



EMERGENCY LIGHTING PRODUCTS

2009



 **TEKNOWARE[®]**

CENTRAL BATTERY UNITS

NEW

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LUMINAIRES

LUMINAIRES

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TEKNOWARE OY

TEKNOWARE OY is an international lighting technology company located in Finland. We design, manufacture and market our products and systems for special lighting applications; like emergency lighting and vehicle interior lighting. Over 70% of our total production is exported to over 40 countries. Designing and manufacturing of Teknoware products takes place in our factories located in Lahti, Finland. Furthermore we assemble our products in China and Poland for their local markets.

Teknoware quality based on ISO 9001 certified quality system and ISO 14001 certified environmental management system.

Our products are designed and manufactured according to the requirements of target country. In European level our products comply with all the latest European Directives and EU norms.



CENTRAL BATTERY UNITS

Teknoware central battery units are designed to comply with norm EN 50171. This means e.g. the following mandatory features :

- Casing of the central battery unit fulfils the 850 °C hot wire test.
- Maximum recharge time for batteries is 12 hours, for minimum 80 % of specified operation time.
- Changeover operation according to the norm EN 60598-2-22.
- Deep discharge protection for battery
- Indication of battery voltage and current.
- Switch for manual mains failure simulation.



- Indication for the following functions and fault situations:
 - Power supply indication
 - Charging voltage deviation
 - Charger fault
 - Battery operation
 - Operation of the deep discharge protection

In accordance of the above mentioned mandatory requirements, Teknoware central battery systems have many additional features to improve safety and reduce installation as well as maintenance costs. These additional technical features are e.g.:

- Addressable testing of luminaires, also with central monitoring.
- Possibility to connect maintained and non-maintained luminaires to the same circuits.
- Monitoring of local mains supply by local controller.
- Control of emergency luminaires by the switch controller in normal mode.



EMERGENCY LUMINAIRES

Teknoware emergency luminaires are designed, manufactured and tested to fulfil the norm EN-60598-2-22. Furthermore exit signs are in accordance of the norm EN 1838.

Essential requirements when composed with luminaires for general use are:

- Any defect of one particular luminaire, must not affect to other luminaires of the system.
- Exit sign needs to comply with EN 1838 requirements for luminance and contrast.



Furthermore Teknoware luminaires have the following special features:

- "Servisafe" circuit in fluorescent lamp luminaires switches the output voltage off in all lamp fault situations providing safe operation and lamp replacement.



- Electronic ballast with regulated output power in 24 V luminaires. This provides constant voltage and current for the lamp regardless of the input voltage variations.
- Addressable testing of luminaires for central battery system.
- Possibility to connect maintained and non-maintained luminaires to the same circuit.

CENTRAL MONITORING FOR THE TAPSA CONTROL SYSTEM

COBA based central monitoring system provides means to control Teknoware Tapsa Control centrally supplied emergency lighting system from a single point. A standard personal computer, which is installed with required software and LON connection, is used as a user interface. From the user interface it is possible to monitor the status of the complete system and start the required tests either manually or automatically. The system indicates the addressed status information of each luminaire and panel and a clear map display shows the exact location of each unit.

Central monitoring is used for testing the system and monitoring its status. The emergency mode operation of the panels and luminaires is still completely independent from the LON network.

For data transmission the system uses an openly defined LON-network and the as a core of the software is the COBA building management software designed by Lonix. Due to this the Teknoware central monitoring system can be integrated as a part of the building management system in those locations where COBA is already in use. In this case there is no need for a separate computer and software, which decreases the purchasing costs of the system.

COBA system is controlled from a simple user interface software (UI Client), which can be installed into any computer which can be accessed by TCP/IP connection. With this the system can be controlled regardless of the location. The amount of the user interfaces is unlimited and they can be customised for each user.

In monitoring use each Tapsa Control panel has an LON-interface, which allows the connection also to other building management systems as a separate or integrated network.



IN COOPERATION WITH:

www.lonix.com

NEW TEKNOWARE ESCAP AND AALTO CONTROL LUMINAIRES

Completely new technology for emergency lighting

The main principle in Teknoware's operation has always been to develop and manufacture products, which offer globally best quality, cost effectiveness and friendliness to environment during their whole life span. The newest example of this development is Teknoware's ESCAP –technology, which brings the self-contained luminaires to a totally new technological level. New technology totally removes the problems with maintenance and recycling, which are traditionally related to the self-contained luminaires. Both lifetime and reliability are considerably better than with traditional battery technology.

Battery replaced by capacitor

Teknoware's new ESCAP –emergency lighting technology combines the capacitive energy storing and latest LED technology. Unlike the traditional practice, the electrical energy is stored in the very high capacitance capacitors instead of batteries. These so called supercapacitors have developed a lot during the last few years. One of the catalysts for this development have been the hybrid vehicles, which use the same technology for fast energy storage. The latest subject of research in this area is the usage of nanotechnology to still increase the effective surface area of the capacitors.

Due to different charge and discharge voltage behaviour the capacitor can not directly replace a battery. The recharging voltage and current shall be strictly controlled and during discharge the electronics must cope a very wide voltage range. With the control electronics developed by Teknoware, these challenges are now met and practical solutions are available.

Teknoware Escap and Aalto Control luminaires on page 45-49.

Over 10 years freedom of maintenance

ESCAP –technology makes real completely independently operating emergency luminaires without any batteries, which would require periodical replacement and contain hazardous substances. Also the need for lamp replacements is history, thanks to long life high power LEDs. The life time of the supercapacitors is more than 10 years, being in balance with the up to date surface mounted LED lamps. As a result there is a luminaire, which is totally maintenance free during its whole life span. Even after that it is not hazardous waste. It can be recycled as standard electronics material.

As an additional advantage, capacitors provide considerably shorter recharging times than traditional battery technology. Due to this, the full emergency mode duration is guaranteed within 2 hours after the mains recovery. The overall energy consumption of ESCAP –luminaires is also very low, as there are practically no energy losses in the fully charged capacitors.

New solutions also for automatic testing and monitoring

ESCAP –luminaires are also available with automatic self-test and wireless central monitoring. Self-testing types perform automatically short operation test each day and emergency duration test after each 6 months. The test results are shown with green and red indicator LEDs in each luminaire. Self-testing types can be also included to Teknoware's Aalto Control –wireless monitoring network, where all luminaires in a building can be monitored from a single personal computer. This provides fully centrally monitored system without any data cabling.

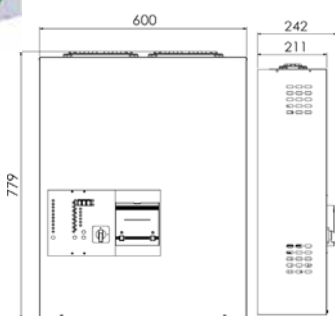


TAPSA 66 CONTROL 230 V CENTRAL BATTERY UNIT

NEW

IP 20
Battery 216 V (18 x 12 V)
Luminaires 230 V AC/DC

Max 32 luminaires/group.



Product code and description

Weight

TKT6608CO
8 groups á 350 W — 2 groups á 1400 W

31,0 Kg

TKT6616CO
16 groups á 350 W — 4 groups á 1400 W

TKT6624CO
24 groups á 350 W — 6 groups á 1400 W

TKT6608CD
8 groups á 350 W — 2 groups á 1400 W with printer

TKT6616CD
16 groups á 350 W — 4 groups á 1400 W with printer

TKT6624CD
24 groups á 350 W — 6 groups á 1400 W with printer

Tapsa 66 Control enables either addressed monitoring of the luminaires or group monitoring. Outputs can be connected parallel for up to 1400 W load.

Exit and emergency luminaires that are connected to the central battery unit shall be equipped with the Teknoware address module. The luminaire code ends with the code "K".

TKT66 central battery unit needs always a separate battery container and battery cables. (See pages 9 and 10). Central Monitoring and LON interface available as options.

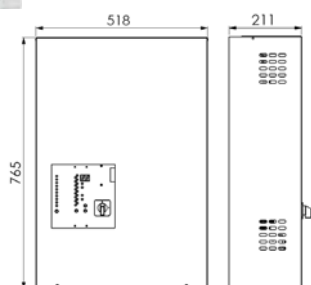
With Tapsa 66 Control the output groups can also be connected in parallel to achieve higher output power for the groups. With 2 groups in parallel the maximum output power is 700 W and with 4 groups in parallel 1400 W.

| TYPE OF THE PANEL | OUTPUTS | MAX. LOAD, MAINTAINED LUMINAIRES | MAX. TOTAL LOAD, 1 h | MAX TOTAL LOAD (3h DURATION) | MAX BATTERY CAPACITY |
|-------------------|------------------------------------|----------------------------------|----------------------|------------------------------|----------------------|
| TKT6608C | 1 x (8x350W / 4x700W / 2x1400W) | 2000VA | 2800W | 2800W | 65Ah |
| TKT6616C | 2 x (8x350W / 4x700W / 2x1400W) | 2580VA | 5600W | 3340W | 65Ah |
| TKT6624C | 3 x (8x350W / 4x700W / 2x1400W) | 2580VA | 6000W | 3340W | 65Ah |

TAPSA 65 CONTROL 230 V CENTRAL BATTERY UNIT

IP 20
Battery 216 V (18 x 12 V)
Luminaires 230 V AC/DC

Max 16 luminaires/group.



TKT6508CO
8 groups á 250 W

29,5 Kg

TKT6516CO
16 groups á 250 W

30,0 Kg

TKT6524CO
24 groups á 250 W

30,5 Kg

TKT6508CD
8 groups á 250 W with printer

30,0 Kg

TKT6516CD
16 groups á 250 W with printer

30,5 Kg

TKT6524CD
24 groups á 250 W with printer

31,0 Kg

Tapsa 65 Control enables either addressed monitoring of the luminaires or group monitoring.

Exit and emergency luminaires that are connected to the central battery unit shall be equipped with the Teknoware address module. The luminaire code ends with the code "K" or "T".

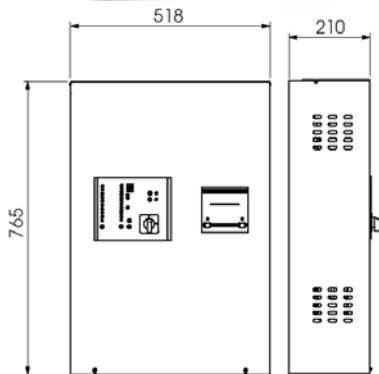
TKT65 central battery unit needs always a separate battery container and battery cables. (See pages 9 and 10).

| MAX LOAD | TKT6508C(D) | TKT6516C(D) | TKT6524C(D) |
|---------------------------------------|--------------|--------------|--------------|
| MAINTAINED GROUPS | max. 2000 VA | max. 2580 VA | max. 2580 VA |
| MAX TOTAL LOAD FOR 1 h OPERATION TIME | 2000 W | 4000 W | 6000 W |

TAPSA CONTROL TK23
230 V CENTRAL BATTERY UNIT

Battery 24 V (2 x 12 V)
Luminaire 230 V AC/DC

Max 12 luminaire/group.



| Product code and description | Weight |
|------------------------------------|---------|
| TK2301C 1 group á 120 W | 18,0 Kg |
| TK2302C 2 groups á 120 W | 18,5 Kg |
| TK2303C 3 groups á 120 W | 19,0 Kg |
| TK2304C 4 groups á 120 W | 20,0Kg |
| TK2305C 5 groups á 120 W | 20,5Kg |
| TK2306C 6 groups á 120 W | 21,5 Kg |
| TK2307C 7 groups á 120 W | 22,0 Kg |
| TK2308C 8 groups á 120 W | 23,0 Kg |

TK23xxC enables an addressable system, which automatically monitors and tests the complete system.

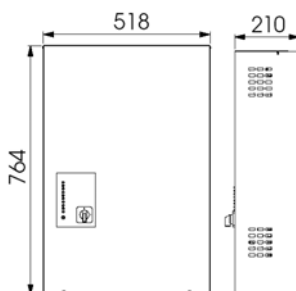
Exit and emergency luminaires that are connected to the central battery unit shall be equipped with the Teknoware address module. The luminaire code ends with the code "K" or "T".

TK23xxC needs always a separate battery container and battery cables. (See pages 8 and 10).

Central monitoring and LON interface available as options.

CENTRAL BATTERY UNIT
TKT65-SERIE 230V

IP 20
Battery 216 V (18 x 12 V)
Luminaire 230 V AC/DC



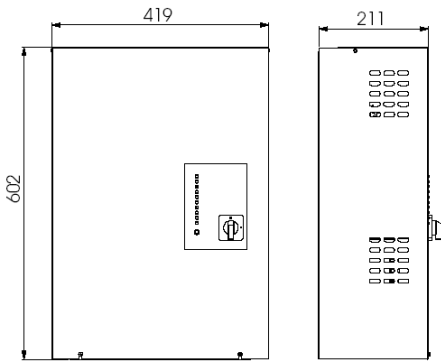
| | |
|--------------------------------------|---------|
| TKT6506B 6 groups á 250 W | 27,8 Kg |
| TKT6512B 12 groups á 250 W | 30,0Kg |
| TKT6518B 18 groups á 250 W | 31,0 Kg |
| TKT6524B 24 groups á 250 W | 31,6 Kg |

TKT65 central battery unit needs always a separate battery container and battery cables. (See pages 8 and 9).

| MAX LOAD | TKT6506B | TKT6512B | TKT6518B | TKT6524B |
|---------------------------------------|--------------|--------------|--------------|--------------|
| MAINTAINED GROUPS | max. 1500 VA | max. 2580 VA | max. 2580 VA | max. 2580 VA |
| MAX TOTAL LOAD FOR 1 h OPERATION TIME | 2000 W | 3000 W | 4500 W | 6000 W |

**TAPSA 230 V
CENTRAL BATTERY UNIT**

**Battery 24 V (2 x 12 V)
Luminaires 230 V AC/DC**



Product code and description

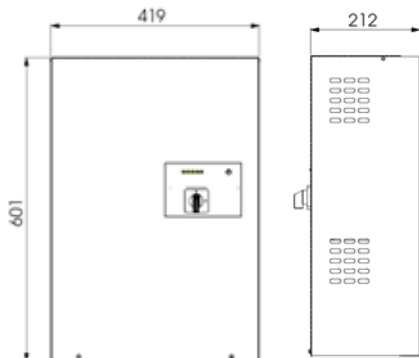
Weight

- TK2301** 15,0 Kg
1 group á 120 W
Space for batteries inside the unit: 2 x 12 V/38 Ah
- TK2302** 15,5 Kg
2 groups á 120 W
Space for batteries inside the unit: 2 x 12 V/38 Ah
- TK2303** 16,0 Kg
3 groups á 120 W
Space for batteries inside the unit: 2 x 12 V/38 Ah
- TK2304** 16,5 Kg
4 groups á 120 W
Space for batteries inside the unit: 2 x 12 V/38 Ah
- TK2305** 17,0 Kg
5 groups á 120 W
- TK2306** 17,5 kg
6 groups á 120 W
- TK2307** 18,0 Kg
7 groups á 120 W
- TK2308** 18,5 Kg
8 groups á 120 W

TK2305 or bigger central battery unit needs always a battery container TK2300,TK2310 or TK4100 and battery cables. (See pages 9 and 10).

