

Secure through **Darkness...**



Luminaires Catalogue 2010

krealux gmbh
www.krealux.de

**Others say they *had* it.....
We *have* it!**

Every electric and electronic equipment in Germany subjects EMV - standards or EMV - law. Therewith all luminaires are concerned, too. If luminaires do not contain any electronic (like for example bulbs with conventional 50Hz transformer), no assessment is necessary. Contrariwise equipment with electronic has to achieve requirements of Electromagnetic interference (standard DIN EN 55015-VDE 0875 -15-1 - 2009-11).

Equipment which does not follow those thresholds can disturb radiotraffic or radio reception. Partially high emission only appears during emergency operation, which is eminently fatal, because emergency radio service (firefighters, rescue service) might be disturbed in their communication. Especially in range of firefighters and aircraft radio, conventional technique is used, which cannot balance Electromagnetic interference by luminaires.

Therefore in standard EN 55015 is an additional checking for emergency operation prescribed.

A reliable seal of approval by an independent institute (e.g. VDE) therefore is eminently important for a purchaser. The CE - seal does not approve any conclusion about compliance with standards, because it is applied by the manufacturer himself.

**Our luminaire KL10 is the only one that bears the EMC -
seal of approval by the VDE!**



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About our luminaire KL10

In cooperation with the VDE institute in Offenbach, which provides the standards for luminaires, we developed the luminaire KL10 within the last 2 years.

Developing a luminaire does not leave much room for creative designing: A luminaire has to accord the provided standards. It has to work and achieve its assignment as life-saver. Regardless it can set apart: Optical, qualitative, with clarity of layout, excellent using, chosen materials, durability. Our KL10 can show all these characteristics. We also disclaimed of unnecessary components, to minimize the material consumption and to safe capabilities.

Optic: By developing the KL10 we attached great importance on a “not disturbing” - look. It is apparitional without being annoying; as small as possible and as big as necessary. Businesslike and representing, optical definite in orthogonal clarity of layout, it is discreet but highly visible during an emergency.

Quality: The VDE is an institution which provides standards for luminaires. The KL10 is the only self contained luminaire, which is successfully proved and certificated by the VDE. This means, without taking too far, it is technically perfect!

Usability: Only two screws are to be taken off to get access to every function of the luminaire. Battery and LED-ridge are replaceable with minimum effort. We developed pictograms which can be clipped onto the display. This minimizes storage and helps the assembler with his work.

Material: For the outside of our luminaires we chose fine materials like anodised aluminium and acryl glass. Durable, robust, discreet and still it is technically perfect.

Function: We achieved homogenous light allocation by special arranged surface, which sets standards and guarantees highest perceptibility, even across major distances. Even in environmental sustainability our luminaires are conclusive. All parts of our luminaires are RoHS-proofed and therefore accredited environmentally friendly. Fully automated self-control simplifies required controls. Of course we use NiMH batteries.



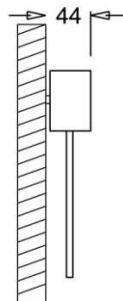
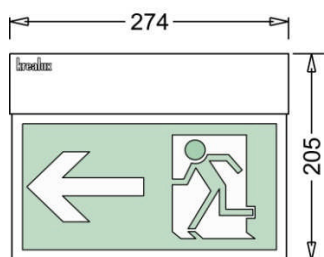


Security: The luminaire KL10

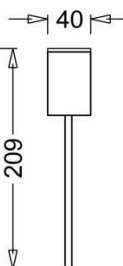
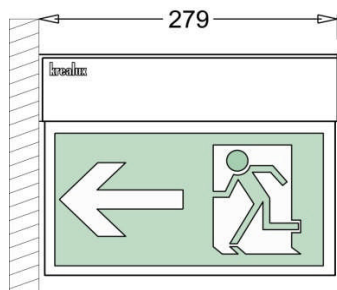
- Each of our KL10 luminaires bears the VDE - seal of approval, the VDE emc - seal and the GostR - seal for russian market.
- Highly modern LED - strips discharge energy consumption by their high effectiveness.
- homogenous light - allocation by special arranged surface sets standards and guarantees highest perceptibility.
- Fully automated self - control ensures constant functionality.
- Permanent manufacturing control by the VDE - institute ensures enduring, constant quality.

The KL10 is the only successfully proved and certificated luminaire. This means, it is technically perfect!

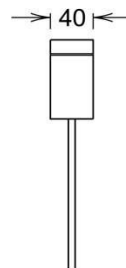
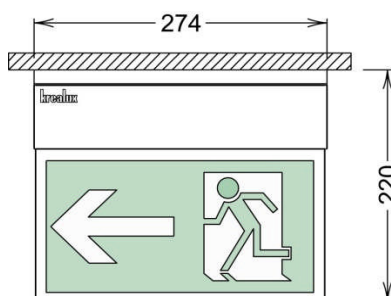
Type KL10-25



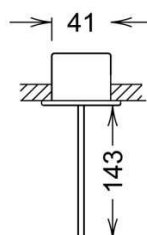
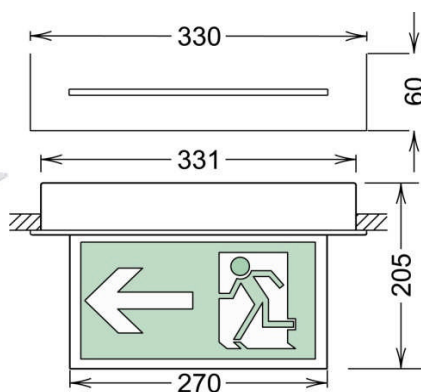
Order-Number: KL10-2503-WM
Self-contained luminaire
VDE - proved
Recognition distance 25m
Wall mounting



