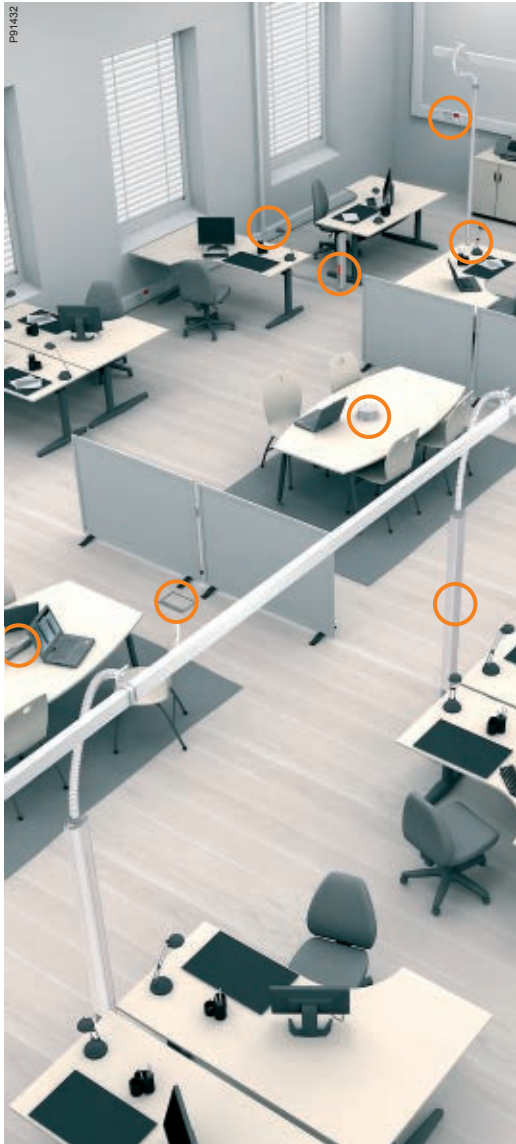


OptiLine 45

The 45 direct Click-in installation system



Electrical, telephone and data installations must be easy to install, safe to use and flexible enough to ensure that changes are easy to make. The design of the visible parts must also set the right tone in the office.

OptiLine 45 direct click-in installation system provide integrated installation solutions for ceilings, walls, floors and desks.

Together with Altira wiring devices, solutions are created that fulfil the most stringent demands for function, design, convenience and safety.

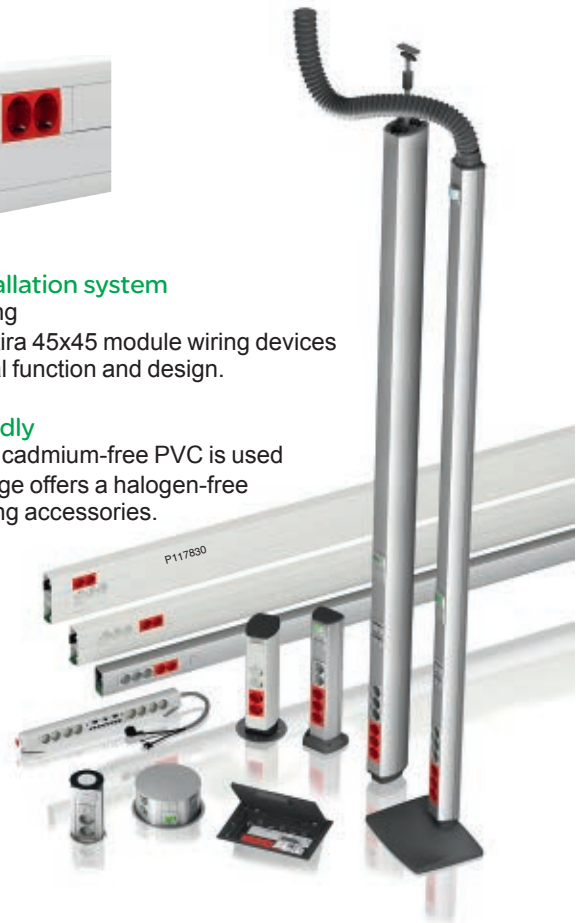


Direct click-in installation system

- 45 mm front opening
- Direct click-in of Altira 45x45 module wiring devices which gives optimal function and design.

Environment-friendly

- Only lead-free and cadmium-free PVC is used
- The aluminium range offers a halogen-free alternative, including accessories.



Altira 45x45 module wiring devices

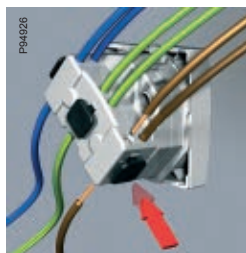
Altira is a wiring device series suitable for direct click-in in OptiLine 45 trunking, poles, posts, floor boxes and service boxes.

Range

Altira offers a broad range of socket outlets, switches, VDI outlets and electronic products such as dimmers, movement detectors, thermostats and timers.

Main benefits

- Optional mounting direction for correct user interface in both trunking, poles and posts
- Connection piece for simple interconnection of double and triple outlets without space between
- 45° terminals. Easy to connect even though the outlets are close together
- Dual input and output terminals. For easy loop-through of additional connections such as earthing of trunking.





Trunking

A cost-effective installation with high capacity.

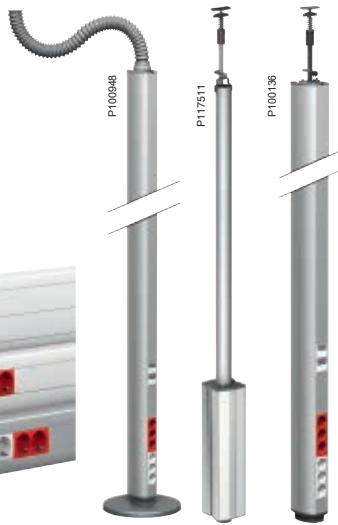
The range

Available in PVC or aluminium with one, two or three compartments.



Main benefits:

- Easy installation without the need of instructions. Accessories are mounted directly without adaptation
- 55 mm depth. High cable capacity and space behind the wiring devices
- Pre-punched slots in the partition walls of the PVC trunking. Easy to make holes or openings to feed cables between the compartments
- Trunking base and cover packed together, but not assembled. Easy handling
- Extra-secure click-in function and front locking clip. Gives improved pull-out force.



Poles

The best solution for a truly flexible office, with power, telecom and data services close to the workplaces. Fed from the ceiling, preferably from connection boxes. Free-standing and movable poles give extra freedom.

A pole can be moved within a radius of up to 1.5 metres from the connection point in the ceiling.

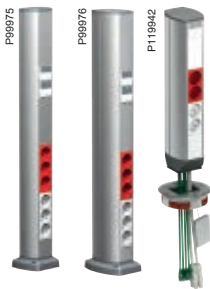
The range

Available in aluminium, free-standing or tension-mounted. One or two-sided, or with four boxes.



Main benefits:

- Design: Aluminium with a high surface finish. Softly rounded and slender form
- Stable, sturdy design. Several parts are cast
- Movable poles have steady feet. The rectangular foot also allows poles to be installed back-to-back or against a wall
- The adjustable ceiling fixing for tension-mounted poles can be fitted easily without tools. Spring-loaded. Total working range of 400 mm
- Cable separation profile gives the correct spacing between VDI and power cables.

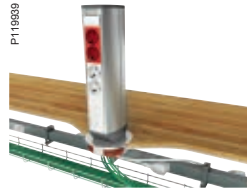


Posts

For power, telecom and data installations close to workplaces, on raised access floors, on screeded floor boxes in concrete floors or on in-cavity floors. Can also be used with other floors, in which case they are supplied via a floor feeder or a floor grommet.

The range

Available in aluminium in one and two-sided versions.



Main benefits:

- Design: Aluminium with a high surface finish. Softly rounded and compact form
- Stable, sturdy design. Several parts are cast.
- Accessories for above-floor supply
- Cable separation profile gives the correct spacing between VDI and power cables.



Floor boxes

For power, telecom and data installations close to workplaces, in raised access floors, screeded floors or in-cavity floors. Used, for instance, in environments where it is important to have an installation that is discreet and "invisible" when not used.

The range

Available in three versions with pre-mounted mounting frames. The range also includes floor access boxes and screeded floor boxes.



Main benefits:

- Quick and easy installation
- Both single and double outlets can be mounted in the mounting frames
- Quick-fix fastening for all floors over 10 mm thickness
- The height of the mounting frames is adjustable in 5 mm steps. This gives optimal capacity and makes it easy to install DIN-modules and outlets on different levels
- Complete offer including floor trunking.



Service boxes

Flexible solutions for the supply of power, telecom and data to desks in offices and conference rooms. The boxes can also be used as connection points in the ceiling for feeding of poles.



The range

Five box types, all in natural anodised aluminium:

- A six-sided pop-up box, pre-wired with outlets, a LAN switch, cable and plug
- A mini pop-up, empty
- A turnable and smoothly rounded one-sided box. Pre-wired with outlets, cables and plugs. One version with integrated LAN and AV switches
- A one-sided box, pre-wired with outlets, cables and plugs, pre-defined with outlets, or empty. Terminal or with Wieland interface
- A flip-up box for flush mounting in desks, empty.

Main benefits:

- The range covers many applications
- Many mounting options including concealed installation
- All products in aluminium and metal – high finish and impact resistant
- Ceiling cable feeder – flexible solution also for movable desks.

OptiLine 45 Trunking Presentation



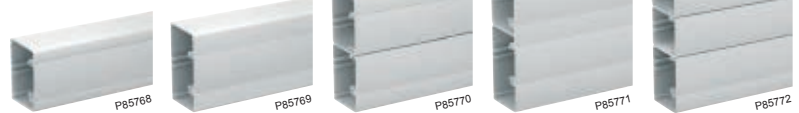
Installation trunking with 45 mm front opening for direct click-in of Altira wiring devices

OptiLine 45 trunking are available in lead- and cadmium-free PVC or aluminium with a 45 mm front opening. All trunking are 55 mm deep, which gives a high cable capacity and space for cables behind the wiring devices. One of the main advantages is the easy installation. The design is symmetrical and all accessories are click-in mounted without any need of adaptations. It is also very easy to create cross sectional feeding of the cables in the PVC trunking thanks to the pre-punched slots in the partition walls.

Dedicated installation fixings and an extra-secure click-in function for the front and Altira wiring devices give a very reliable installation.

Also the handling is easy. The trunking base and cover are packed together, but not assembled.

PVC Trunking



75x55
With one compartment

95x55
With one compartment

140x55
With two compartments

165x55
With two compartments, especially intended for VDI installations

185x55
With three compartments

Aluminium Trunking



75x55
With one compartment

95x55
With one compartment

140x55
With one compartment

165x55
With two compartments

185x55
With two compartments

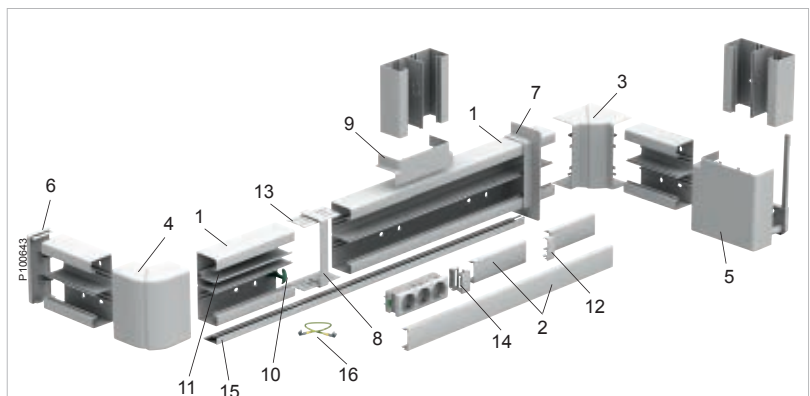


Altira 45x45 module wiring devices

The OptiLine 45 range has a front opening for direct click-in of Altira 45x45 module wiring devices which gives optimal function and design.

Altira offers a broad range of socket outlets, switches, VDI outlets and electronic products such as dimmers, movement detectors, thermostats, timers.

The complete trunking system



- | | |
|-------------------------------|---------------------------------------|
| 1. Trunking base | 12. Joint cover piece for front cover |
| 2. Front cover | 13. Jointing piece |
| 3. Internal corner | 14. Front locking clip |
| 4. External corner | 15. Sealing strip |
| 5. Bend 90°, incl wall fixing | 16. Earthing kit (Aluminium trunking) |
| 6. Stop end | |
| 7. Wall/ceiling frame | |
| 8. Joint cover piece | |
| 9. T-piece | |
| 10. Cable retainer | |
| 11. Cable shelf | |



Click-in accessories

All accessories are designed for easy click-in mounting without tools.

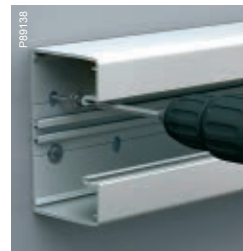
- Easy installation without instructions
- Mounted directly without adaptations
- Mounted when trunking is in place.



Efficient mounting support

Both PVC and aluminium trunking profiles are prepared for fast, exact and reliable installation.

- Pre-punched oval holes every 25 cm
- Easy to make X and Y adjustments.



Professional tools and fixings

Dedicated tools and fixings for fast and safe installation.

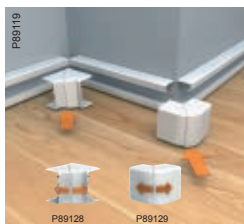
- Extra long drills and bits to avoid damaging the front when using a drilling machine
- Fixings suitable for any material
- Screws for PVC trunking
- Screws to be used together with single-insulated wires.



Perfect joints

Two jointing pieces for exact levelling and a click-in joint cover piece to hide the gap

- Perfect joints
- No tools needed
- Joint cover piece in one piece
- The jointing pieces can also be used for joints without joint cover piece.



Adjustable corners

The adjustable corners are delivered in one piece.

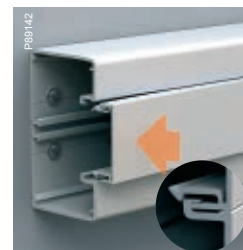
- Easy and quick to mount
- No adaptations needed.



The cable retainer – a helping hand

The cable retainer keeps all the cables in place in the trunking during the installation.

- Faster installation
- One man can do the work
- Green colour for quick identification
- Can remain in place also after the installation.



Secure front cover

Auto-guided and extra secure click-in for the front. High-quality material.

- Easy to mount also when kneeling
- Works reliably even at low temperatures
- Can not be opened without a tool
- IP40 classified.



Pull-out safe outlets

Extra secure click-in function combined with a front locking clip.

- High pull-out loads on the wiring devices
- Design aligned with Altira.



Pre-punched slots for easy hole making

Pre-punched slots in the PVC partition walls.

- Easy hole making by hand or with a screwdriver
- Allows cross-sectional feeding of cables.



Protective foil

Protective foil on both sides of the trunking base and on the front cover. The main product references including pictures are printed on the foil.

- No surface damages during the installation
- Easy to order new parts.



Dust protection

A sealing strip can be fitted between the trunking and the floor.

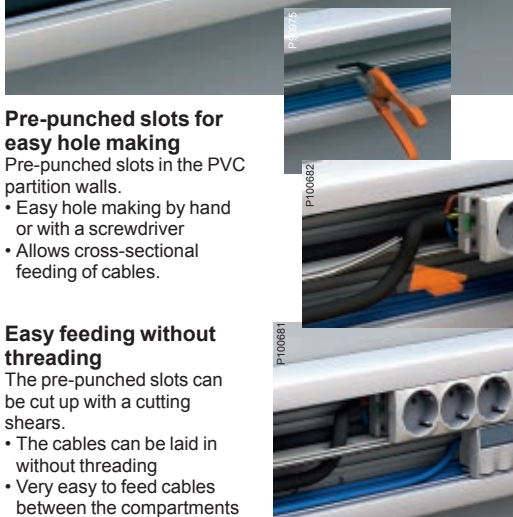
- 5-15 mm coverage
- Easy cleaning
- Solid impression.



Smart package

The trunking base and front covers are packed together, but not assembled.

- Easy handling
- No damages. The covers are protected until final installation.

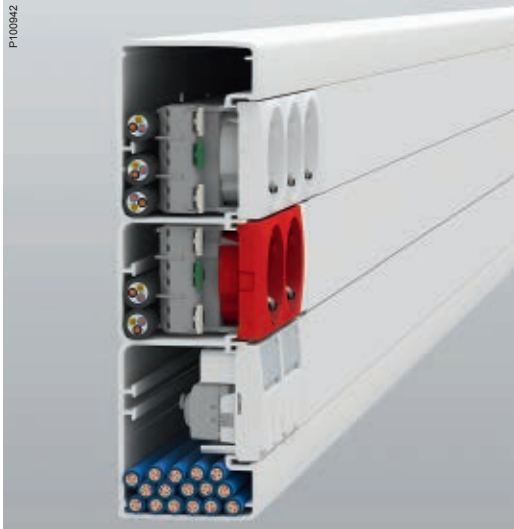


Easy feeding without threading

The pre-punched slots can be cut up with a cutting shears.

- The cables can be laid in without threading
- Very easy to feed cables between the compartments
- Cables and outlets can be separated.

OptiLine 45 Trunking Presentation



Three-compartment trunking

The three-compartment trunking allows a dedicated space for the wiring devices.

- Maximum distance between VDI and power cables
- High capacity
- Easy installation.



Symmetrical design

The trunking base is symmetrical and has a softly rounded form.

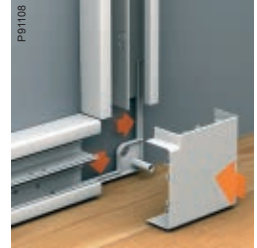
- Easy and safe mounting
- No risk of installing the trunking upside-down
- The trunking form guides the accessories in place.



55 mm depth

All trunking are 55 mm deep.

- High cable capacity
- Space enough for 3x2.5 mm² cables behind the wiring devices.



Perfect bends

The bend kit includes an adjustable fixing device to be screw-fitted to the wall.

- Large tolerances when cutting and fixing the trunking
- Self-guiding mounting of the bend piece
- Perfect result and finish.



High classification

The trunking is IP40 and IK07 classified.

- Safe and impact resistant
- Can not be opened without a tool.

The PVC trunking is fire classified in category M1.



One-compartment trunking

Suitable for both installation and distribution. A cable shelf separates VDI cables from power cables.



Dedicated VDI trunking

A non-symmetrical two-compartment trunking especially intended for VDI installations.

- Extra space for VDI cables in the larger lower compartment
- Long distance between VDI and power cables.



Easy earthing of aluminium trunking

The aluminium trunking base and front cover has easily accessible earthing rails. A pre-mounted earthing kit is available on one reference number.

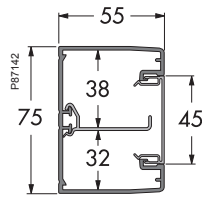
- Easy to order
- Quick and easy to mount
- Screwless mounting.



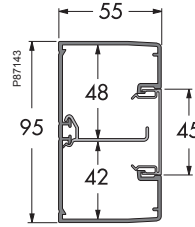
OptiLine 45 Trunking

Dimensions

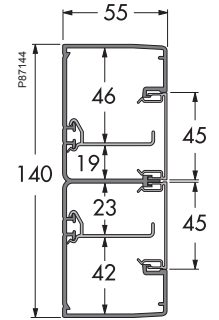
PVC



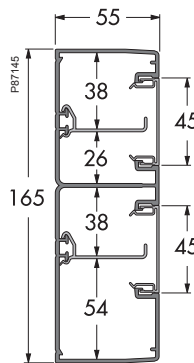
75x55



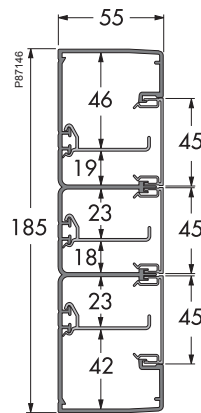
95x55



140x55

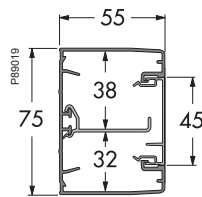


165x55

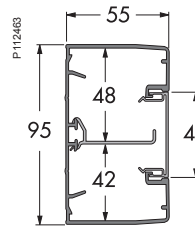


185x55

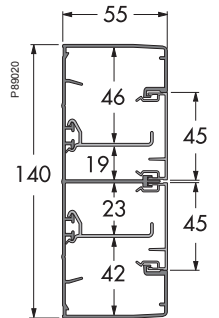
Aluminium Trunking



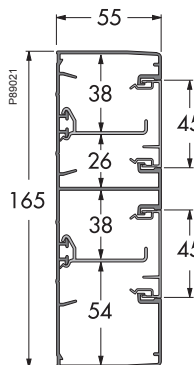
75x55



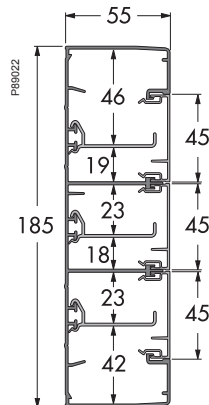
95x55



140x55



165x55



185x55

OptiLine 45 Trunking

Cable capacity

Cable capacity

Installation trunking 75x55 and 95x55 mm

75x55 and 95x55 without outlets
If the trunking is used as a feeder trunking please use this guide to calculate the cable capacity.

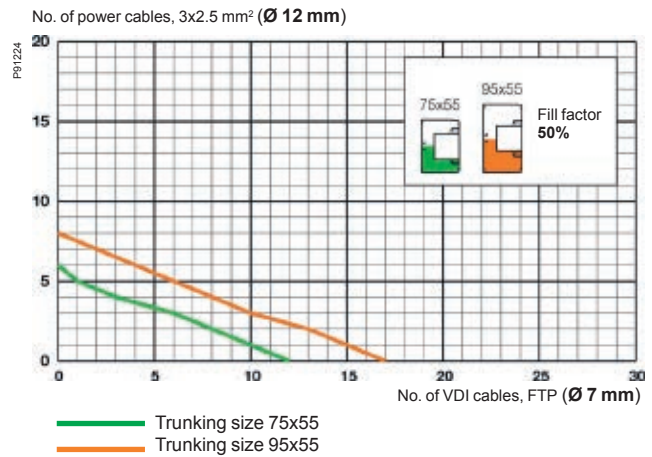
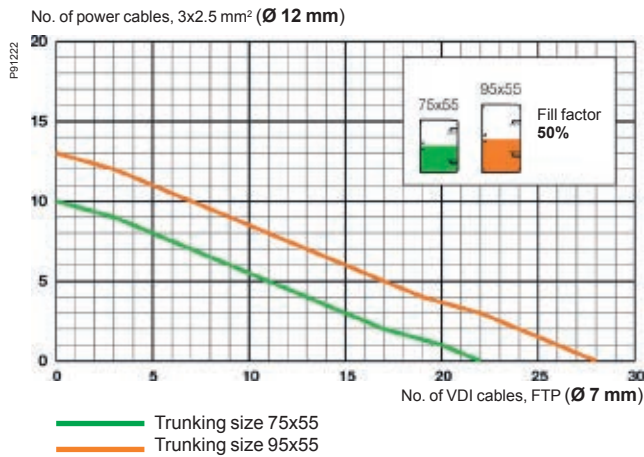


| Com-part-ment | Fill factor | |
|---------------|----------------------|----------------------|
| | 100% | 50% |
| | Inner area | Inner area |
| ■ | 3508 mm ² | 1754 mm ² |
| ■ | 4505 mm ² | 2253 mm ² |

75x55 and 95x55 with Altira outlets
If the trunking is used as an installation trunking please use this guide to calculate the cable capacity.



| Com-part-ment | Fill factor | |
|---------------|----------------------|----------------------|
| | 100% | 50% |
| | Inner area | Inner area |
| ■ | 2385 mm ² | 1193 mm ² |
| ■ | 3382 mm ² | 1691 mm ² |



Installation trunking 140x55 mm

140x55 without outlets
If the trunking is used as a feeder trunking please use this guide to calculate the cable capacity.

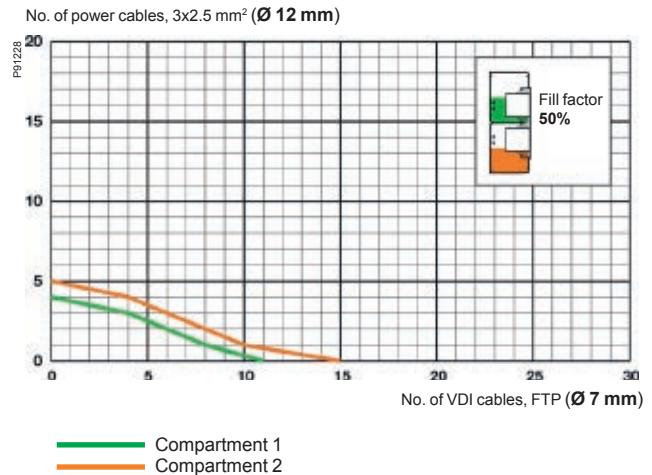
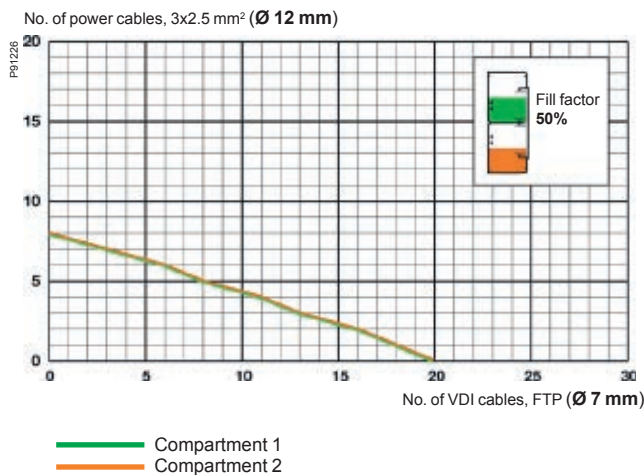


| Com-part-ment | Fill factor | |
|---------------|----------------------|----------------------|
| | 100% | 50% |
| | Inner area | Inner area |
| ■ | 3303 mm ² | 1652 mm ² |
| ■ | 3303 mm ² | 1652 mm ² |

140x55 with Altira outlets
If the trunking is used as an installation trunking please use this guide to calculate the cable capacity.



| Com-part-ment | Fill factor | |
|---------------|----------------------|----------------------|
| | 100% | 50% |
| | Inner area | Inner area |
| ■ | 2180 mm ² | 1090 mm ² |
| ■ | 2180 mm ² | 1090 mm ² |



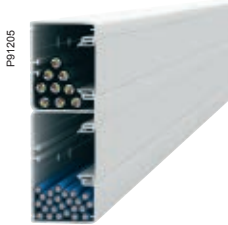
A more detailed calculation can be made in the OptiLine system specification tool.