**CENTRAL BATTERY UNIT
TKT- SERIE 24V**

**Batteries 24 V (2 x 12 V)
Luminaires 24 V AC/DC**



- TKT3122** 12,5 Kg
Output groups can be set as maintained or non-maintained in steps of two groups/ total 4 groups.
- maintained groups max. 120 W / group
- non-maintained groups max. 190 W / group
Space for batteries inside the unit: 2 x 12 V/24 Ah

- TKT4144** 23,8 Kg
Output groups can be set as maintained or non-maintained in steps of two groups/ total 8 groups.
- maintained groups max. 120 W / group
- non-maintained groups max. 190 W / group
Space for batteries inside the unit: 2 x 12 V/38 Ah

- TKT4188** 24,5 Kg
Output groups can be set as maintained or non-maintained in steps of two groups/ total 16 groups.
- maintained groups max. 120 W / group
- non-maintained groups max. 190 W / group

| MAX LOAD | TKT3122 | TKT4144 | TKT4188 |
|---------------------------------------|---------|---------|---------|
| MAINTAINED GROUPS, total | 250 VA | 1050 VA | 1050 VA |
| MAX TOTAL LOAD FOR 1 h OPERATION TIME | 290 W | 1370 W | 1370 W |

BATTERY CABLES

For TKT31, TKT41 and TK23
central battery units:

Product code and description

Weight

XJ995

Battery cable 6 mm²/2 m
< 6,5 Ah batteries

XJ996

Battery cable 10 mm²/2 m
>15 Ah batteries

For TKT65 and TKT66
central battery units

XJ997B

Battery cable 2,5 mm²/3 m
6,5 Ah batteries

XJ997

Battery cable 6 mm²/3 m
> 15 Ah batteries

XJ997C

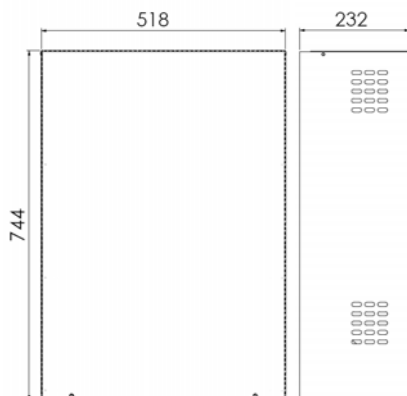
Battery cable 6 mm²/3 m
Battery cable for 2 battery containers

XJ997E

Battery cable 6 mm²/3 m
Battery cable for 3 TKT6500 battery containers

BATTERY CONTAINERS FOR TKT65 AND TKT66 CENTRAL BATTERIES

IP20



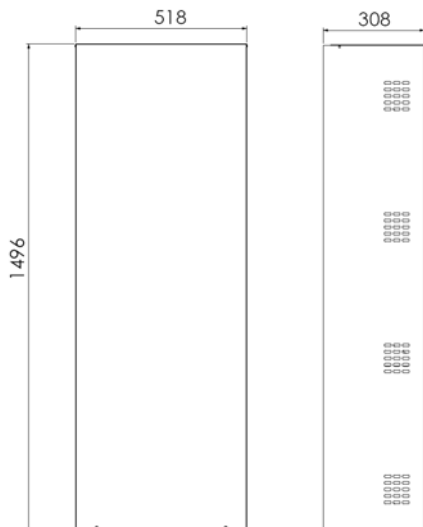
TK6500B

14,0 Kg

Space for batteries inside the container
max. 18 x 12 V/17 Ah

12 V/24 Ah and 12 V/38 Ah batteries need:

- two (2 pcs) battery containers and
- one set (1 pc) of battery cables XJ997C.



TKT6500

28,0 Kg

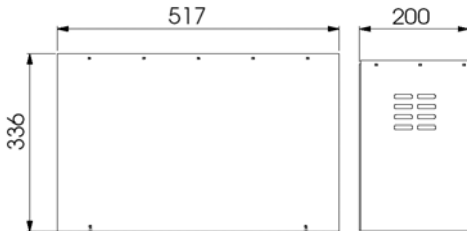
Space for batteries inside the container
max. 6 x 12 V/65 Ah or 6 x 12 V/100 Ah

12 V/65 Ah and 12 V/100 Ah batteries need:

- three (3 pcs) battery containers and
- one set (1 pc) of battery cables XJ997E.

BATTERY CONTAINERS FOR TKT31-, TKT41- AND TK23 CENTRAL BATTERIES

IP 20



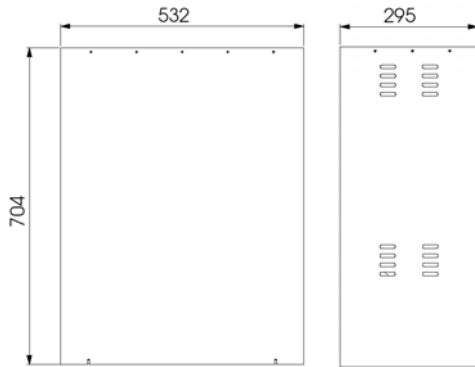
Product code and description

Weight

TK2300

6,3 Kg

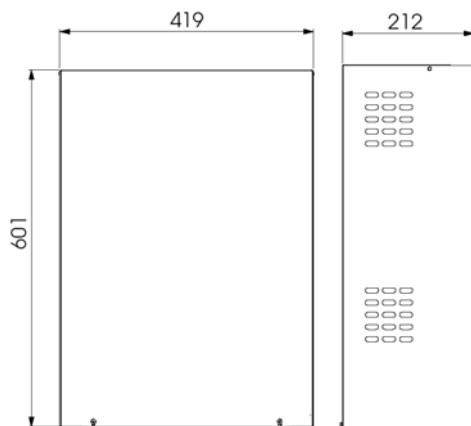
Space for batteries inside the container: 2 x 12 V/38 Ah



TK2310

15,5 Kg

Space for batteries inside the container: 2 x 12 V/150 Ah



TK4100

10,0 Kg

Space for batteries inside the container 2 x 12 V/65 Ah

BATTERY CAPACITY / BATTERY MODE DURATION

For TKT31– and TKT41 central battery units:

Batteries MAX LOAD (W)
2 x 12 V (24 V) OPERATION TIME (h)

| BATTERY CAPACITY | 1 h | 3 h |
|------------------|------|-----|
| EA020 6,5 Ah | 95 | 40 |
| EA021 15 Ah | 180 | 85 |
| EA022 24 Ah | 290 | 135 |
| EA023 38 Ah | 490 | 220 |
| EA024 65 Ah | 800 | 360 |
| EA024B 100 Ah | 1370 | 565 |

For TK23 central battery units:

Batteries MAX LOAD (W)
2 x 12 V (24 V) OPERATION TIME (h)

| BATTERY CAPACITY | 1 h | 3 h |
|------------------|------|-----|
| EA020 6,5 Ah | 80 | 34 |
| EA021 15 Ah | 150 | 70 |
| EA022 24 Ah | 245 | 115 |
| EA023 38 Ah | 415 | 185 |
| EA024 65 Ah | 680 | 305 |
| EA024B 100 Ah | 1165 | 480 |
| EA024D 150 Ah | 1820 | 730 |

For TKT65 and TKT66 central battery units

Batteries MAX LOAD (W)
18 x 12 V (216 V) OPERATION TIME (h)

| BATTERY CAPACITY | 1 h | 3 h |
|------------------|------|------|
| EA020 6,5 Ah | 870 | 350 |
| EA021 15 Ah | 1700 | 770 |
| EA022 24 Ah | 2720 | 1250 |
| EA023 38 Ah | 4550 | 2050 |
| EA024 65 Ah | 6000 | 3340 |

**PLEASE NOTE THE MAX LOAD OF
THE CENTRAL BATTERY UNITS.
NB: TKT31 MAX. BATTERY 24 Ah**

BATTERIES

| Dimensions: | Product code and description | Weight |
|-----------------|------------------------------|---------|
| 151 x 65 x 98 | EA020 6,5 Ah/12 V | 2,4 Kg |
| 181 x 76 x 167 | EA021 17 Ah/12 V | 5,9 Kg |
| 166 x 175 x 125 | EA022 24 Ah/12 V | 8,7 Kg |
| 197 x 165 x 173 | EA023 38 Ah/12 V | 13,8 Kg |
| 350 x 166 x 174 | EA024 65 Ah/12 V | 22,8 Kg |
| 327 x 168 x 210 | EA024B 100 Ah/12 V | 33,5 Kg |
| 485 x 172 x 240 | EA024D 150 Ah/12 V | 47,0 Kg |

REMOTE SWITCHES



Product code and description

SK066
Remote switch
recess mounted
24 V

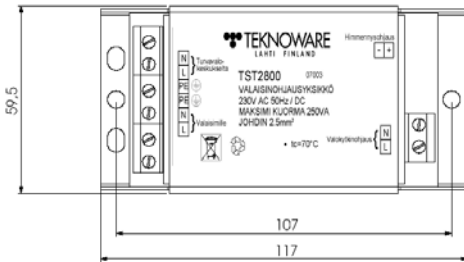
SK066C
Remote switch for TKT65 central battery units
recess mounted

SK065
Collar for surface mounting (for SK066 and SK066C)

SK066B
Glass for remote control (for SK066 and SK066C)

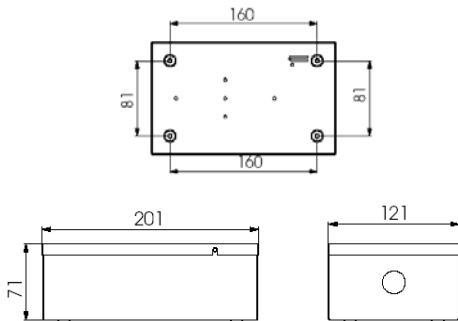
SWITCH CONTROLLER

TST2800



TST2800
230 V
For installation inside a distribution panel.

TST2801



TST2801
230 V
With the junction box enclosure for independent installation

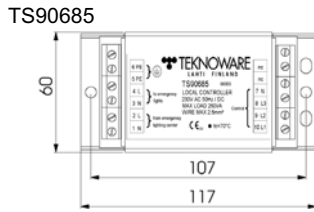
Switch controller for central battery unit allows the use of emergency luminaires in normal mode by separate light switch or timer.

Switch controller is compatible with all Teknoware central battery units 230 VAC/DC as well as with local controller.

LOCAL CONTROLLER

IP 20

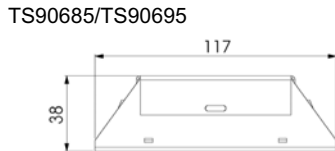
With Local Controller local voltage breakdown switches on the non-maintained emergency luminaires, even if the supply to the central battery unit remains.



TS90685

230 V /250 VA

For installation inside a distribution panel.



TS90686

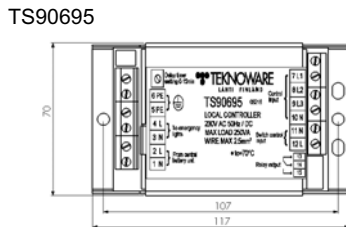
230 V /250 VA

With the junction box enclosure for independent installation

TS90695

230 V /250VA

For installation inside a distribution panel.



TS90696

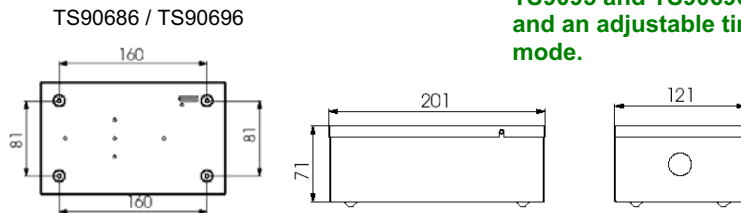
230 V /250 VA

With the junction box enclosure for independent installation

Both maintained and non-maintained emergency luminaires can be connected to the same group wiring.

Teknoware luminaires (when the code ends with a letter K or T) can be installed as a non-maintained when used with a local controller.

TS9095 and TS90696 have an additional switch control input and an adjustable time delay for returning back to normal mode.



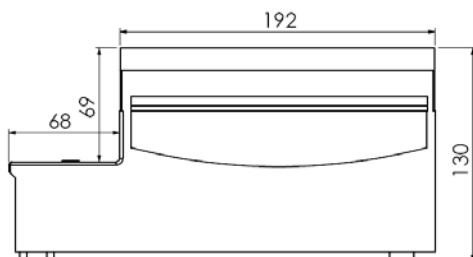
BCM UNIT

TST1809



Basic Central Monitoring unit (BCM) for Control type central battery units. Max. 9 central battery units per one BCM unit. TST1809 can be used for monitoring the following basic functions of the Tapsa Panels:

- Emergency mode indication
- Internal fault indication (fault in the central battery unit itself)
- External fault indication (fault in one or several luminaires)



TST1901

Data transfer module. One per central battery unit needed for BCM system.