Order-Number: KL10-2503-WA
Self-contained luminaire
VDE - proved
Recognition distance 25m
Wall arm mounting

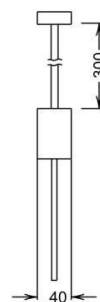
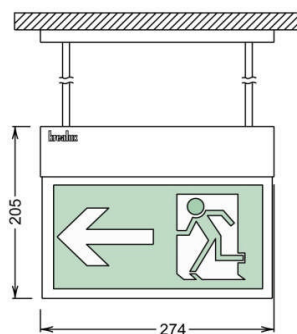


Order-Number: KL10-2503-DM
Self-contained luminaire
VDE - proved
Recognition distance 25m
Ceiling mounting

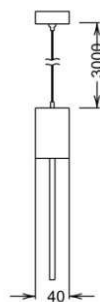
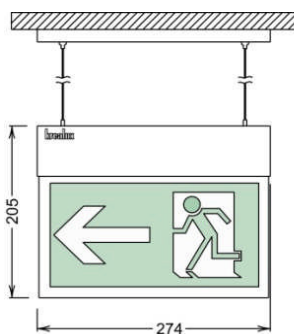


Order-Number: KL10-2503-DE
Self-contained luminaire
VDE - proved
Recognition distance 25m
Recessed ceiling mounting

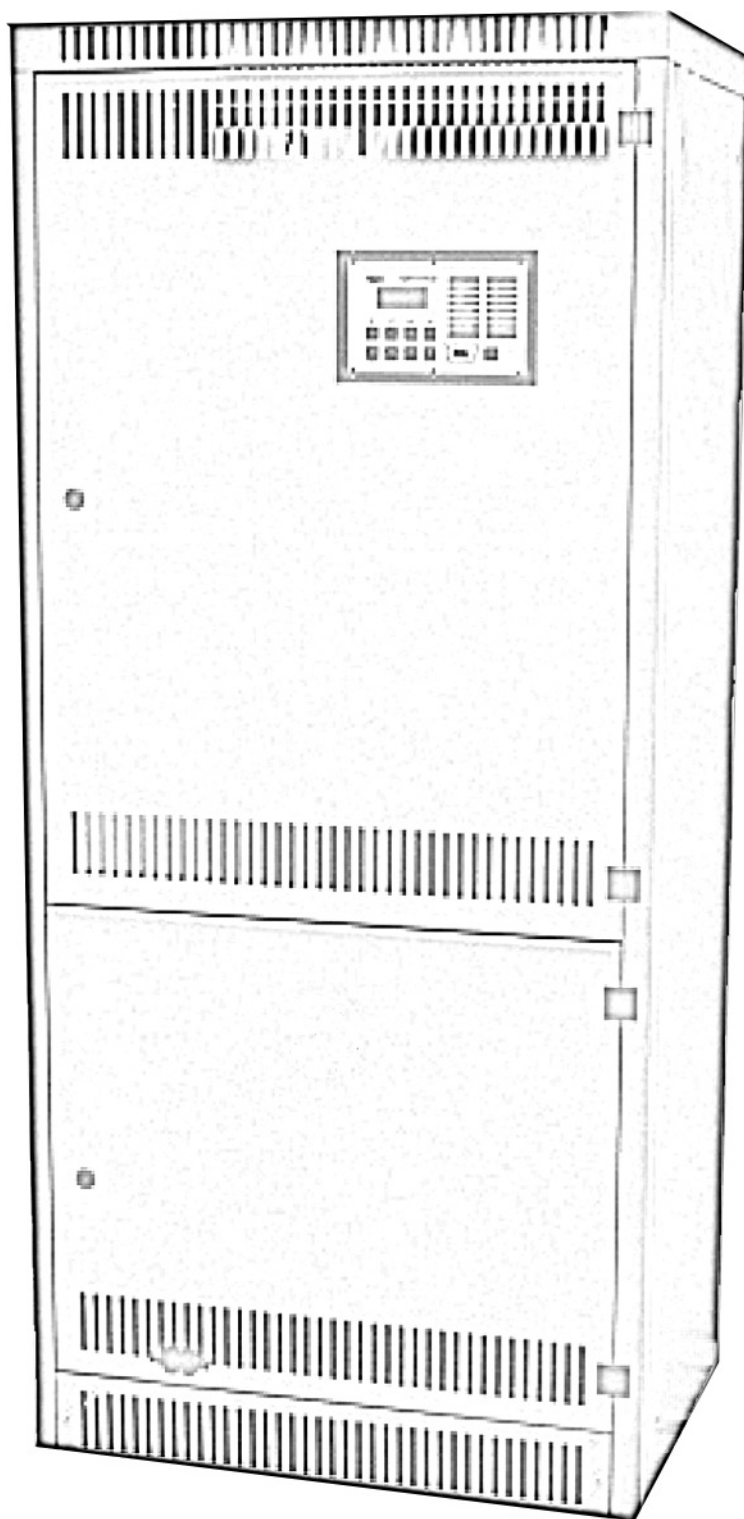
Type KL10-25



Order-Number: KL10-2503-PM
Self-contained luminaire
VDE - proved
Recognition distance 25m
Pendulum mounting



Order-Number: KL10-2503-PM
Self-contained luminaire
VDE - proved
Recognition distance 25m
Pendulum mounting





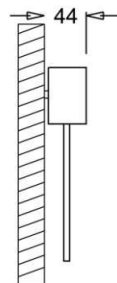
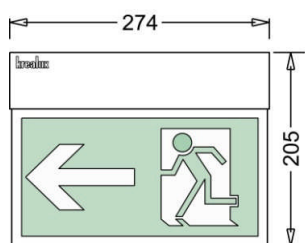
Reliable: The luminaire KL11

Same cover as KL10, other content: Our luminaire KL11.
It is created for central battery systems, with the same technology as our KL10 luminaire.

