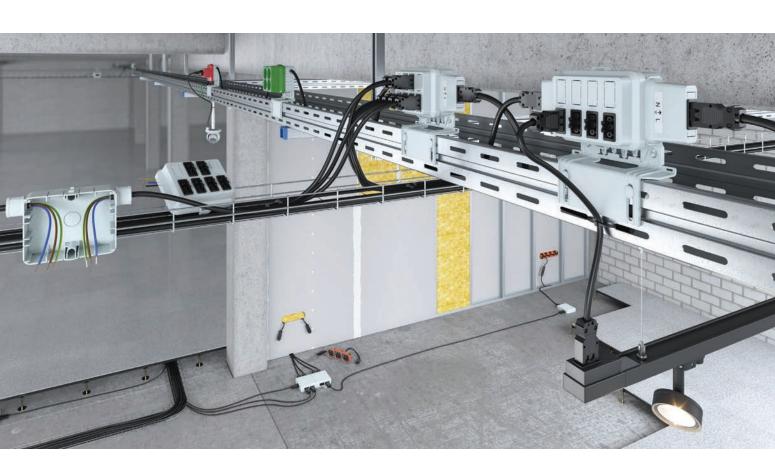
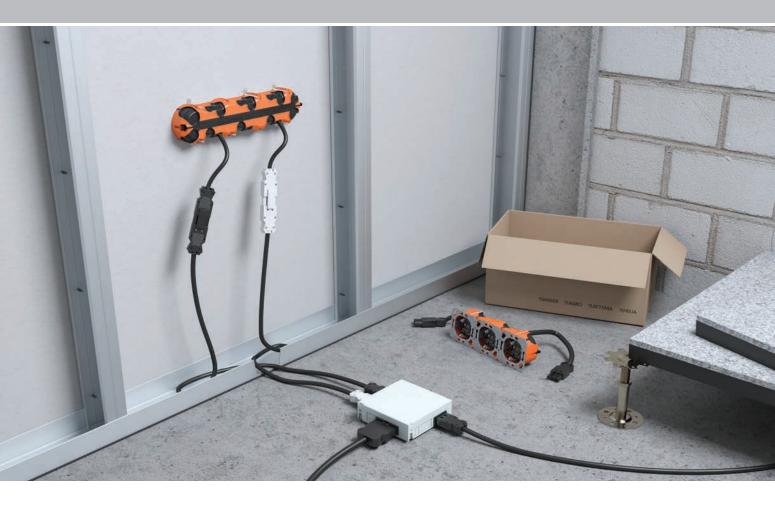
Pluggable installation from KAISER.

Time-saving and flexible.







The future, pluggable. Simple, fast and secure.

Pre-assembled components and systems are in demand as a solution for planning and installation, especially for efficient, on-time construction.

Thus, a time-consuming, cost-intensive electrical installation on the construction site can be economically optimised by pre-assembled, pluggable systems.

The specialist planner or electrical installer plans the installation using modular components and cables that are individually pre-assembled in their own workshop or at the manufacturer's premises. At the construction site, these only have to be assembled for commissioning according to the specified plan. This enables time savings of up to 70% at the construction site. And if schedules are tight, selected system partners from the electrical trade can be deployed on site as required.

A pluggable installation simultaneously increases the safety, accuracy and transparency of the installation. Time overlaps with other trades can be coordinated more easily and more reliably.

This type of planning also enables a very efficient subsequent adjustment of the installation in the event of an expansion or redesign of the usable areas, even during operation. This, in turn, leads to savings effects for the operator and tenant throughout the entire building life cycle.

The pluggable installation from KAISER provides safe solutions with which every installation task can be perfectly mastered.

For cable support systems, such as cable trays or mesh cable trays

- Pre-assembled "100% pluggable AK2 distribution box" (ready for connection with plug)
- "AK2 distribution box" modular system with pre-assembled front parts (ready for connection to the core cable)
- "AK2 data distribution box" for data networks (entries for data cables, can be fitted with Keystone modules)
- "AK1/AK2 IP65 cable junction casings" with protection against dust and water

For suspended ceilings, raised floors and underfloor systems

- Pre-assembled "100% pluggable compact PD / multi-PD distribution box" (ready for connection with plug)
- Pre-assembled "compact PD / multi PD distribution box" (ready for connection to the core cable)
- "Compact PD / multi PD empty housing" modular system with customisable housings (not equipped with break-out openings)

For drywall

• O-range ECON® cavity wall one-gang and one-gang junction boxes with customisable assembly for pluggable sub-assemblies





The future, pluggable. Simple, fast and secure.	2
Digital building. With KAISER BIM data.	4
Service. The easy way.	5
Advantages. Pluggable electrical installation.	6
System overview. Pluggable electrical installation.	8

Requirements

Distribution boxes for cable support systems

Universally combinable boxes. Distribution boxes for data networks. Distribution boxes ready for connection.

Where a high level of protection is required.

Distribution boxes for cramped spaces

When things get tight.

Cavity wall boxes

Pre-fabrication made smart. System partners hand in hand.

Product solutions

AK2 modular system.	10
AK2 data.	18
AK2, 100 % pluggable	20
AK1/AK2 IP65 cable junction boxes.	24
Compact PD / multi-PD distribution boxes.	30
O-range® for the electrical trade.	34

Pluggable sub-assemblies from the manufacturer.



39



Digital building.With KAISER BIM data.

More and more architects and electrical planners today use the BIM method (Building Information Modelling) to obtain reliable information about effort, time schedules, cost development, execution and operation of a building over its entire life cycle and to document this information continuously. In a collaborative planning process that includes all parties involved in the construction project, all geometric and technical data are recorded, supplemented and cross-checked. In this way, planning errors, conflicts, risks, process disruptions and unnecessarily high operating costs can be detected and eliminated early on. This leads to better coordination, shorter construction time, lower costs and higher quality.

KAISER offers all those involved in the construction process, such as architects, electrical planners and tradesmen, comprehensive support for their BIM construction projects. The user is taken directly to the corresponding information area on the KAISER website via the link kaiser-electro.com/planning.

Tenders in all common formats for KAISER products can be found at www.ausschreiben.de/katalog/Kaiser

Service. The easy way.

The innovative brand products from KAISER are also characterised by perfect service. We explain all the benefits of our products and processes in simple and intuitive videos. A product filter in the online catalogue at www.kaiser-elektro.de helps you make the right product selection. Tenders, CAD data and BIM data make professional planning easy. More specifically, the following are available:

- Online product catalogue with many functions for everyday tasks
- Download and request brochures, catalogues, installation instructions and much more
- Information about seminars, trade fairs and events
- Technical application advice
- Marketing and service numbers
- Product sources of supply
- Article master data, certificates and prices
- Tenders in multiple formats
- BIM data for planning programmes
- CAD data for construction
- Personal contact



Pluggable installation product animation

With a comprehensive range of services, from product catalogues and tender texts to BIM data, KAI-SER offers support in every project phase. Give us a call - we are here for you: +49 (0) 23 55 / 809-61 technik@kaiser-elektro.de

Building Information Modelling. The future in building construction.



Building Information Modelling (**BIM**) opens up a new planning and building culture and is fast becoming the standard in building design. Based on a "digital twin" in the form of a 3D computer

model with important meta-information, the planning, execution and operation of a structure can be virtually depicted and optimised over its entire life cycle.

In a collaborative planning process with all parties involved, **all geometric and technical data** are successively recorded, supplemented and cross-checked. These data describe, for example, the material, operating life, environmental or other characteristics, such as acoustic or fire protection properties. This allows for the identification and elimination of planning errors, risks, disrupted construction processes, conflicts between work sections and unnecessarily high operating costs starting in the early planning stages. This prevents unexpected cost increases during construction and operation.

For planning, implementation and operation. Support throughout the entire building life cycle with KAISER BIM data.

KAISER provides planners, architects, engineers and specialist firms with extensive support in the planning, implementation and operation of their BIM construction projects:



The user can directly access the information section on tendering and planning on the KAISER website via the link <u>to.kaiser-elektro.de/planung</u>.

3D multi-BIM CAT data are available at <u>kaiser.partcommunity.com</u>. Autodesk Revit users can also use the BIMcatalogs.net content plugin. In addition to downloading product data, you can also configure products to suit your specific requirements. After config-

uring the product, the corresponding CAD model can be generated together with a PDF data sheet and incorporated into the planning and documentation.

All changes in BIM are directly reflected in the orders of magnitude, quantities and costs of the construction project. This allows all project participants to be informed rapidly and also ensures precise cost, schedule, and quality control.

