

TEPEX d.o.o. tel. 049 222 900, fax 049 426 450 e-mail: tepex@tepex.hr www.tepex.hr	USER MANUAL FOR THE BULKHEAD LIGHT FITTING, TYPE 0403.24/..		
	No: TEPEX.RS.077	Rev : 0	Date: 02.2016.

CONTENT

1.	Manufacturer	1
2.	General safety information's	1
3.	Purpose	2
4.	Product compliance	2
5.	Degree of protection and technical data	2
6.	Type	3
7.	Mounting and installation	4
8.	Dimension	4
9.	Inspection, maintenance, repair and overhaul	4
10.	Spare part and accessories	5
11.	Responsibility and authorization	5
12.	Storage and transport	5
13.	Manufacturer's warranty	5
14.	Marking	6

1. MANUFACTURER

TEP Ex d.o.o.
 Prilaz dr. Franje Tuđmana 6 HR-49210 ZABOK
 Tel: +385 49 222 900
 Web: www.tepex.hr

2. GENERAL SAFETY INFORMATIONS



WARNING!

The user manual contains basic information about the product. Mounting, installation, usage and maintenance should be carried out under this user manual to provide and ensure safe operation within the nominal characteristics. This user manual complement national Regulation and Standards. The responsible person shall ensure their implementation. Failure off implement this user manual can reduce explosion protection and endanger people, property and the environment. Any improper and illegal actions as well as non-compliance with the provisions of this user manual excludes all responsibility by manufacturer.

Before installation/commissioning:

- Carefully read all instructions,
- Execute proper training of responsible personnel,
- Check that the contents of these instructions is fully understandable by the responsible personnel,
- Make sure that all the requirements and national Regulations as well as all special security measures are applied.

In lack of understanding:

- Contact the manufacturer.

During operation:

- Ensure that this user manual and other work instructions are available to the responsible staff at all times,
- Check the implementation of these instructions and all other safety instructions.

3. PURPOSE

The bulkhead light fitting, type 0403.24/.. is intended for general lighting in industrial with potentially explosive atmosphere, in Zones 1, 2, 21, 22 in accordance with EN 60079-10-1/-2: 2009.

4. PRODUCT COMPLIANCE

Design of lighting fitting is in accordance with the standard EN 60598-1:2008 and all related standards.

The product is in compliance with Regulations concerning equipment and protective systems for use in potentially explosive atmosphere.

The product complies with the ATEX Directive 94/9 EC and standards:

- EN 60079-0:2012,
- EN 60079-1:2014,
- EN 60079-7:2007,
- EN 60079-31:2014.

The product has been developed, manufactured and tested according to the existing state of technique, the standards EN 9001:2008 and EN ISO / IEC 80079-34:2011.


The product is in compliance with the LV Directive 2006/95 EC.

The product is in compliance with the RoHS Directive 2011/65 EU.

The product is in compliance with EMC Directive 2004/108 EC.

The sign X after the certificate number indicates that the equipment or protective system is subject to specific conditions. For all types, installation of light fitting in position with lamp bulb in lower position was not allowed. The light fitting for mining application, type 0403.24/20, shall be protected from mechanical impact because it was tested with lower impact energy according to EN 60079-0.

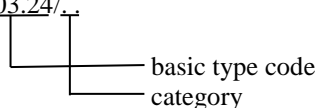
5. DEGREE OF PROTECTION AND DATA

Certificate:	EXA 15 ATEX 0070X	
Category and explosion protection:		II 2G Ex d e IIC T3-T2 Gb type 0403.24/10
		II 2D Ex tb IIIC T130°C Db type 0403.24/11,12
		II 2G Ex d e IIC T3 Gb type 0403.24/11,12
		II 2D Ex tb IIIC T130°C Db type 0403.24/20
Ambient temperature:	-40°C to +40/50/60°C – type II 2GD -20°C to +40°C – type I M2	
Mechanical protection:	IP 64, category 1 – type II 2GD IP 54, category 1 – type I M2	
Resistance to shock:	IK 08	
Class of protection:	I (PE - protective earthing)	
Rated voltage:	230V AC, 110V AC, 24V AC/DC	
Maximum current:	4A	
Lamps:	- max. 100W A / 230V AC, 110V AC, 24V AC/DC, EN 60064 - max. 60W A T / 230V AC, DIN 49810-4, DIN 49810-5 (lamps with ▽ sign) - max. 77W A ECO / 230V AC, EN 60432-2	
Lamp holder:	Ex d lamp holder E27, EN 60238	
Luminous flux:	See selection table	
Connecting terminals:	-terminals for connecting phase and neutral cable L, N - max. 4 mm ² – flexible, solid	
	-terminal for in and out earthing (equipotential) - max. 2 x 6mm ² – flexible, solid, stranded - it is possible through wiring	

