





safe.inspiring.green.



# Smart fire protection solutions from a single source.

In future, Spelsberg will unite its first-class solutions for electrical functional integrity under a new brand: LIFELINE stands for the intelligent integration of innovative product designs with high quality heat and fire resistant materials and components. Consequently, it is ensured that in case of fire all the relevant safety systems continue to work without interruption even under the toughest conditions.



More fire protection.

More safety. More trust.

LIFELINE is the technology for life. With the knowledge and experience of our competent staff, we take responsibility every day to make the world a little safer. The smart fire safety solutions of LIFELINE offer first-class quality, which can be relied upon in emergencies. LIFELINE protects all life and assets without compromises and guarantees the best form of sustained fire safety.



**High technical performance.** 

Only reliable products can ensure the electrical functional integrity and protect life in case of a fire. LIFELINE guarantees the function of life-saving electrical systems in buildings and tunnels, such as emergency lighting and smoke extraction systems in escape and rescue routes. As a leading manufacturer of high quality junction and connection boxes and robust surface-mounted small distribution boards, Spelsberg has always been strongly positioned with the LIFELINE brand for the development of fire protection solutions, particularly in these product segments.



Electrical function integrity E30 to E90

The junction boxes as well as the WKE-AK small distributors of LIFELINE provide electrical functional integrity between 30 and 90 minutes in the event of a fire. In doing so, the classes E30 to E90 identify the minimum duration for the functional integrity of the electrical systems.

LIFELINE ensures that the function of fire alarm systems, acoustic systems, emergency lighting or elevators with evacuation function is maintained for at least 30 minutes during an emergency. And in the case of pressure boosting systems for the extinguishing water supply, smoke and heat exhaust ventilation systems or for fire brigade lifts for at least 90 minutes. Guaranteed.



The brand WLIFELINE

| Functional integrity - general information          |        |
|---|--------|
| Pre-selection for your application                  |        |
| Application diagram                                 |        |
| WKE 2-6 NEW!  | 8-13   |
| WKE   FOR CONNECTING + JUNCTION                     |        |
| WKE 2-6 NEW!  | 14-18  |
| WKE 200-400   |        |
| WRE 200-400   | 13-2 1 |
| WKE   FOR SECURED JUNCTION                          |        |
| WKE 4-6 with fuse NEW!                              | 22.24  |
|   |        |
| WKE 200-400 with fuse                               |        |
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| ANGE LEON COMMINICATION LINES                       |        |
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| AAVE LACCECCODIEC                                   |        |
| WKE   ACCESSORIES FOR CONNECTION AND JUNCTION BOXES |        |
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| WKE 2-6 accessories                                 |        |
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| WKE   FOR DISTRIBUTION                              |        |
| WKE AK  | 34-37  |
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Contents

E30

Ensuring the functional integrity for at least 30 minutes, e.g., for:

- Fire alarm systems
- Acoustic systems
- Emergency lighting
- Elevators with evacuation function for warning, escape and/or rescue

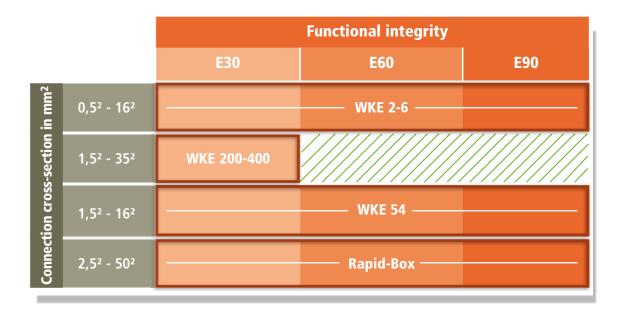
E90

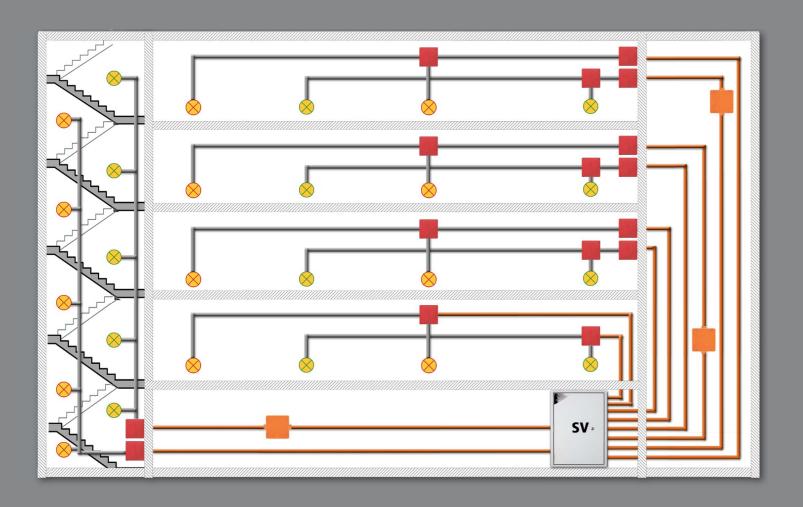
Ensuring the functional integrity for at least 90 minutes, e.g., for:

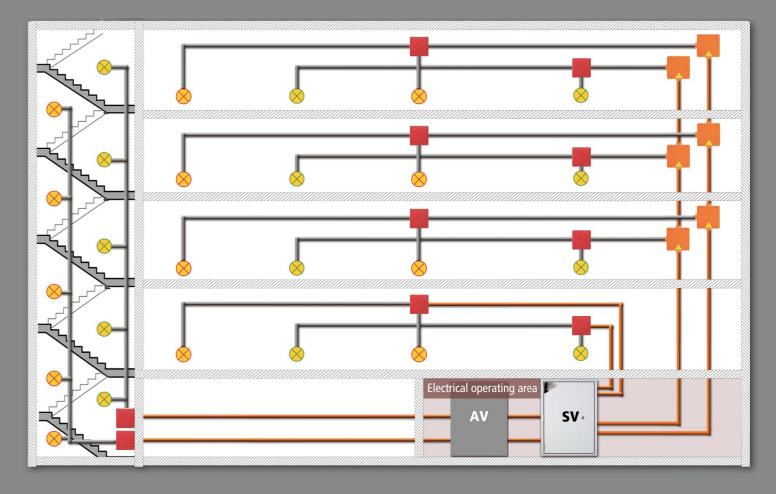
- Pressure boosting systems for supply of extinguishing water
- Smoke and heat extraction systems
- Fire brigade lifts for extinguishing and/or rescue

|            |                     |             | Functional integrity |     |
|------------|---------------------|-------------|----------------------|-----|
|            |                     | E30         | E60                  | E90 |
|            | IP66, 6 bar<br>IK08 |             | WKE 2-6 —            |     |
| Properties | IP66<br>IK08        | WKE 200-400 |                      |     |
| Prop       | IP66, IP67<br>IK07  |             | WKE 54               |     |
|            | IP66, IP67<br>IK09  |             | Rapid-Box            |     |

The classes **E30** to **E90** identify the minimum duration for the functional integrity of electrical systems.