Tenders in all common formats for KAISER products can be found at www.ausschreiben.de/katalog/Kaiser

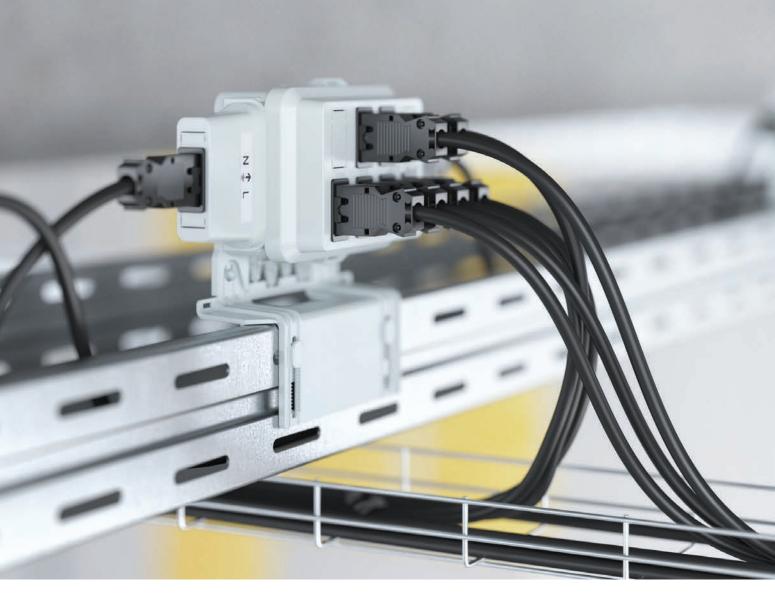
KAISER - THE BASIS FOR GOOD INSTALLATION.

Advantages. Pluggable electrical installation.

KAISER's pluggable electrical installation solution is a perfect fit wherever safe and quick electrical installation is required as well as situations in which modifications and maintenance need to be carried out with the least possible effort in the building life cycle.

For example, in office, hotel and shop construction, in the positioning of desks, lighting, machinery or other electrical consumers in order to be able to adapt these quickly and easily to changing room concepts. A power and data supply is now required for almost all elements - from shelves to lighting. Consistent pluggability is a basic prerequisite for being able to react quickly and easily to seasonal adjustments or sales promotions.

Almost all plug-in systems from leading manufacturers, such as WAGO or Wieland can be used in the products and solutions for KAISER's pluggable installation.



Conventional electrical installation

The error rate when wiring increases depending on the complexity, time constraints at the construction site and the scope of installation

Pluggable electrical installation



Ready-to-connect, preassembled pluggable components with coded connections

SAFETY

All installation-related work must be carried out directly at the construction site



Up to **70% less time required** at the **construction site**

SPEED

No influence on climate and conditions for installation as well as further obstructions by other trades at the construction site



Pre-assembly in your own workshop or by the manufacturer

CONVENIENCE

Uncertainties in the planning of consumables, many trips to the construction site, work only possible if carried out by qualified personnel



Up to **30% lower total costs** due to pre-assembly

Low proportion of reusable components and parts for adjustments or expansions



Little effort for adjustments or expansions via standardised plug-in systems

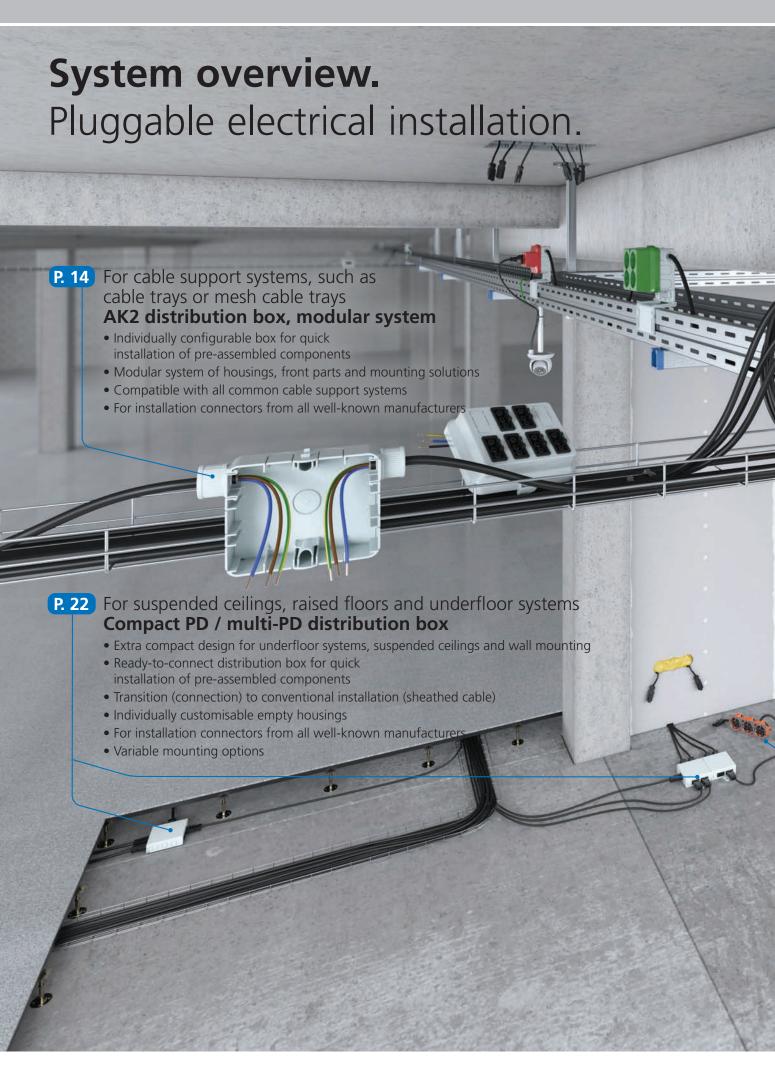
SUSTAINABILITY

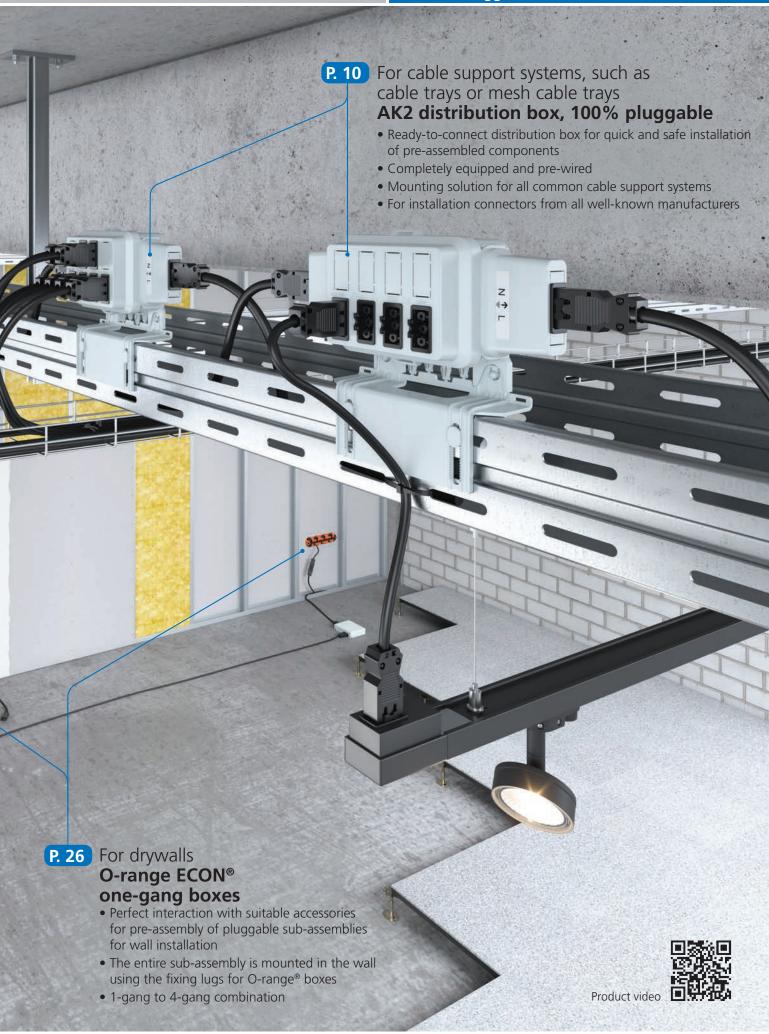
High installation effort and time required on site for adjustments or expansions with the usual interruptions to ongoing operations

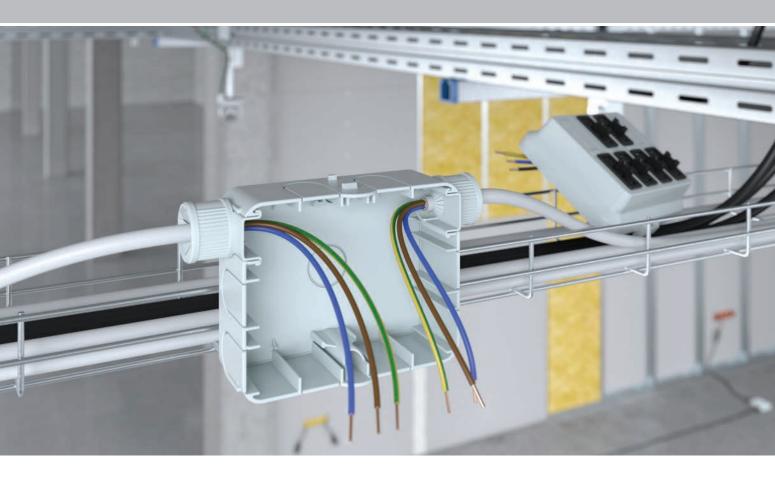


Short time requirement for adjustments with minimal interruptions to ongoing operations

ECONOMIC EFFICIENCY







Universally combinable housing for cable support systems.

