

UK-TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1

- UK-Type Examination Certificate Number: **BAS21UKEX0758X – Issue 1**
- 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 UK-Type Examination Certificate No. BAS21UKEX0758X 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 Baseefa, Approved Body number 1180, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), 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 Schedule 1 of the Regulations.
- 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 UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations 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 :

Ex 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 Baseefa Customer Reference No. **5323**

Project File No. **23/0118**

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On behalf of SGS Baseefa Limited

13 Schedule

14 Certificate Number BAS21UKEX0758X – Issue 1

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:

Clause	Subject	Compliance
13	LVD type requirements	Standards require manufacturer's declaration, supplied.
14	Overloading of equipment (protection relays, etc.)	Covered by installation rules and manufacturer's instructions
21(1)	External effects	The Purchaser should make the manufacturer aware of such issues. Covered in Instructions
21(2)	Aggressive substances, etc.	The Purchaser should make the manufacturer aware of such issues. Covered in Instructions

19 Drawings and Documents

No new drawings submitted for this issue of certificate:

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
ENG010	1	C	01-11-2021	Marking for Ex d Euroswitch Flow/Level Switch

For all other drawings refer to Baseefa16ATEX0049X latest issue

20 Certificate History

Certificate No.	Date	Comments
BAS21UKEX0758X	3 December 2021	The release of the prime certificate. The associated test and assessment against the requirements of EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-31:2014, EN 60079-26:2015 and EN ISO 80079-36:2016 is documented in Test Report GB/BAS/ExTR21.0176/00.
BAS21UKEX0758X - Issue 1	25 July 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.