AV: General power supply

SV: Safety current supply

AV: General power supply

SV: Safety current supply











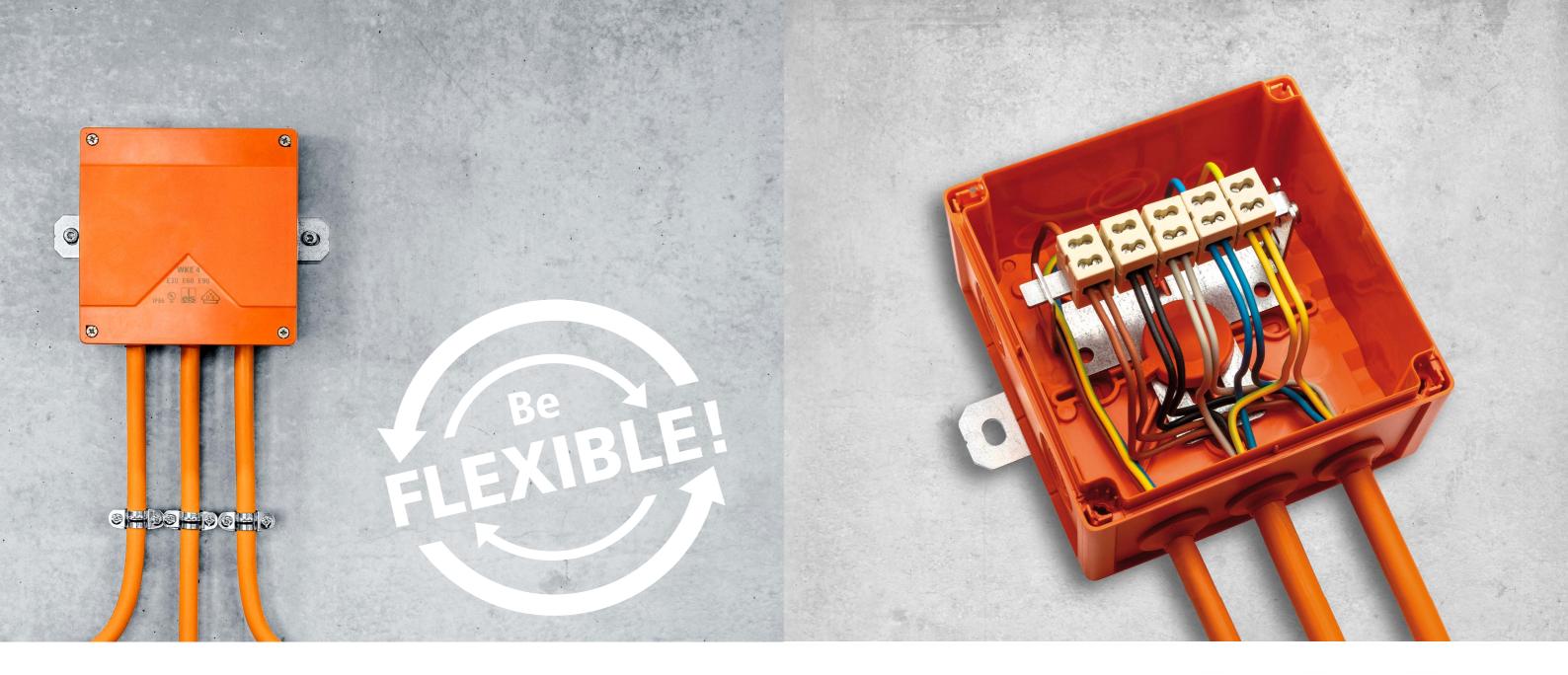




WKE 200-400 (with fuse)

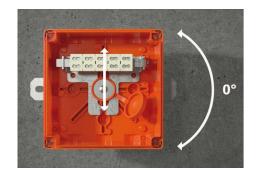
**WKE 54** 

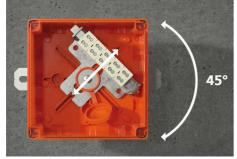
**WKE AK** 

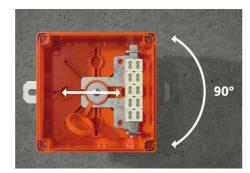


# Planning freedom saves time and cost for you

- Clear and variable positioning of the base carrier through simple rotation in steps of
- Step-less positioning of the longitudinal







# An easy, quick and safe installation

- Central fixing through just one screw
- Accessible at any time
- All cable entries can be used with terminal in high position

# Position above:

- easy handling of the wires
- Possible to mount the cables by adhering to the bending radius
- All cable entries can be used without restrictions

# Position **below**:

- ideal for special solutions
- Use of D0 fuses (for WKE 6)







# **Extremely robust**

- High protection class IP 66
- Impact strength IK08
- Ideal for special solutions e.g., in tunnels IP 66 6 bar according to RVS 09.02.41
- External fixing lugs and cover screws optionally in stainless steel V4A
- High strength of the box



Kabelwerk Eupen AG



# **Cover retaining strap**

can be used optionally by the



# **Labelling fields**

← Areas for an individual labelling

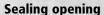


# **Knockouts with multiple** options

- optimised positioning of the knockouts
- adjusted to the fixing systems
   Locking of counter nuts
  patented knockouts

- integrated knockout points
- easy and clean knocking-out





further accessories



# **External fixing lugs**

- ≠ pre-mounted for a fast installation
   ≠ can be rotated by 90°
- ensures correct mounting



# **External drainage membrane**

optional knocking-out, even after the installation



# **Extensive international**

certifications

DIN 4102-12

Functional integrity E30 / E60 / E90



EN 60670
Tapping and connection boxes



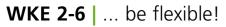
IEC 62208 & IEC 61439
Empty housing & switching device combinations

Further relevant information on the topic of functional integrity is available at:

www.spelsberg.com/WKE









WKE 2 - 5 x 1,5<sup>2</sup>















Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning

# - 2x M16/M25 2x M16/M25 1x M20 1x M16/M25

# Description

WKE 2 - 5 x 1,52

Junction box, 5-pole, 0.5 - 2.5 mm<sup>2</sup>, distribution box, 5-pole, 0.5 - 1.5 mm<sup>2</sup>, number of clampable conductors per pole: 8 x 0.5<sup>2</sup> / 4 x 0.75<sup>2</sup> / 6 x 1<sup>2</sup> / 6 x 1.5<sup>2</sup> / 2 x 2.5<sup>2</sup>

Order no. 86650201

WKE 2 - 3 x 4<sup>2</sup>

2x M16/M25

1x M20

1x M16/M25













EN 60670 and IEC 62208, with electrical circuit integrity 2x M16/M25 E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of high-

Description

- 2x M20/M32

- 2x M16/M25

WKE 2 - 3 x 4<sup>2</sup>

Junction box, 3-pole, 1 - 6 mm<sup>2</sup>, distribution box, 3-pole, 1 - 4 mm<sup>2</sup>, number of clampable conductors per pole:  $10 \times 1^2 / 8 \times 1,5^2 / 6 \times 2,5^2 / 4 \times 4^2 / 2 \times 6^2 / 2 \times 10^2$ 

temperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning

> Order no. 86651201

# WKE 4 - 5 x 4<sup>2</sup>















Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning



2x M20

Description

86650401

2x M20/M32 -

WKE 4 - 5 x 4<sup>2</sup>

Junction box, 5-pole, 1 - 10 mm<sup>2</sup>, distribution box, 5-pole, 1 - 4 mm<sup>2</sup>, number of clampable conductors per pole:  $10 \times 1^2 / 8 \times 1,5^2 / 6 \times 2,5^2 / 4 \times 4^2 / 2 \times 6^2 / 2 \times 10^2$ 











included









certificate (AbP) VDE certified UL-EU certified



















external fastening lugs, variable terminal positioning

# **Description**

WKE 2 - Duo 3 x 4<sup>2</sup>

Junction box, 3-pole, 0.5 - 4 mm<sup>2</sup>, distribution box, 3-pole, 0.5 - 4 mm<sup>2</sup>, number of clampable conductors per pole: 16 x 0.5<sup>2</sup> / 8 x 0.75<sup>2</sup> / 12 x 1<sup>2</sup> / 12 x 1.5<sup>2</sup> / 4 x 2.5<sup>2</sup> / 4 x 4<sup>2</sup>

# WKE 4 - Duo 5/3 x 6<sup>2</sup>













Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning



# **Description**

WKE 4 - Duo 5/3 x 6<sup>2</sup>

Junction box, 5-pole, 0.5 - 6 mm<sup>2</sup>, distribution box 3-pole 0.5 - 6 mm<sup>2</sup>, number of clampable conductors per pole: 16 x 0.5<sup>2</sup> / 8 x 0.75<sup>2</sup> / 12 x 1<sup>2</sup> / 12 x 1.5<sup>2</sup> / 4 x 2.5<sup>2</sup> / 4 x 4<sup>2</sup> / 4 x 6<sup>2</sup>, in 2-pole pass-through 8 x 0.5<sup>2</sup> /  $4 \times 0.75^{2} / 6 \times 1^{2} / 6 \times 1.5^{2} / 2 \times 2.5^{2} / 2 \times 4^{2} / 2 \times 6^{2}$ 

WKE 4 - Duo 5 x 6<sup>2</sup>







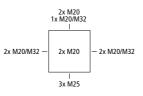








Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning



# **Description**

WKE 4 - Duo 5 x 62

Junction box, 5-pole, 0.5 - 6 mm<sup>2</sup>, distribution box, 5-pole, 0.5 - 6 mm<sup>2</sup>, number of clampable conductors per pole: 16 x 0.5<sup>2</sup> / 8 x 0.75<sup>2</sup> / 12 x 1<sup>2</sup> / 12 x 1.5<sup>2</sup> / 4 x 2.5<sup>2</sup> / 4 x 4<sup>2</sup> / 4 x 6<sup>2</sup>

# WKE 6 - Duo 7 x 6<sup>2</sup>

# Cable distribution and junction box with IP66, certified to







EN 60670 and IEC 62208, with electrical circuit integrity

E30 - E90 according to DIN 4102 part 12. Halogen-free

housing made of special thermoplastic, clamps of high-

external fastening lugs, variable terminal positioning

temperature-resistant special ceramic, quick assembly with









250 x 200 x 120 mm

Order no.

