USER'S MANUAL

(including technical description for the user)

Explosion-proof LED luminaire
Type ACQUEX TA Ex
No 52-1300/Z

(ZxEx22004-201r0)

Original instruction

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1. Introduction

The subject of this manual is an exp losion-proof luminaire type ACQUEX TA Ex.

1.1. Intended use

ACQUEX TA Ex luminaire is designed to illuminate:

- industrial halls and spaces classified as zones 1, 2, 21 and 22 of the explosion hazard of dust, gases, vapors and mists of flammable liquids,
- auxiliary rooms with h igh dustiness with the possibility of splashes of water, i.e .: ,
- boiler rooms, hydro nodes, baths, garages, shelters, warehouses,
- workstation process lines of the chemical, petroleum, petrochemical and gas industries, gas distribution, processing of loose mine and construction materials, mining rooms and workings not endangered by explosion or not endangered by methane explosion (workings with the degree "a" of methane explosion hazard) and included in the class A the danger of coal dust explosion,
- premises in public utility facilities, including health care facilities, as well as in the pharmaceutical industry, cosmetic industry, meat processing, food production and storage, food industry and catering facilities ,

2. Design

ACQUEX TA Ex luminaire consists of the following elements:

- anti-glare diffuser grooved from the inside lens made of PC poly-carbonate plastic flammability class in accordance with the safety standard UL94: V2, glow wire test in accordance with (PN-EN 60695-11-2): 850 ° C,
- reinforced structure body made of GRP polyester reinforced with GRP flammability class in accordance with the safety standard UL94: HB, glow wire test in accordance with z (PN-EN 60695-11-2): 650 ° C,
- diffuser fixing elements (hinged lampshade suspension), fittings fixing accessories made of stainless steel or plastic,
- plastic cable gland M20x1.5 (M25x1.5 on request),
- max 4mm2 wire terminal,
- 2.5mm2 through wiring (others on r equest),
- 4000K LED modules mounted on a steel
- breath drain stabilizing pressure inside the luminaire as an option,

Lighting fixtures should be selected according to the conditions in the place of installation. The use of luminaires not resistant to chem icals in the immediate atmosphere may result in accelerated degradation of the luminaire and loss of its original properties.

3. Technical data

3.1. Functional properties

Technical parameters	
Parameter name	**Value (unit)**
Supply voltage	198-264 VAC, 176-276 VDC or 90-270 VAC, 127-300 VDC
ATEX marking	Ex II 2G Ex eb ib mb IIC T6/T5 Gb Ex II 2D Ex tb IIIC T85 °C Db
EU-type examination certificate number	OBAC 23ATEX0035X
Standards	EN IEC 60079-0:2018, EN 60079-7:2016, EN 60079-11:2012, EN 60079-18:2015, EN 60079-31:2014
Degree of protection	IP 66/67;
Protection class	I (II as option)
Cable gland	M20 or M25
Wire diameter	4 mm^2, permissible clamp load 32A
Weight	1.8 ÷ 4,8 kg (according to order)
Dimesons	660 x 145 x 101 1277 x 145 x 101 1573 x 145 x 101
Source of light	LED
Color temperature	4000K ±10% (other on request)

For operation in zones 1 and 21, the ambient temperature range and the temperature class of the device are determined in accordance with the table below:

Execution type	**Ambient temperature range**	
	-20°C ≤ Ta ≤ +40°C	-20°C ≤ Ta ≤ +50°C
standard version	T6 / T85°C	T5 / T85°C
../AL version*	-	T6 / T85°C

*version with aluminum g ear tray.

3.2. Version type

ACQUEX TA Ex

Length (mm)	Lighting flux	CRI + CCT	Optional distribution curves	Driver	Diffuser	Housing
0.6: 600	**28**:2800 for 23 W	**840**: CRI 80 and 4000K **850**: CRI 80 and 5000K Other on request	**_**:standard **BW**: lens type BW **P**:lens type P Other on request	**_**: non dimmable **II:** second class of protection	**PC**: polycarbonate	_:yellow RAL 1003
1.2:1200	**60**:6000 for 45W					
1.5:1500	**78**:7800 for 56 W					

Additional accessories:

Accessories		
Lighting system	**Mounting accessories**	**Other**
WG – steel mesh; **AL –** version with aluminum gear tray; .. – other on request;	**_** - standard mounting; **ST –** pipe mount; .. – other on request;	**JB –** junction box; **CR** - power cord with connector; **M25 –** M25 cable gland; .. – other on request;

Luminaires are available as standard with the powers given in the table version type. Optionally, versions with reduced power are also available on request.