ELECTRONIC BALLASTS

width x height x length

| | Product code and description | Weight |
|---------------|---|----------|
| 35 x 23 x 195 | TM51011 24 V DC / 4 - 13 W | 0,200 Kg |
| 35 x 23 x 195 | TM51016 24 V DC / 15 - 40 W | 0,160 Kg |
| 35 x 22 x 138 | TM87156 24 V DC / 28 - 35 W T5 | 0,115 Kg |
| 38 x 28 x 85 | TM71411 24 V AC/DC / 4 - 13 W | 0,071 Kg |
| 44 x 29 x 150 | TM71720 230 V AC/DC / 4 - 9 W | 0,170 Kg |
| 44 x 29 x 150 | TM71721 230 V AC/DC / 11 - 13 W | 0,170 Kg |
| 34 x 27 x 116 | TM71431 24 VAC/DC 18 W | 0,090 Kg |
| 44 x 29 x 142 | TMK4903B 24 V AC/DC 36 - 42 W | 0,180 Kg |
| 44 x 29 x 142 | TMK4933B 110/230 AC/DC 36 - 40 W | 0,171Kg |
| 44 x 29 x 142 | TMK5933B 230 V AC/DC 18 - 42 W | 0,143 Kg |
| 43 x 28 x 147 | TMT0901B Tapsa Control compatible 230 V AC/DC 5 - 11 W | 0,140 Kg |

**EMERGENCY LIGHTING
CONVERSION UNITS**

**For mounting inside
the luminaire casing:**

| | |
|---|--------|
| TW77001 ≥ 11 W TC-E 15 - 58 W TL 1 h battery | 0,7 Kg |
| TW77002 5 - 9 W TC-E 4 - 13 W TL 1 h battery | 0,8 Kg |
| TW96404 ≥ 11 W TC-E 15 - 58 W TL 3 h battery | 0,5 Kg |

**For mounting outside
the luminaire:**

IP67

**Installation max. 1 m from
the luminaire.**

| | |
|---|--------|
| TW77011 ≥ 11W TC-E 15 - 58 W TL 1 h battery | 0,8 Kg |
| TW77012 5 - 9 W TC-E 4 - 13 W TL 1 h battery | 0,8 Kg |

LUMINAIRES

Exit luminaires, show the way out, maintained, starting from page 16



Emergency luminaires,

illuminate escape routes and open areas, non-maintained, starting from page 38



-luminaires self-contained, exit and emergency luminaires with capacitors as energy storage, starting from page 45



-luminaires, wireless central monitoring of self-contained emergency luminaires, starting from page 45



Pictograms also available according to DIN norm for all Exit luminaires. Add E –letter to the end of the pictogram code.

Example:

Pictogram



PB6309

DIN norm pictogram



PB6309E

- = 1-sided luminaire
- = 2-sided luminaire
- = double insulated

CRYSTAL

IP 20

-0-

NEW

Product code and description

Weight

Viewing distance < 26 m



Suitable for ceiling and wall mounting as standard.

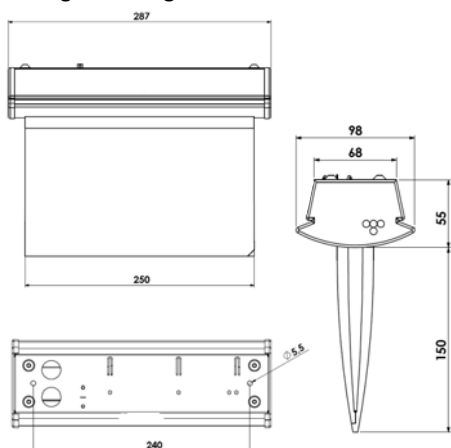
Centrally supplied:

- TWT5341W**
24 V AC/DC LED
- TWT5351W**
230 V AC/DC LED
- TWT5351WK**
230 V AC/DC LED
Compatible with the Tapsa Control central battery unit.

Self-contained:

- TWT5352W**
230 V AC/DC LED
1 h battery

Ceiling mounting

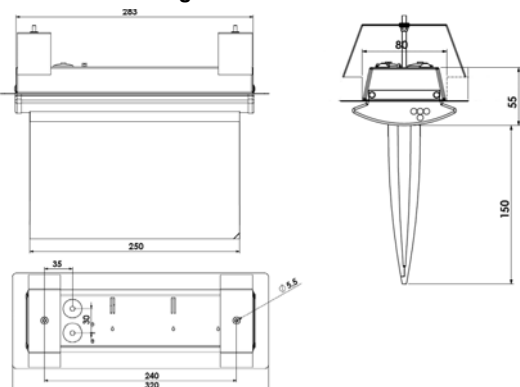


REVERSIBLE PICTOGRAMS INCLUDED IN THE PACKAGE:



TWT5300 Recess mounting kit

Recess mounting



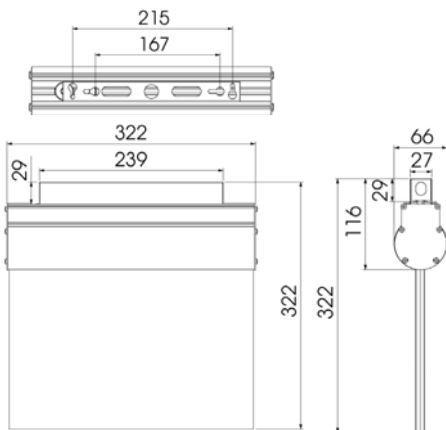
ESC 10

IP 20 -0-

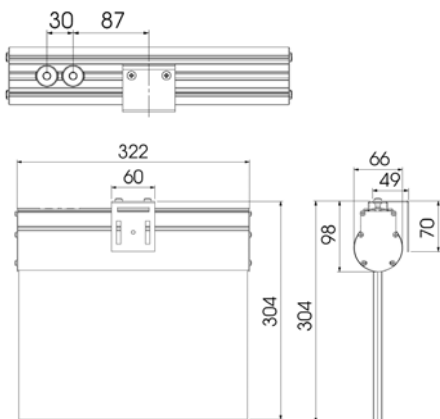
Viewing distance < 40 m



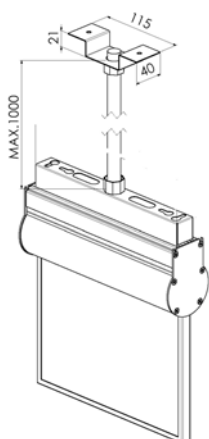
TW802xx+ TW77501



TW802xx + TW77503



TW802xx + TW77504



TW802xx + TW77505



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- ■ **TW80221**
24 V AC/DC 8 W TL 1,7 Kg
- ■ **TW80241W**
24 V AC/DC LED 1,7 Kg
- ■ **TW80251W**
230 V AC/DC LED 1,7 Kg
- ■ **TW80251WK**
230 V AC/DC LED 1,7 Kg
- ■ **TW80281**
230 V AC/DC 8 W TL 1,7 Kg
- ■ **TW80281K**
230 V AC/DC 8 W TL
Compatible with the Tapsa Control central battery unit. 1,7 Kg

Self-contained:

- ■ **TW80253W**
230 V AC LED
3 h battery 2,9 Kg
- ■ **TW80282**
230 V AC 8W TL
1 h battery 2,8 Kg

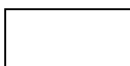
SEPARATELY ORDERED REVERSIBLE PICTOGRAMS:



PBV10401



PBV10402



PB029
white label

A bracket is always needed, remember to add it to the order!

TW77501
Ceiling bracket

TW77503
Wall bracket

TW77504
Suspension bracket

TW77505
Flag bracket

ESC 10

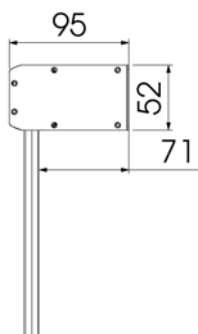
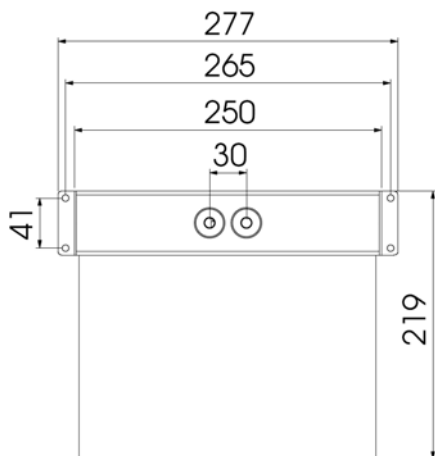
IP 20

-0-

Viewing distance < 30 m



Only wall mounting



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TW84421** 24 V AC/DC 6 W TL G5 1,2 Kg
- **TW84441W** 24 V AC/DC LED 1,2 Kg
- **TW84451W** 230 V AC/DC LED 1,2 Kg
- **TW84451WK** 230 V AC/DC LED 1,2 Kg
Compatible with the Tapsa Control central battery unit.
- **TW84481** 230 V AC/DC 6 W TL G5 1,2 Kg
- **TW84481K** 230 V AC/DC 6 W TL G5 1,2 Kg
Compatible with the Tapsa Control central battery unit.

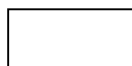
SEPARATELY ORDERED REVERSIBLE PICTOGRAMS:



PBV10301



PBV10302



PB026B
white label

- = 1-sided luminaire
- = 2-sided luminaire
- ◻ = double insulated

ESC 10

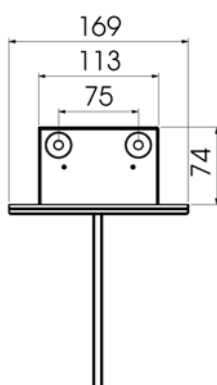
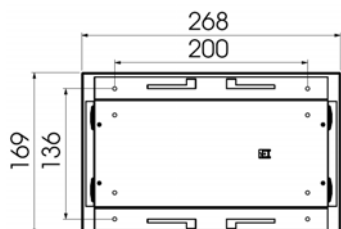
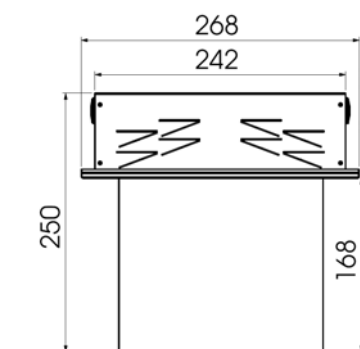
IP 20

-0-

Viewing distance < 30 m



Only recess mounting



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TW86821**
24 V AC/DC 6 W TL G5 1,7 Kg
- **TW86841W**
24 V AC/DC LED 1,7 Kg
- **TW86851W**
230 V AC/DC LED 1,7 Kg
- **TW86851WK**
230 V AC/DC LED 1,7 Kg
- **TW86881**
230 V AC/DC 6 W TL G5 1,7 Kg
- **TW86881K**
230 V AC/DC 6 W TL
Compatible with the Tapsa Control central battery unit. 1,7 Kg

Self-contained:

- **TW86853W**
230 V AC LED
3 h battery 2,9 Kg
- **TW86882**
230 V AC 6 W TL
1 h battery 2,8 Kg
- **TW86883**
230 V AC 6 W TL
3 h battery 2,8 Kg

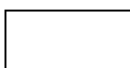
SEPARATELY ORDERED REVERSIBLE PICTOGRAMS:



PBV10301U



PBV10302U



PB026B
white label

ESC 20 LED

IP 20 -0-

Viewing distance < 20 m



Suitable for ceiling and wall mounting as standard.

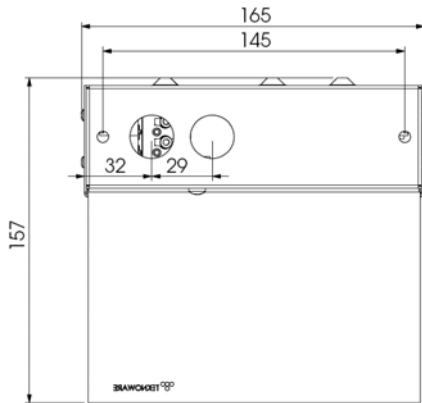
Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TWT4641W** 24 V AC/DC LED 0,7 Kg
- **TWTWT4651W** 230 V AC/DC LED 0,7 Kg



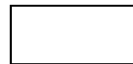
SEPARATELY ORDERED REVERSIBLE PICTOGRAMS:



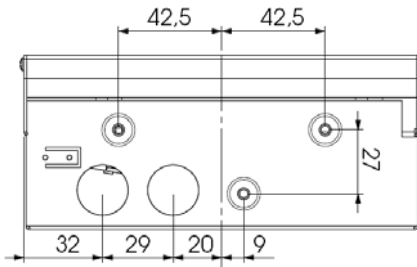
PBV20201



PBV20202



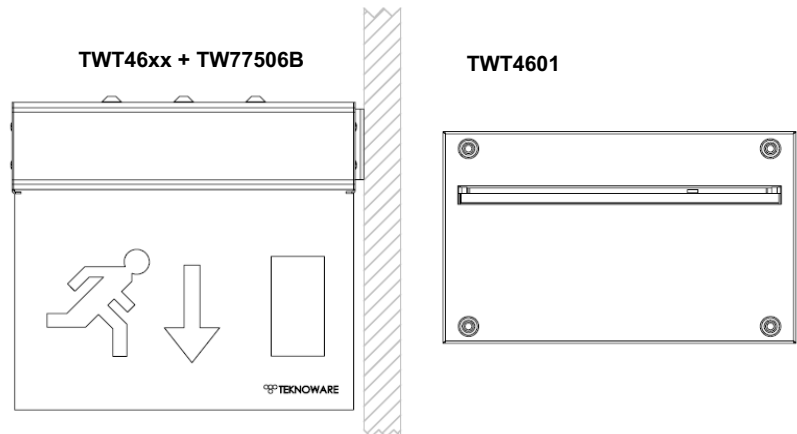
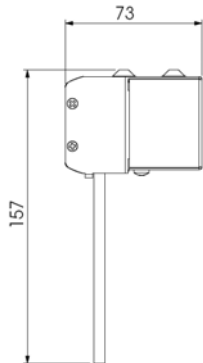
PB026B
white label



TW77506B
Flag bracket for TWT46xx-luminaires

TWT4601
Recess mounting frame for TWT46xx-luminaires

Wall and ceiling mounting



- = 1-sided luminaire
- = 2-sided luminaire
- ▣ = double insulated

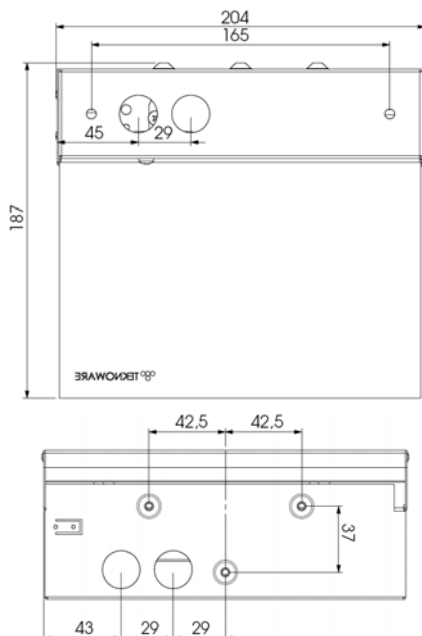
ESC 20 LED

IP 20 -0-

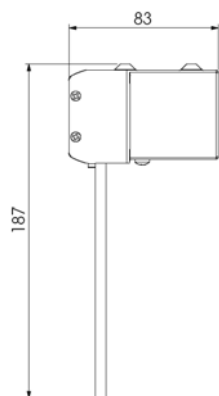
Viewing distance < 26 m



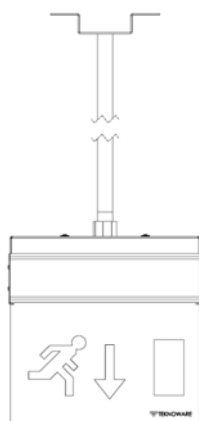
Suitable for ceiling and wall mounting as standard.