OptiLine 45 Trunking

Cable capacity

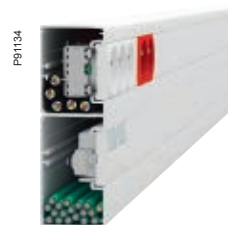
Cable capacity

Installation trunking 165x55 mm



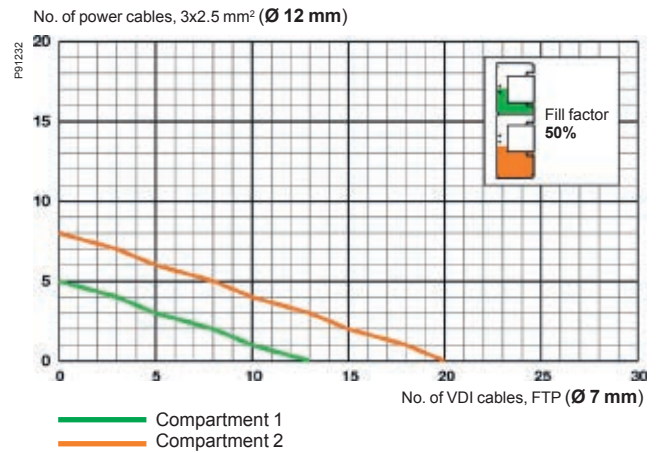
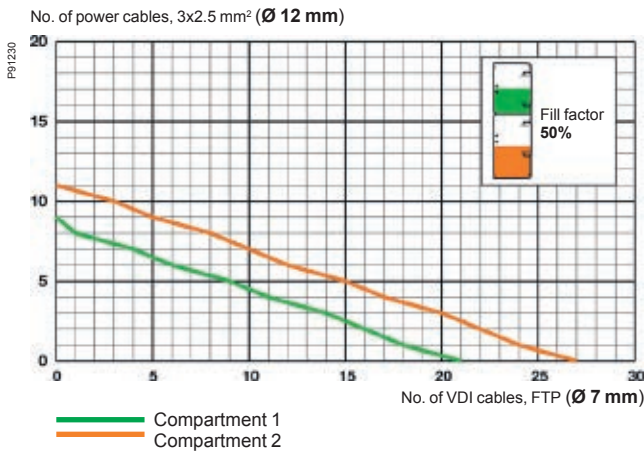
165x55 (VDI) without outlets
If the trunking is used as a feeder trunking please use this guide to calculate the cable capacity.

| Com-part-ment | Fill factor | |
|---------------|----------------------|----------------------|
| | 100% | 50% |
| | Inner area | Inner area |
| ■ | 3374 mm ² | 1687 mm ² |
| ■ | 4358 mm ² | 2179 mm ² |

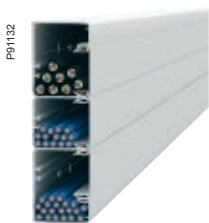


165x55 (VDI) with Altira outlets
If the trunking is used as an installation trunking please use this guide to calculate the cable capacity.

| Com-part-ment | Fill factor | |
|---------------|----------------------|----------------------|
| | 100% | 50% |
| | Inner area | Inner area |
| ■ | 2251 mm ² | 1126 mm ² |
| ■ | 3235 mm ² | 1618 mm ² |



Installation trunking 185x55 mm



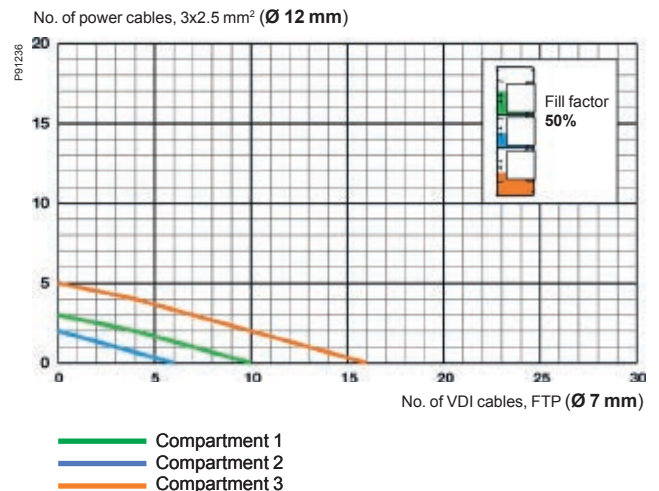
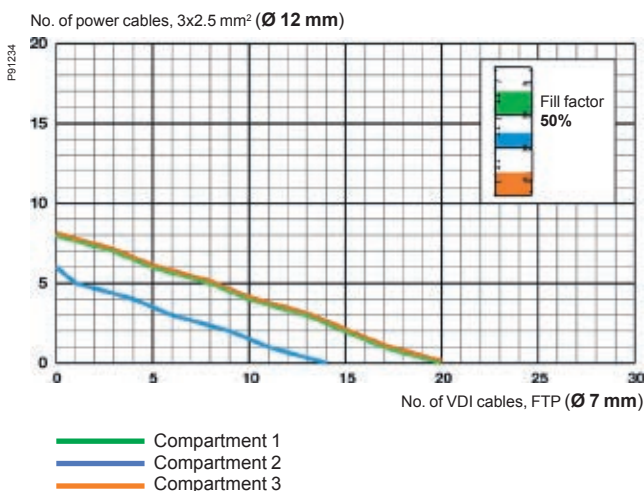
185x55 without outlets
If the trunking is used as a feeder trunking please use this guide to calculate the cable capacity.

| Com-part-ment | Fill factor | |
|---------------|----------------------|----------------------|
| | 100% | 50% |
| | Inner area | Inner area |
| ■ | 3218 mm ² | 1609 mm ² |
| ■ | 2187 mm ² | 1094 mm ² |
| ■ | 3218 mm ² | 1609 mm ² |



185x55 with Altira outlets
If the trunking is used as an installation trunking please use this guide to calculate the cable capacity.

| Com-part-ment | Fill factor | |
|---------------|----------------------|----------------------|
| | 100% | 50% |
| | Inner area | Inner area |
| ■ | 2095 mm ² | 1048 mm ² |
| ■ | 1064 mm ² | 532 mm ² |
| ■ | 2095 mm ² | 1048 mm ² |













A more detailed calculation can be made in the OptiLine system specification tool.








OptiLine 45 Trunking

Choice guide

Trunking and accessories

| Trunking size | Trunking incl. separate front cover | | Internal corner | | External corner | | Bend 90° | | Stop end | | Wall/ceiling frame | |
|--|--|--------------|-----------------------|--------------|-----------------------|--------------|-----------------------|--------------|-----------------------|--------------|-----------------------|--------------|
| | Ref. No. | Qty per pack | Ref. No. | Qty per pack | Ref. No. | Qty per pack | Ref. No. | Qty per pack | Ref. No. | Qty per pack | Ref. No. | Qty per pack |
| PVC | | | | | | | | | | | | |
| 75x55  | ISM10100 ISM10110 ISM10100P ISM10110P | 24 m | ISM10101 ISM10101P | 1 | ISM10102 ISM10102P | 1 | ISM10103 ISM10103P | 1 | ISM10104 ISM10104P | 2 | ISM10105 ISM10105P | 1 |
| 95x55  | ISM10200 ISM10200P | 12 m | ISM10201 ISM10201P | 1 | ISM10202 ISM10202P | 1 | ISM10203 ISM10203P | 1 | ISM10204 ISM10204P | 2 | ISM10205 ISM10205P | 1 |
| 140x55  | ISM10300 ISM10310 ISM10300P ISM10310P | 12 m | ISM10301 ISM10301P | 1 | ISM10302 ISM10302P | 1 | ISM10303 ISM10303P | 1 | ISM10304 ISM10304P | 2 | ISM10305 ISM10305P | 1 |
| 165x55  | ISM10400 ISM10400P | 12 m | ISM10401 ISM10401P | 1 | ISM10402 ISM10402P | 1 | ISM10403 ISM10403P | 1 | ISM10404 ISM10404P | 2 | ISM10405 ISM10405P | 1 |
| 185x55  | ISM10500 ISM10500P | 8 m | ISM10501 ISM10501P | 1 | ISM10502 ISM10502P | 1 | ISM10503 ISM10503P | 1 | ISM10504 ISM10504P | 2 | ISM10505 ISM10505P | 1 |
| Aluminium | | | | | | | | | | | | |
| 75x55  | ISM10150 | 12 m | ISM10151 | 1 | ISM10152 | 1 | ISM10153 | 1 | ISM10154 | 2 | ISM10155 | 1 |
| 95x55  | ISM10250 | 12 | ISM10251 | 1 | ISM10252 | 1 | ISM10253 | 1 | ISM11254 | 2 | ISM10255 | 1 |
| 140x55  | ISM10350 | 6 m | ISM10351 | 1 | ISM10352 | 1 | ISM10353 | 1 | ISM10354 | 2 | ISM10355 | 1 |
| 165x55  | ISM10450 | 6 m | ISM10451 | 1 | ISM10452 | 1 | ISM10453 | 1 | ISM10454 | 2 | ISM10455 | 1 |
| 185x55  | ISM10550 | 6 m | ISM10551 | 1 | ISM10552 | 1 | ISM10553 | 1 | ISM10554 | 2 | ISM10555 | 1 |

P=Polar white

|  | |  | |  | |  | |  | |  | |  | |
|---|--------------|---|--------------|---|--------------|---|--------------|--|--------------|---|--------------|---|--------------|
| Ref. No. | Qty per pack | Ref. No. | Qty per pack | Ref. No. | Qty per pack | Ref. No. | Qty per pack | Ref. No. | Qty per pack | Ref. No. | Qty per pack | Ref. No. | Qty per pack |
| ISM10106 ISM10106P | 1 | ISM10107 ISM10107P | 1 | – | – | ISM10900 ISM10900P | 24 m | ISM10950 | 24 m | ISM10903 ISM10903P | 5 | ISM10904 | 10 |
| ISM10206 ISM10206P | 1 | ISM10207 ISM10207P ISM10208 ISM10208P | 1 | – | 1 | ISM10900 ISM10900P | 24 m | ISM10950 | 24 m | ISM10903 ISM10903P | 5 | ISM10904 | 10 |
| ISM10306 ISM10306P | 1 | ISM10207 ISM10207P ISM10208 ISM10208P | 1 | ISM10308 ISM10308P | 1 | ISM10900 ISM10900P | 24 m | ISM10950 | 24 m | ISM10903 ISM10903P | 5 | ISM10904 | 10 |
| ISM10406 ISM10406P | 1 | ISM10207 ISM10207P ISM10208 ISM10208P | 1 | ISM10308 ISM10308P | 1 | ISM10900 ISM10900P | 24 m | ISM10950 | 24 m | ISM10903 ISM10903P | 5 | ISM10904 | 10 |
| ISM10506 ISM10506P | 1 | ISM10207 ISM10207P ISM10208 ISM10208P | 1 | ISM10308 ISM10308P | 1 | ISM10900 ISM10900P | 24 m | ISM10950 | 24 m | ISM10903 ISM10903P | 5 | ISM10904 | 10 |
| ISM10156 | 1 | ISM10157 | 1 | – | – | – | – | ISM10950 | 24 m | ISM10951 | 5 | ISM10904 | 10 |
| ISM10256 | 1 | ISM10357 ISM10258 | 1 | – | – | – | – | ISM10950 | 24 m | ISM10951 | 5 | ISM10904 | 10 |
| ISM10356 | 1 | ISM10357 ISM10258 | 1 | ISM10358 | 1 | – | – | ISM10950 | 24 m | ISM10951 | 5 | ISM10904 | 10 |
| ISM10456 | 1 | ISM10357 ISM10258 | 1 | ISM10358 | 1 | – | – | ISM10950 | 24 m | ISM10951 | 5 | ISM10904 | 10 |
| ISM10556 | 1 | ISM10357 ISM10258 | 1 | ISM10358 | 1 | – | – | ISM10950 | 24 m | ISM10951 | 5 | ISM10904 | 10 |

OptiLine 45 Trunking Range

PVC trunking

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. |
|------|--------|-----------------------|-----------------|----------|----------|
|------|--------|-----------------------|-----------------|----------|----------|

Installation trunking

Installation trunking including one-compartment trunking base and front cover. The trunking base has pre-punched mounting holes every 25th cm and can be provided with cable shelves. 45 mm front opening for direct click-in of Altira 45x45 module wiring devices.

Trunking base and front cover are supplied unassembled under separate protective foil, in lengths of 2 m. Size 75 mm is also available in lengths of 3 m.

Material: PVC.

| | | | | | |
|----------------------|-------------|--------------------------|------|--------------------------------|------------------------|
| With one compartment | White | 75/55/2000 75/55/3000 | 24 m | 3606480027703 3606480027475 | ISM10100 ISM10110 |
| | Polar white | 75/55/2000 75/55/3000 | 24 m | 3606480681493 3606480681578 | ISM10100P ISM10110P |
| With one compartment | White | 95/55/2000 | 12 m | 3606480027864 | ISM10200 |
| | Polar white | | | 3606480681585 | ISM10200P |

Installation trunking including two or three-compartment trunking base and front covers. The trunking base has pre-punched mounting holes every 25th cm and can be provided with cable shelves. The integrated partition wall has pre-punched slots every 25th cm to facilitate cable laying. 45 mm front opening for direct click-in of Altira 45x45 module wiring devices.

Trunking base and front cover are supplied unassembled under separate protective foil, in lengths of 2 m. Size 140 mm is also available in lengths of 3 m.

Material: PVC.

| | | | | | |
|--|-------------|----------------------------|------|--------------------------------|------------------------|
| With two compartments | White | 140/55/2000 140/55/3000 | 12 m | 3606480027949 3606480027482 | ISM10300 ISM10310 |
| | Polar white | 140/55/2000 140/55/3000 | 12 m | 3606480681677 3606480681752 | ISM10300P ISM10310P |
| With two compartments, the lower comp. for VDI appl. | White | 165/55/2000 | 12 m | 3606480028113 | ISM10400 |
| | Polar white | | | 3606480681769 | ISM10400P |
| With three compartments | White | 185/55/2000 | 8 m | 3606480028250 | ISM10500 |
| | Polar white | | | 3606480681837 | ISM10500P |

Accessories for PVC trunking

Internal corner

Adjustable internal corner for an 80–100 degree angling of PVC trunking.

Material: PC/ABS.

| | | | | | |
|---------------------|-------------|-------------|---|---------------|-----------|
| For trunking 75x55 | White | 84/117/117 | 1 | 3606480027710 | ISM10101 |
| | Polar white | | | 3606480681509 | ISM10101P |
| For trunking 95x55 | White | 104/117/117 | 1 | 3606480027871 | ISM10201 |
| | Polar white | | | 3606480681592 | ISM10201P |
| For trunking 140x55 | White | 149/117/117 | 1 | 3606480027956 | ISM10301 |
| | Polar white | | | 3606480681684 | ISM10301P |
| For trunking 165x55 | White | 174/117/117 | 1 | 3606480028120 | ISM10401 |
| | Polar white | | | 3606480681776 | ISM10401P |
| For trunking 185x55 | White | 194/117/117 | 1 | 3606480028267 | ISM10501 |
| | Polar white | | | 3606480681844 | ISM10501P |





External corner

Adjustable external corner for a 75–135 degree angling of PVC trunking.

Material: PC/ABS.








| | | | | | |
|---------------------|-------------|-------------|---|---------------|-----------|
| For trunking 75x55 | White | 84/105/105 | 1 | 3606480027727 | ISM10102 |
| | Polar white | | | 3606480681516 | ISM10102P |
| For trunking 95x55 | White | 104/105/105 | 1 | 3606480027888 | ISM10202 |
| | Polar white | | | 3606480681608 | ISM10202P |
| For trunking 140x55 | White | 149/105/105 | 1 | 3606480027963 | ISM10302 |
| | Polar white | | | 3606480681691 | ISM10302P |
| For trunking 165x55 | White | 174/105/105 | 1 | 3606480028137 | ISM10402 |
| | Polar white | | | 3606480681783 | ISM10402P |
| For trunking 185x55 | White | 194/105/105 | 1 | 3606480028274 | ISM10502 |
| | Polar white | | | 3606480681851 | ISM10502P |

Accessories for PVC trunking






| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. | |
|---|---|-----------------------|-----------------|----------|--------------------------------|-----------------------|
| Bend, 90°, kit | | | | | | |
| 90 degree bend kit for angling upwards and downwards of PVC trunking. Including bend piece and fixing device to be screw-fitted to the wall. Material: PC/ABS. | | | | | | |
|  | For trunking 75x55 | White Polar white | 102/57/102 | 1 | 3606480027734 3606480681523 | ISM10103 ISM10103P |
| | For trunking 95x55 | White Polar white | 122/57/122 | 1 | 3606480027895 3606480681615 | ISM10203 ISM10203P |
| | For trunking 140x55 | White Polar white | 167/57/167 | 1 | 3606480027970 3606480681707 | ISM10303 ISM10303P |
| | For trunking 165x55, only upwards angling | White Polar white | 192/57/192 | 1 | 3606480028144 3606480681790 | ISM10403 ISM10403P |
| | For trunking 185x55 | White Polar white | 212/57/212 | 1 | 3606480028281 3606480681868 | ISM10503 ISM10503P |
| | Stop end | | | | | |
| Stop end for PVC trunking. Fast fitting with locking clips. Screw-fixing possible for extra security. Package of two. Material: PC/ABS. | | | | | | |
|  | For trunking 75x55 | White Polar white | 79/56/21 | 2 | 3606480027741 3606480681530 | ISM10104 ISM10104P |
| | For trunking 95x55 | White Polar white | 99/56/21 | 2 | 3606480027901 3606480681622 | ISM10204 ISM10204P |
| | For trunking 140x55 | White Polar white | 144/56/21 | 2 | 3606480027987 3606480681714 | ISM10304 ISM10304P |
| | For trunking 165x55 | White Polar white | 169/56/21 | 2 | 3606480028151 3606480681806 | ISM10404 ISM10404P |
| | For trunking 185x55 | White Polar white | 189/56/21 | 2 | 3606480028298 3606480681875 | ISM10504 ISM10504P |
| | Wall/ceiling frame | | | | | |
| Wall/Ceiling frame to be fitted around a PVC trunking at wall or ceiling passage. Easily modified to C or L-profile depending on how the passage is made. Snap-fitted, with a screw-fixing option for high security. Material: PC/ABS. | | | | | | |
|  | For trunking 75x55 | White Polar white | 130/82/22 | 1 | 3606480027758 3606480681547 | ISM10105 ISM10105P |
| | For trunking 95x55 | White Polar white | 150/82/22 | 1 | 3606480027918 3606480681639 | ISM10205 ISM10205P |
| | For trunking 140x55 | White Polar white | 195/82/22 | 1 | 3606480027994 3606480681721 | ISM10305 ISM10305P |
| | For trunking 165x55 | White Polar white | 220/82/22 | 1 | 3606480028168 3606480681813 | ISM10405 ISM10405P |
| | For trunking 185x55 | White Polar white | 240/82/22 | 1 | 3606480028304 3606480681882 | ISM10505 ISM10505P |
| | Joint cover piece, kit | | | | | |
| Joint cover piece, supplied and mounted together with two jointing pieces. Intended to cover joints between two PVC trunking sections. Easy to remove in case of an upgrading of the installation. Material: PC/ABS. | | | | | | |
|  | For trunking 75x55 | White Polar white | 80/57/100 | 1 | 3606480027765 3606480681554 | ISM10106 ISM10106P |
| | For trunking 95x55 | White Polar white | 100/57/100 | 1 | 3606480027925 3606480681646 | ISM10206 ISM10206P |
| | For trunking 140x55 | White Polar white | 145/57/100 | 1 | 3606480028007 3606480681738 | ISM10306 ISM10306P |
| | For trunking 165x55 | White Polar white | 170/57/100 | 1 | 3606480028175 3606480681820 | ISM10406 ISM10406P |
| | For trunking 185x55 | White Polar white | 190/57/100 | 1 | 3606480028311 3606480681899 | ISM10506 ISM10506P |

OptiLine 45 Trunking Range

Accessories for PVC trunking

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. | |
|---|---|-----------------------|-----------------|----------|--------------------------------|-----------------------|
| T-piece | | | | | | |
| T-piece intended to connect vertical and horizontal PVC trunking of various sizes. Material: PC/ABS. | | | | | | |
|  | For vertical trunking 75x55 and horizontal trunking 75x55 | White Polar white | 42/57/97 | 1 | 3606480027772 3606480681561 | ISM10107 ISM10107P |
| | For vertical trunking 75x55 and horizontal trunking 95x55, 140x55, 165x55 or 185x55 | White Polar white | 52/57/97 | 1 | 3606480027932 3606480681653 | ISM10207 ISM10207P |
| | For vertical trunking 95x55 and horizontal trunking 95x55, 140x55, 165x55 or 185x55 | White Polar white | 52/57/117 | 1 | 3606480160578 3606480681660 | ISM10208 ISM10208P |
| | For vertical trunking 140x55 and horizontal trunking 140x55, 165x55 or 185x55 | White Polar white | 52/57/162 | 1 | 3606480028014 3606480681745 | ISM10308 ISM10308P |
| Front cover | | | | | | |
| Front cover to be snap-fitted in trunking with a 45 mm front opening. Supplied with protective foil, in lengths of 2 m. Material: PVC or aluminium. | | | | | | |
|  | Front cover, PVC | White Polar white | 45/16/2000 | 24 m | 3606480028397 3606480681905 | ISM10900 ISM10900P |
| | Front cover, aluminium, with earthing slots | Anodized | 45/16/2000 | 24 m | 3606480028489 | ISM10950 |
| Cable retainer | | | | | | |
| Cable retainer to be mounted at the back of the trunking base to keep cables in place during the installation phase. No need to remove the retainer when fitting the front cover. Package of five. Material: PA. | | | | | | |
|  | Cable retainer | Green | 32/42/25 | 5 | 3606480028403 | ISM10901 |
| Cable shelf | | | | | | |
| Single cable shelf to be mounted in the trunking base, providing separation between power and low voltage cables. Supplied in lengths of 1 m. Material: PVC. | | | | | | |
|  | Cable shelf | White | 17/47/1000 | 24 m | 3606480028410 | ISM10902 |
| Joint cover piece for front cover | | | | | | |
| Joint cover piece intended to cover joints between two front covers. Package of five. Material: PC/ABS. | | | | | | |
|  | Joint cover piece for PVC front cover | White Polar white | 47/20/23 | 5 | 3606480028427 3606480681929 | ISM10903 ISM10903P |
| | Joint cover piece for aluminium front cover | Alu metallic | 47/20/23 | 5 | 3606480028496 | ISM10951 |
| Joining piece | | | | | | |
| Internal joining piece intended to facilitate jointing of two PVC trunking bases. May also be used to mount the joint cover piece. Package of ten. Material: PC/ABS. | | | | | | |
|  | Joining piece | White | 4/51/100 | 10 | 3606480028441 | ISM10904 |
| Sealing strip | | | | | | |
| Sealing strip to be fitted between trunking and floor for a 10-15 mm coverage. Material: PVC. | | | | | | |
|  | Sealing strip | Polar white | 17/40/2000 | 24 m | 3606480681943 | ISM10905P |

Accessories for PVC trunking

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. |
|---|----------------------|-----------------------|-----------------|--------------------------------|-----------------------|
| Front locking clip | | | | | |
| Front locking clip to be mounted on either side of an outlet in order to secure pull-out forces. Package of ten. Material: PC/ABS. | | | | | |
| P85792  | Polar white | 45/23/23 | 10 | 3606489604141 | ISM10909P |
| Modular device adaptor | | | | | |
| 2-module adaptor for 1-2 modular devices like for instance miniature circuit breakers. With transparent grey cover. Material: PC+ASA. | | | | | |
| P85793  | White Polar white | 90/72/45 | 1 | 3606480028465 3606480681950 | ISM10907 ISM10907P |
| Cutting shears | | | | | |
| Cutting shears for PVC material. To be used when for instance cutting slots in the partition walls of PVC trunking (sizes 140 and 185) for easy cable laying between compartments. Also suitable when cutting front covers, cable shelves or other PVC length material, instead of using a saw. Material: Steel. | | | | | |
| P81380  | Orange | 230/22/80 | 1 | 3606480028472 | ISM10908 |
| Label holder | | | | | |
| Label holder for marking purposes. Package of ten. Material: PC/ABS. | | | | | |
| P148190  | White | 23/23/45 | 10 | 3606489843021 | ISM10920P |
| P148191 P148192  | Anthracite | 23/23/45 | 10 | 3606489843038 | ISM10921 |
| | Alu metallic | 23/23/45 | 10 | 3606489843045 | ISM10922 |

OptiLine 45 Trunking Range

Aluminium trunking

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. |
|------|--------|-----------------------|-----------------|----------|----------|
|------|--------|-----------------------|-----------------|----------|----------|

Installation trunking

Installation trunking including one, two or three-compartment trunking base and front cover(s). The trunking base has pre-punched mounting holes every 25th cm and can be provided with cable shelves. 45 mm front opening for direct click-in of Altira 45x45 module wiring devices.

Trunking base and front cover are supplied unassembled under separate protective foil, in lengths of 2 m.

Material: Aluminium.

| | | | | | |
|--|----------|-------------|------|---------------|----------|
| With one compartment | Anodized | 75/55/2000 | 12 m | 3606480027789 | ISM10150 |
| With one compartment | Anodized | 95/55/2000 | 12 m | 3606485137728 | ISM10250 |
| With two compartments | Anodized | 140/55/2000 | 6 m | 3606480028021 | ISM10350 |
| With two compartments, the lower comp. for VDI appl. | Anodized | 165/55/2000 | 6 m | 3606480028182 | ISM10450 |
| With three compartments | Anodized | 185/55/2000 | 6 m | 3606480028328 | ISM10550 |

Installation trunking, customer adapted

Installation trunking according to special customer order. The trunking is available with one, two or three compartments, see above, and can be specified in *optional length and colour*. Implies a detailed specification.

Material: Aluminium.

| | | | | | |
|------------------------|----------|----------------|---|---|---------|
| Acc. to customer spec. | Optional | —*/55/Optional | — | — | ISMSPTR |
|------------------------|----------|----------------|---|---|---------|

*Five height measurements, see above

Accessories for aluminium trunking

Internal corner

Adjustable internal corner for an 80–100 degree angling of aluminium trunking.

