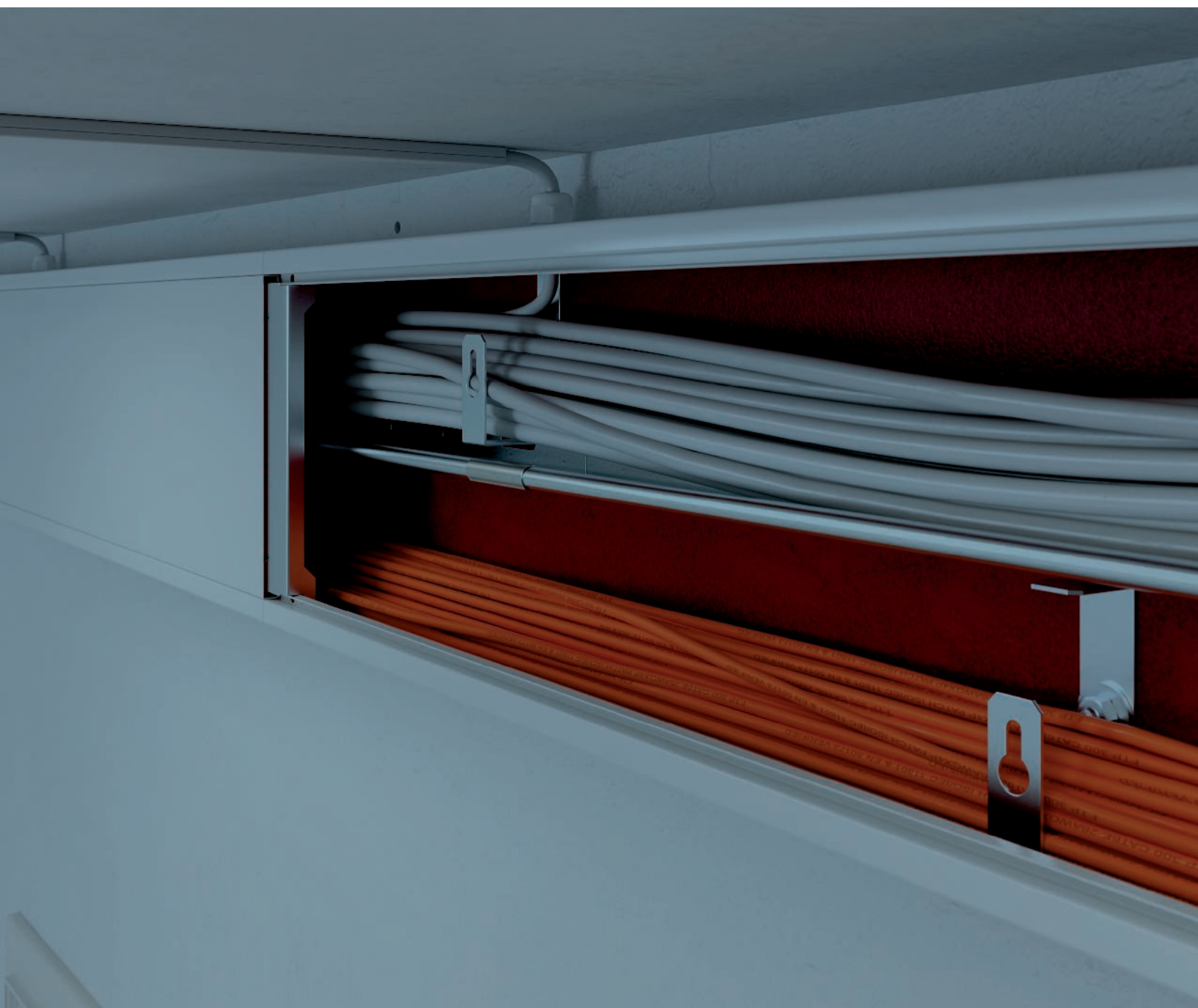




Fire protection ducts



Building Connections

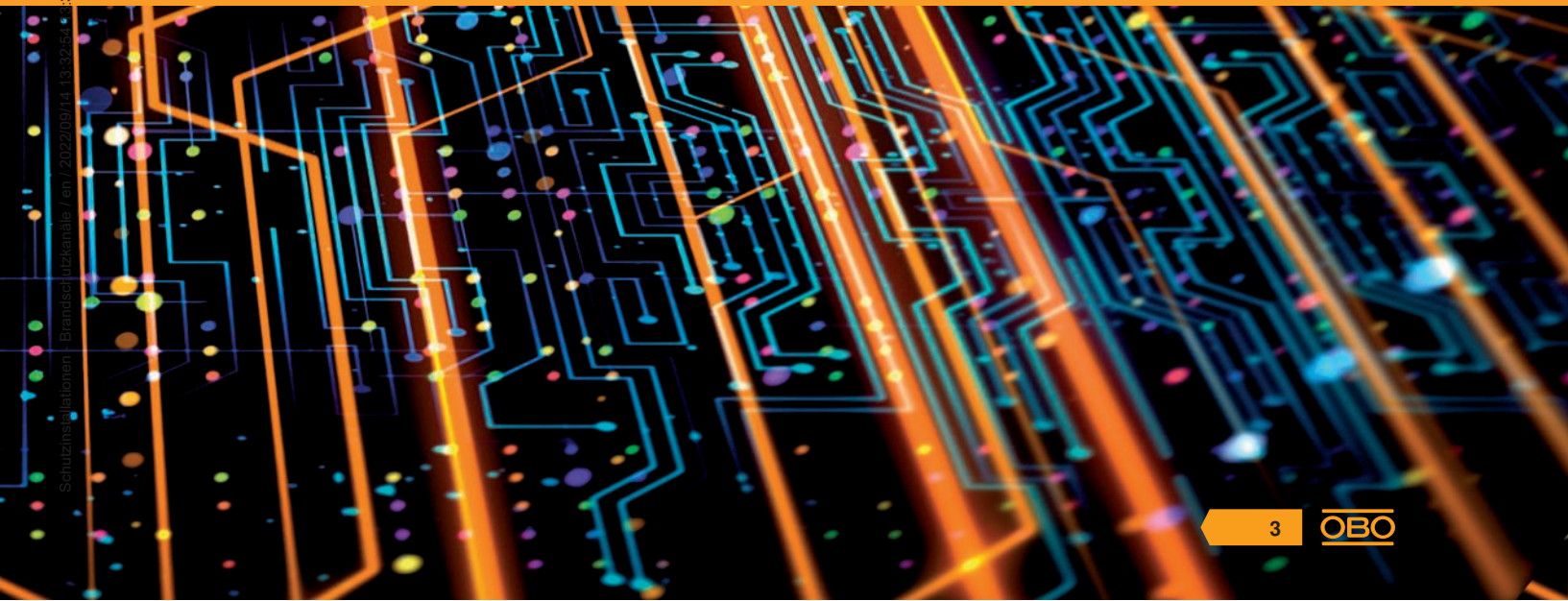
Digitalisation, the Energiewende (energy transition), mobility – the future is gathering speed. At OBO Bettermann, we're proud to be a driving force. And as a facilitator, we make connections. Today, we are already developing the innovative electrical infrastructure systems and solutions of tomorrow. Reliably, flexibly, sustainably.

Already today, OBO is one of the leading manufacturers of installation systems for the electrical infrastructure in buildings and plants. When it comes to the friction-free flow of power, energy and data, engineers and tradespeople worldwide rely on the comprehensive range from OBO.



OBO applies its slogan "Building Connections" to around 30,000 high-quality branded electrical products and services, which are used in application solutions for projects in industry, business and infrastructure.

OBO operates a global network and employs more than 4,200 people in more than 60 countries. The headquarters of the family company, which was founded in 1911, is located in Menden, Germany. In addition, more than 40 subsidiaries are present in markets on all continents.



Improved structure, sharpened profile



Each of our products carries a benefit which only the OBO brand can offer. Products are developed, manufactured and tested with a high level of competence – from the idea through to the final check. From flawless logistics through to practical information – we can provide support at every level. We can offer additional security through certificates on the conformity of our products with the most important standards and directives. In a nutshell – OBO helps you more. In every location and in every phase of a project.

To maintain this, we continually challenge ourselves. Not as an end in itself but for the better processing of each customer's requests – fast, reliably and future-oriented. That is the reason we have not only established our three central application areas, but also reworked our catalogue structure. In this way, we can display our service offers more clearly, highlight the product benefits more effectively and illustrate the respective application areas more tangibly.

OBO Product Worlds



Industrial installations

- Cable support systems
- Connection and routing systems
- Fastening material



Building installations

- Cable routing systems
- Device installation ducts, trunking and poles
- Floor installation systems and underfloor applications
- Installation systems



Safety and protection installations

- Surge protection
- External lightning protection
- Equipotential bonding and earthing
- Insulation and cable bandages
- Fire-tested support and routing systems
- Fire protection ducts



It's your choice – from now on there's a catalogue for each OBO product category. Simply select the catalogues and order together with a collection case.

Always at your service

If you have questions about products, installation or planning – OBO staff offer exceptionally competent support at each and every phase of your project. So that you are always on the safe side.

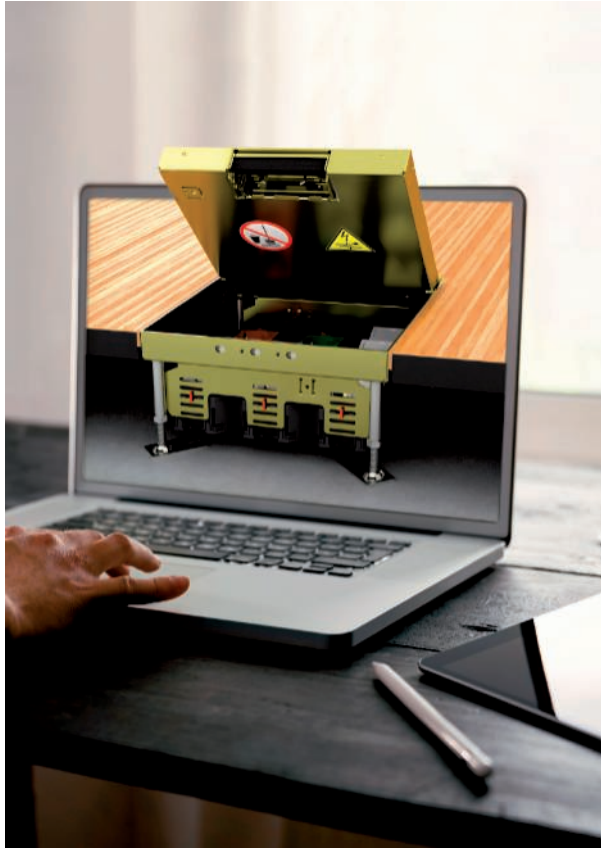
- Product and system information, digitally or printed
- Selection and planning aids on the web, as a CAD application or in printed form, as well as in the myOBO app
- 2D and 3D product data for planning
- Field service and branch offices in 60 countries
- Engineering services for major projects

Our Customer Service can be contacted on +49 23 73 89 - 17 00

Monday–Thursday	07.30 - 17.00
Friday	07.30 - 15.00

or via e-mail at export@obo.de





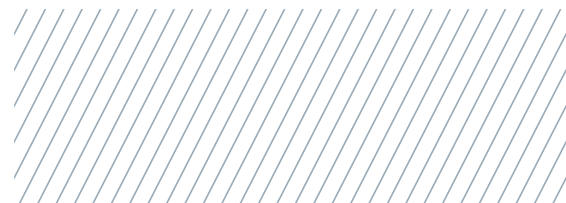
OBO Construct: Planning has never been so easy!

OBO Construct is a collection of planning tools that were developed especially for electrical installation engineers and planners. This platform offers support in product configuration and a selection aid for the matching systems, and automatically generates a corresponding parts list. With OBO Construct, you can therefore access and edit projects at any time and at any location – via your smartphone, tablet or desktop PC. Versions of the app are available for iOS and Android.



OBO Academy: From the basics to the concrete application

The OBO Academy has been offering an extensive further education programme for many years. This programme helps with first-hand information and expertise, giving you that essential head start in terms of in-depth knowledge. In our seminars, planner days or online seminars, we provide you with current developments, trends, norms and regulations – systematically, comprehensively and practically oriented.





Planning virtually, implementing efficiently

When planning and implementing electrical technology, BIM (building information modelling) is becoming increasingly more important. We can now offer our partners the first solution to unlock the full potential of the BIM method for practical applications - giving you more planning efficiency, transparency and cost security with complex projects. Find out about the advantages of BIM@OBO now:

- Intelligent libraries structured according to individual systems
- Available for Revit, as a plug-in and directly via the OBO website
- Simple integration via drag & drop
- Practical display of material lists for ordering directly
- Intuitive user interface

You can find further information at obo.de/BIM.
Welcome to the future!



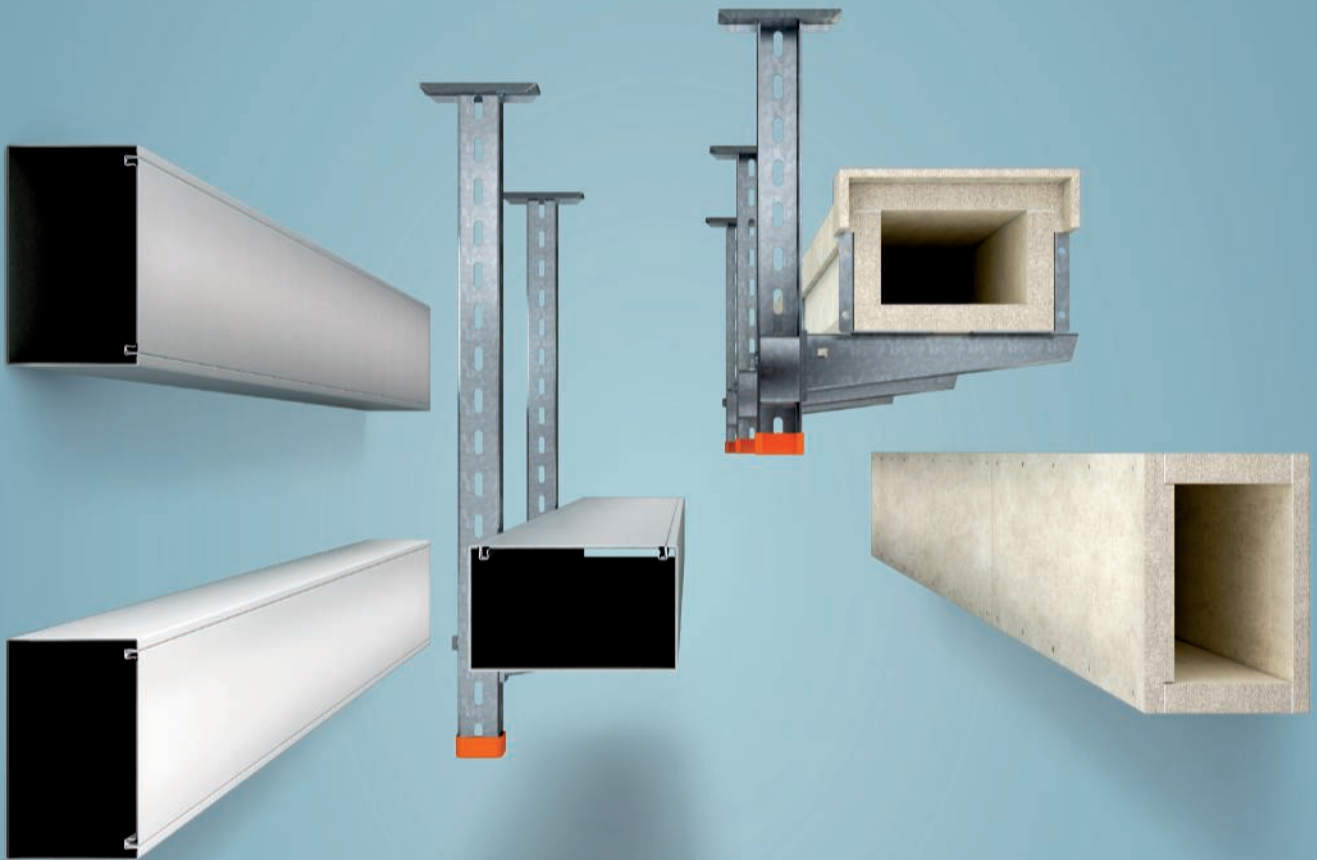


Clear delivery capability

With an approximate storage area of 38,000 m² and five strategically well-located sales warehouses, we ensure that our products arrive at the right place at the right time. Our logistics specialists work hard to ensure all our partners are supplied flexibly and as quickly as possible. This you can rely on!

- 1 Sales Warehouse North**
Bad Fallingbospel
- 2 Sales Warehouse West**
Iserlohn
- 3 Sales Warehouse East**
Delitzsch
- 4 Sales Warehouse South-West**
Groß-Rohrheim
- 5 Sales Warehouse South**
Dasing





Planning aids

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PYROLINE® Sun PV

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PYROLINE® Rapid PLM

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Directories

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Planning aids



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First protection aim: Maintenance of the fire sections



1

Insulation systems reliably seal the ceiling and wall penetrations required for installations against fire and smoke.

The division of buildings into fire sections protects unaffected building sections against the spread of fires for specific periods of time. Insulation maintains the fire sections, thus limiting the spread of fire and smoke. These constructive measures protect people and property, allowing fire brigades to prevent the spread of fires to other parts of the building through extinguishing measures.

Function of firewalls

Firewalls should ensure that a fire cannot pass to neighbouring buildings or building sections. This creates so-called fire sections. The construction design of these firewalls (materials, fire resistance classes, stress values) is regulated by building regulations and standards.

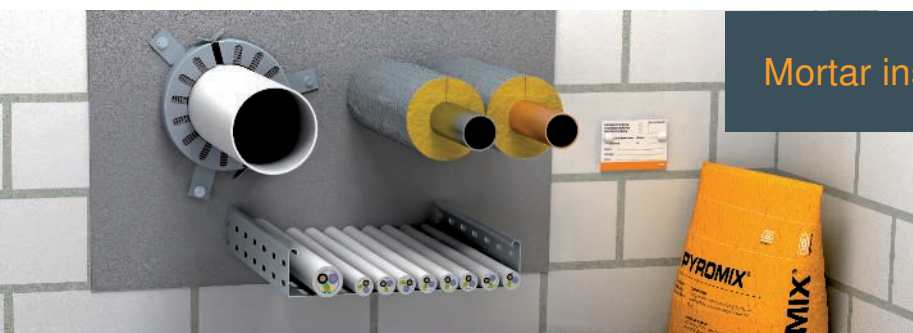
Electrical cables and pipes may only be run through walls and ceilings at the ends of rooms when there is a guarantee that they do not present an opportunity for fire and smoke to spread. Insulation systems reliably seal the ceiling and wall penetrations required for installations against fire and smoke.

Special requirements

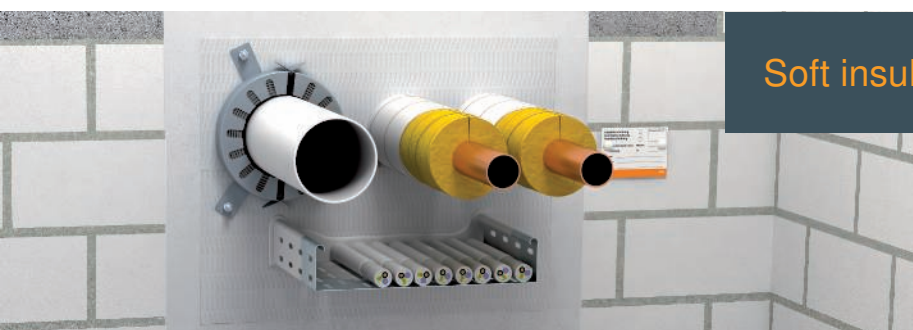
The following requirements apply to cable penetrations with cable insulation:

- The spread of fire and smoke must be prevented
- Room closure must be guaranteed
- On the side of the insulation away from the fire, the surfaces of cables, pipes, cable support systems and the surface of the insulation may not heat up to an impermissible level

Insulation systems



Mortar insulation systems



Soft insulation systems



Foam systems



Pipe shell systems

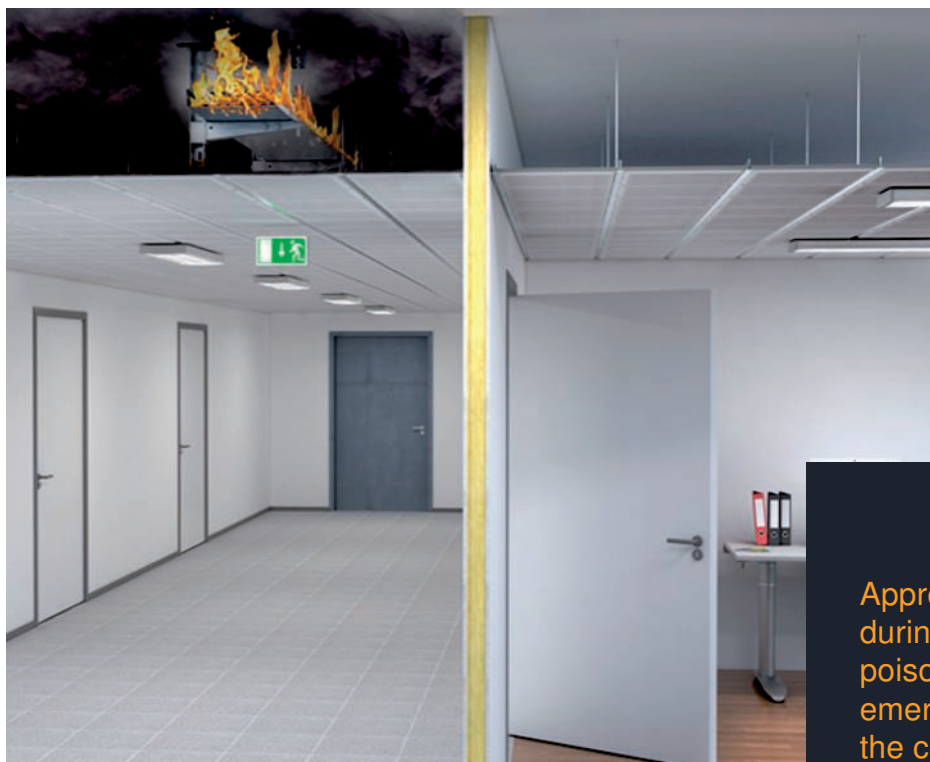


Cable bandages

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Second protection aim: Protection of escape routes



2

Approximately 95% of all deaths during fires are caused by smoke poisoning! In case of fire, emergency and escape routes are the central lifeline of the building and must remain usable under all circumstances.

What is an emergency and escape route?

According to the construction regulations, there must be routes in buildings which not only permit access to the building in a horizontal and vertical direction in normal situations, but which also offer the option of rescue in case of fire. It is therefore obligatory to equip buildings with at least one constructive emergency and escape route. Additional emergency and escape routes may also be necessary, depending on the type of building.

These include:

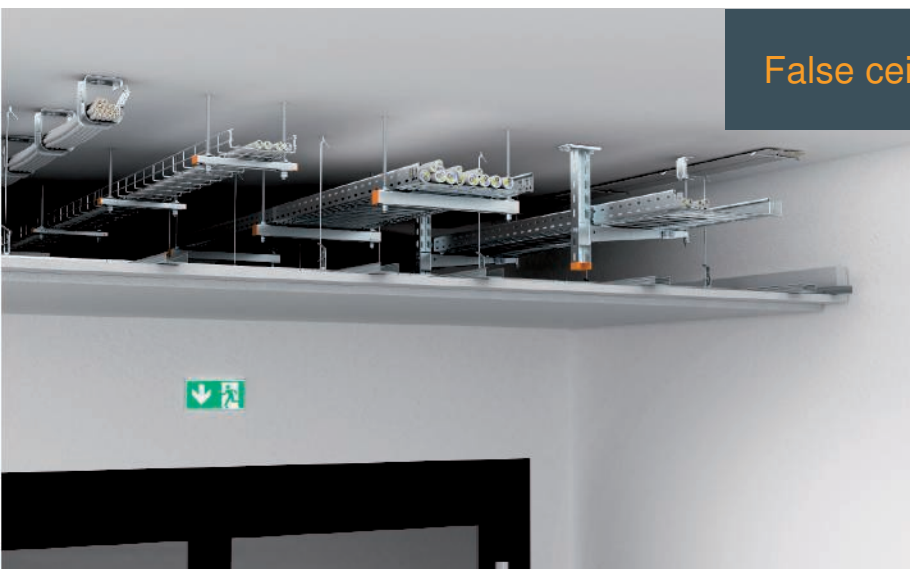
- Necessary staircases (vertical access)
- Connecting rooms between the necessary stairwells and exits to the outside
- Necessary corridors (horizontal access)

There must be a guarantee that, if there is a fire, these routes can be used to leave the building without any risk. In addition to evacuation, the emergency and escape routes also aid the local fire brigades as a point of attack.

