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 Number:	**Baseefa08ATEX0341 – Issue 8**
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, United Kingdom**

7 This re-issued certificate extends EU Type Examination Certificate No. Baseefa08ATEX0341 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 60079-1:2014** **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 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 description

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

SGS Fimko Oy
Takomotie 8
FI-00380 Helsinki, Finland
Telephone +358 (0)9 696 361
e-mail sgs.fimko@sgs.com
web site www.sgs.fi
Business ID 0978538-5 Member of the SGS Group (SGA SA)

Tuomas Hänninen
SGS Fimko Oy

13 # Schedule

14 ## Certificate Number Baseefa08ATEX0341 – Issue 8

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


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

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
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
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

20 Certificate History

Certificate No.	Date	Comments
Baseefa08ATEX0341	3 February 2009	The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0: 2006, IEC 60079-1: 2007, EN 61241-0: 2006 and IEC 61241-1: 2004 is documented in Test Report No. GB/BAS/ExTR 08.0244/00.
Baseefa08ATEX0341/1	14 September 200	To permit the addition of type 57 solenoid and minor changes to existing type 67 solenoid to aid production. Assessment of changes covered in test report: GB/BAS/ExTR09.0127/00
Baseefa08ATEX0341/2	5 August 2010	Minor optional changes to the solenoid armature seal. Assessment of changes covered in test report: GB/BAS/ExTR10.0185/00
Baseefa08ATEX0341/3	18 August 2011	To permit minor changes to the assembly to aid production. Minor changes to nameplate and instructions. Assessment of changes covered in test report: GB/BAS/ExTR11.0195/00
Baseefa08ATEX0341/4	3 December 2012	Title change to include type 57 variant, addition of the type 67 override option to the type 57 and restructuring of top level assembly including new subassembly. Drawing changes to include manufacturing and inspection notes. Assessment of changes covered in test report: GB/BAS/ExTR12.0298/00

Certificate No.	Date	Comments
Baseefa08ATEX0341/5	9 April 2014	Addition of drawings to detail minor label changes. Label thickness changed from 0.8 to 1mm stainless steel. Assessment of changes covered in test report: GB/BAS/ExTR13.0317/00
Baseefa08ATEX0341/6	25 June 2014	Minor optional changes to allow different mounting options. Slight increase in bore diameter for the main solenoid housing. Alternative locking mechanism to allow multiple solenoids in close proximity. Assessment of changes covered in test report: GB/BAS/ExTR14.0112/00
Baseefa08ATEX0341/7	29 July 2014	Minor drawing changes to change certificate holder address. No report was issued for these changes.
Baseefa08ATEX0341 Issue 8	4 August 2022	Assessment against requirements of EN 60079-0:2018, EN 60079-1:2014 and EN 60079-31:2014. Removal of drawings and addition of GA drawings to condense and simplify certification drawings. Assessment of changes covered in test report: GB/BAS/ExTR21.0213/00
For drawings applicable to each issue, see original of that issue.		