Cable entries:	2xISO 25 in accordance with EN 60423
Ex e cable gland and plug:	- for I M2 trumpet shaped cable gland and plug Ex e I Mb, are not supplied with light fitting - for II 2GD one Ex e II Gb cable gland M25x1,5 for cable Ø7-15 mm and one Ex e II Gb plug M25x1,5 in accordance with EN 50262, are supplied with light fitting
Tightening torque:	Lamp in lamp holder E27: 1,5 Nm Screws M5x25/10 for fixing protection grid: 4 Nm Screw of terminal lamp holder: 1,8 Nm Pressure nut of cable gland 2,5 Nm Intermediate gland and plug 3,5 Nm
Dimension:	355x190x193 mm (LxWxH)
Color of glass:	Tip 0403.24/11 – signal red RAL 3001 Tip 0403.24/12 – signal green RAL 6032
Mounting on surface:	Two sheet metal brackets with attached screw kit M6
Weight:	cca 3,8 / 6,0 kg

6. TYPE

Bulkhead light fitting, type 0403.24/...



- 10 – II 2GD light fitting, transparent glass,
- 11 – II 2GD light fitting, signal red glass (RAL 3001),
- 12 – II 2GD light fitting, signal green glass (RAL 6032),
- 20 – I M2 light fitting, transparent glass

Type of reference sources:

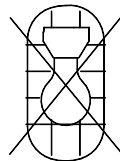
Model code	Max. wattage / LBT marking	Nominal voltage	Explosion protection	Warning	Supplier / luminous flux	
0403.24/10	100W max. / A EN 60064	230V AC, 110V AC	II 2G Ex d e IIC T2 Gb II 2D Ex tb IIIC T130°C Db	-40°C<T _a <40°C use cable suitable for a minimum temperature +95°C	-	
				-40°C<T _a <+60°C use cable suitable for a minimum temperature +110°C		
	60W max. / A EN 60064	230V AC, 110V AC, 24V AC / DC	II 2G Ex d e IIC T2 Gb II 2D Ex tb IIIC T130°C Db	II 2G Ex d e IIC T2 Gb II 2D Ex tb IIIC T130°C Db	-40°C<T _a <+50°C without limitation on connecting cable	-
					-40°C<T _a <40°C without limitation on connecting cable	
	42W max. / A ECO EN 60432-2	230V AC	II 2G Ex d e IIC T3 Gb II 2D Ex tb IIIC T130°C Db	II 2G Ex d e IIC T2 Gb II 2D Ex tb IIIC T130°C Db	-40°C<T _a <+60°C use cable suitable for a minimum temperature +95°C	PHILIPS EcoClassic A-shape 42W max. / 630lm OSRAM Halogen ECO Pro Classic A 30W max. / 405lm
-40°C<T _a <40°C use cable suitable for a minimum temperature +95°C					PHILIPS EcoClassic A-shape 70W max. / 1200lm OSRAM Halogen ECO Pro Classic A 77W max. / 1320lm	
60W / A T DIN 49810-4, DIN 49810-5	230V AC	II 2G Ex d e IIC T3 Gb II 2D Ex tb IIIC T130°C Db	II 2G Ex d e IIC T2 Gb II 2D Ex tb IIIC T130°C Db	-40°C<T _a <+50°C without limitation on connecting cable	OSRAM Special A Centra A FR 60W 230V E27 / 505lm	
0403.24/11	40W / A T DIN 49810-4, DIN 49810-5	230V AC	II 2G Ex d e IIC T3 Gb II 2D Ex tb IIIC T130°C Db	-40°C<T _a <+50°C without limitation on connecting cable	OSRAM Special A Centra A FR 40W 230V E27 / 320 lm	
0403.24/12	40W / A T DIN 49810-4, DIN 49810-5	230V AC	II 2G Ex d e IIC T3 Gb II 2D Ex tb IIIC T130°C Db	-40°C<T _a <+50°C without limitation on connecting cable	OSRAM Special A Centra A FR 40W 230V E27 / 320 lm	