In the area of emergency and escape routes, an installation may not pose an additional fire load. This requirement can be fulfilled using an appropriate type of installation:

- Concealed installation
- Installation in fire protection duct systems
- Installation above suspended fire protection ceilings
- Use of non-combustible materials
- Routing of cables with improved behaviour in case of fire

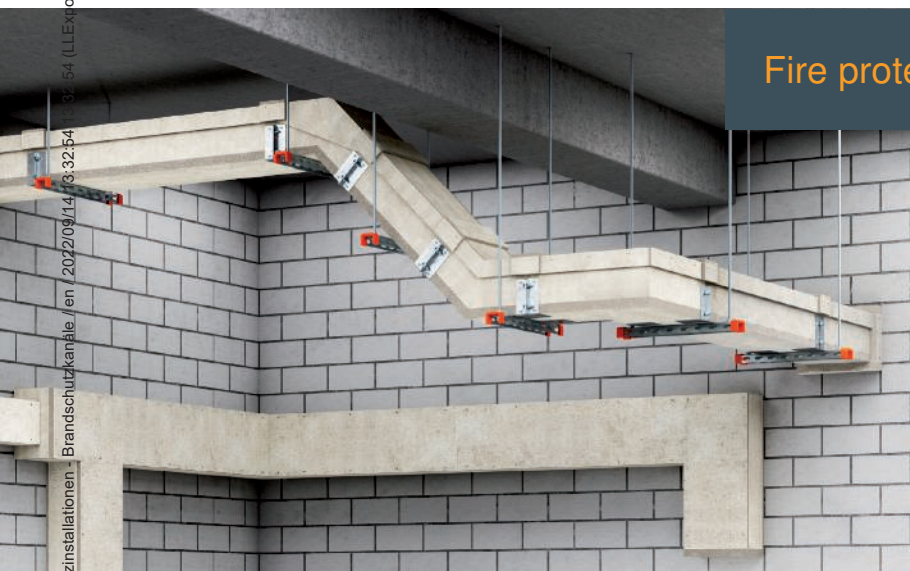
Escape route installations



False ceiling mounting



Fire protection ducts, metal



Fire protection ducts, concrete



Third protection aim: Maintaining the functionality of electrical systems



3

E30
E90

If there is a fire, emergency and escape routes must remain usable and important technical equipment, such as emergency lighting, fire alarm systems and smoke extraction systems, continue to function. Therefore, it is essential that the power supply for these systems is specially protected. In addition, certain technical systems must support the fire brigades in fighting fires for a sufficiently long period of time.

Where is the maintenance of electrical function required?

Technical equipment that maintains electrical function is required for the following buildings and systems:

- Hospitals
- Hotels and restaurants
- Tower blocks
- Meeting points
- Commercial buildings
- Closed large garages
- Underground railway systems
- Chemicals industry
- Power stations
- Tunnels

This could be because these constructions are regularly frequented by many people, which creates an increased safety risk for gatherings of people. However, with certain systems, property and the environment must also be protected.

30 minutes: Maintenance of electrical function for safe evacuation and rescue

The first 30 minutes after the start of a fire play an important role. For the affected building to be cleared quickly the maintenance of electrical function must be guaranteed for the following equipment during this time:

- Safety lighting systems
- Lifts with fire control
- Fire alarm systems
- Alarm systems and systems to issue instructions
- Fire extraction systems

90 minutes: Maintenance of electrical function for effective firefighting

To support firefighting operations, it is imperative that certain technical equipment is supplied with sufficient power even up to 90 minutes after a fire breaks out in a building. This equipment includes:

- Water pressure increase systems for fire water supply
- Mechanical smoke extraction systems and smoke protection pressure systems
- Fire brigade lifts
- Bed lifts in hospitals and similar equipment

Systems that maintain the electrical function



Technical support



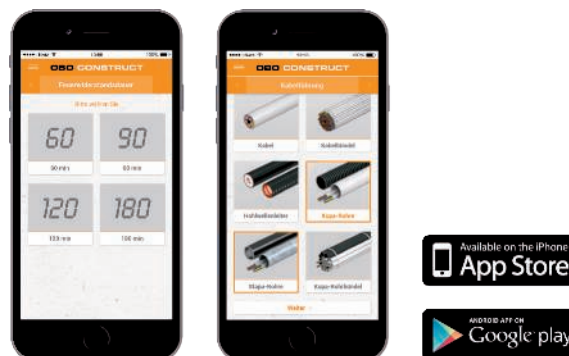
OBO BSS seminars: First-hand knowledge

With a comprehensive programme of training courses and seminars on the subject of fire protection systems, OBO is able to support its customers with specialist knowledge from a single source. Alongside the basic theoretical principles, the programme also deals with practical implementation in everyday applications. Special calculation and application examples round off the comprehensive programme of knowledge transfer.



The OBO construct BSS online Tool

It works on any computer with Internet access. The BSS software simplifies the planning of suitable fire protection systems. After the basic data has been entered, the user obtains an overview of the approved insulation systems, as well as of any necessary and optional system accessories. Thus, they can create, edit and export a personal shopping list in a targeted manner. All the key information on standards and approvals can be found directly with the systems.



BSS app

The OBO Construct BSS app makes finding the right product even quicker. In only a short time, the app determines the fire protection systems required for the appropriate project. It offers the full scope of the Construct BSS module, allowing simple planning and material calculations in any location. It's extremely practical, as the parts list can be sent directly by e-mail. The app is available for Android and Apple devices from Google Play Store and the iTunes App Store.



Fire protection guide for electrical installations

In the second edition of the fire protection guide, we have again compiled lots of useful information. The interconnections of fire protection between different types of technical building equipment are now explained in even more detail. Perhaps you will find some new information in this edition which can help you in the planning and implementation of fire protection systems.



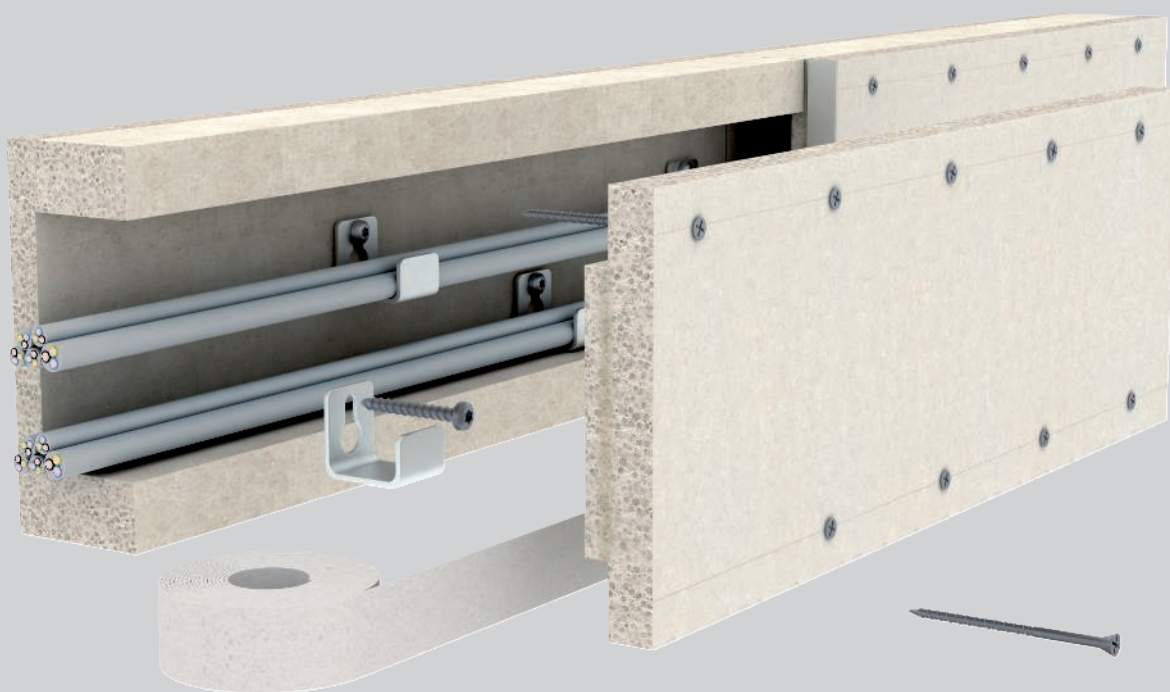
PYROLINE® Con D



PYROLINE® Con D concrete fire protection duct

24



PYROLINE® Con D**Fire protection duct for direct wall and ceiling mounting****System description**

The PYROLINE® Con D fire protection duct consists of fibreglass lightweight concrete fire protection plates which are resistant to water and frost. The fire protection plates, which are classed as non-combustible (material class A1), have a compacted surface, which is thus hard, smooth and wear-resistant. The OBO PYROLINE® Con D is used as an I duct to protect escape and rescue routes against the effects of a possible cable fire.

This means that the escape and rescue routes remain free from fire, smoke and heat. As an E duct, PYROLINE® Con D allows the maintenance of electrical function of the safety-relevant circuits. The fire protection duct is mounted directly on solid walls and ceilings. Possibly necessary fittings can be created simply and flexibly on-site according to requirements. The fire protection ducts can be painted or papered over, as necessary.

PYROLINE® Con D

Fire protection duct for direct wall and ceiling mounting

Installation principle

Mounted fire protection duct on wall and ceiling as I and E duct.

Flexible duct routing through individually creatable fittings.

Retaining profile and retaining clamp as mounting aid for cable insertion.

Cable fastening for vertical duct mounting with clips.

Closing surface treatment through painting or papering.

Minor damage can be eliminated at any time.

Classification according to DIN 4102 part 11 and part 12

I90

I120

E30

E90

Installation duct made of fibreglass reinforced lightweight concrete

Fire resistance class	I90 and I120 Installation in escape routes	E30 and E90 Maintenance of electrical functionality
Proof of application	General construction test certificate of the materials testing institute iBMB MPA Braunschweig	General construction test certificate of the materials testing institute iBMB MPA Braunschweig
Approval number	P-3109/0998-MPA BS	P-3320/381/14-MPA BS
Testing standard	DIN 4102 Part 11	DIN 4102 Part 12

The data in the named proofs of applicability applies.

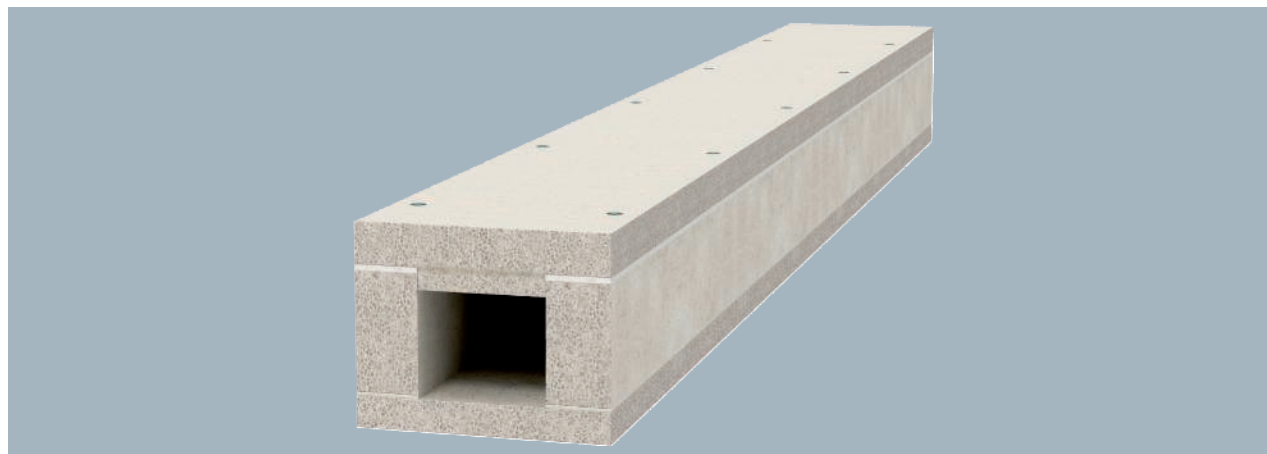
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OBO



PYROLINE® Con D I90/E30 fire protection duct



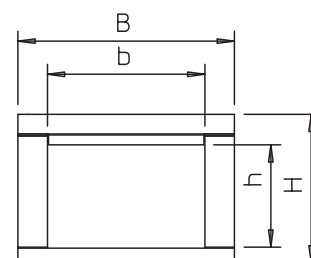
Type	Pack m	Weight kg/100 m	Item no.
BSKD09-K0506	1	1,098.000	7215136
BSKD09-K0511	1	1,320.000	7215139
BSKD09-K0521	1	1,881.000	7215141
BSKD09-K1021	1	2,201.000	7215144

Fire protection duct made from water and frost-proof fibreglass lightweight concrete of building material class A1 according to EN 13501-1 for fireproof laying of cables in rescue and emergency routes, and for the maintenance of electrical functionality of safety-relevant systems. Classification I90 as I duct according to DIN 4102 Part 11 and classification E30 as E duct according to DIN 4102 Part 12.

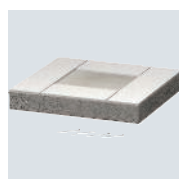
Mounting of the duct directly on walls or under ceilings.
Including countersunk head screws and sealing strip.

Type	Dim. h mm	Dim. b mm	Dim. H mm	Dim. B mm
BSKD09-K0506	50	60	110	140
BSKD09-K0511	50	110	110	190
BSKD09-K0521	50	210	110	290
BSKD09-K1021	105	210	165	290

Dimensions



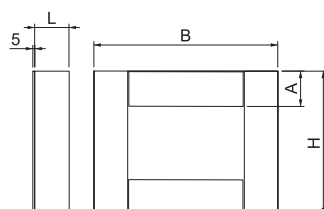
End piece for PYROLINE® Con D I90/E30 fire protection duct



Type	Pack Piece	Weight kg/100 pc.	Item no.
BSKD09-E0506	1	52.000	7215261
BSKD09-E0511	1	70.000	7215263
BSKD09-E0521	1	106.000	7215265
BSKD09-E1021	1	156.000	7215267

End piece for PYROLINE® Con D EI90/E30 fire protection duct, consisting of fibreglass lightweight concrete which is resistant to water and frost for closing the duct ends.
Including countersunk head screws and stuck-on sealing strip.

Dimensions



Type	Dim. H mm	Dim. B mm	Dim. A mm	Dim. L mm
BSKD09-E0506	113	140	40	40
BSKD09-E0511	113	190	40	40
BSKD09-E0521	113	290	40	40
BSKD09-E1021	168	290	40	40

Sealing strip

Type	Dimension mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
KDS-40	5x40x7500	7500	1	18.100	7215436

Self-adhesive sealing strip for mounting in the joints of the individual duct sections and for the seal between the base and cover of the PYROLINE® Con D and PYROLINE® Con S fire protection ducts.



PYROLINE® Con D



PYROLINE® Con D BSK 12

Fire protection duct I120/E90

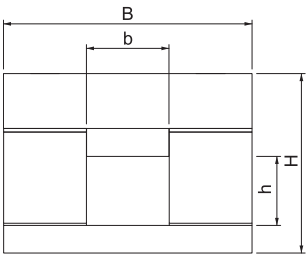
Type	Length mm	Pack m	Weight kg/100 m	Item no.
BSKD12-K0506	1000	1	1,668.000	7215210
BSKD12-K0511	1000	1	1,996.000	7215216
BSKD12-K0521	1000	1	2,642.000	7215222
BSKD12-K1021	1000	1	3,096.000	7215231

Fire protection duct made from water and frost-proof fibreglass lightweight concrete of building material class A1 according to EN 13501-1 for fireproof laying of cables in rescue and emergency routes, and for the maintenance of electrical functionality of safety-relevant systems. Classification I120 as I duct according to DIN 4102 Part 11 and classification E90 as E duct according to DIN 4102 Part 12.
Mounting of the duct directly on walls or under ceilings.
Including countersunk head screws and sealing strip.



Type	Dim. h mm	Dim. b mm	Dim. H mm	Dim. B mm
BSKD12-K0506	50	60	130	180
BSKD12-K0511	50	110	130	230
BSKD12-K0521	50	210	130	330
BSKD12-K1021	105	210	185	330

Dimensions



End piece for PYROLINE® Con D I120/E90

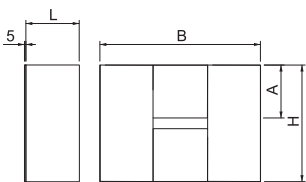
Type	Pack Piece	Weight kg/100 pc.	Item no.
BSKD12-E0506	1	104.000	7215270
BSKD12-E0511	1	133.000	7215272
BSKD12-E0521	1	194.000	7215274
BSKD12-E1021	1	271.000	7215277

End piece for PYROLINE® Con D I120/EI90 fire protection duct, consisting of fibreglass lightweight concrete which is resistant to water and frost for closing the duct ends.
Including countersunk head screws and a stick-on sealing strip.



Type	Dim. H mm	Dim. B mm	Dim. A mm	Dim. L mm
BSKD12-E0506	133	180	60	60
BSKD12-E0511	133	230	60	60
BSKD12-E0521	133	330	60	60
BSKD12-E1021	168	330	60	60

Dimensions



Sealing strip



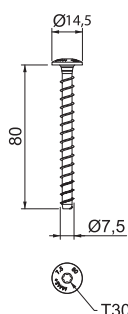
Type	Dimension mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
KDS-60	5x60x7500	7500	1	27.300	7215438

Self-adhesive sealing strip for mounting in the joints of the individual duct sections and for the seal between the base and cover of the PYROLINE® Con D and PYROLINE® Con S fire protection ducts.

Accessories

MMS-plus P round head tie, with panhead

St G



Type	Dimension mm	Drill hole Ø mm	Head Ø mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ P 7.5x80	7,5x80	6	14,5	Torx	50	1.600	3498272

Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With round head for universal fastenings. Torx drive T30. Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.

Separating clamp for ceiling mounting

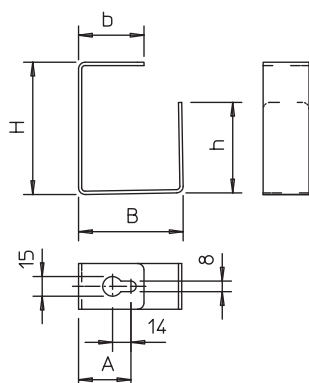
St FS



Type	Dimension mm	Pack Piece	Weight kg/100 pc.	Item no.
BSKD-B0511	46x55	25	7.500	7215356
BSKD-B0521	46x105	25	14.500	7215362
BSKD-B1021	101x105	25	—	7215371

Separating clamp as installation aid when mounting the PYROLINE® Con D BSK fire protection duct on the ceiling. Mounting of the clamp directly on the fastening anchors of the fire protection duct.

Dimensions



Type	Dim. H mm	Dim. h mm	Dim. B mm	Dim. b mm	Dim. A mm
BSKD-B0511	46	18	55	37,5	27,5
BSKD-B0521	46	18	105	62,5	52,5
BSKD-B1021	101	69	105	62,5	62,5

St FS

Separating bracket for wall mounting

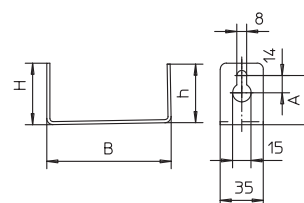
Type	Dimension mm	Pack Piece	Weight kg/100 pc.	Item no.
BSKD-W0511	46x37,5	25	5.000	7215312
BSKD-W0521	46x72,5	25	9.000	7215318
BSKD-W1021	101x62,5	25	—	7215327

Separating bracket as installation aid when mounting the PYROLINE® Con D BSK fire protection duct. Mounting of the bracket directly on the fastening anchors of the fire protection duct.



Type	Dim. H mm	Dim. h mm	Dim. B mm	Dim. A mm
BSKD-W0511	37.5	22.5	46	27.5
BSKD-W0521	62.5	72.5	46	52.5
BSKD-W1021	62.5	72.5	101	52.5

Dimensions



St FS

Cable bracket, vertical, for PYROLINE® fire protection ducts

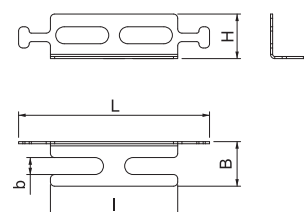
Type	Pack Piece	Weight kg/100 pc.	Item no.
LHS 20	10	1.345	7215288
LHS 40	10	2.426	7215290
LHS 60	10	3.507	7215292

Universal cable bracket for the vertical installation of cables in PYROLINE® Con fire protection ducts made of fibreglass-reinforced, lightweight concrete, as well as PYROLINE® Rapid made of sheet steel with an internal coating. The holders are plugged over the head of the loosened fastening screw and then screwed tight to it. The cables can be fastened using cable ties on the lugs or in the slots of the holder. This safely supports the cable weight. Plan at least two cable brackets per metre during installation.

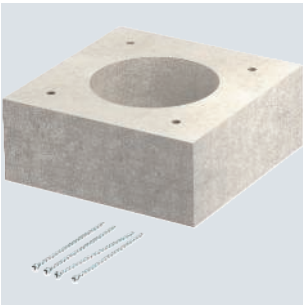


Type	Dim. H mm	Dim. B mm	Dim. L mm	Dim. l mm	Dim. b mm
LHS 20	21	21	90	60	8
LHS 40	41	21	90	60	8
LHS 60	61	21	90	60	8

Dimensions



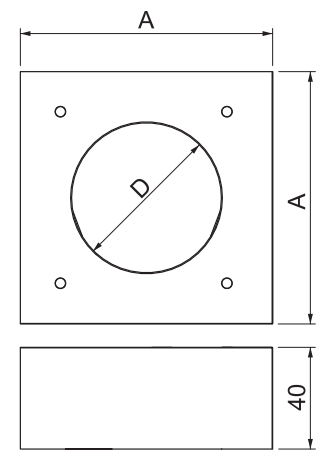
Doubler for PYROLINE® Con fire protection duct



Type	Pack Piece	Weight kg/100 pc.	Item no.
KAD-8040	1	28.000	7215464
KAD-10040	1	44.000	7215462

Doubler for running individual cables and cable bundles out of the side wall of the PYROLINE® Con D and PYROLINE® Con S fire protection duct.

Dimensions



Type	Dim. A mm	Dim. D mm
KAD-8040	80	40
KAD-10040	100	60

Insulation layer creator in a cartridge

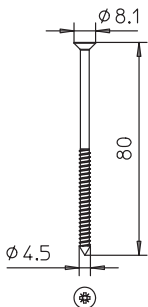


Type	Contents ml	Pack Piece	Weight kg/100 pc.	Item no.
DSX-K	300	1	50.000	7202300

Dispersion-based fire protection compound for interior areas, to fill residual joints and close openings. Approved material for the closing of core drill holes when feeding through single cables and for closing the annular gap when exiting cables from the PYROLINE® Con PLC fire protection duct. Material class DIN 4102 - B2, normally flammable. In dry, frost-free rooms, the compound can be stored at temperatures from +5 °C to +25 °C for up to 18 months in closed, upright original containers.

Countersunk head screw I120/E90

St G



Type	Dimension mm	Pack Piece	Weight kg/100 pc.	Item no.
KSS 4.5x80	4,5x80	50	0.500	7215412

Countersunk head screw as spare part for PYROLINE® Con fire protection ducts, to fasten lids, bend pieces, wall connection collars and doublers with a plate thickness of 40–60 mm.