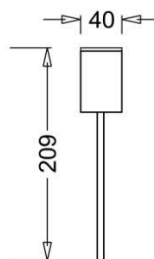
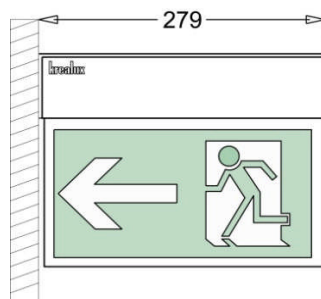
Also the KL11 has the VDE test seal.

Functional control occurs by measurement of streams durable - and attendance - light. Deviations which exceed a certain tolerance, are registered in sector = luminaire - defects.

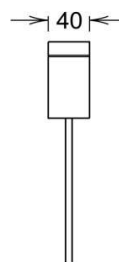
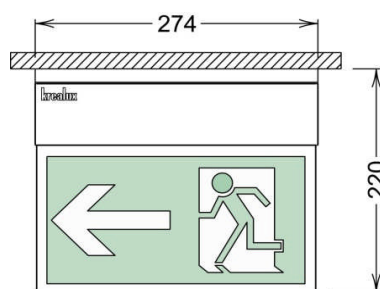
Type KL11-25



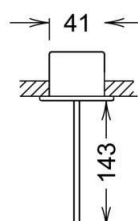
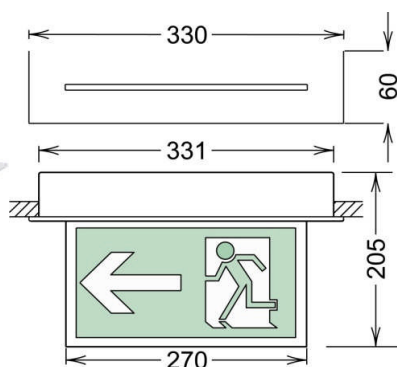
Order-Number: KL11-2503-WM
For central battery operation
VDE - proved
Recognition distance 25m
Wall mounting



Order-Number: KL11-2503-WA
For central battery operation
VDE - proved
Recognition distance 25m
Wall arm mounting

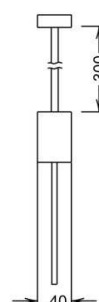
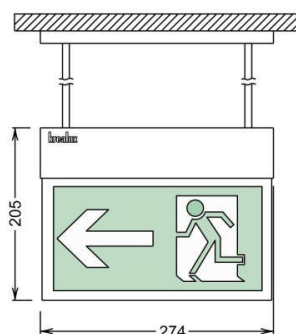


Order-Number: KL11-2503-DM
For central battery operation
VDE - proved
Recognition distance 25m
Ceiling mounting

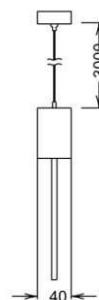
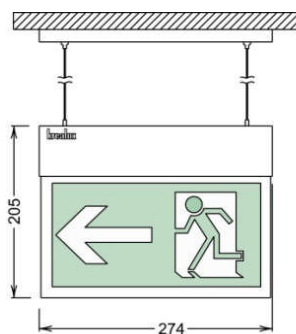


Order-Number: KL11-2503-DE
For central battery operation
VDE - proved
Recognition distance 25m
Recessed ceiling mounting