Material: PC/ABS, painted.

| | | | | | |
|---------------------|--------------|-------------|---|---------------|----------|
| For trunking 75x55 | Alu metallic | 84/117/117 | 1 | 3606480027796 | ISM10151 |
| For trunking 95x55 | Alu metallic | 104/117/117 | 1 | 3606485137735 | ISM10251 |
| For trunking 140x55 | Alu metallic | 149/117/117 | 1 | 3606480028038 | ISM10351 |
| For trunking 165x55 | Alu metallic | 174/117/117 | 1 | 3606480028199 | ISM10451 |
| For trunking 185x55 | Alu metallic | 194/117/117 | 1 | 3606480028335 | ISM10551 |

External corner

Adjustable external corner for a 75–135 degree angling of aluminium trunking.

Material: PC/ABS, painted.

| | | | | | |
|---------------------|--------------|-------------|---|---------------|----------|
| For trunking 75x55 | Alu metallic | 84/105/105 | 1 | 3606480027802 | ISM10152 |
| For trunking 95x55 | Alu metallic | 104/105/105 | 1 | 3606485137742 | ISM10252 |
| For trunking 140x55 | Alu metallic | 149/105/105 | 1 | 3606480028045 | ISM10352 |
| For trunking 165x55 | Alu metallic | 174/105/105 | 1 | 3606480028205 | ISM10452 |
| For trunking 185x55 | Alu metallic | 194/105/105 | 1 | 3606480028342 | ISM10552 |

Bend, 90°, kit

90 degree bend kit for angling upwards and downwards of aluminium trunking. Including bend piece and fixing device to be screw-fitted to the wall.

Material: PC/ABS, painted.

| | | | | | |
|--|--------------|------------|---|---------------|----------|
| For trunking 75x55 | Alu metallic | 102/57/102 | 1 | 3606480027819 | ISM10153 |
| For trunking 95x55 | Alu metallic | 122/57/122 | 1 | 3606485137759 | ISM10253 |
| For trunking 140x55 | Alu metallic | 167/57/167 | 1 | 3606480028052 | ISM10353 |
| For trunking 165x55 only upwards angling | Alu metallic | 192/57/192 | 1 | 3606480028212 | ISM10453 |
| For trunking 185x55 | Alu metallic | 212/57/212 | 1 | 3606480028359 | ISM10553 |

P85773



P111545



P85774



P85775



P85776



P85797










P85798



P85799



Accessories for aluminium trunking

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. |
|---|---|-----------------------|-----------------|----------|------------------------|
| Stop end | | | | | |
| Stop end for aluminium trunking. Including screw and nut to fix the stop end in the trunking base. Material: PC/ABS, painted. | | | | | |
|  P85800 | For trunking 75x55 | Alu metallic | 79/56/21 | 2 | 3606480027826 ISM10154 |
| | For trunking 95x55 | Alu metallic | 99/56/21 | 2 | 3606480028823 ISM11254 |
| | For trunking 140x55 | Alu metallic | 144/56/21 | 2 | 3606480028069 ISM10354 |
| | For trunking 165x55 | Alu metallic | 169/56/21 | 2 | 3606480028229 ISM10454 |
| | For trunking 185x55 | Alu metallic | 189/56/21 | 2 | 3606480028366 ISM10554 |
| Wall/Ceiling frame | | | | | |
| Wall/Ceiling frame to be fitted around an aluminium trunking at wall or ceiling passage. Easily modified to C or L-profile depending on how the passage is made. Snap-fitted, with a screw-fixing option for high security. Material: PC/ABS, painted. | | | | | |
|  P85801 | For trunking 75x55 | Alu metallic | 130/82/22 | 1 | 3606480027833 ISM10155 |
| | For trunking 95x55 | Alu metallic | 150/82/22 | 1 | 3606485137766 ISM10255 |
| | For trunking 140x55 | Alu metallic | 195/82/22 | 1 | 3606480028076 ISM10355 |
| | For trunking 165x55 | Alu metallic | 220/82/22 | 1 | 3606480028236 ISM10455 |
| | For trunking 185x55 | Alu metallic | 240/82/22 | 1 | 3606480028373 ISM10555 |
| Joint cover piece, kit | | | | | |
| Joint cover piece, supplied and mounted together with two jointing pieces. Intended to cover joints between two aluminium trunking sections. Easy to remove in case of an upgrading of the installation. Material: PC/ABS, painted. | | | | | |
|  P85802 | For trunking 75x55 | Alu metallic | 80/57/100 | 1 | 3606480027840 ISM10156 |
| | For trunking 95x55 | Alu metallic | 100/57/100 | 1 | 3606485137773 ISM10256 |
| | For trunking 140x55 | Alu metallic | 145/57/100 | 1 | 3606480028083 ISM10356 |
| | For trunking 165x55 | Alu metallic | 170/57/100 | 1 | 3606480028243 ISM10456 |
| | For trunking 185x55 | Alu metallic | 190/57/100 | 1 | 3606480028380 ISM10556 |
| T-piece | | | | | |
| T-piece intended to connect vertical and horizontal aluminium trunking of various sizes. Material: PC/ABS, painted. | | | | | |
|  P85804 | For vertical trunking 75x55 and horizontal trunking 75x55 | Alu metallic | 42/57/97 | 1 | 3606480027857 ISM10157 |
| | For vertical trunking 75x55 and horizontal trunking 95x55, 140x55, 165x55 or 185x55 | Alu metallic | 52/57/97 | 1 | 3606480028090 ISM10357 |
| | For vertical trunking 95x55 and horizontal trunking 95x55, 140x55, 165x55 or 185x55 | Alu metallic | 52/57/117 | 1 | 3606480160561 ISM10258 |
| | For vertical trunking 140x55 and horizontal trunking 140x55, 165x55 or 185x55 | Alu metallic | 52/57/162 | 1 | 3606480028106 ISM10358 |
| Front cover | | | | | |
| Front cover to be snap-fitted in trunking with a 45 mm front opening. With earthing slots. Supplied with protective foil, in lengths of 2 m. Material: Aluminium. | | | | | |
|  P85786 | Front cover | Anodized | 45/16/2000 | 24 m | 3606480028489 ISM10950 |
| Cable retainer | | | | | |
| Cable retainer to be mounted at the back of the trunking base to keep cables in place during the installation phase. No need to remove the retainer when fitting the front cover. Package of five. Material: PA. | | | | | |
|  P85787 | Cable retainer | Green | 32/42/25 | 5 | 3606480028403 ISM10901 |
| Cable shelf | | | | | |
| Single cable shelf to be mounted in the trunking base, providing separation between power and low voltage cables. Supplied in lengths of 1 m. Material: PVC. | | | | | |
|  P85788 | Cable shelf | White RAL 9010 | 17/47/1000 | 24 m | 3606480028410 ISM10902 |

OptiLine 45 Trunking Range

Accessories for aluminium trunking

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. |
|--|--------------|-----------------------|-----------------|---------------|-----------|
| Joint cover piece for front cover | | | | | |
| Joint cover piece intended to cover joints between two aluminium front covers. Package of five. Material: PC/ABS, painted. | | | | | |
| Joint cover piece | Alu metallic | 46/20/23 | 5 | 3606480028496 | ISM10951 |
| Jointing piece | | | | | |
| Internal jointing piece intended to facilitate jointing of two aluminium trunking bases. May also be used to mount the joint cover piece. Package of ten. Material: PC/ABS. | | | | | |
| Jointing piece | White | 4/51/100 | 10 | 3606480028441 | ISM10904 |
| Jointing/earthing piece | | | | | |
| Internal jointing and earthing piece, intended for jointing and earthing of two aluminium trunking bases. Including two screws. Material: Zinc. | | | | | |
| Jointing/earthing piece | Untreated | 4/6/26 | 10 | 3606480028533 | ISM10955 |
| Sealing strip | | | | | |
| Sealing strip to be fitted between trunking and floor for a 10-15 mm coverage. Material: PVC. | | | | | |
| Sealing strip | Polar white | 17/40/2000 | 24 m | 3606480681943 | ISM10905P |
| Front locking clip | | | | | |
| Front locking clip to be mounted on either side of an outlet in order to secure pull-out forces. Package of ten. Material: PC/ABS. | | | | | |
| Front locking clip | Polar white | 45/23/23 | 10 | 3606489604141 | ISM10909P |
| Modular device adaptor | | | | | |
| 2-module adaptor for 1-2 modular devices like for instance miniature circuit breakers. With transparent grey cover. Material: PC+ASA. | | | | | |
| Modular device adaptor | Alu metallic | 90/72/45 | 1 | 3606480028540 | ISM10957 |
| Earthing clamp | | | | | |
| Earthing clamp to be used for bonding of front cover, trunking base and accessories to earth. Package of ten. Material: Steel. | | | | | |
| Earthing clamp | — | 9/9/9 | 20 | 3606480028502 | ISM10952 |
| Earthing kit | | | | | |
| Kit including earth wire with flat pin connectors and earthing clamps. To be used to connect the front cover to the base profile or the base profile to another base profile. | | | | | |
| Earthing kit | Yellow/green | L = 200 | 10 | 3606480028519 | ISM10953 |
| | | L = 300 | 10 | 3606480028526 | ISM10954 |
| Front locking clip | | | | | |
| Front locking clip to be mounted on either side of an outlet in order to secure pull-out forces. Package of ten. Material: PC/ABS. | | | | | |
| Front locking clip | Polar white | 45/23/23 | 10 | 3606489604141 | ISM10909P |
| Label holder | | | | | |
| Label holder for marking purposes. Package of ten. Material: PC/ABS. | | | | | |
| Label holder | White | 23/23/45 | 10 | 3606489843021 | ISM10920P |
| | Anthracite | 23/23/45 | 10 | 3606489843038 | ISM10921 |
| | Alu metallic | 23/23/45 | 10 | 3606489843045 | ISM10922 |

Fixing products

| Type | Colour | Dimensions (mm) | Qty per package | EAN code | Ref. No. |
|---|--------|-----------------|-----------------|---------------|----------|
| Wall plugs | | | | | |
| Wall plug on sprue plate, suitable for use in concrete, stone, lightweight concrete, expanded clay, hollow bricks, solid bricks and plasterboard. Material: PE-HD. | | | | | |
| TP 2 | Red | Ø5.5x35 | 100 | 7315881003006 | 1003003 |
| TP 2B | Brown | Ø8x40 | 100 | 7315881005000 | 1005008 |
| TP 3 | Blue | Ø10x45 | 10 | 3606480621369 | IMT48002 |
| Same as above but single. Material: PE-HD. | | | | | |
| TP 6 | Red | Ø6x30 | 100 | 7315881003020 | 1003020 |
| Nail plugs | | | | | |
| Nail plug including nail for through installation. Suitable for use in concrete, stone, lightweight concrete, expanded clay, hollow bricks, solid bricks and plasterboard. Material: PA. | | | | | |
| TPS-6/5x35 | Clear | Drill Ø6 | 100 | 7315881150007 | 1150002 |
| TPS-6/20x50 | Clear | Drill Ø6 | 100 | 7315880100027 | 1150051 |
| Installation screws | | | | | |
| Screw with large thin head and integrated washer. Phillips cross recess. Twin thread. Fully threaded. Gives very good pressure when fixing plastic trunking. Material: Hardened steel, electroplated. | | | | | |
| TSC-32 | — | Ø4.2x25 | 100 | 7315883782022 | 3782020 |
| TSC-33 | — | Ø4.2x31 | 100 | 7315883782039 | 3782030 |
| Screw with raised countersunk head, Phillips cross recess. Fully threaded. Suitable for mounting directly into plasterboard. Material: Steel, electroplated. | | | | | |
| TSF-25 | — | Ø4.8x25 | 100 | 7315883782428 | 3782420 |
| TSF-35 | — | Ø4.8x35 | 100 | 7315883782435 | 3782430 |
| TSF-45 | — | Ø4.8x45 | 100 | 7315883782442 | 3782440 |
| Installation screw with cup washer | | | | | |
| Screw with cross-slotted head type PH2. Sharp point, fully threaded. High pitch for quick mounting. Provided with a cup washer for screw-head protection. To be used when installing single-insulated wire in the trunking. Material: Hardened steel, electroplated, and PP. | | | | | |
| TFT-IS5x32 | — | Ø5x32 | 100 | 7332418018203 | 4020210 |
| Concrete screws | | | | | |
| Concrete screw with flange head 17 mm. Recess T-30. Suitable for concrete and solid brick materials. Mounting with cordless screwdriver or wrench. Material: Steel, electroplated. | | | | | |
| MMS-MS | — | Ø7.5x45 | 50 | 3606480214479 | IMT38037 |
| Concrete screw with hexagon head. Washer 8x19x1.5 enclosed. Wrench width 10 mm. Suitable for concrete and solid brick materials. Mounting with cordless screwdriver or wrench. Material: Steel, electroplated. | | | | | |
| MMS-S | — | Ø7.5x50 | 50 | 3606480214394 | IMT38029 |
| Concrete screw with pan head. Recess T-20, T-30 or T-40, see below. Suitable for concrete and solid brick materials. Mounting with cordless screwdriver or wrench. Material: Steel, electroplated. | | | | | |
| MMS-P Recess T-20 | | Ø5x30 | 200 | 3606480214509 | IMT38040 |
| MMS-P Recess T-20 | | Ø5x50 | 200 | 3606480214516 | IMT38041 |
| MMS-P Recess T-30 | - | Ø6x30 | 100 | 3606480214431 | IMT38033 |
| MMS-P Recess T-40 | - | Ø7.5x45 | 100 | 3606480214448 | IMT38034 |
| Concrete screw with hexagon head and combined washer. Wrench width 10 mm. Suitable for concrete and solid brick materials. Mounting with cordless screwdriver or wrench. Material: Steel, electroplated. | | | | | |
| MMS-MF | | Ø7.5x70 | 50 | 3606480214615 | IMT38051 |

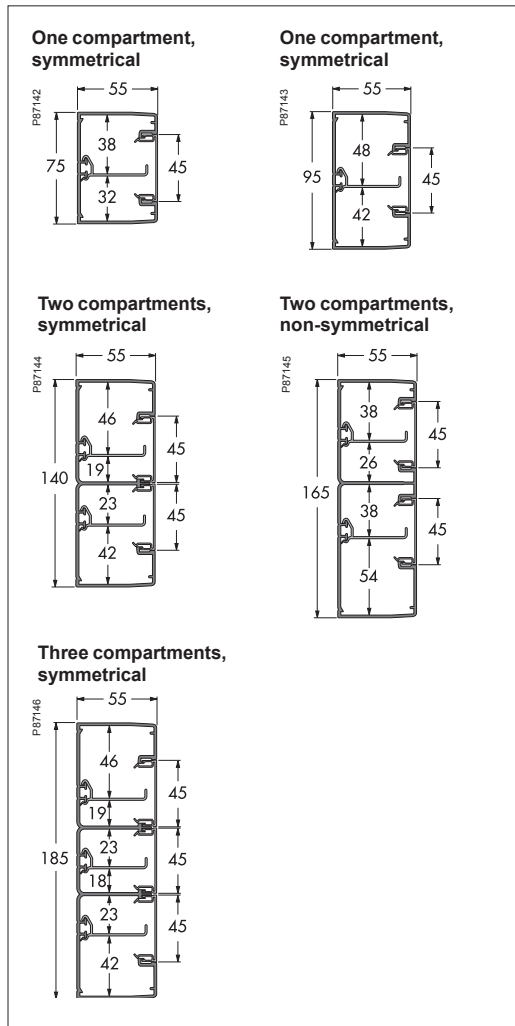
Fixing products

| | Type | Colour | Dimensions (mm) | Qty per package | EAN code | Ref. No. |
|----------------------------|--|--------|-------------------|-----------------|---------------|----------|
| P80837 | Cavity fixings | | | | | |
| | Cavity fixing with metal toggle for high load values. Material: Zinc/Steel. | | | | | |
| | TPP-10xM4S | — | Drill Ø10 | 25 | 7315881200009 | 1200005 |
| | TPP-13xM5S | — | Drill Ø13 | 25 | 7315881200405 | 1200401 |
| P80047 | Cavity fixing for light installations in plasterboard. Board thickness from 9 mm. Screw size 4.5x35. Material: Zinc. | | | | | |
| | TPD-Metal | — | Screw size 4.5x35 | 100 | 7315880114291 | 1220104 |
| P91678 | Cavity fixing including a 38 mm long screw. The shape of THW prevents it from rotating. No pre-drilling needed, just hammer in. Excellent for porous and thin material. Pull-out load 100 N, safety factor 3, shear load 100N, safety factor 2.5. Board thickness 6-13 mm, max. thickness of fixture 16 mm. Material: Steel, electroplated. | | | | | |
| | THW 4.2x38 | — | — | 50 | 7315881260171 | 1260170 |
| P117745 | Through bolts | | | | | |
| | Through bolt including nut and washer. Intended mainly for indoor installations in concrete or natural rock material. Fast-grip design, the bolt is set with a few turns of the nut. Corrosivity class C2. Material: Steel, electroplated. | | | | | |
| | Through bolt M8x95 fzb | — | M8x95 | 50 | 3606480214691 | IMT38008 |
| | Through bolt M10x105 fzb | — | M10x105 | 25 | 3606480214714 | IMT38010 |
| P80841 P91679 P80048 | Screw bits | | | | | |
| | 1/4 hexagon drive end, various lengths (25, 50 or 110 mm, see below). Adapted to the Thorsman range of installation screws with Phillips cross recess. Material: Hardened steel. | | | | | |
| | PH 2x25 | — | 1/4"x25 | 2 | 7315881772056 | 1772054 |
| | PH 2x25 Reduced | — | 1/4"x25 | 2 | 7315880056294 | 1772052 |
| | PH 2x50 | — | 1/4"x50 | 2 | 7315880055273 | 1772056 |
| | PH 2x110 | — | 1/4"x110 | 2 | 7315880055297 | 1772058 |
| P117758 | Screw bit T-30, for use with an extension socket. Material: Steel. | | | | | |
| | Screw bit | — | 6.25x25 | 2 | 3606480214653 | IMT38055 |
| P117761 P117759 | Magnetic socket driver | | | | | |
| | Mounting tool with magnet for hexagon head screws. Material: Steel. | | | | | |
| | 10x45 for 10 mm screws | — | 10x45 | 1 | 3606480214639 | IMT38053 |
| | 13x55 for 13 mm screws | — | 13x45 | 1 | 3606480214646 | IMT38054 |

OptiLine 45 Trunking

Technical description

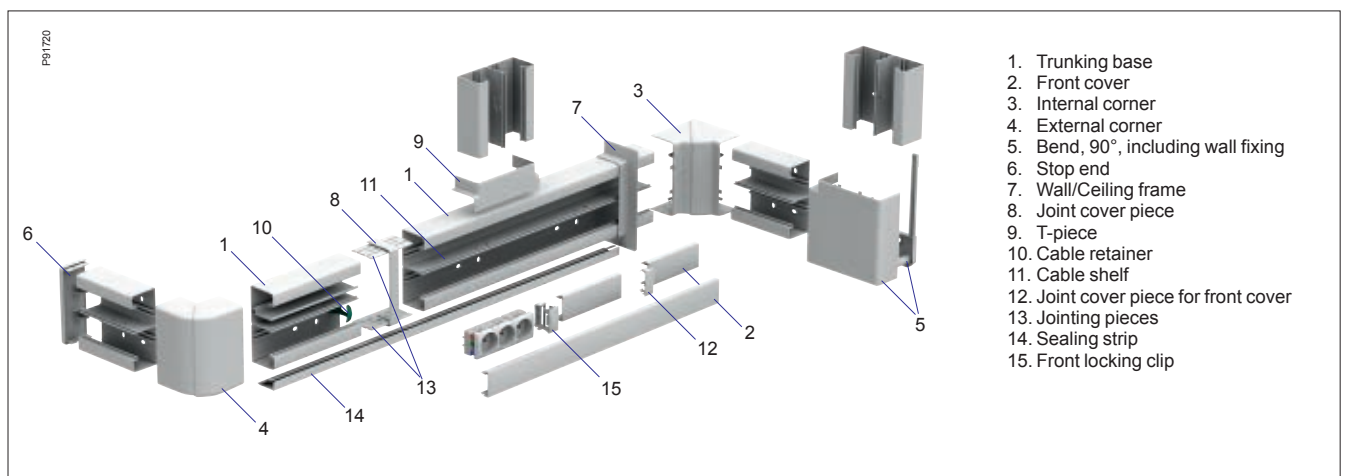
Design and dimensions



Technical and Material data

| | | |
|--|---|--|
| PVC (self-extinguishing, lead and cadmium-free) | Fire rating | UL 94 V0 (0.8 mm) |
| | Colour | <ul style="list-style-type: none"> White (RAL 9010) Polar white (RAL 9003) |
| Aluminium | Surface treatment | Natural anodizing |
| | Fire rating | UL 94 HB |
| PC/ABS | Colours | <ul style="list-style-type: none"> White (RAL 9010) Polar white (RAL 9003) Aluminium metallic (painted) |
| | PA (polyamide), halogen-free | Fire rating |
| | Colours | <ul style="list-style-type: none"> Green Clear |
| PC+ASA | Fire rating | UL 94 HB |
| | Colours | <ul style="list-style-type: none"> White (RAL 9010) Polar white (RAL 9003) Aluminium metallic |
| PE (polyethylene), halogen-free | Fire rating | UL 94 HB |
| | Colours | <ul style="list-style-type: none"> Red Brown Black |
| Degree of protection | IP40 | |
| Temperature range | Operating temperature from -25°C to +60°C | |
| Resistance to impact | PVC trunking | 2J (IK07) |
| | PC/ABS accessories | 2J (IK07) |
| Standards and certificates | The products comply with the standards: | |
| | <ul style="list-style-type: none"> EN 50085-1:2005 pr EN 50085-2-1:2002 NFC 68 102:1990 (French national standard) | |
| The products satisfy the provisions for CE marking according to the Low Voltage Directive 73/23/EEC and 93/68/EEC. | | |

Exploded view



OptiLine 45 Poles

Presentation



Service poles with 45 mm front opening for direct click-in of Altira wiring devices

OptiLine 45 service poles with a 45 mm front opening offer very flexible installation solutions, bringing power, telecom and data directly from the ceiling to the desk.

The poles have a softly rounded and slender form and are made of aluminium with a high surface finish, either natural anodised or powder coated white. They are installed free-standing in the room mounted on a foot and movable within a radius of up to 1.5 metres from the connection point in the ceiling, or tension-mounted between floor and ceiling. Both types are available in one and two-sided versions, or with four boxes.

The spring-loaded and adjustable ceiling fixing for tension-mounted poles can be fitted easily without tools.



One-sided poles

Free-standing



Alu White

Two-sided poles

Free-standing



Alu White

With boxes

Free-standing



Alu White

Tension-mounted



Alu White

Tension-mounted



Alu White

Tension-mounted



Alu White

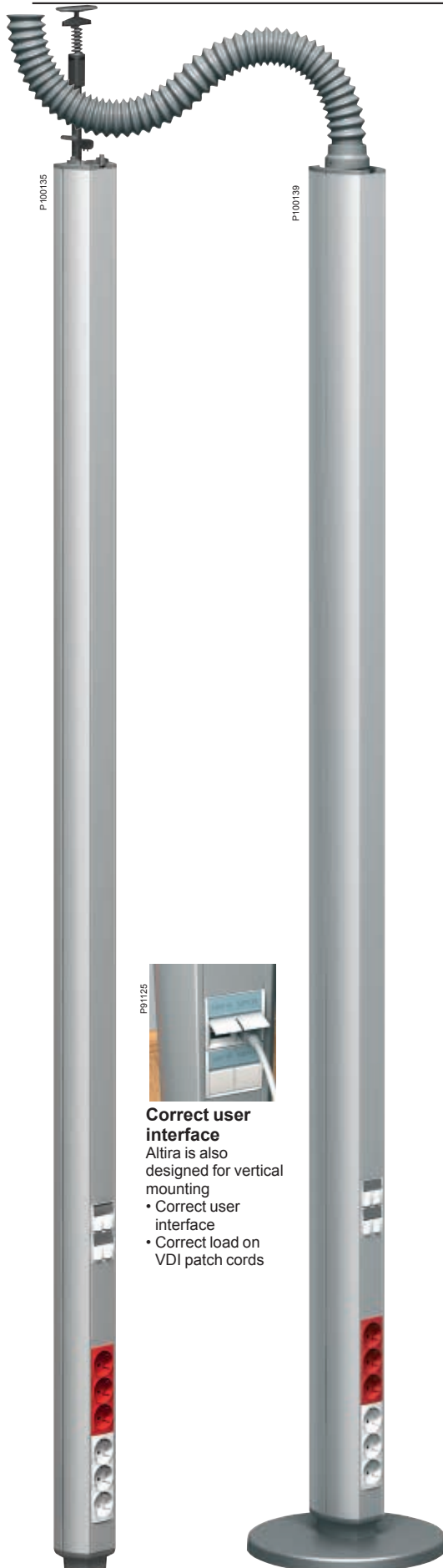


Altira 45x45 module wiring devices

The OptiLine 45 range has a front opening for direct click-in of Altira 45x45 module wiring devices which gives optimal function and design.

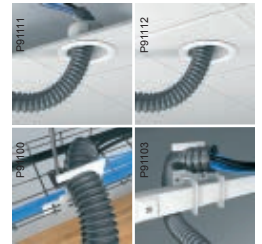
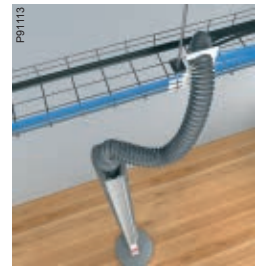
Altira offers a broad range of socket outlets, switches, VDI outlets and electronic products such as dimmers, movement detectors, thermostats, timers.

OptiLine 45 Poles Presentation



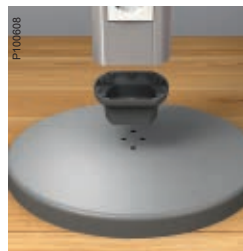
Design, finish and quality

All OptiLine poles are made of aluminium, anodized or powder coated, with a high surface finish. The form is softly rounded and slender. All parts are designed to give reliable function and easy installation.



Many mounting options

Accessories for all mounting options. The ceiling frame for the flexible conduit is mounted without a tool and can be adjusted to different ceiling thicknesses.



Stable and sturdy

All parts in aluminium, several are die-cast. Foot in sand-cast iron.

