

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 **ITS09ATEX16438X R.0**

4. **Product:** Level Switch LFFS 2xx

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

Applicant: Baumer A/S

6. **Address:** Runetoften 19, DK-8210 Aarhus, 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 Report Nr. 104198158CHE-001 dated 24th November 2022.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018 and EN 60079-31:2014 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 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:



II 1 D Ex ta IIIC T₂₀₀106°C Da
Tamb: -40°C to +**°C
** see schedule for details.

Certificate issue date

30th November 2022

Mark Newman

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



PDR N° 277B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

Signatory of EA, IAF and ILAC Mutual Recognition Agreements

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.



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

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SCHEDULE

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13. DESCRIPTION OF THE EQUIPMENT OR PROTECTIVE SYSTEM

CleverLevel LFFS-###.# 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 are lead through a cable gland made of brass or stainless steel or through a M12 plug mounted in the stainless steel housing. The sensor is terminated internally to the screw terminals on the plastic housing.

CleverLevel	LFFS-	#	#	#	.	#
Compliance and approvals:						
ATEX II 1D (Zone 20,21,22)		2				
Electrical Connection:						
Cable gland, M16x1.5, nickel plated brass				2		
M12-A, 4-pin, stainless steel				4		
Cable gland, M16x1.5, stainless steel				5		
Process connection:						
Any letter or character denoting chosen connection type						#
Configuration:						
Factory settings						0
Customer-specific						C
Input specifications.						
Ui: 30Vdc						
Ii: 100mA						



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14. DRAWINGS AND DOCUMENTS

TITLE	DOCUMENT Nr	LEVEL	DATE
*LFFS Level Switch (5520533)	81082306	O2	2013/11/19
*11123898 LFFS 02 Assembly	81082037	O2	2014/01/27
Samling Control Unit	5502-008	A2	2009/05/29
*Låg Ø55 mm Med lys indikatore.	3031-049	B2	2010/10/27
*Dæksel for låg med lys. LSM	3031-050	B2	2010/05/11
*Housing Ø55	11108831/3011087	O1	2014/04/29
*LFFS ATEX ta Marking (3 Sheets)	81401211	00	2022-06-08
*LFFS Assembly	81390326	00	2022/04/28
Ingold Studs, LFFS9001	5523012	B1	2012/03/06
Kølehals-Ingold	2100482	A1	2012/03/06
*Kølehals Ingold, 52mm	11240473	00	2021/01/26
Omløber R 1 ¼	2101124	A1	2011/11/29
*Operating instructions	11109132	19	2022-11-24

Note: An * is included before the title of documents that are new or revised.

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

15. SPECIFIC CONDITIONS OF USE

- 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.
- Equipment shall not be exposed to UV light.
- When marked with an upper ambient temperature of +85°C the cable utilised shall be rated for at least 100°C.

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

Ambient temperature	Maximum media/process temperature	T-Class
-40°C ≤ Tamb ≤ 85°C	85°C	100°C
-40°C ≤ Tamb ≤ 60°C	95°C (*)	100°C
-40°C ≤ Tamb ≤ 40°C	115°C (*)	100°C

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

Level Switch LFFS 2x3 (G1/2, PEEK tip, sliding connection, cooling neck, 100mm)

Ambient temperature	Maximum media/process temperature	T-Class
-40°C ≤ Tamb ≤ 85°C	85°C	100°C
-40°C ≤ Tamb ≤ 60°C	150°C (*)	100°C
-40°C ≤ Tamb ≤ 40°C	175°C (*)	100°C

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



SCHEDULE

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

Ambient temperature	Maximum media/process temperature	T-Class
$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq 85^{\circ}\text{C}$	85°C	100°C
$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq 60^{\circ}\text{C}$	195°C (*)	100°C
$-40^{\circ}\text{C} \leq T_{\text{amb}} \leq 40^{\circ}\text{C}$	200°C (*)(**)	100°C

(*) 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 Report Nr. 104198158CHE-001 dated 24th November 2022.

17. ROUTINE (FACTORY) TESTS

None.

18. DETAIL OF CERTIFICATE CHANGES

R.0 (29th December 2022):

- Initial release by Intertek Italia S.p.A. NB 2575 based on the assessment performed October 2021 to November 2022, on the certificate, legal ownership transferred from Intertek Testing & Certification Ltd. (NB 0359); the same issued original certificate number is used.
- Change of manufacturing address from 'Jacob Knudsens Vej 14, DK-8230 Aabyhoj, Denmark' to 'Runetoften 19, DK-8210 Aarhus, Denmark'
- Update to the latest harmonized standards.
- Update to controlled documentation.