TECHNED TNAML Luminaires

80.000hour maintenance free fluo fixture

Techned TNAML 80.000 hour (10 year) maintenance free fluo fixture an unique concept

An unique lighting concept. Sealed for life luminiares available as Industrial NON-ATEX and Industrial ATEX for zone 1/21 & 2/22, with or without emergency light backup function.

This products can be used in the most demanding applications such as shipping, offshore, chemical, petrochemical, food industry and on many places where it is difficult or expensive to exchange lamps and components.

The luminaires are completely gas- and watertight IP68. The sealed for life concept means, never changing lamps and components during the guaranteed lifetime of the luminiare. This concept offers an enormous cost saving especially on labor. The luminiare is produced using the highest quality materials en has an enormous high light output in compare to other type of fluorescent luminaires with the same wattage of light sources. The high gloss reflector is one of the reasons for the high light output. The luminaires are available as 2x18W, 2x36W en 2x58W.

Techned Concept TNAML

The concept of this 10 year operational guarantee offers a significant lower cost during the life cycle of the luminaire*. *=(condition apply). Fast and easy installation due to its flexible mounting system and the pre-wired connection box. Seawater resistant anodized aluminium housing. Tempered glass window for enhanced safety. High light efficiency (80%). Sealed for life is connect nd forget. TNAML is a patented design. Vibration tested by Sebert Trillingstechniek. Aging and ATEX approved by DEKRA. Optional with build-in backup battery and high power LED for emergency lighting. Standard IEC60068-3-3 or nuclear power plants. Certificates on request availlable. Protection: Ex e mb, Ex tD A21 ATEX classifications Group II Category 2 G D Zones: Zone 1, 2, 21, 22 **Applied standards:** EN/IEC 60079-0, 60079-7, 60079-18, EN 60079-31, 62262, 60598-2, 60598-2-1,600598-2-22, EN 55015, EN 61000-3-2, EN 61000-3-3 Approvals: IECEx Dek 11.0075, ATEX DEKRA 11ATEX0133 Ex Code: Gas Ex II 2 G Ex e mb II T5/T6 Dust Ex II 2 D Ex tD a21 IP68 T80° /100°C Inspection: Visual inspection in accordance with EN/IEC 60079-17 **Housing:** Seawater resistant anodized (25 micron) NORSOK 121 aluminium Light sources: Pre-mounted sealed long life lamps 4000K **Impact resistance:** IK 10 (20 joules) according to IEC 662262 **IP Range:** IP68 according to DEKRA 211978700 **Temperature range:** From -20°C to 55°C standard version and -20° C to +30° C emergency version. Voltage 220-264V 50/60Hz (110V on request) **Ballast:** Electronic ballast with lifetime protection. **Electrical connection:** 0.5-6mm² spring terminals through integrated external junction box. (sealed after installation and test).







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Specifications:

Cable entry:

2 x M25 cable gland entries, one is plugged. (Cable gland(s) must be ordered separate!!). Mounting:

 $2\ x$ adjustable brackets on guidance rail for easy and quick installation.

Emergency lighting:

90 minutes backup with the emergency version. (disconnecting possibility during installation by "B" terminal). Battery lifetime:

300 cycles, automatic random test each 100 days. Options:

Voltage 110/120Vac 50/60Hz (only for 2x18W and 2x36W)

Light colour 3000K

Electronic connection 8 meter flying lead, braided. LED Emergency 180 minutes backup, 4-LED's to meet the requirements of IMO/DNV-OS-A101.

Glas special for use in a HACCP environment (food industry) with DEKRA certificate available for zone 2 & 22. Wiring, through wiring (each end of the luminaire box). Other class areas Zone II Ex n 3GD (TNAMLC) or Safe Area Version (TNAMLD).

Accessories:

Anti-corrosion set as divider between the carbon steel of the ship bracket and the luinaire. Always needed to order for seawater conditions applications such as seagoing vessels.

Mounting brackets, special brackets for pole mounting. Safety wire, For installation into a fixing arrangement on the fitting.

Cable gland, M25 Exd cable gland (at least one needed per luminaire).

Manned / unmanned facilities, Black Start Function for mannend / unmanned functionality.

Ceiling system installation, Special mounting frame to mount the luminiare into a ceiling.