Wall and ceiling mounting



TWT47xx + TW77504B



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TWT4741W** 24 V AC/DC LED 0,8 Kg
- **TWT4751W** 230 V AC/DC LED 0,9 Kg
- **TWT47511WK** 230 V AC/DC LED 1,2 Kg
Compatible with the Tapsa Control central battery unit.

Self-contained:

- **TWT4752W** 230 V AC LED 2,0 Kg
1 h battery

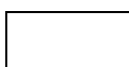
SEPARATELY ORDERED REVERSIBLE PICTOGRAMS:



PBV20261



PBV20262



PB026B
white label

TW77504B

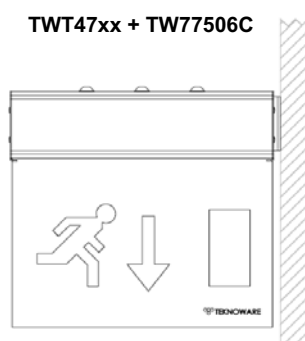
Suspension bracket for one luminaire

TW77506C

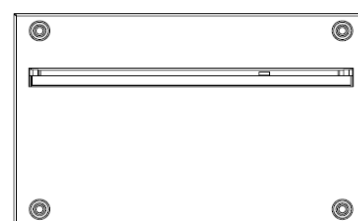
Flag bracket for TW890xx, TW891xx

TWT4701

Recess mounting frame for TWT47xx-luminaire



TWT4701



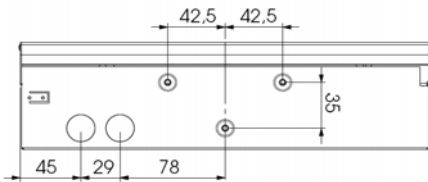
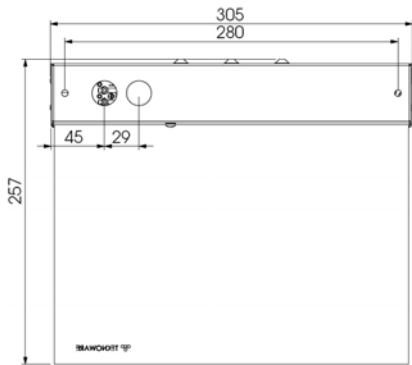
ESC 20 LED

IP 20 -0-

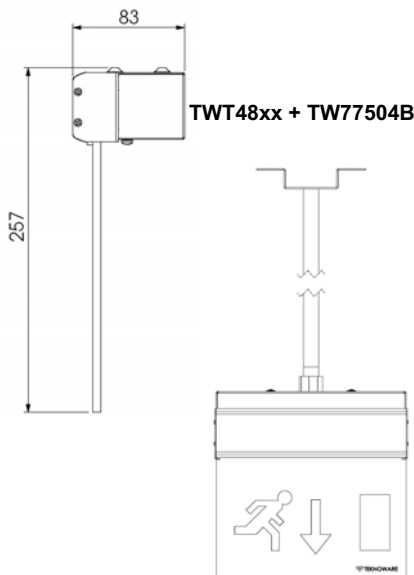
Viewing distance < 40 m



Suitable for ceiling and wall mounting as standard.



Wall and ceiling mounting



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- TWT4841W** 1,3 Kg
 - 24 V AC/DC LED
- TWT4851W** 1,3 Kg
 - 230 V AC/DC LED
- TWT4851WK** 1,3 Kg
 - 230 V AC/DC LED
 Compatible with the Tapsa Control central battery unit.

Self-contained:

- **TWT4852W** 2,0 Kg
 - 230 V AC LED
 - 1 h battery

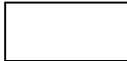
SEPARATELY ORDERED REVERSIBLE PICTOGRAMS:



PBV20401



PBV20402

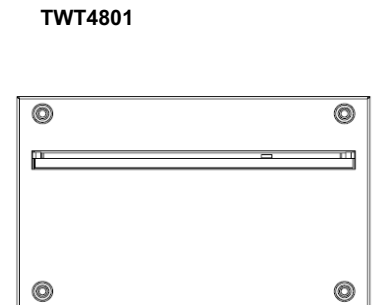
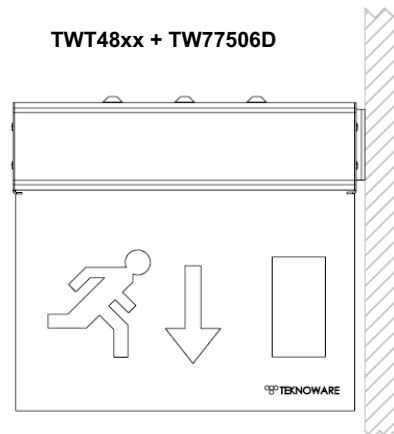


PB029
white label

TW77504B
Suspension bracket for one luminaire

TW77506D
Flag suspension for TW890xx, TW891xx

TWT4801
Recess frame for TWT48xx- luminaire



- = 1-sided luminaire
- = 2-sided luminaire
- ◻ = double insulated

ESC 6

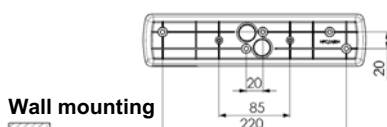
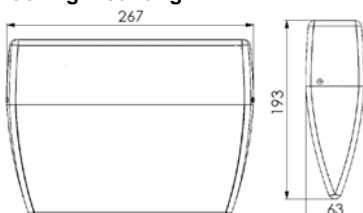
IP 44 -0-

Viewing distance < 22 m

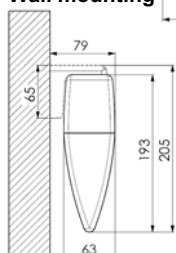


Suitable for ceiling, wall and flag mounting as standard.

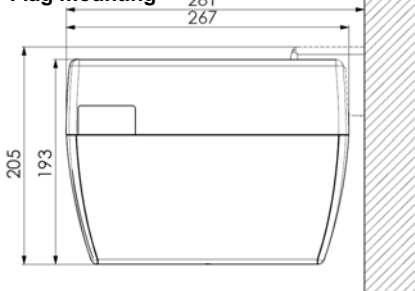
Ceiling mounting



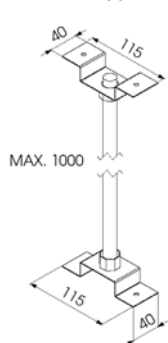
Wall mounting



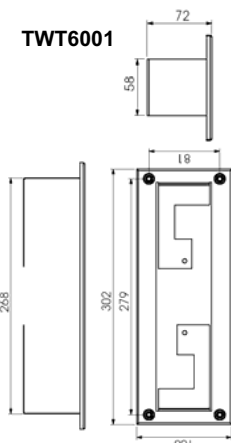
Flag mounting



TW77504B



TWT6001



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TWT6021**
24 V AC/DC 6 W TL 0,8 Kg
- **TWT6081**
230 V AC/DC 6 W TL 0,8 Kg
- **TWT6081K**
230 V AC/DC 6 W TL
Compatible with the Tapsa Control central battery unit. 0,8 Kg
- **TWT6071W**
24 - 230 V AC/DC 3 W power-LED 0,8 Kg
- **TWT6071WS**
◻ 24 - 230 V AC/DC 3 W power-LED 0,8 Kg
- **TWT6051WK**
230 V AC/DC 3 W power-LED
Compatible with the Tapsa Control central battery unit. 0,8 Kg
- **TWT6051WKS**
◻ 230 V AC/DC 3 W power-LED
Compatible with the Tapsa Control central battery unit. 0,8 Kg

Self-contained:

- **TWT6082**
230 V AC 6 W TL
1 h battery 1,9 Kg
- **TWT6052W**
230 V AC 3 W power-LED
1 h battery 1,5 Kg
- **TWT6052WS**
◻ 230 V AC 3 W power-LED
1 h battery 1,5 Kg

SEPARATELY ORDERED PICTOGRAMS:



PB044



PB045



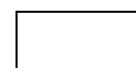
PB046



PB047



PB026
grey label



PB026B
white label

TW77504B

Suspension bracket for one luminaire

TWT6001

Recess installation frame for TWT60xx-luminaire

Brackets for flag and ceiling suspension included in the package.

Escap and Aalto Control luminaires on pages 45-49.

ESC 6 L

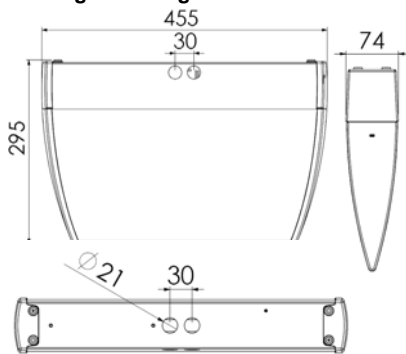
IP 44 -0-

Viewing distance < 40 m

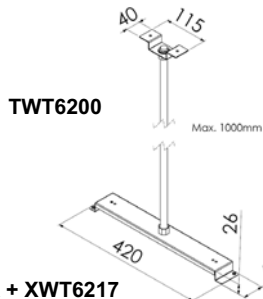


Suitable for wall and ceiling mounting as standard.

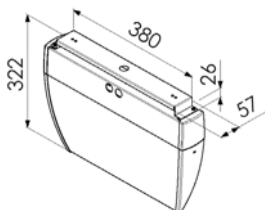
Ceiling mounting



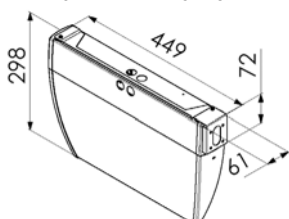
Wall mounting



TWT62xx + XWT6217



TWT62xx + XWT6213



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TWT6221**
24 V AC/DC 8 W TL 1,5 Kg
- **TWT6281**
230 V AC/DC 8 W TL 1,5 Kg
- **TWT6281K**
230 V AC/DC 8 W TL
Compatible with the Tapsa Control central battery unit. 1,5 Kg
- **TWT6271W**
24 - 230 V AC/DC 2 * 3 W power-LED 1,6 Kg
- **TWT6251WK**
230 V AC/DC 2 * 3 W power-LED
Compatible with the Tapsa Control central battery unit. 1,6 Kg

Self-contained:

- **TWT6282**
230 V AC 8 W TL
1 h battery 1,8 Kg
- **TWT6252W**
230 V AC 2 * 3 W power-LED
1 h battery 1,8 Kg
- **TWT6253W**
230 V AC 2 * 3 W power-LED
3 h battery 1,8 Kg

SEPARATELY ORDERED PICTOGRAMS:



PB171B



PB158B



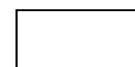
PB168B



PB103



PB026
grey label



PB026B
white label

TWT6200

Suspension bracket for one luminaire

XWT6217

Suspension bracket for cable/chain

XWT6213

Flag bracket

Bracket for ceiling suspension included in the package.

Escap and Aalto Control luminaires on pages 45-49.

- = 1-sided luminaire
- = 2-sided luminaire
- ▣ = double insulated

ESC 4 LED

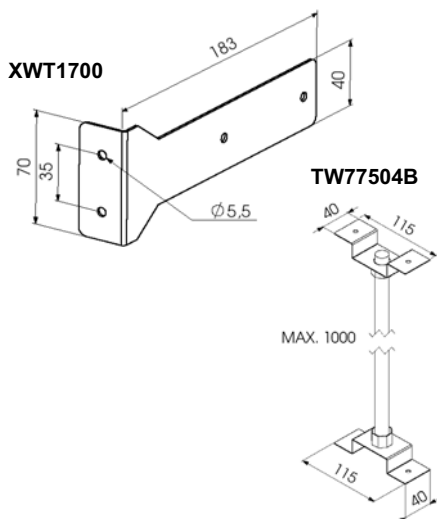
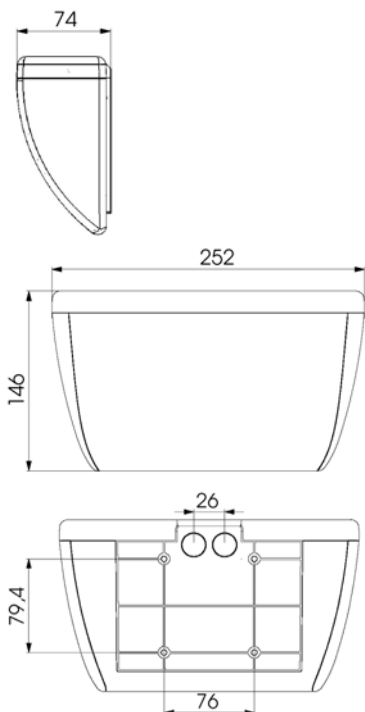
IP 44

-0-

Viewing distance < 24 m



Suitable for ceiling and wall mounting as standard.



