PowerSyntax®
connectors

Inline and panel version, chain pilot with microswitch, compatible accessories

SYNTAX®

VALENTINI

VALENTINI SYNTAX POWER BOX

Inventors, manufacturers, innovators.

Valentini is a dynamic, ever-evolving company operating in over 60 countries worldwide. For more than 30 years we have actively researched, designed and manufactured connectors for power, signal and hybrid applications. Our Syntax connectors have been used all over the world to manage power and electric signals in fields such as industry, automotive, broadcasting, shipbuilding & ship to shore power, international sporting events, live shows, military & national emergency management by agencies such as the Italian Civil Protection Department, and so many more. Valentini is an environmentally-aware company where respect for the environment is an integral part of the manufacturing process. Our team is motivated and mindful of details, as we know details are important in our pursuit of uncompromised quality and utmost reliability.

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PowerSyntax®
connectors series

PowerSyntax family of Powerlock-style single pole connectors.

SPX, SPZ, SPY and **SPV** are the new PowerSyntax series of Powerlock compatible single pole electrical connectors. Power Syntax are specifically suited for the electrical supply management from **480amp** up to **750amp**. Although fully intermateable with the original (and all the previous Syntax versions), the new PowerSyntax features a number of mechanical and technical enhancements which have been designed and incorporated to redefine the standards on this category of connectors as for safety, reliability, ease of handling and robustness in the harshest conditions.

General features

- Powerlock compatible
- Intermateable with other versions
- CE compliant
- EN/ESI compliant
- Contact retained within the thermoplastic housing with a flame-retardant UL94-VO plastic pin.
- Quick assembling and disassembling, no special extracting tools are needed
- Heavy-duty ergonomic hand grip, with sides specifically designed for easy pushing/pullingwhen mating/unmating
- Metric thread M40 cable gland IP68 watertight compliant with EN/CE, adapters available for cables over 32 mm diameter
- Multipoint contact area
- Silver Plated Contacts
- Mechanically keyed to prevent mating errors
- High Impact bodies
- Screw, Crimp and Lug terminals to facilitate cables from 25mm² to 300 mm²
- Permanent marking to identify phase/line and safety information embossed on connector's body
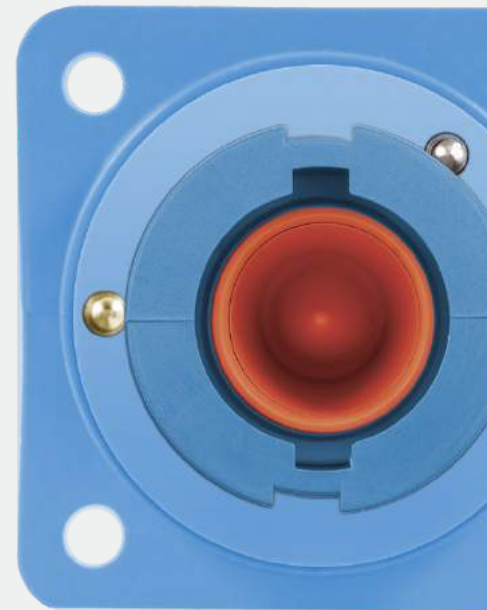
Typical applications

- Electrical power systems
- Power distribution
- Outdoor concerts and sporting events
- Outdoor broadcasting
- Theatres
- Mobile generators
- Industrial vehicles
- Railway installations
- Military installations
- Load banks
- Backup power systems
- Electrical power supply companies
- Heavy industry

Technical data

- **Number of contacts:** single pole
- **Max continuous current rating with brass or bimetal contact:** 480amp
- **Max continuous current rating with copper contact:** 750amp
- **Operating Voltage:** 1.000V AC / 1.500V DC
- **Test Voltage:** 4.500 V AC
- **Short Circuit Rating:** 16,1kA (1 sec) 13,8kA (2 sec) 11,5kA (3 sec) 35,5kA (peak)

- **Insulation Resistance:** >5.000 MOhm @500V
- **IP rating when mated:** IP67
- **Protection against electric shock:** IP2X
- **Contact resistance:** <0.1 mOhm
- **Housing material:** high temperature thermoplastic
- **Flammability:** UL94 V0
- **Coupling method:** bayonet lock with secondary locking pin
- **Number of mating cycles:** >500
- **Operating temperature:** -30°C/+125°C

