

**PURPOSE**

Explosion proof pendant lighting fitting type PLFL/... .. - in areas endangered by flammable and explosive mixtures of gases and air, fumes of flammable liquids and air, or various combinations between the two, in danger zones 1,2 in ordinance with standards EN 60079-10:2003

- in areas endangered by explosive and flammable mixtures of dust and air in danger zones 21, 22 in ordinance with standards EN 61241-10:2004.

**TYPE OF PROTECTION**

Apparatus category and marking of explosion-protection:

- II 2G Ex de IIC T4 - T3;

- II 2D Ex tD A21 T140°C - 150°C

Environment temperature:  $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$  or  $+50^{\circ}\text{C}$

Degree of protection (IP Code): IP 66 in accordance with EN 60529+A1, category 1

Resistance to shock: IK 08 in accordance with EN 50102

Insulation class : I (protective earthing) in accordance with EN 61140

Electromagnetic compatibility: in accordance with the Directive 89/336 EEC: in accordance

EN 60598-1:2004/A1:2006, EN 55015:2006, EN 55022:2006/A1:2007, EN 61000-3-2:2006, EN 61547:1995/A1:2000, EN 60929:2006

**MODEL CODE**

TYPE	EXPLOSION PROTECTION FOR $\dots \leq T_a \leq \dots$		Allowable inclination $\pm 45^{\circ}$ from vertical assembly
PLFL/250 HIE, HSE	II 2G Ex de IIC	T4 $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$	
		T3 $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$	
PLFL/250 HME	II 2D tD A21 IP66	T140°C $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$	
		T4 $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$	
PLFL/250 LME	II 2G Ex de IIC	T3 $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$	
		T4 $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$	
PLFL/250 LME	II 2D tD A21 IP66	T3 $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$	
		T140°C $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$	
PLFL/500 A, QT	II 2G Ex de IIC	T3 $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$	
		T150°C $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$	

A – incandescent lamp, QT - halogen lamps, LME – mixed light lamp, HME – high-pressure mercury vapour lamp, HIE – halogen high-pressure metal vapour, HSE – high-pressure sodium vapour lamp

**TECHNICAL DATA**

- Rated voltage: -230 V (-10% / +6%)
- Frequency: -50Hz
- Rated power:
  - A 500 W 2,30 A
  - QT 500 W 2,10 A
  - LME 250 W 1,30 A
  - HIE 250 W 1,80 A
  - HSE 250 W 1,80 A
  - HME 250 W 1,80 A
- Power factor:
  - $\cos \phi > 0,9$  High-intensity discharge lamp
  - $\cos \phi = 1$  bulbs
- Cable entries:
  - two entries M20, in accordance EN 60079-1, ISO 965-1, ISO 965-3, With one Ex d plug and one Ex de adapter, type ADP 03/23, II 2GD Ex de IIC T6 IP66 T80°C, for cable  $\varnothing_v$  6-15 mm
- Connecting terminals in to ADP 03/23:
  - clamps in Ex de adapter for connection L1, L2, N, PE, 2,5mm<sup>2</sup> max. / clamp - solid, stranded; EEx e cable gland M25 for cables
- Connection terminals inside light:
  - L + N + PE; max 2 x 2,5 mm<sup>2</sup> solid, stranded
- Clamp for external earthing PA/PE:
  - floodlight have capability for serial mounting,  $I_{max} = 16$  A
  - 2 x 6mm<sup>2</sup> max. - solid, stranded
- Tightening torque:
  - housing of Ex de adapter, type ADP 03/23 and Ex d plug 3,5 Nm
  - cable gland on adapter ADP03/23 2,5 Nm
  - screw clamp in adapter ADP 03/23 2,0 Nm
  - screw clamp on terminals - 0,6 Nm
- Assemblage:
  - Suspension via threaded inserts in the cover :
    - the standard light fitting features M8 threaded inserts on the top with which the light fitting can be secured or wich can also be used to screw in ring eyelets
  - Suspension via mounting bracket:
    - wall or ceiling mounting is possible with PLFL carrier and M10 screws
- Weight:
  - ca 18 kg – PLFL/500 A,QT and PLFL/250 LME
  - ca 23 kg - PLFL/250 HIE, HSE, HME

**ASSEMBLAGE AND REPLACING THE LIGHT SOURCE**

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

The quality of used materials guarantees functionality congruent norms, in the "normal" industrial atmosphere. For special requirements please contact the manufacturer. Blockade switch is ensuring non-voltage state on E40 lampholder when the Exd casing is opened. In that way is possible to replace the light source without switching off the electrical current.