- Stable and sturdy design
- Reliable function
- High-quality impression.



Innovative square foot

The foot has a steel clamp that can be unfolded for extra support.

- Steady
- Nice installation close to the wall
- Two poles can be placed back to back.



Handy ceiling fixing

Fitted easily without tools.

Self-locking adjustment.

- Quick and safe installation
- 400 mm working range
- Mechanism outside the pole – does not interfere with the wiring devices.



Correct user interface

Altira is also designed for vertical mounting

- Correct user interface
- Correct load on VDI patch cords



Cable separation

Partition profile for good separation of cables.

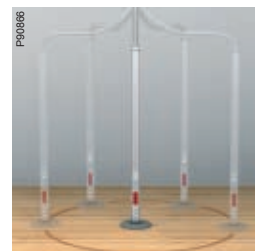
- Correct distance between VDI and power cables
- Full isolation between terminations and cables.



Screw slots

Slots along both sides of the pole.

- For decorative colour strips
- For products like spotlights, small shelves etc.



Flexibility

The movable pole has a steady foot and a flexible conduit.

- Easy to move the poles to optimize the office layout
- 1.5 m action radius.




















Smooth stop-end

Stop end in cast aluminium with smoothly shaped edges.

- Covers the sharp cut of the base profile
- No risk of damaged cables.




OptiLine 45 Poles & accessories Choice guide

| | | | | | |  |  |  | |
|---|-----------|---|--|--|--|---|---|---|----------|
| Quantity per pack: 1 | | | | | | | | | |
| Tension-mounted | | | Height mm | Anodized aluminium | RAL 9010 | Polar white | | | |
|  | One-sided | | 2700-3100 3100-3500 3500-3900 3900-4300 | ISM20100 ISM20102 ISM20104 ISM20120 | ISM20101 ISM20103 ISM20105 ISM20121 | ISM20101P ISM20103P ISM20105P ISM20121P | ISM20810 | | ISM20814 |
| | Two-sided |  | 2700-3100 3100-3500 3500-3900 3900-4300 | ISM20106 ISM20108 ISM20110 ISM20122 | ISM20107 ISM20109 ISM20111 ISM20123 | ISM20107P ISM20109P ISM20111P ISM20123P | | ISM20811 | ISM20814 |
| Tension-mounted with installation boxes | | | Height mm | Anodized aluminium | RAL 9010 | Polar white | | | |
|  | |  | 2700-3100 3100-3500 3500-3900 | ISM20140 ISM20142 ISM20144 | ISM20141 ISM20143 ISM20145 | SM20141P ISM20143P ISM20145P | ISM20552 | | ISM20554 |
| Free-standing | | | Height mm | Anodized aluminium | RAL 9010 | Polar white | | | |
|  | One-sided | | 2150 2450 2900 | ISM20130 ISM20112 ISM20114 | ISM20131 ISM20113 ISM20115 | ISM20131P ISM20113P ISM20115P | | | |
| | Two-sided |  | 2150 2450 2900 | ISM20132 ISM20116 ISM20118 | ISM20133 ISM20117 ISM20119 | ISM20133P ISM20117P ISM20119P | | | |
| Free-standing with installation boxes | | | Height mm | Anodized aluminium | RAL 9010 | Polar white | | | |
|  | |  | 2150 2450 2900 | ISM20146 ISM20148 ISM20150 | ISM20147 ISM20149 ISM20151 | ISM20147P ISM20149P ISM20151P | | | |

| |  Foot, round |  Foot, rectangular |  Ceiling frame |  Ceiling fixing |  Busbar fixing |  Cable tray fixing |
|--|--|--|--|--|--|--|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | ISM20808 | ISM20809 | ISM20812 | ISM20816 | ISM20815 | ISM20813 |
| | ISM20808 | ISM20809 | ISM20812 | ISM20816 | ISM20815 | ISM20813 |
| | ISM20808 | ISM20809 | ISM20812 | ISM20816 | ISM20815 | ISM20813 |

OptiLine 45 Poles Range

Poles, empty

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. | |
|--|----------------------|----------------------------------|-------------------|----------|---|-----------------------------------|
| Pole, tension-mounted | | | | | | |
| Empty pole for tension mounting between floor and ceiling, one-sided or two-sided. Including front cover, ceiling fixing, ceiling frame, stop end, strain relief, partition profile, floor fixing plate, earthing kit and mounting instruction. Adjustability of ceiling fixing 400 mm. Unearthed. Supplied without service content or cables. 45 mm front opening for direct click-in of Altira 45x45 module wiring devices. Material: Aluminium, natural anodized or powder coated white. | | | | | | |
|  | One-sided, 2.7-3.1 m | Anodized White Polar white | 3100/68/89 | 1 | 3606480029561 3606480029578 3606480681974 | ISM20100 ISM20101 ISM20101P |
| | One-sided, 3.1-3.5 m | Anodized White Polar white | 3500/68/89 | 1 | 3606480029585 3606480029592 3606480681981 | ISM20102 ISM20103 ISM20103P |
| | One-sided, 3.5-3.9 m | Anodized White Polar white | 3900/68/89 | 1 | 3606480029608 3606480029615 3606480681998 | ISM20104 ISM20105 ISM20105P |
| | One-sided, 3.9-4.3 m | Anodized White Polar white | 4300/68/89 | 1 | 3606480317262 3606480317279 3606480682070 | ISM20120 ISM20121 ISM20121P |
| | Two-sided, 2.7-3.1 m | Anodized White Polar white | 3100/116/90 | 1 | 3606480029622 3606480029639 3606480682001 | ISM20106 ISM20107 ISM20107P |
| | Two-sided, 3.1-3.5 m | Anodized White Polar white | 3500/116/90 | 1 | 3606480029646 3606480029653 3606480682018 | ISM20108 ISM20109 ISM20109P |
| | Two-sided, 3.5-3.9 m | Anodized White Polar white | 3900/116/90 | 1 | 3606480029660 3606480029677 3606480682025 | ISM20110 ISM20111 ISM20111P |
| | Two-sided, 3.9-4.3 m | Anodized White Polar white | 4300/116/90 | 1 | 3606480317286 3606480317293 3606480682087 | ISM20122 ISM20123 ISM20123P |
| Pole, tension-mounted, with installation boxes | | | | | | |
| Empty pole for tension mounting between floor and ceiling, provided with four installation boxes. Installation box height 558 mm. Including white plastic front cover, ceiling fixing, ceiling frame, stop end, floor fixing, floor fixing plate (zinc), earthing cable and mounting instruction. Adjustability of ceiling fixing 400 mm. Unearthed. Supplied without service content or cables. 45 mm front opening for direct click-in of Altira 45x45 module wiring devices. Material: Aluminium, natural anodized or powder coated white. | | | | | | |
|  | 2.7-3.1 m | Anodized White Polar white | 2700-3100/149/140 | 1 | 3606480317347 3606480317354 3606480682117 | ISM20140 ISM20141 ISM20141P |
| | 3.1-3.5 m | Anodized White Polar white | 3100-3500/149/140 | 1 | 3606480317361 3606480317378 3606480682124 | ISM20142 ISM20143 ISM20143P |
| | 3.5-3.9 m | Anodized White Polar white | 3500-3900/149/140 | 1 | 3606480317385 3606480317392 3606480682131 | ISM20144 ISM20145 ISM20145P |
| Pole, free-standing | | | | | | |
| Empty, free-standing and movable pole, one-sided or two-sided. Including front cover, flexible conduit with adaptor, strain relief, partition profile, earthing kit and mounting instruction. Unearthed. Supplied without service content or cables. 45 mm front opening for direct click-in of Altira 45x45 module wiring devices. Length of flexible conduit 2 m, action radius 1.5 m from the connection point in the ceiling. Foot to be ordered separately. Material: Aluminium, natural anodized or powder coated white. | | | | | | |
|  | One-sided, 2.15 m | Anodized White Polar white | 2150+2000/68/89 | 1 | 3606480317309 3606480317316 3606480682094 | ISM20130 ISM20131 ISM20131P |
| | One-sided, 2.45 m | Anodized White Polar white | 2450+2000/68/89 | 1 | 3606480029684 3606480029691 3606480682032 | ISM20112 ISM20113 ISM20113P |
| | One-sided, 2.9 m | Anodized White Polar white | 2900+2000/68/89 | 1 | 3606480029707 3606480029714 3606480682049 | ISM20114 ISM20115 ISM20115P |
| | Two-sided, 2.15 m | Anodized White Polar white | 2150+2000/116/90 | 1 | 3606480317323 3606480317330 3606480682100 | ISM20132 ISM20133 ISM20133P |
| | Two-sided, 2.45 m | Anodized White Polar white | 2450+2000/116/90 | 1 | 3606480029721 3606480029738 3606480682056 | ISM20116 ISM20117 ISM20117P |
| | Two-sided, 2.9 m | Anodized White Polar white | 2900+2000/116/90 | 1 | 3606480029745 3606480029752 3606480682063 | ISM20118 ISM20119 ISM20119P |

P86538
P87199

P117511
P117512

P86538
P87201

OptiLine 45 Poles Range

Poles, empty

PH17513
PH17514


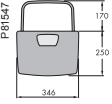












| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. |
|--|-------------|-----------------------|-----------------|---------------|-----------|
| Pole, free-standing, with installation boxes | | | | | |
| Empty, free-standing and movable pole, provided with four installation boxes. Installation box height 558 mm. Including white plastic front cover, flexible conduit with adaptor, earthing cable and mounting instruction. Unearthed. Supplied without service content or cables. 45 mm front opening for direct click-in of Altira 45x45 module wiring devices. Length of flexible conduit 2 m, action radius 1.5 m from the connection point in the ceiling. Foot to be ordered separately. Material: Aluminium, natural anodized or powder coated white. | | | | | |
| 2.15 m | Anodized | 2150+2000/149/140 | 1 | 3606480317408 | ISM20146 |
| | White | | | 3606480317415 | ISM20147 |
| | Polar white | | | 3606480682148 | ISM20147P |
| 2.45 m | Anodized | 2450+2000/149/140 | 1 | 3606480317422 | ISM20148 |
| | White | | | 3606480317439 | ISM20149 |
| | Polar white | | | 3606480682155 | ISM20149P |
| 2.9 m | Anodized | 2900+2000/149/140 | 1 | 3606480317446 | ISM20150 |
| | White | | | 3606480317453 | ISM20151 |
| | Polar white | | | 3606480682162 | ISM20151P |












Poles, customer adapted

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. |
|--|----------|-----------------------|-----------------|----------|----------|
| Pole, customer adapted | | | | | |
| Pole according to special customer order. The pole is available one- or two-sided or with four installation boxes, for tension mounting or free-standing, see above, and can be specified <i>in optional length and colour</i> . Implies a detailed specification. Material: Aluminium. | | | | | |
| Acc. to customer spec. | Optional | Optional/—*/—* | — | — | ISMSPPL |
| *Two different measurements, see above | | | | | |

Accessories for poles

| | | | | | | | | | |
|--------|---|---|--------------------------------|-------------|------------|---|---------------|-----------|---|
| P86528 |  | Foot for free-standing, movable pole Rectangular foot for free-standing, movable pole, to be fixed to the bottom plate of the pole by means of two M6 bolts (included). The foot is provided with a steel clamp that can be unfolded for extra support. When not in use, the clamp lies protected in a recess underneath the foot. Specially suited in applications close to the wall or when two poles are positioned back to back. Material: Cast iron, painted. | | | | | | |  |
| P86529 |  | Round foot for free-standing, movable poles, to be fixed to the bottom plate of the pole by means of two M6 bolts (included). Suitable both for one and two-sided poles. Material: Cast iron, painted. | Foot, rectangular | Grey | 33/250/346 | 1 | 3606480030598 | ISM20809 | |
| P86527 |  | Ceiling frame Ceiling frame intended to lead flexible conduit through false ceiling. To be mounted in circular hole, Ø125 mm, by using three included clamps. Also including a slotted plastic plate to be used to lock the flexible conduit, which is fixed by cable ties. The plate can also be used as a drill template for entrance hole Ø125 mm. Material: PC/ABS. | Foot, round | Grey | 29/Ø317 | 1 | 3606480030581 | ISM20808 | |
| P86532 |  | Ceiling frame Ceiling frame for one-sided or two-sided poles. Covers the edge of the hole in a false ceiling. Self-sticking. Material: PS (polystyrene). | Ceiling frame | Polar white | 89/Ø161 | 1 | 3606480682216 | ISM20812P | |
| P86531 |  | Ceiling frame for 1-sided pole | Ceiling frame for 2-sided pole | Polar white | 1/108/129 | 1 | 3606480682193 | ISM20810P | |
| P92648 |  | Ceiling frame for 2-sided pole | Ceiling frame for Ø65 mm pole | Polar white | 1/156/130 | 1 | 3606480682209 | ISM20811P | |
| P86524 |  | Cable tray fixing Cable tray fixing including fixing material, intended to connect flexible conduit to cable tray. Gripping around cable tray. Material: Steel, powder coated. | Ceiling frame for Ø65 mm pole | Polar white | 1/Ø115 | 1 | 3606480682902 | ISM20552P | |
| P86530 |  | Cable tray fixing | Cable tray fixing | White | 100/15/70 | 1 | 3606480030635 | ISM20813 | |
| P86526 |  | Ceiling fixing Cable tray fixing to be clamped onto the edge of a cable tray or feeder trunking in the ceiling. Including screws. Can be mounted anywhere along the pole length. The height is adjustable by ±15 mm. Maximum material thickness of tray/trunking at fixing point = 10 mm. Material: Aluminium, powder coated. | Ceiling fixing | White | 75/50/120 | 1 | 3606480030642 | ISM20814 | |
| P94903 |  | Ceiling fixing Ceiling fixing intended to connect flexible conduit to ceiling or wall. Fixings not included. Material: Aluminium, powder coated. | Busbar fixing | White | 50/156/90 | 1 | 3606480030666 | ISM20816 | |
| P94375 |  | Busbar fixing Busbar fixing for Ø55 mm conduits, intended to connect flexible conduit to busbar trunking. Material: Steel, powder coated. | Floor fixing plate | — | 13/49/60 | 1 | 3606480030659 | ISM20815 | |
| | | Floor fixing plate Fixing plate to fix tension-mounted poles to the floor by screws. Fixed to the pole by pegs. Material: Steel, electroplated. | Floor fixing plate | — | 13/49/60 | 1 | 3606480567438 | ISM20828 | |

Accessories for poles

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. |
|---|----------------------|-----------------------|-----------------|--------------------------------|-----------------------|
| Front cover | | | | | |
| Front cover to be snap-fitted in service carriers with a 45 mm front opening. With earthing slots. Supplied with protective foil, in lengths of 2 m. Material: Aluminium, natural anodized or powder coated white. | | | | | |
| P92658  | Anodized | 45/16/2000 | 24 m | 3606480028489 | ISM10950 |
| P92659  | White Polar white | 45/16/2000 | 24 m | 3606480028557 3606480682179 | ISM10960 ISM10960P |
| Floor fixing with slot for floor feeder | | | | | |
| Floor fixing for one or two-sided pole. Fixed to the floor by screws. With slot for connection of floor feeder 18x75 mm. Material: Aluminium, powder coated. | | | | | |
| P97198  | Grey | 38/125/102 | 1 | 3606480030703 | ISM20820 |
| P97189  | Grey | 38/125/156 | 1 | 3606480030710 | ISM20821 |
| Floor feeder | | | | | |
| Floor feeder made up by a base part with three compartments and a cover. Supplied in lengths of 2 m. To be used for feeding along the floor to a pole provided with a slotted floor fixing for 18x75 mm floor feeder. Material: PVC. | | | | | |
| P96523  | Grey | 18/75/2000 | 28 m | 3606480030673 | ISM20817 |
| Floor feeder made up by a base part with three compartments and a cover. Supplied in lengths of 2 m. To be used for feeding along the floor to a pole provided with a slotted floor fixing for 18x75 mm floor feeder. Material: Aluminium, natural anodized. | | | | | |
| P111399  | Anodized | 18/75/2000 | 8 m | 3606480027536 | ISM20857 |
| Floor feeder jointing piece | | | | | |
| Floor feeder jointing piece to cover joints between floor feeder sections. Material: PVC. | | | | | |
| P96521  | Grey | 20/50/78 | 10 | 3606480030680 | ISM20818 |
| Corner feeder piece | | | | | |
| Corner feeder piece to be used in 90 degree corners between floor feeder sections. Material: PVC. | | | | | |
| P96522  | Grey | 20/120/120 | 10 | 3606480030697 | ISM20819 |
| Floor feeder adaptor | | | | | |
| Adaptor to be used between floor feeder and wall trunking with a 45 mm front opening. Material: PC/ABS. | | | | | |
| P97196  | White Polar white | 60/63/110 | 1 | 3606480030765 3606480682278 | ISM20826 ISM20826P |
| P97187  | Alu metallic | 60/63/110 | 1 | 3606480030772 | ISM20827 |
| Partition profile | | | | | |
| Partition profile of halogen-free material with two partition walls. Mounted in internal fixing rails of poles and posts. Supplied in lengths of 0.5 m. Material: ABS. | | | | | |
| P97194  | White | 500/30/52 | 10 | 3606480030758 | ISM20825 |

OptiLine 45 Poles Range

Accessories for poles

P87191



P87192



P87193



P87196



P85796



P85793



P87195



P85792



P148190



P148191
P148192



| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. |
|---|----------------------|-----------------------|-----------------|--------------------------------|-----------------------|
| Decorative stripe | | | | | |
| Decorative stripe to be fitted in the slots along the sides of poles and posts. Supplied in lengths of 5 m. Material: Silicone rubber. | | | | | |
| Decorative stripe | Grey | 5000/Ø3.5 | 5 m | 3606480030727 | ISM20822 |
| Decorative stripe | Polar white | 5000/Ø3.5 | 5 m | 3606480682261 | ISM20823P |
| Decorative stripe | Orange | 5000/Ø3.5 | 5 m | 3606480030741 | ISM20824 |
| Earthing clamp | | | | | |
| Earthing clamp to be used for bonding of front cover, base profile and accessories to earth. Material: Steel. | | | | | |
| Earthing clamp | — | 9/9/9 | 20 | 3606480028502 | ISM10952 |
| Earthing kit | | | | | |
| Kit including earth wire with flat pin connectors and earthing clamps. To be used to connect the front cover to the base profile. | | | | | |
| Earthing kit | Yellow/green | L = 200 L = 300 | 10 10 | 3606480028519 3606480028526 | ISM10953 ISM10954 |
| Modular device adaptor | | | | | |
| 2-module adaptor for 1-2 modular devices like for instance miniature circuit breakers. With transparent grey cover. Material: ASA+PC, white or alu metallic. | | | | | |
| Modular device adaptor | White Polar white | 90/72/45 | 1 | 3606480028465 3606480681950 | ISM10907 ISM10907P |
| Modular device adaptor | Alu metallic | 90/72/45 | 1 | 3606480028540 | ISM10957 |
| Front locking clip | | | | | |
| Front locking clip to be mounted on either side of an outlet in order to secure pull-out forces. Material: PC/ABS. | | | | | |
| Front locking clip | Polar white | 45/23/23 | 10 | 3606489604141 | ISM10909P |
| Label holder | | | | | |
| Label holder for marking purposes. Package of ten. Material: PC/ABS. | | | | | |
| Label holder | White | 23/23/45 | 10 | 3606489843021 | ISM10920P |
| | Anthracite | 23/23/45 | 10 | 3606489843038 | ISM10921 |
| | Alu metallic | 23/23/45 | 10 | 3606489843045 | ISM10922 |

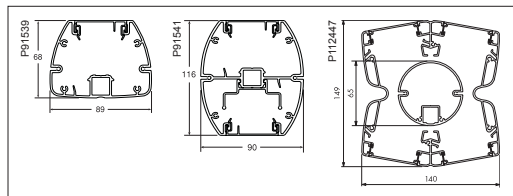
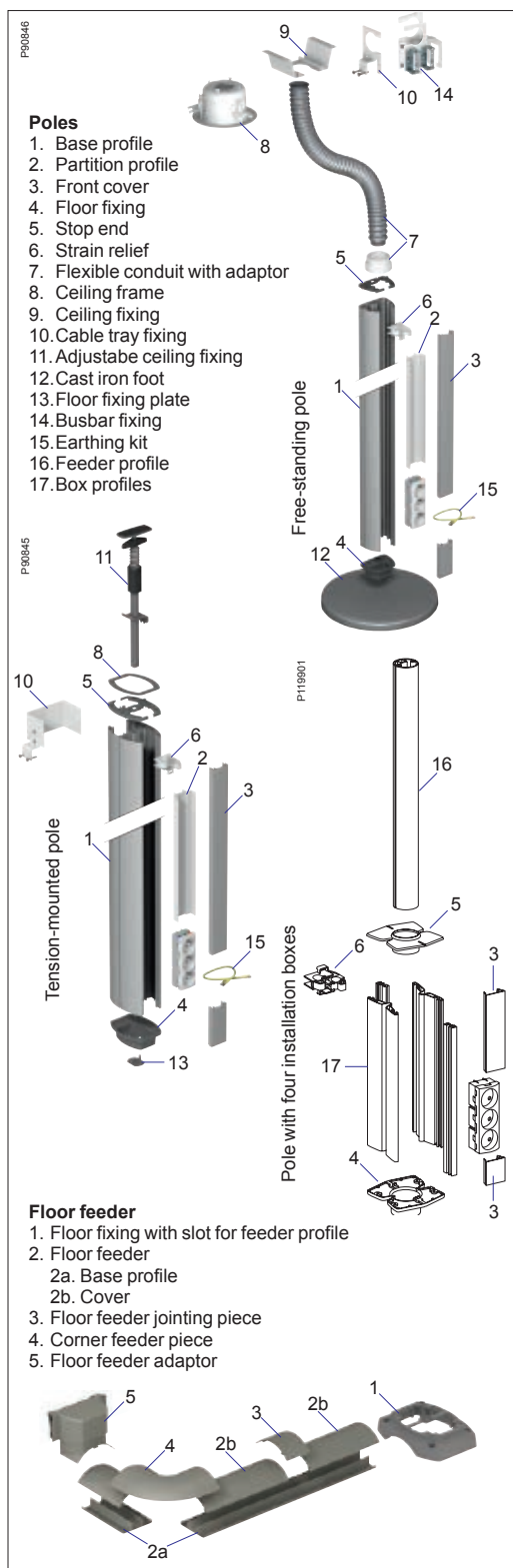
| Comp. | Max. Ø mm | Cross section area mm ² | Cable capacity (*) mm ² | | | Diagram |
|--|-----------|------------------------------------|------------------------------------|------|------|---------|
| | | | 40% | 50% | 60% | |
| One-sided pole | | | | | | |
| 1 | 41 | 4220 | 1688 | 2110 | 2532 | |
| One-sided pole with partition profile | | | | | | |
| 1 | 39 | 1799 | 720 | 900 | 1079 | |
| 2 | 15 | 1106 | 442 | 553 | 663 | |
| Two-sided pole without and with partition profile | | | | | | |
| 1 | 41 | 3747 | 1499 | 1874 | 2248 | |
| 2 | 16 | 871 | 348 | 435 | 523 | |
| 3 | 39 | 1799 | 720 | 900 | 1079 | |
| Pole with four boxes | | | | | | |
| 1 | 75 | 13966 | 5586 | 6983 | 8379 | |
| Pole profile for pole with four boxes | | | | | | |
| 2 | 43 | 2535 | 1014 | 1267 | 1521 | |

(*) We recommend a 40% utilization of the cable capacity.

OptiLine 45 Poles

Technical description

Exploded views



Technical and Material data

| | | |
|---------------------|-------------------|--|
| Aluminium, extruded | Specification | EN-AW-6063 |
| coating | Surface treatment | Natural anodizing or powder |
| | Colour | <ul style="list-style-type: none"> • White (RAL 9010) • Polar white (RAL 9003) |
| Aluminium, die cast | Surface treatment | Powder coating |
| Cast iron | Surface treatment | Coated with clear varnish |
| | Surface treatment | Untreated |
| PC/ABS | Fire rating | UL 94 HB |
| PS (Polystyrene) | Colour | <ul style="list-style-type: none"> • White |
| | Other info | Halogen-free |
| PVC | Colour | Grey (RAL 7030) |
| PC+ASA | Fire rating | UL 94 HB |
| | Colour | <ul style="list-style-type: none"> • White (RAL 9010) • Polar white (RAL 9003) |
| Steel | Specification | SS 1142 |
| | Surface treatment | Powder coating |
| | Colour | <ul style="list-style-type: none"> • White (RAL 9010) |
| Silicone rubber | Colour | <ul style="list-style-type: none"> • Grey • Orange • Polar white |

Design and dimensions

| | | Tension-mounted poles | |
|---|--|----------------------------------|------------------------------------|
| | | A Total height | B Height without ceiling fixing |
| P112455 Tension-mounted poles, one-sided and two-sided | | Min. 2700 mm | 2540 mm |
| | | Max. 3100 mm | |
| | | Min. 3100 mm | 2940 mm |
| | | Max. 3500 mm | |
| P112456 Tension-mounted poles with four installation boxes | | Min. 3500 mm | 3340 mm |
| | | Max. 3900 mm | |
| | | Min. 3900 mm | 3740 mm |
| | | Max. 4300 mm | |
| | | Tension-mounted poles with boxes | |
| P112449 Free-standing poles, one-sided and two-sided | | Min. 2700 mm | 2510 mm |
| | | Max. 3100 mm | |
| | | Min. 3100 mm | 2910 mm |
| | | Max. 3500 mm | |
| | | Free-standing poles | |
| | | A Total height of pole | B Length of flex. conduit |
| P112450 Free-standing poles with one, two and four boxes | | 2150 mm | 2000 mm |
| | | 2450 mm | 2000 mm |
| | | 2900 mm | 2000 mm |
| | | | |
| | | Free-standing poles with boxes | |
| P112447 Free-standing poles, one, two and four boxes | | 2150 mm | 2000 mm |
| | | 2450 mm | 2000 mm |
| | | 2900 mm | 2000 mm |
| | | | |

OptiLine 45 Posts Presentation



Service posts with 45 mm front opening for direct click-in of Altira wiring devices

OptiLine 45 service posts with a 45 mm front opening give a neat installation solution on all types of floors.

The posts have a softly rounded and compact form and are made of aluminium with a high surface finish, either natural anodised or powder coated white. They are available in one and two-sided versions.

On raised access floors and in-cavity floors the posts are fed from under the floor. On concrete floors the feeding comes from a screeded floor box. For other floors a floor feeder is available as an accessory.