86742001

1x M25/M40 2x M20/M32

250 x 200 x 120 mm

Description

WKE 6 - Duo 7 x 62

Junction box, 7-pole, 0.5 - 6 mm<sup>2</sup>, distribution box 7-pole 0.5 - 6 mm<sup>2</sup>, number of clampable conductors per pole: 16 x 0.5<sup>2</sup> / 8 x 0.75<sup>2</sup> / 12 x 1<sup>2</sup> / 12 x 1.5<sup>2</sup> / 4 x 2.5<sup>2</sup> / 4 x 4<sup>2</sup> / 4 x 6<sup>2</sup>



WKE 6 - 5 x 6<sup>2</sup>

Description

WKE 6 - 5 x 6<sup>2</sup>









1x M20/M32 2x M25/M40 1x M25/M40 2x M20/M32 4x M25/M40

Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning

1x M20/M32 2x M25/M40 Order no. 86650601

Junction box, 5-pole, 1.5 - 16 mm<sup>2</sup>, distribution box, 5-pole, 1 - 6 mm<sup>2</sup>, number of clampable conductors per pole: 10 x 1.5<sup>2</sup> / 8 x 2.5<sup>2</sup> / 4 x 4<sup>2</sup> / 4 x 6<sup>2</sup> / 2 x 10<sup>2</sup> / 2 x 16<sup>2</sup>

# WKE 4 - Duo 3 x 10<sup>2</sup>





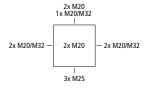








Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning



# Description

WKE 4 - Duo 3 x 10<sup>2</sup>

Junction box, 3-pole, 1 - 10 mm<sup>2</sup>, distribution box, 3-pole, 1 - 10 mm<sup>2</sup>, number of clampable conductors per pole: 20 x 12 / 16 x 1,52 / 12 x 2,52 / 8 x 42 / 4 x 62 / 4 x 102

Order no. 86750001

### 450V 450V OC U 2x M16/M25 Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity 2x M16/M25 1x M20 E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of high-1x M16/M25 temperature-resistant special ceramic, quick assembly with

- 2x M16/M25

# Order no. 86740001

Order no.

Order no.

86741001

86771001

# WKE 6 - Duo 5 x 10<sup>2</sup>







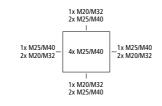
temperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning







Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of high-



# **Description**

# WKE 6 - Duo 5 x 10<sup>2</sup>

Junction box, 5-pole, 1 - 10 mm<sup>2</sup>, distribution box, 5-pole, 1 - 10 mm<sup>2</sup>, number of clampable conductors per pole: 20 x 1<sup>2</sup> / 16 x 1,5<sup>2</sup> / 12 x 2,5<sup>2</sup> / 8 x 4<sup>2</sup> / 4 x 6<sup>2</sup> / 2 x 10<sup>2</sup> Order no. 86751001

WKE 6 - Duo 3 x 16<sup>2</sup>









external fastening lugs, variable terminal positioning





Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with



# **Description**

# WKE 6 - Duo 3 x 16<sup>2</sup>

Junction box, 3-pole, 1.5 - 16 mm<sup>2</sup>, distribution box, 3-pole, 1.5 - 16 mm<sup>2</sup>, number of clampable conductors per pole: 20 x 1.52 / 16 x 2.52 / 12 x 42 / 8 x 62 / 4 x 102 / 4 x 162 Order no. 86760001

# WKE 6 - Duo 5 x 16<sup>2</sup>





WKE 2-6 | FOR CONNECTING + JUNCTION













Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning



# Description

WKE 6 - Duo 5 x 16<sup>2</sup>

Junction box, 5-pole, 1.5 - 16 mm<sup>2</sup>, distribution box, 5-pole, 1.5 - 16 mm<sup>2</sup>, number of clampable conductors per pole:  $20 \times 1.5^2 / 16 \times 2.5^2 / 12 \times 4^2 / 8 \times 6^2 / 4 \times 10^2 / 4 \times 16^2$  Order no. 86761001





■ Terminal area up to 35²

Extremely durable

■ Ideal for time and material-saving planning in building technology

State-certified by MPA NRW

Latest test certificate available on the Internet at www.spelsberg.com

- Extensive accessories, such as fixing screws and fittings enclosed in all junction boxes
- **connection and tapping till the rated** cross-section without restrictions

We can offer you a large number of special variants upon request.



































Cable junction and connection box with IP66 certified acc. EN 60670, with electrical functional integrity E30 acc. to DIN 4102-12, enclosure and terminal strips made from halogen-free special duroplastic



**Description** Order no. **WKE 202 RK** 86220201 Junction box 5-pole, termination capability per pole 2 x 0.5 - 6 mm<sup>2</sup>

# **WKE 203 RK**















Cable junction and connection box with IP66 certified acc. EN 60670, with electrical functional integrity E30 acc. to DIN 4102-12, enclosure and terminal strips made from halogen-free special duroplastic



115 x 115 x 93 mm

**Description** Order no. **WKE 203 RK** 86220301 Junction box 3-pole, termination capability for each pole 4 x 0.5 - 4 mm<sup>2</sup>

### 160 x 160 x 110 mm **WKE 302 RK**





















Cable junction and connection box with IP66 certified acc. EN 60670, with electrical functional integrity E30 acc. to DIN 4102-12, enclosure and terminal strips made from halogen-free special duroplastic



**Description** Order no. **WKE 302 RK** 86230201 Junction box 5-pole, termination capability for each pole 4 x 4 - 16 mm<sup>2</sup>

# **WKE 303 RK**







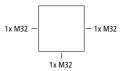








Cable junction and connection box with IP66 certified acc. EN 60670, with electrical functional integrity E30 acc. to DIN 4102-12, enclosure and terminal strips made from halogen-free special duroplastic



Order no. **Description WKE 303 RK** 86230301 Junction box 5-pole, termination capability for each pole 4 x 2.5 - 10 mm<sup>2</sup>

# **WKE 402 RK**





halogen-free special duroplastic





Cable junction and connection box with IP66 certified acc. EN 60670, with electrical functional integrity E30 acc. to DIN 4102-12, enclosure and terminal strips made from



**Description** Order no. **WKE 402 RK** 86240201 Junction box 5-pole, termination capability for each pole 2 x 2.5 - 35 mm<sup>2</sup>

# **WKE 403 RK**





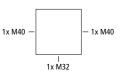








Cable junction and connection box with IP66 certified acc. EN 60670, with electrical functional integrity E30 acc. to DIN 4102-12, enclosure and terminal strips made from halogen-free special duroplastic



**Description** Order no. 86240301 **WKE 403 RK** Junction box 5-pole, termination capability for each pole 4 x 4 - 16 mm<sup>2</sup>







for secured Junction **WKE 204 RK** 







Exchangeable fuses

Exchangeable fuses







**WKE 4-6** 





**WKE 54** 



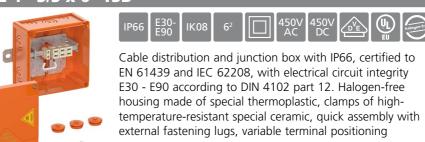
The new WKE 4 to 6 branch and junction boxes with fuses offer functional integrity for the main supply line by enabling safe and secure branches for every floor or every fire compartment. In case of faults, only the affected branch is disconnected safely from the main line. The main line remains intact so that, for instance, the lighting of the escape routes continues to function.

This method enables a completely new type of installation, because there is no need to

supply power to individual sections in starshape, but instead can junction off comfortably from the main strand without impairing the functional integrity. The cables saved in this way reduce cost and installation time while setting up the system. Double clamps made of high temperature ceramic material for cable cross-sections up to 16 mm<sup>2</sup> provide for additional safety and ensure the functional integrity up to E 90.

Similarly, the junction and connection boxes WKE 200-400 with fuses are also the new members in the WKE product family. They also help in disconnecting individual sections or floors from the main strand - but enable the wiring of cross-sections up to 35 mm.