0403.24/20	100W max. / A EN 60064	230V AC, 110V AC	I M2 Ex d e I Mb	-20°C<T _a <40°C use cable suitable for a minimum temperature +95°C	-
	42W max. / A ECO EN 60432-2	230V AC	I M2 Ex d e I Mb	-20°C<T _a <40°C without limitation on connecting cable	PHILIPS EcoClassic A-shape 42W max. / 630lm OSRAM Halogen ECO Pro Classic A 30W max. / 405lm
	77W max. / A ECO EN 60432-2	230V AC	I M2 Ex d e I Mb	-20°C<T _a <40°C use cable suitable for a minimum temperature +95°C	PHILIPS EcoClassic A-shape 70W max. / 1200lm OSRAM Halogen ECO Pro Classic A 77W max. / 1320lm

7. MOUNTING AND INSTALLATION

Assemblage and installation is done according to technical and certification data on warning label on lamp, this user manual of manufacturer, national regulations and laws. Only with that, explosion-proof protection of bulkhead light fitting is ensured with EC-type examination certificate.

Installation of lamp (on wall or ceiling) is done with two steel brackets with M6 screws which are delivered with lamp. For all types of lamp, vertical mounting is not allowed with lamp holder in upper section of lamp.



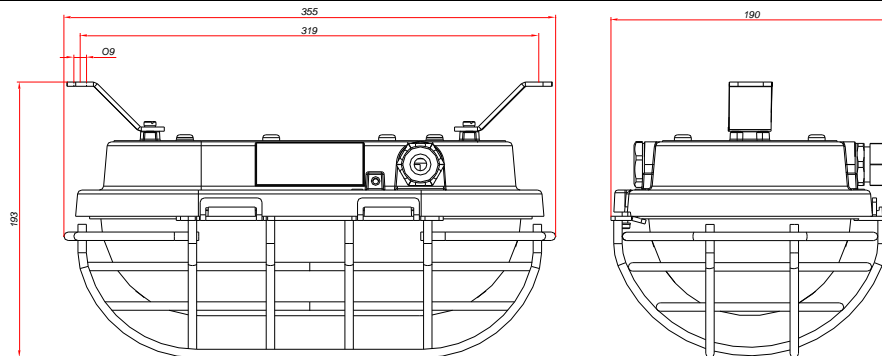
Opening of Ex e enclosure is done by unscrewing two screws M5x25/10 for II 2GD or “T” screw M6x20 for I M2. Special attention must be dedicated to selection of inner gasket sealing ring of Ex e cable glands according to diameter of connecting cable. Pressure nut and intermediate gland must be tightened with nominal torque. Unused cable entries must be closed with plug. The electric connecting is performing by linking power supply cable (L, NE, PE) on the lamp holder E27 connecting clamps and tightening the screw of connecting clamps with nominal torque.

Special attention have to be on following:

- **light fitting must be choosed correctly according to temperature class and ambient temperature, taking into account rated light fitting voltage, power and lamp type,**
- **type of connecting cable must be choosed correctly according to ambient temperature and light fitting wattage, taking into account cable temperature class.**

The closing of the Ex e enclosure should be done by a reverse sequence of action.

8. DIMENSION



9. INSPECTION, MAINTENANCE, REPAIR AND OVERHAUL

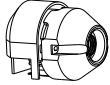







Inspections are carried out in accordance with IEC 60079-17, general and special conditions of manufacturer and users Regulations and includes supervision of parts on which the explosion protection depends, especially:

- that the housing, all part of housing, protective glass and gasket are without rupture and damage,
- that the housing is completely closed with set of protective glass
- that the cable gland, plug, connecting terminals, lightbulb, screws of protective grid are tightened with nominal torque.