St G

Type	For Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
604 3 G	3	4,5x6	0.7	100	0.052	1003038
604 4 G	4	4,5x6	0.7	100	0.067	1003046
604 5 G	5	4,5x6	0.7	100	0.084	1003054
604 6 G	6	4,5x6	0.7	100	0.099	1003062
604 7 G	7	4,5x6	0.7	100	0.120	1003070
604 8 G	8	4,5x6	0.7	100	0.123	1003089
604 9 G	9	4,5x6	0.7	100	0.139	1003097
604 10 G	10	4,5x6	0.7	100	0.150	1003100
604 11 G	11	4,5x6	1	100	0.270	1003119
604 12 G	12	4,5x6	0.7	100	0.240	1003127
604 13 G	13	4,5x6	1	100	0.280	1003135
604 16 G	16	4,5x6	1	100	0.348	1003178
604 19 G	19	4,5x6	1	100	0.411	1003194
604 20 G	20	4,5x6	1	100	0.431	1003208
604 21 G	21	4,5x6	1	100	0.447	1003216
604 23 G	23	4,5x6	1	100	0.490	1003232
604 25 G	25	4,5x6	1	100	0.900	1003259
604 28 G	28	4,5x6	1	100	0.874	1003283
604 32 G	32	5,5x7	1	100	1.462	1003321
604 35 G	35	5,5x7	1.5	100	1.355	1003356
604 37 G	37	5,5x7	1.5	100	1.567	1003372
604 40 G	40	5,5x7	1.5	100	1.860	1003402
604 47 G	47	5,5x7	1.5	50	2.484	1003461

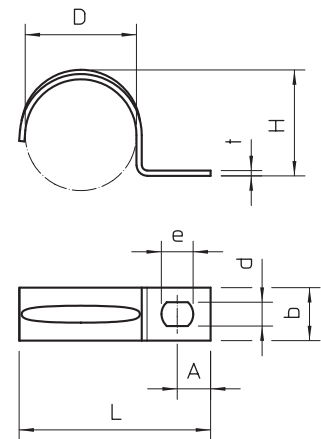
Single-lobe fastening clip for cables and pipes.

* Sizes 3 and 4 are not suitable for nail device

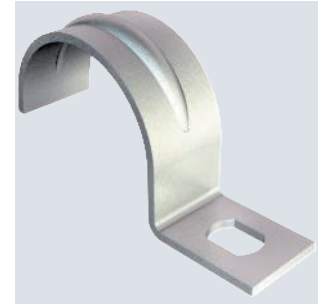
* Sizes 3 to 21 are not suitable for bolt-firing tool

Type	Dim. L mm	Dim. A mm	Dim. e mm	Dim. d mm	Dim. b mm	Dim. D mm	Dim. t mm	Dim. H mm
604 3 G	12	4	6	4.5	7	3	0.7	2.4
604 4 G	14	4	6	4.5	7	4	0.7	3.3
604 5 G	16.5	5	6	4.5	7	5	0.7	4.5
604 6 G	17.5	5	6	4.5	8	6	0.7	5.2
604 7 G	19.5	5	6	4.5	8	7	0.7	6.5
604 8 G	21	5.5	6	4.5	8	8	0.7	7
604 9 G	21.5	5.75	6	4.5	8	9	0.7	8
604 10 G	22	5	6	4.5	8	10	0.7	9
604 11 G	24	5.5	6	4.5	10	11	1	10
604 12 G	27	6.5	6	4.5	10	12	0.7	11
604 13 G	27	6	6	4.5	10	13	1	11.5
604 16 G	31	6.5	6	4.5	10	16	1	14.5
604 19 G	33	6.5	6	4.5	10	19	1	17
604 20 G	35	6.3	6	4.5	10	20	1	18
604 21 G	36	6.3	6	4.5	10	21	1	19
604 23 G	39	7	6	4.5	10	23	1	21.5
604 25 G	41.34	7	6	4.5	15	25	1	23
604 28 G	45	7	6	4.5	15	28	1	24.8
604 32 G	48.82	8	7	5.5	15	32	1.5	30
604 35 G	54	8.75	7	5.5	14	35	1.5	30
604 37 G	56	7.5	7	5.5	14	37	1.5	34
604 40 G	63	10.5	7	5.5	14	40	1.5	38
604 47 G	69	10	7	5.5	14	47	1.5	43.8

Dimensions



Fastening clip 604, light duty

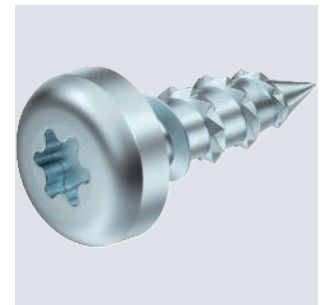
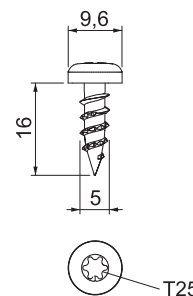


St GTP

Type	Dimen- sion mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
KRS 5x16	5 x 16	Torx	100	0.240	3498096

Bolt with special milling ribs for PYROLINE® Con D and PYROLINE® Con S fire protection ducts, to fasten cable clips in the duct. Required plate thickness: At least 15 mm.

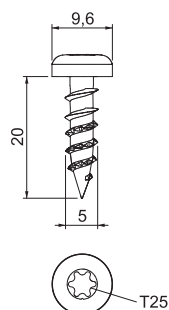
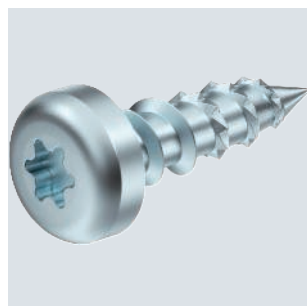
Bolt for cable fastening





Bolt for cable fastening

St GTP



Type	Dimension mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
KRS 5x20	5 x 20	Torx	100	0.260	3498098

Bolt with special milling ribs for PYROLINE® Con D and PYROLINE® Con S fire protection ducts, to fasten cable clips in the duct. Required plate thickness: At least 20 mm.

Fire protection duct mortar

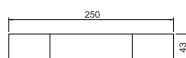


Type	Contents kg	Pack Piece	Weight kg/100 pc.	Item no.
KTM	3.5	1	350.000	7215500

Dried mortar in a bucket for filling joints and small cracks when mounting the PYROLINE® Con D and PYROLINE® Con S fire protection ducts.

Identification plate for installation duct

PVC

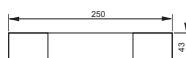


Type	Language	Pack Piece	Weight kg/100 pc.	Item no.
KS-K DE	German	10	0.600	7214734

Self-adhesive identification plate for the labelling of an approved cable duct as an installation duct as required by DIN 4102 Part 11.

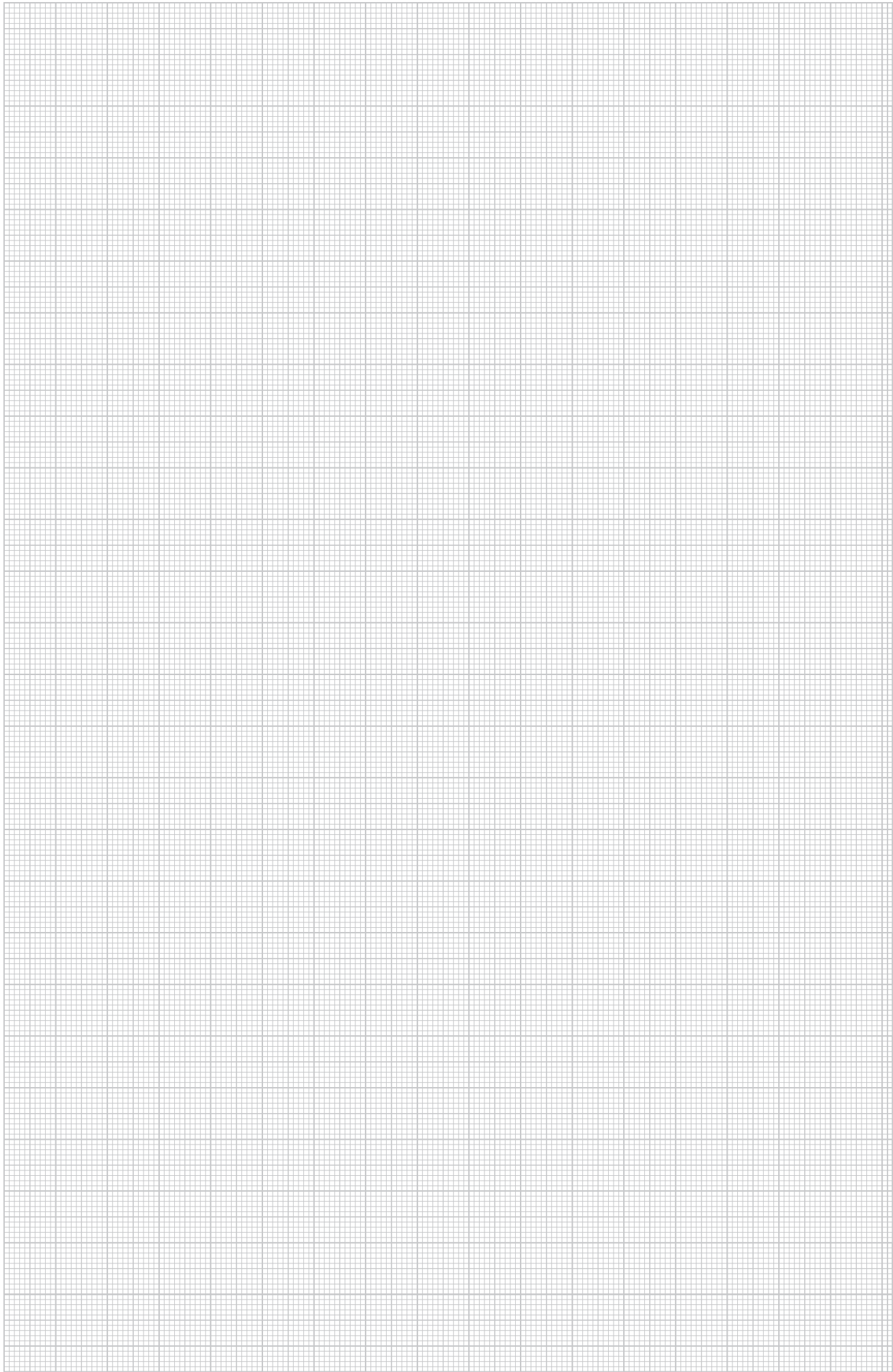
Identification plate for maintenance of electrical function

PVC



Type	Language	Pack Piece	Weight kg/100 pc.	Item no.
KS-E DE	German	10	0.600	7205423

Self-adhesive identification plate for approved cable system labelling for maintenance of electrical function as required by DIN 4102 Part 12.





PYROLINE® Con S



PYROLINE® Con S concrete fire protection duct

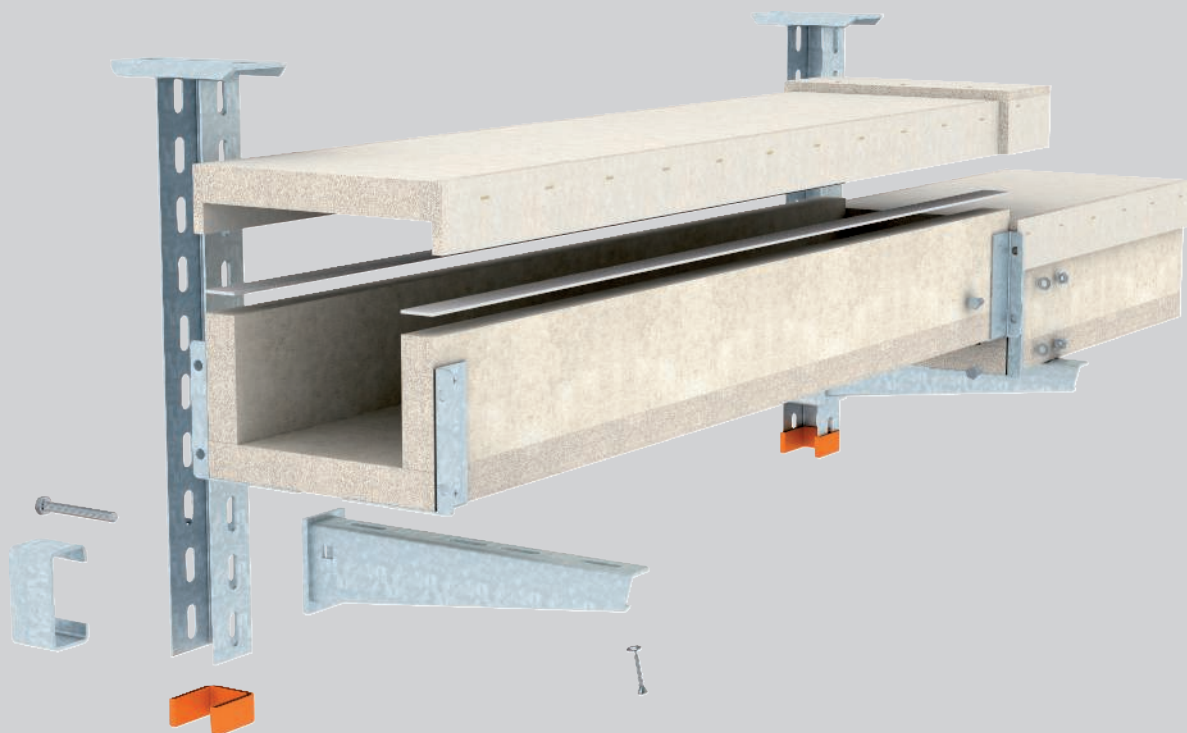
36



PYROLINE® Con S

Fire protection duct for suspended mounting

System description



The PYROLINE® Con S, like the PYROLINE® Con D, fire protection duct consists of fibreglass lightweight concrete fire protection plates which are resistant to water and frost. The OBO PYROLINE® Con S is used as an I duct to protect escape and rescue routes against the effects of a possible cable fire. This means that the escape and rescue routes remain free from fire, smoke and heat. As an E duct, it allows maintenance of the electrical

function of the safety-relevant circuits. The fire protection duct can be installed on wall brackets or on one of the support systems suspended from the ceiling. Mounted connectors permit quick connection of the duct sections in situ, while loosely placed covers permit quick inspection and reassignment. The duct allows elegant avoidance of objects from other areas such as heating, ventilation and sanitary applications.

PYROLINE® Con S

Fire protection duct for suspended mounting

Installation principle



Suspended ceiling mounting as I duct.



Wall mounting as I duct.



Mounting as E duct with additional threaded rod locking.



Secure joint connection by screwing on the pre-mounted armatures.



Loose-fitting lid for quick inspection and retro-assignment.



Pre-mounted standard fittings in the section.

Classification according to DIN 4102 part 11 and part 12

I90

E30

Installation duct made of fibreglass reinforced lightweight concrete

Fire resistance class	I90 Installation in escape routes	E30 Maintenance of electrical functionality
Proof of application	General construction test certificate of the materials testing institute iBMB MPA Braunschweig	General construction test certificate of the materials testing institute iBMB MPA Braunschweig
Approval number	P-3109/0998-MPA BS	P-3320/381/14-MPA BS
Testing standard	DIN 4102 Part 11	DIN 4102 Part 12

The data in the named proofs of applicability applies.

PYROLINE® Con S I90/E30 protection duct



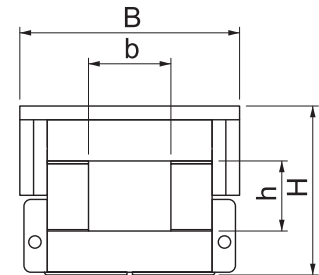
Type	Length mm	Pack m	Weight kg/100 m	Item no.
BSKH09-K0506	1000	1	1,457.000	7215175
BSKH09-K0511	1000	1	1,712.000	7215179
BSKH09-K0521	1000	1	2,456.000	7215183
BSKH09-K1021	1000	1	2,837.000	7215187

Fire protection duct made from water and frost-proof fibreglass lightweight concrete of building material class A1 according to EN 13501-1 for fireproof laying of cables in rescue and emergency routes, and for the maintenance of electrical functionality of safety-relevant systems. Classification I90 as I duct according to DIN 4102 Part 11 and classification E30 as E duct according to DIN 4102 Part 12.

Mounting of the duct on wall brackets or as ceiling mounting with suspended supports and brackets or on a U transverse profile suspended with threaded rods. Mounted connectors ensure quick mounting in situ, whilst loosely placed covers ensure quick inspection and reassignment.

Fire protection duct with cover and pre-mounted connection fittings, connection crews, sealing strips.

Dimensions



Type	Dim. h mm	Dim. b mm	Dim. H mm	Dim. B mm
BSKH09-K0506	50	60	140	188
BSKH09-K0511	50	110	140	238
BSKH09-K0521	50	210	140	338
BSKH09-K1021	105	210	195	338

90° bend for PYROLINE® Con S I90/E30 fire protection duct

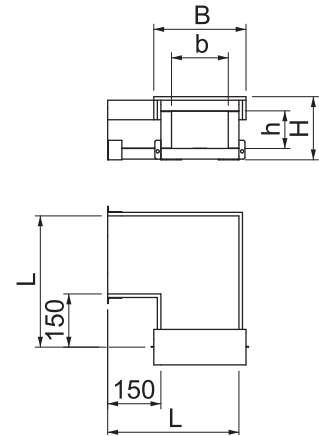


Type	Pack Piece	Weight kg/100 pc.	Item no.
BSKH09-B0506	1	705.000	7215604
BSKH09-B0511	1	926.000	7215608
BSKH09-B0521	1	1,512.000	7215612
BSKH09-B1021	1	1,736.000	7215616

90° bend for PYROLINE® Con S I90/E30 fire protection duct, consisting of fibreglass lightweight concrete which is resistant to water and frost for the creation of horizontal changes of direction of the duct. Mounted connectors ensure quick mounting in situ, whilst loosely placed covers ensure quick inspection and reassignment.

Including connection screws and sealing strip.

Dimensions



Type	Dim. b mm	Dim. h mm	Dim. B mm	Dim. H mm	Dim. L mm
BSKH09-B0506	60	50	188	140	290
BSKH09-B0511	110	50	238	140	340
BSKH09-B0521	210	50	338	140	440
BSKH09-B1021	210	105	338	195	440

T piece for PYROLINE® Con S I90/E30 fire protection duct

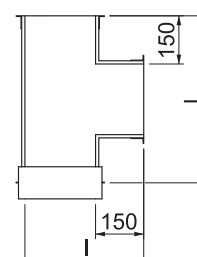
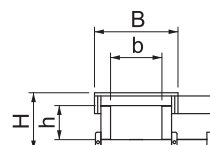
Type	Pack Piece	Weight kg/100 pc.	Item no.
BSKH09-T0506	1	921.000	7215633
BSKH09-T0511	1	1,175.000	7215637
BSKH09-T0521	1	1,812.000	7215641
BSKH09-T1021	1	2,059.000	7215645

T piece for PYROLINE® Con S I90/E30 fire protection duct, consisting of fibreglass light-weight concrete which is resistant to water and frost, for the creation of T branches of the duct. Mounted connectors ensure quick mounting in situ, whilst loosely placed covers ensure quick inspection and reassignment. Including connection screws and sealing strip.



Type	Dim. b mm	Dim. h mm	Dim. B mm	Dim. H mm	Dim. L mm
BSKH09-T0506	50	60	188	140	440
BSKH09-T0511	110	50	238	140	490
BSKH09-T0521	210	50	338	140	590
BSKH09-T1021	210	105	338	195	590

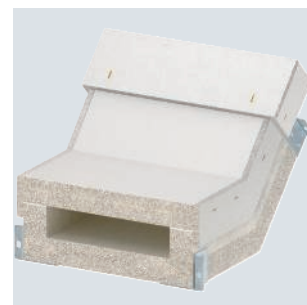
Dimensions



Rising vertical bend for PYROLINE® Con S I90/E30 fire protection duct

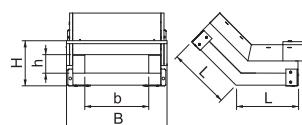
Type	Pack Piece	Weight kg/100 pc.	Item no.
BSKH09-VS0506	1	548.000	7215650
BSKH09-VS0511	1	648.000	7215652
BSKH09-VS0521	1	905.000	7215654
BSKH09-VS1021	1	1,066.000	7215656

Rising vertical bend for PYROLINE® Con S I90/E30 fire protection duct, consisting of fibreglass lightweight concrete which is resistant to water and frost for the creation of vertical changes of direction (45°) of the duct. Mounted connectors ensure quick mounting in situ, whilst loosely placed covers ensure quick inspection and reassignment. Including connection screws and sealing strips.



Type	Dim. b mm	Dim. h mm	Dim. B mm	Dim. H mm	Dim. L mm
BSKH09-VS0506	60	50	188	140	204
BSKH09-VS0511	110	50	238	140	204
BSKH09-VS0521	210	50	338	140	204
BSKH09-VS1021	210	105	338	195	227

Dimensions



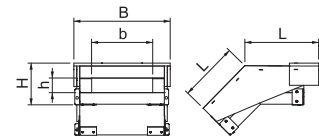
Falling vertical bend for PYROLINE® Con S I90/E30 fire protection duct



Type	Pack Piece	Weight kg/100 pc.	Item no.
BSKH09-VF0506	1	577.000	7215660
BSKH09-VF0511	1	678.000	7215662
BSKH09-VF0521	1	925.000	7215664
BSKH09-VF1021	1	1,414.000	7215666

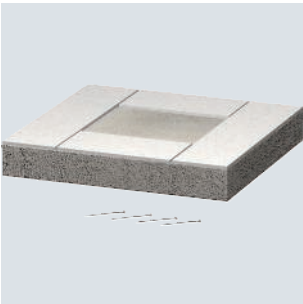
Falling vertical bend for PYROLINE® Con S I90/E30 fire protection duct, consisting of fibreglass lightweight concrete which is resistant to water and frost for the creation of vertical changes of direction (45°) of the duct. Mounted connectors ensure quick mounting in situ, whilst loosely placed covers ensure quick inspection and reassignment. Including connection screws and sealing strips.

Dimensions



Type	Dim. b mm	Dim. h mm	Dim. B mm	Dim. H mm	Dim. L mm
BSKH09-VF0506	60	50	188	140	202
BSKH09-VF0511	110	50	238	140	202
BSKH09-VF0521	210	50	338	140	202
BSKH09-VF1021	210	105	338	195	226

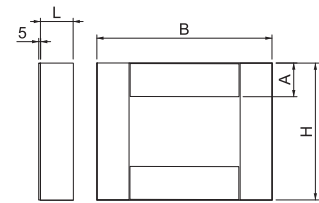
End piece for PYROLINE® Con S I90/E30 fire protection duct



Type	Pack Piece	Weight kg/100 pc.	Item no.
BSKH09-E0506	1	56.000	7215591
BSKH09-E0511	1	75.000	7215593
BSKH09-E0521	1	116.000	7215595
BSKH09-E1021	1	159.000	7215597

End piece for PYROLINE® Con S fire protection duct, consisting of fibreglass lightweight concrete which is resistant to water and frost for closing the duct ends. Including countersunk head screws and stuck-on sealing strip.

Dimensions



Type	Dim. B mm	Dim. H mm	Dim. L mm	Dim. A mm
BSKH09-E0506	140	133	40	40
BSKH09-E0511	190	133	40	40
BSKH09-E0521	290	133	40	40
BSKH09-E1021	290	188	40	40

St FS

Type	Dimen- sion mm	Pack Piece	Weight kg/100 pc.	Item no.
KVS-1	58x58x40	1	22.000	7215381

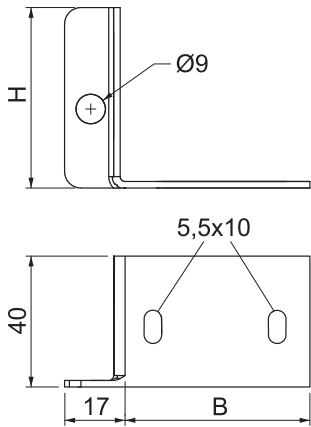
Connection set as spare part for the PYROLINE® Con S fire protection duct, type BSKH09-K0506 and BSKH09-K0511, along with the matching fittings, consisting of one connection plate on the left and one on the right.

Type	Dim. B mm	Dim. H mm
KVS-1	58	55

KVS-1 connection set



Dimensions



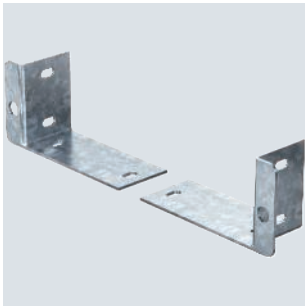
St FS

Type	Dimen- sion mm	Pack Piece	Weight kg/100 pc.	Item no.
KVS-3	90x55x40	1	26.000	7215385

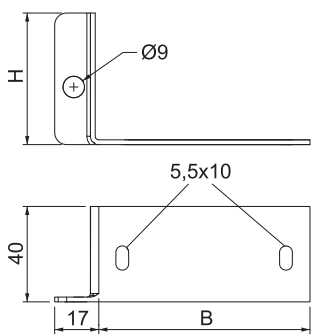
Connection set as spare part for the PYROLINE® Con S fire protection duct, type BSKH09-K0521, along with the matching fittings, consisting of one connection plate on the left and one on the right.