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TWT1771W**
24 - 230 V AC/DC
3 W power-LED
0,5 Kg
- **TWT1771WS**
▣ 24 - 230 V AC/DC
3 W power-LED
0,5 Kg
- **TWT1751WK**
230 V AC/DC
3 W power-LED
Compatible with the Tapsa Control central battery unit.
0,5 Kg
- **TWT1751WKS**
▣ 230 V AC/DC
3 W power-LED
0,5 Kg

Self-contained:

- **TWT1752W**
230 V AC
3 W power-LED
1 h battery
0,8 Kg
- **TWT1752WS**
▣ 230 V AC
3 W power-LED
1 h battery
0,8 Kg

SEPARATELY ORDERED PICTOGRAMS:



PB040



PB041



PB042



PB043

XWT1700
Flag bracket

TW77504B
Suspension bracket for one luminaire

Escap and Aalto Control luminaires on pages 45-49.

SAFE 29

IP 65

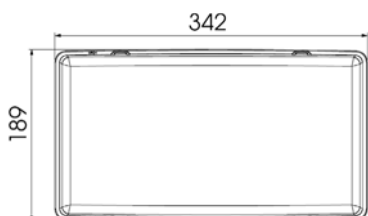
-0-

Viewing distance < 30 m

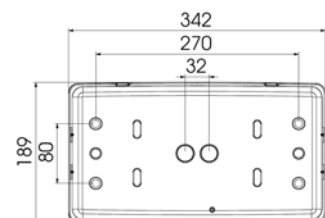
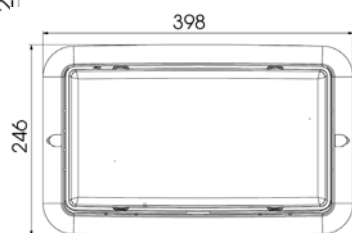
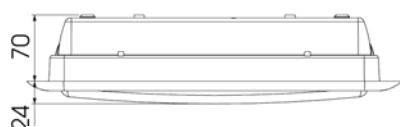


Suitable for wall and ceiling mounting as standard.

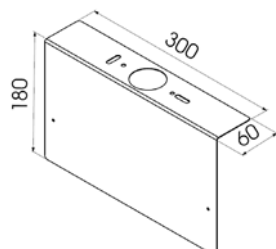
Surface mounting as standard.



Recess mounting with a separate frame.



XWT2904



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- TWT2921 24 V AC/DC 9 W TC-E 1,2 Kg
- TWT2924 24 V AC/DC 18 W TC 2G11-holder 1,2 Kg
- TWT2951WK 230 V AC/DC 2 x 3 W LED 1,2 Kg
Compatible with the Tapsa Control central battery unit.
- TWT2971W 24-230 V AC/DC 2 x 3 W LED 1,2 Kg
- TWT2981 230 V AC/DC 9W TC-E 1,2 Kg
- TWT2981K 230 V AC/DC 9 W TC-E 1,2 Kg
Compatible with the Tapsa Control central battery unit.
- TWT2984 230 V AC/DC 18 W TC 2G11-holder 1,2 Kg

Self-contained:

- TWT2952W 230 V AC 2 x 3 W LED 1,3 Kg
- TWT2953W 230 V AC 2 x 3 W LED 1,3 Kg
- TWT2982 230 V AC 9 W TC-E 2G27 1 h battery 1,3 Kg
- TWT2983 230 V AC 9 W TC-E 2G27 3 h battery 1,3 Kg

SEPARATELY ORDERED PICTOGRAMS:



PB048



PB039



PB038

TWT2900
 Recess mounting frame

XWT2904
 Ceiling bracket

TWT2901
 Wall mounting reflector

Escap and Aalto Control luminaires on pages 45-49.

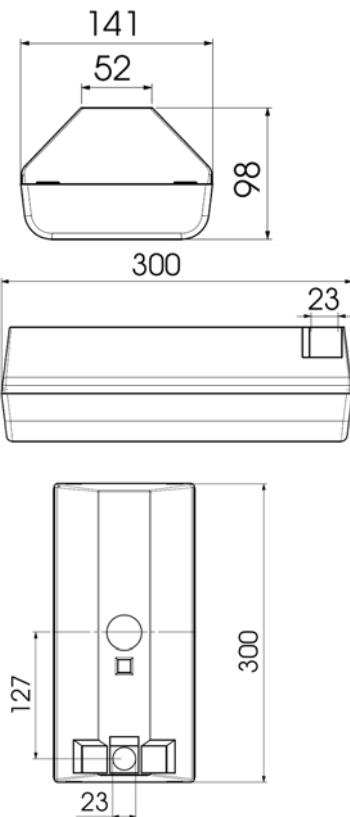
ESC PROFILE

IP 44 -0

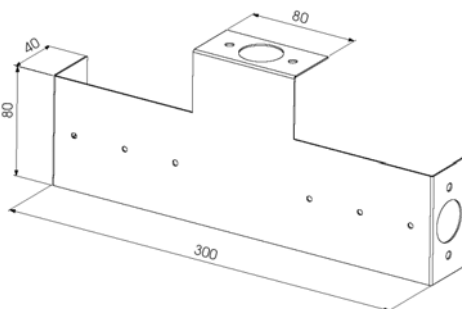
Viewing distance < 20 m



Suitable for ceiling and wall mounting as standard.



TW33101



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TW39921** 24 V AC/DC 5 W TC-E 0,7 Kg
- **TW39922** 24 V AC/DC 9 W TC-E 0,7 Kg
- **TW39924** 24 V AC/DC 18 W TC 0,7 Kg
- **TW39981** 230 V AC/DC 9 W TC-E 0,7 Kg
- **TW39984** 230 V AC/DC 18 W TC 0,7 Kg
- **TW39981K** 230 V AC/DC 9 W TC-E 0,7 Kg
Compatible with the Tapsa Control central battery unit.

Self-contained:

- **TW39982** 230 V AC 9 W TC-E 1,2 Kg
1 h battery
- **TW39983** 230 V AC 9 W TC-E 1,2 Kg
3 h battery

SEPARATELY ORDERED PICTOGRAMS:



PB3991B



PB3992B



PB3999B



PB105

TW33101
Ceiling bracket for one luminaire

- = 1-sided luminaire
- = 2-sided luminaire
- ▣ = double insulated

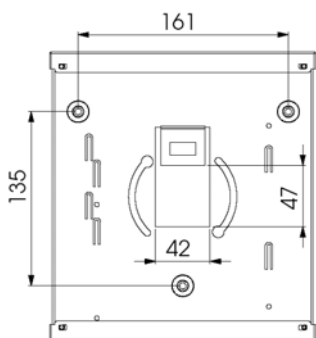
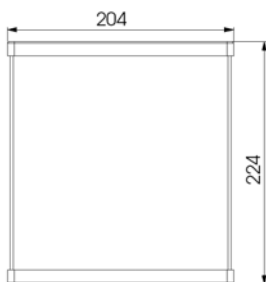
ESC 1

IP 20 -0-

Viewing distance < 40 m



Suitable for wall mounting as standard.



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TW30521** 24 V AC/DC 5 W TC-E 1,0 Kg
- **TW30581** 230 V AC/DC 5 W TC-E 1,0 Kg
- **TW30581K** 230 V AC/DC 5 W TC-E 1,0 Kg
Compatible with the Tapsa Control central battery unit.

Self-contained:

- **TW30582** 230 V AC 5 W TC-E 1,2 Kg
1 h battery

SEPARATELY ORDERED PICTOGRAMS:



PB061B



PB062B



PB071B

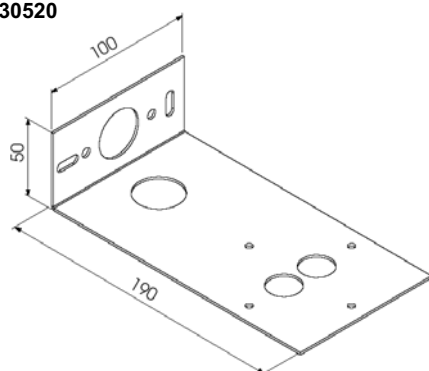


PB102

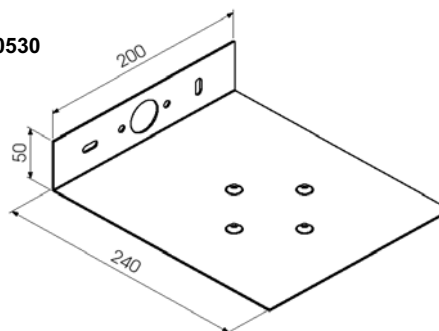
TW30520
Bracket for two luminaires

TW30530
Ceiling bracket for one luminaire

TW30520



TW30530



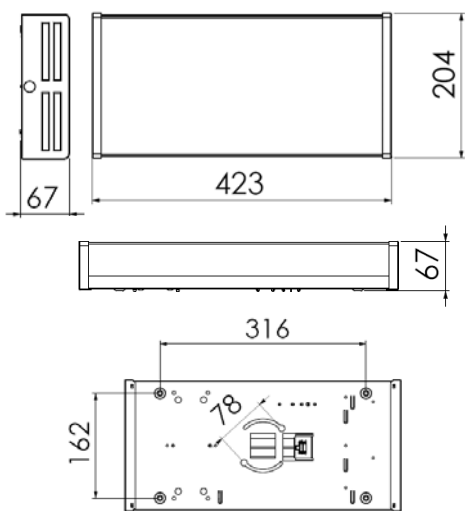
ESC 1,5

IP 20 -0-

Viewing distance < 40 m



Suitable for wall mounting as standard.



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TW41722**
24 V AC/DC 9 W TC-E 1,2 Kg
- **TW41781**
230 V AC/DC 9 W TC-E 1,2 Kg
- **TW41781K**
230 V AC/DC 9 W TC-E
Compatible with the Tapsa Control central battery unit. 1,2 Kg

Self-contained:

- **TW41782**
230 V AC 9 W TC-E
1 h battery 1,4 Kg
- **TW41783**
230 V AC 9 W TC-E
3 h battery 1,4 Kg

SEPARATELY ORDERED PICTOGRAMS:



PB158B



PB168B



PB171B



PB103

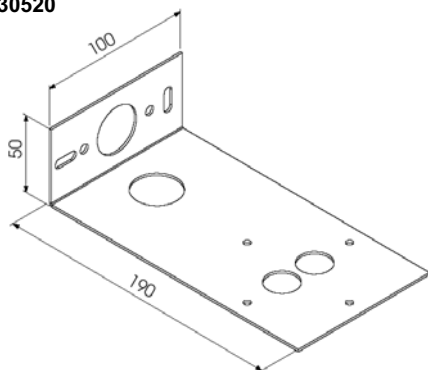
TW30520

Ceiling bracket for two luminaires

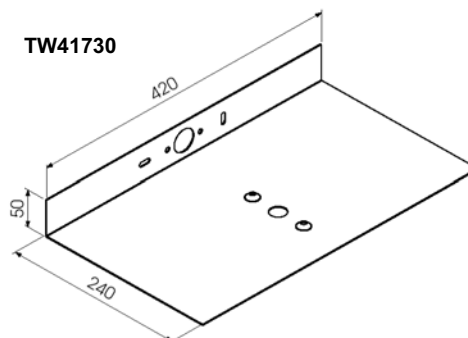
TW41730

Ceiling bracket for one luminaire

TW30520



TW41730



- = 1-sided luminaire
- = 2-sided luminaire
- ▣ = double insulated

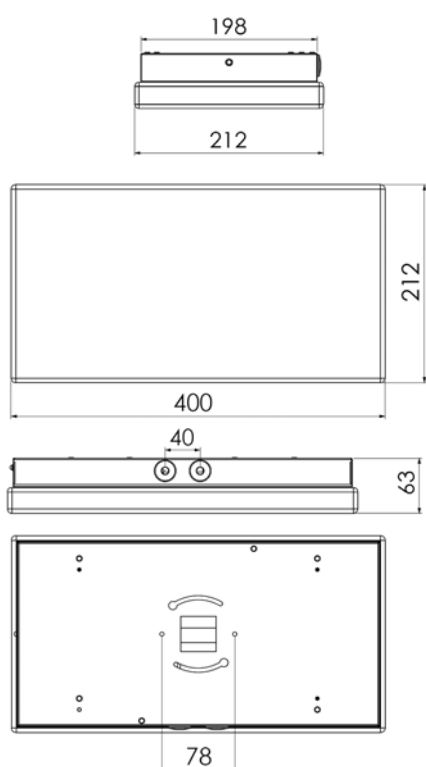
ESC 2

IP 34 -0-

Viewing distance < 40 m



Suitable for wall mounting as standard.



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TW33321**
24 V AC/DC 9 W TC-E 1,2 Kg
- **TW33381**
230 V AC/DC 9 W TC-E 1,2 Kg
- **TW33381K**
230 V AC/DC 9 W TC-E 1,2 Kg
Compatible with the Tapsa Control central battery unit.

Self-contained:

- **TW33383**
230 V AC 9 W TC-E
1 h battery 2,2 Kg
- **TW33384**
230 V AC 9 W TC-E
3 h battery 2,2 Kg

SEPARATELY ORDERED PICTOGRAMS:



PB158B



PB168B



PB171B

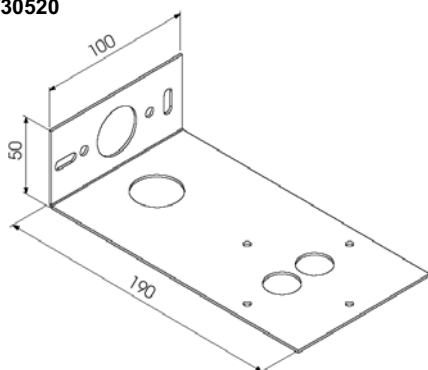


PB103

TW30520

Ceiling bracket for two luminaires

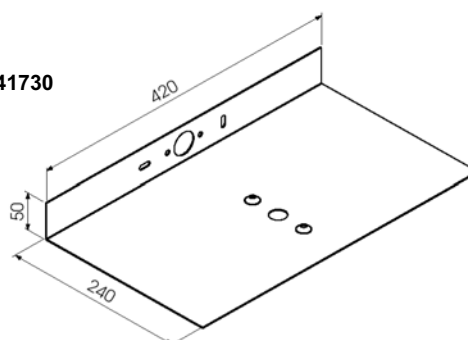
TW30520



TW41730

Ceiling bracket for one luminaire

TW41730



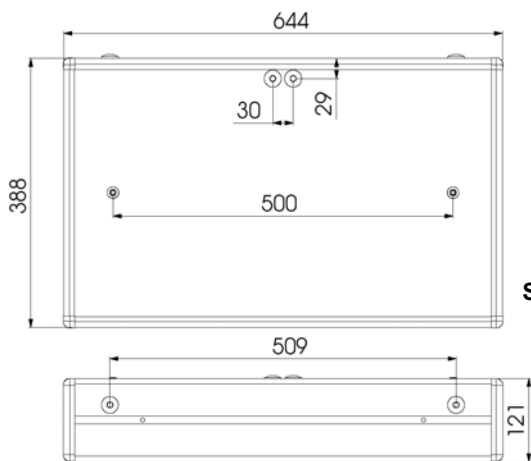
ESC 3

IP 44 -0-

Viewing distance < 70 m



Suitable for wall and suspension mounting as standard.
 Hooks included in the package.



