

EU - TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- EU - Type Examination Certificate **Baseefa16ATEX0049X – Issue 3**
Number:
- 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.
- Product: **Euroswitch Flow Switch and Level Switch**
- Manufacturer: **Longvale Limited**
- Address: **Lancaster Park, Needwood, Burton-upon-Trent, Staffordshire, DE13 9PD**
- This re-issued certificate extends EC Type Examination Certificate No. **Baseefa16ATEX0049X** 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.
- 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.**
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-26:2015 EN 60079-31:2014 EN ISO 80079-36:2016**
- except in respect of those requirements listed at item 18 of the Schedule.
- 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.
- 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.
- The marking of the product shall include the following:
- ⊕ 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)**

SGS Fimko Oy Customer Reference No. **5323**

Project File No. **23/0118**

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Schedule

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Certificate Number Baseefa16ATEX0049X – Issue 3

15 Description of Product

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 provides 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.

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...)

16 Report Number

See certificate history

17 Specific Conditions of Use

- External earth bonding of the stainless steel enclosure may be achieved via the external mounting thread and/or the threaded cable entry.
- When used in dust atmospheres the separately certified cable gland arrangement shall maintain the IP6X rating of the enclosure.
- The flame paths must not be repaired.
- 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.
- It is the responsibility of the installation engineer to ensure that suitably rated cable and cable glands are used to install this equipment.
- 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.
- The process medium must not exceed the ambient temperature range of the equipment.

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	Compliance
1.2.7	LVD type requirements	Standards require manufacturer's declaration, supplied.
1.2.8	Overloading of equipment (protection relays, etc.)	Covered by installation rules and manufacturer's instructions
1.4.1	External effects	The Purchaser should make the manufacturer aware of such issues. Covered in Instructions
1.4.2	Aggressive substances, etc.	The Purchaser should make the manufacturer aware of such issues. Covered in Instructions

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
FL-101 ⁱ	1 of 1	B	11/05/2023	Flow Switch Body
FL-201 ⁱⁱⁱ	1 of 1	D	17/02/2023	Head Body
FL-206 ⁱⁱⁱ	1 of 1	C	17/02/2023	Head Body (M20)

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
70-512BOSS ⁱ		5	23/07/15	70-512 Boss For Side Entry Wireable Series Metric
70-515 ⁱ		4	23/07/15	70-515 Boss For Side Entry Wireable Series NPT
GA FL-A-WL/WLR ⁱ		A	24/03/16	Flow / Level Switch WL/WLR
FL-301 ⁱ		A	22/03/16	DPDT Microswitch Assembly
FL-311 ⁱ		C	23/03/16	FL/FS DPDT-Wireable PCB 030
FL-102 ⁱ		B	23/03/16	Flow Switch, Piston
FL-103 ⁱ		B	23/03/16	Paddle Holder
FL-105 ⁱ		A	23/03/16	Flow Switch, Shaft
FL-107 ⁱ		A	29/02/16	Compression Spring 0.47N/mm
FL-109 ⁱ		B	21/03/16	PCB Locknut
FL-117 ⁱ		A	02/03/16	FL_Paddle_267
LS-101 ⁱ		A	24/03/16	FLOAT (100x45)
LS-102 ⁱ		A	24/03/16	LS Float Holder
SWM10 ⁱ	1-2	A	12/12/2019	Vibration sensor part number matrix
ENG010 ⁱ		C	01-11-2021	Marking For Exd Euroswitch Flow/Level Switch
FL-202 ⁱⁱⁱ		B	12/12/2019	FL Lid
FL-203 ⁱⁱⁱ		C	12/12/2019	DPDT W Head Lid (M20)
FL-204 ⁱⁱⁱ		C	26/02/2020	DPDT W Head Lid (NPT)
FL-205 ⁱⁱⁱ		B	12/12/2019	W Head Body

- i. These drawings are common to IECEx BAS 16.0034X and held with IECEx BAS 16.0034X.
- iii. These drawings are common to IECEx BAS 16.0034X and held with IECEx BAS 16.0034X. They are also common to previously issued Baseefa14ATEX0119X, IECEx BAS 14.0056X, Baseefa14ATEX0013X and IECEx BAS 14.0003X.

20 Certificate History

Certificate No.	Date	Comments
Baseefa16ATEX0049X	5 April 2016	The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-26:2015, EN 60079-31:2014 and EN 13463-1:2009 is documented in Test Report No. GB/BAS/ExTR16.0069/00.
Baseefa16ATEX0049X/1	9 January 2020	To allow the part number matrix to be amended to a new format in the description of the product. SGS Baseefa certification report GB/BAS/ExTR19.0344/00 refers.
Baseefa16ATEX0049X Issue 2	3 December 2021	To assess the equipment against EN IEC 60079-0:2018 and EN ISO 80079-36:2016. To assess the equipment for the degree of protection IP68 at 30m for 24 hours. To amend specific condition of use number 6. SGS Baseefa certification report GB/BAS/ExTR21.0176/00 refers.
Baseefa16ATEX0049X Issue 3	28 June 2023	2.1 To accommodate a one-piece construction against the currently welded construction 2.2 To revise flame path diameter tolerance, to reduce thickness of partition wall and other minor changes in FL-101 switch body. SGS certification report GB/SGS/ExTR23.0031/00 refers.
For drawings applicable to each issue, see original of that issue.		