



# 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](http://www.iecex.com)

Certificate No.: IECEx BAS 08.0119 issue No.:7

Status: **Current**

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

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

Certificate history:  
Issue No. 7 (2014-7-29)  
Issue No. 6 (2014-6-25)  
Issue No. 5 (2014-4-9)  
Issue No. 4 (2012-12-3)  
Issue No. 3 (2011-8-22)  
Issue No. 2 (2010-8-12)  
Issue No. 1 (2009-9-16)  
Issue No. 0 (2009-2-4)

Electrical Apparatus: **Type 57 and 67 Solenoid**  
Optional accessory:


Type of Protection: **Flameproof (Ex d) & Dust Protected by Enclosure (Ex tD)**

Marking: **Ex d IIB Ex tD A21 IP66 T80 (-40°C ≤ta ≤+40°C) to T130 (-40°C ≤ta ≤+60°C) - see description**

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





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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:

<b>IEC 60079-0 : 2007-10</b> Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-1 : 2007-04</b> Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 61241-0 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
<b>IEC 61241-1 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*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/ExTR08.0244/00  
GB/BAS/ExTR11.0195/00  
GB/BAS/ExTR14.0112/00

GB/BAS/ExTR09.0127/00  
GB/BAS/ExTR12.0298/00

GB/BAS/ExTR10.0185/00  
GB/BAS/ExTR13.0317/00

#### Quality Assessment Report:

GB/BAS/QAR07.0038/04



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The Type 67 Solenoid comprises a cylindrical steel enclosure that houses a coil and moving armature assembly. The unit is normally rated 24Vdc, and has a range of Coil ratings with different Temperature Classifications as follows:-

Solenoid Power Rating (W)	Temperature Class @ Ambient	
	40°C	60°C
5.7	T80°C	T100°C
6.5	T85°C	T105°C
8	T90°C	T110°C
10	T100°C	T120°C
12	T110°C	T130°C

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. Alternative coils may be wound for voltages up to 35Vdc within the power limitations tabled above.

A cable entry boss, which also includes an external earth connection lug, is provided on the side of the Type 67 Solenoid body. The entry may be threaded M20 or 1/2"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.

### CONDITIONS OF CERTIFICATION: NO



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

### Variation 7.1

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