Type	Dim. B mm	Dim. H mm
KVS-3	90	55

KVS-3 connection set



Dimensions



KVS-4 connection set

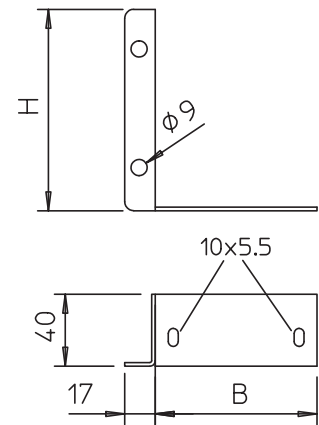
St FS



Type	Dimen- sion	Pack Piece	Weight kg/100 pc.	Item no.
	mm			
KVS-4	112x90x40	1	40.000	7215389

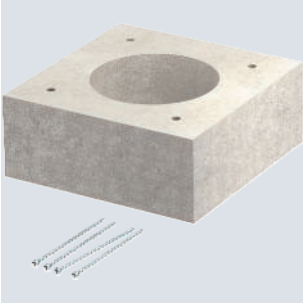
Connection set as spare part for the PYROLINE® Con S fire protection duct, type BSKH09-K1021, type PLCS D061220 and type PLCS D091220, along with the matching fittings, consisting of one connection plate on the left and one on the right.

Dimensions



Type	Dim. B	Dim. H
	mm	mm
KVS-4	90	112

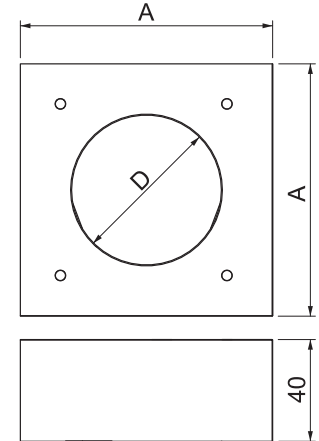
Doubler for PYROLINE® Con fire protection duct



Type		Pack Piece	Weight kg/100 pc.	Item no.
KAD-8040		1	28.000	7215464
KAD-10040		1	44.000	7215462

Doubler for running individual cables and cable bundles out of the side wall of the PYROLINE® Con D and PYROLINE® Con S fire protection duct.

Dimensions



Type	Dim. A	Dim. D
	mm	mm
KAD-8040	80	40
KAD-10040	100	60

Insulation layer creator in a cartridge

Type	Contents ml	Pack Piece	Weight kg/100 pc.	Item no.
DSX-K	300	1	50.000	7202300

Dispersion-based fire protection compound for interior areas, to fill residual joints and close openings. Approved material for the closing of core drill holes when feeding through single cables and for closing the annular gap when exiting cables from the PYROLINE® Con PLC fire protection duct. Material class DIN 4102 - B2, normally flammable. In dry, frost-free rooms, the compound can be stored at temperatures from +5 °C to +25 °C for up to 18 months in closed, upright original containers.



Sealing strip

Type	Dimen- sion mm	Length mm	Pack Piece	Weight kg/100 pc.	Item no.
KDS-40	5x40x7500	7500	1	18.100	7215436

Self-adhesive sealing strip for mounting in the joints of the individual duct sections and for the seal between the base and cover of the PYROLINE® Con D and PYROLINE® Con S fire protection ducts.

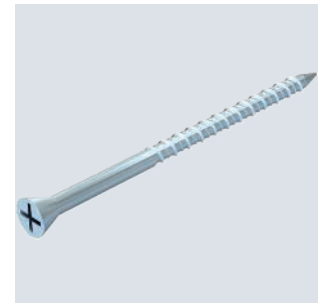
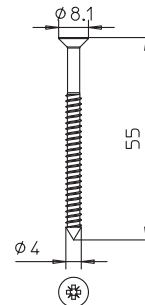


St G

Countersunk head screw for PYROLINE® Con fire protection ducts

Type	Dimen- sion mm	Pack Piece	Weight kg/100 pc.	Item no.
KSS 4.0x55	4,0x55	50	0.340	7215400

Countersunk head screw as spare part for PYROLINE® Con fire protection ducts, to fasten lids, end pieces, wall connection collars and doublers with a plate thickness of 30 mm maximum.



Fire protection duct mortar

Type	Contents kg	Pack Piece	Weight kg/100 pc.	Item no.
KTM	3.5	1	350.000	7215500

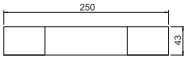
Dried mortar in a bucket for filling joints and small cracks when mounting the PYROLINE® Con D and PYROLINE® Con S fire protection ducts.





Identification plate for installation duct

PVC

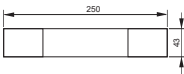


Type	Language		Pack	Weight	Item no.
			Piece	kg/100 pc.	
KS-K DE	German		10	0.600	7214734

Self-adhesive identification plate for the labelling of an approved cable duct as an installation duct as required by DIN 4102 Part 11.

Identification plate for maintenance of electrical function

PVC

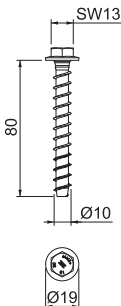


Type	Language		Pack	Weight	Item no.
			Piece	kg/100 pc.	
KS-E DE	German		10	0.600	7205423

Self-adhesive identification plate for approved cable system labelling for maintenance of electrical function as required by DIN 4102 Part 12.

Mounting systems

MMS-plus SS hexagonal tie, with pressed washer

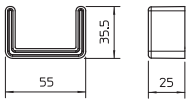


Type	Dimen- sion mm	Dim. L mm	Drill hole		Pack Piece	Weight kg/100 pc.	Item no.
			Ø mm	SW mm			
MMS+ SS 10x80	10x80	80	8	13	25	4.000	3498124

Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With hex head drive and pressed washer to accept large loads. Suitable for fastening suspended loads from suspended supports and wall brackets. Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.

Protective cap

PE



Type	Colour	Pack Piece	Weight kg/100 pc.	Item no.
US 3 KS OR	Pastel orange	20	1.068	6338458

Protective cap to cover the ends of US 3 supports.

Wall and support bracket AW 15

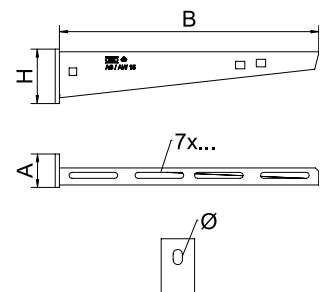
St FT



Type	Width mm	Dim. H mm	Dim. A mm	Dim. B mm	Hole Ø mm	BS	Pack Piece	Weight kg/100 pc.	Item no.
AW 15 16 FT	160	55	40	160	11		1	20.000	6420664
AW 15 21 FT	210	60	40	210	11		1	24.000	6420680
AW 15 31 FT	310	65	40	310	11		1	38.400	6420710

Light-duty wall and support bracket with welded head plate.

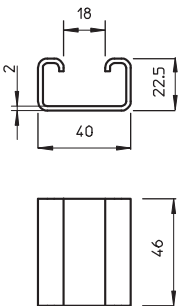
Dimensions



Type	Dim. B mm	Dim. A mm	Dim. H mm
AW 15 16 FT	160	40	55
AW 15 21 FT	210	40	60
AW 15 31 FT	310	40	65

DSK 25 spacer

St FT



Type	Pack Piece	Weight kg/100 pc.	Item no.
DSK 25 FT	20	7.500	6416446

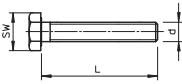
Spacer for use in US 3 supports.



St F

Type	Dimension mm	Dim. L mm	Dim. d mm	SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
SKS 10x80 F	M 10x80	80	10	17	8.8	20	7.700	6418250

Hexagonal bolt for universal fastening of construction components. With hexagonal nut and 2 washers.



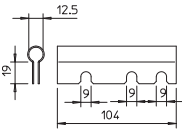
Hexagonal bolt M10



St FS

Type	Pack Piece	Weight kg/100 pc.	Item no.
KGA	1	5.700	7215395

Adapter to accept threaded rods for the PYROLINE® Con S BSKH application as an E duct for the maintenance of electrical function. The adapter is fastened to the duct connectors.



Threaded rod adapter E30



St G

Type	Thread	Dim. d mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
TR M10 1M G	M10	10	1000	10	49.000	3141209

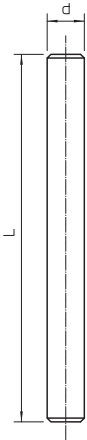
Threaded rod to DIN 976.

Threaded rod



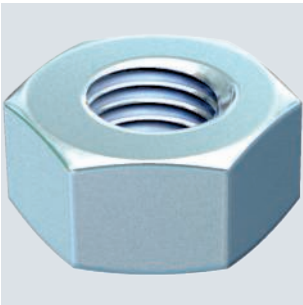
Type	Dim. d mm	Dim. L mm
TR M10 1M G	10	1000

Dimensions



Hexagonal nut DIN 934

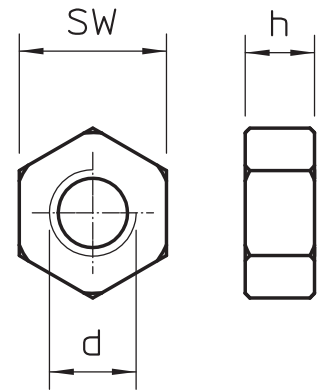
St G



Type	Thread	SW mm	Dim. h mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
HN M10 G	M10	17	8.4	10	100	1.014	3400107

Hexagonal nut to DIN 934 with metric thread.

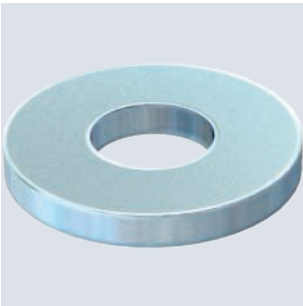
Dimensions



Type	Dim. h mm	Dim. d mm
HN M10 G	8.4	10

Washer

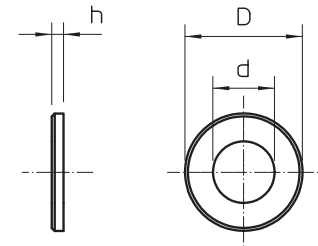
St G



Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
WS M10 D20 G	M10	10.5	20	2	100	0.408	3402096

Washer according to DIN 125, shape A, for universal use.

Dimensions



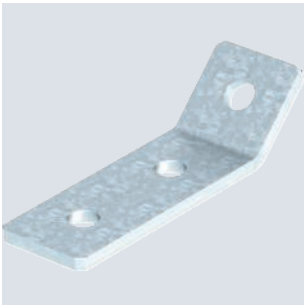
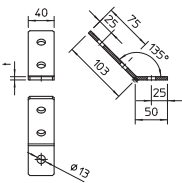
Type	Dim. d mm	Dim. D mm	Dim. h mm
WS M10 D20 G	10.5	20	2

St FT

Mounting bracket, 45° with 3 holes

Type	Version	Shipping box Piece	Pack Piece	Weight kg/100 pc.	Item no.
GMS 3 VW 45 FT	45° angle	40	10	24.010	1124667

Mounting bracket with three holes to connect profile rails 41 x 41 mm and 41 x 21 mm at an angle of 45°.



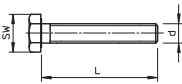
St ZL

CE

Hexagonal bolt DIN 933

Type	Thread	Dimen- sion mm	Dim. L mm	Dim. d mm	SW mm	Pack Piece	Weight kg/100 pc.	Item no.
SKS M6x30 ZL	M6	M6x30	30	6	10	100	0.780	3156710

Hexagonal bolt according to DIN 933 with metric thread. Resistance grade at least 8.8.

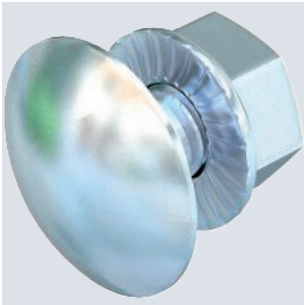
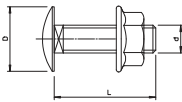


St F

Truss-head bolt with flange nut

Type	Dimen- sion mm	Dim. L mm	Dim. d mm	Dim. D mm	Resist- ance grade	Pack Piece	Weight kg/100 pc.	Item no.
FRSB 6x16 F	M6x16	16	6	13.5	5.6	100	0.890	6406157

Truss-head bolt with square neck including flange nut.

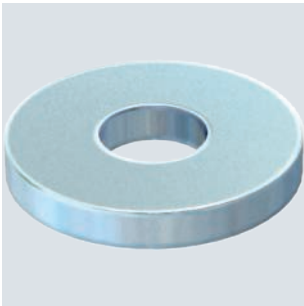
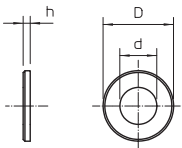


St G

Washer ISO 7093

Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
WS M6 D28 G	M6	6.5	28	2.5	100	1.104	3402207
WS M10 D28 G	M10	11	28	2.5	100	1.020	3402223

Washer of large outer diameter for universal use.



Separating retainer 45

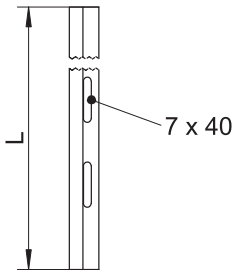
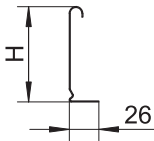
St FS



Type	Metal thick- ness mm	Pack		Weight kg/100 m	Item no.
		m			
TSG 45 FS	0.75	3		46.700	6062033

Separating retainer for separation of cables of different voltages or functions.

Dimensions



Type	Dim. H mm	Dim. L mm
TSG 45 FS	45	3000

Separating retainer 85

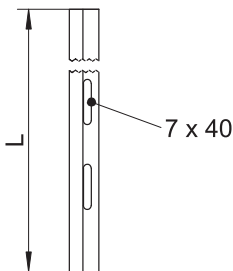
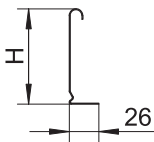
St FS



Type	Metal thick- ness mm	Pack		Weight kg/100 m	Item no.
		m			
TSG 85 FS	0.75	3		70.233	6062114

Separating retainer for separation of cables of different voltages or functions.

Dimensions



Type	Dim. H mm	Dim. L mm
TSG 85 FS	85	3000

St GTP

Bolt for separating retainer fastening

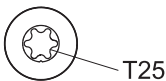
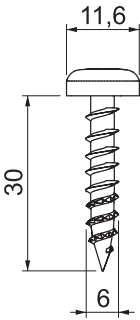
Type	Dimen- sion mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
KRS 6x30	6x30	Torx	200	0.276	3498100

Bolt with special milling ribs for PYROLINE® Con S fire protection ducts, to fasten separating retainers in the duct.



Type	Dim. L mm	Dim. D mm	Dim. d mm
KRS 6x30	30	11.6	6

Dimensions

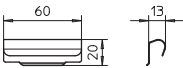


VA 2B

Separating retainer connector

Type	Pack Piece	Weight kg/100 pc.	Item no.
TSGV A2	10	0.899	6067970

Separating retainer connector for screwless connection of the TSG separating retainer in all side heights.





PYROLINE® Sun PV



PYROLINE® Sun PV concrete fire protection duct

54



PYROLINE® Sun PV

Concrete photovoltaic duct for direct and suspended mounting

System description



The PYROLINE® Sun PV fire protection duct is the ideal fire protection duct for fireproof routing of photovoltaic DC cables. If there is a fire, its non-conductive surface ensures protection against dangerous contact voltages. In addition, the duct fulfils the requirements as an I duct according to DIN 4102 Part 11 for cable installations in emergency and escape routes. In addition, it meets the requirements of the VDE application rule AR

2100-712. The fire protection duct can be installed directly on the wall or the ceiling. The appropriate connection armatures mean that suspended mounting is also possible. The duct is made of water and frost-resistant fibreglass lightweight concrete fire protection plates (non-combustible, material class A1), meaning that it is suitable for external areas.

PYROLINE® Sun PV
Concrete photovoltaic duct for direct and suspended mounting
Installation principle



Direct wall and ceiling mounting.



Flexible duct routing through individually creatable fittings.



Can be painted or papered over, to permit discreet integration in the building.



Suspended mounting on the connector elements.



Contact protection begins directly with the converter.



Labelling according to the VDE application rule.

Classification according to DIN 4102 Part 11



Installation duct made of fibreglass reinforced lightweight concrete

Fire resistance class	I30 Installation in escape routes
Proof of application	General construction test certificate of the materials testing institute iBMB MPA Braunschweig
Approval number	P-3109/0998-MPA BS
Testing standard	DIN 4102 Part 11
Photovoltaic application	According to VDE application rule for fireproof routing of PV-DC cables

The data in the named proofs of applicability applies.



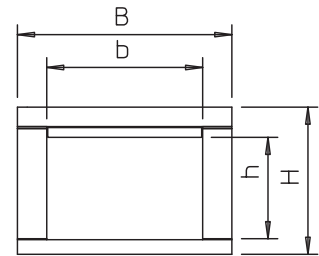
PYROLINE® Sun PV I30 fire protection duct



Type	Length mm	Pack m	Weight kg/100 m	Item no.
BSKP03-K0406	1000	1	529.000	7214701

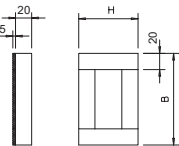
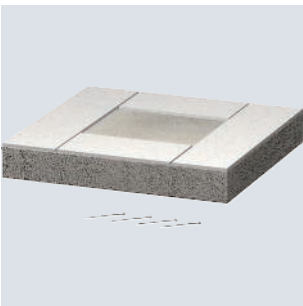
Fire protection duct made from water and frost-proof fibreglass lightweight concrete of building material class A1 according to EN 13501-1 for fireproof laying of photovoltaic cables inside and outside of buildings. The requirements of accidental contact protection for emergency forces are met. Classification I30 as I duct according to DIN 4102 Part 11 for the protection of rescue and emergency routes.
Mounting of the duct directly on walls or under ceilings and on support systems.
Including countersunk head screws and sealing strip.

Dimensions



Type	Dim. h mm	Dim. b mm	Dim. H mm	Dim. B mm
BSKP03-K0406	40	60	85	100

End piece for PYROLINE® Sun PV fire protection duct



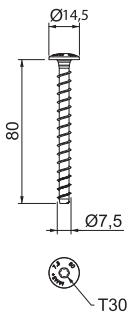
Type	Dim. B mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
BSKP03-E0406	100	85	1	24.000	7214706

End piece for PYROLINE® Sun PV fire protection duct, consisting of fibreglass lightweight concrete which is resistant to water and frost for closing the duct ends.
Including countersunk head screws and stuck-on sealing strip.

Accessories

MMS-plus P round head tie, with panhead

St G



Type	Dimen- sion mm	Drill hole Ø mm	Head Ø mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
MMS+ P 7.5x80	7,5x80	6	14,5	Torx	50	1.600	3498272

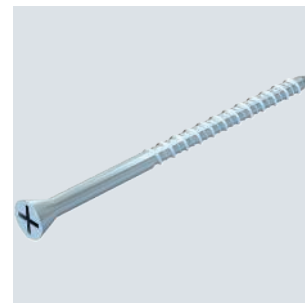
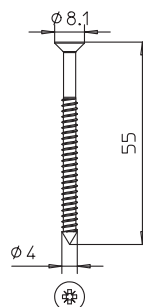
Bolt tie for direct mounting without additional anchors in cracked and uncracked concrete and masonry. With round head for universal fastenings. Torx drive T30.
Construction product tested according to EAD and CE mark, with European Technical Assessment (ETA) and proof of suitability. Load-bearing capacities under fire loads proven up to fire resistance class R120.

St G

Countersunk head screw for PYROLINE® Con fire protection ducts

Type	Dimension mm	Pack Piece	Weight kg/100 pc.	Item no.
KSS 4.0x55	4,0x55	50	0.340	7215400

Countersunk head screw as spare part for PYROLINE® Con fire protection ducts, to fasten lids, end pieces, wall connection collars and doublers with a plate thickness of 30 mm maximum.



St FS

Cable bracket, vertical, for PYROLINE® fire protection ducts

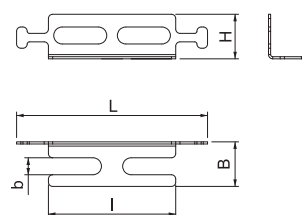
Type	Pack Piece	Weight kg/100 pc.	Item no.
LHS 20	10	1.345	7215288

Universal cable bracket for the vertical installation of cables in PYROLINE® Con fire protection ducts made of fibreglass-reinforced, lightweight concrete, as well as PYROLINE® Rapid made of sheet steel with an internal coating. The holders are plugged over the head of the loosened fastening screw and then screwed tight to it. The cables can be fastened using cable ties on the lugs or in the slots of the holder. This safely supports the cable weight. Plan at least two cable brackets per metre during installation.



Type	Dim. H mm	Dim. B mm	Dim. L mm	Dim. I mm	Dim. b mm
LHS 20	21	21	90	60	8

Dimensions

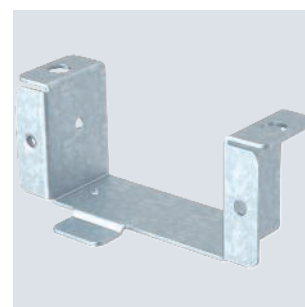
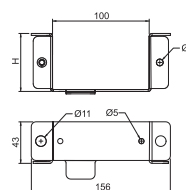


St FS

Connector for suspended mounting

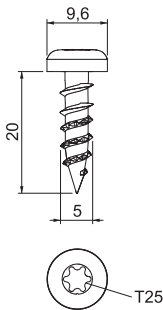
Type	Pack Piece	Weight kg/100 pc.	Item no.
BSKP03-V0406	1	22.000	7214715

Connector for use of the fire protection duct BSKP 0406, as suspended variant. The set contains 2 connectors and the appropriate quantity of fastening and connection screws.



Bolt for cable fastening

St GTP

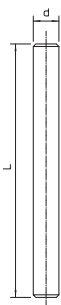
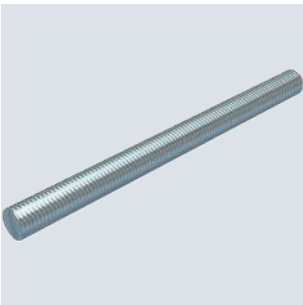


Type	Dimension mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
KRS 5x20	5 x 20	Torx	100	0.260	3498098

Bolt with special milling ribs for PYROLINE® Con D and PYROLINE® Con S fire protection ducts, to fasten cable clips in the duct. Required plate thickness: At least 20 mm.

Threaded rod

St G

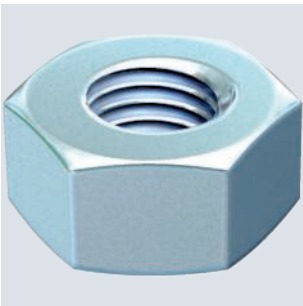


Type	Thread	Dim. d mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
TR M10 1M G	M10	10	1000	10	49.000	3141209

Threaded rod to DIN 976.

Hexagonal nut DIN 934

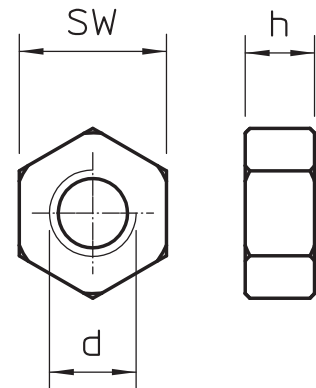
St G



Type	Thread	SW mm	Dim. h mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
HN M10 G	M10	17	8.4	10	100	1.014	3400107

Hexagonal nut to DIN 934 with metric thread.