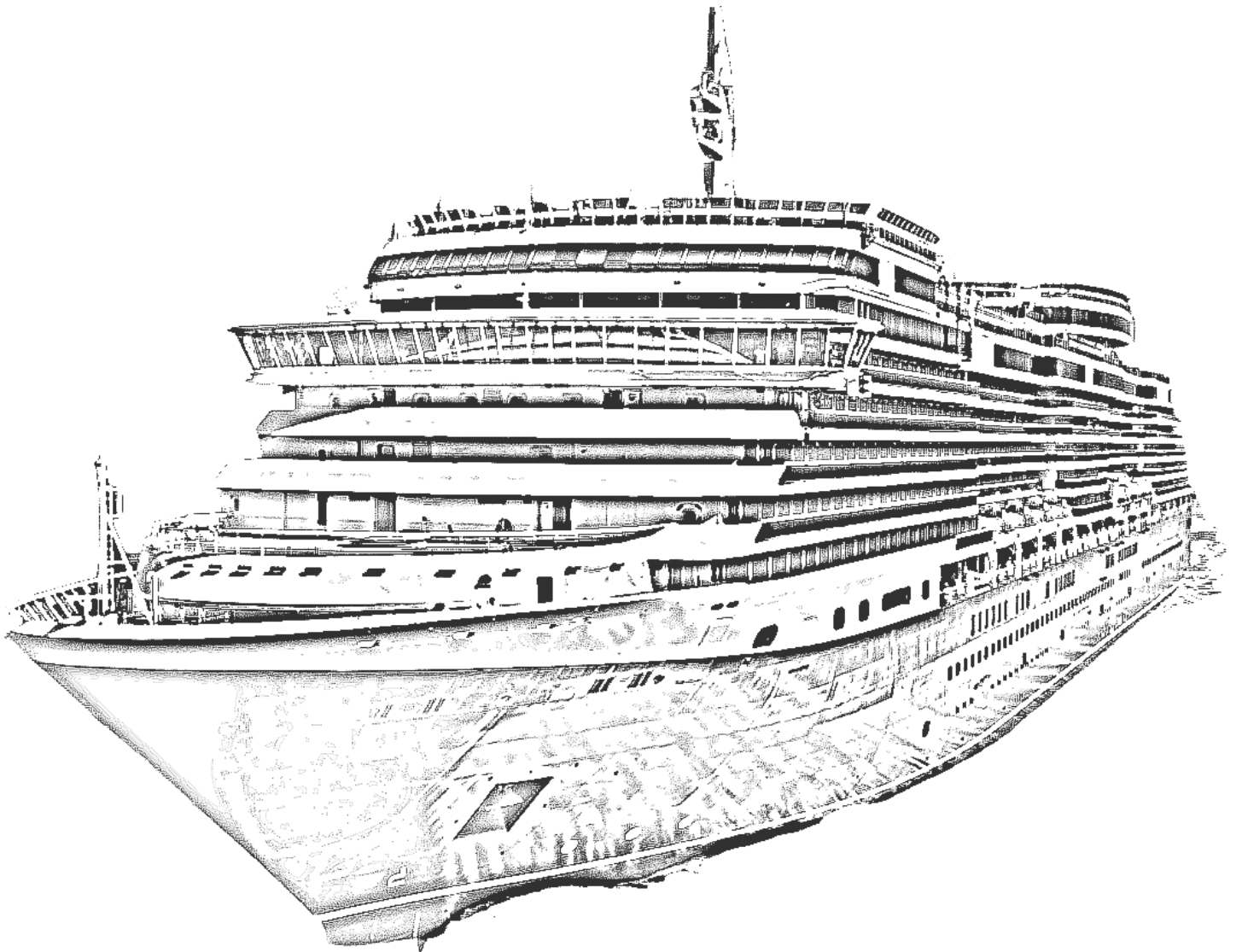
Type KL11-25



Order-Number: KL10-2503-PM
Self-contained luminaire
VDE - proved
Recognition distance 25m
Pendulum mounting



Order-Number: KL10-2503-KM
Self-contained luminaire
VDE - proved
Recognition distance 25m
Chain mounting





Seaworthy: The luminaire KL12

According to the differential architecture of ships, our exit sign displays are not higher than 90mm. As with VDE - proved luminaires we only use best materials and we guarantee best workmanship. For this kind of luminaire there is no inspection specification because of its special appliance. The VDE can not accord a proof - seal. We can manufacture every size and version of display on demand.

Type KL12-25/32

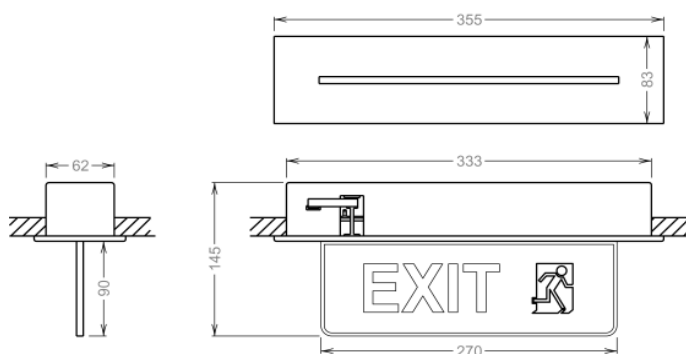


Order-Number: KL12-2501-DE

Self-contained luminaire

Recognition distance 25m

Recessed ceiling mounting

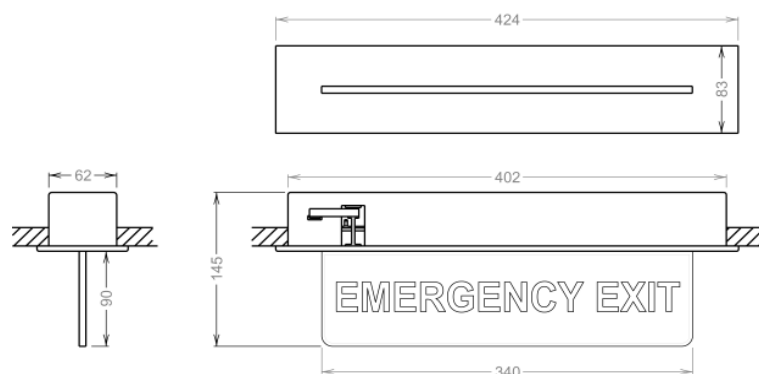


Order-Number: KL12-3201-DE

Self-contained luminaire

Recognition distance 32m

Recessed ceiling mounting



LUMINAIRE KL12-25 FOR SHIPS

Accessories - Changeable-pictograms

Order number:

ZKL12-25-ES-WG



ZKL12-25-ES-GW



ZKL12-25-PR-WG



ZKL12-25-PL-WG



ZKL12-25-PR-GW



ZKL12-25-PL-GW



ZKL12-25-EO-WG



ZKL12-25-EL-WG



ZKL12-25-ER-WG



ZKL12-25-EB-WG



ZKL12-25-EO-GW



ZKL12-25-EL-GW



ZKL12-25-ER-GW



ZKL12-25-EB-GW



Order number:

ZKL12-25-ES-WR



ZKL12-25-ES-RW



ZKL12-25-PR-WR



ZKL12-25-PL-WR



ZKL12-25-PR-RW



ZKL12-25-PL-RW



ZKL12-25-EO-WR



ZKL12-25-EL-WR



ZKL12-25-ER-WR



ZKL12-25-EB-WR



ZKL12-25-EO-RW



ZKL12-25-EL-RW



ZKL12-25-ER-RW



ZKL12-25-EB-RW



Changeable-pictograms are available in every size and colour on demand.





Longrunner: The luminaire KL13

Festival organizers with so called “flying buildings”, event agencies and probably every circus are aware of the problem: Emergency exit signs have to be installed and mainly wired. Our self-contained KL13 is charged during the day and when the night comes, it shows the secure way through dark in reliably luminosity. A simple hanging suffices; the wiring is not longer required.