# WKE 4 - 3/3 x 6<sup>2</sup> 1SB













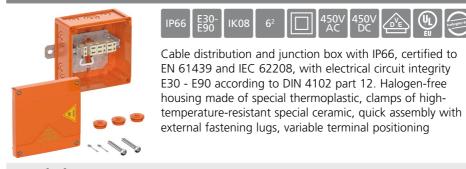


2 x 0.75<sup>2</sup> / 3 x 1<sup>2</sup> / 3 x 1.5<sup>2</sup> / 1 x 2.5<sup>2</sup> / 1 x 4<sup>2</sup> / 1 x 6<sup>2</sup>

# WKE 4 - 5/3 x 6<sup>2</sup> 1SB

Order no.

86911101









Cable distribution and junction box with IP66, certified to

Transit box, 3-pole, 0.5 - 6 mm<sup>2</sup>, distribution box, 3-pole, 0.5 - 6 mm<sup>2</sup>, fuse in the distribution box 1 x 2A (inner lying, 1 x WKE BS F2A, 86300101), number of clampable conductors per clamping point: 4 x 0.5<sup>2</sup>/











# **Description**

Description

WKE 4 - 3/3 x 6<sup>2</sup> 1SB

# WKE 4 - 5/3 x 6<sup>2</sup> 1SB

Transit box, 5-pole, 0.5 - 6 mm<sup>2</sup>, distribution box, 3-pole, 0.5 - 6 mm<sup>2</sup>, fuse in the distribution box 1 x 2A (inner lying, 1 x WKE BS F2A, 86300101), number of clampable conductors per clamping point: 4 x 0.5<sup>2</sup> / 2 x 0.75<sup>2</sup> / 3 x 1<sup>2</sup> / 3 x 1.5<sup>2</sup> / 1 x 2.5<sup>2</sup> / 1 x 4<sup>2</sup> / 1 x 6<sup>2</sup>

86912101

Order no.

# WKE 6 - 5/3x10<sup>2</sup> 1D0















Cable distribution and junction box with IP66, certified to EN 61439 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning



# Description

# WKE 6 - 5/3x10<sup>2</sup> 1D0 Transit box, 5-pole, 0.5 - 6 mm<sup>2</sup>, distribution box, 3-pole, 0.5 - 6 mm<sup>2</sup>, fuse in the distribution box 1 x 2A

(inner lying, 1 x WKE BS F2A, 86300101), number of clampable conductors per clamping point: 4 x 0.52/ 2 x 0.75<sup>2</sup> / 3 x 1<sup>2</sup> / 3 x 1.5<sup>2</sup> / 1 x 2.5<sup>2</sup> / 1 x 4<sup>2</sup> / 1 x 6<sup>2</sup>

Order no. 86922120

els spelsberg











Cable distribution and junction box with IP66, certified to EN 61439 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning



Description

Order no.

# WKE 6 - 5/3x16<sup>2</sup> 1D0

86932120

Transit box, 5-pole, 1.5 - 16 mm<sup>2</sup>, distribution box, 3-pole, 1.5 - 10 mm<sup>2</sup>, fuse in distribution box 1 x D01 socket (without insert), number of clampable conductors per clamping point 5 x 1.5<sup>2</sup> / 4 x 2.5<sup>2</sup> / 2 x 4<sup>2</sup> / 2 x 6<sup>2</sup> / 1 x 10<sup>2</sup> /

# Safe solution for U55

The underground line 55 of Berlin runs on the section between Brandenburg Gate and the main station. 365 days in a year, round the clock. The transport companies of Berlin (BVG) have very strict safety conditions for electrical engineering in the tunnels. They must ensure the functionality of the facilities vital for life even in case of fire.

The fire protection boxes of Spelsberg with integrated fuses protect the electrical cable systems in this harsh environment. In case of fire, they ensure that the lighting and the evacuation facilities continue to function for at least 30 minutes.

The special solutions of the types WKE 300 and WKE 400 in protection class II and protection type IP66, developed especially for the Berlin transport companies, are made of a extremely durable halogen-free, self-extinguishing duroplast. A safe solution, wherever fire protection, high impact resistance and reliable sealing against dust and water are important.







WKE 300 8 x 6<sup>2</sup> 2FS





Cable junction and connection boxes with IP66 certified

as per EN 61439-2, with electrical functional integrity E30

according to DIN 4102 Part 12 in the duct, enclosure and

terminal strips made from halogen-free special duroplastic









**Description** 

Order no.

WKE 300 8 x 6<sup>2</sup> 2FS

86226201

Junction box with fused branch, Connection box 3-pole, Junction box 3-pole, Number of conductors per pole 4 x 1.5 - 6mm<sup>2</sup>, Capacity per clamping point 1 x 1.5 - 6mm<sup>2</sup>, Fuse holder (20 x 5mm) max. 6.3A

# WKE 400 7 x 10<sup>2</sup> 1D0













Cable junction and connection boxes with IP66 certified as per EN 61439-2, with electrical functional integrity E30 according to DIN 4102 Part 12 in the duct, enclosure and terminal strips made from halogen-free special duroplastic

1x M25

2x M32

**Description** 

Order no. 86235501

WKE 400 7 x 10<sup>2</sup> 1D0

Junction box with fused branch, Connection box 3-pole, Junction box 3-pole, Number of conductors per pole 4 x 1.5 - 10mm<sup>2</sup>, Capacity per clamping point 1 x 1.5 - 10mm<sup>2</sup>, D02 fuse holder max. 6A

# WKE 400 7 x 10<sup>2</sup> 2D0

200 x 200 x 110 mm













Cable junction and connection boxes with IP66 certified as per EN 61439-2, with electrical functional integrity E30 according to DIN 4102 Part 12 in the duct, enclosure and terminal strips made from halogen-free special duroplastic



Description

Order no.

WKE 400 7 x 10<sup>2</sup> 2D0

Junction box with fused branch, Connection box 3-pole, Junction box 3-pole, Number of conductors per pole 4 x 1.5 - 10mm<sup>2</sup>, Capacity per clamping point 1 x 1.5 - 10mm<sup>2</sup>, D02 fuse holder max. 6A

86235601

WKE 200-400 | FOR SECURED JUNCTION

**WKE 204 RK** 















Cable junction and connection box with IP66 certified acc. EN 60670, with electrical functional integrity E30 acc. to DIN 4102-12, enclosure and terminal strips made from halogen-free special duroplastic



# Description

Order no.

# **WKE 204 RK**

86220401

Junction box with fused branch, Connection box 3-pole, Junction box 3-pole, Number of conductors per pole 4 x 0.5 - 4mm<sup>2</sup>, Capacity per clamping point 1 x 0.5 - 4mm<sup>2</sup>, Fuse holder (20 x 5mm) max. 6.3A

# 1999 1986

**WKE 304 RK** 







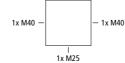








Cable junction and connection box with IP66 certified acc. EN 60670, with electrical functional integrity E30 acc. to DIN 4102-12, enclosure and terminal strips made from halogen-free special duroplastic



# Description

Order no.

**WKE 304 RK** Junction box with fused branch, Connection box 5-pole, Junction box 3-pole, Number of conductors per pole

4 x 1.5 - 10mm<sup>2</sup>, Capacity per clamping point 1 x 1.5 - 10mm<sup>2</sup>, Fuse holder (20 x 5mm) max. 6.3A

# 86230401

# **WKE 404 RK**











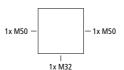








Cable junction and connection box with IP66 certified acc. EN 60670, with electrical functional integrity E30 acc. to DIN 4102-12, enclosure and terminal strips made from halogen-free special duroplastic



# **Description**

# **WKE 404 RK**

Junction box with fused branch, Junction box 5-pole, Number of conductors per pole 2 x 2.5 - 35mm<sup>2</sup>, Capacity per clamping point 1 x 2.5 - 35mm<sup>2</sup>, Junction box 3-pole, Number of conductors per pole 4 x 1.5 - 10mm<sup>2</sup>, Capacity per clamping point 1 x 1.5 - 10mm<sup>2</sup>, Fuse holder (20 x 5mm) max. 6.3A

Order no.