AK2 modular system.

The **AK2 modular system** can cover a wide range of applications, as it offers the right solution for all installation tasks. In addition to the various mounting options on the cable tray and mesh cable tray, the different front sections offer solutions for creating cable networks, for connecting luminaires/detectors/ sensors and for the transition between conventional and pluggable installation.

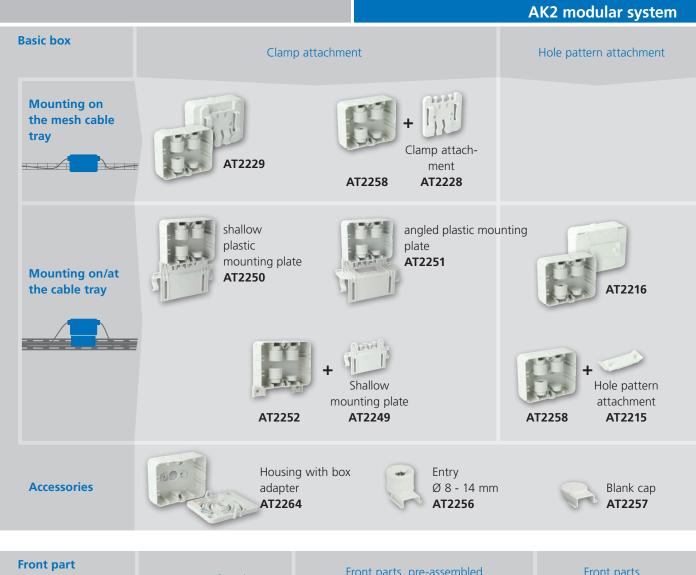
The AK2 modular system consists of a basic box, front part and attachment accessories in numerous variants. This allows individually configured boxes to be assembled for pluggable electrical installations.

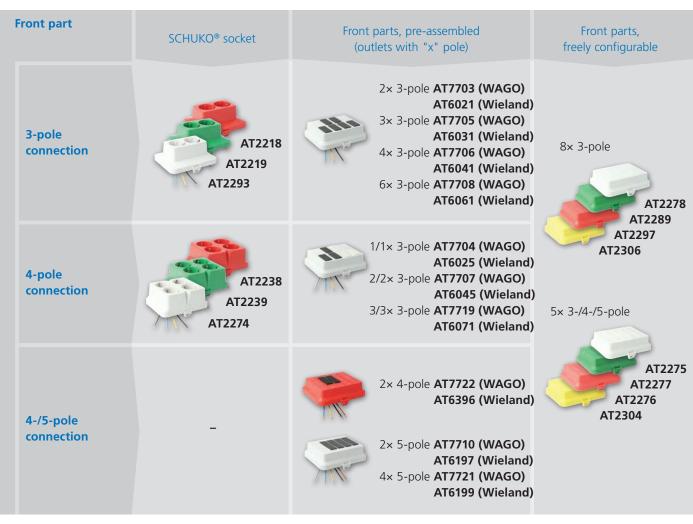
AK2 basic box

- 10 break-out openings for cable or conduit entries
- Incl. 3 KBS 16 mm entries and 1 closing slide
- Universal attachment solution for hole pattern and clamp attachments on all common cable support systems, such as Niedax/Rico, OBO, PUK, Stago (Schneider Electric), van Geel, Cablofil (Legrand), Vergokan (BE), etc.

AK2 front parts

- Front parts for system connectors from well-known manufacturers, e.g. WAGO and Wieland
- For 3-, 4- or 5-pole connectors
- With SCHUKO® sockets 2- and 4-plug version
- Connectors and SCHUKO® sockets already prewired
- Different coloured front parts for easy differentiation of application areas
- Fastening to enclosure base parts by simply snapping on without time-consuming screwing





Pluggable, AK2 basic box

- · Each article is packaged with 3x KBS 16 mm inlets and 1 locking slider.
- · Matching AK2 front parts can be ordered separately.
- · Suitable for cable support systems from well-known manufacturers.











Fixing	Hole pattern	Clamp attachment	Screw holes
Length \times width \times depth	$120 \times 95 \times 40 \text{ mm}$	$120 \times 95 \times 40 \text{ mm}$	120 × 95 × 40 mm
Max. conductor cross-section	6 mm ²	6 mm ²	6 mm ²
Operating temperature	- 40 °C / + 70 °C	- 40 °C / + 70 °C	- 40 °C / + 70 °C
Box inlet	Break-out opening	Break-out opening	Break-out opening
Number of break-out openings	10	10	10
Protection class	IP40	IP40	IP40
Rated voltage	690 V	690 V	690 V
Colour	Light grey	Light grey	Light grey
Halogen-free	Yes	Yes	Yes
	Yes	Yes	Yes
Art. No.	AT2216	AT2229	AT2258

Pluggable, AK2 basic box with mounting plate

- · Each item includes 3 KBS 16 mm entries and 1 locking slider.
- \cdot Matching AK2 front parts can be ordered separately.
- · Suitable for cable support systems from well-known manufacturers.







Fixing	Shallow mounting plate	Angled mounting plate	Screw lugs
Length × width × depth	120 × 95 × 40 mm	120 × 95 × 40 mm	120 × 95 × 40 mm
Max. conductor cross-section	6 mm ²	6 mm ²	6 mm ²
Operating temperature	- 40 °C / + 70 °C	- 40 °C / + 70 °C	- 40 °C / + 70 °C
Box inlet	Break-out opening	Break-out opening	Break-out opening
Number of break-out openings	10	10	10
Protection class	IP40	IP40	IP40
Rated voltage	690 V	690 V	690 V
Colour	Light grey	Light grey	Light grey
Halogen-free	Yes	Yes	Yes
	Yes	Yes	Yes
Art. No.	AT2250	AT2251	AT2252

Pluggable, AK2 basic box with box adapter

- \cdot For mounting on installation boxes.
- · Matching AK2 front parts can be ordered separately.



/ + 70 °C out opening
out opening
n
rey
-

Mounting accessories for the AK2 box

· Suitable for cable support systems from well-known manufacturers.







Fixing	Hole pattern	Clamp attachment	Shallow mounting plate
For Art. No.	AT2216	AT2229	AT2252
Installation	Cable tray	Mesh gutter	Cable tray
Halogen-free	Yes	Yes	Yes
Art. No.	AT2215	AT2228	AT2249

KBS cable and conduit entry

- · for AK2 box
- · Entry with waterproof model for cables and conduits



for conduits according to DIN EN exterior Ø	16 mm
for cables	8 - 14 mm
Halogen-free	Yes
Art. No.	AT2256

Blank cap

- · for AK2 box
- · Seals broken-out entry openings.



for cables	<10 mm	
Halogen-free	Yes	
Art. No.	AT2257	

Pluggable AK2 front part, connection: 3-pole, core cable

- · Made with halogen-free 2.5 mm² connection wires.
- · Suitable for WAGO WINSTA® MIDI or Wieland gesis® CLASSIC GST18®.















Length × width × depth	125 × 100 × 42 mm			
Number of poles (connection)	3-pole	3-pole	3-pole	3-pole
Outlet connector L1	2× 3-pole, black	3× 3-pole, black	4× 3-pole, black	6× 3-pole, black
Pre-wiring	2.5 mm ²	2.5 mm ²	2.5 mm ²	2.5 mm ²
Protection class	IP20	IP20	IP20	IP20
Attachment method	Latch on	Latch on	Latch on	Latch on
Colour	Light grey	Light grey	Light grey	Light grey
Halogen-free	Yes	Yes	Yes	Yes
Art. No. (WAGO)	AT7703	AT7705	AT7706	AT7708
Art. No. (Wieland)	AT6021	AT6031	AT6041	AT6061

Pluggable AK2 front part, connection: 4-pole, core cable

- · Black and white sockets can be used for separate circuits.
- · Made with halogen-free 2.5 mm² connection wires.
- · Suitable for WAGO WINSTA® MIDI or Wieland gesis® CLASSIC GST18®.