Altira 45x45 module wiring devices

The OptiLine 45 range has a front opening for direct click-in of Altira 45x45 module wiring devices which gives optimal function and design.

Altira offers a broad range of socket outlets, switches, VDI outlets and electronic products such as dimmers, movement detectors, thermostats, timers.

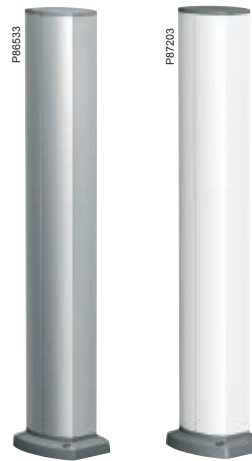
One-sided posts



Alu White



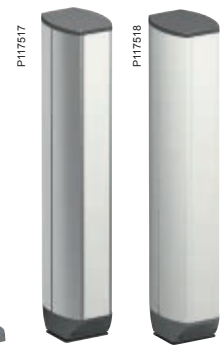
Two-sided posts



Alu White



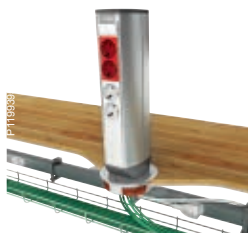
Two-sided posts for floor grommet



Alu White



OptiLine 45 Posts Presentation



Full flexibility

For a truly flexible solution, go for our two-sided outlet post with a special fixing for the floor grommet. Canalis busbar trunking and mesh trays distribute power and networks under the floor and further up to the post through the floor grommet. The floor grommet suits any type of floor and can be installed where required. Should needs be changed, just remove the post, put the cover back, install a new grommet and move the post to where it is needed.



Tube adaptor

With a tube adaptor in the floor grommet you can supply power and data to a furniture box instead.



Stable and tight

When not in use the centre cover makes the floor grommet tight, withstanding both water and high loads.



Design, finish and quality

All OptiLine posts are made of aluminium, anodized or powder coated, with a high surface finish. The form is softly rounded and slender. All parts are designed to give reliable function and easy installation.



Stable and sturdy

All parts in aluminium, several are die-cast.

- Stable and sturdy design
- Reliable function
- High-quality impression



Feeding along/under the floor

Posts could be fed from the floor or along the floor

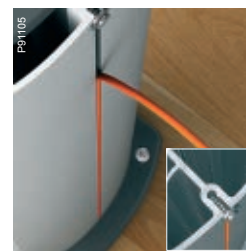
- Floor fixing for feeding from the floor as a standard
- Floor fixing with slot for floor feeder as an accessory



Feeding from trunking

The post can be fed from a wall trunking.

- Easy and fast installation
- Floor feeder adaptor with adjustable height



Screw slots

Slots along both sides of the post

- For decorative colour strips
- For products like hooks etc.



Cable separation

Partition profile for good separation of cables.

- Correct distance between VDI and power cables
- Full isolation between wiring device terminations and cables



Wet sealing

The floor fixing can be provided with a gasket ring.

- Gasket ring included in the package
- Effective wet sealing
- Stable mounting also on slightly uneven floors















Correct user interface

Alitra 45x45 modules are designed also for vertical mounting







- Correct user interface
- Correct load on VDI patch cords

OptiLine 45 Posts

Choice guide


| Posts | | | | | |
|--|---|---|--|------------|-----------------------------------|
| | One-sided | Two-sided | Colour | Height mm | Ref. No. |
| With floor fixing  |  | | Anodized aluminium White Polar white | 430 430 | ISM20210 ISM20211 ISM20211P |
| |  | | Anodized aluminium White Polar white | 700 700 | ISM20200 ISM20201 ISM20201P |
| | |  | Anodized aluminium White Polar white | 430 430 | ISM20212 ISM20213 ISM20213P |
| | |  | Anodized aluminium White Polar white | 700 700 | ISM20202 ISM20203 ISM20203P |
| With floor fixing for floor grommet  | |  | Anodized aluminium White Polar white | 430 430 | ISM20220 ISM20221 ISM20221P |
| With slotted floor fixing  |  | | Anodized aluminium White Polar white | 430 430 | ISM20215 ISM20216 ISM20216P |
| |  | | Anodized aluminium White Polar white | 700 700 | ISM20205 ISM20206 ISM20206P |
| | |  | Anodized aluminium White Polar white | 430 430 | ISM20217 ISM20218 ISM20218P |
| | |  | Anodized aluminium White Polar white | 700 700 | ISM20207 ISM20208 ISM20208P |

OptiLine 45 Posts Range

| Posts | | Type | Colour | Dimensions A/B/C (mm) |  | Qty per package | EAN code | Ref. No. |
|--------------------|---|---|----------------------------------|-----------------------|---|-----------------|---|-----------------------------------|
| | | Post with floor fixing | | | | | | |
| | | Empty, free-standing, one or two-sided post mounted on a floor fixing. Including front cover, floor fixing, stop end, strain relief, partition profile, earthing kit and mounting instruction. Floor fixing provided with gasket ring. Unearthed. Supplied without service content and cables. 45 mm front opening for direct click-in of Altira 45x45 module wiring devices. Material: Aluminum, natural anodized or powder coated white. | | | | | | |
| P100853 P86534 |  | One-sided For up to six 45x45 module wiring devices | Anodized White Polar white | 430/68/89 | | 1 | 3606480025532 3606480025549 3606480682322 | ISM20210 ISM20211 ISM20211P |
| | | One-sided For up to twelve 45x45 module wiring devices | Anodized White Polar white | 700/68/89 | | 1 | 3606480029769 3606480029776 3606480682285 | ISM20200 ISM20201 ISM20201P |
| | | Two-sided For up to six 45x45 module wiring devices on each side | Anodized White Polar white | 430/116/90 | | 1 | 3606480025556 3606480025563 3606480682339 | ISM20212 ISM20213 ISM20213P |
| P100887 P87203 |  | Two-sided For up to twelve 45x45 module wiring devices on each side | Anodized White Polar white | 700/116/90 | | 1 | 3606480029783 3606480029790 3606480682292 | ISM20202 ISM20203 ISM20203P |
| | | Post with slotted floor fixing | | | | | | |
| | | Empty, free-standing, two-sided post mounted on a floor fixing for floor grommet, intended for up to six 45x45 module wiring devices. Including plastic front covers, floor fixing, stop end, strain relief, partition profile, earthing kit and mounting instruction. Unearthed. Supplied without service content and cables. 45 mm front opening for direct click-in of Altira 45x45 module wiring devices. Material: Aluminum, natural anodized or powder coated white. | | | | | | |
| P117517 P117518 |  | Two-sided for floor grommet | Anodized White Polar white | 430/116/90 | | 1 | 3606480317460 3606480317477 3606480682360 | ISM20220 ISM20221 ISM20221P |
| | | Post with slotted floor fixing | | | | | | |
| | | Empty, free-standing, one or two-sided post mounted on a floor fixing. Including front cover, floor fixing with slot 18x75 mm, stop end, strain relief, partition profile, earthing kit and mounting instruction. Floor fixing provided with gasket ring. Unearthed. Supplied without service content and cables. 45 mm front opening for direct click-in of Altira 45x45 module wiring devices. Material: Aluminum, natural anodized or powder coated white. | | | | | | |
| P104015 P103989 |  | One-sided For up to six 45x45 module wiring devices | Anodized White Polar white | 430/68/89 | | 1 | 3606480027512 3606485076331 3606480682346 | ISM20215 ISM20216 ISM20216P |
| | | One-sided For up to twelve 45x45 module wiring devices | Anodized White Polar white | 700/68/89 | | 1 | 3606480027499 3606485076317 3606480682308 | ISM20205 ISM20206 ISM20206P |
| | | Two-sided For up to six 45x45 module wiring devices on each side | Anodized White Polar white | 430/116/90 | | 1 | 3606480027529 3606485076348 3606480682353 | ISM20217 ISM20218 ISM20218P |
| P104044 P104043 |  | Two-sided For up to twelve 45x45 module wiring devices on each side | Anodized White Polar white | 700/116/90 | | 1 | 3606480027505 3606485076324 3606480682315 | ISM20207 ISM20208 ISM20208P |
| | | Post, customer adapted | | | | | | |
| | | Post according to special customer order. The post is available one- or two-sided with floor fixing with or without slot, see above, and can be specified <i>in optional length and colour</i> . Implies a detailed specification. Material: Aluminium. | | | | | | |
| | | Acc. to customer spec. | Optional | Optional/—*/—* | | — | — | ISMSPTT |
| | | *Two different measurements, see above | | | | | | |


OptiLine 45 Posts Range

Accessories for posts

| Type | Colour | Dimensions A/B/C (mm) |  | Qty per package | EAN code | Ref. No. |
|--|----------------------|-----------------------|---|-----------------|--------------------------------|-----------------------|
| Floor fixing with slot for floor feeder | | | | | | |
| Floor fixing for one or two-sided sided post. Fixed to the floor by screws. With slot for connection of floor feeder 18x75 mm. Material: Aluminium, powder coated. | | | | | | |
| For one-sided post | Grey | 38/125/102 | | 1 | 3606480030703 | ISM20820 |
| For two-sided post | Grey | 38/125/156 | | 1 | 3606480030710 | ISM20821 |
| Floor feeder, PVC | | | | | | |
| Floor feeder made up by a base part with three compartments and a cover. Supplied in lengths of 2 m. To be used for feeding along the floor to a post provided with a slotted floor fixing for 18x75 mm floor feeder. Material: PVC. | | | | | | |
| Floor feeder | Grey | 18/75/2000 | | 28 m | 3606480030673 | ISM20817 |
| Floor feeder, aluminium | | | | | | |
| Floor feeder made up by a base part with three compartments and a cover. Supplied in lengths of 2 m. To be used for feeding along the floor to a post provided with a slotted floor fixing for 18x75 mm floor feeder. Material: Aluminium, natural anodized. | | | | | | |
| Floor feeder | Anodized | 18/75/2000 | | 8 m | 3606480027536 | ISM20857 |
| Floor feeder jointing piece | | | | | | |
| Floor feeder jointing piece to cover joints between floor feeder sections. Material: PVC. | | | | | | |
| Jointing piece | Grey | 20/50/78 | | 10 | 3606480030680 | ISM20818 |
| Corner feeder piece | | | | | | |
| Corner feeder piece to be used in 90 degree corners between floor feeder sections. Material: PVC. | | | | | | |
| Corner feeder piece | Grey | 20/120/120 | | 10 | 3606480030697 | ISM20819 |
| Floor feeder adaptor | | | | | | |
| Adaptor to be used between floor feeder and wall trunking with a 45 mm front opening. Material: PC/ABS. | | | | | | |
| Adaptor | White Polar white | 60/63/110 | | 1 | 3606480030765 3606480682278 | ISM20826 ISM20826P |
| Adaptor | Alu metallic | 60/63/110 | | 1 | 3606480030772 | ISM20827 |
| Floor grommet | | | | | | |
| Grommet for floor applications, intended to suit a special version of the two-sided post. Including trim frame with fixing devices, two-part cover and sealing foam for protection from dust and wet floor-cleaning. The cover has the function of a water-tight blank plate when no post has been installed. When installing a post, the removed part of the cover remains in the grommet, secured by a strap. Hole diameter 127 mm. Material: Zinc, chromium plated. | | | | | | |
| Floor grommet | — | 38/Ø147 | | 1 | 3606480160769 | INS40550 |
| Partition profile | | | | | | |
| Partition profile of halogen-free material with two partition walls. Mounted in internal fixing rails of poles and posts. Supplied in lengths of 0.5 m. Material: ABS. | | | | | | |
| Partition profile | White | 500/30/52 | | 10 | 3606480030758 | ISM20825 |

OptiLine 45 Posts Range

Accessories for posts

| Type | Colour | Dimensions A/B/C (mm) |  | Qty per package | EAN code | Ref. No. |
|---|----------------------|-----------------------|---|-----------------|--------------------------------|-----------------------|
| Front cover | | | | | | |
| Front cover to be snap-fitted in service carriers with a 45 mm front opening. With earthing slots. Supplied with protective foil, in lengths of 2 m. Material: Aluminium, natural anodized or powder coated white. | | | | | | |
| Front cover | Anodized | 45/16/2000 | | 24 m | 3606480028489 | ISM10950 |
| Front cover | White Polar white | 45/16/2000 | | 24 m | 3606480028557 3606480682179 | ISM10960 ISM10960P |
| Decorative stripe | | | | | | |
| Decorative stripe to be fitted in the slots along the sides of poles and posts. Supplied in lengths of 5 m. Material: Silicone rubber. | | | | | | |
| Decorative stripe | Grey | 5000/Ø3.5 | | 5 m | 3606480030727 | ISM20822 |
| Decorative stripe | Polar white | 5000/Ø3.5 | | 5 m | 3606480682261 | ISM20823P |
| Decorative stripe | Orange | 5000/Ø3.5 | | 5 m | 3606480030741 | ISM20824 |
| Earthing clamp | | | | | | |
| Earthing clamp to be used for bonding of front cover, base profile and accessories to earth. Material: Steel. | | | | | | |
| Earthing clamp | — | 9/9/9 | | 20 | 3606480028502 | ISM10952 |
| Earthing kit | | | | | | |
| Kit including earth wire with flat pin connectors and earthing clamps. To be used to connect the front cover to the base profile. | | | | | | |
| Earthing kit | Yellow/green | L = 200 L = 300 | | 10 10 | 3606480028519 3606480038526 | ISM10953 ISM10954 |
| Modular device adaptor | | | | | | |
| 2-module adaptor for 1-2 modular devices like for instance miniature circuit breakers. With transparent grey cover. Material: ASA+PC. | | | | | | |
| Modular device adaptor | White Polar white | 90/72/45 | | 1 | 3606480028465 3606480681950 | ISM10907 ISM10907P |
| Modular device adaptor | Alu metallic | 90/72/45 | | 1 | 3606480028540 | ISM10957 |
| Front locking clip | | | | | | |
| Front locking clip to be mounted on either side of an outlet in order to secure pull-out forces. Material: PC/ABS. | | | | | | |
| Front locking clip | Polar white | 45/23/23 | | 10 | 3606489604141 | ISM10909P |
| Label holder | | | | | | |
| Label holder for marking purposes. Package of ten. Material: PC/ABS. | | | | | | |
| Label holder | White | 23/23/45 | | 10 | 3606489843021 | ISM10920P |
| Label holder | Anthracite | 23/23/45 | | 10 | 3606489843038 | ISM10921 |
| Label holder | Alu metallic | 23/23/45 | | 10 | 3606489843045 | ISM10922 |

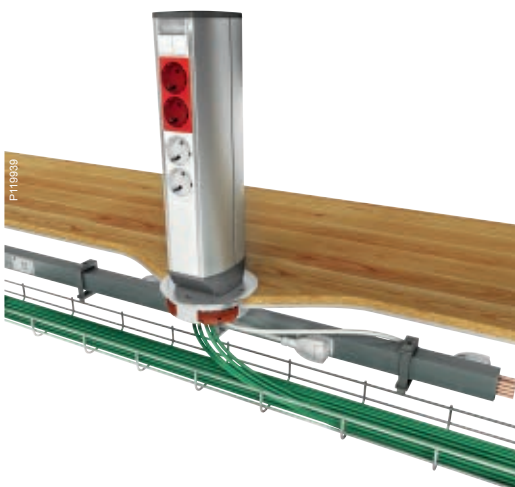
OptiLine 45 Posts

Technical description



Technical and Material data

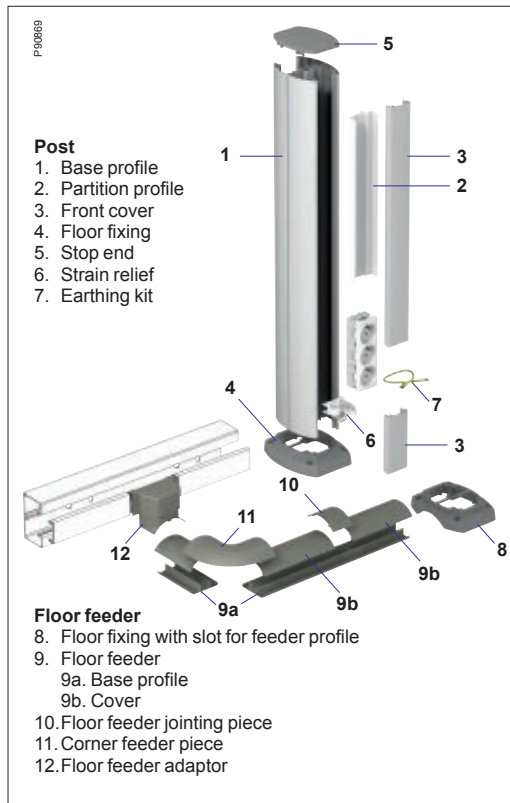
| | | |
|----------------------------|--|--|
| Aluminium, extruded | Specification | EN-AW-6063 |
| coating | Surface treatment | Natural anodizing or powder |
| | Colour | <ul style="list-style-type: none"> • White (RAL 9010) • Polar white (RAL 9003) |
| Aluminium, die cast | Surface treatment | Powder coating |
| PVC | Colour | Grey (RAL 9007) |
| | Colour | Grey (RAL 7030) |
| PC/ABS | Fire rating | UL 94 HB |
| | Colour | <ul style="list-style-type: none"> • White (RAL 9010) • Polar white (RAL 9003) • Aluminium metallic (painted) |
| PC+ASA | Fire rating | UL 94 HB |
| | Colour | <ul style="list-style-type: none"> • White (RAL 9010) • Polar white (RAL 9003) • Aluminium metallic |
| Steel | Specification | SS 1142 |
| Silicone rubber | Colour | • Grey |
| | | • Orange |
| | | • Polar white |
| Degree of protection | IP30 | |
| Temperature range | Operating temperature from -25°C to +60°C | |
| Standards and certificates | The products comply with the standards: | |
| | <ul style="list-style-type: none"> • EN 50085-1 : 2005 • NFC 68 102 (French national standard) | |
| accord- | | The products satisfy the provisions for CE marking |
| EEC and 93/68/EEC. | | ing to the Low Voltage Directive 73/23/ |



OptiLine 45 Posts

Technical description

Exploded view

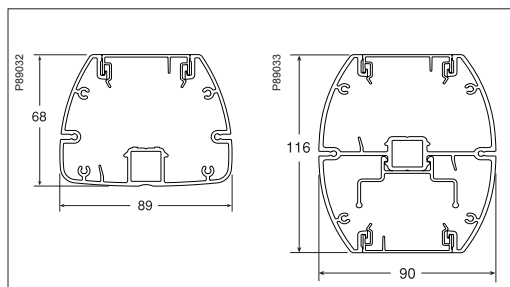


Cable capacity

| Comp. | Max Ø mm | Cross section area mm ² | Cable capacity*) mm ² | | | |
|--|----------|------------------------------------|----------------------------------|------|------|--|
| | | | 40% | 50% | 60% | |
| One-sided post | | | | | | |
| 1 | 41 | 4220 | 1688 | 2110 | 2532 | |
| One-sided post with partition profile | | | | | | |
| 1 | 39 | 1799 | 720 | 900 | 1079 | |
| 2 | 15 | 1106 | 442 | 553 | 663 | |
| Two-sided post without and with partition profile | | | | | | |
| 1 | 41 | 3747 | 1499 | 1874 | 2248 | |
| 2 | 16 | 871 | 348 | 435 | 523 | |
| 3 | 39 | 1799 | 720 | 900 | 1079 | |

*) We recommend a 40% utilization of the cable capacity.

Design and dimensions



OptiLine 45 Floor boxes Presentation



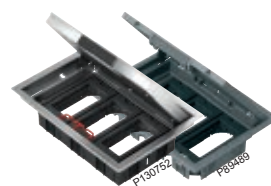
A system for power, tele and data links in office flooring

The system consists of floor outlet boxes, floor access boxes, screeded floor boxes, hollow core box and a number of accessories. The floor outlet boxes are provided with mounting frames for Altira outlets. There are two sizes available of the box; 199x199 mm and 199x276 mm. The smaller size can be equipped with four single or two double outlets. The bigger one is available either for six single or three double outlets or for eight single or four double outlets. The height of the mounting frames in the plastic floor box is adjustable from 70 to 100 mm in steps of 5 mm and for the stainless steel box 80-110 mm. This gives optimal capacity and makes it easy to install DIN-modules and outlets on different levels.

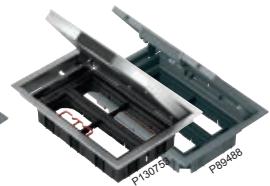
All screeded boxes can be connected to floor trunking or flexible conduits. When using conduits the boxes can be positioned anywhere in the floor.



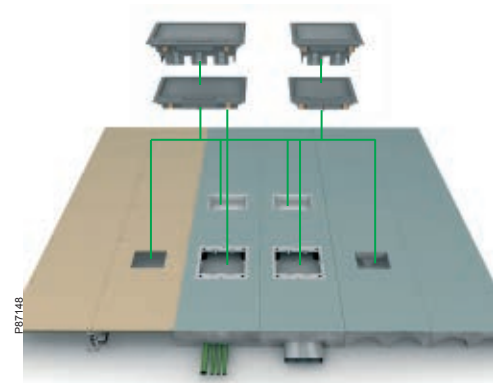
Four module box
For two double or four single outlets



Six module box
For three double or six single outlets

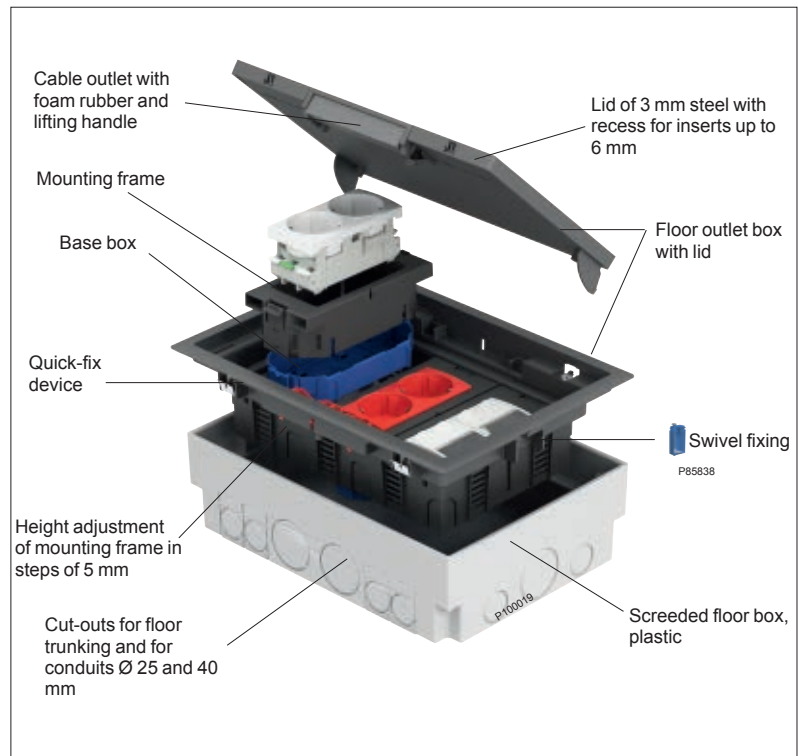


Eight module box
For four double or eight single outlets

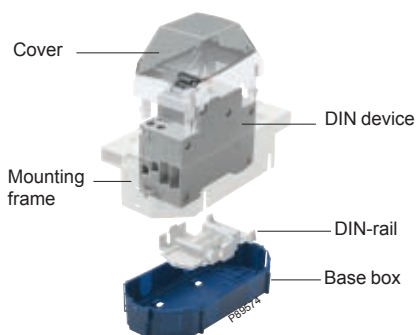


Optiline 45 floor boxes can be installed in all types of floor

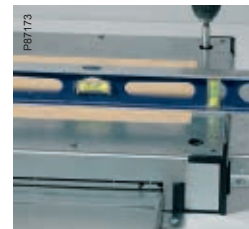
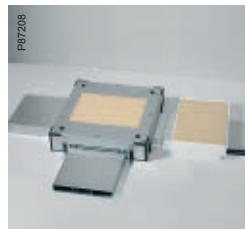
- Raised access floors: Outlet boxes and access boxes are installed straight into the floor
- Screeded floors
 - Screeded boxes in plastic and steel with adjustable height
 - Steel trunking and flexible conduit for connection and embedding
- In-cavity floors: Outlet boxes and access boxes are installed straight into the floor.



Installation of DIN device



OptiLine 45 Floor boxes Presentation

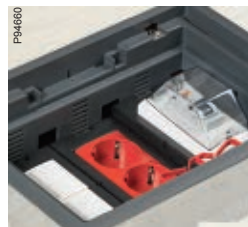
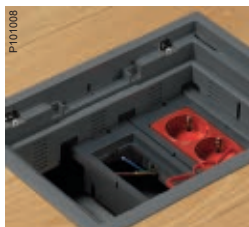


A complete embedded system

- Screeded steel boxes for larger cable capacity
- Screeded plastic boxes for smaller cable capacity
- Both boxes can be connected with floor trunking or flexible conduits
- With flexible conduits the boxes can be positioned anywhere in the floor.

Height adjustment and levelling system

- Both plastic and steel screeded boxes have individual levelling and height adjustment at all four corners
- Adjustment range
 - Plastic box 75-95 mm
 - Steel box 75-110 mm
- Connection for steel trunking and flexible conduits remains fixed even when height is adjusted.



Base box and partition wall allows mixed in-stallations

- Base box
 - Can be fixed on two levels in the mounting frame
 - Allows mixed installation of power and low voltage
 - Provides IP20 protection
 - DIN-rail snap-in
- Partition wall in mounting frame
 - Allows mixed installation of power and low voltage in the same mounting frame.



Simple and fast connection in the mounting frame

- Cable inlets in chamfered corners
 - Easy connection
 - The cables are not squeezed
- Cable inlets open downwards
 - The cable can be laid in (no need to draw through)
 - Cables with pre-assembled plugs and outlets can be used
- Fast strain relief
 - Just press to secure cable.



Connection between outlets in different mounting frames

- Cut-outs on the long sides of the mounting frames
 - Simplifies connection with single wires between outlets in different mounting frames.