86240401

# Secured tapping

- Double terminal 16<sup>2</sup>
- Ideal for tunnels and industrial areas

# E90 functional integrity

- According to DIN 4102 Part 12
- Function of the electrical system for over 90 minutes
- Certified by MPA Dresden

# **IP67** protection class

- As per DIN EN 60670
- No penetration of dust
- Protection during temporary submersion
- Protection against external mechanical stresses
- IK07

# Pressure-pull strength

■ Testing according to specifications of DB-AG "Tunnel safety lighting systems for railway tunnels"























WKE 54 | FOR SECURED JUNCTION

**WKE 54** 













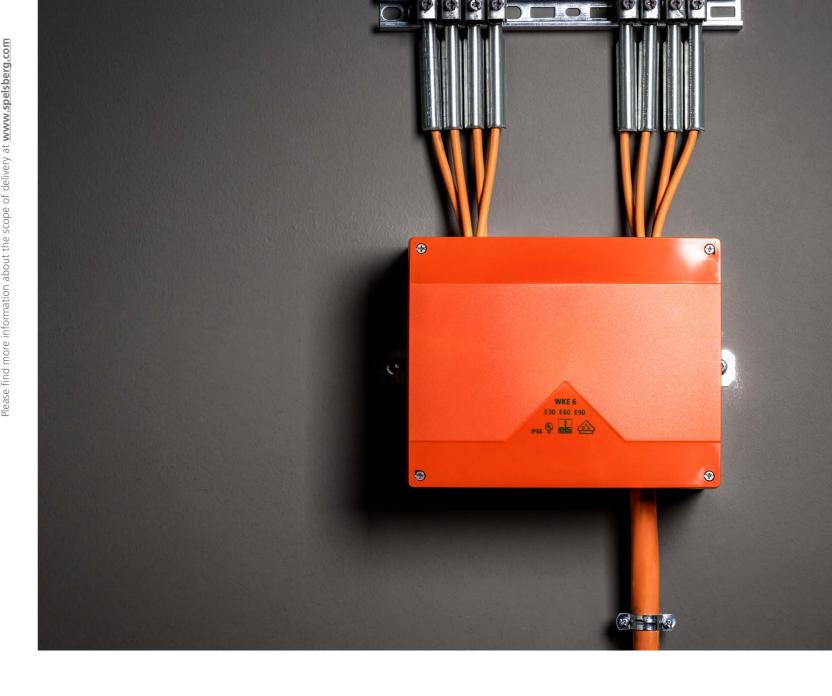


Cable junction and connection boxes with IP66/67, certified according to EN 61439-2, with electrical functional integrity E30 - E90 acc. to DIN 4102-12, halogen-free enclosure made from special duroplastic, terminals made of a high-temperature-resistant special ceramic, rapid mounting by external brackets

| Description   | Order no. |
|---|-----------|
| WKE 54  | 86025401  |
| To be used as a junction box with fused branch, Connection box 5-pole 1.5 - 16 mm <sup>2</sup> , Junction box 5-pole 1.5 - 10 mm <sup>2</sup> , Number of conductors per pole: $20 \times 1.5^2 / 16 \times 2.5^2 / 12 \times 4.0^2 / 8 \times 6^2 / 4 \times 10^2 / 4 \times 16^2$ , |           |
| 2 fuse bases D01 max. 16 A  |           |

| Recommended accessories:    | Order no. |
|-----------------------------|-----------|
| KVR M20-MGM/or, cable gland | 22762001  |
| KVR M25-MGM/or, cable gland | 22762501  |
| KVR M32-MGM/or, cable gland | 22763201  |
| KVR M40-MGM/or, cable gland | 22764001  |





# Functional integrity E30-E90 according to DIN 4102 Part 12 with ceramic terminals 1.5 mm<sup>2</sup>

- The right solution for each cross-section and application
- Installation materials such as screw anchors and double diaphragm membranes included
- Possible to mount on cable trays
- Up to 32-pin

- Quick mounting through external fixing
- Completely pre-assembled
- Ideal for building technology
- General construction-supervisory test certificate (AbP)
- VDE certified



















# WKE 4 - 8 x 1,5<sup>2</sup>









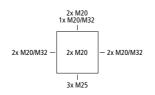
external fastening lugs, variable terminal positioning







Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with



# **Description**

# WKE 4 - 8 x 1,52

Junction box, 8-pole, 0.5 - 2.5 mm<sup>2</sup>, distribution box, 8-pole, 0.5 - 1.5 mm<sup>2</sup>, number of clampable conductors per pole: 8 x 0.5<sup>2</sup> / 4 x 0.75<sup>2</sup> / 6 x 1<sup>2</sup> / 6 x 1.5<sup>2</sup> / 2 x 2.5<sup>2</sup> Order no. 86850801

# WKE 6 - 16 x 1,5<sup>2</sup>













Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning



# **Description**

## WKE 6 - 16 x 1,52

Junction box, 16-pole, 0.5 - 2.5 mm<sup>2</sup>, distribution box, 16-pole, 0.5 - 1.5 mm<sup>2</sup>, number of clampable conductors per pole: 8 x 0.5<sup>2</sup> / 4 x 0.75<sup>2</sup> / 6 x 1<sup>2</sup> / 6 x 1.5<sup>2</sup> / 2 x 2.5<sup>2</sup> Order no. 86851601

# WKE 6 - 32 x 1,5<sup>2</sup>



















Cable distribution and junction box with IP66, certified to EN 60670 and IEC 62208, with electrical circuit integrity E30 - E90 according to DIN 4102 part 12. Halogen-free housing made of special thermoplastic, clamps of hightemperature-resistant special ceramic, quick assembly with external fastening lugs, variable terminal positioning



# **Description**

# WKE 6 - 32 x 1.52

Junction box, 32-pole, 0.5 - 2.5 mm<sup>2</sup>, distribution box, 32-pole, 0.5 - 1.5 mm<sup>2</sup>, number of clampable conductors per pole:  $8 \times 0.5^2 / 4 \times 0.75^2 / 6 \times 1^2 / 6 \times 1.5^2 / 2 \times 2.5^2$ 

WKE 4-6 | FOR COMMUNICATION LINES

Order no. 86853201





# **WKE 405 LSA**



Tested system: WKE 405 - cable junction boxes with time-saving (solder, screw and stripping free) connection technology for cables with functional integrity according to DIN 4102 part 12 - tested by the MPA Dresden



# Description

# WKE 405 LSA

Junction box equipped with two LSA-Plus connector blocks, respectively for 10 double wires (2 x 10 DA), the LSA-Plus contacts are suitable for a solid conductor with 0.4 to 0.8 mm diameter and an outside insulation diameter of 0.7 to 1.6 mm

Order no. 86240501















# Double membrane seals

Double membrane seals made of elastic plastic with two sealing membranes, closed, f. wall thicknesses 1.5 - 4.5 mm, thermoplastic elastomer, orange



| Description | Order no. |
|-------------|-----------|
| DMS M16/or  | 26061601  |
| DMS M20/or  | 26062001  |
| DMS M25/or  | 26062501  |
| DMS M32/or  | 26063201  |
| DMS M40/or  | 26064001  |

# Double membrane seals

Double membrane seals made of elastic plastic with two sealing membranes, max. four cable entries for control cables, f. wall thicknesses 1.5 - 4.5 mm, thermoplastic elastomer, orange



| Description  | Order no. |
|--------------|-----------|
| DMS M32/4 or | 26063301  |
| DMS M40/4 or | 26064101  |

# Cable gland



Cable gland with strain relief, polyamide, M\_ x 1.5 mm, with lock nut, orange

| Description    | Sealing area/mm | Thread lenght/mm | Order no. |
|----------------|-----------------|------------------|-----------|
| KVR M20-MGM/or | 7 - 14.0        | 9                | 22762001  |
| KVR M25-MGM/or | 9 - 16          | 11               | 22762501  |
| KVR M32-MGM/or | 11 - 21.0       | 11               | 22763201  |
| KVR M40-MGM/or | 16 - 28.0       | 11               | 22764001  |

# WKE BS F2A spare fuses



Spare fuses for WKE 2-6 in the "SB" versions, Wired device fuses F2A in the size 5 x 20 mm coated with a glass fibre sleeve

| Description                  | Order no. |
|------------------------------|-----------|
| WKE BS F2A                   | 86300101  |
| 10 pieces per packaging unit |           |

# Externel fastening lugs



External fastening kit V2A

| Description   | Order no. |
|---|-----------|
| WKE 200 ABL External fastening kit V2A, for WKE 200 up to WKE 400, Material stainless steel V2A (1.4301), Set = 4 pcs.  | 86040001  |
| <b>KVS</b> Cable gland protection set, is needed for IK 09 when cable glands are used, for WKE 200 up to WKE 400. IK09. Material stainless steel V2A (1.4301). Set = 3 pcs. | 89004001  |

