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: **Baseefa02ATEX0124X – Issue 13**

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: **Type 28, 78, 88 & 98 Solenoid Operator**

5 Manufacturer: **Bifold Fluidpower Limited**

6 Address: **Broadgate, Oldham Broadway Business Park, Chadderton, Oldham, Greater Manchester, OL9 9XA**

7 This re-issued certificate extends EC Type Examination Certificate No. Baseefa02ATEX0124X 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 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:

Ex Refer to Schedule

SGS Fimko Oy Customer Reference No. **1688** Project File No. **21/0541**

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13 # Schedule

14 ## Certificate Number Baseefa02ATEX0124X – Issue 13

15 Description of Product

The Type 28, 78, 88 & 98 Solenoid Operator comprises a stainless steel cylindrical enclosure within which is mounted an encapsulated coil. The coil is used to operate an armature within the enclosure, which is used to control valves to which the Solenoid Operator may be attached. The enclosure cover may be fitted with a pushbutton which is used to mechanically operate the valve.

Facilities for connection to the encapsulated coil are provided within the enclosure and threaded boss, which forms part of the enclosure, permits cable entry via a gland or conduit.

The following models are covered by this certificate:

Types 78, 88 & 98 Solenoid Operator

⟨Ex⟩II 1GD Ex ia IIC T4 Ga
Ex ta IIIC T_{200}133°C Da
-60°C ≤ Ta ≤ +95°C

or

⟨Ex⟩II 1GD Ex ia IIC T6 Ga
Ex ta IIIC T_{200}98°C Da
-60°C ≤ Ta ≤ +60°C

Type 28 Solenoid Operator

⟨Ex⟩II 2GD Ex ia IIC T4 Gb
Ex ta IIIC T133°C Db
-60°C ≤ Ta ≤ +95°C

or

⟨Ex⟩II 2GD Ex ia IIC T6 Gb
Ex ta IIIC T98°C Db
-60°C ≤ Ta ≤ +60°C

All Model No's. are assigned the parameters

U_i = 31V dc I_i = 210mA P_i = 1.5W C_i = 0µF L_i = 0mH

16 Report Number

See Certificate History

17 Specific Conditions of Use

1. The installation must use a suitably certified cable gland to ensure that the required degree of protection provided by the enclosure is maintained.

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
200-109-Exia	1 of 1	G	01/02/22	Coil Winding and Encapsulation Detail: Intrinsically Safe (ia) For Model FP Solenoids 28, 78, 88 & 98
0-SC0040	1 of 1	0	25/11/2021	Type 28, 78, 88 & 98 Solenoid Operator Ex i – General Assembly
0-SL0028	1 of 1	4	28/01/22	Type 28 Solenoid Housing Label Exia
0-SL0002	1 of 1	3	28/01/22	Type 78, 88 & 98 Solenoid Label Exia

These drawings are common to BAS21UKEX0779X and IECEx BAS 09.0092X.

All previous versions of drawings have become obsolete and have been replaced by the drawings above.

20 Certificate History

Certificate No.	Date	Comments
Baseefa02ATEX0124X	20 December 2002	The release of the prime certificate. The associated test and assessment is documented in Test Report No. 02(C)0168.
Baseefa02ATEX0124X/1	9 January 2004	To allow a change of encapsulant and to allow an alternative steel armature plate.
Baseefa02ATEX0124X/2	17 June 2005	To permit minor optional changes to the coil not affecting the intrinsic safety of the equipment.
Baseefa02ATEX0124X/3	20 February 2007	To permit minor electrical changes not affecting the intrinsic safety of the equipment.
Baseefa02ATEX0124X/4	2 August 2007	To permit clarification of the input terminal parameters. The input terminal parameters are now: U_i = 31Vdc, I_i = 210mA, P_i = 1.5W, C_i = 0µF, L_i = 0mH
Baseefa02ATEX0124X/5	28 August 2008	To permit minor electrical and drawing changes not affecting the intrinsic safety of the equipment.
Baseefa02ATEX0124X/6	28 January 2010	To permit minor mechanical and drawing changes not affecting the intrinsic safety of the equipment. To confirm that the equipment meets the requirements of EN 60079-0:2006, EN 60079-11:2007, EN 60079-26:2007, EN61241-0:2006 and EN61241-1:2004. The equipment may be marked as follows:

Certificate No.	Date	Comments
		78A9, 88CA9 & 98CA9 ⟨Ex⟩II 1GD Ex ia IIC T6 Ga (T_{amb} = -60°C to +60°C) Ex tD A20 IP66 T75°C T_{70} 75°C Da 78A3, 88CA3 & 98CA3 ⟨Ex⟩II 1GD Ex ia IIC T4 Ga (T_{amb} = -60°C to +95°C) Ex tD A20 IP66 T110°C T_{70}110°C Da The associated test and assessment is documented in Test Report Nos. GB/BAS/ExTR07.0159/00 and GB/BAS/ExTR07.0160/00
Baseefa02ATEX0124X/7	3 September 2012	To permit changes to the layout of the label, content not affected.
Baseefa02ATEX0124X/8	11 June 2013	To confirm that the equipment meets the requirements of EN 60079-0:2012, EN 60079-11:2012 and IEC 60079-31:2008. The equipment may be marked as follows: ⟨Ex⟩II 1GD Ex ia IIC T4 Ga Ex ta IIIC T133°C Da -60°C ≤ Ta ≤ +95°C Or ⟨Ex⟩II 1GD Ex ia IIC T6 Ga Ex ta IIIC T98°C Da -60°C ≤ Ta ≤ +60°C The associated test and assessment is documented in Test Report No. GB/BAS/ExTR13.0117/00.
Baseefa02ATEX0124X Issue 9	12 March 2014	To permit an additional model, Type 28, to be incorporated into the certificate. The additional model will be marked as follows: ⟨Ex⟩II 2GD Ex ia IIC T4 Gb Ex ta IIIC T133°C Db -60°C ≤ Ta ≤ +95°C Or ⟨Ex⟩II 2GD Ex ia IIC T6 Gb Ex ta IIIC T98°C Db -60°C ≤ Ta ≤ +60°C The associated test and assessment is documented in Test Report No. GB/BAS/ExTR14.0061/00.
Baseefa02ATEX0124X/10	29 July 2014	This issue permits existing information (for example on Schedule Drawings) to be replaced by the revised certificate holders address. No other changes may be made to the certified design. Project Number 14/0621.
Baseefa02ATEX0124X Issue 11	3 May 2018	Permits minor administrative drawing changes and confirms that the equipment conforms to the requirements of EN 60079-31:2014. Report number GB/BAS/ExTR17.0259/00 for Project 17/0412
Baseefa02ATEX0124X Issue 12	8 August 2019	Permits a minor product change not affecting the certification assessment. Report GB/BAS/ExTR18.0196/00 for Project 18/0388.

Certificate No.	Date	Comments
Baseefa02ATEX0124X Issue 13	17 March 2022	To confirm that the equipment meets the requirements of EN IEC 60079-0:2018 and permit a minor change in product design and drawings not affecting the certification assessment. The equipment is now marked as shown below: **Types 78, 88 & 98 Solenoid Operator** ⟨Ex⟩II 1GD Ex ia IIC T4 Ga Ex ta IIIC T_{200}133°C Da -60°C ≤ Ta ≤ +95°C or ⟨Ex⟩II 1GD Ex ia IIC T6 Ga Ex ta IIIC T_{200}98°C Da -60°C ≤ Ta ≤ +60°C **Type 28 Solenoid Operator** ⟨Ex⟩II 2GD Ex ia IIC T4 Gb Ex ta IIIC T133°C Db -60°C ≤ Ta ≤ +95°C or ⟨Ex⟩II 2GD Ex ia IIC T6 Gb Ex ta IIIC T98°C Db -60°C ≤ Ta ≤ +60°C Report GB/BAS/ExTR21.0210/00 for Project 21/0541.
For drawings applicable to each issue, see original of that issue.		