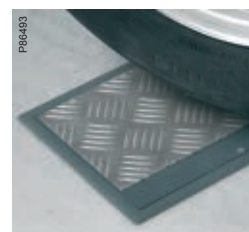
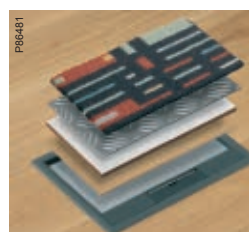
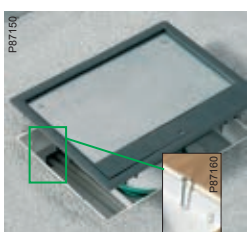


Individual mounting frame height for optimal capacity

- Adjustable mounting frame height in steps of 5 mm
 - Easy to install DIN-modules
- Possible to have DIN-modules and outlets on different levels
- Optimises the capacity
- Optimises the internal space for cables and plugs
- DIN-modules mounted in base box
 - Fast and secure installation
 - Tool-free installation.

Quick installation of boxes without tools

- Quick-fix fastening
 - Quick installation
 - Fastens in floors > 10 mm
 - No tools needed
 - Self-adjusting
- Swivel screw fastening
 - Good complement in e.g. plasterboard.



Extra fixation of boxes

- In addition to the quick-fix, the floor outlet box and the access box can be fixed into the plastic screeded box with two screws
- The access box can also be secured against interference with a single screw.



Optional directions for opening and cable exit

- Square box
 - Option for opening and cable exit in four directions
 - The lid can be mounted in two opposite directions
- Rectangular box
 - Option for opening and cable exit in two directions
 - The lid can be mounted in two opposite directions.

Blends with the floor

- Standard carpet insert
 - Available as accessory in durable linoleum
- Any other floor insert
 - Up to 6 mm thick floor insert
 - 3 mm steel plate provides support
 - Discrete impression, blends with present floor.

Self-closing, removable lids

- The lid closes automatically by its own weight
 - Increased safety
 - Reduces accident risk
- Removable lid
 - Remove without tools
 - When bent backwards the lid will be released in stead of breaking.

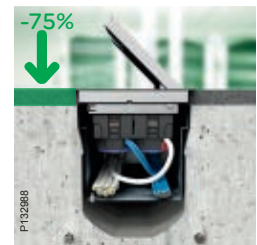
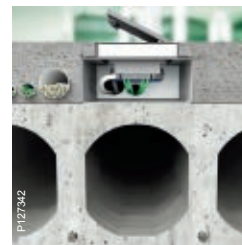
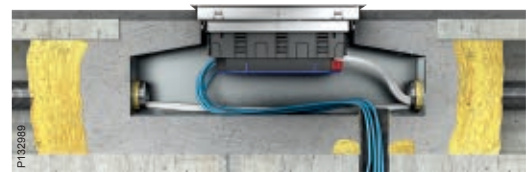
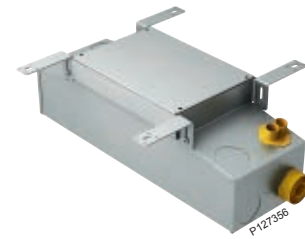


Hard-wearing and load resistant

- Boxes made of polyamide
 - Hard-wearing
 - Resistant to chemical detergents
 - Resistant to aging
- Load resistant
 - Load certified conforming to VDE 0634 Teil 1.

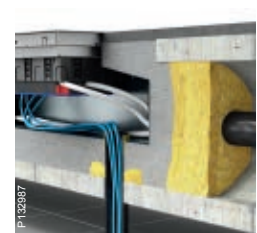
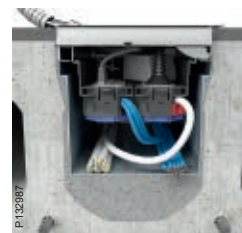


OptiLine 45 Floor boxes Presentation



Take advantage of the hidden spaces with the hollow core floor box

- The hollow core floor box is totally submerged in the slab
- No extra screeding is needed to keep it in place – minimum of building height
- The box has an optimized shape for use in cavities of Ø 170 mm or larger.
- The cavity for the box can easily be made at the hollow core slab factory or at the building site
- The box is galvanized to resist corrosion
- Correctly installed, it will not affect the strength of the floor construction.

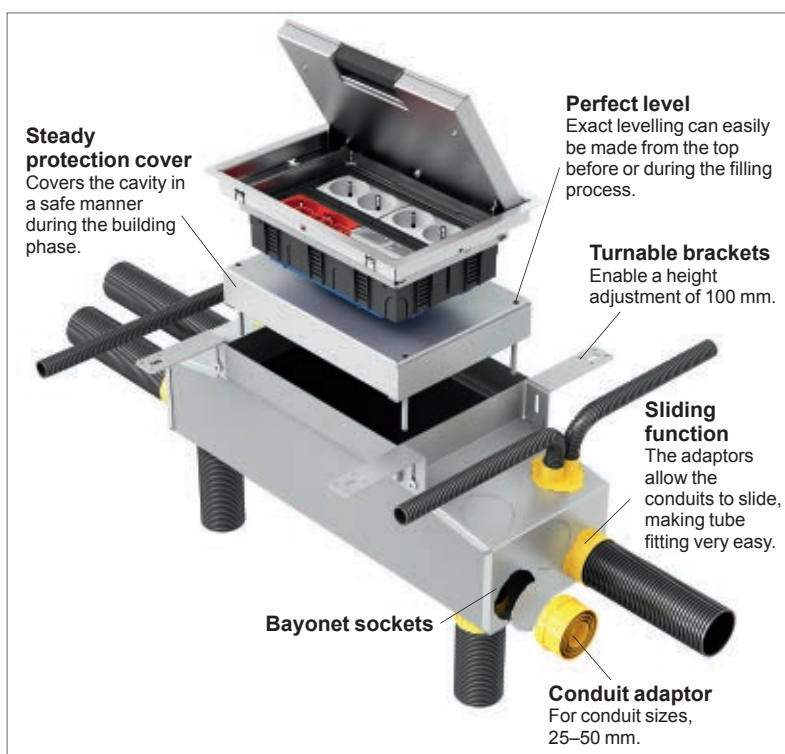


50% more coupling space

- With the Hollow Core Box, there is plenty of room for connections and cable loops as well as for bulky transformers. Still, the floor box lid can be closed.









Outstanding flexibility

- There are 16 options for grommet connections, enabling easy feeding from the top, side and bottom of the Hollow Core Box.
- The Hollow Core Box has been designed to support the OptiLine 45 floor boxes






OptiLine 45 Floor boxes Range

Floor outlet boxes, plastic

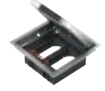




| Type | Colour | Dimensions A/B/C (mm) | Qty per package | Ref. No. | |
|---|---|-----------------------|-----------------|----------|----------|
| <p>Floor outlet box including mounting frames for Altira, Fuga (DK) or Unica outlets, trim frame with four quick-fixations and lid with cable exit. Also including a plastic bag containing cable holder, partition wall and strain relief devices. The lid can be installed in two positions. It can be fitted with floor material of up to 6 mm thickness. The mounting frames are snapped into the trim frame. The height of the mounting frames is adjustable from 70 mm to 100 mm (boxes for Fuga outlets from 70 mm to 95 mm), in steps of 5 mm. Cable exit capacity 925 mm², max cable Ø12 mm. The floor outlet box is suitable for 45x45 mm single/45x90 mm double Altira/Unica outlets, or for 44x44 mm single/44x94 double Fuga outlets.</p> <p>Material: PA6 with 30% glass pellets, steel. Mounting frame for Altira and Fuga = PC/ABS, for Unica = PBT.</p> | | | | | |
| For Altira outlets | | | | | |
|  <p>P89490</p> | Four module box, with two mounting frames for two double or four single Altira outlets | Grey | 72/199/199 | 1 | ISM50624 |
|  <p>P89489</p> | Six module box, with three mounting frames for three double or six single Altira outlets | Grey | 72/276/199 | 1 | ISM50636 |
|  <p>P89488</p> | Eight module box, with two mounting frames for four double or eight single Altira outlets | Grey | 72/276/199 | 1 | ISM50638 |
| For Fuga outlets (only intended for Denmark) | | | | | |
|  <p>P89430</p> | Four-module box, with two mounting frames for two double or four single Fuga outlets | Grey | 72/199/199 | 1 | ISM50724 |
|  <p>P89489</p> | Six-module box, with three mounting frames for three double or six single Fuga outlets | Grey | 72/276/199 | 1 | ISM50736 |
| For Unica outlets | | | | | |
|  <p>P6507</p> | Four module box, with two mounting frames for two double or four single Unica outlets | Grey | 72/199/199 | 1 | ISM50524 |
|  <p>P6506</p> | Six module box, with three mounting frames for three double or six single Unica outlets | Grey | 72/276/199 | 1 | ISM50536 |
|  <p>P6505</p> | Eight module box, with two mounting frames for four double or eight single Unica outlets | Grey | 72/276/199 | 1 | ISM50538 |

Floor outlet boxes, metal

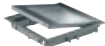

| | | | | | |
|--|--|---|------------|---|----------|
| <p>Floor outlet box including mounting frames for Altira, Fuga (DK) or Unica outlets, trim frame with four quick-fix devices and lid with cable exit. Also including a plastic bag containing cable holder, partition wall and strain relief devices. The lid can be installed in two positions and can be fitted with an insert material of up to 15 mm thickness. The mounting frames are snapped into the trim frame. The height of the mounting frames is adjustable from 80 mm to 110 mm (boxes for Fuga outlets from 80 mm to 105 mm), in steps of 5 mm. Cable exit capacity 1245 mm², max cable Ø15 mm. The floor outlet box is suitable for 45x45 mm single/45x90 mm double Altira/Unica outlets, or for 44x44 mm single/44x94 double Fuga outlets.</p> <p>Material: Stainless steel. Mounting frame for Altira and Fuga = PC/ABS, for Unica = PBT. Grid = ABS.</p> | | | | | |
| For Altira outlets | | | | | |
|  <p>P132109</p> | Four module box with two mounting frames for two double or four single Altira outlets | — | 83/199/199 | 1 | ISM51624 |
|  <p>P130752</p> | Six module box with three mounting frames for three double or six single Altira outlets | — | 82/276/199 | 1 | ISM51636 |
|  <p>P130753</p> | Eight module box with two mounting frames for four double or eight single Altira outlets | — | 82/276/199 | 1 | ISM51638 |

OptiLine 45 Floor boxes Range

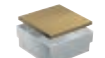
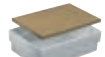



Floor outlet boxes, metal

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | Ref. No. |
|--|--------|-----------------------|-----------------|----------|
| For Fuga outlets (only intended for Denmark) | | | | |
|  <p>P132109</p> | — | 83/199/199 | 1 | ISM51724 |
|  <p>P130752</p> | — | 82/276/199 | 1 | ISM51736 |
| For Unica outlets | | | | |
|  <p>P132108</p> | — | 83/199/199 | 1 | ISM51524 |
|  <p>P130754</p> | — | 82/276/199 | 1 | ISM51536 |
|  <p>P130755</p> | — | 82/276/199 | 1 | ISM51538 |

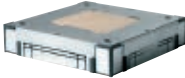


Floor access boxes

| | | | | | |
|---|-------------|------|------------|---|----------|
| <p>Floor access box including trim frame with four quick-fix devices and screw-fixed lid. The lid can be fitted with floor material of up to 6 mm thickness or with the lid infill accessory. To be used together with screeded floor box of PP or steel in screeded floors or direct in raised access floors. Material: PA6 with 30% glass pellets, steel.</p> | | | | | |
|  <p>P85831</p> | Square | Grey | 33/199/199 | 1 | ISM50520 |
|  <p>P85832</p> | Rectangular | Grey | 33/276/199 | 1 | ISM50530 |




Screeded floor boxes

| | | | | | | |
|---|---|------------|---------------|----------------|----------|----------|
| Plastic boxes | | | | | | |
| <p>Plastic screeded floor box for embedment in screeded floors from 75 to 95 mm thickness. With cut-outs for floor trunking and conduits Ø 25 and 40 mm. Including fixing screws for the mounting of floor boxes. Material: PP.</p> | | | | | | |
|  <p>P85833</p> | For 4 mod. floor outlet boxes/ square access boxes and up to 150 mm wide floor trunking | Light grey | 75-95/188/188 | 1 | ISM50320 | |
|  <p>P85834</p> | For 6/8 mod. floor outlet boxes/ rect. access boxes and up to 200 mm wide floor trunking | Light grey | 75-95/188/265 | 1 | ISM50330 | |
| Metal boxes | | | | | | |
| <p>Metal screeded floor box for embedment in screeded floors with minimum 100 mm thickness. With openings for feeding on all four sides, equipped with blank plates on three sides. Suitable for both flush floor trunking and tube feeding. The screeded floor box has an adjustable internal height of between 98 and 125 mm. When used in a thicker floor, adjustable supporters should be used. NOTE: Please be aware of the minimum bending radius of cabling during wiring and installation of the floor outlet box. Material: Sheet steel.</p> | | | | | | |
|  <p>P130548</p> | Screeded floor box 4 modules | — | 125/302/405 | 1 | ISM50343 | |
|  <p>P130546</p> | Screeded floor box 6/8 modules | — | 124/301/482 | 1 | ISM50342 | |
| Adjustable supporter | | | | | | |
|  <p>P119916</p> | Adjustable supporter, intended for height adjustment of the screeded floor box to the finished floor level. To be used for cast floors with a thickness ranging from 126 to 290 mm. Material: PP, PA6. | Supporter | Grey, black | 111/111/63-255 | 4 | ISM50341 |



Screeded floor boxes

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | Ref. No. | |
|---|---|-----------------------|-----------------|----------|----------|
| <p>Metal screeded floor box including trunking adaptors, for embedment in screeded floors from 75 to 110 mm thickness. Adaptors on all four sides. In order to mount floor outlet and floor access boxes properly in the steel box, the use of swivel fixings (ISM50823) is recommended. Material: Sheet steel.</p> | | | | | |
|  | For 4 mod. floor outlet boxes/ square access boxes and up to 200 mm wide floor trunking | — | 75-110/350/350 | 1 | ISM50322 |
| | For 6/8 mod. floor outlet boxes/ rect. access boxes and up to 200 mm wide floor trunking | — | 75-110/350/350 | 1 | ISM50332 |
| | For 4 mod. floor outlet boxes/ square access boxes and up to 350 mm wide floor trunking | — | 75-110/500/500 | 1 | ISM50323 |
| | For 6/8 mod. floor outlet boxes/ rect. access boxes and up to 350 mm wide floor trunking | — | 75-110/500/500 | 1 | ISM50333 |
| <p>Adaptors for steel box</p> <p>Adaptor with break-out openings for conduits, to be fitted in screeded floor boxes ISM50322, 50332, 50323, 50333. Intended for the connection of 1–4 or 1–6 conduits Ø 25 and 40 mm. Material: Sheet steel, galvanized.</p> | | | | | |
|  | For 1–4 conduits Ø 25 or 40 mm | — | 83/1.5/252 | 5 | ISM50392 |
| | For 1–6 conduits Ø 25 or 40 mm | — | 83/1.5/403 | 5 | ISM50393 |
|  | Blank plate to be fitted in the screeded floor box. Material: Sheet steel, galvanized. | | 83/1.5/252 | 5 | ISM50394 |
| | | | 83/1.5/403 | 5 | ISM50395 |

Hollow core box












| | | | | | |
|--|---|--------|-------------|----|----------|
| <p>Hollow core box</p> <p>Metal screeded floor box for embedment in the cavity of hollow core slabs. With knock-outs for pipe adaptors, four upwards, 2x3 sideways and four downwards. Equipped with brackets for rough height fixation 0-75 mm and fine-adjustment screws for fine tuning to the finished floor level. The top entry is covered with a lid for good safety during the construction time. Suitable for 6/8 module floor box. Material: Sheet steel.</p> | | | | | |
|  | Hollow core box 6/8 modules | — | 164/502/184 | 1 | ISM50356 |
| | <p>Conduit adaptors</p> <p>Conduit adaptor for two conduits 20 mm. Material: PP.</p> | | | | |
|  | Conduit adaptor 2x20 mm | Yellow | 58/58/32 | 10 | ISM50370 |
| | <p>Conduit adaptor for conduits 25, 32, 40 or 50 mm. Diameter choice by punching out to right size. Material: PP.</p> | | | | |
|  | Conduit adaptor 1x25, 32, 40 or 50 mm | Yellow | 58/58/32 | 10 | ISM50371 |

Accessories

| | | | | | |
|--|---|--|-----------------|-----------|-----------|
| <p>Mounting frame for Altira outlets</p> <p>Mounting frame for floor outlet box (the 139 mm mounting frame for both floor box sizes, the 216 mm mounting frame only for the rectangular ones). Suitable for single or double Altira outlets. For DIN devices the mounting frame must be combined with the corresponding size of base box. Material: PC/ABS.</p> | | | | | |
|  | For two single or one double outlet, both floor box sizes | Anthracite grey | 38/64/139 | 6 | ISM50809N |
| |  | For four single or two double outlets, rectangular floor box | Anthracite grey | 38/64/216 | 4 |

OptiLine 45 Floor boxes Range

Accessories

| | Type | Colour | Dimensions A/B/C (mm) | Qty per package | Ref. No. |
|---|---|---------------|-----------------------|-----------------|----------|
| Mounting frame for Unica outlets | | | | | |
| Mounting frame for floor outlet box (the 139 mm mounting frame for both floor box sizes, the 216 mm mounting frame only for the rectangular ones). Suitable for single or double Unica outlets. For DIN devices the mounting frame must be combined with the corresponding size of base box. Material: PBT with 30% glass-fibre. | | | | | |
| P86456 |  | Grey | 38/64/139 | 6 | ISM50805 |
| P86940 |  | Grey | 38/64/216 | 4 | ISM50806 |
| Base box | | | | | |
| Base box to be combined with the mounting frame in order to fulfil IP20 (the 126 mm base box for both floor box sizes, the 203 mm base box only for the rectangular ones). Should also be used when mounting DIN devices. Material: PA6. | | | | | |
| P85635 |  | Blue | 23/64/126 | 10 | ISM50800 |
| P86836 |  | Blue | 23/64/203 | 10 | ISM50801 |
| Lid infill, linoleum | | | | | |
| Lid infill to be used in the lid of floor outlet boxes and floor access boxes. Provided with self-adhesive tape underneath. If the lid infill is to be used in a metal floor box, a 9 mm thick extra spacer material is required. Material: Linoleum. | | | | | |
| P86943 |  | Grey | 6/139/167 | 1 | ISM50807 |
| P86844 |  | Grey | 6/139/245 | 1 | ISM50808 |
| Lid infill, stainless steel | | | | | |
| Lid infill to be used in the lid of floor outlet boxes and floor access boxes. Provided with a protective film on the upper surface and a soft rubber layer with self-adhesive tape underneath. If the lid infill is to be used in a metal floor box, a 9 mm thick extra spacer material is required. Material: Stainless steel, rubber. | | | | | |
| P93887 |  | — | 6/139/167 | 1 | ISM50817 |
| P93898 |  | — | 6/139/245 | 1 | ISM50818 |
| Modular device kit, Altira | | | | | |
| Modular device kit for DIN devices, including DIN-rail and transparent grey cover with white frame. Suitable for one or two 18 mm DIN devices, e.g. miniature circuit breakers. To be used only in combination with mounting frame for Altira outlets and blue base box. Material: PC+ASA (DIN-rail), PC/ABS and PC (cover with frame). | | | | | |
| P92622 |  | White | 72/45/90 | 1 | ISM50811 |
| Swivel fixing | | | | | |
| Swivel fixings to be mounted on each side of the floor outlet and access boxes. Intended for use as fixing method in screeded floor boxes of steel, and as additional fixing method in raised floors with a thickness ranging from 23 mm to 53 mm. Material: PA6, steel. | | | | | |
| P117436 |  | Blue | 58/12/25 | 2 | ISM50823 |
| Flexible conduit | | | | | |
| Flexible conduit (split tube), diameter 25 mm, to be used for cable feeding from floor outlet box to desktop. Cables to be installed by using mounting tool ISM50852. Material: PP. | | | | | |
| P85091 |  | Grey metallic | Ø25/2000 | 2 | ISM50850 |

Accessories

| | Type | Colour | Dimensions A/B/C (mm) | Qty per package | Ref. No. |
|--------|---|---------------|--------------------------|--------------------|----------|
| P65004 | Mounting tool | | | | |
| | Mounting tool for installation of cables in 25 mm split-tube flexible conduits. Material: PP. | | | | |
| | Mounting tool | — | 115/36/70 | 1 | ISM50852 |
| P65005 | Separation clip | | | | |
| | Clip to be snap-fitted around two flexible conduits, separating power and low voltage cables. Separation distance between cables = 25 mm. To be mounted at 200 mm intervals. Material: PP. | | | | |
| | Separation clip | Grey metallic | 34/28/70 | 6 | ISM50851 |

Compatible steel trunking products

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | Ref. No. |
|---|------------------------|-----------------------|-----------------|----------|
| Underscreed floor trunking with two compartments | | | | |
| Floor trunking with two compartments and integrated separation wall, intended for embedded use in screeded floors, in combination with screeded floor boxes of plastic or metal. Available in two heights, 28 and 38 mm. Material: Sheet steel, galvanized. | | | | |
|  | 150x28 mm | 28/150/2000 | 2 m | 4260101 |
| | 150x38 mm | 38/150/2000 | 2 m | 4260111 |
| | 200x28 mm | 28/200/2000 | 2 m | 4260102 |
| | 200x38 mm | 38/200/2000 | 2 m | 4260112 |
| Underscreed floor trunking with three compartments | | | | |
| Floor trunking with three compartments and integrated separation walls, intended for embedded use in screeded floors, in combination with screeded floor boxes of plastic or metal. Available in two heights, 28 and 38 mm. Material: Sheet steel, galvanized. | | | | |
|  | 250x28 mm | 28/250/2000 | 2 m | 4260106 |
| | 250x38 mm | 38/250/2000 | 2 m | 4260116 |
| | 350x28 mm | 28/350/2000 | 2 m | 4260107 |
| | 350x38 mm | 38/350/2000 | 2 m | 4260117 |
| Fixation clamp | | | | |
| Clamp intended to fix a 28 mm high floor trunking to the concrete floor and to hold the position at the screeded floor-box junction. Material: Sheet steel, galvanized. | | | | |
|  | For 150 mm | 30/157/40 | 1 | ISM50151 |
| | For 200 mm | 30/257/40 | 1 | ISM50152 |
| | For 250 mm | 30/307/40 | 1 | ISM50153 |
| | For 350 mm | 30/357/40 | 1 | ISM50154 |
| Same as above but for 38 mm high floor trunking. Material: Sheet steel, galvanized. | | | | |
|  | For 150 mm | 40/157/40 | 1 | ISM50156 |
| | For 200 mm | 40/257/40 | 1 | ISM50157 |
| | For 250 mm | 40/307/40 | 1 | ISM50158 |
| | For 350 mm | 40/357/40 | 1 | ISM50159 |
| Vertical corner with two compartments | | | | |
| Vertical corner with two compartments and an integrated separation wall. Intended to guide cables from vertical to horizontal direction. The bend of the corner is chamfered, allowing a proper bending radius of the cables. Material: Sheet steel, galvanized. | | | | |
|  | For 150x28 mm trunking | 201/150/201 | 1 | 4260133 |
| | For 150x38 mm trunking | 201/150/201 | 1 | 4260140 |
| | For 200x28 mm trunking | 201/200/201 | 1 | 4260134 |
| | For 200x38 mm trunking | 201/200/201 | 1 | 4260141 |
| Vertical corner with three compartments | | | | |
| Vertical corner with three compartments and two integrated separation walls. Intended to guide cables from vertical to horizontal direction. The bend of the corner is chamfered, allowing a proper bending radius of the cables. Material: Sheet steel, galvanized. | | | | |
|  | For 250x28 mm trunking | 201/250/201 | 1 | 4260138 |
| | For 250x38 mm trunking | 201/250/201 | 1 | 4260145 |
| | For 350x28 mm trunking | 201/350/201 | 1 | 4260139 |
| | For 350x38 mm trunking | 201/350/201 | 1 | 4260146 |
| Earthing kit | | | | |
| Kit including earth wire with flat pin connectors and earthing clamps. Intended to provide an earth connection between two metal floor trunking bodies, or other sheet metal products. Material: Spring steel, copper. | | | | |
|  | Earthing kit | Yellow/green | L = 200 | ISM10953 |
| | | | L = 300 | ISM10954 |

OptiLine 45 Floor boxes Range

Compatible Thorsman UFB products

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | Ref. No. |
|--|--------|-----------------------|-----------------|----------|
| Conduit adaptor | | | | |
| Adaptor for the connection of 1–4 conduits to the screeded floor box. The adaptor has four openings for Ø 50 mm (dimensions acc. to EN 60423) conduits. For smaller diameters, reduction sleeves can be used. They are easily pushed into the open ends of the adaptor. All entrances are provided with a knock-out opening on the inside to prevent unintentional leakage of concrete into the screeded box when the entrance is not in use. Material: PP. | | | | |
| UFB-AP | Yellow | 55/40/257 | 10 | 5197 755 |
| Reduction sleeve | | | | |
| Reduction sleeve for the fitting of conduits smaller than Ø 50 mm in adaptor UFB-AP. The reduction sleeve is available for four different dimensions: Ø 16, Ø 20, Ø 32 and Ø 40 mm (dimensions acc. to EN 60423). The opening for the feeding conduit should be positioned at the bottom edge of the reduction sleeve, for a stable position of the conduit. Material: PP. | | | | |
| UFB-RM For conduits Ø 16 mm | Yellow | Ø50/39 | 10 | 5197 820 |
| UFB-RM For conduits Ø 20 mm | Yellow | Ø50/39 | 10 | 5197 825 |
| UFB-RM For conduits Ø 32 mm | Yellow | Ø50/39 | 10 | 5197 830 |
| UFB-RM For conduits Ø 40 mm | Yellow | Ø50/39 | 10 | 5197 835 |
| Floor trunking adaptor for 28 mm high trunking | | | | |
| Adaptor to be fitted to the side entrance of the screeded floor box for the connection of 28 mm high floor trunking to the box. Material: Sheet steel S 235 JR. | | | | |
| UFB-AP For 150x28 mm floor trunking | — | 55/40/257 | 10 | 5197 761 |
| UFB-AP For 200x28 mm floor trunking | — | 55/40/257 | 10 | 5197 762 |
| UFB-AP For 250x28 mm floor trunking | — | 55/40/282 | 10 | 5197 763 |
| Floor trunking adaptor for 38 mm high trunking | | | | |
| Adaptor to be fitted to the side entrance of the screeded floor box for the connection of 38 mm high floor trunking to the box. Material: Sheet steel S 235 JR. | | | | |
| UFB-AP For 150x38 mm floor trunking | — | 55/40/257 | 10 | 5197 771 |
| UFB-AP For 200x38 mm floor trunking | — | 55/40/257 | 10 | 5197 772 |
| UFB-AP For 250x38 mm floor trunking | — | 55/40/282 | 10 | 5197 773 |