	Ground	Neutral	Line 1	Line 2	Line 3
Europe & UK	green	blue	brown	black	grey
UK (old)	green	black	red	yellow	blue
Australia	green	black	red	white	blue
U.S.A.	green	white	black	red	blue

PATENTED

IP2X drain contact safety lock
Patented by Syntax

On our drain single pole connectors, the IP2X protection is obtained through a patented safety lock of the sharp-pointed insulated cap. This solution prevents pushing the contact inwards with fingers and provides mechanical lock in case of improper pushing of the contact.
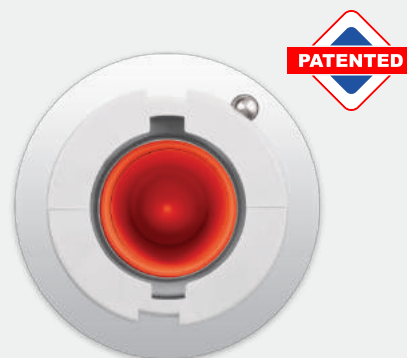
PowerSyntax contact guide pin

For easy alignment of the holes on contact and insulating body, and quick insertion of the red dowel pin, the PowerSyntax contacts feature a guide pin with a corresponding recess in the insulator.
After locating recess **A** in the body, find guide pin **B** on the contact, then insert guide pin **B** inside recess **A**, as shown in picture **C**.
For contact fastening, after locating hole **D** on the body, insert dowel pin **E** in hole **D**. Contact retention is then completed (**F**).

Multilouver contact band and locking mechanism

To prevent a faulty retention of the contact band (1) and to ensure the efficiency of the connection, we adopted a solution which keeps the multilouver spring loaded band in location. The contact band is held in its locked position by a special ring, on which a 2.5 ton. pressure has been applied (2).This solution prevents derailment of the multilouver contact band (3).

Source contact IP2X threaded protection

The touch-proof protection on source contacts features a threaded attachment. A breakage of the insulation caps is a risk for the operators' safety. Thanks to this solution, the touch-proof cap is threaded and then blocked with specific adhesives. The bond between the protective elements and the live parts is strengthened, improving safety through a reduced exposure of the metal parts, as a portion of the cap will remain in position even in case of damage.

Chain pilot
Drain and source panel connectors
with **Microswitch**

The new CHAIN PILOT system is an evolution of the PowerSyntax SPX panel-mount single pole connectors. VALENTINI - Syntax® has become the first manufacturer in the world to have developed and marketed powerlock-style panel-mount connectors with in-built microswitch (international patent). Thanks to Valentini's innovative solution, protective electrical interlocking and/or additional controls can now be obtained for the first time on powerlock-style connections through a chain of simultaneously operating connectors, allowing constant monitoring of all the conductors in a power circuit (either for source or distribution; see circuit diagrams below). When a panel connector is mated with its coupling cable connector, a spring device pressed by the thermoplastic insulated body edge of the cable connector is operated to activate the pilot microswitch housed in the rear of the flange. The SPX Chain Pilot panel mount connectors are available in drain (male) or source (female) versions, for up to 480amp or up to 750amp. They are fully intermateable with standard PowerSyntax or other powerlock-style connectors.

Technical data
Pilot microswitch

- Switching function: Changeover switch (spdt momentary)
- Number of poles: 1 - pole
- Connections: Quick-connect terminal, 2.8 x 0.5, sealed
- Mechanical life endurance: 10E6Rating IEC / Rating North America 10 (3) a 250 v ac 10E3
- Design: DIN 41635 B
- Contact resistance (new condition): < 100 (1 A 12 V DC Mohm
- Insulation resistance (new condition): > 100 (500 V DC) Mohm
- Voltage strenght at 250V:
  • function insulation / basic insulation 1 500 V
  • small contact distance 500 V
- Insulation spacing: acc. to EN 61058 for reinforced or do ble insulation
- Flammability: UL 94 V-0
- Glow wire test temperature: 850 °C
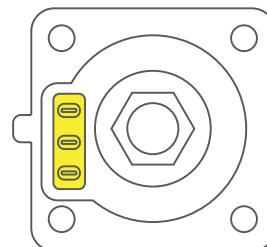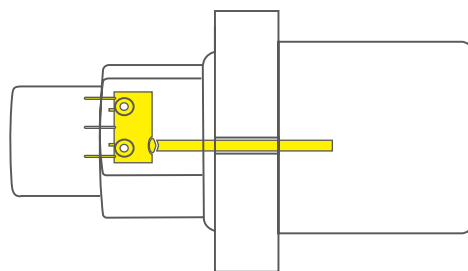
Activation button!
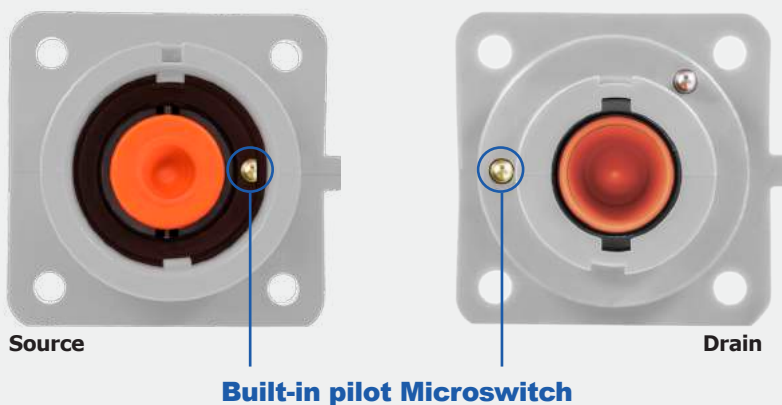
Source

