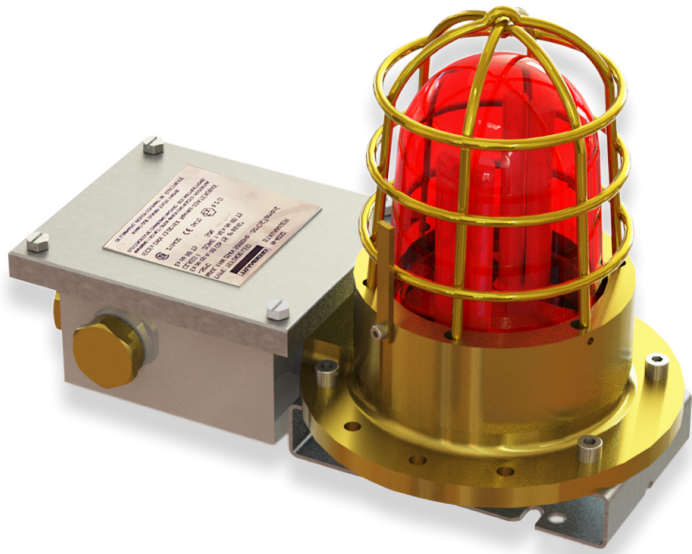


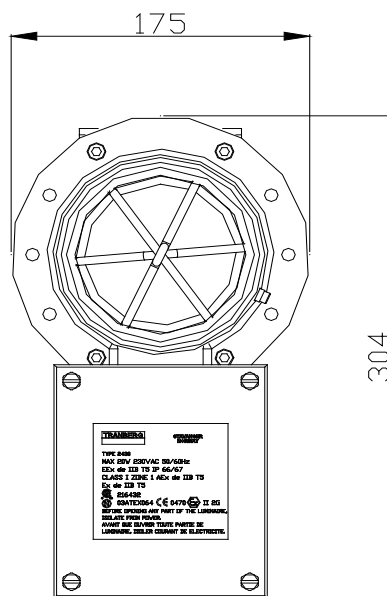
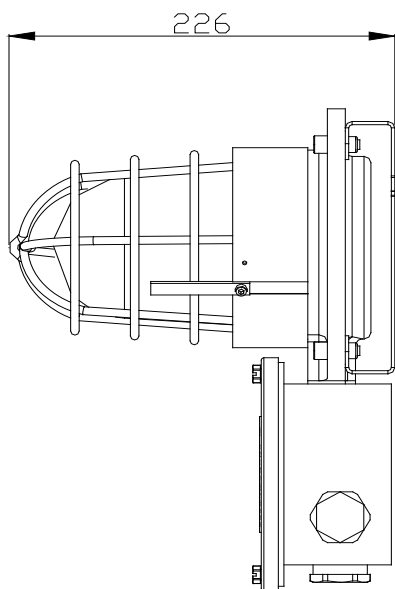
TEF 2430

IECEx Ex de LUMINAIRE USER MANUAL



IMPORTANT

Read this instruction carefully before installing the product



240A103162

INTRODUCTION

Thank you for purchasing this product!
For installation, maintenance and assurance of a long life of this product, please follow this manual.

APPLICATIONS

- Deck lighting
- Signal lighting
- Obstacle marking
- Perimeter lights on helideck

CONTENT IN BOX

The product is fully assembled, and ready for installation.

SAFETY PRECAUTIONS

Note that changes made to the product and/or installation of components which do not conform to the approval, may be a safety violation. The manufacturer will in no circumstance be held responsible for such activity. For your health and safety, always use safety gear suited for the task. Be certain to follow codes, regulations and/or specific procedures that are related to the installation.

TOOLS REQUIRED

Regular tools required for installation.


- Tools for mounting, e.g. 13 mm wrench - to fasten the luminaire
- 3 mm hexagon key (Unbrako) - for lock/unlock safety pin on the guard-ring
- Flat head screwdrivers, approx. 3,5 mm for connecting to terminal block and 8,0 mm for junction box lid/earth screw
- 32 mm wrench - to disassemble the blind plug, and assemble the cable gland
- 25 mm wrench - for tightening the pressure nut on the cable gland


MAINTENANCE INSTRUCTIONS

The luminaire should be inspected according to Company routines. The manufacturer suggests regular check for water intrusion/condensation which should be removed immediately.



When cleaning, use only mild detergents. Alcohol or petroleum based products may damage lens, paint or plastic components. When cleaning the dome use moist cloth to avoiding electrostatic hazard.