Product code and description

LUMINAIRE:

Centrally supplied:

- **TW39722** 24 V AC/DC 18 W TL 4,6 Kg
- **TW39723** 24 V AC/DC 18 W TL 4,6 Kg
- **TW39781** 230 V AC/DC 18 W TL 4,6 Kg
- **TW39781K** 230 V AC/DC 18 W TL 4,6 Kg
Compatible with the Tapsa Control central battery unit.
- **TW39782** 230 V AC/DC 18 W TL 4,6 Kg
- **TW39782K** 230 V AC/DC 18 W TL 4,6 Kg
Compatible with the Tapsa Control central battery unit.

Self-contained:

- **TW39783** 230 V AC 18 W TL G13 4,9 Kg

SEPARATELY ORDERED PICTOGRAMS:



PB3971



PB3972



PB3973

Multifunction pictogram not available.

- = 1-sided luminaire
- = 2-sided luminaire
- ▣ = double insulated

ESC 3

IP 20 -0-

Viewing distance < 120 m



Suitable for wall and suspension mounting as standard.
Hooks included in the package.

Product code and description Weight

LUMINAIRE:

Centrally supplied:

- **TW49422** 9,8 Kg
24 V AC/DC 36 W
- **TW49423** 9,8 Kg
24 V AC/DC 36 W
- **TW49481** 9,8 Kg
230 V AC/DC 36 W
- **TW49481K** 9,8 Kg
230 V AC/DC 36 W
Compatible with the Tapsa Control central battery unit.
- **TW49482** 9,8 Kg
230 V AC/DC 36 W TL
- **TW49482K** 9,8 Kg
230 V AC/DC 36 W TL
Compatible with the Tapsa Control central battery unit.

Self-contained:

- **TW49483** 10,1 Kg
230 V AC 36 W TL G13

SEPARATELY ORDERED PICTOGRAMS:



PB4941

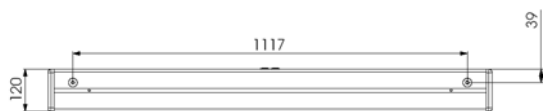
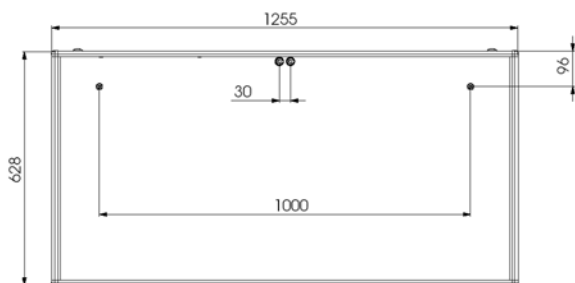


PB4942



PB4943

Multifunction pictogram not available.



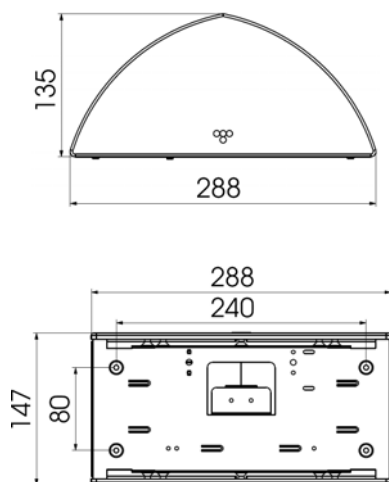
ESC SECTOR

IP 20 -0-

Viewing distance < 26 m



Suitable for wall mounting as standard.



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TW88821**
24 V AC/DC 5 W TC-E 0,7Kg
- **TW88881**
230 V AC/DC 5 W TC-E 0,7 Kg
- **TW88881K**
230 V AC/DC 5 W TC-E
Compatible with the Tapsa Control central battery unit. 0,7 Kg
- **TW88871W**
24 - 230 V AC/DC 3 W LED 0,7 Kg
- **TW88851WK**
230 V AC/DC 3 W LED
Compatible with the Tapsa Control central battery unit. 0,7 Kg

Self-contained:

- **TW88882**
230 V AC 5 W TC-E
1 h battery 0,9 Kg
- **TW88852W**
230 V AC 3 W LED
1 h battery 0,9 Kg
- **TW88883**
230 V AC 5 W TC-E
3 h battery 0,9 Kg

SEPARATELY ORDERED PICTOGRAMS:



PB8881



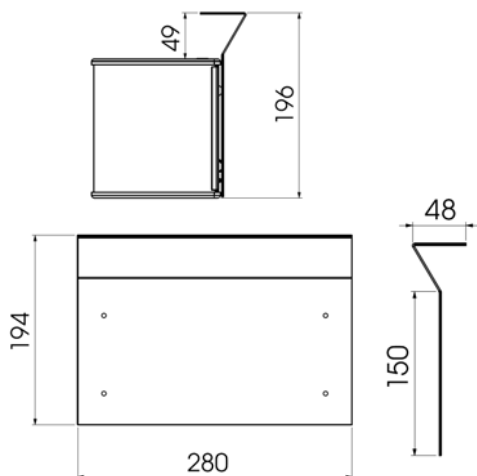
PB8882



PB8883

Multifunction pictogram not available.

XW88801



XW88801

Ceiling bracket for one luminaire

- = 1-sided luminaire
- = 2-sided luminaire
- ▣ = double insulated

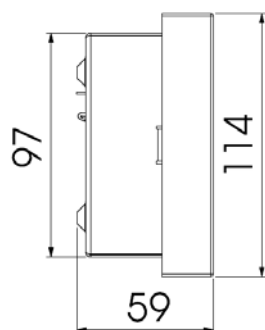
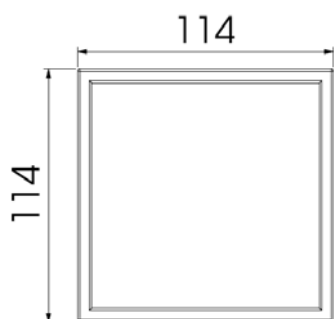
LEDMAN

IP 20 -0-

Viewing distance < 20 m



Suitable for wall mounting as standard.



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

- **TW47441**
24 V AC/DC LED
Multifunction pictogram included
- **TW47481**
230 V AC/DC LED
Multifunction pictogram included

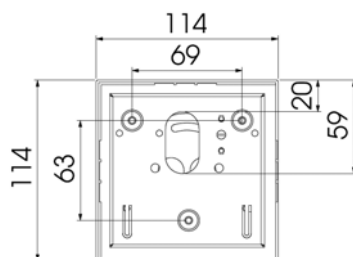
0,3 kg

0,3 Kg

Spare part:

XW47402

Front cover with multifunction pictogram



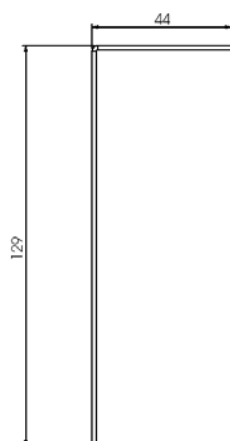
TW47403

Ceiling bracket for one luminaire

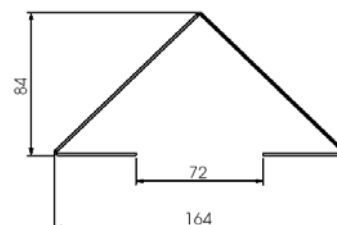
TW47404

V-shaped bracket for ceiling and wall mounting

TW47403

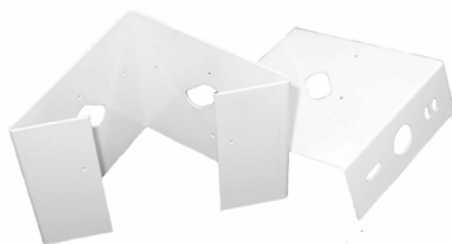


TW47404



TW47404

TW47403



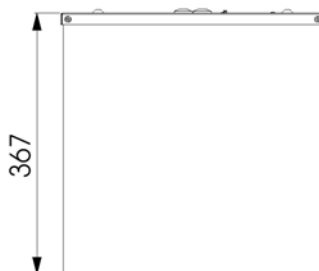
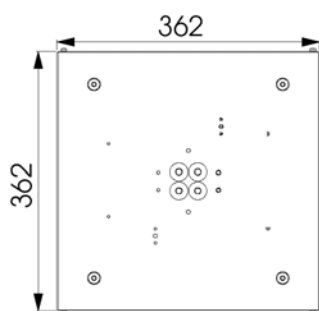
ESC CUBE

IP 20 -0-

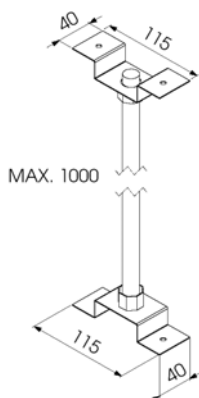
Viewing distance < 65 m



Ceiling mounting only.



TW77504B



Product code and description

Weight

LUMINAIRE:

Centrally supplied:

TWK6321 3,7 Kg
 24 V AC/DC 18 W TC, lamp holder 2G11

TWK6381 3,7 Kg
 230 V AC/DC 18 W TC, lamp holder 2G11

TWK6381K 3,7 Kg
 230 V AC/DC 18 W TC, lamp holder 2G11
Compatible with the Tapsa Control central battery unit.

Self-contained:

TWK6383 3,9 Kg
 230 V AC 18 W TC, lamp holder 2G11
 3 h battery

SEPARATELY ORDERED PICTOGRAMS:



PB6304



PB6305



PB6306



PB6307



PB6308



PB6309



PB63011

TW77504B

Suspension bracket for one luminaire

LINESPOT

IP 20 -0-

NEW



Product code and description Weight

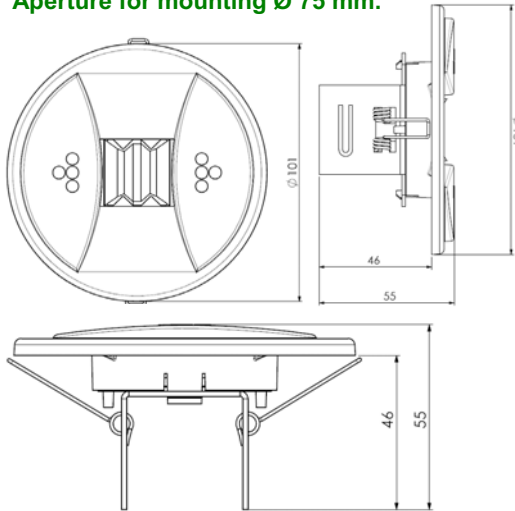
Centrally supplied:

TWT5071W 0,3 Kg
24-230 V AC/DC 3 W power-LED

TWT5051WK 0,3 Kg
230 V AC/DC 3 W power-LED
Compatible with the Tapsa Control central battery unit.

Recess mounting

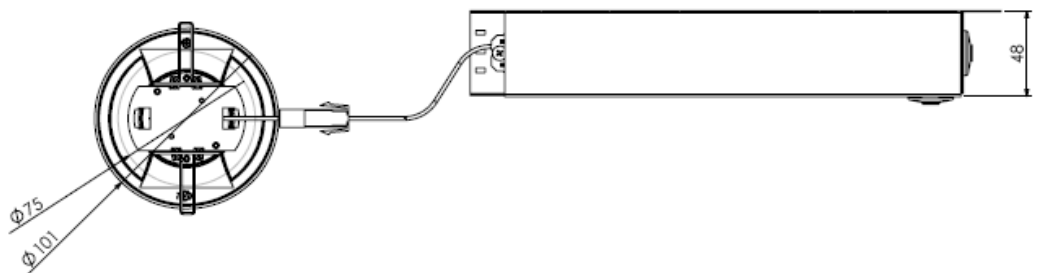
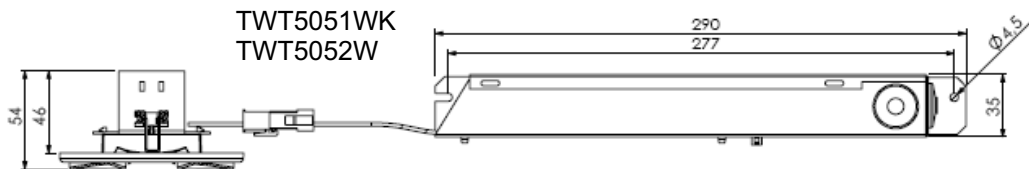
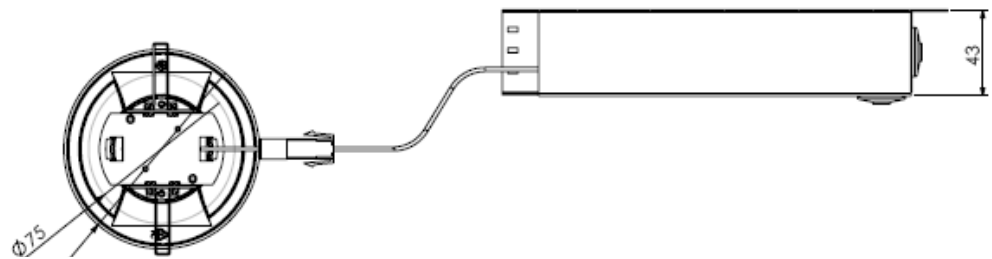
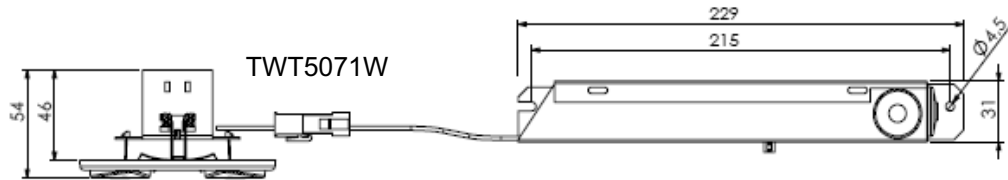
Aperture for mounting Ø 75 mm.