Drain

Built-in pilot Microswitch

Panel source
With microswitch

On the panel source, the spring device activating the microswitch is placed inside the mating part of the connector's shell.
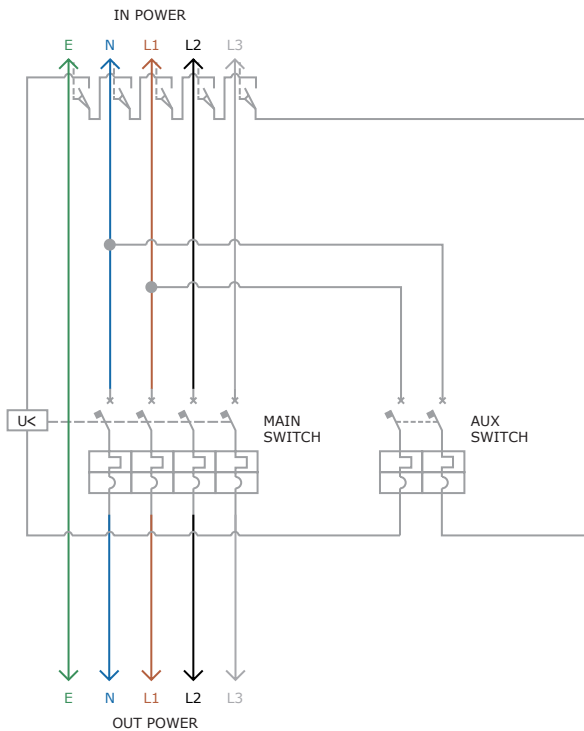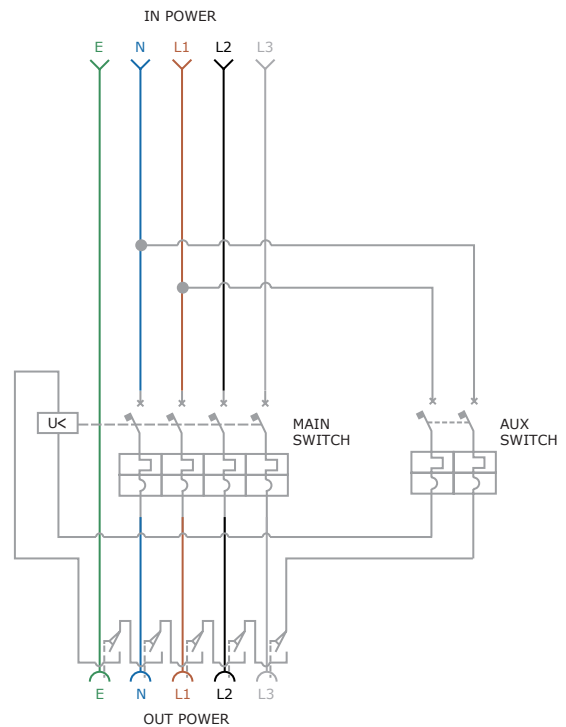
Panel drain
With microswitch

On the panel drain, the spring device activating the microswitch is placed outside the mating part of the connector's shell.

Examples of connection applications

5 Panel drain circuit
Example 1

5 PowerSyntax series panel drain connectors with built-in microswitches for phaseconductors "L1, L2 & L3", neutral "N"and ground "E".

