



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

Certificate No.: **IECEx BAS 16.0034X**

Page 1 of 4

Certificate history:

Status: **Current**

Issue No: 3

Issue 2 (2021-12-06)

Issue 1 (2020-01-09)

Issue 0 (2016-04-05)

Date of Issue: 2023-08-02

Applicant: **Longvale Limited**  
Lancaster Park  
Needwood  
Burton-upon-Trent  
Staffordshire  
DE13 9PD  
United Kingdom

Equipment: **Euroswitch Flow switch and Level switch**

Optional accessory:

Type of Protection: **Flameproof, Dust (by Enclosure) & Non-electrical**

Marking: II 1/2 GD Ex db h IIC T6 Ga/Gb (Ta -20°C to +70°C)\*  
Ex h tb IIIC T85°C Da/Db (Ta -20°C to +70°C)\* IP66/67/68  
\* Alternative marking T4/T135°C (Ta -60°C to +120°C)

Approved for issue on behalf of the IECEx  
Certification Body:

**R S Sinclair**

Position:

**Technical Manager**

Signature:  
(for printed version)

pp D. Brearley

Date:  
(for printed version)

1/8/2023

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2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

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





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Page 2 of 4

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Manufacturer: **Longvale Limited**  
Lancaster Park  
Needwood  
Burton-upon-Trent  
Staffordshire  
DE13 9PD  
**United Kingdom**

Manufacturing  
locations: **Longvale Limited**  
Lancaster Park  
Needwood  
Burton-upon-Trent  
Staffordshire  
DE13 9PD  
**United Kingdom**

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](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

[IEC 60079-26:2014](#) Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga  
Edition:3.0

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

[ISO 80079-36:2016](#) Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic methods and requirements  
Edition:1.0

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/ExTR16.0069/00](#)

[GB/BAS/ExTR19.0344/00](#)

[GB/SGS/ExTR23.0031/00](#)

Quality Assessment Report:

[GB/SIR/QAR07.0013/15](#)



# IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 16.0034X**

Page 3 of 4

Date of issue: 2023-08-02

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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Euroswitch Flow Switch (FL Series) and Level Switch (LS Series) are designed for the measurement of flow or level respectively, and may interface with an area requiring the protection level of Ga.

The units are manufactured in stainless steel and comprise a switch body secured into a terminal head enclosure with a threaded cover. The switch body may be of fixed orientation (Type WL), or have a rotatable head (Type WLR). A cable entry boss is embedded to the terminal head to providing a single threaded M20 or 1/2" NPT entry to accommodate a suitably certified cable gland.

Alternatively a single M20 or 1/2" NPT entry may be provided in the threaded cover of the fixed unit (Type W).

In all case the cover is retained in position by means of a grub screw.

The terminal head houses up to 7 terminals (including 1 earth connection) depending on the switch type. These terminals are mounted on to a printed circuit board, and are for the external connection of a suitably rated cable.

The switch body contains a up to 2 DPDT micro switches, which are activated via a magnet operated lever assembly in the lower half of the switch body (EPL Gb), and provides the interface across a barrier wall between flow paddle or float assembly (EPL Ga). The switch is secured into the vessel/pipework via a BSPT thread on this body section.

The switches have a maximum switching current of 4A.

## SPECIFIC CONDITIONS OF USE: YES as shown below:

- 1.External earth bonding of the stainless steel enclosure may be achieved via the external mounting thread and/or the threaded cable entry.
- 2.When used in dust atmospheres the separately certified cable gland arrangement shall maintain the IP6X rating of the enclosure.
- 3.The flame paths must not be repaired.
- 4.It is the responsibility of the installation engineer to ensure that the IP rating of IP66/67/68 of the equipment is maintained between the hazardous area requiring EPL Ga and the less hazardous area.
- 5.It is the responsibility of the installation engineer to ensure that suitably rated cable and cable glands are used to install this equipment.
- 6.Only fasteners of type M4 x 0.7 6g and M3 x 0.5 6g socket set screw DIN913 type 316 stainless steel may be used.
- 7.The process medium must not exceed the ambient temperature range of the equipment.



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Certificate No.: **IECEx BAS 16.0034X**

Page 4 of 4

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

### Variation 3.1

To accommodate a one-piece construction against the currently welded construction.

### Variation 3.2

To revise flame path diameter tolerance, to reduce thickness of partition wall and other minor changes in FL-101 switch body.

