

1 EU - TYPE EXAMINATION CERTIFICATE

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

3 EU - Type Examination Certificate **Baseefa16ATEX0172X – Issue 2**
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.

4 Product: **Euroswitch FL-A and LS-A**

5 Manufacturer: **Longvale Limited**

6 Address: **Lancaster Park, Needwood, Burton-upon-Trent, Staffordshire, DE13 9PD
United Kingdom**

7 This re-issued certificate extends EC Type Examination Certificate No. **Baseefa16ATEX0172X** 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.

8 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**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:


EN IEC 60079-0: 2018 EN 60079-11: 2012

except in respect of those requirements listed at item 18 of the Schedule.

10 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.

11 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.

12 The marking of the product shall include the following:

 **See schedule**

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

Project File No. **21/0381**

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Schedule

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Certificate Number Baseefa16ATEX0172X – Issue 2

15 Description of Product

The Euroswitch FL-A and LS-A are designed for the measurement of flow or level respectively.

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 welded 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 cases 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 to a separately certified intrinsically safe circuit.

The switch body contains up to 2 DPDT micro switches, which are activated via a magnet operated lever assembly in the lower half of the switch body. The switch is secured into the vessel/pipework via a BSPT thread on this body section.

Each set of switch contacts may be supplied from a separately certified intrinsically safe source and individually they have the following terminal parameters:

$U_i = 30V$
 $I_i = 250mA$
 $P_i = 1.3W$

Flow Switch Ex ia – Part Number Matrix

	FL	-	X	X	X	X	-	X	-	X	-	X	-	X
Series	Flow Switch	-	A				-		-		-		-	
Certification	IECEX and ATEX Markings	-		2			-		-		-		-	
	Multiple Certification Markings (Ex d Only)	-		E			-		-		-		-	
	Other regional Ex ia certification	-		F-Z			-		-		-		-	
Housing Material	Stainless Steel 316L	-			2		-		-		-		-	
Certified Temp.	T6/T85°C = -20 °C to +80 °C	-				1	-		-		-		-	
	T4/T135°C = -20°C to +125°C	-				2	-		-		-		-	
Tee Connection	½ " BSPT (NPT Optional)	-					-	1	-		-		-	
	¾ " BSPT (NPT Optional)	-					-	2	-		-		-	

	1 " BSPT (NPT Optional)	-					-	3	-		-		-	
	1 – ¼ " BSPT (NPT Optional)	-					-	4	-		-		-	
	1 – ½ " BSPT (NPT Optional)	-					-	5	-		-		-	
	2 " BSPT (NPT Optional)	-					-	6	-		-		-	
	2 – ½ " 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 ½ " NPT	-					-		-		-		-	W-NPT
	Wireable Connection Head – Side Entry ½ " NPT	-					-		-		-		-	WL-NPT
	Wireable Connection Head – Side Entry Rotatable ½ " 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 Ex ia – Part Number Matrix

	LS	-	X	X	X	X	-	X	-	X	-	X	-	X
Series	Level Switch – Horizontal Mount	-	A				-		-		-		-	
Certification	IECEX and ATEX Markings	-		2			-		-		-		-	
	Multiple Certification Markings (Ex d Only)	-		E			-		-		-		-	
	Other regional Ex ia certification	-		F-Z			-		-		-		-	

Housing Material	Stainless Steel 316L	-			2	-		-		-		-	
Certified Temp.	T6/T85°C = -20 °C to +80 °C	-			1	-		-		-		-	
	T4/T135°C = -20°C to +125°C	-			2	-		-		-		-	
Process Connection	½ “ BSPT (NPT Optional)	-				-	1	-		-		-	
	¾ “ BSPT (NPT Optional)	-				-	2	-		-		-	
	1 “ BSPT (NPT Optional)	-				-	3	-		-		-	
	1 – ¼ “ BSPT (NPT Optional)	-				-	4	-		-		-	
	1 – ½ “ BSPT (NPT Optional)	-				-	5	-		-		-	
	2 “ BSPT (NPT Optional)	-				-	6	-		-		-	
	2 – ½ “ BSPT (NPT Optional)	-				-	7	-		-		-	
Float Options	Supplied with 316SS cylindrical float (4 “ / 101 mm insertion length)	-				-		-	1	-		-	
	Supplied with 316SS cylindrical float (5 “ / 127 mm insertion length)	-				-		-	2	-		-	
	Supplied with 316SS cylindrical float (6 – ½ “ / 165 mm insertion length)	-				-		-	3	-		-	
	Custom Insertion Length – 6 5/8 “ to 14 “ / 168 mm to 356 mm	-				-		-	C	-		-	
Contact Type	SPDT/SPCO	-				-		-		-	-	-	
	DPDT/DPCO	-				-		-		-	D	-	
	Silver Alloy (Standard)	-				-		-		-	-	-	
	Gold Flashed	-				-		-		-	AU	-	
Connection Options	Wireable Connection Head – Top Entry ½ “ NPT	-				-		-		-		-	W-NPT
	Wireable Connection Head – Side Entry ½ “ NPT	-				-		-		-		-	WL-NPT
	Wireable Connection Head – Side Entry Rotatable ½ “ 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...)