All the repairs must be performed by the manufacturer or the manufacturer's authorized personal using the original parts according to the product documentation, all in accordance with EN 60079-19:2011.

If repair or any other procedure are performed on the product by unauthorized person, all producer responsibility for the product and the warranty and the manufacturer's declaration of conformity becomes invalid.

10. SPARE PART AND ACCESSORIES

SKETCH	DESCRIPTION	CODE	SKETCH	DESCRIPTION	CODE
	Lamp holder E27 set	0403.24 10-110		II 2G Ex e II cable gland M25	SPU 25
	Gasket 0403.24	0403.24 10-120		II M2 Ex e I trumpet cable gland , set	0403.24 20-120
	Protective glass 0403.24	0403.24 10-130		II 2G Ex e II plug M25	SPC 25
	Light bulb 100W max.	0403.24 20-110		I M2 Ex e I plug M25	0403.24 20-130

11. RESPONSIBILITY AND AUTHORIZATION

This instruction is the basic information about the product. It is completed by the corresponding national laws and regulations.

Production, use, certification and supervision are determined at the national level:

- a) Regulations concerning equipment and protective systems intended for use in potentially explosive atmospheres EU directive 94/9 EC (ATEX 94) until April 19th, 2016 and Directive 2014/34/EU (from April 20th, 2016)
- b) Regulations on minimum requirements for safety and health protection of workers and technical inspection of facilities, equipment, installations and equipment in hazardous areas EU directive 1999/92/EC (ATEX 137).

The responsible person shall ensure their implementation at the working facility

12. STORAGE AND TRANSPORT

Transportation and warehousing of the lamps is only allowed in the original packaging, as outlined in a cardboard box.

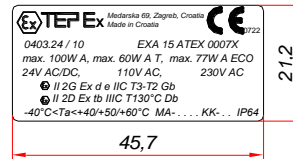
13. MANUFACTURER'S WARRANTY

The manufacturer provides a warranty on the product for a period of one year under the provisions of this user manual and the law on obligations. This statement has the force of Warranty sheet.

14. MARKING

The bulkhead light fitting, type 0403.24/ 10 is marked:

- marking plate and label with technical data:

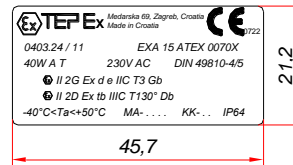


- warning label:

MOUNTING LIMITATION	EN 60064			EN 60432-2				DIN 49810-4/5
	230V AC ; 110V AC	24-230V AC 24V DC		230V AC				230V AC
	max. 100W A	max. 60W A		max. 77W A ECO		max. 42W A ECO	max. 60W A T	
	-40°C < T_a < +40°C	-40°C < T_a < +60°C	-40°C < T_a < +50°C	-40°C < T_a < +40°C	-40°C < T_a < +60°C	-40°C < T_a < +40°C	-40°C < T_a < +50°C	
	USE CABLE SUITABLE FOR A MINIMUM TEMPERATURE OF 95°C	USE CABLE SUITABLE FOR A MINIMUM TEMPERATURE OF 110°C	WITHOUT LIMITATIONS	USE CABLE SUITABLE FOR A MINIMUM TEMPERATURE OF 95°C	USE CABLE SUITABLE FOR A MINIMUM TEMPERATURE OF 110°C	WITHOUT LIMITATIONS	USE CABLE SUITABLE FOR A MINIMUM TEMPERATURE OF 95°C	WITHOUT LIMITATIONS
	T2			T3				
175								

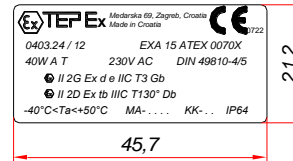
The bulkhead light fitting, type 0403.24/11 is marked:

- marking plate and label with technical data:



The bulkhead light fitting, type 0403.24/12 is marked:

- marking plate and label with technical data:



The bulkhead light fitting, type 0403.24/20 is marked:

- marking plate and label with technical data:

