



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx BAS 09.0092X issue No.:4

Status: **Current**

Date of Issue: **2014-07-29** Page 1 of 4

Certificate history:
Issue No. 4 (2014-7-29)
Issue No. 3 (2014-3-12)
Issue No. 2 (2013-6-12)
Issue No. 1 (2012-9-3)
Issue No. 0 (2010-1-28)

Applicant: **Bifold Fluidpower Limited**
Broadgate
Oldham Broadway Business Park
Chadderton
Oldham
Greater Manchester
OL9 9XA
United Kingdom

Electrical Apparatus: **Type 28, 78, 88 & 98 Solenoid Operator**
Optional accessory:


Type of Protection: **Intrinsic Safety & Protection by Enclosure**

Marking: **See Annex**

Approved for issue on behalf of the IECEx Certification Body: R S Sinclair

Position: General Manager

Signature:
(for printed version)


30 July 2014

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton
Derbyshire
SK17 9RZ
United Kingdom





IECEx Certificate of Conformity

Certificate No.: IECEx BAS 09.0092X

Date of Issue: 2014-07-29

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Page 2 of 4

Manufacturer: **Bifold Fluidpower Limited**
Broadgate
Oldham Broadway Business Park
Chadderton
Oldham
Greater Manchester
OL9 9XA
United Kingdom

Additional Manufacturing location
(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

GB/BAS/ExTR07.0159/00
GB/BAS/ExTR13.0117/00

GB/BAS/ExTR07.0160/00
GB/BAS/ExTR14.0061/00

GB/BAS/ExTR12.0232/00

Quality Assessment Report:

GB/BAS/QAR07.0038/04



IECEx Certificate of Conformity

Certificate No.: IECEx BAS 09.0092X

Date of Issue: 2014-07-29

Issue No.: 4

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Type FP Solenoid Operator comprises a stainless steel cylindrical enclosure within which is mounted an encapsulated coil. This 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 can be used to mechanically operate the valve.

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

The terminal parameters and marking codes are shown in the certificate annex.

CONDITIONS OF CERTIFICATION: YES as shown below:

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



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Certificate No.: IECEx BAS 09.0092X

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Page 4 of 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 4.1

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

File Reference: 14/0621

SGS Baseefa Limited
Rockhead Business Park
Staden lane, Buxton, Derbyshire
SK17 9RZ
United Kingdom



ANNEX to IECEx BAS 09.0092X

Issue No. 3

Date: 2014/03/04

Terminal Parameters

$U_i = 31V$

$I_i = 210mA$

$P_i = 1.5W$

$C_i = 0$

$L_i = 0$

Marking Codes

Types 78, 88 & 98 Solenoid Operator

Ex ia IIC T4 Ga

Ex ta IIIC T133°C Da

$-60^{\circ}C \leq T_a \leq +95^{\circ}C$

Or

Ex ia IIC T6 Ga

Ex ta IIIC T98°C Da

$-60^{\circ}C \leq T_a \leq +60^{\circ}C$

Type 28 Solenoid Operator

Ex ia IIC T4 Gb

Ex ta IIIC T133°C Db

$-60^{\circ}C \leq T_a \leq +95^{\circ}C$

Or

Ex ia IIC T6 Gb

Ex ta IIIC T98°C Db

$-60^{\circ}C \leq T_a \leq +60^{\circ}C$