For this kind of luminaires there is no inspection specification. The VDE cannot accord a test - seal.

We guarantee durable quality and functional reliability by using the same prefabricated parts as in our KL10 luminaire.

Type KL13-25



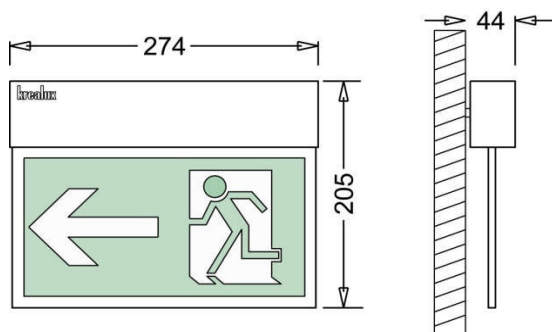
Order-Number: KL13-2508-WM

Self-contained luminaire

Rated duration 8h

Recognition distance 25m

Wall mounting



Order-Number: KL13-2512-WM

Self-contained luminaire

Rated duration 12h

Recognition distance 25m

Wall mounting



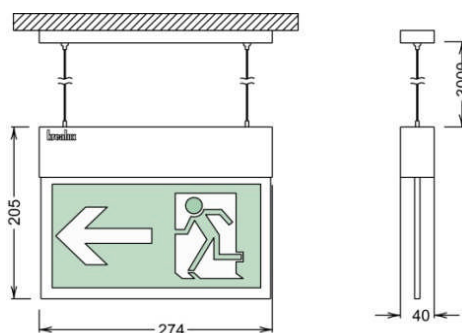
Order-Number: KL13-2508-KM

Self-contained luminaire

Rated duration 8h

Recognition distance 25m

Chain mounting



Order-Number: KL13-2512-KM

Self-contained luminaire

Rated duration 12h

Recognition distance 25m

Chain mounting

Battery charger: See accessories

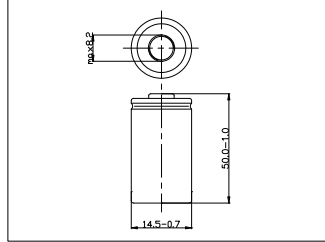
12h Nickel Metal Hydride Rechargeable Battery

8h Nickel Metal Hydride Rechargeable Battery

H-AA2000B

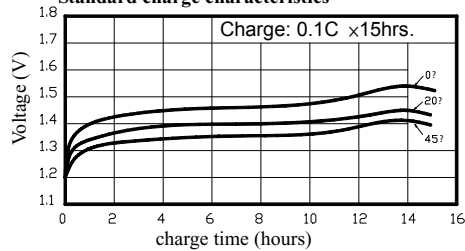
| | | | |
|-------------------------------|-----------|--------------------------------------|-------------------------------|
| Nominal voltage | | 1.2V | |
| Capacity | | 0.2C Discharge | 0.5C Discharge |
| | Minimum | 288min | 113min |
| | Typical | 302min | 118min |
| Dimensions | | mm | |
| | Diameter | 14.5 ^{+0.1/-0.1} | |
| | Height | 50.0 ^{+1.0/-1.0} | |
| Weight (Approximately) | | 克 gram | |
| | | 29.4 | |
| Internal Impedance At 1000 Hz | | 35m Ω (Max) (After Charge) | |
| Charge | Standard | 220mA(0.1C) \times 15hrs | |
| | Rapid | 1100mA(0.5C) \times 2.1hrs | |
| | | ? | |
| Ambient temperature | Charge | standard | 0 $^{\circ}$ to 40 $^{\circ}$ |
| | | Rapid | 0 $^{\circ}$ to 40 $^{\circ}$ |
| | | | |
| | Discharge | -20 $^{\circ}$ to 50 $^{\circ}$ | |
| | | Storage | |
| | | -20 $^{\circ}$ to 30 $^{\circ}$ | |

Dimensions with tube (mm)