Example of type designation:

- **ACQUEX TA Ex 1.2 60-840 PC** - ACQUEX TA Ex 1200 mm length with 6000 lm, CRI 80, 4000K Led matrix, made with PC Diffuser and yellow housing.

3.3. Advantage of the luminaire

- solid, compact structure,
- simple, easy and quick installation,
- high resistance to industrial corrosive environment,
- high luminous efficiency,
- high-quality ignition systems,
- UV resistant.

4. Operation, service and use

In case of dirt clean the luminaire only with a damp cloth .

The light source used in this luminaire should be replaced only by the manufacturer or its service agent or a similarly qualified person.

5. Installation, mounting, disassembling

The luminaire is structurally adapted to pass-through or end-supply through cable gland M20x1.5 or M25x1.5 located on the transverse side walls. The fittings are fitted with the fitting to the ceiling surface or to the side wall with a rope.

6. Maintenance and repairs

Observe the laws and regulations in your country/workplace when using the lamp.

During periodic inspections, check:

- Correctness of tightening of power cables in cable gland units.
- Correct installation of wires in the terminal strip ; Unused clamps must be tightened.
- Check the housing for mechanical damage .
- Check the technical condition of the gaskets .

In the event of heavy soiling, the luminaire should be cleaned with a damp cloth.

The lifetime of the light source depends on the ambient temperature of the luminaire and its power. During operation, LEDs gradually reduce their luminous flux - this is a natural process, characteristic of all white LEDs. The degree of LED wear does not affect the luminaire's operational safety.

Before opening the housing, disconnect the power supply.

It is forbidden to open the luminaire while it is energized. After turning off the power, wait 30 minutes before opening the fixture.

When replacing the power supply unit, pay special attention to the correct electrical connection with the LED matrix.

7. Transport and storage

7.1. Transport

The originally packed devices should be transported using covered means of transport. The packaging should be secured against shifting and sudden shocks. Devices should be transported at a temperature not lower than -20°C and not higher than +50°C.

7.2. Storage

The equipment should be stored in closed areas at a temperature not lower than -20°C and not higher than +50°C and away from heaters.

8. Additional information

8.1. CE marking

CE The CE marking has been affixed under t he following regulations:
Explosion-p roof equipment – Directive 2014/34/EU (ATEX)
Electromagnetic compatibility – Directive 2014/30/EU (EMC)
Restriction of hazardous substances – Directive 2011/65/EU (RoHS II)

Information on the obtained certificates and standards applied to the equipment evaluation has been specified in the declaration of conformity attached to every copy of the device.
The harmonised standards applied to demonstrate the compliance with the relevant directive are set out in the EU decla ration of conformity supplied togethe r with the device.

8.2. Special conditions for safe use

- Ambient temperature: -20 ° C ≤ Ta ≤ + 50 ° C.
- The ACQUEX TA Ex luminaire is designed for permanent installations.
- In a visible place of the device, additional signage should be placed to warn about the possibility of electrostatic discharges with the following content: CAUTION – DANGER ELECTROSTATIC CHARGES - SEE INSTRUCTIONS.

8.3. Basic safety principles

- Before attempting any works related to the equipment, the provisions of this manual should be read thoroughly.
- Follow good engineering practices during the selection of the equipment for a given application, during installation and during operation.
- The device should only be operated by personnel trained for this purpose.
- The safety rules of this type of equipment should be observed.
- Prior to the installation , check whether the marking on the rating plate satisfies requirements for a given application.
- Following the guidelines of the manual is a condition for warranty claims.

8.4. Recycling and disposal

The symbol of a crossed-out waste container that appears on a product indicates that it is subject to the provisions of European Directive 2012/19/EU (WEEE) and the Waste Electrical and Electronic Equipment Act (Journal of Laws of 2015, item 1688 as amended). The worn-out device together with a battery (if included) may not be disposed of jointly with other waste. The worn-out equipment should be handed to the manufacturer or to a point collecting discarded electronic and electric equipment to ensure its proper disposal. The requirements for the management and disposal of other waste are specified in the Waste Law (Journal of Laws of 2013, item 21 as amended).
In order to obtain more detailed information on product recycling, please contact the manufacturer, a local government unit, or waste management services. The packaging consists of a cardboard box and a polyurethane foam or cardboard filling.