Length × width × depth	125 × 100 × 42 mm	125 × 100 × 42 mm	125 × 100 × 42 mm
Number of poles (connection)	4-pole	4-pole	4-pole
Outlet connector L1	1× 3-pole, black	2× 3-pole, black	3× 3-pole, black
Outlet connector L2	1× 3-pole, white	2× 3-pole, white	3× 3-pole, white
Pre-wiring	2.5 mm ²	2.5 mm ²	2.5 mm ²
Protection class	IP20	IP20	IP20
Attachment method	Latch on	Latch on	Latch on
Colour	Light grey	Light grey	Light grey
Halogen-free	Yes	Yes	Yes
Art. No. (WAGO)	AT7704	AT7707	AT7719
Art. No. (Wieland)	AT6025	AT6045	AT6071

Pluggable AK2 front part, connection: 4-pole, core cable

- · For example, for the power supply and switching of emergency lighting with an emergency power supply.
- · Made with halogen-free 2.5 mm² connection wires.
- · Suitable for WAGO WINSTA® MIDI or Wieland gesis® CLASSIC GST18®.



Length × width × depth	125 × 100 × 42 mm
Number of poles (connection)	4-pole
Outlet connectors L1 / L2	2× 4-pole, black
Pre-wiring	2.5 mm ²
Protection class	IP20
Attachment method	Latch on
Colour	Red
Halogen-free	Yes
Art. No. (WAGO)	AT7722
Art. No. (Wieland)	AT6396

Pluggable AK2 front part, connection: 5-pole, core cable

- · Made with halogen-free 2.5 mm² connection wires.
- · Suitable for WAGO WINSTA® MIDI or Wieland gesis® CLASSIC GST18®.









Length × width × depth	125 × 100 × 42 mm	125 × 100 × 42 mm
Number of poles (connection)	5-pole	5-pole
Outlet connectors L1/L2/L3	2× 5-pole, black	4× 5-pole, black
Pre-wiring	2.5 mm ²	2.5 mm ²
Protection class	IP20	IP20
Attachment method	Latch on	Latch on
Colour	Light grey	Light grey
Halogen-free	Yes	Yes
Art. No. (WAGO)	AT7710	AT7721
Art. No. (Wieland)	AT6197	AT6199

Pluggable, AK2-W5 front part

· Raised front part, equipped with 5 break-out openings for 3, 4 and 5-pole WAGO WINSTA® MIDI / Wieland gesis® CLASSIC GST18® sockets.









Length × width × depth	125 × 100 × 36 mm			
Number of break-out openings	5	5	5	5
Protection class	IP20	IP20	IP20	IP20
Attachment method	Latch on	Latch on	Latch on	Latch on
Colour	Light grey	Green	Red	Yellow
Halogen-free	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes
Art. No.	AT2275	AT2277	AT2276	AT2304

Pluggable, AK2-W8 front part

· Raised front part, equipped with 8 break-out openings for 3-pole WAGO WINSTA®MIDI / Wieland gesis®CLASSIC GST18® sockets.









Length × width × depth	125 × 100 × 36 mm			
Number of break-out openings	8	8	8	8
Protection class	IP20	IP20	IP20	IP20
Attachment method	Latch on	Latch on	Latch on	Latch on
Colour	Light grey	Green	Red	Yellow
Halogen-free	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes
Art. No.	AT2278	AT2289	AT2297	AT2306

AK2 housing

- · Suitable for all AK2 housings
- · Without break-out openings



Length × width × depth	125 × 100 × 15 mm
Protection class	IP40
Attachment method	Latch on
Colour	Light grey
Halogen-free	Yes
Art. No.	AT2254

Pluggable, AK2 front part with 2-plug SCHUKO® socket

 \cdot Made with halogen-free 2.5 mm 2 connection wires.







Length × width × depth	125 × 100 × 50 mm	125 × 100 × 50 mm	125 × 100 × 50 mm
Number of poles (connection)	3-pole	3-pole	3-pole
Quantity of SCHUKO® L1 sockets	2	2	2
Pre-wiring	2.5 mm ²	2.5 mm ²	2.5 mm ²
Protection class	IP20	IP20	IP20
Attachment method	Latch on	Latch on	Latch on
Colour	Light grey	Green	Red
Halogen-free	Yes	Yes	Yes
	Yes	Yes	Yes
Art. No.	AT2293	AT2219	AT2218

Pluggable, AK2 front part with 4-plug SCHUKO® socket

- · Socket 2+2 can be switched separately.
- · Made with halogen-free 2.5 mm² connection wires.







Length × width × depth	125 × 100 × 50 mm	125 × 100 × 50 mm	125 × 100 × 50 mm
Number of poles (connection)	4-pole	4-pole	4-pole
Quantity of SCHUKO® L1 sockets	2	2	2
Quantity of SCHUKO® L2 sockets	2	2	2
Pre-wiring	2.5 mm ²	2.5 mm ²	2.5 mm ²
Protection class	IP20	IP20	IP20
Attachment method	Latch on	Latch on	Latch on
Colour	Light grey	Green	Red
Halogen-free	Yes	Yes	Yes
<u>60√€</u>	Yes	Yes	Yes
Art. No.	AT2274	AT2239	AT2238

AK2 Data.

Distribution boxes for data networks.

Basic box	Clamp attachment	Hole pattern attachment
Mounting on the mesh cable tray	+ Clamp attach- ment AT1958 AT2228	
Mounting on/at the cable tray	Shallow mounting plate AT1960 Angled mounting plate AT1961 AT1961 AT1961	AT1963 + Hole pattern attachment AT1958 AT2215
Accessories		lank cap T2257

Pluggable, AK2 Data basic box

- · 2 cable entries and 1 blanking plug are included per item.
- \cdot Matching AK2 front parts can be ordered separately.
- \cdot Suitable for cable support systems from well-known manufacturers.







Fixing	Hole pattern	Screw holes
Length \times width \times depth	$120 \times 95 \times 40 \text{ mm}$	120 × 95 × 40 mm
Operating temperature	- 40 °C / + 70 °C	- 40 °C / + 70 °C
Box inlet	Break-out opening	Break-out opening
Number of break-out openings	10	10
Protection class	IP40	IP40
Rated voltage	690 V	690 V
Colour	Light grey	Light grey
Halogen-free	Yes	Yes
	Yes	Yes
Art. No.	AT1963	AT1958

Pluggable, AK2 Data basic box with mounting plate

- \cdot 2 cable entries and 1 blanking plug are included per item.
- · Matching AK2 front parts can be ordered separately.
- · Suitable for cable support systems from well-known manufacturers.







Fixing	Shallow mounting plate	Angled mounting plate	Screw lugs
Length × width × depth	120 × 95 × 40 mm	120 × 95 × 40 mm	120 × 95 × 40 mm
Operating temperature	- 40 °C / + 70 °C	- 40 °C / + 70 °C	- 40 °C / + 70 °C
Box inlet	Break-out opening	Break-out opening	Break-out opening
Number of break-out openings	10	10	10
Protection class	IP40	IP40	IP40
Rated voltage	690 V	690 V	690 V
Colour	Light grey	Light grey	Light grey
Halogen-free	Yes	Yes	Yes
	Yes	Yes	Yes
Art. No.	AT1960	AT1961	AT1962

Data cable entry

- · for AK2 box
- · Retractable insert made from permanently elastic plastic
- · for inserting a maximum of 3 data cables
- \cdot Provides support without constricting and influencing data transmission.



Blank cap

- · for AK2 box
- · Seals broken-out entry openings.



for cables	UTP, FTP, STP	< 10 mm
Halogen-free	Yes	Yes
Art. No.	AT1966	AT2257

Pluggable AK2 Data front part

· Front part equipped with break-out openings for adapters to accommodate Keystone modules.





Length × width × depth	125 × 100 × 60 mm	125 × 100 × 35 mm
Number of break-out openings	4	6
Protection class	IP40	IP40
Attachment method	Latch on	Latch on
Colour	Light grey	Light grey
Halogen-free	Yes	Yes
	Yes	Yes
Art. No.	AT1965	AT1964

Adapter

- · can be used in AK2 Data front parts
- · suitable for mounting Keystone modules with 19.4 x 14.9 mm installation cut-out

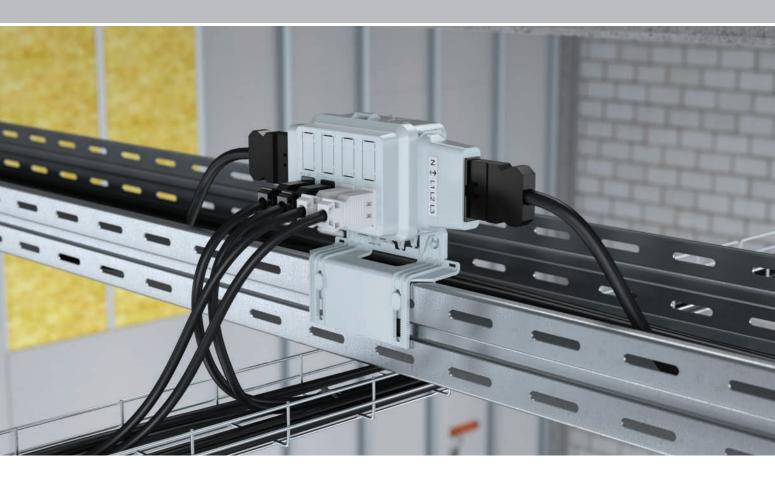


Blank cap

· can be used in AK2 Data front parts



Length × width	27 x 28.4 mm	27 x 28.4 mm
Colour	Light grey	Light grey
Halogen-free	Yes	Yes
Art. No.	AT1976	AT1970



Pre-assembled distribution box for cable support systems. **AK2 100% pluggable.**

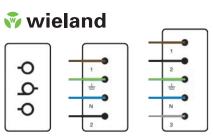
The "AK2 100% pluggable distribution box" accelerates the electrical installation in interaction with a wide variety of cable support systems from different manufacturers. Regardless of whether it is a cable tray or mesh cable tray – the AK2 almost always fits. It is delivered to the construction site as a completely assembled unit ready for connection. Here, only the pre-assembled cables need to be plugged in according to the plan.