APPROVAL

Ex Explosion category:  II 2 G Ex de IIB Gb T5 (ATEX/IECEX)
Ex de IIB T5 (Canada)
Class I, Zone 1, AEx de IIB T5 (US)

Certificate No.: IECEX NEM 13.0016X
Nemko 03ATEX064X  216432

Approved for use in: Zone 1, Zone 2 and Safe Area

Marking:  0470  II 2 G Ex de IIB Gb T5
Ex de IIB T5
Class I, Zone 1, AEx de IIB T5

Notified body: Nemko AS, Norway
CSA International, Canada

INSTALLATION INSTRUCTIONS

Only qualified personnel are allowed to perform installation and maintenance tasks to this equipment.

The equipment is ready for installation when leaving the production facilities of Tranberg AS. Check the condition of the equipment and the contents when unpacking. Any damage done to the equipment during the transportation is not the responsibility of Tranberg AS. If the content is not complete, file a claim to the manufacturer immediately.

The TEF 2430 is mounted on a bracket which have several mounting choices using 2 pcs. of M8 (max.) bolts and nuts, or a 2" pipe. The dimensions of the mounting bracket are shown in fig. 1.

Important when mounting the luminaire:

The luminaire must always be installed in such a way that the junction box is fully supported from underneath. Normally the entire luminaire would be installed to a flat surface, which provides a proper support for the junction box. In cases where the junction box cannot be mounted on the same surface as the lamp housing/bracket, a full and rigid support must be provided for the junction box. An unsupported junction box may be damaged if stepped upon. Likewise an unsupported junction box that is forced down by e.g. a pull of electrical cables, may expose the gasket between the junction box and lamp housing.

Do not use excessive force when tightening the four screws on the junction box lid, and never use a power screwdriver. Excessive force may bend the lid and provide a way for water to enter the junction box. When closing the lid on the junction box, please ensure that no electrical wires, or the safety wire to the lid itself, are jammed between the lid and the junction box.

Not following these instructions may lead to a risk of water ingress into the luminaire. The manufacturer assumes not responsibility when these guidelines are not followed.

The terminal block of this luminaire is of the "cage clamp" type and one needs either special tool or just a small flat head screwdriver to connect the cable to terminal block. The cable glands are approved for a specific cable diameter.

These data can be found in the certificate of the ATEX approved cable glands. Make sure this is not violated. Use of cable with other dimensions is a safety violation and should be avoided. Any damage caused by use of incorrect cable gland not matching the cable dimension, is not the responsibility of Tranberg AS and is not covered by warranty.

Max. cross section of the cable to be connected to the terminal blocks, is 2,5 mm².

To connect the wiring of the TEF 2430 luminaire, perform the following procedure:

Remove the cover from the junction box.

Connecting cable for 230/120 VAC:

The main power (230/120 VAC) is to be connected to the terminal blocks marked 11 and 22, see fig. 2

Connecting cable for 24 VDC Compact fluorescent lamp:

The main power (24 VDC) is to be connected to the terminal blocks marked ++ and --, see fig. 2

The 24 VDC version not to be grounded.

Make sure electrical connections are safe and reliable. Make sure the wire slack is as needed. Reinstall the cover. If properly mounted and installed, the luminaire is now ready for use.

Replacement of lamp:

Deactivate the input power. Remove the unlock safety pin, marked as 1 in fig. 3

Remove the ring with globe and guard, marked 2 in fig. 3, and replace the lamp.

If necessary lubricate the threads with grease (Renolit Unitemp 2, from Fuchs).

Reinstall the ring with globe and guard, and fasten the safety pin.

Troubleshooting:

No light - Check main power, connections to the terminals blocks or lamp.

If the light still does not function, contact the nearest Tranberg dealer or Tranberg AS directly.

Safety precautions:

Note that changes made to this product and/or installation of components, which do not conform to the approval, may be a safety violation. The manufacturer will under no circumstances be held responsible for personal injuries, death or any damage caused by such activity. For your health and safety, always use safety gear suited for the task, and follow company guidelines and all relevant rules and norms for installation, where applicable.

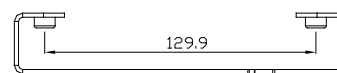


Fig. 1

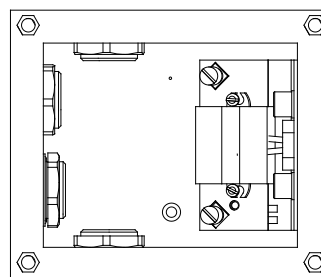
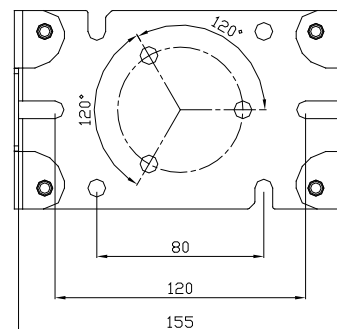


Fig. 2

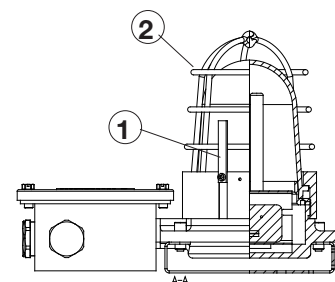


Fig. 3

Do not open any part of the luminaire without disconnecting line voltage.