Before opening the Exd casing by screwing the protective glass with glass holder, it is necessary to unblock it mechanically by twisting the blockade screw M5x25 on glass holder and turn glass holder with protective glass on the left. The lamp is standard delivered without source of light. Special attention must be dedicated to selection of inner gasket sealing ring of Ex ed adapter ADP according to diameter of connecting cable. Push headquarters of adapters and adapter body should tighten with nominal torque.

Unused entries should close with Ex d plug.

The closing of the casing should be done by a reverse sequence of action. During installation one must also be careful that the maximum angle to hanging light fitting have to be 45° from vertical position.

**CONTROL, MAINTENANCE AND REPAIR**

It is necessary to conduct review and maintenance on all parts on which the explosion proof protection depends in accordance to standards IEC 60079-17, general and individual demands of the manufacturer and the regulations of the user, and especially:

- that all enclosures, all parts of the casing, the protective glass and the gasket of the cover are completely without a crack or damage,
- that the gland and gasket, connecting terminals are tightened with torque regulated by manufacturer.

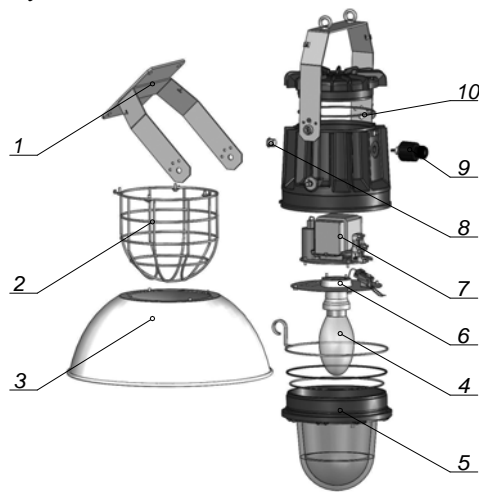
The repair of the lamp is done by the manufacturer or a person legally authorized by the manufacturer, with original parts from the products documentation, and in accordance to the IEC 60079-19 standards. If the repair is done by a third person, the manufacturer is free of all responsibility from the product, and the declaration of conformity which is given by the manufacturer becomes insignificant.

**Accessories:**

1. Mounting bracket (the possibility of rotate ±45°)
2. Protective grid, set
3. External reflector, wide beam, set
4. Light source, according to table

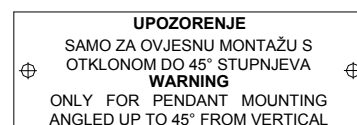
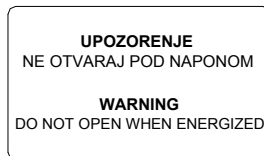
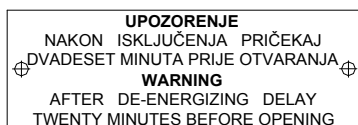
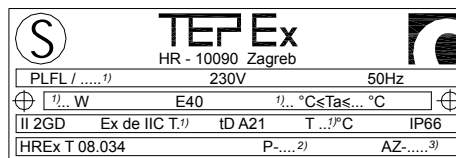
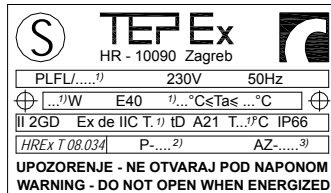
**Spare parts:**

5. Protective glass with glass holder
6. Internal reflector with lamholder set
7. Set bed plate
8. Plug Ex d M20
9. Adapter Ex ed, type ADP 03/23
10. Cover gasket



**MARKING**

Explosion proof light fitting, type PLFL/... .. is labeled with:



**RESPONSIBILITY AND AUTHORIZATION**

Responsibility and authorization are defined by the "Regulation on technical supervision over the electrical stations, installations and equipment intended for usage in potentially explosive atmospheres". This Manual represents the most relevant information about the product. Adequate national laws and regulations supplement it. The person in charge is required to secure its employment in the industrial unit. Every improper usage, as well as every unofficial restructuring, repair or restoration of the product, release the manufacturer of all responsibilities.

**STORAGE AND TRANSPORT**

Transport and storage is only allowed in the original packaging, on the way pointed out on the carton box.

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