AK2 distribution box, 100% pluggable

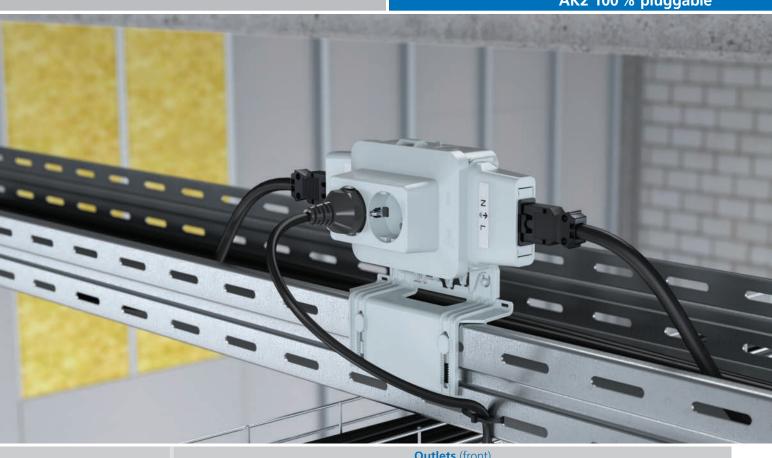
- Ready-to-connect distribution box for quick and safe installation of pre-assembled components
- 3-, 4- or 5-pole versions
- Completely equipped and pre-wired with connectors or as a 2or 4-plug Schuko® socket
- Mounting solution for all common cable support systems, such as Niedax/Rico, OBO, PUK, Stago (Schneider Electric), van Geel, Cablofil (Legrand), Vergokan (BE), etc.
- For installation connectors from all well-known manufacturers



WAGO 4- and 5-pole population



Wieland 4- and 5-pole population



Outlets (front) for device connection or branching Input/output (left/right) System connectors SCHUKO® socket 2× 3-pole AT4746 (WAGO) 2-plug SCHUKO® socket AT4621 (Wieland) AT4732 (WAGO) AT4601 (Wieland) 4× 3-pole 3-pole AT4734 (WAGO) input/output AT4604 (Wieland) 2× 2-plug SCHUKO® socket 6× 3-pole AT4733 (WAGO) AT4735 (WAGO) AT4602 (Wieland) AT4605 (Wieland) 1× 4-pole 3× 3-pole 4-pole AT4745 (WAGO) input/output AT4620 (Wieland) 2× 3-pole (L1)



5-pole



2× 3-pole (L1) 2× 3-pole (L2) AT4743 (WAGO) AT4614 (Wieland)

2× 3-pole (L1) 2× 3-pole (L2) 2× 3-pole (L3) **AT4744 (WAGO)**

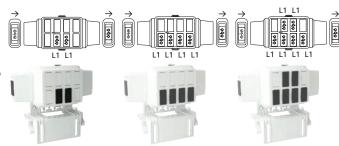
AT4615 (Wieland)



2-plug SCHUKO® socket (L1) AT4737 (WAGO) AT4608 (Wieland)

100% pluggable, AK2 distribution box, connection: 3-pole

- · Set of mounting brackets for quick "click" mounting on all common cable trays
- · Suitable for WAGO WINSTA® MIDI or Wieland gesis® CLASSIC GST18®.



Length × width × depth	215 × 95 × 70 mm	215 × 95 × 70 mm	215 × 95 × 70 mm
Number of poles (connection)	3-pole	3-pole	3-pole
Outlet connector L1	2× 3-pole, black	4× 3-pole, black	6× 3-pole, black
Pre-wiring	2.5 mm ²	2.5 mm ²	2.5 mm ²
Rated voltage	400 V	400 V	400 V
Operating temperature	- 40 °C / + 70 °C	- 40 °C / + 70 °C	- 40 °C / + 70 °C
Protection class	IP20	IP20	IP20
Sealed	Yes	Yes	Yes
Colour	Light grey	Light grey	Light grey
Halogen-free	Yes	Yes	Yes
Art. No. (WAGO)	AT4746	AT4734	AT4735
Art. No. (Wieland)	AT4621	AT4604	AT4605

100% pluggable, AK2 distribution box, connection: 4-pole

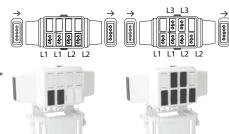
- \cdot Set of mounting brackets for quick "click" mounting on all common cable trays
- · Suitable for WAGO WINSTA® MIDI or Wieland gesis® CLASSIC GST18®.



Length × width × depth	215 × 95 × 70 mm
Number of poles (connection)	4-pole
Outlet connector L1	3× 3-pole, black
Outlet connectors L1 / L2	1× 4-pole, black
Pre-wiring	2.5 mm ²
Rated voltage	400 V
Operating temperature	- 40 °C / + 70 °C
Protection class	IP20
Sealed	Yes
Colour	Light grey
Halogen-free	Yes
Art. No. (WAGO)	AT4745
Art. No. (Wieland)	AT4620

100% pluggable, AK2 distribution box, connection: 5-pole

- · Set of mounting brackets for quick "click" mounting on all common cable trays
- · Suitable for WAGO WINSTA® MIDI or Wieland gesis® CLASSIC GST18®.



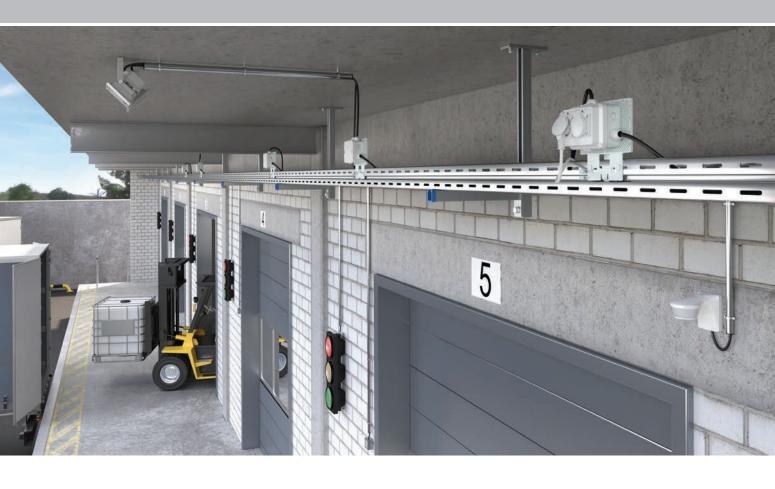
Length × width × depth	215 × 95 × 70 mm	215 × 95 × 70 mm
Number of poles (connection)	5-pole	5-pole
Outlet connector L1	2× 3-pole, black	2× 3-pole, black
Outlet connector L2	2× 3-pole, white	2× 3-pole, black
Outlet connector L3	-	2× 3-pole, black
Pre-wiring	2.5 mm ²	2.5 mm ²
Rated voltage	400 V	400 V
Operating temperature	- 40 °C / + 70 °C	- 40 °C / + 70 °C
Protection class	IP20	IP20
Sealed	Yes	Yes
Colour	Light grey	Light grey
Halogen-free	Yes	Yes
Art. No. (WAGO)	AT4743	AT4744
Art. No. (Wieland)	AT4614	AT4615

100% pluggable, AK2 distribution box, front part with SCHUKO® socket

- · Set of mounting brackets for quick "click" mounting on all common cable trays
- · Suitable for WAGO WINSTA® MIDI or Wieland gesis® CLASSIC GST18®.