Dimensions



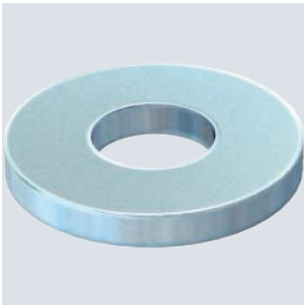
Type	Dim. h mm	Dim. d mm
HN M10 G	8.4	10

St G

Type	Thread	Dim.	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
		d mm	D mm	h mm			
WS M10 D20 G	M10	10.5	20	2	100	0.408	3402096

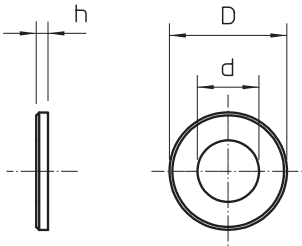
Washer according to DIN 125, shape A, for universal use.

Washer



Type	Dim.	Dim.	Dim.
	d mm	D mm	h mm
WS M10 D20 G	10.5	20	2

Dimensions



Fire protection duct mortar

Type	Contents kg	Pack Piece	Weight kg/100 pc.	Item no.
KTM	3.5	1	350.000	7215500

Dried mortar in a bucket for filling joints and small cracks when mounting the PYROLINE® Con D and PYROLINE® Con S fire protection ducts.



PVC

Type	Language		Pack Piece	Weight kg/100 pc.	Item no.
KS-BSKP DE	German		1	2.400	7214725

Information panel to label the fire protection duct as a photovoltaic duct according to the VDE application rule. Including two push-fit anchors.

Identification plate



Identification plate for installation duct

PVC



Type	Language	Pack Piece	Weight kg/100 pc.	Item no.
KS-K DE	German	10	0.600	7214734

Self-adhesive identification plate for the labelling of an approved cable duct as an installation duct as required by DIN 4102 Part 11.

Fastening clip 604, light duty

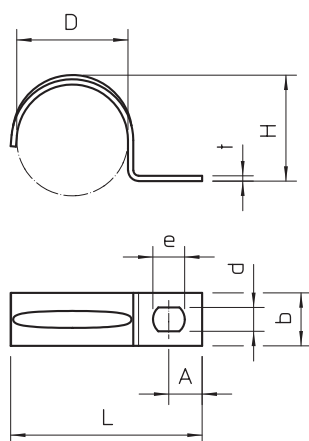
St G



Type	For Ø mm	Hole size mm	Material thickness mm	Pack Piece	Weight kg/100 pc.	Item no.
604 3 G	3	4,5x6	0.7	100	0.052	1003038
604 4 G	4	4,5x6	0.7	100	0.067	1003046
604 5 G	5	4,5x6	0.7	100	0.084	1003054
604 6 G	6	4,5x6	0.7	100	0.099	1003062
604 7 G	7	4,5x6	0.7	100	0.120	1003070
604 8 G	8	4,5x6	0.7	100	0.123	1003089
604 9 G	9	4,5x6	0.7	100	0.139	1003097
604 10 G	10	4,5x6	0.7	100	0.150	1003100

Single-lobe fastening clip for cables and pipes.
 * Sizes 3 and 4 are not suitable for nail device
 * Sizes 3 to 21 are not suitable for bolt-firing tool

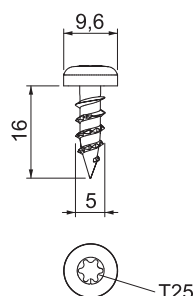
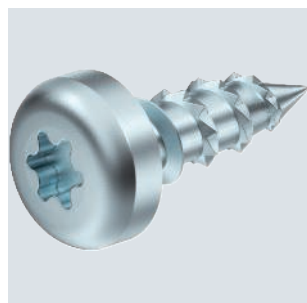
Dimensions



Type	Dim. L mm	Dim. A mm	Dim. e mm	Dim. d mm	Dim. b mm	Dim. D mm	Dim. t mm	Dim. H mm
604 3 G	12	4	6	4.5	7	3	0.7	2.4
604 4 G	14	4	6	4.5	7	4	0.7	3.3
604 5 G	16.5	5	6	4.5	7	5	0.7	4.5
604 6 G	17.5	5	6	4.5	8	6	0.7	5.2
604 7 G	19.5	5	6	4.5	8	7	0.7	6.5
604 8 G	21	5.5	6	4.5	8	8	0.7	7
604 9 G	21.5	5.75	6	4.5	8	9	0.7	8
604 10 G	22	5	6	4.5	8	10	0.7	9

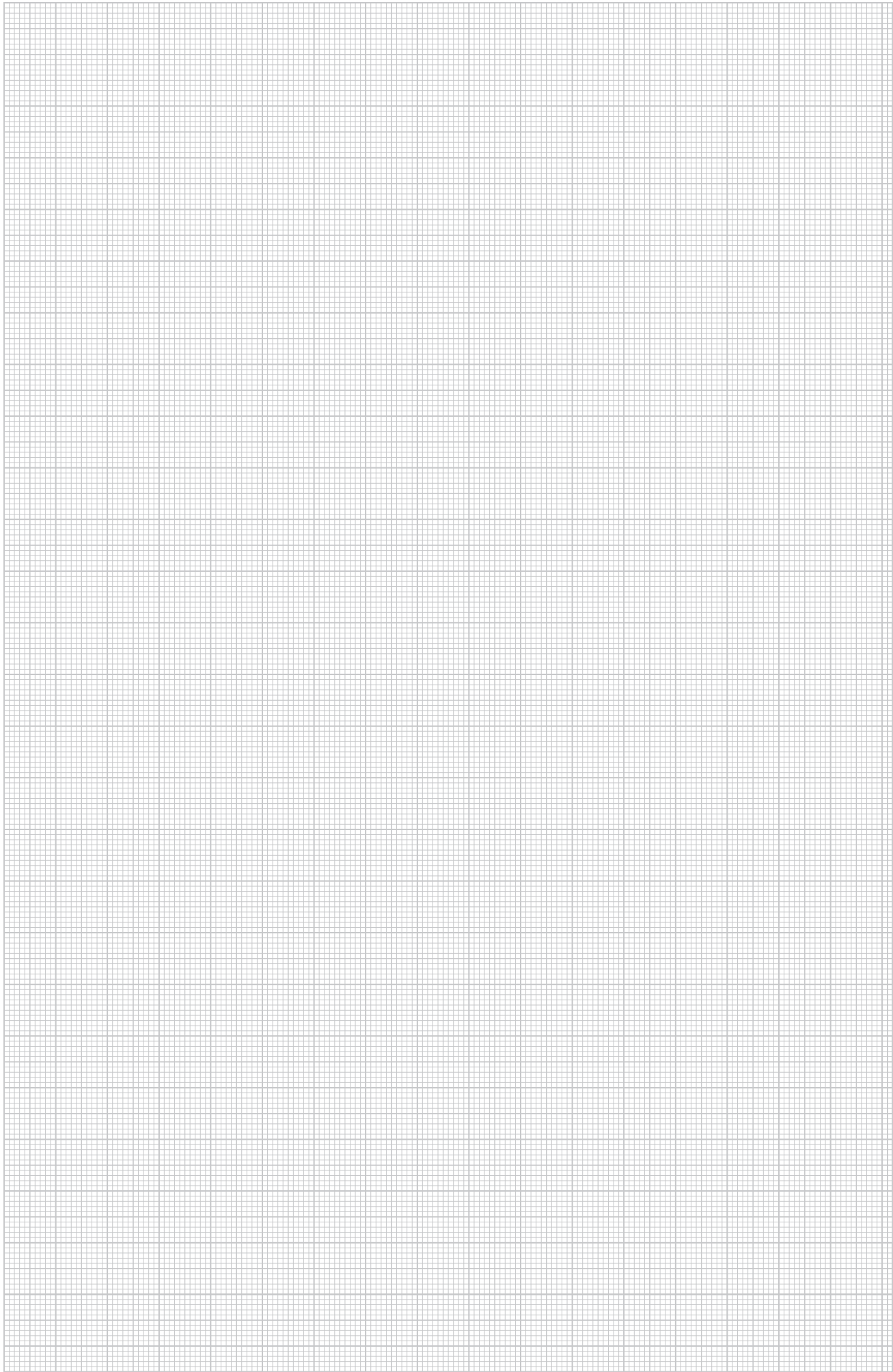
Bolt for cable fastening

St GTP



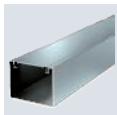
Type	Dimension mm	Screw system	Pack Piece	Weight kg/100 pc.	Item no.
KRS 5x16	5 x 16	Torx	100	0.240	3498096

Bolt with special milling ribs for PYROLINE® Con D and PYROLINE® Con S fire protection ducts, to fasten cable clips in the duct. Required plate thickness: At least 15 mm.





PYROLINE® Rapid PLM



Fire protection duct PYROLINE Rapid PLM, metal duct

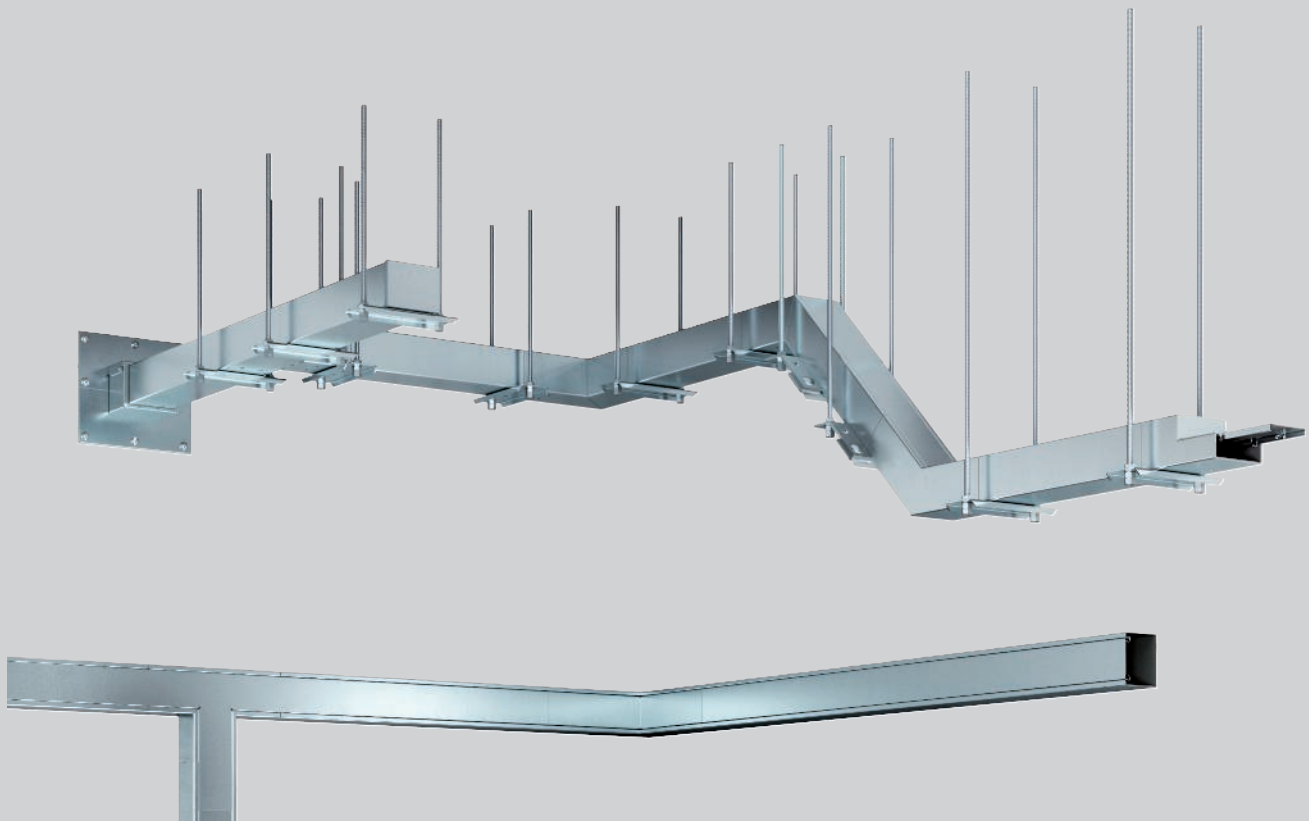
64



PYROLINE® Rapid PLM

Fire protection duct system made from metal

System description



The PYROLINE® Rapid PLM fire protection duct system is a closed system, made of sheet steel with a profiled cover closure contour, which, if there is an electrical cable fire, helps to protect the surrounding area by intumescence of the internal fire protection mesh. In the event of a fire, the fire protection mesh provides active fire load encapsulation and prevents the spread of the fire. The PYROLINE® Rapid PLM is tested as a fire-resistant electrical installation duct and fulfils the classification according to EN 13501-2 EI30 (ho

i→o) to E120 (ho i→o). The fire protection duct system can be installed directly on the wall or ceiling. Suspended mounting on different cable tray systems is also possible. Thanks to the innovative connection technology with the internal connector, the installation duct is sealed on the inside. This means that no external impacts at joints are visible. The connection technology also enables you to offset the duct trough and duct cover. By doing so the installation is made more stable mechanically.

PYROLINE® Rapid PLM

Fire protection duct system made from metal

Installation principle



Direct wall mounting.



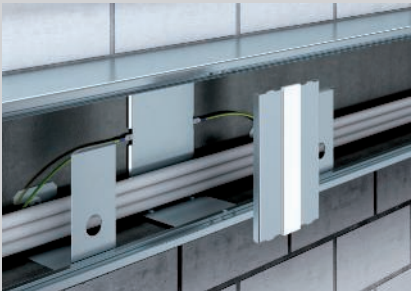
Suspended mounting on cable support systems.



Piercing of the fire protection mesh in the area of the base perforation.



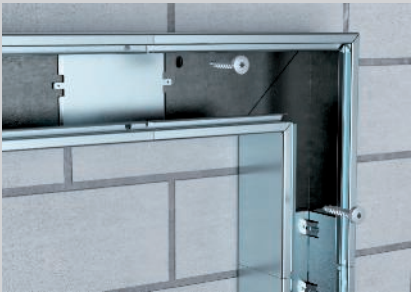
Internal connector for duct trough.



Cover support for duct cover sealing.



Offset between duct trough and duct cover.



Direct wall mounting with flat angle.



Suspended mounting with flat angle.



Room corner mounting.

Classification according EN 13501-2

EI30

EI60

EI90

E120

Installation duct made from metal with active fire behaviour

Fire resistance class	EI30 (ho i↔o), EI60 (ho i↔o), EI90 (ho i↔o), E120 (ho i↔o)
Proof of application	European Technical Assessment, ETA-Danmark
Testing standard	EN 1366-5

Installation duct with PYROLINE® Rapid PLM fire protection mesh, duct height 44 mm

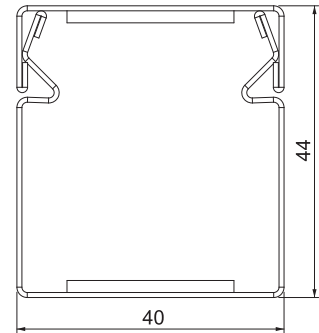
St FS P



Type	Colour	Dim. B mm	Dim. H mm	Dim. L mm	Pack m	Weight kg/100 m	Item no.
PLM D 0404 FS	—	40	44	2000	2	143.000	7218000
PLM D 0404 RW	Pure white	40	44	2000	2	143.000	7218002

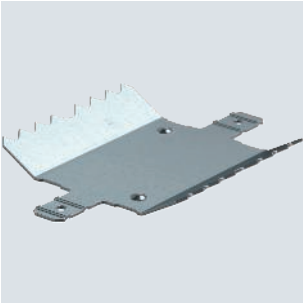
Metal installation duct with intumescent fire protection mesh for fireproof routing of cables. Classified as an installation duct EI30, EI60 and EI90 according to EN 13501-2, tested according to EN 1366-5. The duct prevents the fire spread for the classified period of time, offering protection against the effects of a cable fire. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. Only approved pre-terminated fittings may be used. The cover is snapped on without tools, allowing rapid inspection and retroassignment. Offset cover mounting for continuous equipotential bonding of the entire duct section.

Dimensions



Joint connector, duct height 44 mm

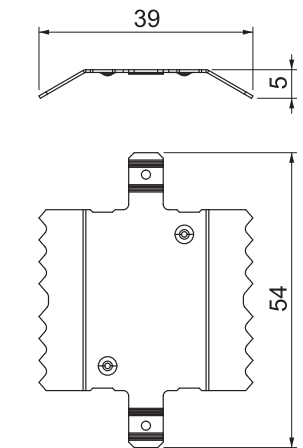
VA BK



Type	Pack Piece	Weight kg/100 pc.	Item no.
PLM SI 0404	5	0.270	7218027

Joint connector for toolless mounting of PYROLINE® Rapid PLM installation duct.

Dimensions



PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 40 mm

St FS P

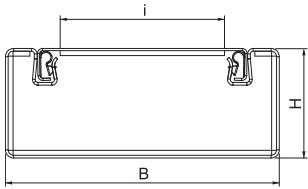
Installation duct with PYROLINE® Rapid PLM fire protection mesh, duct height 40 mm

Type	Dim.	Dim.	Dim.		Colour	Pack	Weight	Item no.
	B	H	mm	L				
PLM D 0410 FS	100	40	62	2000	—	2	—	7218004
PLM D 0410 RW	100	40	62	2000	Pure white	2	—	7218006

Metal installation duct with intumescent fire protection mesh for fireproof routing of cables. Classified as an installation duct EI30, EI60 and EI90 according to EN 13501-2, tested according to EN 1366-5. The duct prevents the fire spread for the classified period of time, offering protection against the effects of a cable fire. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. Only approved pre-terminated fittings may be used. The cover is snapped on without tools, allowing rapid inspection and retroassignment. Offset cover mounting for continuous equipotential bonding of the entire duct section.



Dimensions

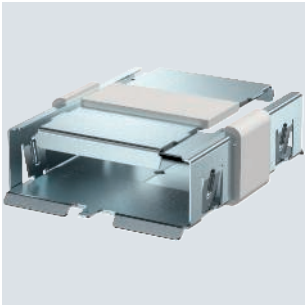


St FS

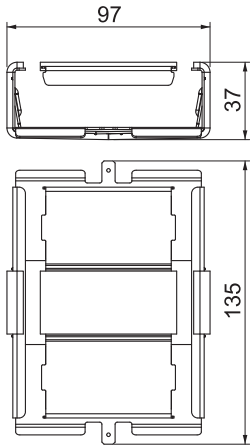
Joint connector set, duct height 40 mm

Type	Pack	Weight	Item no.
PLM SI 0410	Piece	kg/100 pc.	
	1	22.000	7218028

Joint connector set, consisting of a connector for the duct base and cover support. With integrated seal for toolless connection of the PYROLINE® Rapid PLM installation duct and fittings. Allows continuous connection of the protective conductors.



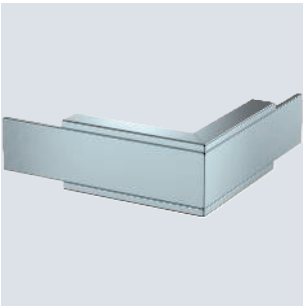
Dimensions



PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 40 mm

External corner, duct height 40 mm

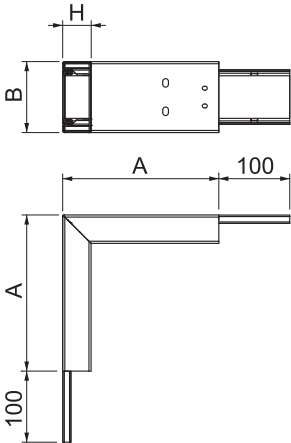
StFS P



Type	Colour	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H			
PLM EC 0410 FS	—	220	100	40	1	135.000	7218038
PLM EC 0410 RW	Pure white	220	100	40	1	135.000	7218040

External corner with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.

Dimensions



Internal corner, duct height 40 mm

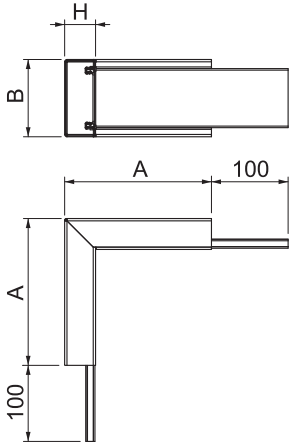
StFS P



Type	Colour	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H			
PLM IC 0410 FS	—	190	100	40	1	116.000	7218050
PLM IC 0410 RW	Pure white	190	100	40	1	116.000	7218052

Internal corner with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.

Dimensions



PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 40 mm

St FS P

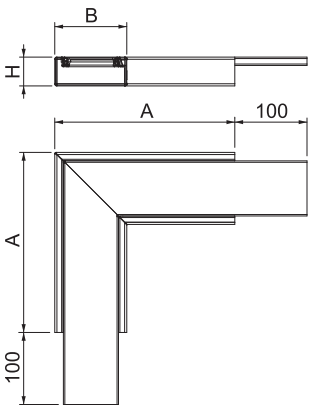
Flat angle, duct height 40 mm

Type	Colour	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H			
PLM FA 0410 FS	—	250	100	40	1	—	7218062
PLM FA 0410 RW	Pure white	250	100	40	1	—	7218064

Flat angle with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows off-set cover mounting for continuous equipotential bonding of the entire duct section.



Dimensions



St FS P

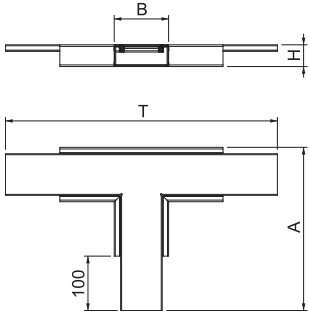
T branch piece, duct height 40 mm

Type	Colour	Dim.	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H	T			
PLM TB 0410 FS	—	300	100	40	500	1	—	7218074
PLM TB 0410 RW	Pure white	300	100	40	500	1	—	7218076

T branch piece with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.



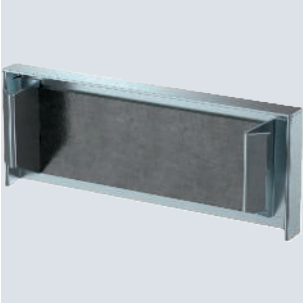
Dimensions



PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 40 mm

End piece, duct height 40 mm

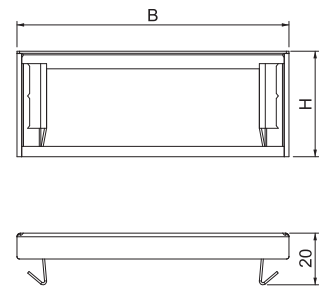
St FS P



Type	Colour	Dim. B mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM EP 0410 FS	—	105	41	1	5.550	7218086
PLM EP 0410 RW	Pure white	105	41	1	5.550	7218088

End piece with intumescent fire protection mesh to close the PYROLINE® Rapid PLM installation duct.

Dimensions



Wall connection collar, 4-sided, duct height 40 mm

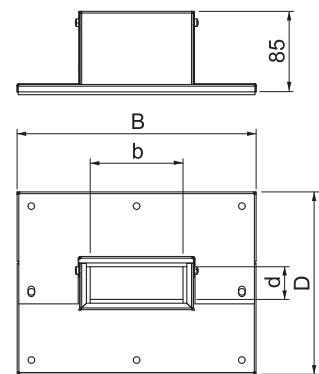
St FS P



Type	Colour	Dim. B mm	Dim. b mm	Dim. D mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM WC 0410 FS	—	252	100	192	40	1	55.300	7218122
PLM WC 0410 RW	Pure white	252	100	192	40	1	55.300	7218124

Wall connection collar, 4-sided, with integrated seal for PYROLINE® Rapid PLM installation duct. For mounting in the area of wall and ceiling connections as well as wall penetrations in room corners. Can also be used as 3-sided wall connection collar for direct wall or ceiling mounting of the duct.

Dimensions



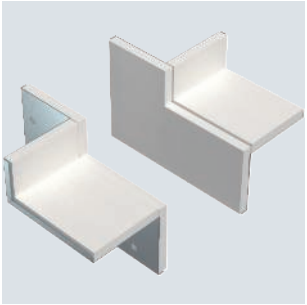
PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 40 mm

St FS P

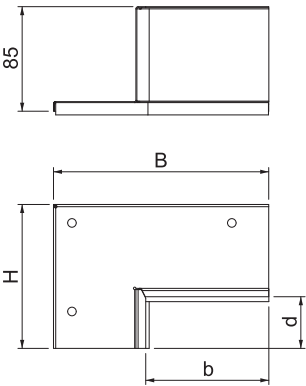
Wall connection set, 2-sided, for corner mounting, duct height 40 mm

Type	Colour	Dim. B mm	Dim. H mm	Dim. b mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM CC 0410 FS	—	175	117	100	42	1	41.920	7218134
PLM CC 0410 RW	Pure white	175	117	100	42	1	41.920	7218136

Wall connection collar, 2-sided, with integrated seal for PYROLINE® Rapid PLM installation duct. For mounting in the area of wall and ceiling connections as well as wall penetrations in room corners. Set consisting of 2 opposing components, suitable for ceiling or wall mounting of the installation duct.