Self-contained:

TWT5052W 0,4 Kg
230 V AC 3 W power-LED
1 h battery
Non-maintained

| MODEL: | LENGTH OF THE ELECTRONICS UNIT, mm (A) | DISTANCE OF THE MOUNTING HOLES, mm (B) |
|-----------------------|--|--|
| TWT5071W | 229 | 215 |
| TWT5051WK TWT5052W | 290 | 277 |

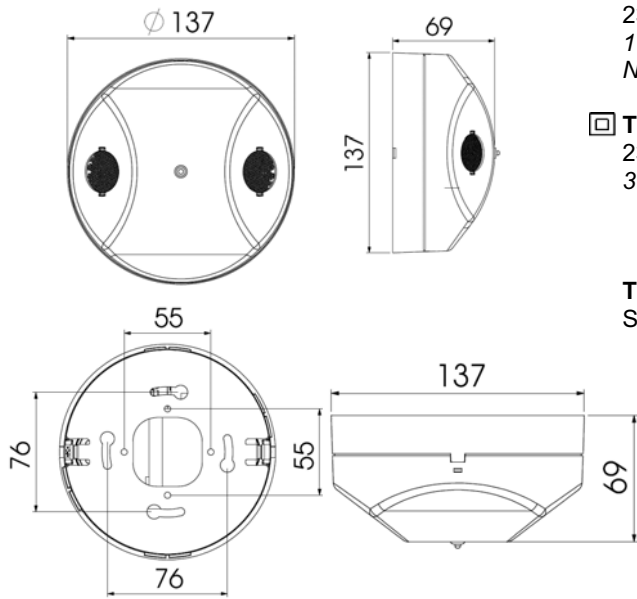


TWINSPOT

IP 20 -0-



Semi-recessed mounting on a junction box or surface mounting



Product code and description Weight

Centrally supplied:

- ☐ **TWT3571W** 0,2 Kg
24-230 V AC/DC 2 x 3 W LED
- ☐ **TWT3551WK** 0,2 Kg
2V AC/DC 2 x 3 W LED
Compatible with the Tapsa Control central battery unit

Self-contained:

- ☐ **TWT3552W** 0,4 Kg
230 V AC 2 x 3 W LED
1 h battery
Non-maintained
- ☐ **TWT3553W** 0,4 Kg
230 V AC 2 x 3 W LED
3 h battery

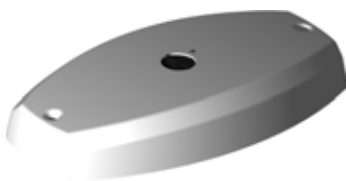
TWT3501
Suspension bracket for TWT35xx-luminaire

SAFESPOT

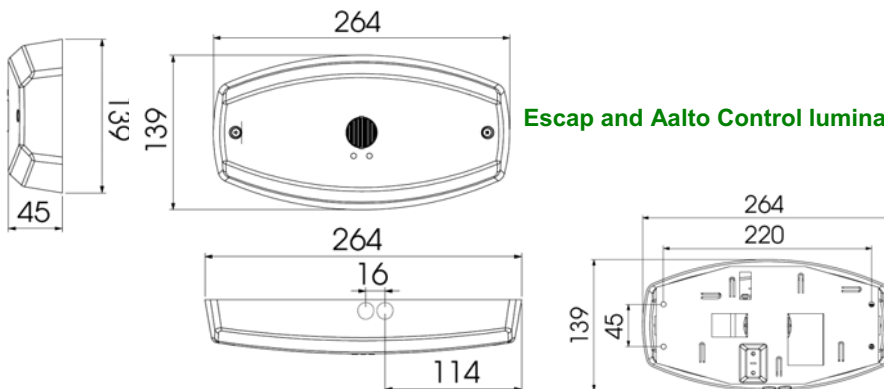
IP 20 -0-

NEW

Centrally supplied:



Surface mounting



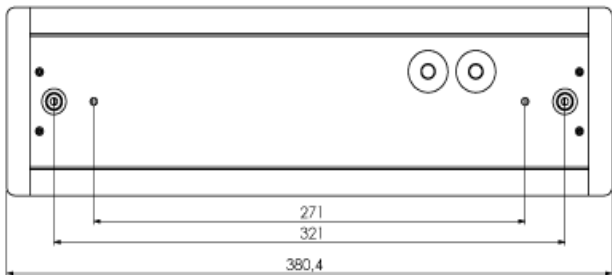
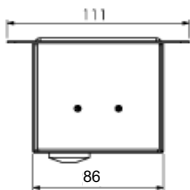
- TWT4471W** 0,2 Kg
24-230 V AC/DC 3 W LED
- TWT4451WK** 0,2 Kg
230 V AC/DC 3 W LED
Compatible with the Tapsa Control central battery unit

Escap and Aalto Control luminaires on pages 45-49.

TWK41xx

IP 20 -0-

Recess mounting



Product code and description

Weight

Centrally supplied:

TWK4121
24 V AC/DC 8 W TL

TWK4181
230 V AC/DC 8 W TL

TWK4181K
230 V AC/DC 8 W TL
*Compatible with the Tapsa Control central battery unit
and the Local Controller.*

Self-contained:

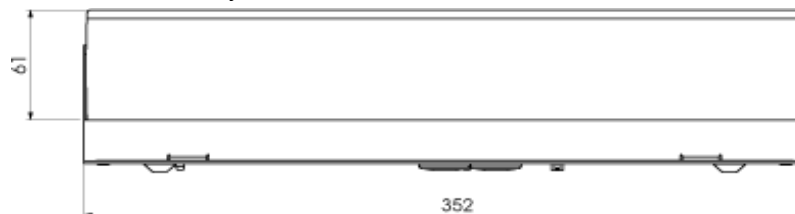
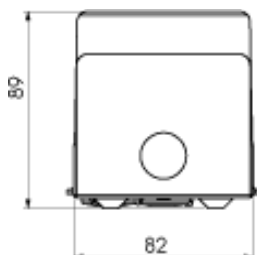
TWK4182
230 V AC 8 W TL
1 h battery

TWK4183
230 V AC 8 W TL
3 h battery

TWK42xx

IP 20 -0-

Surface mounting



Centrally supplied:

TWK4221
24 V AC/DC 8 W TL

TWK4281
230 V AC/DC 8 W TL

TWK4281K
230 V AC/DC 8 W TL
*Compatible with the Tapsa Control central battery unit
and the Local Controller.*

Self-contained:

TWK4282
230 V VAC 8 W TL
1 h battery

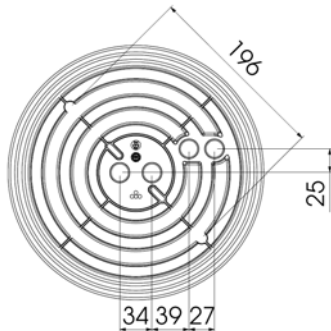
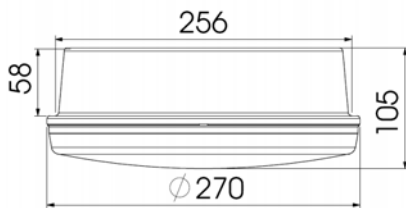
TWK4283
230 V VAC 8 W TL
3 h battery

SAFE 22

IP 44 -0-



Surface and recess mounting



Product code and description

Weight

Centrally supplied:

- ☐ **TWT2221**
24 V AC/DC 9 W TC 1,0 Kg
- ☐ **TWT2224**
24 V AC/DC 18 W TC 2G11-holder 1,0 Kg
- ☐ **TWT2281**
230 V AC/DC 9 W TC 1,0 Kg
- ☐ **TWT2281K**
230 V AC/DC 9 W TC
*Compatible with the Tapsa Control central battery unit
and the Local Controller.
Maintained/ Non-maintained* 1,0 Kg
- ☐ **TWT2284**
230 V AC/DC 18 W TC 2G11-holder 1,0 Kg
- ☐ **TWT2284T**
230 V AC/DC 18 W TC 2G11-holder
*Compatible with the Tapsa Control central battery unit
and the Local Controller.
Non-maintained* 1,0 Kg

Self-contained:

- ☐ **TWT2282**
230 V AC 9 W
1 h battery 1,1 Kg
- ☐ **TWT2283**
230 V VAC 9 W
3 h battery 1,1 Kg

[Aalto Control luminaires on page 49.](#)

TWT58

IP 20 -0-

NEW

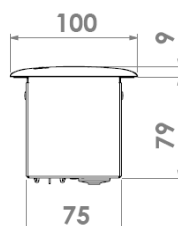


Recess mounting



Centrally supplied:

- TWT5821**
24 V AC/DC 8 W TL G5
- TWT5881**
230 V AC/DC 8 W TL G5
- TWT5881K**
230 V AC/DC 8 W TL G5
*Compatible with the Tapsa Control central battery unit
and the Local Controller.
Maintained/ Non-maintained*

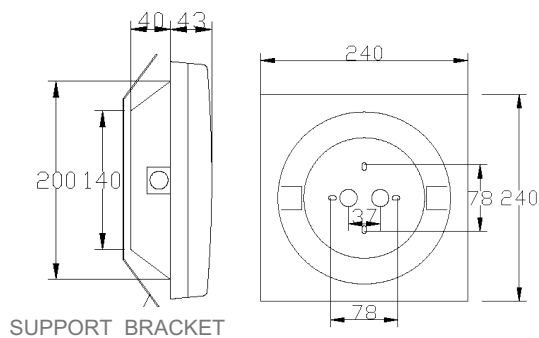


**ON-IN EMERGENCY
LUMINAIRES**

IP 44 -0-



Recess mounting



SUPPORT BRACKET

Product code and description

Weight

Centrally supplied:

TW42222C 0,7 Kg
24 V AC/DC 9 W TC-E

TW42281C 0,7 Kg
230 V AC/DC 9 W TC-E

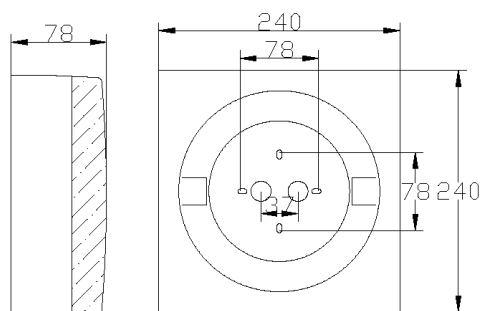
TW42281CK 0,7 Kg
230 V AC/DC 9 W TC-E
*Compatible with the Tapsa Control central battery unit
and the Local Controller.
Maintained/ Non-maintained*

**ON-IN EMERGENCY
LUMINAIRES**

IP 44 -0-



Surface mounting



Centrally supplied:

TW42222G 0,7 Kg
24 V AC/DC 9 W TC-E

TW42281G 0,7 Kg
230 V AC/DC 9 W TC-E

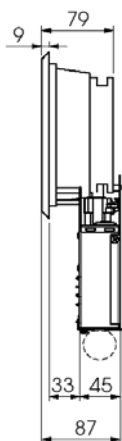
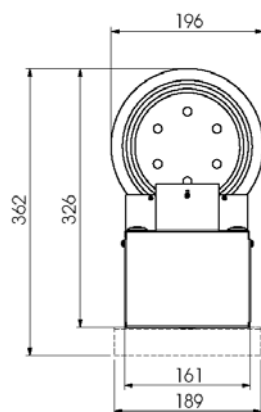
TW42281GK 0,7 Kg
230 V AC/DC 9 W TC-E
*Compatible with the Tapsa Control central battery unit
and the Local Controller.
Maintained/ Non-maintained*

DOWNLIGHT

IP 20 -0-



Recess mounting



Product code and description

Weight

Centrally supplied:

TW95622 0,7 Kg
24 V AC/DC 9 W TC-E

TW95681 0,7 Kg
230 V AC/DC 9 W TC-E

TW95681K 0,7 Kg

230 V AC/DC 9 W TC-E
*Compatible with the Tapsa Control central battery unit
and the Local Controller.
Maintained/ Non-maintained*

Self-contained:

TW95682 1,0 Kg
230 V AC 9 W TC-E
1 h battery

TW95683 1,0 Kg
230 V AC 9 W TC-E
3 h battery

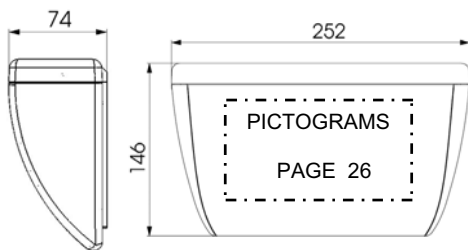
ESC 4 E

IP 44 -0-

Viewing distance < 24 m



Suitable for ceiling and wall mounting as standard.



Product code and description Weight

- **TWS1792W** 0,5 Kg
 230 V AC 3 * 0,5 W LED
Maintained
 1 h Self-contained luminaire with capacitor backup.
- NEW** □ **TWS1792WA** 0,8 Kg
 230 V AC 3 * 0,5 W LED
Maintained
 1 h Aalto Control compatible self-contained luminaire with capacitor backup and self testing
- NEW** □ **TWS1792WM** 0,8 Kg
 230 V AC 3 * 0,5 W LED
Maintained
 1 h self-contained luminaire with capacitor backup and selftesting

Flag bracket and suspension bracket on page 26.

More about Escap and Aalto Control-luminaires on page 5.