Length × width × depth	215 × 95 × 85 mm	215 × 95 × 85 mm	215 × 95 × 85 mm
Number of poles (connection)	3-pole	3-pole	5-pole
Quantity of SCHUKO® L1 sockets	2	4	2
Pre-wiring	2.5 mm ²	2.5 mm ²	2.5 mm ²
Rated voltage	400 V	400 V	400 V
Operating temperature	- 40 °C / + 70 °C	- 40 °C / + 70 °C	- 40 °C / + 70 °C
Protection class	IP20	IP20	IP20
Sealed	Yes	Yes	Yes
Colour	Light grey	Light grey	Light grey
Halogen-free	Yes	Yes	Yes
	Yes	Yes	Yes
Art. No. (WAGO)	AT4732	AT4733	AT4737
Art. No. (Wieland)	AT4601	AT4602	AT4608



Where a high level of protection is required.

AK1/AK2 IP65 cable junction boxes.

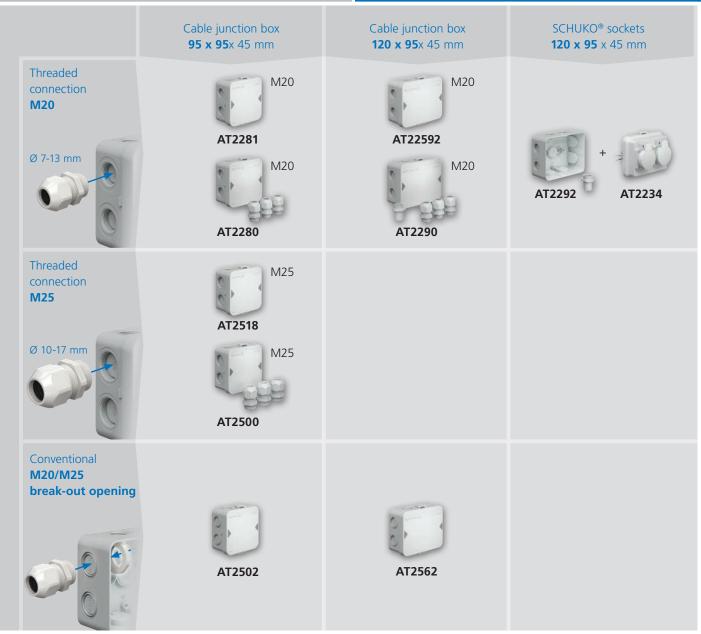
With the innovative **AK1 and AK2 cable junction boxes** offer solutions for applications that require an increased degree of protection

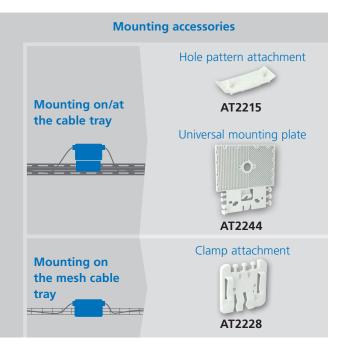
An integrated seal in the cover provides protection against the ingress of dust and water. Thanks to the modular design, products can be easily combined with the **AK2 modular system**. Whether as a compact junction box or in combination with the double socket, the AK1/AK2 IP65 is flexible and robust.

The solid connection threads are used for safe, smooth cable entry by means of AGRO Syntec cable glands in various sizes.

- Compact design with a large installation space for wiring
- Quick assembly thanks to the click-on cover without screws
- M20 / M25 connection thread for cable glands without a counternut
- IP65 protection against dust and water jets
- Many-sided application possibilities
- Can be used on the cable support system by means of adapters

AK1/AK2 IP65 cable junction boxes







AK1-IP65 junction box

- · Increased protection class
- \cdot Optionally with or without cable glands
- · Suitable for mounting on cable support systems by means of separate accessories









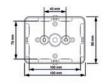


	688
mm	95 x 95 x 45 mm
	6 mm ²

Length × width × depth	95 x 95 x 45 mm	95 x 95 x 45 mm	95 x 95 x 45 mm	95 x 95 x 45 mm
Max. conductor cross-section	6 mm ²	6 mm ²	6 mm ²	6 mm ²
Operating temperature	-40 / +70°C	-40 / +70°C	-40 / +70°C	-40 / +70°C
Number of break-out openings	8	8	8	8
Metric threaded connection	M20	M20	M25	M25
Cable gland accessories	M20 (Art. No. 1555.20.13)	-	M25 (Art. No. 1555.25.17)	-
Cable glands	-	3	-	3
Clamping range	-	7-13 mm	-	10-17 mm
Protection class	IP65	IP65	IP65	IP65
Rated voltage	690 V	690 V	690 V	690 V
Cover fastening	Latch on	Latch on	Latch on	Latch on
Colour	Light grey	Light grey	Light grey	Light grey
Halogen-free	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes
Art. No.	AT2281	AT2280	AT2518	AT2500

AK2-IP65 M20 junction box

- · Increased protection class
- \cdot Optionally with or without cable glands
- · Suitable for mounting on cable support systems by means of separate accessories









Length × width × depth	120 x 95 x 45 mm	120 x 95 x 45 mm
Max. conductor cross-section	6 mm ²	6 mm ²
Operating temperature	-40 / +70°C	-40 / +70°C
Number of break-out openings	8	8
Metric threaded connection	M20	M20
Cable gland accessories	M20 (Art. No. 1555.20.13)	-
Cable glands	-	3
Clamping range	-	7-13 mm
Protection class	IP65	IP65
Rated voltage	690 V	690 V
Cover fastening	Latch on	Latch on
Colour	Light grey	Light grey
Halogen-free	Yes	Yes
€ Contract of the contract of	Yes	Yes
Art. No.	AT22592	AT2290

AK2-IP65 M20 junction box base

- · Increased protection class
- \cdot Matching AK2 covers can be ordered separately.
- · Suitable for mounting on cable support systems by means of separate accessories





Length × width × depth	120 x 95 x 45 mm
Max. conductor cross-section	6 mm ²
Operating temperature	-40 / +70°C
Number of break-out openings	8
Metric threaded connection	M20
Cable gland accessories	M20 (Art. No. 1555.20.13)
Protection class	IP65
Rated voltage	690 V
Cover fastening	Latch on
Colour	Light grey
Halogen-free	Yes
	Yes
Art. No.	AT2292

Front part AK2, SCHUKO® double socket IP54

- · Increased protection class
- $\cdot \ \text{Sockets with hinged covers} \\$
- · Made with halogen-free 2.5 mm² connection wires.

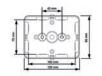


Length × width × depth	125 x 100 x 58 mm
Number of poles (connection)	3-pole
Quantity of SCHUKO® L1 sockets	2 x
Pre-wiring	2.5 mm ²
Protection class	IP54
Attachment method	Latch on
Colour	Light grey
Halogen-free	Yes
	Yes
Art. No.	AT2234

AK1-IP65 and AK2-IP65 junction boxes

- · Increased protection class
- For cable glands with counternuts, optionally M20 or M25
- · Suitable for mounting on cable support systems by means of separate accessories









Length × width × depth	95 x 95 x 45 mm	120 x 95 x 45 mm
Max. conductor cross-section	6 mm ²	6 mm ²
Operating temperature	-40 °C / +70 °C	-40 °C / +70 °C
Number of break-out openings	8	8
Combination insertion opening	M20/M25	M20/M25
Cable gland accessories	M20 (Art. No. 1555.20.13); M25 (Art. No. 1555.25.17)	M20 (Art. No. 1555.20.13); M25 (Art. No. 1555.25.17)
Locknut accessories	M20 (Art. No. 8255.20); M25 (Art. No. 8255.25)	M20 (Art. No. 8255.20); M25 (Art. No. 8255.25)
Protection class	IP65	IP65
Rated voltage	690 V	690 V
Cover fastening	Latch on	Latch on
Colour	Light grey	Light grey
Halogen-free	Yes	Yes
	Yes	Yes
Art. No.	AT2502	AT2562

Mounting accessories for the AK2 box

· Suitable for cable support systems from well-known manufacturers.





Fixing	Cable tray	Mesh cable tray
For Art. No.	AT2216	AT2229
Installation	Clip hole pattern	Clamp attachment
Halogen-free	Yes	Yes
Art. No.	AT2215	AT2228

Universal mounting plate

- · for quick and tool-free "click" assembly
- · Fixing clips enclosed
- · Suitable for cable support systems from well-known manufacturers
- · Enables universal mounting of various components
- · Quick-fit screws for mounting AK1 and AK2 housings enclosed



Length × width	180 x 120 mm
Fixing	Latch on
Colour	Light grey
Halogen-free	Yes
Art. No.	AT2244

Syntec® plastic cable gland with lamella technology

Material: Polyamide PA 6

Properties: halogen-free, UV resistant

(tested according to EN ISO 4892-2)

Sealing ring: TPE or CR (neoprene) Strain relief: Version A acc. to EN 62444

Protection class: IP 68

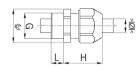
Operating temperature: -30°C / +100°C













SYNTEC

Light grey One-piece	RAL 7	7035 ng ring			
G		> Ø <			
M20x1.5	7.0	13.0	24	29	9
M25x1.5	10.0	17.0	29	38	10

Plastic locknut with flange

Material: Polyamide PA 6 Properties: Halogen-free Version: hexagonal with flange Operating temperature: -30°C / +100°C



Light grey	RAL 7	035
G	∰ mm	M
M20x1.5	27	6.0
M25x1.5	33	6.7



When things get tight. Compact PD and multi-PD distribution box.