Dimensions

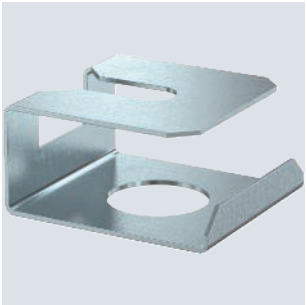


St FS

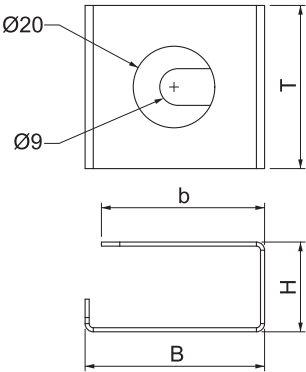
Pressure clip for ceiling mounting, duct height 40 mm

Type	Dim. B mm	Dim. H mm	Dim. T mm	Dim. b mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM CB 0410 FS	44	22	40	40	10	2.800	7218146

Installation aid against cables falling out for ceiling mounting of the PLM D 0410 installation duct.



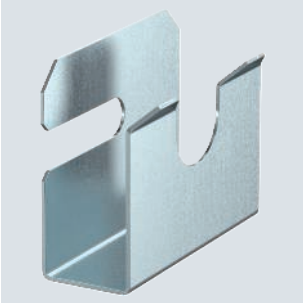
Dimensions



PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 40 mm

Pressure clip for wall mounting, duct height 40 mm

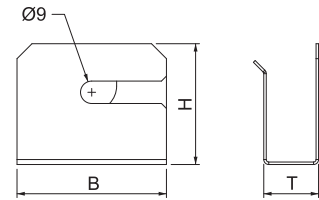
StFS



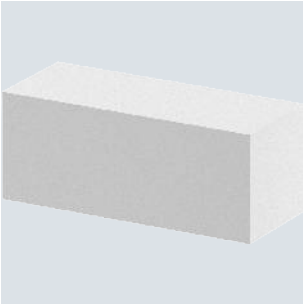
Type	Dim. B mm	Dim. H mm	Dim. T mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM WB 0410 FS	60	49	22	10	4.600	7218152

Installation aid against cables falling out for wall mounting of the PLM D 0410 installation duct.

Dimensions



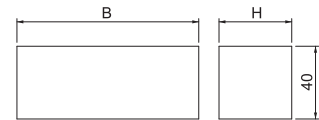
Foam seal, duct height 40 mm



Type	Dim. B mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM CO 0410	100	40	1	0.310	7218158

Flexibly adjustable foam seal for PYROLINE® Rapid PLM installation duct to seal cable bundles or cables with a large external diameter for cable exits from the installation duct. The surface must be additionally sealed with the ASX ablation coating.

Dimensions



PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 80 mm

St FS P

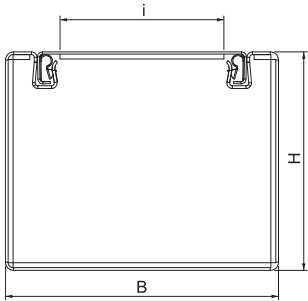
Installation duct with PYROLINE® Rapid PLM fire protection mesh, duct height 80 mm

Type	Dim. B mm	Dim. H mm	Dim. i mm	Dim. L mm	Colour	Pack m	Weight kg/100 m	Item no.
PLM D 0810 FS	100	80	62	2000	—	2	—	7218008
PLM D 0810 RW	100	80	62	2000	Pure white	2	—	7218010

Metal installation duct with intumescent fire protection mesh for fireproof routing of cables. Classified as an installation duct EI30, EI60 and EI90 according to EN 13501-2, tested according to EN 1366-5. The duct prevents the fire spread for the classified period of time, offering protection against the effects of a cable fire. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. Only approved pre-terminated fittings may be used. The cover is snapped on without tools, allowing rapid inspection and retroassignment. Offset cover mounting for continuous equipotential bonding of the entire duct section.



Dimensions



St FS

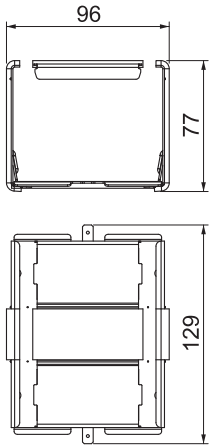
Joint connector set, duct height 80 mm

Type	Pack Piece	Weight kg/100 pc.	Item no.
PLM SI 0810	1	27.000	7218030

Joint connector set, consisting of a connector for the duct base and cover support. With integrated seal for toolless connection of the PYROLINE® Rapid PLM installation duct and fittings. Allows continuous connection of the protective conductors.



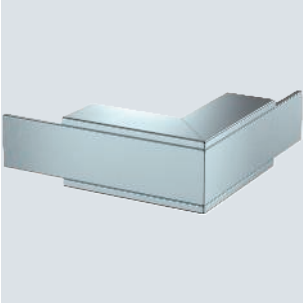
Dimensions



PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 80 mm

External corner, duct height 80 mm

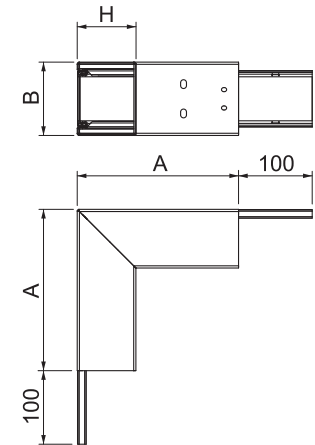
St FS P



Type	Colour	Dim. A mm	Dim. B mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM EC 0810 FS	—	220	100	80	1	152.000	7218042
PLM EC 0810 RW	Pure white	220	100	80	1	152.000	7218044

External corner with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.

Dimensions



Internal corner, duct height 80 mm

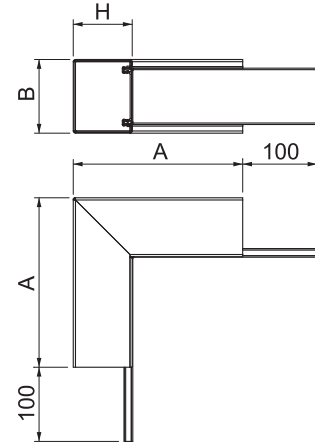
St FS P



Type	Colour	Dim. A mm	Dim. B mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM IC 0810 FS	—	230	100	80	1	156.000	7218054
PLM IC 0810 RW	Pure white	230	100	80	1	156.000	7218056

Internal corner with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.

Dimensions



PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 80 mm

St FS P

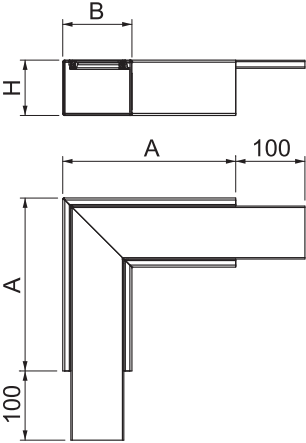
Flat angle, duct height 80 mm

Type	Colour	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H			
PLM FA 0810 FS	—	250	100	80	1	—	7218066
PLM FA 0810 RW	Pure white	250	100	80	1	—	7218068

Flat angle with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows off-set cover mounting for continuous equipotential bonding of the entire duct section.



Dimensions



St FS P

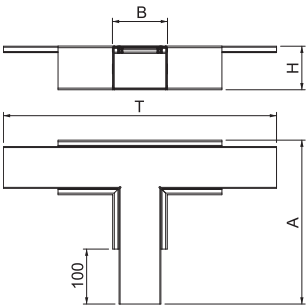
T branch piece, duct height 80 mm

Type	Colour	Dim.	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H	T			
PLM TB 0810 FS	—	300	100	80	500	1	—	7218078
PLM TB 0810 RW	Pure white	300	100	80	500	1	—	7218080

T branch piece with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.



Dimensions



PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 80 mm

End piece, duct height 80 mm

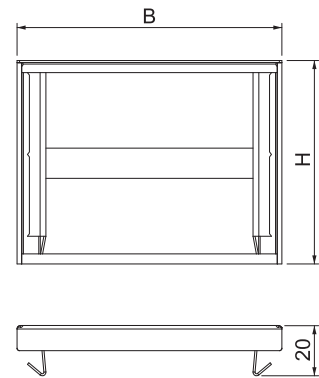
St FS P



Type	Colour	Dim. B mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM EP 0810 FS	—	105	81	1	10.840	7218090
PLM EP 0810 RW	Pure white	105	81	1	10.840	7218092

End piece with intumescent fire protection mesh to close the PYROLINE® Rapid PLM installation duct.

Dimensions



Reducer, straight, from 80 mm to 40 mm duct height

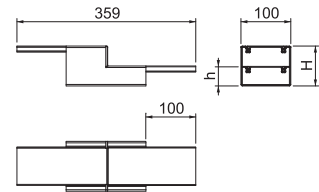
St FS P



Type	Colour	Dim. H mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM RP 0810 FS	—	80	40	1	—	7218098
PLM RP 0810 RW	Pure white	120	80	1	—	7218100

Reducer with intumescent fire protection mesh for symmetrical reduction of straight duct sections from PLM D 0810 to PLM D 0410. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroas- signment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.

Dimensions



PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 80 mm

St FS P

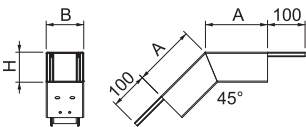
Vertical bend, falling, duct height 80 mm

Type	Colour	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H			
PLM BF 0810 FS	—	165	100	80	1	129.000	7218106
PLM BF 0810 RW	Pure white	165	100	80	1	129.000	7218108

45° vertical bend, falling version, with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.



Dimensions



St FS P

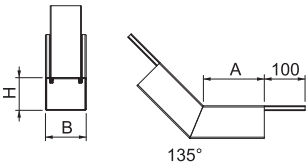
Vertical bend, rising, duct height 80 mm

Type	Colour	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H			
PLM BR 0810 FS	—	150	100	80	1	138.000	7218114
PLM BR 0810 RW	Pure white	150	100	80	1	—	7218116

45° vertical bend, rising version, with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.



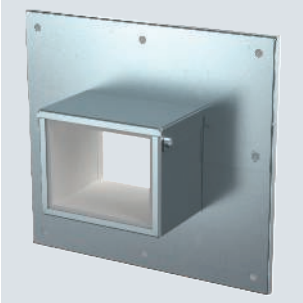
Dimensions



PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 80 mm

Wall connection collar, 4-sided, duct height 80 mm

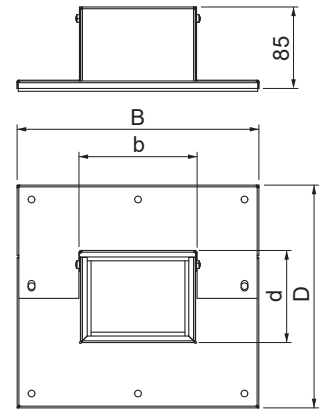
StFS P



Type	Colour	Dim. B mm	Dim. b mm	Dim. D mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM WC 0810 FS	—	252	100	232	80	1	65.300	7218126
PLM WC 0810 RW	Pure white	252	100	232	80	1	64.300	7218128

Wall connection collar, 4-sided, with integrated seal for PYROLINE® Rapid PLM installation duct. For mounting in the area of wall and ceiling connections as well as wall penetrations in room corners. Can also be used as 3-sided wall connection collar for direct wall or ceiling mounting of the duct.

Dimensions



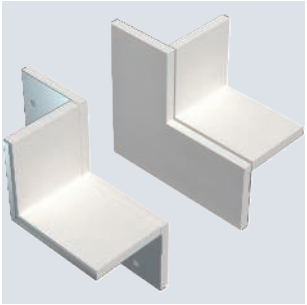
PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 80 mm

St FS P

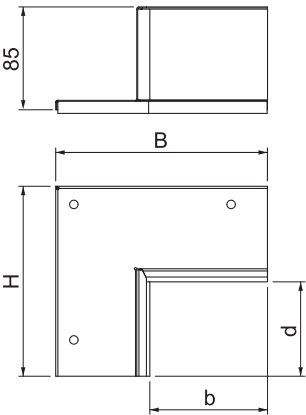
Wall connection set, double-sided, for corner mounting, duct height 80 mm

Type	Colour	Dim.	Dim.	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
		B mm	H mm	b mm	d mm			
PLM CC 0810 FS	—	175	157	100	82	1	49.780	7218138
PLM CC 0810 RW	Pure white	175	157	100	82	1	49.780	7218140

Wall connection collar, 2-sided, with integrated seal for PYROLINE® Rapid PLM installation duct. For mounting in the area of wall and ceiling connections as well as wall penetrations in room corners. Set consisting of 2 opposing components, suitable for ceiling or wall mounting of the installation duct.



Dimensions



St FS

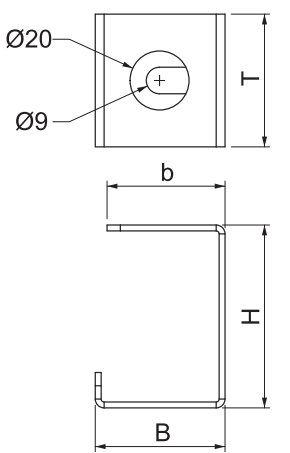
Pressure clip for ceiling mounting, duct height 80 mm

Type	Dim.	Dim.	Dim.	Dim.	Pack Piece	Weight kg/100 pc.	Item no.
	B mm	H mm	T mm	b mm			
PLM CB 0810 FS	44	62	45	40	10	9.300	7218148

Installation aid against cables falling out during ceiling mounting of the PLM D 0810 installation duct.



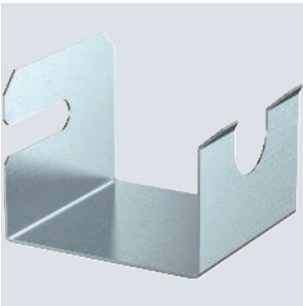
Dimensions



PYROLINE Rapid PLM metal duct, duct width 100 mm, duct height 80 mm

Pressure clip for wall mounting, duct height 80 mm

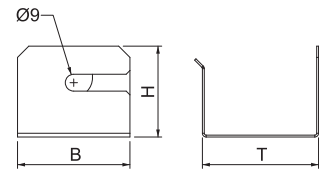
StFS



Type	Dim. B mm	Dim. H mm	Dim. T mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM WB 0810 FS	60	49	62	10	6.400	7218154

Installation aid against cables falling out during wall mounting of the PLM D 0810 installation duct.

Dimensions



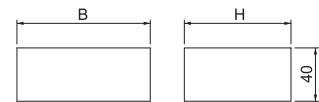
Foam seal, duct height 80 mm



Type	Dim. B mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM CO 0810	100	80	1	0.482	7218160

Flexibly adjustable foam seal for PYROLINE® Rapid PLM installation duct to seal cable bundles or cables with a large external diameter for cable exits from the installation duct. The surface must be additionally sealed with the ASX ablation coating.

Dimensions



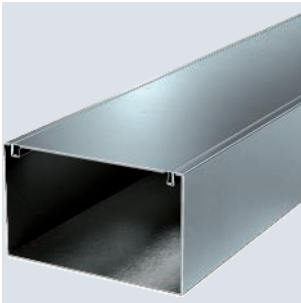
PYROLINE Rapid PL metal duct, duct width 200 mm, duct height 120 mm

St FS P

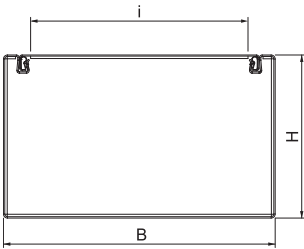
Installation duct with PYROLINE® Rapid PLM fire protection mesh, duct height 120 mm

Type	Dim. B	Dim. H	Dim. i	Dim. L	Colour	Pack m	Weight kg/100 m	Item no.
	mm	mm	mm	mm				
PLM D 1220 FS	200	120	162	2000	—	2	—	7218012
PLM D 1220 RW	200	120	162	2000	Pure white	2	—	7218014

Metal installation duct with intumescent fire protection mesh for fireproof routing of cables. Classified as an installation duct EI30, EI60 and EI90 according to EN 13501-2, tested according to EN 1366-5. The duct prevents the fire spread for the classified period of time, offering protection against the effects of a cable fire. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. Only approved pre-terminated fittings may be used. The cover is snapped on without tools, allowing rapid inspection and retroassignment. Offset cover mounting for continuous equipotential bonding of the entire duct section.



Dimensions

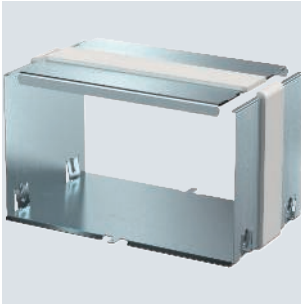


St FS

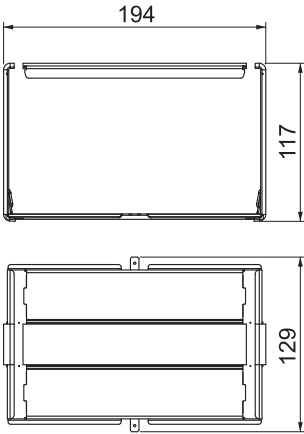
Joint connector set, duct height 120 mm

Type		Pack Piece	Weight kg/100 pc.	Item no.
PLM SI 1220		1	42.000	7218032

Joint connector set, consisting of a connector for the duct base and cover support. With integrated seal for toolless connection of the PYROLINE® Rapid PLM installation duct and fittings. Allows continuous connection of the protective conductors.

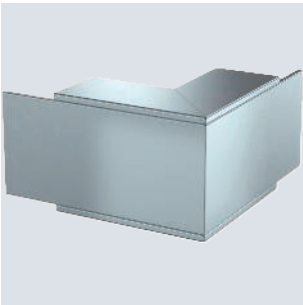


Dimensions



External corner, duct height 120 mm

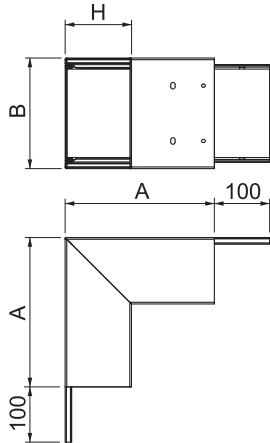
St FS P



Type	Colour	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H			
PLM EC 1220 FS	—	270	200	120	1	300.000	7218046
PLM EC 1220 RW	Pure white	270	200	120	1	300.000	7218048

External corner with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.

Dimensions



Internal corner, duct height 120 mm

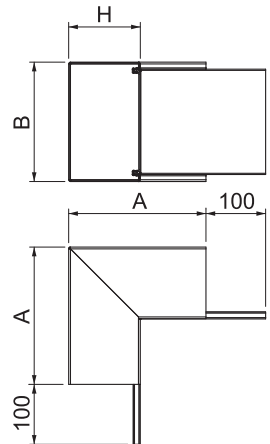
St FS P



Type	Colour	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H			
PLM IC 1220 FS	—	230	200	120	1	246.000	7218058
PLM IC 1220 RW	Pure white	230	200	120	1	246.000	7218060

Internal corner with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.

Dimensions



PYROLINE Rapid PL metal duct, duct width 200 mm, duct height 120 mm

St FS P

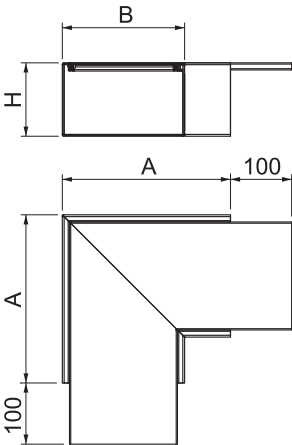
Flat angle, duct height 120 mm

Type	Colour	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H			
PLM FA 1220 FS	—	275	200	120	1	—	7218070
PLM FA 1220 RW	Pure white	275	200	120	1	—	7218072

Flat angle with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.



Dimensions

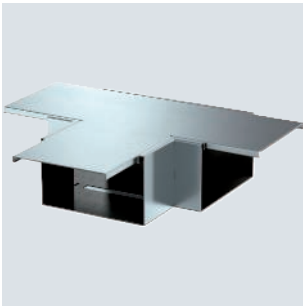


St FS P

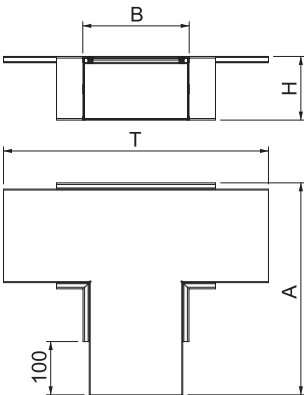
T branch piece, duct height 120 mm

Type	Colour	Dim.	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H	T			
PLM TB 1220 FS	—	400	200	120	600	1	—	7218082
PLM TB 1220 RW	Pure white	400	200	120	600	1	—	7218084

T branch piece with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.

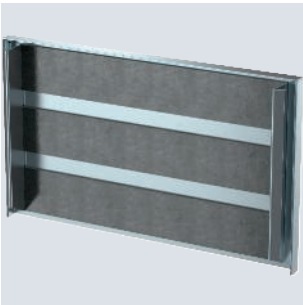


Dimensions



End piece, duct height 120 mm

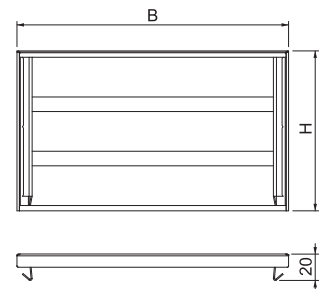
St FS P



Type	Colour	Dim. B mm	Dim. H mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM EP 1220 FS	—	205	121	1	25.670	7218094
PLM EP 1220 RW	Pure white	205	121	1	25.670	7218096

End piece with intumescent fire protection mesh to close the PYROLINE® Rapid PLM installation duct.

Dimensions



Reducer, straight, from 120 mm to 80 mm duct height

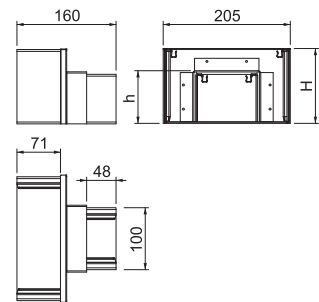
St FS P



Type	Colour	Dim. H mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM RP 1220 FS	—	120	80	1	—	7218102
PLM RP 1220 RW	Pure white	80	40	1	—	7218104

Reducer with intumescent fire protection mesh for symmetrical reduction of straight duct sections from PLM D 1220 to PLM D 0810. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroas- signment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.

Dimensions



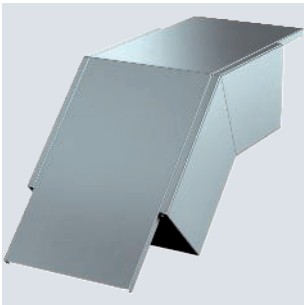
PYROLINE Rapid PL metal duct, duct width 200 mm, duct height 120 mm

St FS P

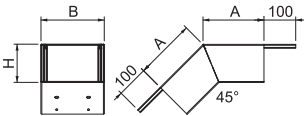
Vertical bend, falling, duct height 120 mm

Type	Colour	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H			
PLM BF 1220 FS	—	190	200	120	1	243.000	7218110
PLM BF 1220 RW	Pure white	190	200	120	1	243.000	7218112

45° vertical bend, falling version, with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.



Dimensions

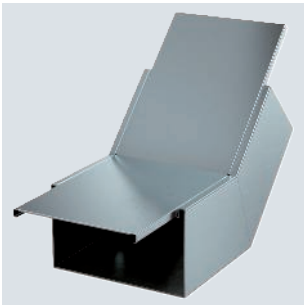


St FS P

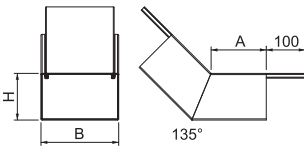
Vertical bend, rising, duct height 120 mm

Type	Colour	Dim.	Dim.	Dim.	Pack	Weight	Item no.
		A	B	H			
PLM BR 1220 FS	—	142	200	120	1	242.000	7218118
PLM BR 1220 RW	Pure white	142	200	120	1	242.000	7218120

45° vertical bend, rising version, with intumescent fire protection mesh for PYROLINE® Rapid PLM installation duct. Suitable for direct wall and ceiling mounting, mounting below system floors and on support systems. Tool-free joint mounting with PLM SI joint connector. The cover is snapped on without tools, allowing rapid inspection and retroassignment. The cover overhang allows offset cover mounting for continuous equipotential bonding of the entire duct section.



