

EU TYPE-EXAMINATION CERTIFICATE

1. EU type-examination Certificate (Module B)
2. Equipment or Protective System intended for use in potentially explosive atmospheres (Directive 2014/34/EU)



3. EU type examination certificate Nr **ITS 09 ATEX 26328X**

4. **Product:** Level Switch LFFS 1xx.x

5. **Manufacturer:** Baumer A/S

Applicant: Baumer A/S

6. **Address:** Runetoften 19
DK-8210 Aarhus V, Denmark

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7. This product and any acceptable variation thereto are specified in the schedule to this certificate and therein referred to.
8. INTERTEK ITALIA S.p.A., Notified Body n° 2575 in accordance with article 17 of the Directive 2014/34/EU of the European Parliament and Council of the 26 February 2014, certifies that the equipment or protective system has been found to comply with the essential Health and Safety Requirements relating to the design and construction of equipment and protective system intended for use in potentially explosive atmosphere, given in Annex II of the Directive.

The examination and tests results are recorded in confidential technical evaluation Intertek Reports: ETS3572 dated 03 July, 2009, RETS(A)3572/3592 dated 17 November 2009, and G102374615 dated December 2015.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2006, EN 60079-11: 2007 and EN 60079-26: 2007 except in respect of those requirements referred to at item 16 of the Schedule.
10. If the sign X is placed after the certificate number, it indicates that the product is subject to Special Conditions for Safe 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:



II 1 G Ex ia IIC T5
*See description for ambient temperature options

15th November 2019
Certificate issue date



Fabrizio Massei
Certification Officer
Intertek Italia S.p.A. (NB 2575)



This certificate has been issued by Intertek Italia S.p.A. NB 2575 on transfer from Intertek Testing & Certification Ltd. (NB 0359) using the same issued original certificate number.

PDR N° 277B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

Signatory of EA, IAF and ILAC Mutual Recognition Agreements



This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

Intertek Italia S.p.A. Via Miglioli, 2/A - 20063 Cernusco sul Naviglio, Milano - Italy



SCHEDULE

EU TYPE EXAMINATION CERTIFICATE NUMBER: ITS 09 ATEX 26328

13. DESCRIPTION OF THE EQUIPMENT OR PROTECTIVE SYSTEM

LFFS 1xx.x is used for level measuring of liquids or powder. The functionality is based on the DK value of the media. The product contains a printed circuit board which contains all the electronics for the functionality. This circuit board is mounted in a plastic housing and encapsulated in Silicone gel. Terminals are placed on the outside of this plastic housing. This plastic housing is again mounted in a stainless steel AISI 316L housing (diameter 55mm). The cable connections is lead through a cable gland made of brass or plastic or through a M12 plus mounted in the stainless steel housing. The sensor is terminated internally to the screw terminals on the plastic housing. LFFS 1xx.x is to be connected via a certified Zener barrier.

Level Switch	LFFS	x	x	x
Safety:				
Standard		0		
1G (Zone 0,1,2)		1		
1D (Zone 20, 21, 22)		2		
3G (Zone 2)		3		
Electrical Connections:				
Plug, M12			1	
Cable gland Brass M16			2	
Cable gland Polyamide (M16)			3	
Process connection:				
G1/2, PEEK Tip				1
3A Hygienic connection DN38				2
G1/2, PEEK tip, sliding connection, 100mm				3
G1/2, PEEK tip, sliding connection, 250mm				4
Intrinsic safe specifications:				
Ui: 30Vdc				
li: 100mA				
Pi: 0.75W				
Ci: 33nF				
Li: 10μH				

CE Marking shall be accompanied by the identification number of the Notified Body responsible for surveillance of production.



SCHEDULE

EU TYPE EXAMINATION CERTIFICATE NUMBER: ITS 09 ATEX 26328

14. DRAWINGS AND DOCUMENTS

TITLE	DOCUMENT Nr	LEVEL	DATE
FlexLevel Switch 4xxx	5520-553	C1	2009-11-02
Assembly	5551-533	D2	2009-08-25
FlexLevel Switch Samlingstegning	5502-007	B2	2009-06-15
Instrument Drawings ½” Nippel (Sheet 1 of 3)	5502-005	A2	2009-07-06
DN38 3A Hygeenic (Sheet 2 of 3)	5502-005	A2	2009-06-17
Sliding connection with welding parts and seal/clamp ring (Sheet 3 of 3)	5502-005	A2	2009-07-07
Samling Control Unit	5502-008	A2	2009-04-14
Låg Ø55 mm Med lys indikatore.	3031-049	B1	2009-10-12
Dæksel for låg med lys. LSM	3031-050	B1	2009-10-12
Housing Ø55	3011087	A1	2009-04-21
Etiket Level Switch LLFS 1xx Ex ia A3	2008969	B1	2010-07-27
Ingold Studs, LFFS9001	5523012	B1	06-03-2012
Kolehals-Ingold	2100482	A1	06-03-2012

Copies of the above listed documents are kept at Intertek Italia S.p.A. archive.

15. SPECIAL CONDITIONS FOR SAFE USE

- Equipment is to be supplied from a suitable certified Zener Barrier
- Programming via terminal 4 (Teach in) must only be done in safe area.
- It is essential that the media temperature is considered according to the below tables and the description in the Installation Manual provided by the manufacturer.

Level Switch LFFS 1x1/2 (G1/2, PEEK tip and 3A Hygienic connection DN38)

Ambient Temperature	Maximum media/process temperature	T-Class
-40°C < Tamb < 85°C	85°C	T5
-40°C < Tamb < 60°C	95°C (*)	T5
-40°C < Tamb < 40°C	115°C (*)	T5



SCHEDULE

EU TYPE EXAMINATION CERTIFICATE NUMBER: ITS 09 ATEX 26328

Level Switch LFFS (G1/2, PEEK tip, sliding connection 100mm)

Ambient Temperature	Maximum media/process temperature	T-Class
-40°C < Tamb < 85°C	85°C	T5
-40°C < Tamb < 60°C	150°C (*)	T5
-40°C < Tamb < 40°C	175°C (*)	T5

Level Switch LFFS 1x4 (G1/2, PEEK tip, sliding connection, cooling neck, 250mm)

Ambient Temperature	Maximum media/process temperature	T-Class
-40°C < Tamb < 85°C	85°C	T5
-40°C < Tamb < 60°C	195°C (*)	T5
-40°C < Tamb < 40°C	200°C (*)(**)	T5

(*) provided that the sensor tip at the sliding connection is the only part in contact with the media

(**) Maximum allowed media/process temperature.

16. ESSENTIAL HEALTH AND SAFETY REQUIREMENTS

The relevant essential Health and Safety Requirements have been identified and assessed in Intertek Reports: ETS3572 dated 03 July, 2009, RETS(A)3572/3592 dated 17 November 2009, and G102374615 dated December 2015.

17. ROUTINE (FACTORY) TESTS

None

18. DETAIL OF CERTIFICATE CHANGES

None