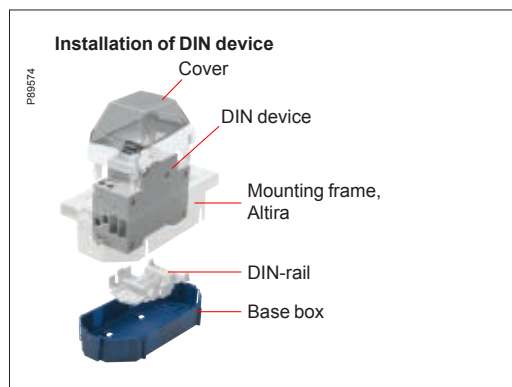
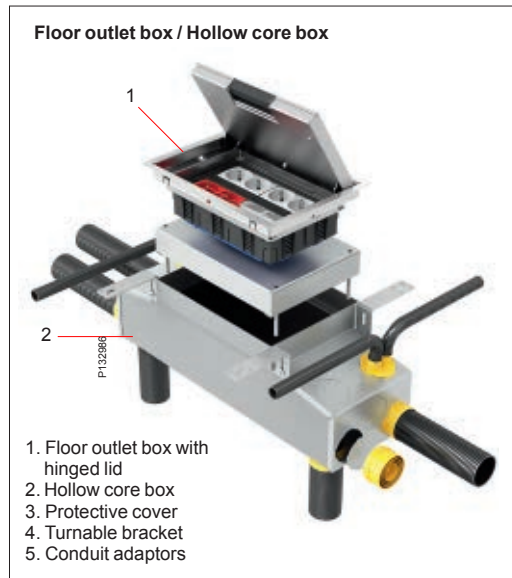
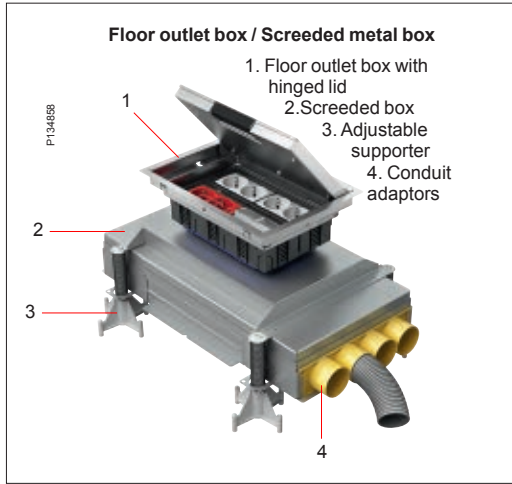
Cable capacity Floor trunking

| Type | A mm ² | B mm ² | Total mm ² |
|---|-------------------|-------------------|-----------------------|
| Floor trunking with two compartments | | | |
| 150x28 mm | 1885 | 1885 | 3770 |
| 150x38 mm | 2610 | 2610 | 5220 |
| 200x28 mm | 2535 | 2535 | 5070 |
| 200x38 mm | 3510 | 3510 | 7020 |
| Floor trunking with three compartments | | | |
| 250x28 mm | 1898 | 2450 | 6246 |
| 250x38 mm | 2628 | 3430 | 8686 |
| 350x28 mm | 3198 | 2450 | 8846 |
| 350x38 mm | 4428 | 3430 | 12286 |

OptiLine 45 Floor boxes

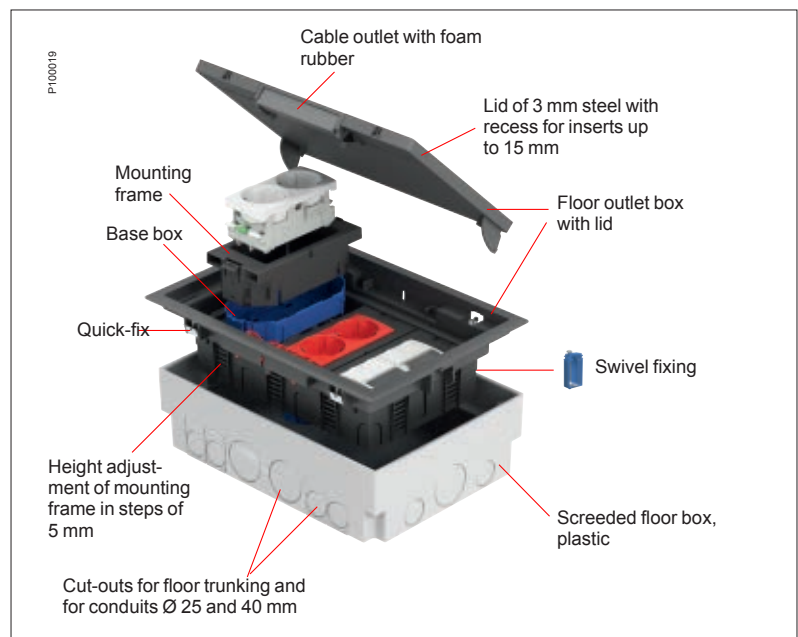
Technical description

Exploded views

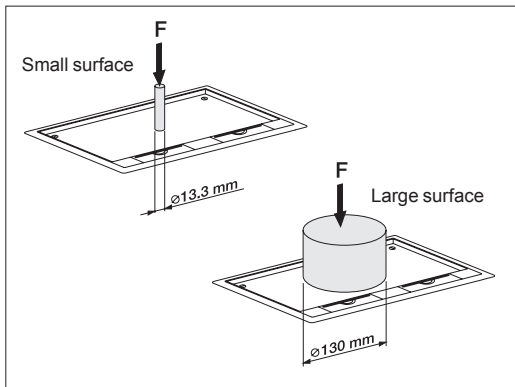


Technical and Material data

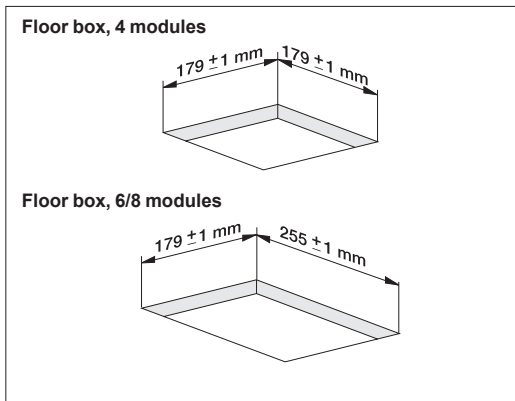
| | | |
|----------------------------|---|---------------------------|
| ABS | Density | 1.04 g/cm ³ |
| | Water absorption | 0.95% |
| | Fire rating | UL 94 HB (1.6 mm) |
| | Colour | Grey |
| PA6 | Density | 1.13 g/cm ³ |
| | Fire rating | UL94 V2 (3.2 mm) |
| | Colour | • Blue • Grey • Red |
| PA6 with 30% glass pellets | Density | 1.36 g/cm ³ |
| | Fire rating | UL 94 HB |
| | Colour | Grey |
| PBT with 30% glass-fibre | Density | 1.52 g/cm ³ |
| | Fire rating | UL 94 HB (1.5 mm) |
| | Colour | Grey |
| PC/ABS | Density | 1.14 g/cm ³ |
| | Water absorption | 0.6% |
| | Fire rating | UL 94 HB (halogen-free) |
| | Colour | Anthracite grey |
| PC+ASA | Density | 1.15 g/cm ³ |
| | Water absorption | 0.6% |
| | Fire rating | UL 94 HB |
| | Colour | White |
| PP | Density | 0.91 g/cm |
| | Fire rating | UL 94 HB (1.5 mm) |
| | Colour | • Light grey • Yellow |
| Sheet steel | Specification | S 350 GD |
| | Density | 7.8 g/cm ³ |
| | Surface treatment | Zinc coated |
| Stainless steel | Specification: | X5CrNi 18-10 |
| | Density: | 7.8 g/cm ³ |
| Degree of protection | IP20 | |
| Standards | The products comply with the standards IEC 60670-23 and EN 50085-2-2 The products satisfy the provisions for CE marking according to the Low Voltage Directive 73/23/EEC and 93/68/EEC | |
| Temperature range | Operating temperature from -25°C to +60°C | |



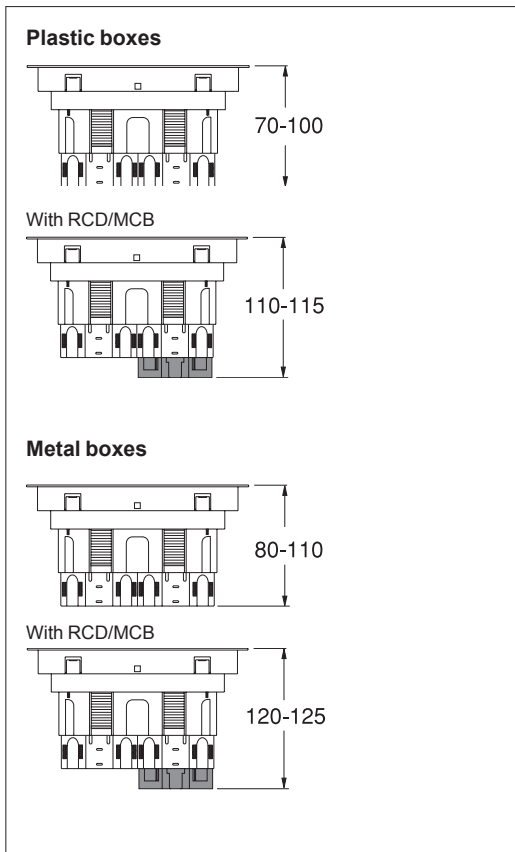
Max. load according to EN 50085-2-2



Hole dimensions



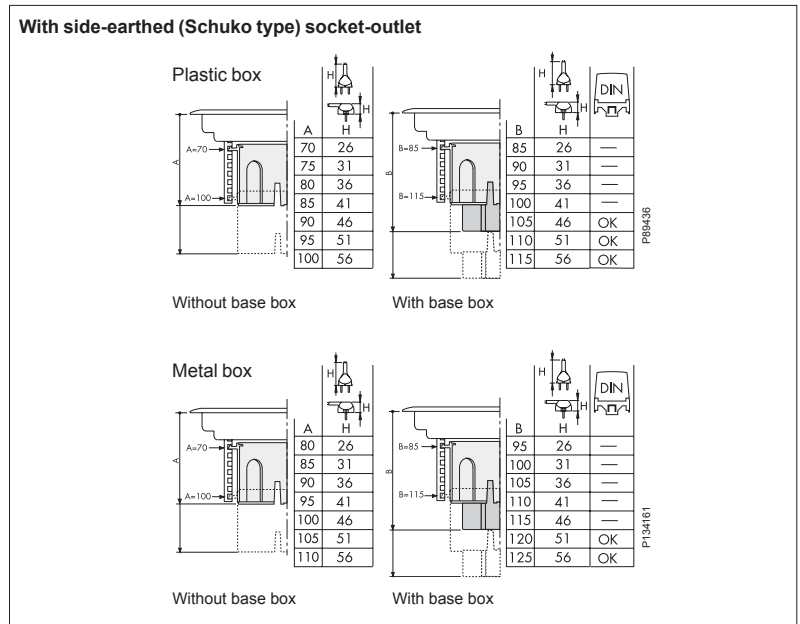
Installation depth



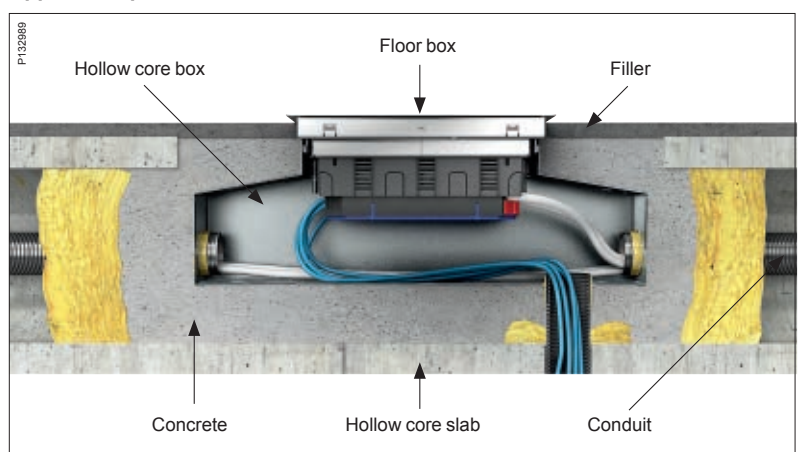
Max. load according to EN 50085-2-2

| Plastic floor box 4 modules | | | |
|-------------------------------|-----------|----------------------------|-----------|
| Small surface | Force (N) | | Force (N) |
| Without inlay | 3000 | With stainless steel inlay | 3000 |
| Large surface | Force (N) | | Force (N) |
| Without inlay | 5000 | With stainless steel inlay | 5000 |
| Plastic floor box 6/8 modules | | | |
| Small surface | Force (N) | | Force (N) |
| Without inlay | 2500 | With stainless steel inlay | 3000 |
| Large surface | Force (N) | | Force (N) |
| Without inlay | 5000 | With stainless steel inlay | 5000 |
| Metal floor box 4 modules | | | |
| Small surface | Force (N) | | Force (N) |
| Without inlay | 3000 | With stainless steel inlay | 3000 |
| Large surface | Force (N) | | Force (N) |
| Without inlay | 10000 | With stainless steel inlay | 10000 |
| Metal floor box 6/8 modules | | | |
| Small surface | Force (N) | | Force (N) |
| Without inlay | 3000 | With stainless steel inlay | 3000 |
| Large surface | Force (N) | | Force (N) |
| Without inlay | 10000 | With stainless steel inlay | 10000 |

Dimensions, floor heights



Application picture hollow core box



OptiLine 45 Service boxes Presentation



Service boxes with 45 mm front opening for direct click-in of Altira wiring devices

OptiLine 45 service boxes provide flexible solutions for the supply of power, telecom and data to desks in offices and conference rooms. The basic boxes can also be used as access points in the ceiling for feeding of poles.

Three box types are included in the offer:

- A six-sided pop-up box, pre-wired with outlets, cable and plug.
- A mini pop-up box, empty for three modules, with strain relief.
- A flip-up box, empty for five modules. For flush-mounting in desks. Fixing elements, earthing cable and strain relief included.
- A turnable and smoothly rounded one-sided box. Pre-wired with outlets, cables and plugs.
- A one-sided basic box, pre-wired with outlets, cables and plugs, pre-defined with outlets, or empty. Terminated or with Wieland interface.

All boxes are made in natural anodised aluminium with a high finish. Many boxes are delivered pre-wired for easy ordering and quick installation.

The pop-up box and the turnable boxes offer unique user advantages in terms of design and accessibility.



Pop-up service box



Mini pop-up service boxes



Flip-up service boxes



Altira 45x45 module wiring devices

The OptiLine 45 range has a front opening for direct click-in of Altira 45x45 module wiring devices which gives optimal function and design.

Altira offers a broad range of socket outlets, switches, VDI outlets and electronic products such as dimmers, movement detectors, thermostats, timers.



Basic service boxes



OptiLine 45 Service boxes Presentation



Flip-up and Pop-up



Pop-up
Large-capacity box, 6-sided. A light touch activates a gas-operated spring that slowly pushes the box up into working position.



Mini pop-up
A manual pop-up box with a smart membrane on top, enabling the box to be pushed down flush with the desk surface also with connected cables and plugs.



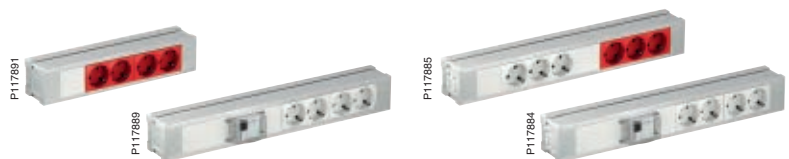
Flip-up



Flip-up
Flush-mounted box with a spring-loaded cover that is opened by a light touch. A cable basket is easily mounted under the box.




Surface mounted



Surface mounted boxes for every need
Universal boxes with smart fixing devices. Can be fixed to a desk, to a wall or to cable trays. With Wieland installation couplers for safe and quick power connection, or terminal interface.

OptiLine 45 Service boxes Range

Basic desk units

| Type | Colour | Dimensions A/B/C (mm) |  | Qty per package | EAN code | Ref. No. |
|---|----------|-----------------------|---|-----------------|---------------|-----------|
| Basic desk unit, empty | | | | | | |
| One-sided desk unit, empty. Including base profile, stop ends, earthing cable and screws. Material: Aluminium, natural anodized. | | | | | | |
| 3 modules | Anodized | 60/60/195 | | 1 | 3606480273865 | ISM20420 |
| 4 modules | Anodized | 60/60/240 | | 1 | 3606480273872 | ISM20421 |
| 5 modules | Anodized | 60/60/285 | | 1 | 3606480273889 | ISM20422 |
| 6 modules | Anodized | 60/60/330 | | 1 | 3606480273896 | ISM20423 |
| 8 modules | Anodized | 60/60/420 | | 1 | 3606480273902 | ISM20424 |
| Basic desk unit, pre-wired, Altira Pin-earthed outlets, Wieland interface | | | | | | |
| One-sided desk unit, pre-wired with various combinations of Altira socket outlets, Pin-earthed, see below. With Wieland interface. No cables included. Material: Aluminium, natural anodized. | | | | | | |
| 2 x double socket outlets | Anodized | 62/60/285 | | 1 | 3606481279996 | ISM20430P |
| 1 x double socket outlet, 1 x triple socket outlet | Anodized | 62/60/330 | | 1 | 3606481280008 | ISM20431P |
| 2 x double socket outlets, RCD 30 mA, 16A | Anodized | 88/60/420 | | 1 | 3606481280015 | ISM20432P |
| 1 x triple uninterrupted socket outlet, 1 x triple socket outlet | Anodized | 62/60/465 | | 1 | 3606481280022 | ISM20433P |
| 2 x double uninterrupted socket outlets | Anodized | 62/60/285 | | 1 | 3606481280039 | ISM20434P |
| Basic desk unit, pre-wired, Altira Pin-earthed outlets, terminal interface | | | | | | |
| One-sided desk unit, pre-wired with various combinations of Altira socket outlets, Pin-earthed, see below. With terminal interface. No cables included. Material: Aluminium, natural anodized. | | | | | | |
| 2 x double socket outlets | Anodized | 62/60/285 | | 1 | 3606481280046 | ISM20435P |
| 1 x double socket outlet, 1 x triple socket outlet | Anodized | 62/60/330 | | 1 | 3606481280053 | ISM20436P |
| 2 x double socket outlets, RCD 30 mA, 16A | Anodized | 88/60/420 | | 1 | 3606481280060 | ISM20437P |
| 1 x triple uninterrupted socket outlet, 1 x triple socket outlet | Anodized | 62/60/465 | | 1 | 3606481280077 | ISM20438P |
| 2 x double uninterrupted socket outlets | Anodized | 62/60/285 | | 1 | 3606481280084 | ISM20439P |

P117867



P117868



P117869



P117870



P117871



P117872



P117873



P117874



P117875



P117876



P117877



P117878



P117879



P117880



P117881



Flush-mounted desk unit

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. |
|---|--------|-----------------------|-----------------|---------------|----------|
| Desk unit with flip lid | | | | | |
| Flush-mounted desk unit provided with a flip lid. Empty, intended for 12 modules (12x22.5 mm). To be mounted in a desk-top. Fixing elements, earthing cable, strain relief and mounting instruction included. Thickness of desk-top: 10-40 mm, hole dimensions: 142x295 mm. Material: Aluminium, steel, powder coated. | | | | | |
| Desk unit with flip lid | Grey | 105/160/305 | 1 | 3606480317507 | ISM20410 |
| Cable basket for desk unit with flip lid | | | | | |
| Basket for cables, to be mounted under the frame of the flip-lid unit, for instance under a desk. Material: Steel, polyester/PVC cloth. | | | | | |
| Cable basket | White | 170/150/265 | 1 | 3606480068461 | INS40703 |

Turnable desk unit

| Type | Colour | Dimensions A/B/C (mm) | Qty per package | EAN code | Ref. No. |
|---|----------|-----------------------|-----------------|---------------|-----------|
| Turnable desk unit, pre-defined/pre-wired | | | | | |
| One-sided turnable desk unit. Standing on two feet, can be turned around its own axis to the desired position. Configured with 4 x double power outlets, Pin-earthed, with cable and various data outlets, see below. Earthed. Total lengths of power and data cables 6 m. Material: Aluminum, natural anodized. | | | | | |
| 2 x Cat 6 UTP data outlets with cable | Anodized | 92/130/618 | 1 | 3606481279989 | ISM20350P |

Pop-up desk units, pre-wired

| | | | | | |
|---|----------|----------|---|---------------|-----------|
| Pop-up desk unit, pre-wired, with Altira side-earthed outlets | | | | | |
| Pop-up desk unit, 6-sided. Three sides provided with double Altira socket outlets, side-earthed. Three sides are empty for future installation needs. Including 6 m of power connection cable with integrated plug. Fixing clamps and hooks for excess cables are included. When inactive, the pop-up unit is flush with the desk-top. By pushing the top down, the gas activated spring brings the unit to the accessible position. When not in use, the unit can easily be pushed back to the flush position. Material: Aluminum, anodized, with powder-coated top. | | | | | |
| Pre-wired with: 3 x double side-earthed socket outlets and 6 m power cable with plug | Anodized | 325/Ø236 | 1 | 3606481279972 | ISM20346P |
| Pop-up desk unit, pre-wired, with Unica side-earthed outlets | | | | | |
| Pop-up desk unit, 6-sided. Three sides provided with double Unica socket outlets, side-earthed. Three sides are empty for future installation needs. Including 6 m of power connection cable with integrated plug. Fixing clamps and hooks for excess cables are included. When inactive, the pop-up unit is flush with the desk-top. By pushing the top down, the gas activated spring brings the unit to the accessible position. When not in use, the unit can easily be pushed back to the flush position. Material: Aluminum, anodized, with powder-coated top. | | | | | |
| Pre-wired with: 3 x double side-earthed socket outlets and 6 m power cable with plug | Anodized | 325/Ø236 | 1 | 3606481279965 | ISM20341P |


Manual pop-up desk units, empty

| | | | | | |
|---|----------|-----------|---|---------------|----------|
| Pop-up desk unit, empty | | | | | |
| Pop-up desk unit, one-sided, manual. Including earthing cable, strain relief and mounting instruction. When inactive, the pop-up unit is flush with the desk-top. By a light pressure on the top, the unit can be lifted up from the desk surface. When not in use, it is easily pressed back to the flush position. Ordinary power and data plugs can remain in the outlets also in the flush position, since the cover is provided with a soft rubber membrane that allows the cables to exit in any direction (360°). Hole dimension: diam 100 mm. Material: Aluminium, anodized. | | | | | |
| Manual pop-up box, 6-module* | Anodized | 252/112/- | 1 | 3606480317484 | ISM20400 |
| Manual pop-up box, 8-module* | Anodized | 297/112/- | 1 | 3606480317491 | ISM20401 |

* 1 module = 22.5 mm

OptiLine 45 Service boxes Range

Accessories for basic desk units

| Type | Colour | Dimensions A/B/C (mm) |  | Qty per package | EAN code | Ref. No. |
|--|----------|-----------------------|---|-----------------|---------------|----------|
| Accessory kit | | | | | | |
| Accessory kit including mounting profiles, brackets and screws. For the installation of basic desk unit, snap-fitted and screw-locked, in OptiLine 70 front opening. Material: Aluminium, natural anodized. | | | | | | |
| For 3 modules | Anodized | 37/8/195 | | 1 | 3606480273919 | ISM20425 |
| For 4 modules | Anodized | 37/8/240 | | 1 | 3606480273926 | ISM20426 |
| For 5 modules | Anodized | 37/8/285 | | 1 | 3606480273933 | ISM20427 |
| For 6 modules | Anodized | 37/8/330 | | 1 | 3606480273940 | ISM20428 |
| For 8 modules | Anodized | 37/8/420 | | 1 | 3606480273957 | ISM20429 |
| For 9 modules | Anodized | 37/8/465 | | 1 | 3606480334733 | ISM20451 |
| Connection block | | | | | | |
| Connection block with strain relief, screw and one-module front cover. Material: PC, aluminium. | | | | | | |
| Connection block | — | 30/40/75 | | 1 | 3606480274169 | ISM20450 |
| Power cables | | | | | | |
| Extension cable 1-phase 250/400V 16A with connectors. Cable: halogen-free Ø10.2 mm, S05Z1A7Z1-F3G1.5 3x1.5mm ² . Connectors: female GST 18i3 and male power connector (combined pin- and side-earth). NOTE: Only to be used for Schneider furniture units! Material: PA, PE/PP, FR. | | | | | | |
| Cable, 2 m | White | Length 2000 | | 1 | 3606480068478 | INS40720 |
| Cable, 3 m | White | Length 3000 | | 1 | 3606480068485 | INS40721 |
| Cable, 5 m | White | Length 5000 | | 1 | 3606480068492 | INS40722 |
| Fixings for Basic box | | | | | | |
| Cable tray fixing, kit including two universal fixings, two cable tray fixings, two screws and two nuts. Can be mounted in three different positions in slots in the box. Material: Steel, zinc plated. | | | | | | |
| Fixing for cable tray | — | 42/45/70 | | 2 | 3606480068447 | INS40701 |
| Wall fixing, to be screw-fitted to the wall. The box is pushed in place on the fixing, can be mounted in three different positions. Also suitable for connection of two boxes. Material: Steel, zinc plated. | | | | | | |
| Wall fixing | — | 5/30/195 | | 1 | 3606480068430 | INS40700 |

P117892
P117893
P117894
P117895
P117896
P121475

P117897

P112435

P113022










P113020

Accessories for desk units

| Type | Colour | Dimensions A/B/C (mm) |  | Qty per package | EAN code | Ref. No. |
|---|-----------------------------|--------------------------|--|--------------------|--------------------------------|-----------------------|
| Ceiling cable feeder | | | | | | |
| Cable feeder including base profile with separation wall and cover. Diameter 52 mm. For cable feeding from ceiling to work-desk. Material: Aluminium, natural anodized or powder coated white. | | | | | | |
| Cable feeder | Anodized Polar white | 3200/Ø52 | | 1 | 3606480030505 3606480687112 | ISM20800 ISM20801P |
| Desk lead-through | | | | | | |
| Round guide bushing with flange and locking device. For lead-through of ceiling cable feeder through desktop. Material: Aluminium, powder coated grey or polar white. | | | | | | |
| Desk lead-through | Grey Polar white | 70/Ø80 | | 1 | 3606480030529 3606480687129 | ISM20802 ISM20803P |
| Feeder adaptor | | | | | | |
| Adaptor for ceiling cable feeder. To be used as connection for flexible conduit Ø55 mm. Material: Aluminium, powder coated grey or polar white. | | | | | | |
| Adaptor | Grey Polar white | 25/Ø58.5 | | 1 | 3606480030543 3606480687136 | ISM20804 ISM20805P |
| Foot adaptor | | | | | | |
| Adaptor intended for mounting the ceiling cable feeder onto a round foot (ISM20808). Material: Steel, painted. | | | | | | |
| Foot adaptor | Grey | 145/Ø60 | | 1 | 3606480297960 | ISM20832 |
| Round foot | | | | | | |
| Round foot to be fixed to foot adaptor to provide a stable base to the ceiling cable feeder. Fixes to the foot adaptor by means of two M6 bolts (included). Material: Cast iron, painted. | | | | | | |
| Foot, round | Grey | 29/Ø317 | | 1 | 3606480030581 | ISM20808 |
| Flexible conduit | | | | | | |
| Flexible conduit, Ø55 mm, to be used to bring cables from ceiling to cable feeder. Material: PUR (polyurethane). | | | | | | |
| Flexible conduit | Alu metallic Polar white | 2000/Ø55 | | 2 m | 3606480030567 3606480030574 | ISM20806 ISM20807 |
| Flexible conduit (split tube), Ø25 mm, to be used for cable feeding from ceiling to service carrier or from floor outlet box to desk top. Cables to be laid by using dedicated mounting tool. Material: PP. | | | | | | |
| Flexible conduit | Grey metallic | Ø25/2000 | | 2 | 3606480150340 | ISM50850 |
| Mounting tool | | | | | | |
| Mounting tool for laying of cables in split-tube flexible conduits. Material: PP. | | | | | | |
| For Ø25 mm conduit | — | Ø115/36/70 | | 1 | 3606480150357 | ISM50852 |
| Ceiling frame | | | | | | |
| Ceiling frame intended to lead flexible conduit through false ceiling. To be mounted in circular hole, Ø125 mm, by using three included clamps. Also including a slotted plastic plate to be used to lock the flexible conduit, which is fixed by cable ties. The plate can also be used as a drill template for entrance hole Ø125 mm. Material: PC/ABS. | | | | | | |
| Ceiling frame | Polar white | 89/Ø161 | | 1 | 3606480682216 | ISM20812P |
| Cable tray fixing | | | | | | |
| Cable tray fixing including fixing material, intended to connect flexible conduit to cable tray. Gripping around cable tray. Material: Steel, powder coated. | | | | | | |
| Cable tray fixing | White | 100/15/70 | | 1 | 3606480030635 | ISM20813 |

OptiLine 45 Service boxes Range

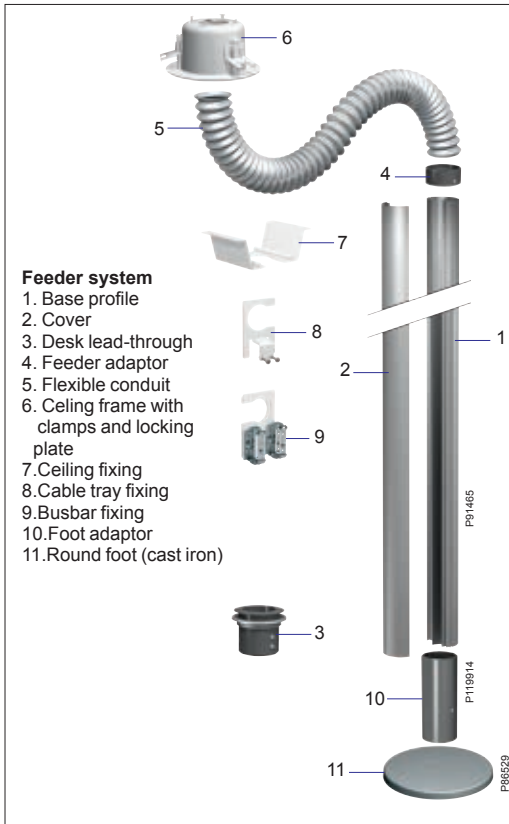
Accessories for desk units

| Type | Colour | Dimensions A/B/C (mm) |  | Qty per package | EAN code | Ref. No. |
|---|----------------------|-----------------------|---|-----------------|--------------------------------|-----------------------|
| Ceiling fixing | | | | | | |
| Ceiling fixing intended to connect flexible conduit to ceiling or wall. Fixings not included. Material: Aluminium, powder coated. | | | | | | |
|  P86526 | White | 50/156/90 | | 1 | 3606480030666 | ISM20816 |
| Busbar fixing | | | | | | |
| Busbar fixing for Ø55 mm conduits, intended to connect flexible conduit to busbar trunking. Material: Steel, powder coated. | | | | | | |
|  P84503 | White | 105/90/70 | | 1 | 3606480030659 | ISM20815 |
| Floor grommet | | | | | | |
| Grommet for floor applications, intended to suit a special version of the two-sided service post. Including trim frame with fixing devices, two-part cover and sealing foam for protection from dust and wet floor-cleaning. The cover has the function of a water-tight blank plate when no service post has been installed. When installing a post, the removed part of the cover remains in the grommet, secured by a strap. Hole diameter 127 mm. Material: Zinc, chromium plated. | | | | | | |
|  P103324 | — | 38/Ø147 | | 1 | 3606480160769 | INS40550 |
| Tube adaptor | | | | | | |
| Two-part tube adaptor for floor grommet. Intended for flexible tubes Ø25 mm. With integrated strain relief of flexible tube. To be used for instance together with flexible tube and a furniture unit. Material: Zinc, chromium plated. | | | | | | |
|  P103325 | — | 39/64/80 | | 1 | 3606480160752 | INS40551 |
| Earthing kit | | | | | | |
| Kit including earth wire with flat pin connectors and earthing clamps. To be used to connect the front cover to the base profile. | | | | | | |
|  P86796 | Yellow/green | L = 200 L = 300 | | 10 10 | 3606480028519 3606480028526 | ISM10953 ISM10954 |
| Earthing clamp | | | | | | |
| Earthing clamp to be used for bonding of front cover, base profile and accessories to earth. Material: Steel. | | | | | | |
|  P87196 | — | 9/9/9 | | 20 | 3606480028502 | ISM10952 |
| Modular device adaptor | | | | | | |
| 2-module adaptor for 1-2 modular devices like for instance miniature circuit breakers. With transparent grey cover. Material: PC+ASA, white or alu metallic. | | | | | | |
|  P86793 | White Polar white | 90/72/45 | | 1 | 3606480028465 3606480681950 | ISM10907 ISM10907P |
|  P87195 | Alu metallic | 90/72/45 | | 1 | 3606480028540 | ISM10957 |

OptiLine 45 Service boxes

Technical description

Exploded view



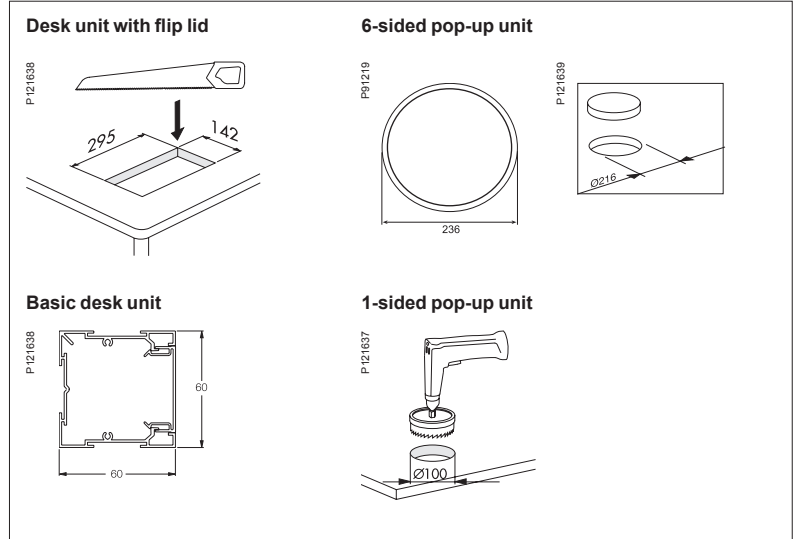
- Feeder system**
1. Base profile
 2. Cover
 3. Desk lead-through
 4. Feeder adaptor
 5. Flexible conduit
 6. Ceiling frame with clamps and locking plate
 7. Ceiling fixing
 8. Cable tray fixing
 9. Busbar fixing
 10. Foot adaptor
 11. Round foot (cast iron)

Cable capacity

| Comp. | Max Ø mm | Cross section area mm ² | Cable capacity*) mm ² | | | |
|-----------------------------|----------|------------------------------------|----------------------------------|------|------|--|
| | | | 40% | 50% | 60% | |
| Basic desk unit | | | | | | |
| 1 | 48 | 2438 | 975 | 1219 | 1463 | |
| Ceiling cable feeder | | | | | | |
| 1 | 18 | 640 | 256 | 320 | 384 | |
| 2 | 24 | 1046 | 418 | 523 | 628 | |

*) We recommend a 40% utilization of the cable capacity.

Dimensions



OptiLine 45 Service boxes

Technical description



Description

OptiLine 45 desk units are made of natural anodized aluminium. Three types are included in the offer;

- A basic rectangular one-sided version made up by a base profile with accessories. To be mounted on desk, cable tray or wall by means of dedicated fixings. The unit can be installed in an OptiLine 70 post by incorporating an accessory kit. Supplied in 20 different configurations or in an empty version in five sizes, to be used for customer configuration. Feeder accessories comfortably bring cables from the ceiling to the box.
- A flush-mounted desk unit provided with a flip lid. To be mounted in the desk-top, intended for single user application.
- A turnable one-sided desk unit, with smoothly rounded design. The box is standing on two designed feet and can be turned around its own axis to the desired position. Supplied in nine different configurations with cables and plugs.
- A one-sided manual pop-up desk unit, intended for single user applications, mounted in the desk-top (office application), or in kitchen table-tops (residential application).
- A round 6-sided pop-up desk unit, supplied in six different configurations. The unit is intended for mounting in for instance conference tables, where there is a need for occasional connections to power and VDI.

Benefits

- Made of natural anodized aluminium with a high finish.
- Many desk units are pre-wired for easy ordering and quick installation.
- Pop-up and turnable desk units offer unique user advantages in terms of design and accessibility.

Technical and Material data

| | | |
|------------------------|-------------------|--|
| Aluminium; desk units | Specification | EN-AW-6063 |
| | Surface treatment | Natural anodizing |
| Aluminium; accessories | Specification | EN-AW-6063 |
| | Surface treatment | Natural anodizing or powder coating |
| Steel | Specification | SS 1142 |
| | Surface treatment | Powder coating |
| PUR (polyurethane) | Density | 1.2 g/cm ³ |
| | Colour | • Polar white (RAL 9003) • Aluminium metallic |
| PC/ABS | Fire rating | UL 94 HB |
| | Colour | • Polar white (RAL 9003) |
| PC+ASA | Fire rating | UL 94 HB |
| | Colour | • White (RAL 9010) • Polar white (RAL 9003) • Aluminium metallic |

Technical and Material data, cont.

| | |
|----------------------------|---|
| Degree of protection | IP30 |
| Temperature range | Operating temperature from -5°C to +60°C |
| Standards and certificates | The products comply with the standards: <ul style="list-style-type: none"> • IEC 1084-1 (Basic desk unit only) • IEC 1084-2-4 (Basic desk unit only) • SS 424 10 32: 1989 The products satisfy the provisions for CE marking according to the Low Voltage Directive 73/23/EEC and 93/68/EEC The products are approved for installation of the Altira range of service content All desk units are CE-marked |



OptiLine 45

Reference number overview

| | | | | | |
|------------------|----------|-----------|----|-----------|-----------------------|
| 5197 ●●● | | | | | |
| 5197 755 | 115 | ISM10105 | 79 | ISM10456 | 83 |
| 5197 761 | 115 | ISM10105P | 79 | ISM10500 | 78 |
| 5197 762 | 115 | ISM10106 | 79 | ISM10500P | 78 |
| 5197 763 | 115 | ISM10106P | 79 | ISM10501 | 78 |
| 5197 771 | 115 | ISM10107 | 80 | ISM10501P | 78 |
| 5197 772 | 115 | ISM10107P | 80 | ISM10502 | 78 |
| 5197 773 | 115 | ISM10110 | 78 | ISM10502P | 78 |
| 5197 820 | 115 | ISM10110P | 78 | ISM10503 | 79 |
| 5197 825 | 115 | ISM10150 | 82 | ISM10503P | 79 |
| 5197 830 | 115 | ISM10151 | 82 | ISM10504 | 79 |
| 5197 835 | 115 | ISM10152 | 82 | ISM10504P | 79 |
| | | ISM10153 | 82 | ISM10505 | 79 |
| 100 ●●●● | | ISM10154 | 83 | ISM10505P | 79 |
| 1003003 | 85 | ISM10155 | 83 | ISM10506 | 79 |
| 1003020 | 85 | ISM10156 | 83 | ISM10506P | 79 |
| 1005008 | 85 | ISM10157 | 83 | ISM10550 | 82 |
| 1150002 | 85 | ISM10200 | 78 | ISM10551 | 82 |
| 1150051 | 85 | ISM10200P | 78 | ISM10552 | 82 |
| | | ISM10201 | 78 | ISM10553 | 82 |
| 120 ●●●● | | ISM10201P | 78 | ISM10554 | 83 |
| 1200005 | 86 | ISM10202 | 78 | ISM10555 | 83 |
| 1200401 | 86 | ISM10202P | 78 | ISM10556 | 83 |
| 1220104 | 86 | ISM10203 | 79 | ISM10900 | 80 |
| | | ISM10203P | 79 | ISM10900P | 80 |
| 126 ●●●● | | ISM10204 | 79 | ISM10901 | 80, 83 |
| 1260170 | 86 | ISM10204P | 79 | ISM10902 | 80, 83 |
| | | ISM10205 | 79 | ISM10903 | 80 |
| 177 ●●●● | | ISM10205P | 79 | ISM10903P | 80 |
| 1772052 | 86 | ISM10206 | 79 | ISM10904 | 80, 84 |
| 1772054 | 86 | ISM10206P | 79 | ISM10905P | 80, 84 |
| 1772056 | 86 | ISM10207 | 80 | ISM10907 | 81, 96, 103, 124 |
| 1772058 | 86 | ISM10207P | 80 | ISM10907P | 81, 96, 103, 124 |
| | | ISM10208 | 80 | ISM10908 | 81 |
| 378 ●●●● | | ISM10208P | 80 | ISM10909P | 81, 84, 96, 103 |
| 3782020 | 85 | ISM10250 | 82 | ISM10920P | 81, 84, 96, 103 |
| 3782030 | 85 | ISM10251 | 82 | ISM10921 | 81, 84, 96, 103 |
| 3782420 | 85 | ISM10252 | 82 | ISM10922 | 81, 84, 96, 103 |
| 3782430 | 85 | ISM10253 | 82 | ISM10950 | 80, 83, 95, 103 |
| 3782440 | 85 | ISM10255 | 83 | ISM10951 | 80, 84 |
| | | ISM10256 | 83 | ISM10952 | 84, 96, 103, 124 |
| 402 ●●●● | | ISM10258 | 83 | ISM10953 | 84, 96, 103, 114, 124 |
| 4020210 | 85 | ISM10300 | 78 | ISM10954 | 84, 96, 103, 114, 124 |
| | | ISM10300P | 78 | ISM10955 | 84 |
| 426 ●●●● | | ISM10301 | 78 | ISM10957 | 84, 96, 103, 124 |
| 4260101 | 114 | ISM10301P | 78 | ISM10960 | 95, 103 |
| 4260102 | 114 | ISM10302 | 78 | ISM10960P | 95, 103 |
| 4260106 | 114 | ISM10302P | 78 | ISM11254 | 83 |
| 4260107 | 114 | ISM10303 | 79 | ISM20100 | 92 |
| 4260111 | 114 | ISM10303P | 79 | ISM20101 | 92 |
| 4260112 | 114 | ISM10304 | 79 | ISM20101P | 92 |
| 4260116 | 114 | ISM10304P | 79 | ISM20102 | 92 |
| 4260117 | 114 | ISM10305 | 79 | ISM20103 | 92 |
| 4260133 | 114 | ISM10305P | 79 | ISM20103P | 92 |
| 4260134 | 114 | ISM10306 | 79 | ISM20104 | 92 |
| 4260138 | 114 | ISM10306P | 79 | ISM20105 | 92 |
| 4260139 | 114 | ISM10308 | 80 | ISM20105P | 92 |
| 4260140 | 114 | ISM10308P | 80 | ISM20106 | 92 |
| 4260141 | 114 | ISM10310 | 78 | ISM20107 | 92 |
| 4260145 | 114 | ISM10310P | 78 | ISM20107P | 92 |
| 4260146 | 114 | ISM10350 | 82 | ISM20108 | 92 |
| | | ISM10351 | 82 | ISM20109 | 92 |
| IMT ●●●●● | | ISM10352 | 82 | ISM20109P | 92 |
| IMT38008 | 86 | ISM10353 | 82 | ISM20110 | 92 |
| IMT38010 | 86 | ISM10354 | 83 | ISM20111 | 92 |
| IMT38029 | 85 | ISM10355 | 83 | ISM20111P | 92 |
| IMT38033 | 85 | ISM10356 | 83 | ISM20112 | 92 |
| IMT38034 | 85 | ISM10357 | 83 | ISM20113 | 92 |
| IMT38037 | 85 | ISM10358 | 83 | ISM20113P | 92 |
| IMT38040 | 85 | ISM10400 | 78 | ISM20114 | 92 |
| IMT38041 | 85 | ISM10400P | 78 | ISM20115 | 92 |
| IMT38051 | 85 | ISM10401 | 78 | ISM20115P | 92 |
| IMT38053 | 86 | ISM10401P | 78 | ISM20116 | 92 |
| IMT38054 | 86 | ISM10402 | 78 | ISM20117 | 92 |
| IMT38055 | 86 | ISM10402P | 78 | ISM20117P | 92 |
| IMT48002 | 85 | ISM10403 | 79 | ISM20118 | 92 |
| | | ISM10403P | 79 | ISM20119 | 92 |
| INS ●●●●● | | ISM10404 | 79 | ISM20119P | 92 |
| INS40550 | 102, 124 | ISM10404P | 79 | ISM20120 | 92 |
| INS40551 | 124 | ISM10405 | 79 | ISM20121 | 92 |
| INS40700 | 122 | ISM10405P | 79 | ISM20121P | 92 |
| INS40701 | 122 | ISM10406 | 79 | ISM20122 | 92 |
| INS40703 | 121 | ISM10406P | 79 | ISM20123 | 92 |
| INS40720 | 122 | ISM10450 | 82 | ISM20123P | 92 |
| INS40721 | 122 | ISM10451 | 82 | ISM20130 | 92 |
| INS40722 | 122 | ISM10452 | 82 | ISM20131 | 92 |
| | | ISM10453 | 82 | ISM20131P | 92 |
| | | ISM10454 | 83 | ISM20132 | 92 |
| | | ISM10455 | 83 | ISM20133 | 92 |
| | | | | ISM20133P | 92 |
| | | | | ISM20140 | 92 |
| | | | | ISM20141 | 92 |
| | | | | ISM20141P | 92 |
| | | | | ISM20142 | 92 |
| | | | | ISM20143 | 92 |
| | | | | ISM20143P | 92 |
| | | | | ISM20144 | 92 |
| | | | | ISM20145 | 92 |
| | | | | ISM20145P | 92 |
| | | | | ISM20146 | 93 |
| | | | | ISM20147 | 93 |
| | | | | ISM20147P | 93 |
| | | | | ISM20148 | 93 |
| | | | | ISM20149 | 93 |
| | | | | ISM20149P | 93 |
| | | | | ISM20150 | 93 |
| | | | | ISM20151 | 93 |
| | | | | ISM20151P | 93 |
| | | | | ISM20200 | 100, 101 |
| | | | | ISM20201 | 100, 101 |
| | | | | ISM20201P | 100, 101 |
| | | | | ISM20202 | 100, 101 |
| | | | | ISM20203 | 100, 101 |
| | | | | ISM20203P | 100, 101 |
| | | | | ISM20205 | 100, 101 |
| | | | | ISM20206 | 100, 101 |
| | | | | ISM20206P | 100, 101 |
| | | | | ISM20207 | 100, 101 |
| | | | | ISM20208 | 100, 101 |
| | | | | ISM20208P | 100, 101 |
| | | | | ISM20210 | 100, 101 |
| | | | | ISM20211 | 100, 101 |
| | | | | ISM20211P | 100, 101 |
| | | | | ISM20212 | 100, 101 |
| | | | | ISM20213 | 100, 101 |
| | | | | ISM20213P | 100, 101 |
| | | | | ISM20215 | 100, 101 |
| | | | | ISM20216 | 100, 101 |
| | | | | ISM20216P | 100, 101 |
| | | | | ISM20217 | 100, 101 |
| | | | | ISM20218 | 100, 101 |
| | | | | ISM20218P | 100, 101 |
| | | | | ISM20220 | 100, 101 |
| | | | | ISM20221 | 100, 101 |
| | | | | ISM20221P | 100, 101 |
| | | | | ISM20341P | 121 |
| | | | | ISM20346P | 121 |
| | | | | ISM20350P | 121 |
| | | | | ISM20400 | 121 |
| | | | | ISM20401 | 121 |
| | | | | ISM20410 | 121 |
| | | | | ISM20420 | 120 |
| | | | | ISM20421 | 120 |
| | | | | ISM20422 | 120 |
| | | | | ISM20423 | 120 |
| | | | | ISM20424 | 120 |
| | | | | ISM20425 | 122 |
| | | | | ISM20426 | 122 |
| | | | | ISM20427 | 122 |
| | | | | ISM20428 | 122 |
| | | | | ISM20429 | 122 |
| | | | | ISM20430P | 120 |
| | | | | ISM20431P | 120 |
| | | | | ISM20432P | 120 |
| | | | | ISM20433P | 120 |
| | | | | ISM20434P | 120 |
| | | | | ISM20435P | 120 |
| | | | | ISM20436P | 120 |
| | | | | ISM20437P | 120 |
| | | | | ISM20438P | 120 |
| | | | | ISM20439P | 120 |
| | | | | ISM20450 | 122 |
| | | | | ISM20451 | 122 |
| | | | | ISM20552P | 94 |
| | | | | ISM20800 | 123 |
| | | | | ISM20801P | 123 |
| | | | | ISM20802 | 123 |
| | | | | ISM20803P | 123 |
| | | | | ISM20804 | 123 |
| | | | | ISM20805P | 123 |
| | | | | ISM20806 | 123 |
| | | | | ISM20807 | 123 |
| | | | | ISM20808 | 94, 123 |
| | | | | ISM20809 | 94 |
| | | | | ISM20810P | 94 |
| | | | | ISM20811P | 94 |
| | | | | ISM20812P | 94, 123 |
| | | | | ISM20813 | 94, 123 |
| | | | | ISM20814 | 94 |
| | | | | ISM20815 | 94, 124 |
| | | | | ISM20816 | 94, 124 |
| | | | | ISM20817 | 95, 102 |
| | | | | ISM20818 | 95, 102 |
| | | | | ISM20819 | 95, 102 |
| | | | | ISM20820 | 95, 102 |
| | | | | ISM20821 | 95, 102 |
| | | | | ISM20822 | 96, 103 |
| | | | | ISM20823P | 96, 103 |
| | | | | ISM20824 | 96, 103 |
| | | | | ISM20825 | 95, 102 |
| | | | | ISM20826 | 95, 102 |
| | | | | ISM20826P | 95, 102 |
| | | | | ISM20827 | 95, 102 |
| | | | | ISM20828 | 94 |
| | | | | ISM20832 | 123 |
| | | | | ISM20857 | 95, 102 |
| | | | | ISM50151 | 114 |
| | | | | ISM50152 | 114 |
| | | | | ISM50153 | 114 |
| | | | | ISM50154 | 114 |
| | | | | ISM50156 | 114 |
| | | | | ISM50157 | 114 |
| | | | | ISM50158 | 114 |
| | | | | ISM50159 | 114 |
| | | | | ISM50320 | 110 |
| | | | | ISM50322 | 111 |
| | | | | ISM50323 | 111 |
| | | | | ISM50330 | 110 |
| | | | | ISM50332 | 111 |
| | | | | ISM50333 | 111 |
| | | | | ISM50341 | 110 |
| | | | | ISM50342 | 110 |
| | | | | ISM50343 | 110 |
| | | | | ISM50356 | 111 |
| | | | | ISM50370 | 111 |
| | | | | ISM50371 | 111 |
| | | | | ISM50392 | 111 |
| | | | | ISM50393 | 111 |
| | | | | ISM50394 | 111 |
| | | | | ISM50395 | 111 |
| | | | | ISM50520 | 110 |
| | | | | ISM50524 | 109 |
| | | | | ISM50530 | 110 |
| | | | | ISM50536 | 109 |
| | | | | ISM50538 | 109 |
| | | | | ISM50624 | 109 |
| | | | | ISM50636 | 109 |
| | | | | ISM50638 | 109 |
| | | | | ISM50724 | 109 |
| | | | | ISM50736 | 109 |
| | | | | ISM50800 | 112 |
| | | | | ISM50801 | 112 |
| | | | | ISM50805 | 112 |
| | | | | ISM50806 | 112 |
| | | | | ISM50807 | 112 |
| | | | | ISM50808 | 112 |
| | | | | ISM50809N | 111 |
| | | | | ISM50810N | 111 |
| | | | | ISM50811 | 112 |
| | | | | ISM50817 | 112 |
| | | | | ISM50818 | 112 |
| | | | | ISM50823 | 112 |
| | | | | ISM50850 | 112, 123 |
| | | | | ISM50851 | 113 |
| | | | | ISM50852 | 113, 123 |
| | | | | ISM51524 | 110 |
| | | | | ISM51536 | 110 |
| | | | | ISM51538 | 110 |
| | | | | ISM51624 | 109 |
| | | | | ISM51636 | 109 |
| | | | | ISM51638 | 109 |
| | | | | ISM51724 | 110 |
| | | | | ISM51736 | 110 |
| | | | | | |