Cover screws and external fitting lugs can be delivered in V4A upon request

WKE 200-400 | ACCESSORIES



■ VDE tested according to EN 61 439-2

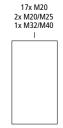
- 14 -70 modular units
- Low-voltage switching device combinations according to EN 61439 that can be planned freely
- Compact size
- Can be fitted individually with type-tested equipment
- Tested according to DIN 4102 Part 2 by MPA Dresden
- Fire load insulation F90 (as per I90) for the protection of the escape and rescue route according to MLAR 2005
- Functional integrity F90 (according to E90) for the protection of electrical fittings as per MLAR 2005
- One housing for all applications

**WKE AK 14** 540 x 400 x 230 mm



Fire protection small-scale distributors, VDE certificated compliant with DIN EN 61 439-2, VDE tested and certified under specific operating conditions to be compliant with DIN EN 61 439-2, tested compliant with DIN 4102-2 by MPA Dresden, F90 for internal flame impingement according to DIN 4102 based on I90, F90 for external flame impingement according to DIN 4102 based on E90, can be individually equipped with type-tested operating materials

IP6X E30- S M R IK10 400V AC DC DC



| Description   | Order no. |
|---|-----------|
| WKE AK 14 Hinges left, 1-row, 14 distribution units, Ui=400V, screwless PE/N terminal rails each with 3 screwable clamping points, 2.5 - 16 mm², 14 screwless terminal points , 1.5 - 4 mm², elastic entries on top, with cable covering, masking and labelling strips, additional double-membrane seals and other accessories    | 86541401  |
| WKE AK 14 R Hinges right, 1-row, 14 distribution units, Ui=400V, screwless PE/N terminal rails each with 3 screwable clamping points, with cable covering, 2.5 - 16 mm², 14 screwless terminal points, 1.5 - 16 mm², elastic entries on top, masking and labelling strips, additional double-membrane seals and other accessories | 86551401  |

WKE AK 28



Fire protection small-scale distributors, VDE certificated compliant with DIN EN 61 439-2, VDE tested and certified under specific operating conditions to be compliant with DIN EN 61 439-2, tested compliant with DIN 4102-2 by MPA Dresden, F90 for internal flame impingement according to DIN 4102 based on I90, F90 for external flame impingement according to DIN 4102 based on E90, can be individually equipped with type-tested operating materials



| Description  | Order no. |
|--|-----------|
| WKE AK 28 Hinges left, 2 row, 28 distribution units, Ui=400V, 150 mm rail spacing, screwless PE/N terminal rails each with 3 screwable clamping points 1.5 - 4 mm², 21 / 2 x 14 screwless clamping points 1.5 mm² - 4 mm², elastic entries on top, with cable covering, masking and labelling strips, additional double-membrane seals and other accessories | 86542801  |
| WKE AK 28 R Hinges right, 2 row, 28 modules, Ui=400V, 150 mm rail spacing, masking and labelling strips, additional double-membrane seals and other accessories, screwless PE/N terminal rails each with 3 screwable clamping points 1.5 - 4 mm², 21 / 2 x 14 screwless clamping points 1.5 mm² - 4 mm², elastic entries on top, with cable covering         | 86552801  |





















WKE AK 42 840 x 400 x 230 mm













Fire protection small-scale distributors, VDE certificated compliant with DIN EN 61 439-2, VDE tested and certified under specific operating conditions to be compliant with DIN EN 61 439-2, tested compliant with DIN 4102-2 by MPA Dresden, F90 for internal flame impingement according to DIN 4102 based on I90, F90 for external flame impingement according to DIN 4102 based on E90, can be individually equipped with type-tested operating materials

| 17x M20<br>2x M20/M25<br>1x M32/M40 |
|-------------------------------------|
|                                     |

| Description   | Order no. |
|---|-----------|
| WKE AK 42 Hinges left, 3 row, 42 distribution units, Ui=400V, 150 mm rail spacing, screwless PE/N terminal rails each with 6 screwable clamping points, 2.5 - 16 mm², 21 / 2 x 14 screwless clamping points 1.5 mm² - 4 mm², elastic entries on top, with cable covering, masking and labelling strips, additional double-membrane seals and other accessories    | 86544201  |
| WKE AK 42 R Hinges right, 3 row, 42 distribution units, Ui=400V, 150 mm rail spacing, with cable covering, masking and labelling strips, screwless PE/N terminal rails each with 6 screwable clamping points, 2.5 - 16 mm², 21 / 2 x 14 screwless clamping points 1.5 mm² - 4 mm², elastic entries on top, additional double-membrane seals and other accessories | 86554201  |

WKE AK 56

















Fire protection small-scale distributors, VDE certificated compliant with DIN EN 61 439-2, VDE tested and certified under specific operating conditions to be compliant with DIN EN 61 439-2, tested compliant with DIN 4102-2 by MPA Dresden, F90 for internal flame impingement according to DIN 4102 based on I90, F90 for external flame impingement according to DIN 4102 based on E90, can be individually equipped with type-tested operating materials



| Description  | Order no. |
|--|-----------|
| WKE AK 56 Hinges left, 4 row, 56 distribution units, Ui=400V, 150 mm rail spacing, screwless PE/N terminal rails each with 6 screwable clamping points, 2.5 - 16 mm², 21 / 2 x 14 screwless clamping points 1.5 mm² - 4 mm², elastic entries on top, additional double-membrane seals and other accessories    | 86545601  |
| WKE AK 56 R Hinges right, 4 row, 56 distribution units, Ui=400V, 150 mm rail spacing, additional double-membrane seals and other accessories, screwless PE/N terminal rails each with 3 screwable clamping points, 2.5 - 16 mm², 21 / 2 x 14 screwless clamping points 1.5 mm² - 4 mm², elastic entries on top | 86555601  |

WKE AK 70 1140 x 400 x 230 mm















Fire protection small-scale distributors, VDE certificated compliant with DIN EN 61 439-2, VDE tested and certified under specific operating conditions to be compliant with DIN EN 61 439-2, tested compliant with DIN 4102-2 by MPA Dresden, F90 for internal flame impingement according to DIN 4102 based on I90, F90 for external flame impingement according to DIN 4102 based on E90, can be individually equipped with type-tested operating materials

| 17x M20<br>2x M20/M25<br>1x M32/M40 |
|-------------------------------------|
|                                     |
|                                     |

| Description  | Order no. |
|--|-----------|
| <b>WKE AK 70</b> Hinges left, 5 row, 70 distribution units, Ui=400V, 150 mm rail spacing, screwless PE/N terminal rails each with 6 screwable clamping points, 2.5 - 16 mm², 21 / 2 x 14 screwless clamping points 1.5 mm² - 4 mm², elastic entries on top, additional double-membrane seals and other accessories | 86547001  |
| WKE AK 70 R Hinges right, 5-row, 70 distribution units, Ui=400V, 150 mm rail spacing, screwless PE/N terminal rails each with 6 screwable clamping points, 2.5 - 16 mm², 21 / 2 x 14 screwless clamping points 1.5 mm² - 4 mm², elastic entries on top, additional double-membrane seals and other accessories     | 86557001  |

- Contacting of uncut conductors up to 50 mm<sup>2</sup>, also suitable for retrofit
- Maintenance-free and secured jacket clamp with rotating, spring-loaded pressure piece and reverse rotation lock
- Tapping via tension spring clamp
- Simplified mounting of cable during installation
- Cost-effective, low maintenance operation of the system
- Uninterrupted power supply through the uncut conductor

# **Properties**

- 2 base versions:
- Standard according to IEC 61439-2 (VDE)
- Functional integrity E30 / E60 / E90 according to EN 1363 (MPA)
- Pre-wired on fuse
- With external fixing points
- Dimensions: 447 x 190 x 105 mm

# **Basic types**

# **Clamping capacity**

- ★ Terminal in the passage 16<sup>2</sup>: Terminal can be loaded with a rated current of max. 63 A, clamping range for uncut conductors 2.5 mm<sup>2</sup> - 16 mm<sup>2</sup>, clamping range for cut conductors 2.5 mm<sup>2</sup> - 10 mm
- ★ Terminal in the passage 50<sup>2</sup>: Terminal can be loaded with a rated current of max.100 A, clamping range for uncut conductors 10 mm<sup>2</sup> - 50mm<sup>2</sup>, clamping range for cut conductors 2.5 mm<sup>2</sup> - 35 mm<sup>2</sup>
- <u>
  ← Terminal in the branch 2.5<sup>2</sup>:</u> Terminal can be loaded with a rated current of max. 24 A, clamping range for conductors 0.5 mm<sup>2</sup> - 2.5 mm<sup>2</sup>