Certification Marking

The marking of the product includes the following :

⊕ II 1GD Ex ia IIC T4 Ga or Ex ia IIIC T135°C Da (-60°C ≤ Ta +125°C)

⊕ II 1GD Ex ia IIC T6 Ga or Ex ia IIIC T85°C Da (-20°C ≤ Ta +80°C)

16 Report Number

GB/BAS/ExTR21.0203/00

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.
- Metallic switches may pose an electrostatic risk if not earthed. This should be taken into account during installation.
- Where a sensor has two sets of switching contacts, both sets of switching contacts may be considered to be separate intrinsically safe circuits. Where the two circuits are separate intrinsically safe circuits, the user shall ensure segregation of the external cabling between the two circuits is maintained during installation and either type A or type B cable as defined in clause 9.5.2 & 9.5.3 of IEC 60079-25:2010 is used.
- 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 socket set screw DIN913 type 316 stainless steel may be used for preventing rotation of the lid and/or WLR connection head in the installed position.
- 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
1.2.7	LVD type requirements
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
ENG011	1 of 1	C	28-10-2021	Marking For Exia Euroswitch Flow/Level Switch

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
← 70-512BOSS	1 of 1	5	23/07/15	70-512 Boss For Side Entry Wireable Series Metric
← 70-515	1 of 1	4	23/07/15	70-515 Boss For Side Entry Wireable Series NPT
← GA FL-A-WL/WLR	1 of 1	A	24/03/16	Flow / Level Switch WL/WLR
← FL_301	1 of 1	A	22/03/16	DPDT Microswitch Assembly
← FL-311	1 of 1	C	23/03/16	FL/FS DPDT-Wireable PCB 030
← FL-101	1 of 1	A	17/03/16	Flow Switch, Body
← FL-102	1 of 1	B	23/03/16	Flow Switch, Piston
← FL-103	1 of 1	B	23/03/16	Paddle Holder
← FL-105	1 of 1	A	23/03/16	Flow Switch, Shaft
← FL-107	1 of 1	A	29/02/16	Compression Spring 0.47N/mm
← FL-109	1 of 1	B	21/03/16	PCB Locknut
← FL-117	1 of 1	A	02/03/16	FL_Paddle_267
← FL-201	1 of 1	A	17/03/16	Head Body
← FL-202	1 of 1	A	17/03/16	FL Lid
← FL-203	1 of 1	A	30/03/16	DPDT W Head Lid (M20)
← FL-204	1 of 1	A	30/03/16	DPDT W Head Lid (NPT)
← FL-205	1 of 1	A	24/03/16	W Head Body
← LS-101	1 of 1	A	24/03/16	FLOAT (100x45)
← LS_102	1 of 1	A	24/03/16	LS Float Holder
SWM11	1 to 2	A	12/12/2019	Ex ia – parts number matrix

All drawings are common to Baseefa16ATEX0172X and IECEx BAS 16.0124X and held with IECEx BAS 16.0124X.

Drawings marked ← are also associated with IECEx BAS 16.0034X & Baseefa16ATEX0049X.

20 Certificate History

Certificate No.	Date	Comments
Baseefa16ATEX0172X	08 December 2016	The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0: 2012 + A11: 2013 and EN 60079-11: 2012 is documented in IECEx ExTR GB/BAS/ExTR16.0339/00 and held with Project No. 16/0737.
Baseefa16ATEX0172X/1	09 January 2020	To permit the part number matrix to be amended to a new format and an amendment to the product description to incorporate the New Product Matrix. The test and assessment is recorded in IECEx ExTR GB/BAS/ExTR19.0344/00 and held with Project No. 19/0708.

Certificate No.	Date	Comments
Baseefa16ATEX0172X Issue 2	29 November 2021	This issue of the certificate incorporates previously issued primary and supplementary certificates into one certificate and confirms the current design meets the requirements of EN IEC 60079-0: 2018 including the revision of the equipment marking in accordance with these standards. The test and assessment is recorded in IECEx ExTR GB/BAS/ExTR21.0203/00 and held with Project No. 21/0381.
For drawings applicable to each issue, see original of that issue.		