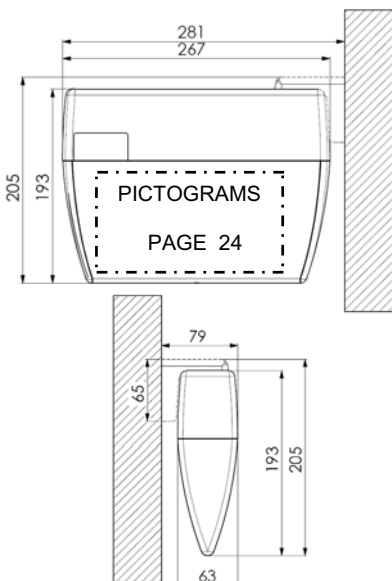
ESC 6 E

IP 44 -0-

Viewing distance < 22 m



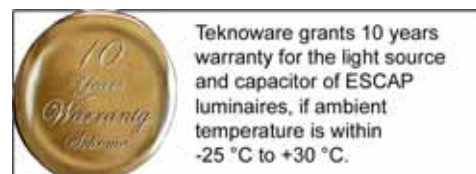
Suitable for wall mounting as standard.



- **TWS6092W** 0,8 Kg
 230 V AC 3 * 0,5 W LED
Maintained
 1 h Self-contained luminaire with capacitor backup.
- NEW** □■ **TWS6092WA** 1,5 Kg
 230 V AC 3 * 0,5 W LED
Maintained
 1 h Aalto Control compatible self-contained luminaire with capacitor backup and self testing
- NEW** □■ **TWS6092WM** 1,5 Kg
 230 V AC 3 * 0,5 W LED
Maintained
 1 h self-contained luminaire with capacitor backup and selftesting

Brackets for wall and ceiling suspension included in the package. Suspension bracket on page 24.

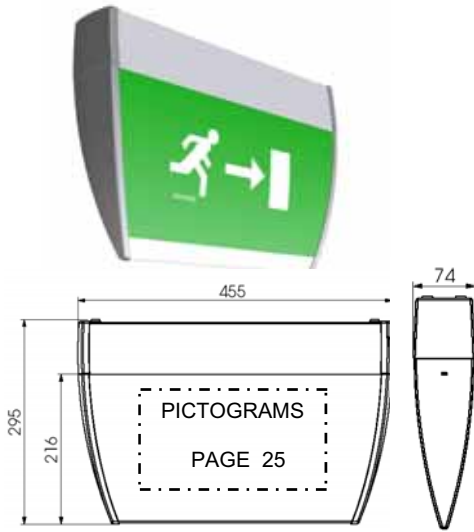
More about Escap and Aalto Control-luminaires on page 5.



ESC 6 L E **NEW**

IP 44 -0-

Viewing distance < 40 m



- | Product code and description | Weight |
|--|--------|
| □■ TWS6292W 230 V AC 2 * 3 W LED <i>Maintained</i> 1 h self-contained luminaire with capacitor backup. | 1,8 Kg |
| □■ TWS6292WA 230 V AC 2 * 3 W LED <i>Maintained</i> 1 h Aalto Control compatible self-contained luminaire with capacitor backup and self testing | 1,8Kg |
| □■ TWS6292WM 230 V AC 2 * 3 W LED <i>Maintained</i> 1 h self-contained luminaire with capacitor backup and selftesting | 1,8 Kg |

Dimensions, symbols and brackets on page 25.

More about Escap and Aalto Control-luminaires on page 5.

ESC 10 E

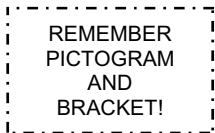
IP 20 -0-

Viewing distance < 30 m



NEW

NEW



- | | |
|--|--------|
| □■ TWS8592W 230 V AC 3 * 0,5 W LED <i>Maintained</i> 1 h self-contained luminaire with capacitor backup. | 1,6 Kg |
| □■ TWS8592WA 230 V AC 3 * 0,5 W LED <i>Maintained</i> 1 h Aalto Control compatible self-contained luminaire with capacitor backup and self testing | 2,9Kg |
| □■ TWS8592WM 230 V AC 3 * 0,5 W LED <i>Maintained</i> 1 h self-contained luminaire with capacitor backup and selftesting | 2,9 Kg |

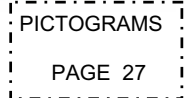
Dimensions, symbols and brackets on page 18.

More about Escap and Aalto Control-luminaires on page 5.

SAFE 29 E **NEW**

IP 65 -0-

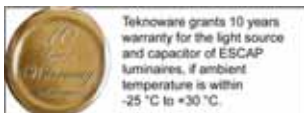
Viewing distance < 34 m



- | | |
|---|--------|
| □ TWS2992W 230 V AC 2 * 3 W LED <i>Maintained</i> 1 h self-contained luminaire with capacitor backup. | 1,3 Kg |
| □ TWS2992WA 230 V AC 2 * 3 W LED <i>Maintained</i> 1 h Aalto Control compatible self-contained luminaire with capacitor backup and self testing | 1,3 Kg |
| □ TWS2992WM 230 V AC 2 * 3 W LED <i>Maintained</i> 1 h self-contained luminaire with capacitor backup and selftesting | 1,3 Kg |

Dimensions, symbols and brackets on page 27.

More about Escap and Aalto Control-luminaires on page 5.



SAFESPOT E, RECESS MOUNTING

IP 20 -0-



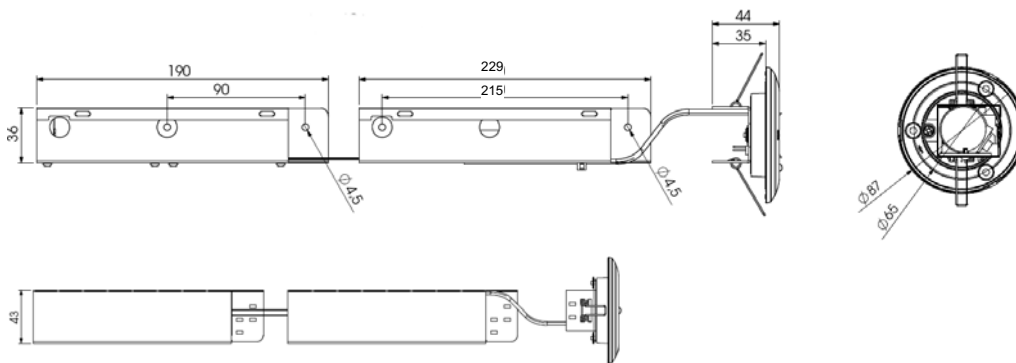
Recess mounting
Aperture for mounting Ø65 mm.

Product code and description Weight

TWS0892W 0,3 Kg
230 V AC 3 W LED
Non-maintained
1 h self-contained luminaire with capacitor backup.

NEW **TWS0892WA** 0,4 Kg
230 V AC 3 * 0,5 W LED
Non-maintained
1 h Aalto Control compatible self-contained luminaire with capacitor backup and self testing

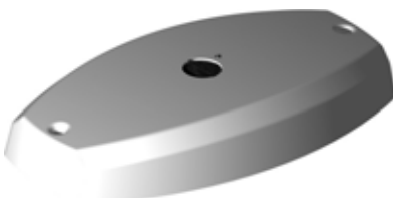
NEW **TWS0892WM** 0,4 Kg
230 V AC 3 * 0,5 W LED
Non-maintained
1 h self-contained luminaire with capacitor backup and selftesting



More about ESCAP -luminaires on page 5.

SAFESPOT E, SURFACE MOUNTING

IP 20 -0-

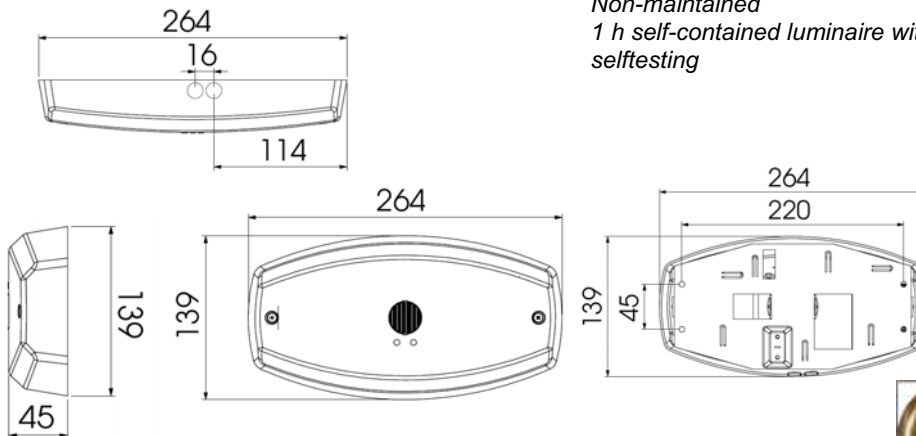


Surface mounting

TWS4492W 0,6 Kg
230 V AC 3 W LED
Non-maintained
1 h self-contained luminaire with capacitor backup.

NEW **TWS4492WA** 0,6 Kg
230 V AC 3 * 0,5 W LED
Non-maintained
1 h Aalto Control compatible self-contained luminaire with capacitor backup and self testing

NEW **TWS4492WM** 0,6 Kg
230 V AC 3 * 0,5 W LED
Non-maintained
1 h self-contained luminaire with capacitor backup and selftesting



ESC 4

NEW

IP 44 -0-

Viewing distance < 24 m



Product code and description

- **TWT1753WA** 0,8 Kg
 230 V AC 3 x 0,5 W power LED
 Maintained Aalto Control
 3 h battery

Suitable for ceiling and wall mounting as standard.
 Flag bracket and suspension bracket on page 26.

More about Aalto Control-luminaires on page 5.

ESC 6

NEW

IP 44 -0-

Viewing distance < 22 m



- **TWT6053WA** 1,5 Kg
 230 V AC 3xx 0,5 W power LED
 Maintained Aalto Control
 3 h battery

Brackets for wall and ceiling suspension included in the package. Suspension bracket on page 24.

More about Aalto Control-luminaires on page 5.

ESC 10

NEW

IP 20 -0-

Viewing distance < 30 m



- **TWT8553WA** 2,9 Kg
 230 V AC 3 x 0,5 W power LED
 Maintained Aalto Control
 3 h battery

Dimensions, symbols and brackets on page 18.

More about Aalto Control-luminaires on page 5.

SAFE 29

NEW

IP 65 -0-

Viewing distance < 34 m



- **TWT2982A** 1,3 Kg
 230 V AC 9W TC-E 2 G7
 Maintained/ Non-maintained Aalto Control
 1h battery
- **TWT2983A** 1,3 Kg
 230 V AC 9 W TC-E 2G7
 Maintained/ Non-maintained Aalto Control
 3h battery

Dimensions, symbols and brackets on page 27.

More about Aalto Control-luminaires on page 5.

SAFESPOT RECESS MOUNTING



NEW

IP 20 -0-



Product code and description Weight

TWT0852WA 0,4 Kg
 230 V AC 3 power LED
 Maintained Aalto Control
 1 h battery

TWT0853WA 0,4 Kg
 230 V AC 3 power LED
 Maintained Aalto Control
 3 h battery

[More about Aalto Control-luminaires on page 5.](#)

SAFESPOT SURFACE MOUNTING



NEW

IP 20 -0-



TWT4452WA 0,6 Kg
 230 V AC 3 power LED
 Maintained Aalto Control
 1 h battery

TWT4453WA 0,5 Kg
 230 V AC 3 power LED
 Maintained Aalto Control
 3 h battery

[More about Aalto Control-luminaires on page 5.](#)

SAFE 22



NEW

IP 44 -0-



□ **TWT2282A** 1,1 Kg
 230 V AC 9 W TC-E 2G7
 Maintained Aalto Control
 1 h battery

□ **TWT2283A** 1,1 Kg
 230 V AC 9 W TC-E 2G7
 Maintained Aalto Control
 3 h battery

[More about Aalto Control-luminaires on page 5.](#)

Surface and recess mounting

AALTO MONITORING OPTIONS



TST5101
 Aalto Control complete PC system with software and network coordinator.

The system can have up to 1500 luminaires.

TST5102
 Wall mounted device for Aalto network monitoring

The system can have up to 100 luminaires.

SHOCK PROTECTING COVERS

Product code and description

220 x 120 x 305 mm

TW77508B

- TWT35xx luminaires
- TW416xx luminaires
- TWT17xx luminaires
- TWS17xx luminaires
- TW399xx luminaires

320 x 165 x 305 mm

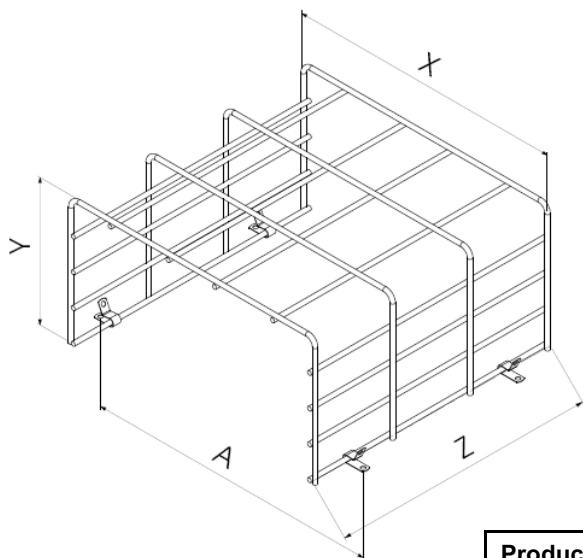
TW77507B

- TW8906x luminaires
- TWT46xx luminaires
- TW8908x luminaires
- TWT47xx luminaires
- TWT17xx luminaires
- TW888xx luminaires
- TW305xx luminaires
- TWT60xx luminaires
- TW850xx luminaires
- TW844xx luminaires

420 x 165 x 505 mm

TW77510B

- TW417xx luminaires
- TW333xx luminaires
- TW802xx luminaires
- TW891xx luminaires
- TWT48xx luminaires
- TWT62xx luminaires
- TWT29xx luminaires
- TWS29xx luminaires
- TWS62xx luminaires



| Product code | X | Y | Z | A |
|-----------------|-----|-----|-----|-----|
| TW77508B | 220 | 120 | 305 | 240 |
| TW77507B | 320 | 165 | 305 | 340 |
| TW77510B | 420 | 165 | 505 | 440 |

Material: steel

ADDRESS MODULES

Product code and description

TS98253
100 W

TS98254
200 W

**PHOTOLUMINESCENT
SIGNS**

150 x 300 mm



PBP0141



PBP0142



PBP0143

Viewing distance <15m

200 x 400 mm



PBP0151



PBP0152



PBP0153

Viewing distance <20m

CONTACT INFORMATION

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