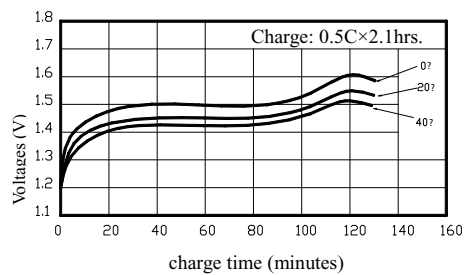


Typical characteristics

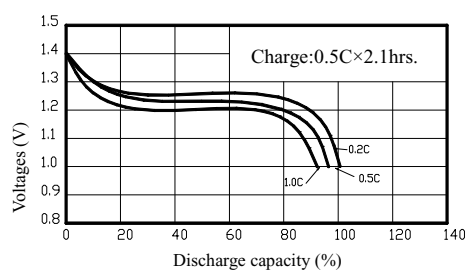
Standard charge characteristics



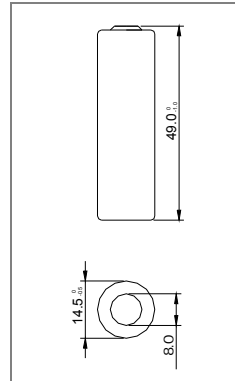
Rapid charge characteristics



Discharge characteristics

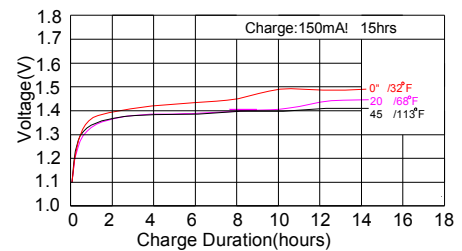


H-AA1500B Specifications

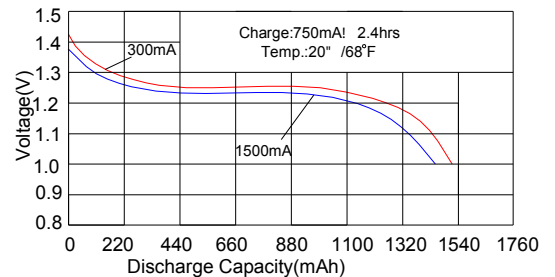


| | |
|--------------------------------|----------------|
| Nominal Capacity | 1500mAh |
| Nominal Voltage | 1.2V |
| Internal Impedance (at 1000Hz) | < 25m Ω |
| Charge | |
| Standard Charge | 150mA x 15h |
| Rapid Charge | 750mA x 2.4h |
| Discharge Cut-off Voltage | 1.0V |
| Max Dimension (with tube) | |
| Diameter | 14.5mm |
| Height | 49.0mm |
| Weight | 26 \pm 1g |
| Operating Temperature | |
| Charge | 0 ~ 45 |
| Discharge | -20 ~ 60 |
| Storage Temperature | |
| Within 1 month | -5 ~ 35 |
| Within 6 months | 0 ~ 35 |

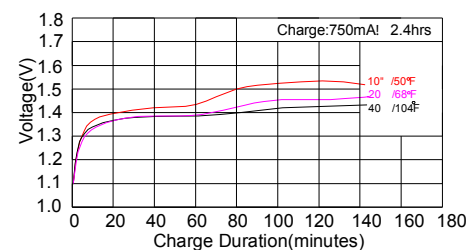
Standard charge characteristics



Discharge characteristics



Fast charge characteristics





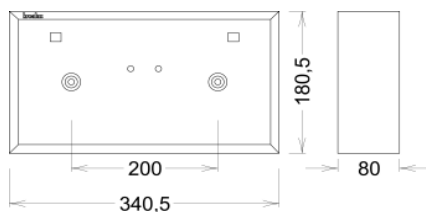


Classic: The luminaire KL16

Still strong demanded: The classic - “old fashioned” luminaire with aluminium enclosure. We reacted on to the various inquiries for a robust, reliable and also excellent value luminaire, and therefore developed the KL16. Like all our luminaires it exhibits best materials, best converting, best quality. With fully automated self - control, available as LED or T5 - version.

Also for the KL16 the VDE certification is in preparation.

Type KL16-32 version LED - strip



Order-Number: KL16-3203-WML

Self-contained luminaire

Aluminium enclosure

Recognition distance 32m

Wall mounting



Order-Number: KL16-3203-UML

Self-contained luminaire

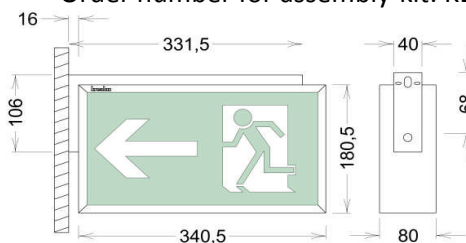
Aluminium enclosure

Recognition distance 32m

The luminaire KL16-3203-UML suits for

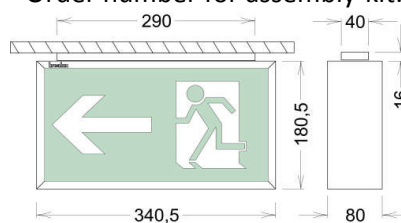
Wall arm mounting

Order number for assembly-kit: KL16-32WA



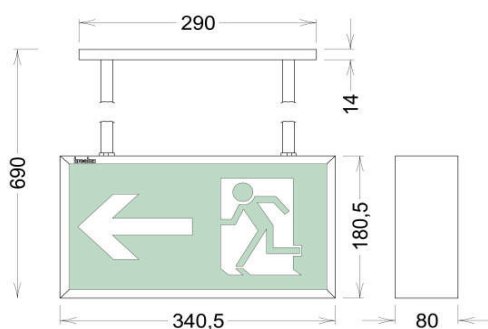
Ceiling mounting

Order number for assembly-kit: KL16-32DM



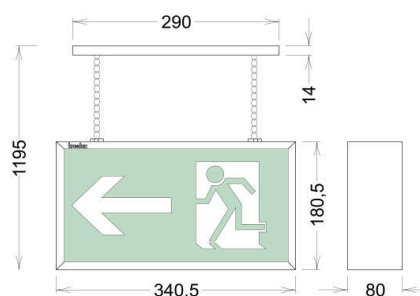
Pendulum mounting

Order number for assembly-kit: KL16-32PM

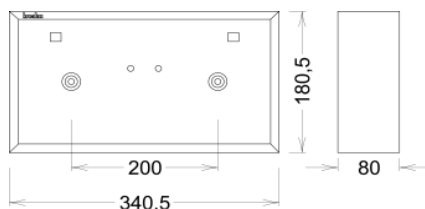


Chain mounting

Order number for assembly-kit: KL16-32KM



Type KL16-32 version T5 - tube



Order-Number: KL16-3203-WMT
Self-contained luminaire
Aluminium enclosure
Recognition distance 32m
Wall mounting

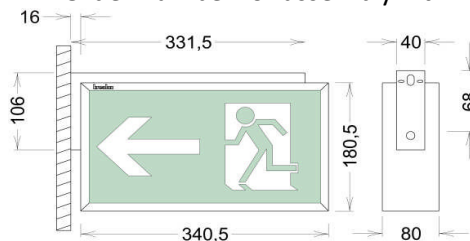


Order-Number: KL16-3203-UMT
Self-contained luminaire
Aluminium enclosure
Recognition distance 32m