\*

# **Cable diameter**

- Ø 9 to 34 mm
- means of cable gland: Ø till 16 mm (KVR M25)





















**◎** 

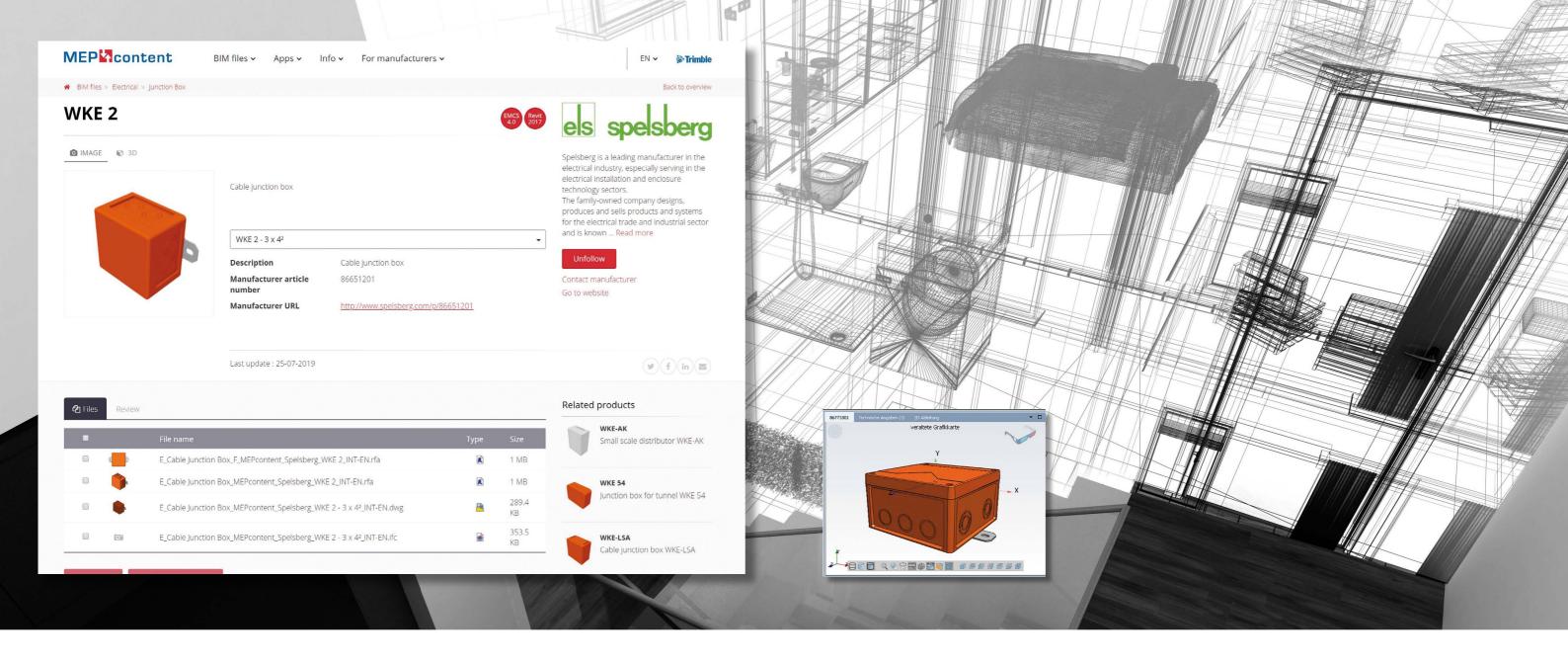
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→ Safety fuse D01 from 2A to 16A, 1 to 4 pieces

0

(2)



Digitalisation in building technology has long since arrived with the use of CAD and smart solutions. In case of **Building Information Modelling** the entire building is recorded as a model. In doing so, all data relevant for planning, execution or management are combined under a single interface across all sectors.

Consequently, all information is constantly available to all persons involved. If the architect changes the floor plan, the bill of materials for doors or sockets changes automatically, and plans for the supply lines are also adjusted.

From specialist planners to retailers right till the contractors, regular synchronisation always keeps everyone up to date. In this way, quality of the process increases, while time and cost are reduced.

# Spelsberg supports the new standard

Many CAD manufacturers already support the IFC standard, which is available as an open standard to anyone who deals with buildings throughout their lifecycle.

With immediate effect, Spelsberg is also offering its products as BIM objects for the software solutions REVIT and ArchiCAD.

These can be downloaded from www.mepcontent.com.



Cadenas PARTsolutions supports design engineers, planners and buyers in their work by providing CAD models. For this reason, Spelsberg is also present with its products on the 3D CAD download portal **Cadenas PARTcommunity.** 

As early as in the design phase, engineers quickly find both components and standard parts using the smart portal search function.

Apart from this, PARTsolutions also offers the possibility of reducing and managing the components product costs significantly.

Likewise, the increased clarity in the form of a unified structure in the parts-information data and the ordered catalogue structure is a valued advantage for the users.





Spelsberg offers ready-to-use advertising texts for all products on ausschreiben.de, ais-online.de and heinze.de.

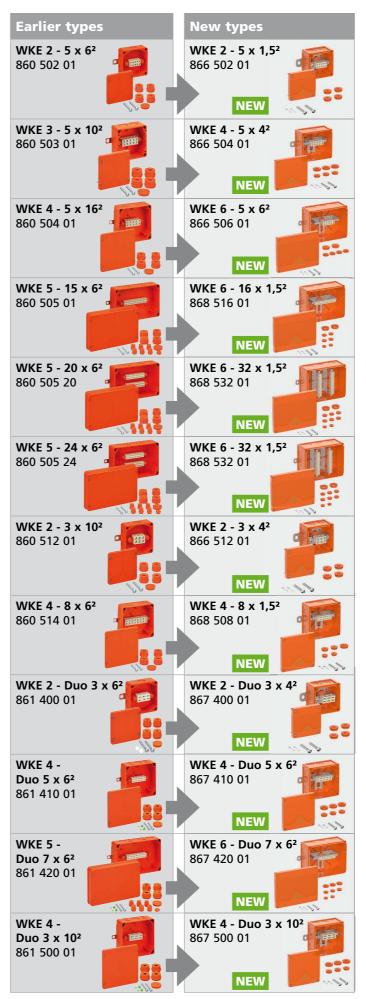
The texts provide relevant product information and descriptions in a convenient format. Thus, planners and architects have this tool directly available for efficient and safe planning.

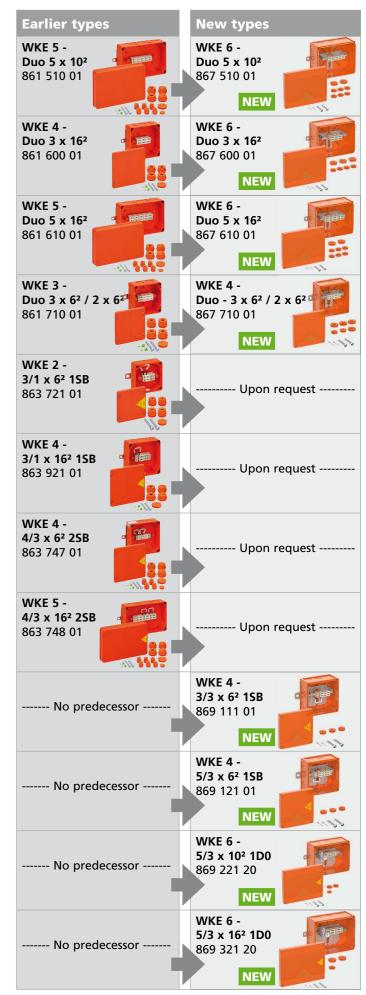
The Spelsberg product series are additionally characterised by expert opinions. The official documents of the certified WKE products can be downloaded as PDF from www.spelsberg.com.