The compact PD distribution box for connector systems really show off their advantages especially in electrical installations in confined spaces, such as in raised floors, underfloor systems or suspended ceilings. Thanks to their compact design and low overall height, they cut a slim figure even where space is limited.

The pre-assembled distribution box can be used as transition from sheathed cables to the pluggable electrical installation or as a 100% pluggable housing. Due to the factory pre-wiring, the error potential is practically zero, since only the components / connectors are connected at the installation site via a "click". Versions with 3-, 4- or 5-pole connectors are available.

The distribution boxes of the compact multi-PD series can be mechanically connected to each other. This easy to lock system means that several housings can be lined up next to each other so that larger distribution units can also be set up. Additional fixing lugs on the outside of the housing offer a practical option for wall or ceiling attachment or fixing to the floor.

For the **compact PD and Multi-PD distribution boxes**, prefabricated distribution boxes for up to 9 outlets as well as empty boxes are available, which can be equipped individually.

Compact PD and multi-PD distribution box





Compact PD distribution box (outlets)

2× 3-pole AT3217 (WAGO) AT2533 (Wieland)

4× 3-pole AT3218 (WAGO) AT2534 (Wieland)

2× 3-pole AT3214 (WAGO) AT2530 (Wieland)

4× 3-pole AT3215 (WAGO) AT2531 (Wieland)

2/2× 3-pole AT3216 (WAGO) AT2532 (Wieland)

Empty box AT2525

Multi-PD distribution box (outlets) stackable

> 4× 3-pole AT3080 (WAGO) AT3005 (Wieland)

> 9× 3-pole AT3082 (WAGO) AT3009 (Wieland)

Input core cable, 3-pole

Input connector, 3-pole

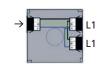
Input/output freely configurable



Empty box AT3001

100% pluggable, compact PD distribution box

- · Connection via connector input
- · Suitable for mounting in suspended ceilings and underfloor areas.
- · Suitable for WAGO WINSTA® MIDI or Wieland gesis® CLASSIC GST18®.







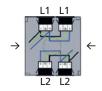


Length × width × depth	120 × 120 × 40 mm	120 × 120 × 40 mm
Number of poles (connection)	3-pole	3-pole
Outlet connector L1	2× 3-pole, black	4× 3-pole, black
Pre-wiring	2.5 mm ²	2.5 mm ²
Rated voltage	400 V	400 V
Operating temperature	- 40 °C / + 70 °C	- 40 °C / + 70 °C
Protection class	IP20	IP20
Colour	Light grey	Light grey
Halogen-free	Yes	Yes
Art. No. (WAGO)	AT3217	AT3218
Art. No. (Wieland)	AT2533	AT2534

Pluggable, compact PD distribution box

- · Connection via pre-assembled 2.5 mm², halogen-free. core cable.
- · Suitable for mounting in suspended ceilings and underfloor areas.
- · Suitable for WAGO WINSTA® MIDI or Wieland gesis® CLASSIC GST18®.
- · Suitable M20 cable gland for a 3×1.5 mm² or 3×2.5 mm² feed line: AGRO Progress 1571.20.110
- · Suitable cable M20 cable gland for two feed lines 3×1.5 mm²: AGRO Progress 1571.20.2.075











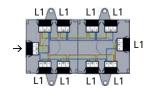


Length × width × depth	120 × 120 × 40 mm	120 × 120 × 40 mm	120 × 120 × 40 mm
Number of poles (connection)	3-pole	2× 3-pole	2× 3-pole
Outlet connector L1	2× 3-pole, black	2× 3-pole, black	2× 3-pole, black
Outlet connector L2	-	2× 3-pole, black	2× 3-pole, white
Pre-wiring	2.5 mm ²	2.5 mm ²	2.5 mm ²
Rated voltage	400 V	400 V	400 V
Operating temperature	- 40 °C / + 70 °C	- 40 °C / + 70 °C	- 40 °C / + 70 °C
Protection class	IP20	IP20	IP20
Colour	Light grey	Light grey	Light grey
Halogen-free	Yes	Yes	Yes
Art. No. (WAGO)	AT3214	AT3215	AT3216
Art. No. (Wieland)	AT2530	AT2531	AT2532

100% pluggable, compact multi-PD distribution box

- \cdot Connection via connector input
- · Stackable box with fixing lugs for screw and nail attachment.
- · Suitable for mounting in suspended ceilings and underfloor areas.
- · Suitable for WAGO WINSTA® MIDI or Wieland gesis® CLASSIC GST18®.









Length × width × depth	120 × 120 × 45 mm	240 × 120 × 45 mm
Number of poles (connection)	3-pole	3-pole
Outlet connector L1	4× 3-pole, black	9× 3-pole, black
Pre-wiring	2.5 mm ²	2.5 mm ²
Operating temperature	- 40 °C / + 70 °C	- 40 °C / + 70 °C
Protection class	IP20	IP20
Rated voltage	400 V	400 V
Colour	Light grey	Light grey
Halogen-free	Yes	Yes
Art. No. (WAGO)	AT3080	AT3082
Art. No. (Wieland)	AT3005	AT3009

Empty box compact PD

- · This product is designed so that you can assembly it yourself.
- · Suitable for mounting in suspended ceilings and underfloor areas.
- · Break-out openings for M20 cable gland,
- · WAGO WINSTA® MIDI / Wieland gesis® CLASSIC GST18® 3-, 4- and 5-pole and BST14.



Empty box compact multi-PD

- · This product is designed so that you can assembly it yourself.
- · Stackable box with fixing lugs for screw and nail attachment.
- · Suitable for mounting in suspended ceilings and underfloor areas.
- · Break-out openings for M20 cable gland, WAGO WINSTA® MIDI / Wieland gesis® CLASSIC GST18® 3-, 4-, 5-pole and BST14.



Length × width × depth	120 × 120 × 40 mm	120 × 120 × 45 mm
Max. conductor cross-section	4 mm²	4 mm ²
Box inlet	Break-out opening	Break-out opening
Number of break-out openings	8	8
Rated voltage	400 V	400 V
Operating temperature	- 40 °C / + 70 °C	- 40 °C / + 70 °C
Protection class	IP40	IP40
Colour	Light grey	Light grey
Halogen-free	Yes	Yes
<u>Ø</u> \ <u>E</u>	Yes	Yes
Art. No.	AT2525	AT3001



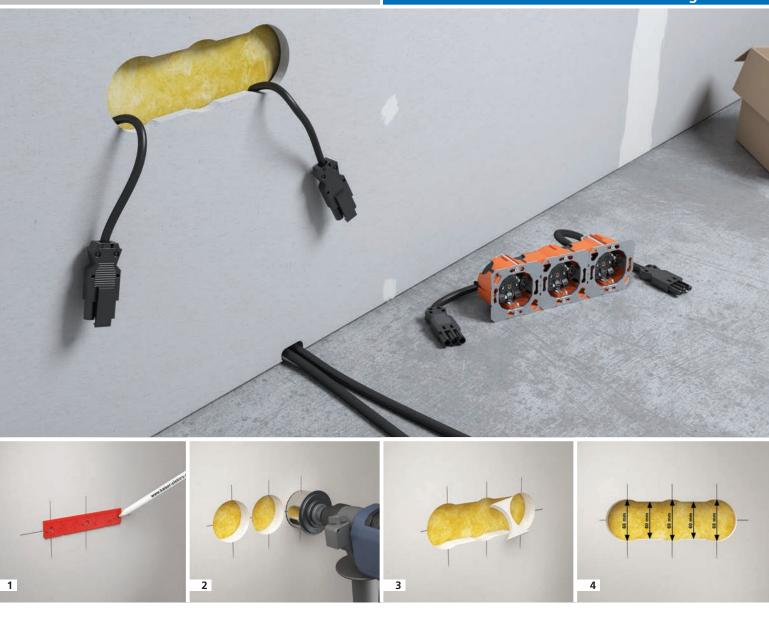
Cleverly pre-assembled.

O-range® for the electrical trade.

It is often the case that only a narrow time window is available for on-site electrical installation and this time also often needs to be shared with other trades handling drywall, plumbing and air conditioning installations, etc. In such cases, the pre-assembly of pluggable sub-assemblies is the perfect solution, which are then simply plugged together and fastened at the construction site.