ExTR: **GB/SGS/ExTR23.0031/00**

File Reference: **23/0118**

## Annex:

[IECEx BAS 16.0034X Annex Iss 1.pdf](#)

### Flow Switch Exd - Part Number Matrix

		FL	-	X	X	X	X	-	X	-	X	-	X	-	X
Series	Flow Switch	-	A					-		-		-		-	
Certification	IECEx & ATEX Markings	-		3				-		-		-		-	
	ATEX/IECEx & UL/CSA Markings	-		B				-		-		-		-	
	Multiple Certification Markings (Exd only)	-		D				-		-		-		-	
	Other regional Exd certification	-		F-Z				-		-		-		-	
Housing Material	Stainless Steel 316L	-			2			-		-		-		-	
Certified Temp.	T6/T85°C = -20°C to +70°C	-				1		-		-		-		-	
	T4/T135°C = -60°C to +120°C	-				2		-		-		-		-	
Tee Connection	1/2" BSPT (NPT optional)	-						-	1	-		-		-	
	3/4" BSPT (NPT optional)	-						-	2	-		-		-	
	1" BSPT (NPT optional)	-						-	3	-		-		-	
	1-1/4" BSPT (NPT optional)	-						-	4	-		-		-	
	1-1/2" BSPT (NPT optional)	-						-	5	-		-		-	
	2" BSPT (NPT optional)	-						-	6	-		-		-	
	2-1/2" BSPT (NPT optional)	-						-	7	-		-		-	
Tee Options	No Tee Supplied (Tee connection must be a 1)	-						-		-	0	-		-	
	Supplied with Stainless Steel 316 Equal Tee (as per Tee Connection)	-						-		-	2	-		-	
Contact Type	SPDT/SPCO	-						-		-		-		-	
	DPDT/DPCO	-						-		-		-	D	-	
	Silver Alloy (Standard)	-						-		-		-		-	
	Gold Flashed	-						-		-		-	AU	-	
Connection Options	Wireable Connection Head - Top Entry 1/2" NPT	-						-		-		-		-	W-NPT
	Wireable Connection Head - Side Entry 1/2" NPT	-						-		-		-		-	WL-NPT
	Wireable Connection Head - Side Entry Rotatable 1/2" NPT	-						-		-		-		-	WLR-NPT
	Wireable Connection Head - Top Entry M20x1.5	-						-		-		-		-	W-M20
	Wireable Connection Head - Side Entry M20x1.5	-						-		-		-		-	WL-M20
	Wireable Connection Head - Side Entry Rotatable M20x1.5	-						-		-		-		-	WLR-M20
	Customer specific (not affecting certification)	-						-		-		-		-	(X...)

### Level Switch Exd - Part Number Matrix

		LS	-	X	X	X	X	-	X	-	X	-	X	-	X
Series	Level Switch - Horizontal Mount	-	A					-		-		-		-	
Certification	IECEx & ATEX Markings	-		3				-		-		-		-	
	ATEX/IECEx & UL/CSA Markings	-		B				-		-		-		-	
	Multiple Certification Markings (Exd only)	-		D				-		-		-		-	
	Other regional Exd certification	-		F-Z				-		-		-		-	
Housing Material	Stainless Steel 316L	-			2			-		-		-		-	
Certified Temp.	T6/T85°C = -20°C to +70°C	-				1		-		-		-		-	
	T4/T135°C = -60°C to +120°C	-				2		-		-		-		-	
Process Connection	1/2" BSPT (NPT optional)	-						-	1	-		-		-	
	3/4" BSPT (NPT optional)	-						-	2	-		-		-	
	1" BSPT (NPT optional)	-						-	3	-		-		-	
	1-1/4" BSPT (NPT optional)	-						-	4	-		-		-	
	1-1/2" BSPT (NPT optional)	-						-	5	-		-		-	
	2" BSPT (NPT optional)	-						-	6	-		-		-	
	2-1/2" BSPT (NPT optional)	-						-	7	-		-		-	
Float Options	Supplied with 316SS cylindrical float (4" / 101mm Insertion Length)	-						-		-	1	-		-	
	Supplied with 316SS cylindrical float (5" / 127mm Insertion Length)	-						-		-	2	-		-	
	Supplied with 316SS cylindrical float (6-1/2" / 165mm Insertion Length)	-						-		-	3	-		-	
	Custom Insertion Length - 6 5/8" to 14" / 168 to 356mm	-						-		-	C	-		-	
Contact Type	SPDT/SPCO	-						-		-		-		-	
	DPDT/DPCO	-						-		-		-	D	-	
	Silver Alloy (Standard)	-						-		-		-		-	
	Gold Flashed	-						-		-		-	AU	-	
Connection Options	Wireable Connection Head - Top Entry 1/2" NPT	-						-		-		-		-	W-NPT
	Wireable Connection Head - Side Entry 1/2" NPT	-						-		-		-		-	WL-NPT
	Wireable Connection Head - Side Entry Rotatable 1/2" NPT	-						-		-		-		-	WLR-NPT
	Wireable Connection Head - Top Entry M20x1.5	-						-		-		-		-	W-M20
	Wireable Connection Head - Side Entry M20x1.5	-						-		-		-		-	WL-M20
	Wireable Connection Head - Side Entry Rotatable M20x1.5	-						-		-		-		-	WLR-M20
	Customer specific (not affecting certification)	-						-		-		-		-	(X...)