The luminaire is to be used in Zone 1, Zone 2 or Safe Area.

WARNING!

The luminaire can only be installed in Zone 1 and Zone 2 if equipped with ATEX and IECEx approved cable glands and blind plugs.

Rubber seal and cable glands:

Be sure to install the cable in a way which prevents water to penetrate into the enclosure through the cable gland. Also make sure to use the correct rubber seal when you install the cables into the luminaires.

Cable diam.	Size	Part No.
12,0 - 15,0mm	Ø26,8/15,0x10mm	5002 0140
15,0 - 20,1mm	Ø26,8/20,3x10mm	5002 0139

SPARE PARTS

Description	Part No.
Lamp insert, complete 230 VAC	1671
Lamp insert, complete 120 VAC	3059
Lamp insert, complete 24V DC	3191
Fluorescent tube 7W, G23	9400 032
Fluorescent tube, PLC-10W/827-4 pins, 24V	9400 071
Cable gland Exe M25 (Includes two rubber seals for cables 12 - 20m)	6222 502
Reactor, 230VAC	5086 0035
Reactor, 120VAC	5086 0031
Electronic reactor for 24 VDC revision	5028 0049

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Terminal block, Wago	5028 0008
Terminal block with brass plate	4128
Lamp holder, for PL-C 13W 120VAC	5088 0030
Lamp holder, G23 for PL-S 7W 230VAC	5088 0031
Lamp holder, G24q for PL-C 13W 24VDC	5088 0034
Globe with guard, yellow/amber	2036
Globe with guard, clear	1223
Globe with guard, green	1224
Globe with guard, red	1225
Globe with guard, yellow	1226
Globe with guard, blue	1227
Gasket (o-ring) for globe (107,5 - 3,53), nitrile	5000 8009

TECHNICAL DATA

Material:	Cast copper alloy. Globe polycarbonate Lexan, Junction box in AISI 316L
Supply (Input) voltage:	24 VDC, 120VAC 60Hz, 230VAC 50/60Hz
T-rating:	T5
IP-protection:	IP66/67
Power consumption:	Max 20 Watt
Light source:	PL-S 2x7W (230 VAC) PL-C 13W (120 VAC) PL-C 10W (24 VDC) 15W Compact fluorescent (integrated), only for ATEX approval, not for CSA approval
T_{amb}:	-30°C to +45°C (Arctic version: -55°C to +45°C)
Weight:	6 kg.
Compliance with:	CENELEC EN 60079-0:2013 CENELEC EN 60079-1:2007 CENELEC EN 60079-7:2007 CSA Standard C22.2 No 0-M 91: General requirements - Canadian Electrical Code, Part II CSA Standard C22.2 No 0.4M 1982: Bonding and Grounding of Electrical Equipment (Protective Grounding) CAN/CSA Standard C22.2 No 43-M 1984: Lampholder CAN/CSA Standard C22.2 No 250.0-00: Luminaires CAN/CSA E60079-0:02: Electrical Apparatus for explosive gas atmospheres - Part 0: General Requirements CAN/CAS E60079-1:02: Electrical Apparatus for explosive gas atmospheres - Part 1: Flameproof Enclosures "d" CAN/CAS E60079-7:02: Electrical Apparatus for explosive gas atmospheres - Part 7: Increased safety "e" UL 1598-2000, First Edition, UL Standard for Safety, Luminaires UL 542-1999, Eight Edition, UL Standard for Safety, For Lampholders, Starters and Starter Holders for Fluorescent Lamps UL 935-2001, Tenth Edition, UL Standard for Safety, For Fluorescent-Lamp Ballasts ANSI/UL 60079-0-2002, First Edition, Electrical Apparatus for Explosive Gas Atmospheres, Part 0: General Requirements. ANSI/UL 60079-1-2002, First Edition, Electrical Apparatus for Explosive Gas Atmospheres, Part 1:Flameproof Enclosures "d" ANSI/UL 60079-7-2002, First Edition, Electrical Apparatus for Explosive Gas Atmospheres, Part 7:Flameproof Enclosures "e"

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