O-range ECON® one-gang junction boxes are the best solution for the **air-tight electrical installation in cavity walls**. In the 1-, 2-, 3- and 4-gang versions, these boxes offer a large installation opening for the quick installation of pre-wired accessories without spatial separation. Optional, insertable bridges can be used to separate the individual installation openings in accordance with standards when using different applications, e.g. Power supply, data and network technology or telecommunication systems.

Well-known manufacturers with products in the areas of classic electrical installation, such as switches and sockets, but also intelligent building control, already offer ready-made sub-assemblies. These are then only connected on site via the prefabricated plug-in connection and the entire assembly is fixed in the wall with the lug screws for the cavity wall box.



- 1 Mark the position of the installation opening in accordance with DIN 18015-3 as well as the centre distance of the other installation openings at 71 mm intervals.
- **2** Create installation openings Ø 68 mm with KAISER cavity wall cutter with countersink.
- 3 The individual installation openings must now be connected for the use of the multi one-gang junction boxes and chamfered for installation flush to the wall.
- **4** To ensure a perfect fit of the box, the dimensions shown in the picture must be adhered to.

O-range ECON accessory/one-gang junction boxes



1-gang Depth: 49 mm 9263-22



1-gang Depth: 62 mm 9264-22 9263-78 (halogen-free) 9264-78 (halogen-free) 9252-78 (halogen-free) 9253-78 (halogen-free) 9254-78 (halogen-free)



2-gang Depth: 48 mm 9252-22



3-gang Depth: 48 mm 9253-22



4-gang Depth: 48 mm 9254-22



Separator 5000 **5000-78** (halogen-free)

O-range ECON® 63 one-gang box

- · Air-tight version with a sealing membrane
- · Fully insulated, air-tight through-wiring for combinations using support connectors
- · Toolless cable or conduit entries
- · Integrated cable retention of NYM cables, self-locking of conduits







Depth	49 mm	49 mm
For panel thickness	7 - 40 mm	7 - 40 mm
Cut hole diameter	68 mm	68 mm
Device screws	2	2
Conduit entries up to M25	2	2
$3 \times 2.5 \text{ mm}^2 \text{ or } 5 \times 1.5 \text{ mm}^2 \text{ cable entries}$	2	2
$3 \times 1.5 \text{ mm}^2$ cable entries	2	2
Support connectors per packaging unit	7	7
Air-tight	Yes	Yes
Halogen-free	-	Yes
<u>₽</u> / ©VE	Yes / Yes	Yes / Yes
Art. No.	9263-22	9263-78

O-range ECON® 64 one-gang junction box

- · Air-tight version with a sealing membrane
- · Fully insulated, air-tight through-wiring for combinations using support connectors
- · Toolless cable or conduit entries
- · Integrated cable retention of NYM cables, self-locking of conduits





Depth	62 mm	62 mm
For panel thickness	7 - 40 mm	7 - 40 mm
Cut hole diameter	68 mm	68 mm
Device screws	2	2
Conduit entries up to M25	2	2
$3 \times 2.5 \text{ mm}^2 \text{ or } 5 \times 1.5 \text{ mm}^2 \text{ cable entries}$	3	3
$5 \times 2.5 \text{ mm}^2 \text{ or } 7 \times 1.5 \text{ mm}^2 \text{ cable entries}$	1	1
$3 \times 1.5 \text{ mm}^2$ cable entries	3	3
Support connectors per packaging unit	7	7
Air-tight	Yes	Yes
Halogen-free	-	Yes
<u></u> 1 ((((((((((((((((((Yes / Yes	Yes / Yes
Art. No.	9264-22	9264-78

O-range ECON® 2 2-gang junction box

- · Air-tight version with a sealing membrane
- · Toolless cable and conduit entries
- · Integrated cable retention of the NYM cable, self-locking of the conduit
- · Standardised separation of individual installation openings using a pluggable bridge
- · Can be combined with all O-range® programme applications





回然彩画
曾接着 。
Tell P. LaTerial

Product video

Depth	48 mm	48 mm
For panel thickness	7 - 40 mm	7 - 40 mm
Cut hole diameter	2 × 68 mm	2 × 68 mm
Centre distance	71 mm	71 mm
Number of accessory installation openings	2	2
Device screws	4	4
Conduit entries up to Ø 20 mm	4	4
Conduit entries up to Ø 25 mm	2	2
$3 \times 1.5 \text{ mm}^2$ cable entries	1	1
$3 \times 2.5 \text{ mm}^2 \text{ or } 5 \times 1.5 \text{ mm}^2 \text{ cable entries}$	1	1
Halogen-free	-	Yes
<u></u> 1 ((((((((((((((((((Yes / Yes	Yes / Yes
Art. No.	9252-22	9252-78

O-range ECON® 3 3-gang junction box

- \cdot Air-tight version with a sealing membrane
- · Toolless cable and conduit entries
- · Integrated cable retention of the NYM cable, self-locking of the conduit
- · Standardised separation of individual installation openings using a pluggable bridge
- · Can be combined with all O-range® programme applications







Product video

Depth	48 mm	48 mm
For panel thickness	7 - 40 mm	7 - 40 mm
Cut hole diameter	3 × 68 mm	3 × 68 mm
Centre distance	71 mm	71 mm
Number of accessory installation openings	3	3
Number of bridges	1	1
Device screws	6	6
Conduit entries up to Ø 20 mm	6	6
Conduit entries up to Ø 25 mm	2	2
$3 \times 1.5 \text{ mm}^2$ cable entries	2	2
$3 \times 2.5 \text{ mm}^2 \text{ or } 5 \times 1.5 \text{ mm}^2 \text{ cable entries}$	2	2
Halogen-free	-	Yes
A OVE	Yes / Yes	Yes / Yes
Art. No.	9253-22	9253-78

O-range ECON® 4 4-gang junction box

- · Air-tight version with a sealing membrane
- · Toolless cable and conduit entries
- · Integrated cable retention of the NYM cable, self-locking of the conduit
- · Standardised separation of individual installation openings using a pluggable bridge
- · Can be combined with all O-range® programme applications





Product vide

Depth	48 mm	48 mm
For panel thickness	7 - 40 mm	7 - 40 mm
Cut hole diameter	4 × 68 mm	4 × 68 mm
Centre distance	71 mm	71 mm
Number of accessory installation openings	4	4
Number of bridges	2	2
Device screws	8	8
Conduit entries up to Ø 20 mm	8	8
Conduit entries up to Ø 25 mm	2	2
$3 \times 1.5 \text{ mm}^2$ cable entries	4	4
$3 \times 2.5 \text{ mm}^2 \text{ or } 5 \times 1.5 \text{ mm}^2 \text{ cable entries}$	2	2
Halogen-free	-	Yes
A / OVE	Yes / Yes	Yes / Yes
Art. No.	9254-22	9254-78

O-range® separator

· For O-range ECON® 2 / 3 / 4 one-gang junction box





Halogen-free	-	Yes
Art. No.	5000	5000-78



Together hand in hand. Pluggable sub-assemblies from the manufacturer.

Various well-known manufacturers of products and components for electrical installation offer a **sub-assembly based on O-range ECON® one-gang junction boxes**. In the process, the manufacturer's devices, for example switches or sockets, are matched to the components of the planned plug-in system, such as Wieland or WAGO. The system is suitable for buildings in which the equipment of the rooms is replicated multiple times. Up to four accessories can be combined in one O-range ECON® box and delivered ready to plug in. The complete assembly and wiring of the accessories is carried out at the factory and then tested. After delivery, you just need to connect the plugs, attach the cavity wall box into the wall and then mount the covers.



Solutions and systems for professional installations.

KAISER has been developing and producing systems and products as the basis for professional installation work since 1904. Planners and fitters all over the world use our practice-oriented solutions for their daily work in all installation areas.



Electrical installation.

Innovative, safe and economically viable solutions for a wide range of applications in buildings and ships. They make daily work easier and ensure safe, sustainable installation results in both traditional as well as pluggable electrical installations.



Connectivity / optic fibre broadband expansion.

A practical, innovative solution offering for professionals. From street distribution to building distribution to flat distribution, pluggable and pre-assembled, ready-to-splice products are available for efficient installation.



Cable glands / industrial products.

AGRO cable glands made from plastic, brass or stainless steel for the highest quality and practicality. The complete programme for trade and industry also includes products with enhanced requirements (EMC, EX), elbow cable glands or universal and multi-cable entries.

Technical information and advice

All further information on products, system solutions and communication media can be found on our website at **www.kaiser-elektro.de**

For any additional questions or information, please do not hesitate to contact our technical support team who will be happy to assist you: +49(0)2355/809-61 · technik@kaiser-elektro.de

KAISER GmbH & Co. KG

Ramsloh 4 · 58579 Schalksmuehle GERMANY

Phone: +49 (0) 23 55 8090 · Fax: +49 (0) 23 55 80921

www.kaiser-elektro.de · info@kaiser-elektro.de

