAS22UKEX0033

15 Description of Product

The Type 57 and 67 Solenoid comprises a cylindrical steel enclosure that houses a coil and moving armature assembly. The unit is normally rated 24V dc (Alternative coils may be wound for voltages up to 35V within the power limitations of the 24Vdc range) and has a range of Coil ratings from 3.5W to 12W with different Temperature Classifications as shown in the marking section below.

The ends of the cylindrical enclosure are closed with threaded end caps manufactured in stainless steel and locked with socket head cap screws. The armature operated push-rod passes through a bushing in the front end cap, which also includes a vented mounting arrangement.

The rear end cap may optionally include a manual override facility, and provides access to the coil connection terminals and the internal earth connection.

A cable entry boss, which also includes an external earth connection lug, is provided on the side of the Type 57 and 67 Solenoid body. The entry may be threaded M20 or ½"NPT for the accommodation of a flameproof cable entry device, with or without the interposition of a flameproof thread adapter.

The cable entry arrangement is to be suitable for the equipment, the cable and the conditions of use and is to be certified as Equipment (not a Component). When used in an explosive dust atmosphere the cable entry arrangement is to shall maintain the ingress protection of the enclosure

Nomenclature

The model number nomenclature gives details of the equipment. For example model number 67A24D50AGK85M153
Can be broken down into the following.

Solenoid Type A=ATEX	Voltage	Power Rating e.g. 50=5.0W 105=10.5W	Arctic Service	Conduit Entry Option i.e. K85 = ½" NPT, Otherwise M20	Override options e.g. M = Manual Override	Coil Holder, Armature material e.g. Remco B	Internal revision number.
67A	24D	50	AG	K85	M	15	3

Marking

Ⓔx II 2 GD Ex db IIB Gb
Ex tb IIIB Db IP66

Solenoid Power Rating (W)	Temperature Class @ Ambient		Surface Temperature @ Ambient	
	-40°C ≤ Tamb ≤ 40°C	-40°C ≤ Tamb ≤ 60°C	-40°C ≤ Tamb ≤ 40°C	-40°C ≤ Tamb ≤ 60°C
≤5.7	T6	T5	T80°C	T100°C
≤6.5	T6	T4	T85°C	T105°C
≤8	T5	T4	T90°C	T110°C
≤10	T5	T4	T100°C	T120°C
≤12	N/A	T4	T110°C	T130°C

16 Report Number

21(C)0641

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
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
Baseefa08ATEX0341				
0-SC0037	-	0	03.12.21	67 Solenoid General Assembly
0-SC0039	-	2	06.01.22	57 Solenoid General Assembly
0-SL0003	-	2	08.03.22	Type 67 Solenoid Label Exd
0-SL0004	-	3	09.03.22	Type 57 Solenoid Label Exd

For all other drawings please see Baseefa08ATEX0341