Ceiling brackets, special brackets for ceiling mounting. Comes with the luminiare:

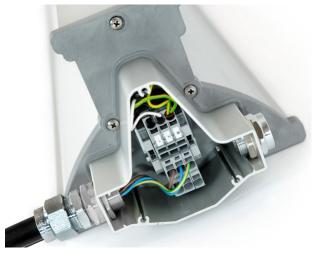
Installation instructions:

More management less firefighting Distribution: RMN B.V.

Cartridge with special sealant to fill the connection box after installation and test.

This box MUST ALWAYS be filled with this sealant for warranty purpose. After filling the box is the also IP68.





Connection of the cable inside the pre-wired connection box



After installation and test filling the connection box with the special supplied sealant



M25 Exd Cable gland

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ATEX Zone 1-21 for gas

Number	Description	Lamps	Lumen
02TE222450	TNAML Ex Zone 1-21 2x18W 220/264V 50/60Hz	2x18W 4000K Long Life	2.600 lumen
02TE222451	TNAML Ex Zone 1-21 2x36W 220/264V 50/60Hz	2x36W 4000K Long Life	6.000 lumen
02TE222452	TNAML Ex Zone 1-21 2x58W 220/264V 50/60Hz	2x58W 4000K Long Life	10.400 lumen
02TE222453	TNAML Ex Zone 1-21 2x18W 220/264V 50/60Hz Emergency Backup	2x18W 4000K Long Life + LED for emergency	2.600 lumen
02TE222454	TNAML Ex Zone 1-21 2x36W 220/264V 50/60Hz Emergency Backup	2x36W 4000K Long Life + LED for emergency	6.000 lumen
02TE222455	TNAML Ex Zone 1-21 2x58W 220/264V 50/60Hz Emergency Backup	2x58W 4000K Long Life + LED for emergency	10.400 lumen

ATEX Zone 2-22 for dust

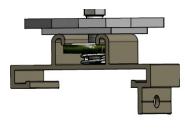
Number	Description	Lamps	Lumen
02TE223450	TNAML Ex Zone 2-22 2x18W 220/264V 50/60Hz	2x18W 4000K Long Life	2.600 lumen
02TE223451	TNAML Ex Zone 2-22 2x36W 220/264V 50/60Hz	2x36W 4000K Long Life	6.000 lumen
02TE223452	TNAML Ex Zone 2-22 2x58W 220/264V 50/60Hz	2x58W 4000K Long Life	10.400 lumen
02TE223453	TNAML Ex Zone 2-22 2x18W 220/264V 50/60Hz Emergency Backup	2x18W 4000K Long Life + LED for emergency	2.600 lumen
02TE223454	TNAML Ex Zone 2-22 2x36W 220/264V 50/60Hz Emergency Backup	2x36W 4000K Long Life + LED for emergency	6.000 lumen
02TE223455	TNAML Ex Zone 2-22 2x58W 220/264V 50/60Hz Emergency Backup	2x58W 4000K Long Life + LED for emergency	10.400 lumen

Industrial NON ATEX

Number	Description	Lamps	Lumen
02TE221450	TNAML 2x18W 220/264V 50/60Hz	2x18W 4000K Long Life	2.600 lumen
02TE221451	TNAML 2x36W 220/264V 50/60Hz	2x36W 4000K Long Life	6.000 lumen
02TE221452	TNAML 2x58W 220/264V 50/60Hz	2x58W 4000K Long Life	10.400 lumen
02TE221453	TNAML 2x18W 220/264V 50/60Hz Emergency Backup	2x18W 4000K Long Life + LED for emergency	2.600 lumen
02TE221454	TNAML 2x36W 220/264V 50/60Hz Emergency Backup	2x36W 4000K Long Life + LED for emergency	6.000 lumen
02TE221455	TNAML 2x58W 220/264V 50/60Hz Emergency Backup	2x58W 4000K Long Life + LED for emergency	10.400 lumen

Accessories

Number	Description
02TE223460	Pole mounting set TNAML
02TE223461	Ceiling mounting set TNAML
02TE223462	Ceiling frame TNAML
02TE6030	Anti-corrosion set TNAML for sea environments
7748075EX	M25 Exd cable gland TNAML



Anti-corrosion set

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