Dimensions



Wall connection collar, 4-sided, duct height 120 mm

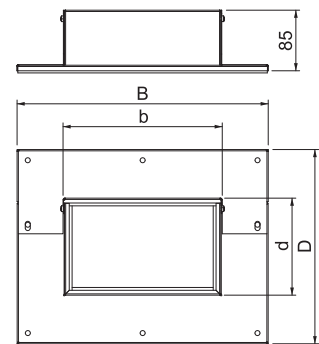
St FS P



Type	Colour	Dim. B mm	Dim. b mm	Dim. D mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM WC 1220 FS	—	352	200	272	120	1	94.600	7218130
PLM WC 1220 RW	Pure white	352	200	272	120	1	94.600	7218132

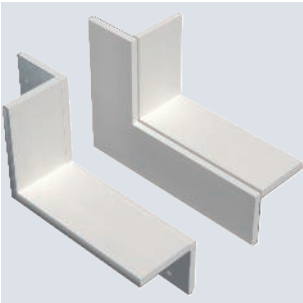
Wall connection collar, 4-sided, with integrated seal for PYROLINE® Rapid PLM installation duct. For mounting in the area of wall and ceiling connections as well as wall penetrations in room corners. Can also be used as 3-sided wall connection collar for direct wall or ceiling mounting of the duct.

Dimensions



Wall connection set, double-sided, for corner mounting, duct height 120 mm

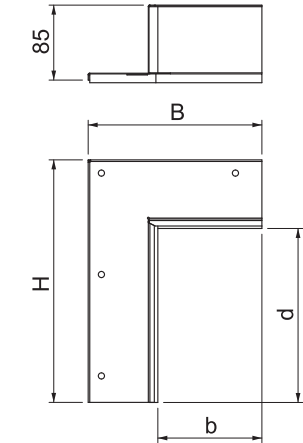
St FS P



Type	Colour	Dim. B mm	Dim. b mm	Dim. H mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM CC 1220 FS	—	275	200	197	122	1	77.160	7218142
PLM CC 1220 RW	Pure white	275	200	197	122	1	77.160	7218144

Wall connection collar, 2-sided, with integrated seal for PYROLINE® Rapid PLM installation duct. For mounting in the area of wall and ceiling connections as well as wall penetrations in room corners. Set consisting of 2 opposing components, suitable for ceiling or wall mounting of the installation duct.

Dimensions



St FS

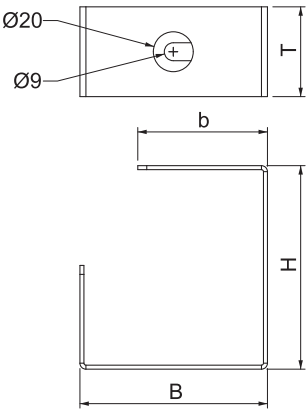
Pressure clip for ceiling mounting, duct height 120 mm

Type	Dim. B mm	Dim. H mm	Dim. T mm	Dim. b mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM CB 1220 FS	94	102	45	65	10	20.000	7218150

Installation aid against cables falling out during ceiling mounting of the PLM D 1220 installation duct.



Dimensions



St FS

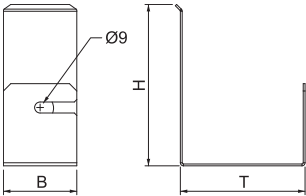
Pressure clip for wall mounting, duct height 120 mm

Type	Dim. B mm	Dim. H mm	Dim. T mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM WB 1220 FS	60	132	102	10	20.000	7218156

Installation aid against cables falling out during wall mounting of the PLM D 1220 installation duct.



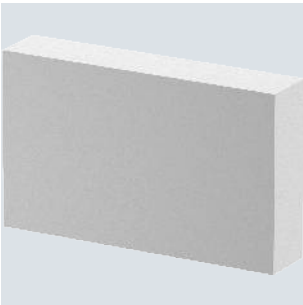
Dimensions





PYROLINE Rapid PL metal duct, duct width 200 mm, duct height 120 mm

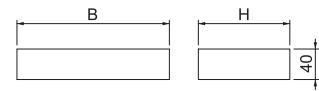
Foam seal, duct height 120 mm



Type	Dim. B	Dim. H	Pack Piece	Weight kg/100 pc.	Item no.
	mm	mm			
PLM CO 1220	200	120	1	1.240	7218162

Flexibly adjustable foam seal for PYROLINE® Rapid PLM installation duct to seal cable bundles or cables with a large external diameter for cable exits from the installation duct. The surface must be additionally sealed with the ASX ablation coating.

Dimensions



PYROLINE Rapid PLM metal duct, system accessories

Installation duct cover, duct width 100 mm

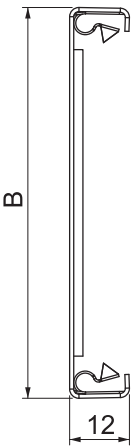
St FS P



Type	Colour	Dim. B	Pack m	Weight kg/100 m	Item no.
		mm			
PLM LI 100 FS	—	76	2	—	7218020
PLM LI 100 RW	Pure white	76	2	—	7218022

Cover for PYROLINE® Rapid PLM installation duct. Pre-mounted locking brackets for tool-less mounting and continuous equipotential bonding. Additional locking brackets may be required for shortened covers. These are available separately.

Dimensions

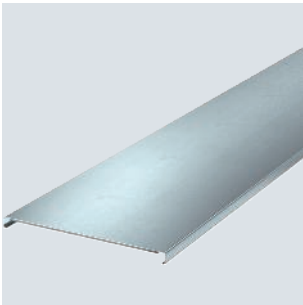


St FS P

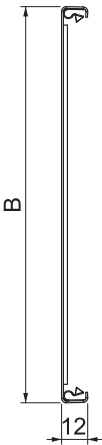
Installation duct cover, duct width 200 mm

Type	Colour	Dim. B mm	Pack m	Weight kg/100 m	Item no.
PLM LI 200 FS	—	176	2	—	7218024
PLM LI 200 RW	Pure white	176	2	—	7218026

Cover for PYROLINE® Rapid PLM installation duct. Pre-mounted locking brackets for tool-less mounting and continuous equipotential bonding. Additional locking brackets may be required for shortened covers. These are available separately.



Dimensions

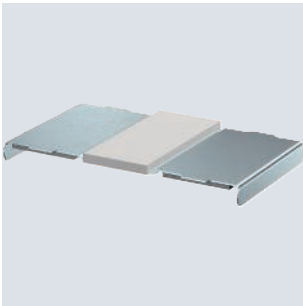


St FS

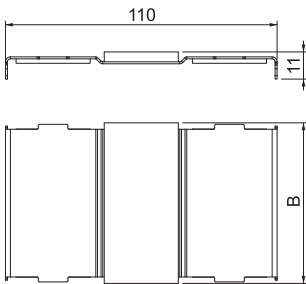
Cover support

Type	For duct width mm	Dim. B mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM LS 100	100	65	1	5.500	7218034
PLM LS 200	200	165	1	14.000	7218036

For internal sealing in the area of cover joints and for mechanical cover support in the wall penetration area of the PYROLINE® Rapid PLM.



Dimensions



Support, duct width 100 mm

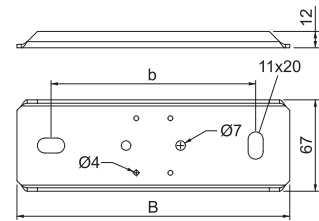
StFS



Type	Colour	Dim. B mm	Dim. b mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM SU 100 FS	—	200	150	5	32.000	7218164
PLM SU 100 RW	Pure white	200	150	5	32.000	7218166

Support for suspended mounting of the PYROLINE® Rapid PLM installation duct.
Suspension point for accepting two M10 threaded rods and suitable as a support at joints of ducts and fittings.

Dimensions



Support, duct width 200 mm

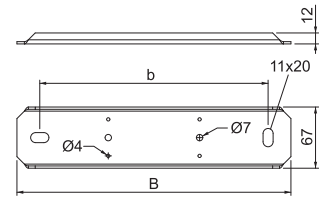
StFS



Type	Colour	Dim. B mm	Dim. b mm	Pack Piece	Weight kg/100 pc.	Item no.
PLM SU 200 FS	—	300	250	5	48.000	7218168
PLM SU 200 RW	Pure white	300	250	5	48.000	7218170

Support for suspended mounting of the PYROLINE® Rapid PLM installation duct.
Suspension point for accepting two M10 threaded rods and suitable as a support at joints of ducts and fittings.

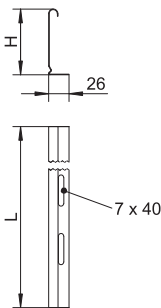
Dimensions



St FS

Type	Dim. H mm	Metal thick- ness mm	Dim. L mm	Pack m	Weight kg/100 m	Item no.
TSG 30 FS	30	0.75	3000	3	38.000	6062050

Separating retainer for separation of cables of different voltages or functions.



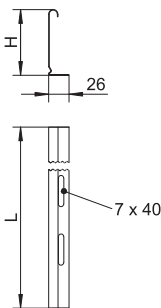
Separating retainer 30



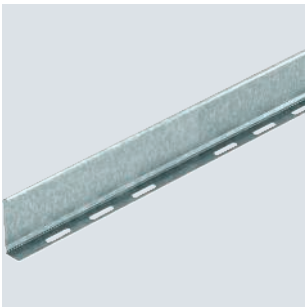
St FS

Type	Dim. H mm	Metal thick- ness mm	Dim. L mm	Pack m	Weight kg/100 m	Item no.
TSG 60 FS	60	0.75	3000	3	55.700	6062068

Separating retainer for separation of cables of different voltages or functions.



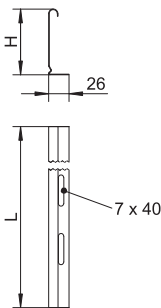
Separating retainer 60



St FS

Type	Dim. H mm	Metal thick- ness mm	Dim. L mm	Pack m	Weight kg/100 m	Item no.
TSG 110 FS	110	0.75	3000	3	85.000	6062122

Separating retainer for separation of cables of different voltages or functions.

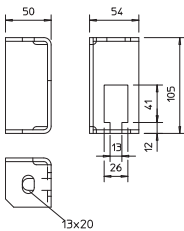


Separating retainer 110

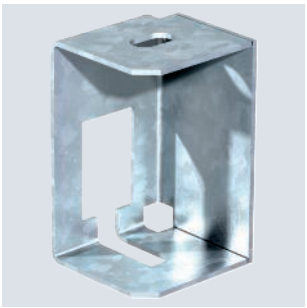


St FT

Type	Pack Piece	Weight kg/100 pc.	Item no.
BSB FT	20	42.400	6418198

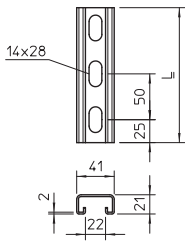


Fire protection clamp



MS4121 mounting rail, slot 22 mm, perforated

St FT

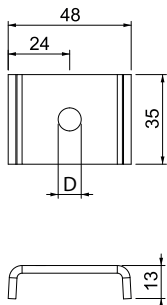
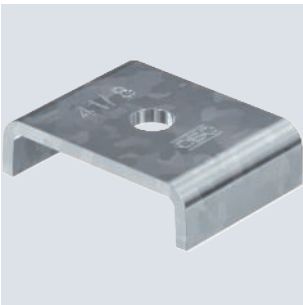


Type	Length mm	Dimension W x H mm	Material thickness mm	Dim. L mm	BS	Pack Piece	Weight kg/100 pc.	Item no.
MS4121P0200FT	200	41x21	2	200		1	35.100	1122933
MS4121P0300FT	300	41x21	2	300		1	53.000	1122934

Heavy-duty C profile rail for individual installation of support constructions, e.g. for cable trays or as a panel for switchgear cabinets. Can also be used for cable routing, in conjunction with clamp clips with a U foot.

Connection component for mounting rails MS41

St FT

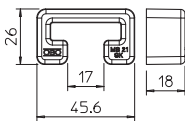


Type	Version	Dim. D Ø mm	Pack Piece	Weight kg/100 pc.	Item no.
PLF 41 8 FT	M8	9	20	5.200	7207052
PLF 41 10 FT	M10	11	20	5.100	7207054

Component for mounting threaded rods on mounting rails MSL4141P, MS4141P and MS4121P. For mounting cable tray and mesh cable tray systems above suspended fire protection ceilings in escape and rescue routes. If there is a fire, this prevents bending of the mounting rails. Suitable for threaded rods M8, M10 and M12. No additional washer necessary.

End cap MS4121

PE

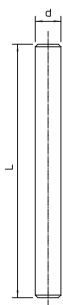
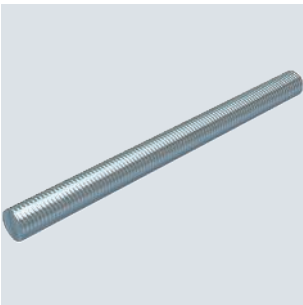


Type	Colour	Pack Piece	Weight kg/100 pc.	Item no.
MS4121 SK	Pastel orange	25	0.611	1122902

End cap for profile rail, type MS4121.

Threaded rod

St G

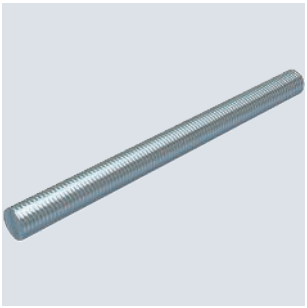


Type	Thread	Dim. d mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
TR M8 1M G	M8	8	1000	10	30.000	3141128

St G

Threaded rod

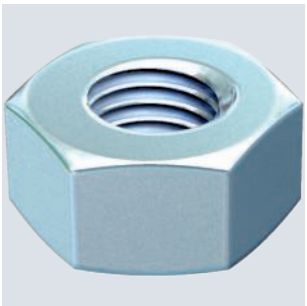
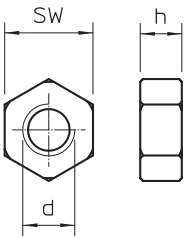
Type	Thread	Dim. d mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
TR M10 1M G	M10	10	1000	10	49.000	3141209



St G

Hexagonal nut DIN 934

Type	Thread	SW mm	Dim. h mm	Dim. d mm	Pack Piece	Weight kg/100 pc.	Item no.
HN M8 G	M8	13	6.8	8	100	0.500	3400085
HN M10 G	M10	17	8.4	10	100	1.014	3400107

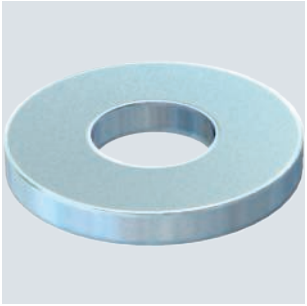
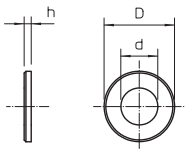


St G

Washer

Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
WS M8 D16 G	M8	8.4	16	1.6	100	0.156	3402088
WS M10 D20 G	M10	10.5	20	2	100	0.408	3402096

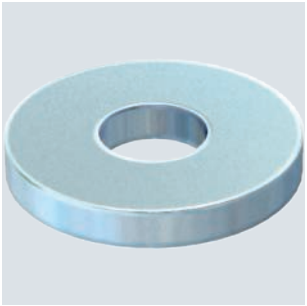
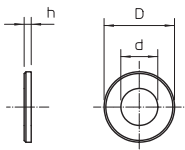
Washer according to DIN 125, shape A, for universal use.



St G

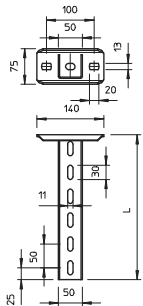
Washer ISO 7093

Type	Thread	Dim. d mm	Dim. D mm	Dim. h mm	Pack Piece	Weight kg/100 pc.	Item no.
WS M8 D28 G	M8	8.5	28	2.5	100	1.100	3402215
WS M10 D28 G	M10	11	28	2.5	100	1.020	3402223



US 5 support

St FT



Type	Length mm	Material thickness mm	Dim. L mm	BS	Pack Piece	Weight kg/100 pc.	Item no.
US 5 K 40 FT	400	2.5	400		1	136.000	6341543
US 5 K 50 FT	500	2.5	500		1	161.000	6341551
US 5 K 60 FT	600	2.5	600		1	185.000	6341578
US 5 K 70 FT	700	2.5	700		1	210.000	6341586
US 5 K 80 FT	800	2.5	800		1	236.000	6341594
US 5 K 90 FT	900	2.5	900		1	261.000	6341608
US 5 K 100 FT	1000	2.5	1000		1	286.000	6341616

US 5 support

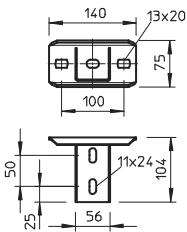
St FT



Type	Length mm	Material thickness mm	Dim. L mm	BS	Pack Piece	Weight kg/100 pc.	Item no.
US 5 40 FT	400	2.5	400		1	106.000	6340911
US 5 50 FT	500	2.5	500		1	133.000	6340938
US 5 60 FT	600	2.5	600		1	160.000	6340946
US 5 70 FT	700	2.5	700		1	175.000	6340950
US 5 80 FT	800	2.5	800		1	200.000	6340954
US 5 90 FT	900	2.5	900		1	227.000	6340958
US 5 100 FT	1000	2.5	1000		1	265.000	6340962

Head plate US 5

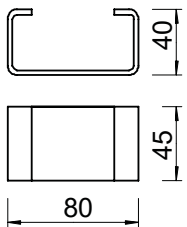
St FT



Type	Pack Piece	Weight kg/100 pc.	Item no.
KUS 5 FT	1	61.900	6348904

Spacer DSK 45

St FT



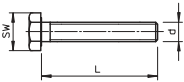
Type	Pack Piece	Weight kg/100 pc.	Item no.
DSK 45 FT	20	18.000	6416500

For static reasons, the spacer is always used to increase stability to prevent the support from deforming when the bracket is tightened with the hexagonal bolts.
Spacer for use in US 5 support and in the head plate, type KU 7 VQP.

St F

Type	Dimension mm	Dim. L mm	Dim. d mm	Dim. SW mm	Resistance grade	Pack Piece	Weight kg/100 pc.	Item no.
SKS 10x80 F	M 10x80	80	10	17	8.8	20	7.700	6418250

Hexagonal bolt for universal fastening of construction components. With hexagonal nut and 2 washers.



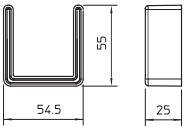
Hexagonal bolt M10



PE

Type	Colour	Pack Piece	Weight kg/100 pc.	Item no.
US 5 KS OR	Pastel orange	20	1.300	6338462

Protective cap to cover the ends of US 5 supports.



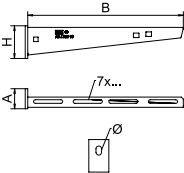
Protective cap



St FT

Type	Width mm	Dim. H mm	Dim. A mm	Dim. B mm	Hole Ø mm	BS	Pack Piece	Weight kg/100 pc.	Item no.
AW 15 11 FT	110	50	40	110	11		1	13.100	6420656
AW 15 21 FT	210	60	40	210	11		1	24.000	6420680

Fastening of the bracket to the U support of width 400 mm or greater using a hexagonal bolt through both sides of the support. Please insert suitable spacers.
Light-duty wall and support bracket with welded head plate.



Wall and support bracket AW 15

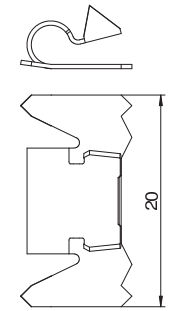


St

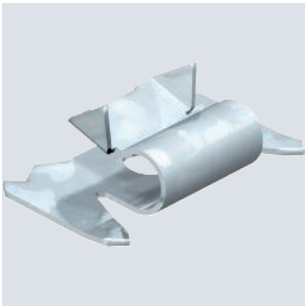


Type	Pack Piece	Weight kg/100 pc.	Item no.
RKV3V	20	0.085	6288700

Locking bracket for the mechanical and electrical connection of trunking covers and trunking bases. Suitable for covers of Rapid 45, Rapid 80 and ISS systems.



Locking bracket RKV3V



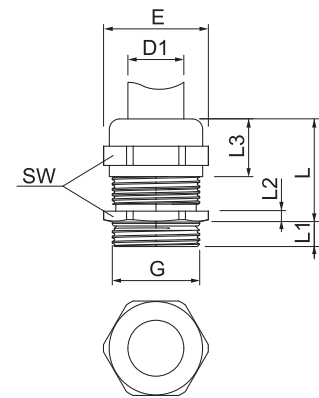
Cap nut cable gland, metric thread, silver grey, nickel-plated



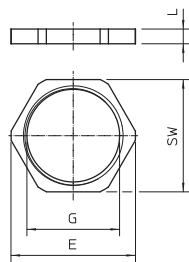
Type	Thread	Material	Pack Piece	Weight kg/100 pc.	Item no.
V-TEC VM12 MS	M12x1,5	Brass	50	1.305	2086018
V-TEC VM16 MS	M16x1,5	Brass	50	1.640	2086024
V-TEC VM20 MS	M20x1,5	Brass	25	3.140	2086030
V-TEC VM25 MS	M25x1,5	Brass	25	4.260	2086036
V-TEC VM32 MS	M32x1,5	Brass	20	8.457	2086042

With metric connecting thread to IEC 423, robust cap-nut cable gland with large sealing area. Strain relief, wringing protection and tightness over the whole clamping area. Neoprene sealing ring. Polyamide terminal insert. With pre-mounted O sealing ring on connection thread, VDE-tested to DIN EN 50262, protection rating IP68 at 5 bar for 1 hr, max. permitted ambient temperature -20 to +100°C.
* Prices according to DEL notation.

Dimensions



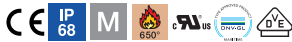
Locknut, metric thread



Type	Thread	SW mm	Dim. E mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
169 MS M12	M12x1,5	15	16.6	3	100	0.220	2091607
169 MS M16	M16x1,5	20	22.1	2.8	100	0.310	2091615
169 MS M20	M20x1,5	24	25.6	3	100	0.580	2091623
169 MS M25	M25x1,5	30	33.2	3.5	100	0.880	2091631
169 MS M32	M32x1,5	35	38.7	4	100	1.016	2091658

Locknut to DIN 46319 with metric thread IEC 423.
* Prices according to DEL notation.

PA



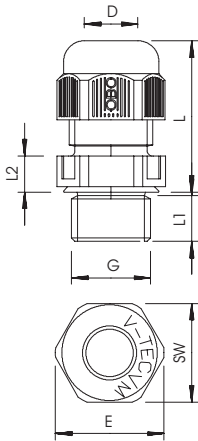
Cap nut cable gland, metric thread, silver grey

Type	Thread	Colour	Pack Piece	Weight kg/100 pc.	Item no.
V-TEC VM12 SGR	M12 x 1,5	Silver grey	50	0.318	2022843
V-TEC VM16 SGR	M16 x 1,5	Silver grey	50	0.638	2022845
V-TEC VM20 SGR	M20 x 1,5	Silver grey	50	0.856	2022847
V-TEC VM25 SGR	M25 x 1,5	Silver grey	25	1.360	2022849
V-TEC VM32 SGR	M32 x 1,5	Silver grey	20	2.230	2022851

The quickest and most convenient way of providing strain relief and tightness with cable glands on junction boxes and housings is with the tried-and-trusted V-TEC VM cable glands from OBO. With the integrated sealing lip and the special OBO lamella technology, protection class IP68 is achieved. Strain relief and tightness have been tested to DIN EN 62444. The connecting threads of the cable glands are metric or PG and are therefore suitable for universal use. Once screwed in place, the installation is there forever, as the optimum thread adjustment with the right pitch ensures permanent resistance to shaking. Applications: From private housing with junction boxes up to industrial applications in the distributor cabinet. Temperature range: -20 °C to +65 °C.