The luminaire KL16-3203-UML suits for

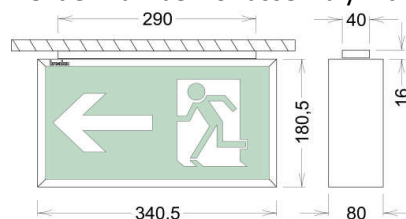
Wall arm mounting

Order number for assembly-kit: KL16-32WA



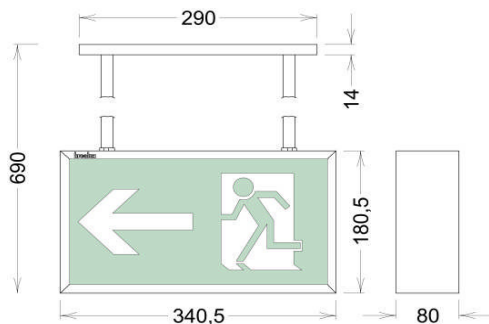
Ceiling mounting

Order number for assembly-kit: KL16-32DM



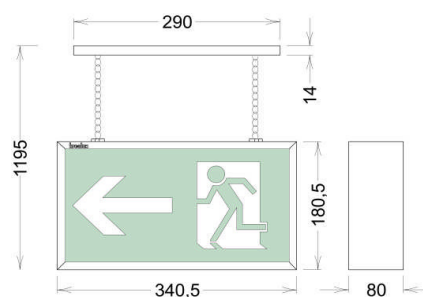
Pendulum mounting

Order number for assembly-kit: KL16-32PM



Chain mounting

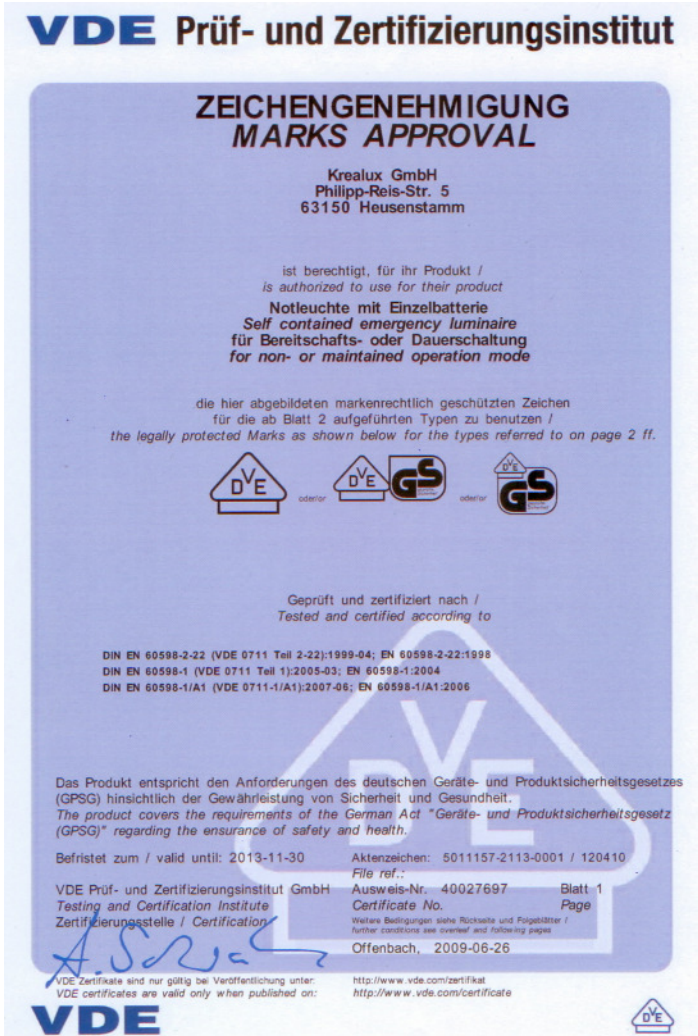
Order number for assembly-kit: KL16-32KM



