



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.:	IECEX BAS 10.0008	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 15	Issue 14 (2022-02-10)
Date of Issue:	2022-11-02		Issue 13 (2020-07-14)
Applicant:	Bifold Fluidpower Ltd Broadgate Oldham Broadway Business Park United Kingdom		Issue 12 (2019-07-12)
Equipment:	Type 27 and 77 Solenoid Operator		Issue 11 (2018-03-07)
Optional accessory:			Issue 10 (2018-01-04)
Type of Protection:	Flameproof and Dust		Issue 9 (2017-07-24)
Marking:	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)		Issue 8 (2017-03-16)
			Issue 7 (2016-06-23)
			Issue 6 (2015-02-17)
			Issue 5 (2014-07-29)

Approved for issue on behalf of the IECEx
Certification Body:

R S Sinclair

Position:

Technical Manager

Signature:
(for printed version)

Date:
(for printed version)

2/11/2022

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 www.iecex.com or use of this QR Code.



Certificate issued by:

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





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Issue No: 15

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

Manufacturing
locations:

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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-1:2014-06](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with 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 Reports:

[GB/BAS/ExTR10.0014/00](#)
[GB/BAS/ExTR12.0086/00](#)
[GB/BAS/ExTR16.0164/00](#)
[GB/BAS/ExTR17.0274/00](#)
[GB/BAS/ExTR19.0341/00](#)

[GB/BAS/ExTR11.0084/00](#)
[GB/BAS/ExTR13.0291/00](#)
[GB/BAS/ExTR17.0067/00](#)
[GB/BAS/ExTR18.0041/00](#)
[GB/BAS/ExTR21.0158/00](#)

[GB/BAS/ExTR11.0123/00](#)
[GB/BAS/ExTR14.0317/00](#)
[GB/BAS/ExTR17.0211/00](#)
[GB/BAS/ExTR19.0100/00](#)
[GB/BAS/ExTR22.0138/00](#)

Quality Assessment Report:

[GB/BAS/QAR07.0038/10](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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.

SPECIFIC CONDITIONS OF USE: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Variation 15.1

The manufacturer requests a variation to add an alternative marking drawing with a different manufacturer branding.

ExTR: **GB/BAS/ExTR22.0138/00**

File Reference: **22/0377**