Dimensions



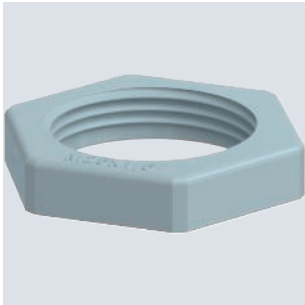
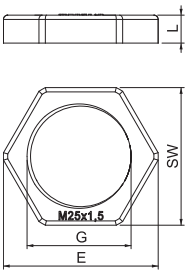
PA



Cable outlet, plastic locknut

Type	Thread	Colour	SW mm	Dim. E mm	Dim. L mm	Pack Piece	Weight kg/100 pc.	Item no.
116 M12 SGR PA	M12x1,5	Silver grey	17	19	5	100	0.078	2048752
116 M16 SGR PA	M16x1,5	Silver grey	22	25	5	100	0.125	2048760
116 M20 SGR PA	M20x1,5	Silver grey	26	29	6	100	0.177	2048779
116 M25 SGR PA	M25x1,5	Silver grey	32	36	6.5	100	0.266	2048787
116 M32 SGR PA	M32x1,5	Silver grey	41	46	7	50	0.503	2048795

Locknut to DIN 46319, with metric thread IEC 423.



Ablation coating PYROCOAT® in a cartridge

Type	Contents ml	Pack Piece	Weight kg/100 pc.	Item no.
ASX-K	310	1	50.000	7202310

Combined, endothermic and weatherproof coating for internal and external areas. Universal protection coating for cable and cable support structures. Use as direct filler, and as paint when stirred. Material class DIN 4102 - B2, normally flammable. In dry, frost-free rooms, the coating can be stored at temperatures from +5 °C to +25 °C for up to 18 months in closed, upright original containers.





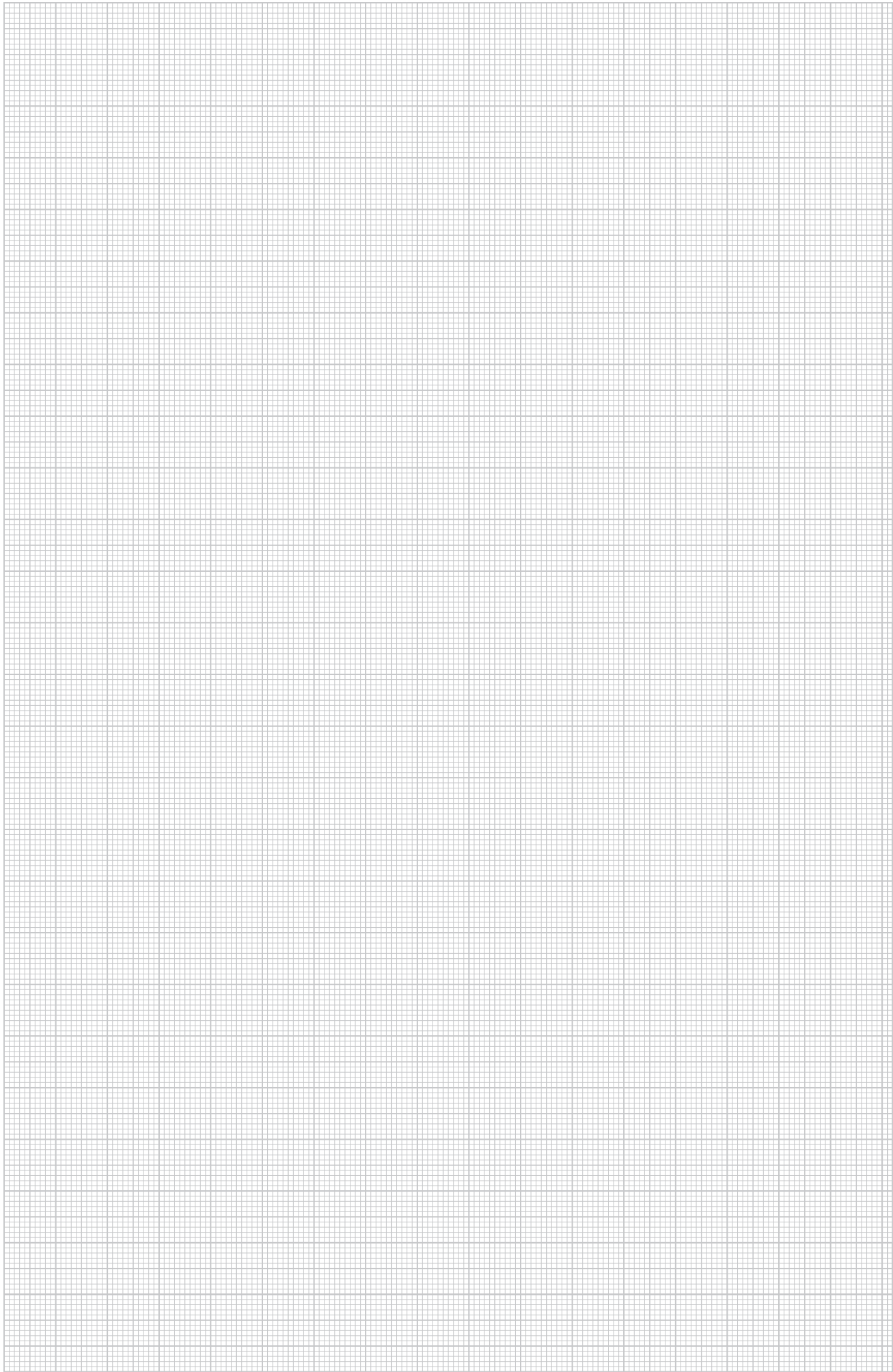
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	For the latest general conditions of sale and delivery please see obo.de/vlb .	



Test marks

	American Bureau of Shipping, USA		Underwriters Laboratories Inc., USA + CSA, Canada
	AENOR, Producto Certificado, Spain		Österreichischer Verband für Elektrotechnik, Austria
	STOWARZYSZENIE ELEKTRYKÓW POLSKICH, Poland		INSTITUTO ITALIANO DEL MARCHO DI QUALITÀ, Italy
	Lightning current-tested		RINA 1861, Ship Classification, Certification and Services
	Lightning current-tested, Class H (100 kA)		Underwriters Laboratories Inc., USA
	CEBEC, Belgium		SEMCO An Inchcape Testing Services Company, Sweden
	Canadian Standards Association, Canada		Eidgenössisches Starkstrominspektorat, Switzerland
	DEMKO, Danmarks Elektriske Materielkontrol, Denmark		South African Bureau of Standards
	Deutsches Institut für Bautechnik Berlin, Germany		Shock-tested, Bundesamt für Zivilschutz, Germany
	Det Norske Veritas		Sähkötarvakeskus Elinspektioscentralen Electrical Inspectorate, Finland
	ENEC Austria		Underwriters Laboratories Inc., USA
	ATEX certificate for explosive areas		Underwriters Laboratories Inc., USA
	ELEKTROTECHNICKÝ ZKUŠEBNÍ ÚSTAV, Czech Republic		Verband der Elektrotechnik, Elektronik, Informationstechnik e.V., Germany
	FIMKO, Finland		German Association of Electricians, tested safety
	Forschungs- und Materialprüfungsanstalt, Germany		5-year warranty
	Russia, GOST The State Committee for Standards		
	Test marks for technical resources, VDE Prüf- und Zertifizierungsinstitut Offenbach, Germany		
	Halogen-free; without chlorine, fluorine and bromine		
	INMETRO, Brazil		
	KEMA-KEUR, Netherlands		
	Indication of metric products		
	MAGYAR ELEKTROTECHNIKAI ELLENŐRZŐ INTÉZET Budapest, Hungary		
	NEMKO, Norway		
	AFNOR Quality symbol of the French standardisation institute		



Pictogram explanation

Surfaces

	Strip galvanised
	Strip galvanised/plastic-coated
	Strip galvanised zinc/aluminium, double dip
	Bright
	Bright, reworked
	Anodised
	Hot-dip galvanised
	Electrogalvanised
	Electrogalvanised/plastic-coated
	Electrogalvanised, yellow-chromatised
	Electrogalvanised, yellow passivated
	Electrogalvanised, transparently passivated
	Primed
	Painted
	Welding primed
	Hot-dip galvanised
	Hot-dip galvanised 85 µm
	Copper-plated
	Nickel-plated
	Galvanised, Deltatone 500
	Galvanised, MAGNI 565
	Zinc-aluminium coated, Galfan
	Zinc scale

Conformity symbol

	Communautés Européennes, EC declaration of conformity according to EC directives
	RoHS-conformant

Quality marks

	Halogen-free; without chlorine, fluorine and bromine
	Flame resistant 650 °C
	Flame resistant 750 °C
	Flame resistant 960 °C
	UV-resistant

Specific product symbols

	Diameter 60 mm
	Diameter 68 mm
	Protection device to DIN EN 61643-11 or IEC 61643-11
	Transition from LPZ 2 to LPZ 3
	Acoustic signalling

Applications

	Remote signalling
	Acoustic signalling
	Integrated Service Digital Network, ISDN applications
	Digital Subscriber Line, DSL applications
	Analogue telecommunication
	Category 5 TwisterPair
	Channel Performance to American EIA/TIA standard
	Measuring, controlling and regulating systems
	TV applications
	SAT-TV applications
	MultiBase base
	LifeControl
	Intrinsically safe protection device for potentially explosive areas
	Channel Performance to ISO/IEC 11801
	Power over Ethernet
	230/400 V system
	Protection rating IP 54
	Protection rating IP 65

Lightning protection classes

	Protection device to DIN EN 61643-11 or IEC 61643-11
	Combination protection device made of type 1 and type 2
	Protection device to DIN EN 61643-11 or IEC 61643-11

Lightning protection classes

	Protection device to DIN EN 61643-11 or IEC 61643-11
	Protection device to DIN EN 61643-11 or IEC 61643-11

Lightning protection zone

	Transition from LPZ 0 to LPZ 1
	Transition from LPZ 0 to LPZ 2
	Transition from LPZ 0 to LPZ 3
	Transition from LPZ 1 to LPZ 2
	Transition from LPZ 1 to LPZ 3
	Transition from LPZ 2 to LPZ 3

BSS maintenance of electrical function installation

	Fire-tested systems
	Escape route ceiling mounting with pressure clip
	OBO Grip, wall routing type
	OBO Grip, ceiling routing type
	Pressure clip for maintenance of electrical function, ceiling mounting

BSS anchor

	Fire protection anchor
	Fire protection bolt tie

BSS test marks/material class

	Maintenance of electrical function class E30
	Maintenance of electrical function class E90

Clamp clip base shapes

	Clamp clip for C profile rail, slot width 11–12 mm
	Clamp clip for C profile rail, slot width 16–17 mm
	Clamp clip for C profile rail, slot width 18–22 mm

Diameter

	Diameter 60 mm
	Diameter 68 mm
	Diameter 70 mm
	Diameter 74 mm

Entries

	4 cable entries
	6 cable entries
	7 cable entries
	8 cable entries
	9 cable entries
	10 cable entries
	12 cable entries
	10 cable entries ECO
	12 cable entries ECO
	14 cable entries ECO
	16 cable entries
	18 cable entries ECO
	24 cable entries

Gland thread

	Thread metric
	Thread Pg

Entry size

	M20 entry
	M25 entry
	M32 entry
	M40 entry

KTS side heights

	Cable tray, side height 35 mm
	Cable tray, side height 60 mm
	Cable tray, side height 85 mm
	Mesh cable tray, side height 35 mm
	Mesh cable tray, side height 55 mm

Materials

	Flat steel
	Angular steel
	U steel
	Round material

Pictogram explanation

Nominal cross-section

	Nominal cross-section 1.5 mm²
	Nominal cross-section 1.5–2.5 mm²
	Nominal cross-section 2.5 mm²
	Nominal cross-section 2.5–4 mm²
	Nominal cross-section 4 mm²
	Nominal cross-section 4–6 mm²
	Nominal cross-section 6 mm²
	Nominal cross-section 10 mm²
	Nominal cross-section 16 mm²

Nominal voltage

	Nominal voltage 400 V
	Nominal voltage 500 V
	Nominal voltage 660 V

Polarity

	3-pole
	5-pole
	7-pole
	8-pole
	10-pole
	12-pole

Slot widths

	Slot width 7.5 mm
	Slot width 11 mm
	Slot width 11–12 mm
	Slot width 12 mm
	Slot width 15 mm
	Slot width 16 mm
	Slot width 16.5 mm
	Slot width 16–17 mm
	Slot width 17 mm
	Slot width 18 mm
	Slot width 22 mm
	Slot width 35 mm

Screw heads

	Philips screw
	Torx screw
	Phillips screw
	Pozidriv

Firing devices

	Bolt-firing tool
	Nail device

Protection rating

	Protection rating IP 20
	Protection rating IP 30
	Protection rating IP 31
	Protection rating IP 44
	Protection rating IP 54
	Protection rating IP 55
	Protection rating IP 65
	Protection rating IP 66
	Protection rating IP 67
	Protection rating IP 68

Metals

	Aluminium
	Aluminium/steel
	Stainless steel, rustproof
	Stainless steel, rustproof
	Stainless steel, rustproof
	Copper
	Brass
	Steel
	Malleable iron
	Die-cast zinc

Plastics

	Acrylonitrile butadiene styrene
	Duroplast, Aminoplast, type 131.5
	Duroplast, melamine resin, type 150
	Ethylene vinyl acetate

Plastics

FA	Fibre-proof material DIN 28091
GFK	Fibreglass-reinforced plastic
NBR SBR	Rubber mixture
NBR	Nitrile rubber
PETR	Petrolatum
PA	Polyamide
PA/ GF	Polyamide, fibreglass reinforced
PBPT	Polybutylene terephthalate
PC	Polycarbonate
PE	Polyethylene
PP	Polypropylene
PP/GF	Polypropylene, fibreglass reinforced
PS	Polystyrene
PVC	Polyvinylchloride
ZELL PE	Cellular polyethylene



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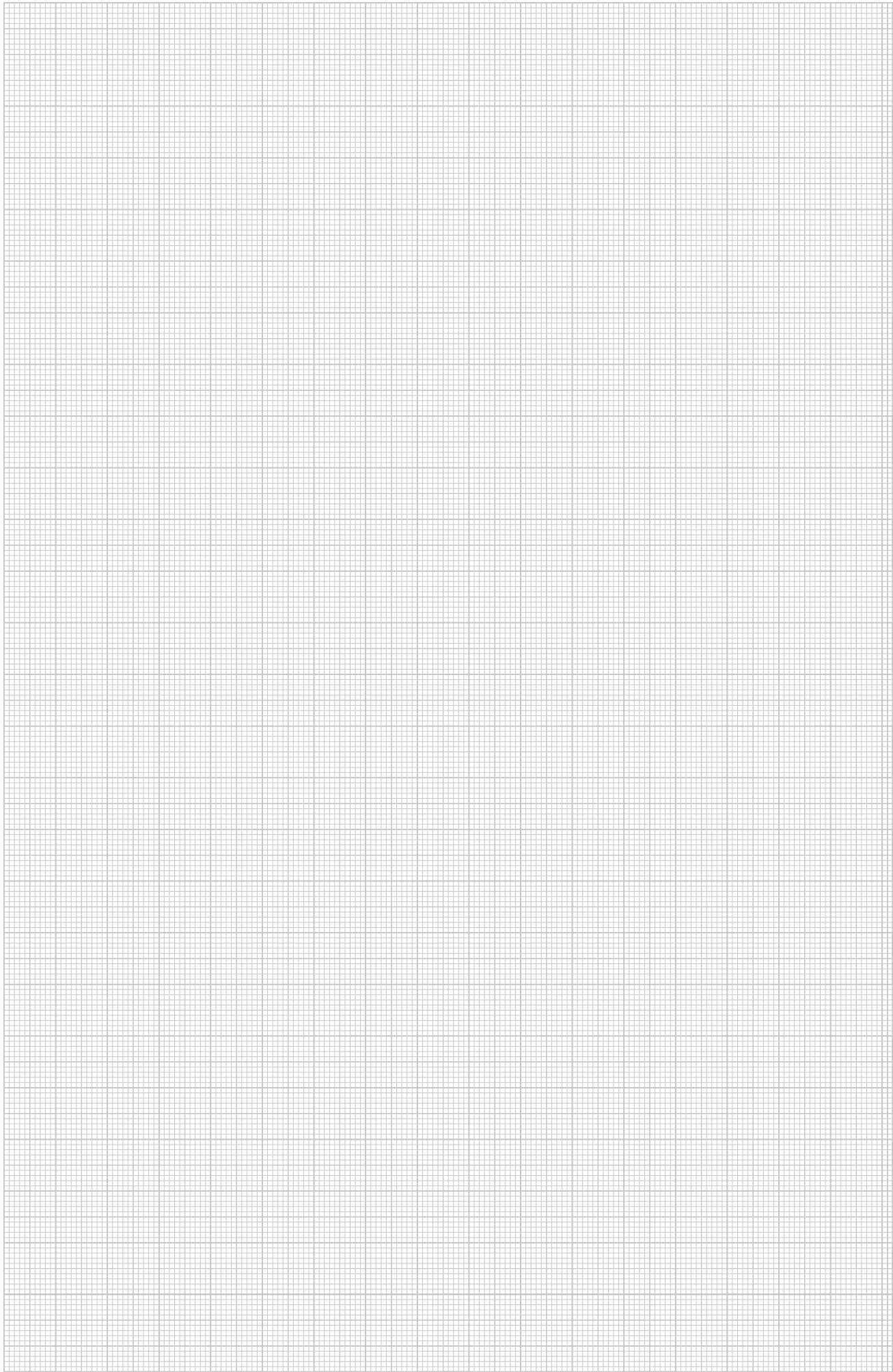


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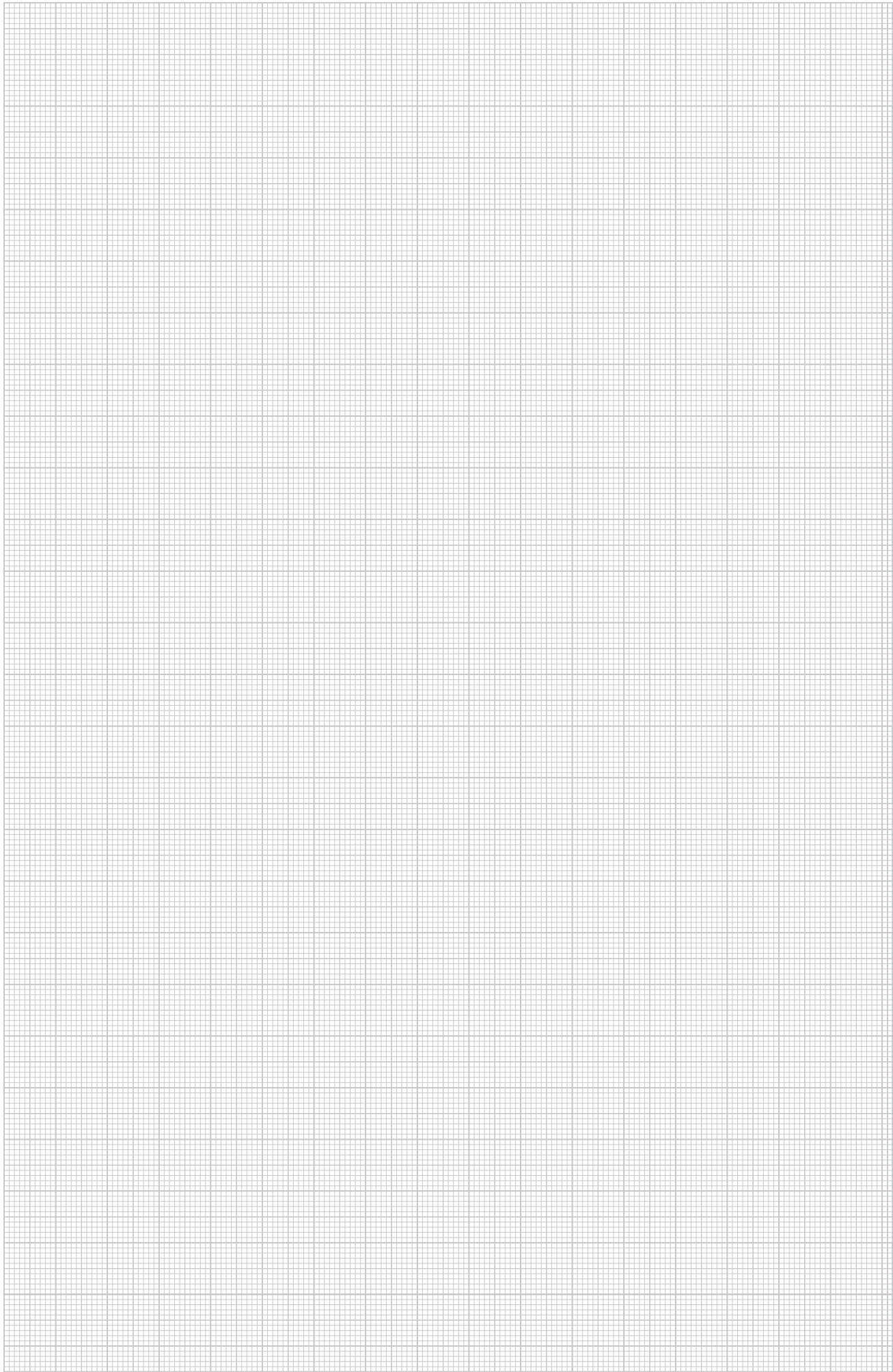
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5809418	2086030	96	6229277	6416446	46	7308520	7215633	39	7310660	7218142	86
5809593	2086036	96	6202812	6416500	94	7308544	7215637	39	7310417	7218144	86
5809777	2086042	96				7308568	7215641	39	7310431	7218146	71
			6204311	6418198	91	7308582	7215645	39	7310455	7218148	79
5474135	2091607	96		/100 pc.		7308728	7215650	39	7310479	7218150	87
5931690	2091615	96	6437474	6418250	47	7308742	7215652	39	7310493	7218152	72
5931751	2091623	96				7308766	7215654	39	7310516	7218154	80
5931812	2091631	96		/pc.		7308780	7215656	39	7310530	7218156	87
5931874	2091658	96	6207077	6420656	95	7308605	7215660	40	7273613	7218158	72
			6207138	6420664	46	7308629	7215662	40	7273637	7218160	80
5253334	3141128	92	6207190	6420680	46	7308643	7215664	40	7273651	7218162	88
5253396	3141209	47	6207251	6420710	46	7308667	7215666	40	7274689	7218164	90
									7274740	7218166	90
6687350	3156710	49	5850137	7202300	30		7218000	66	7274719	7218168	90
			5850182	7202310	97		7218002	66	7274771	7218170	90
	/100 pc.						7218004	67			
5298151	3400085	93	5847830	7205423	32		7218006	67			
5298212	3400107	48					7218008	73			
			6675289	7207052	92		7218010	73			
5300076	3402088	93	6675296	7207054	92		7218012	81			
5300137	3402096	48					7218014	81			
5300311	3402207	49	7308681	7214701	56		7218020	88			
5300373	3402215	93	7308704	7214706	56		7218022	88			
5300434	3402223	49		/pc.			7218024	89			
			5918882	7214715	57		7218026	89			
5918905	3498096	31	5918899	7214725	59	7304966	7218027	66			
5918912	3498098	32	6591398	7214734	32		7218028	67			
5850069	3498100	51					7218030	73			
6559626	3498124	44	7308223	7215136	26		7218032	81			
6559640	3498272	28	7308209	7215139	26		7218034	89			
6411856	3498334	45	7308261	7215141	26		7218036	89			
6411894	3498350	45	7308247	7215144	26	7332013	7218038	68			
			7308360	7215175	38		7218040	68			
	price/m		7308384	7215179	38	7332037	7218042	74			
5694489	6062033	50	7308407	7215183	38		7218044	74			
5694496	6062050	91	7308421	7215187	38	7332051	7218046	82			
5694540	6062068	91		price/m			7218048	82			
5694571	6062114	50	6645794	7215210	27	7332075	7218050	68			
5694588	6062122	91	6645855	7215216	27		7218052	68			





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**OBO Bettermann
Holding GmbH & Co. KG**
P.O. Box 1120
58694 Menden
GERMANY

www.obo-bettermann.com

Customer Service

Tel.: +49 23 73 89 - 17 00
Fax: +49 23 73 89 - 12 38
export@obo.de

Building Connections

OBO
BETTERMANN