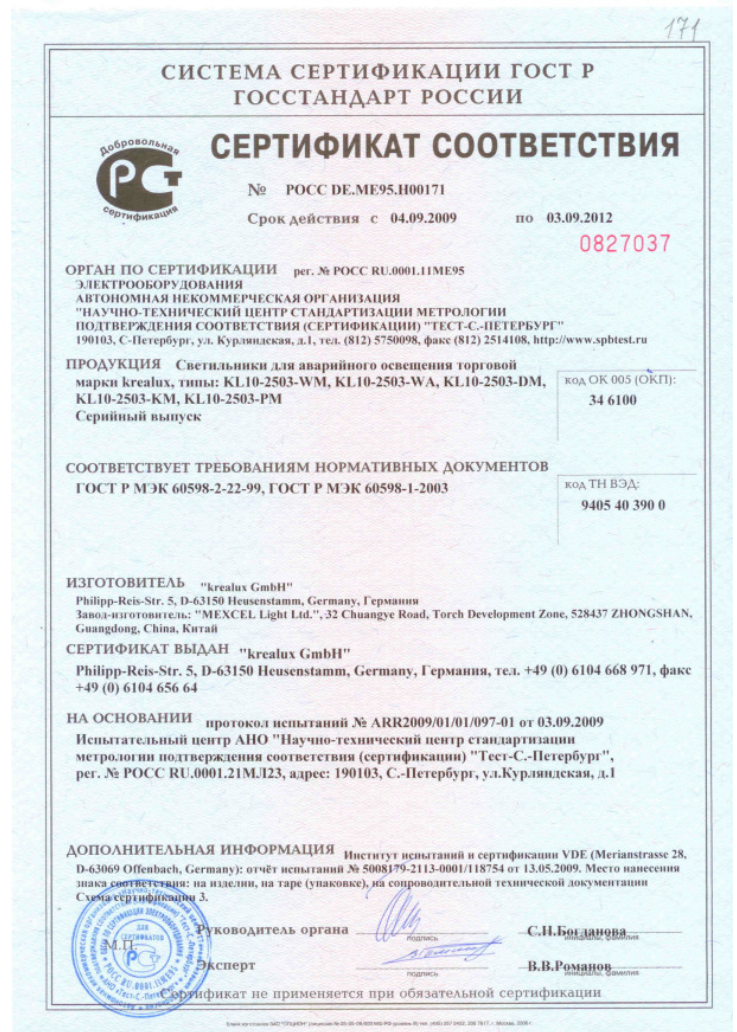
Spare parts and accessories

| | | | | | |
|---|--|--|---|--|--|
| <p>Accessories KL10-25</p> <p>Battery NiMH 4,8V 600mAh</p> <p>LED Strip</p> <p>Display without Pikto</p> <p>Pikto direction left</p> <p>Pikto direction right</p> <p>Pikto direction down</p> <p>Pikto direction left up</p> <p>Pikto direction right up</p> <p>Pikto direction left down</p> <p>Pikto direction right down</p> | <p>Ord.No.</p> <p>E10-25BA</p> <p>E10-25LE</p> <p>E10-25DI</p> <p>E10-25LI</p> <p>E10-25RE</p> <p>E10-25UN</p> <p>E10-25LO</p> <p>E10-25RO</p> <p>E10-25LU</p> <p>E10-25RU</p> | | <p>Accessories KL11-25</p> <p>LED Strip</p> <p>Display without Pikto</p> <p>Pikto direction left</p> <p>Pikto direction right</p> <p>Pikto direction down</p> <p>Pikto direction left up</p> <p>Pikto direction right up</p> <p>Pikto direction left down</p> <p>Pikto direction right down</p> | <p>Ord.No.</p> <p>E10-25LE</p> <p>E10-25DI</p> <p>E10-25LI</p> <p>E10-25RE</p> <p>E10-25UN</p> <p>E10-25LO</p> <p>E10-25RO</p> <p>E10-25LU</p> <p>E10-25RU</p> | |
| <p>Accessories KL12-25</p> <p>Battery NiMH 4,8V 600mAh</p> <p>LED Strip</p> <p>Display without Pikto</p> <p>Pikto direction left</p> <p>Pikto direction right</p> <p>Pikto direction down</p> <p>Pikto direction left up</p> <p>Pikto direction right up</p> <p>Pikto direction left down</p> <p>Pikto direction right down</p> <p>EXIT</p> | <p>Ord.No.</p> <p>E10-25BA</p> <p>E10-25LE</p> <p>E10-25DI</p> <p>E10-25LI</p> <p>E10-25RE</p> <p>E10-25UN</p> <p>E10-25LO</p> <p>E10-25RO</p> <p>E10-25LU</p> <p>E10-25RU</p> <p>E12-25EX</p> | | <p>Accessories KL12-32</p> <p>Battery NiMH 4,8V 600mAh</p> <p>LED Strip</p> <p>Display without Pikto</p> <p>Pikto direction left</p> <p>Pikto direction right</p> <p>Pikto direction down</p> <p>Pikto direction left up</p> <p>Pikto direction right up</p> <p>Pikto direction left down</p> <p>Pikto direction right down</p> <p>EXIT</p> | <p>Ord.No.</p> <p>E10-25BA</p> <p>E10-32LE</p> <p>E10-32DI</p> <p>E10-32LI</p> <p>E10-32RE</p> <p>E10-32UN</p> <p>E10-32LO</p> <p>E10-32RO</p> <p>E10-32LU</p> <p>E10-32RU</p> <p>E12-32EX</p> | |
| <p>Accessories KL13-25</p> <p>LED Strip</p> <p>Display without Pikto</p> <p>Pikto direction left</p> <p>Pikto direction right</p> <p>Pikto direction down</p> <p>Pikto direction left up</p> <p>Pikto direction right up</p> <p>Pikto direction left down</p> <p>Pikto direction right down</p> <p>Battery 8h duration</p> <p>Battery 12h duration</p> <p>Battery charger</p> | <p>Ord.No.</p> <p>E13-25LE</p> <p>E10-25DI</p> <p>E10-25LI</p> <p>E10-25RE</p> <p>E10-25UN</p> <p>E10-25LO</p> <p>E10-25RO</p> <p>E10-25LU</p> <p>E10-25RU</p> <p>E13-25A1</p> <p>E13-25A2</p> <p>E13-25LG</p> | | | | |

| | | | |
|----------------------------|----------|------------------------------|----------|
| Accessories KL16-32 | Ord.No. | Accessories KL16-32 | Ord.No. |
| Battery NiCd 4,8/1,8Ah | E16-32BA | Kit for ceiling mounting | E16-32DM |
| LED Strip 4x1W | E16-32L4 | Kit for wall-arm mounting | E16-32WA |
| LED Strip 8x1W | E16-32L8 | 2 alu-tubes for pendulum mt. | E16-32PM |
| T5 Tube 8W | E16-32T5 | 2 chains 1m | E16-32KM |
| Display without Pikto | E16-32DI | | |
| Pikto direction left | E16-32LI | | |
| Pikto direction right | E16-32RE | | |
| Pikto direction down | E16-32UN | | |
| Pikto direction left up | E16-32LO | | |
| Pikto direction right up | E16-32RO | | |
| Pikto direction left down | E16-32LU | | |
| Pikto direction right down | E16-32RU | | |



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krealux GmbH, January 2010

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