



[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System intended for use in potentially explosive atmospheres - Directive 2014/34/EU Annex III - MODULE B: EU-TYPE EXAMINATION

[3] EU-type Examination Certificate number: **IMQ 20 ATEX 003X**

[4] PRODUCT: **LED Ex Luminaire – Signal / Alarm**
TYPE/SERIES: **FLB S-*******

[5] MANUFACTURER: **SHOMAL ENG. & MANUFACTURING (PIROOZ) CO.**

[6] ADDRESS: **Salmanshahr Industrial Estate, Mazandaran, IRAN**

[7] This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents therein referred to.

[8] IMQ, notified body N° 0051, 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 equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in Report No.: **AT19-0044412-01**

[9] Compliance with Essential Health and Safety Requirements, except in respect of those listed at item 18 of the annex, has been assured by compliance with:

**EN 60079-0:2012; EN 60079-0:2012/A11:2013; EN 60079-1:2014; EN 60079-28: 2015;
EN 60079-31:2014**

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system 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 equipment or protective system shall include the following:

 **II 2G Ex db op is IIC T6 Gb**
II 2D Ex op is tb IIIC T85°C Db

This document is composed of 4 pages including 1 annex

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B.U. PRODUCT CONFORMITY ASSESSMENT
CERTIFICATION SECTOR – MANAGER

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PRD N° 005 B

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[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 20 ATEX 003 X**

[15] **Description of product:**

The LED explosion protected luminaires series **FLB S-* * * * *** consist of a Signal / Alarm flameproof enclosure made of aluminum and borosilicate glass tube (Lens), containing the source of light (LED modules), driver, terminals and other electrical apparatus. They are suitable for use in explosive atmosphere. the non-metallic layer of coating (paint) is less than 0.2mm, thick.

The lights generally come in two forms, (white -green)/ (white-blue) LED color that are either constantly illuminated or turn on and off slowly in a cycle of a few seconds.

[15.1] **Models/Series Identification:**

FLB S-*****

Order code	FLBS-	*	*	*	*	*	*
parameter		①	②	③	④	⑤	⑥

Parameter	Description	Parameter designation
	Product type	FLBS series
①	Fixture Size	1: Short volume ≈ 4 litres 2: Long volume ≈ 4.7 litres
②	Pictogram 1 (MAN or EXIT)	M: MAN pictogram E: EXIT (text)
③	Pictogram 2 (STAIR or ARROW)	S: STAIR pictogram A: ARROW pictogram
④	Arrow direction	1: UP 2: DOWN 3: LEFT 4: DOWN 5: UP 45° 6: DOWN 45°
⑤	Arrow Position relevant to pictogram 1	1: LEFT 2: RIGHT
⑥	Pictogram 3 (MAN or DOOR)	M: MAN pictogram D: DOOR pictogram Blank: None (in short series)

[15.2] **Ratings:**

Rated voltage : 220-240 VAC
 Rated current : 40 mA
 Rated power : 10 W

[15.3] **Safety Ratings:**

N/A

[13] Annex

[14] EU-type Examination Certificate number: **IMQ 20 ATEX 003 X**

[15.4] **Ambient temperature and temperature classes:**

The ambient temperature and temperature classes are the following:

T6 with ambient temperature range $-30^{\circ}\text{C} \leq T_a \leq 55^{\circ}\text{C}$

T85°C with ambient temperature range $-30^{\circ}\text{C} \leq T_a \leq 55^{\circ}\text{C}$

[15.5] **Degree of protection (IP code):**

IP66 according to EN 60529 Category 1

[15.6] **Warnings:**

“WARNING – DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT”

“WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD “

[16] **Report:** AT19-0044412-01

[16.1] **Routine (factory) tests:**

The manufacturer shall carry out the routine test prescribed at clauses 27 of the EN 60079-0.

The overpressure test with static method shall be performed according to EN 60079-1 at 10.5 bar for 10 seconds. The period of application of the pressure shall be at least 10 s.

[16.2] **Conformity with the documentation:**

The manufacturer shall carry out the verifications or tests necessary to ensure that the product complies with the documentation.

Marking the equipment in accordance with Clause 29 of EN 60079-0, the manufacturer attests on his own responsibility that:

- the equipment has been constructed in accordance with the applicable requirements of the relevant standards in safety matters;
- the routine verifications and routine tests in 28.1 of EN 60079-0 have been successfully completed with positive results.

[16.3] **Installation conditions:**

Above referred equipment is foreseen to be installed in locations where there are environmental conditions as clearly specified at clause 1, par. 2 of EN 60079-0.

Installation and use in atmospheric and environmental conditions that are out of above mentioned intervals require special considerations and additional measures by the side of installer or user.

These should be specified to the manufacturer by the user; It is not a requirement of the applicable standards listed in [9] that the certification body confirm suitability for the adverse conditions. Installation of equipment shall be done according to EN 60079-14 Standard requirements.

[17] **Special Condition of use (X):**

WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS

[13] Annex

[14] EU-type Examination Certificate number: **IMQ 20 ATEX 003 X**

[18] Essential Health and safety Requirements:

This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in [9].

This Certificate **does not** cover hazards coming from environmental conditions different from those clearly and precisely indicated and covered in clause 1 of EN 60079-0.

Other ESHR of the Annex II of Directive not verified:

ESHR 1.2.7 Protection against other hazards; according Art. 4. 13 of Directive 2014/34/EU, the procedure for the conformity assessment to cover such hazards if followed using Annex VIII of the Directive, by Manufacturer Declaration.

ESHR 1.4 Hazards arising from external effects; manufacturer shall commissioning installation to electrician with adequate knowledge of explosion protection considering external effect; the manufacturer shall stipulate the qualifications required by personnel; covered by Manufacturer Declaration.

ESHR 1.5 Not applicable as there are no safety device nor the need to use them.

ESHR 3 Not applicable as this is an Equipment and not Protective System

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at [9], the following are considered relevant to this product, and conformity is demonstrated in the report:
None

[19] **Descriptive documents:** DL-AT19-0044412-01, issued on 2020.01.24

[20] Certification Validity Conditions:

The use of this Certificate is subject to the Certification Scheme and to the Regulation applicable to holders of IMQ Certificates.

The validity of this certificate is subject to the condition that the manufacturer complies with the results of the document review and of the pertinent requirement if any included, recorded in the relevant copy of documentation as per 19.

One copy of the mentioned documentation is kept in IMQ file.

[21] Variations

First issue