# WKE 2 to 6 - cable entries

| 9     |            |
|-------|------------|
| M16   | 5 - 9      |
| M20   | 7-12       |
| M25   | 9 - 16     |
| M32   | 14 - 21    |
| M40   | 19 - 28    |
| M32/4 | 4x 3,5 - 6 |
| M40/4 | 4x 6 - 9   |

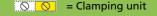
|            |         | Nm  |
|------------|---------|-----|
| M 16 x 1,5 | 4 - 10  | 2,5 |
| M 20 x 1,5 | 6 - 12  | 4   |
| M 20 x 1,5 | 7 - 14  | 4   |
| M 25 x 1,5 | 9 - 16  | 6   |
| M 32 x 1,5 | 11 - 21 | 7   |
| M 40 x 1,5 | 16 - 28 | 7,5 |

|             | = Double membrane seals |
|-------------|-------------------------|
|             | = Cable screw coupling  |
| +\(\angle\) | = Clamping area         |
| Nm          | = Rated torque          |

| 1 | = Cable cross section |
|---|-----------------------|

# Number of conductors that can be clamped per pin or clamping unit (depending upon the housing size)

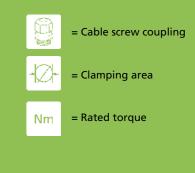
|                       | Terminal 6 <sup>2</sup><br>Tightening torque 0.8 Nm |     | Terminal 10²<br>Tightening torque 1.2 Nm |     |    | Terminal 16 <sup>2</sup><br>Tightening torque 2.0 Nm |     |     |    |
|-----------------------|---|-----|--|-----|----|--|-----|-----|----|
|                       | 0 0   | 0 0 | 00                                       | 0 0 | 00 | 00   | 0 0 | 0 0 | 00 |
| 0,52                  | 16  | 8   | 4  |     |    |  |     |     |    |
| 0,75²                 | 8   | 4   | 2  |     |    |  |     |     |    |
| 1,0 <sup>2</sup>      | 12  | 6   | 3  | 20  | 10 | 5  |     |     |    |
| 1,5²                  | 12  | 6   | 3  | 16  | 8  | 4  | 20  | 10  | 5  |
| 2,5²                  | 4   | 2   | 1  | 12  | 6  | 3  | 16  | 8   | 4  |
| <b>4</b> <sup>2</sup> | 4   | 2   | 1  | 8   | 4  | 2  | 12  | 6   | 3  |
| 6 <sup>2</sup>        | 4   | 2   | 1  | 4   | 2  | 1  | 8   | 4   | 2  |
| 10 <sup>2</sup>       |   |     |  | 4   | 2  | 1  | 4   | 2   | 1  |
| 16²                   |   |     |  |     |    |  | 4   | 2   | 1  |



= Double terminal, 4 clamping units

# WKE 200-400 - cable entries

|            | +22+    | Nm  |
|------------|---------|-----|
| M 20 x 1,5 | 6 - 13  | 4   |
| M 25 x 1,5 | 6 - 15  | 6   |
| M 25 x 1,5 | 9 - 19  | 6   |
| M 32 x 1,5 | 17 - 26 | 7   |
| M 40 x 1,5 | 17 - 27 | 7,5 |
| M 50 x 1,5 | 23 - 34 | 7,5 |



# WKE 200-400 - Connection capacity of the terminals

|                   | Conductor cross-section single-wire min max |                    | Conductor cross-section<br>multi-wire |                    | Tightening torque |        |
|-------------------|---|--------------------|---------------------------------------|--------------------|-------------------|--------|
|                   |   |                    | min                                   | max                | min               | max    |
| WKE SAK 2,5 / 35  | 0,5 mm <sup>2</sup>                         | 6 mm <sup>2</sup>  | 0,5 mm <sup>2</sup>                   | 4 mm <sup>2</sup>  | 0,4 Nm            | 0,6 Nm |
| WKE SAK 6 / 35    | 0,5 mm <sup>2</sup> 10 mm <sup>2</sup>      |                    | 0,5 mm <sup>2</sup>                   | 6 mm <sup>2</sup>  | 0,8 Nm            | 1,6 Nm |
| WKE SAK 10 / 35   | 1,5 mm <sup>2</sup>                         | 10 mm <sup>2</sup> | 1,5 mm <sup>2</sup>                   | 16 mm <sup>2</sup> | 2 Nm              | 2,4 Nm |
| WKE SAK 16 / 35   | 2,5 mm <sup>2</sup>                         | 16 mm <sup>2</sup> | 4 mm <sup>2</sup>                     | 16 mm <sup>2</sup> | 2 Nm              | 2,4 Nm |
| WKE SAK 35 N / 35 | 2,5 mm <sup>2</sup> 16 mm <sup>2</sup>      |                    | 4 mm <sup>2</sup>                     | 35 mm <sup>2</sup> | 4 Nm              | 5 Nm   |





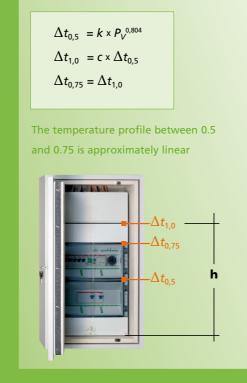




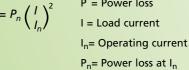




|  | WKE AK 14       | WKE AK 28       | WKE AK 42       | WKE AK 56 | WKE AK 70       |
|--|-----------------|-----------------|-----------------|-----------|-----------------|
| Height   | 300 mm          | 450 mm          | 600 mm          | 750 mm    | 900 mm          |
| Width  | 300 mm          | 300 mm          | 300 mm          | 300 mm    | 300 mm          |
| Depth  | 142 mm          | 142 mm          | 142 mm          | 142 mm    | 142 mm          |
| perm. power loss<br>at 25 °C ambient temperature | 21 W            | 27 W            | 33 W            | 40 W      | 47 W            |
|  | k= 2,38 c= 1,18 | k= 1,85 c= 1,23 | k= 1,53 c= 1,24 | k= 1,32   | k= 1,17 c= 1,25 |



| P <sub>V</sub> devices*1                              | *1 For a lower load on switching devices having ohmic internal resistance to a large extent, the |
|---|--|
| + P <sub>V</sub> fuses*1<br>+ P <sub>V</sub> cables*2 | following equation may be used   |
| = Total P <sub>V</sub>                                | $P = P / I ^2$ P = Power loss  |



\*2 For a lower load on the conductor, the following equation may be used

$$P = P_n \binom{I}{I_n}^2$$

$$P = Power loss in Watt per metre$$

$$I = Conductor current (load)$$

$$I_n = Operating current$$

I<sub>n</sub>= Operating current  $P_n$ = Power loss at  $I_n$ 

# Installation of the cable

If the box is attached to the wall, the cables are inserted one at a time through the openings at the top. The cables must first be passed through the fire protection foam between the outer and inner housing. Double membrane seals ensure that the cable bushing lying inside is sealed securely. Each of the PE and N terminals in the distributor offer adequate connection capacity with up to 6 clamping units 2.5 - 16 mm<sup>2</sup> that can be fixed with screws and up to 21 screw-less clamping units 1.5 - 4 mm<sup>2</sup>.

# Quick mounting on the wall

For fixing the WKE AK 14 to 70 on the wall, only the dowels or screw anchors described in the "General Building Inspectorate Approval" may be used. The wall, on which the distributor is to be mounted, must have sufficient load-bearing capacity. In doing so, the fire resistance of the supporting walls must be at least as high as that of the distributor.

Using the enclosed screw anchors, the WKE AK can be mounted effortlessly on the mounting holes in the housing - in cracked or non-cracked concrete. A distance of at least one metre to the fire protection distributor is prescribed under low-voltage operation for adjacent installations, such as gas or water. A distance corresponding to the door end stop must be maintained near the doors.

Adherence to the limiting temperatures is a decisive criterion for the safe operation of the installation distributor. Too high internal temperatures in the housing can lead to a premature triggering of the fuses or circuit breakers. In extreme cases, too high temperatures can also damage the cables. VDE0660-507 specifies a method for determining the heating of partially typetested low-voltage switching device combinations by extrapolation. In order to simplify the calculation process, the factors k and c have already been determined by Spelsberg.

For a correct calculation of all built-in devices, the operating current (In), the power losses at operating current (Pn) and the actual load current (I) are required. From this, the actual power loss of the individual devices can then be calculated. The temperature increase in the housing can then be calculated using the total power loss. Together with the ambient temperature, the internal temperature of the housing results in different values. With this result, it can then be checked, whether the limiting temperatures of the built-in devices and cables are exceeded.

In this case, different devices are to be used or the power loss is to be reduced. The maximum operating current at the given temperature can be determined for circuit breakers and fuses from the data sheets of the manufacturer.





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