5 Panel source circuit
Example 2

5 PowerSyntax series panel source connectors with built-in microswitches for phase conductors "L1, L2 & L3", neutral "N" and ground "E".

Contacts
for the Chain Pilot

The PowerSyntax Chain Pilot Panel connectors are equipped with different contact types, depending on current rating (480amp or 750amp) and cable terminations.

M12 threaded post
Standard contact

Up to 480 amp or 750 amp (all-copper contact). Lug terminal retained through M12 nut. Used as a standard on SPX 4 and SPX 7 panel-mount connectors.

M12 extended threaded post
Exclusive design

Up to 480 amp or 750 amp (all-copper contact). Lug terminal retained through M12 nut. Longer contact allows connectors mating without interfering with the microswitch's contacts.

M12 threaded hole
Standard contact

Up to 480 amp or 750 amp (all-copper contact). Lug terminal retained through M12 bolt. Used as an alternative for M12 threaded-post contacts on SPX 4 and SPX 7 panel-mount connectors.

Overall dimensions

Chain pilot panel connector
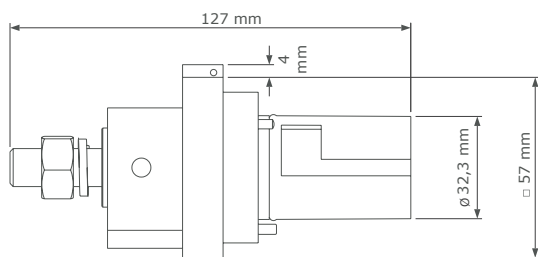
Panel drain
with M12 standard threaded post

Panel source
with M12 standard threaded post
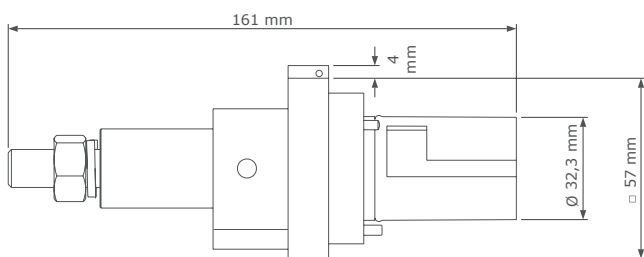
Panel drain
with M12 extended threaded post
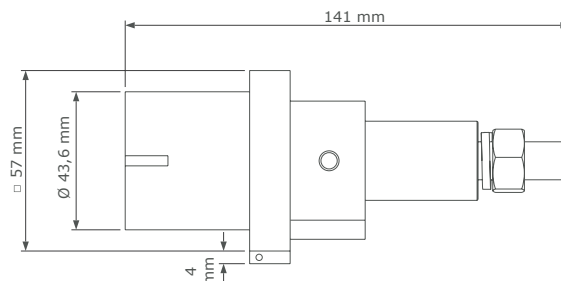
Panel source
with M12 extended threaded post
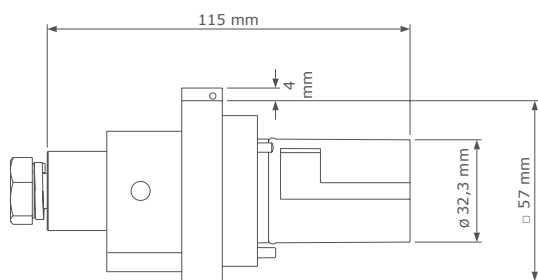
Panel drain
with M12 threaded hole
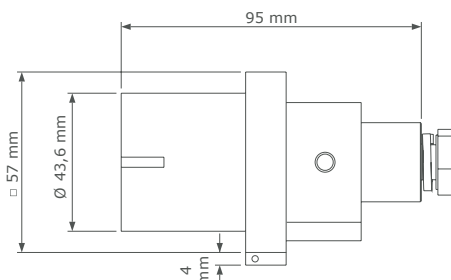
Panel source
with M12 threaded hole
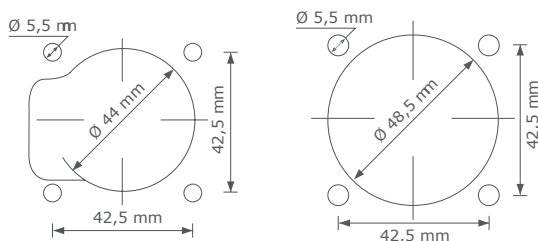
Panel drain front/rear
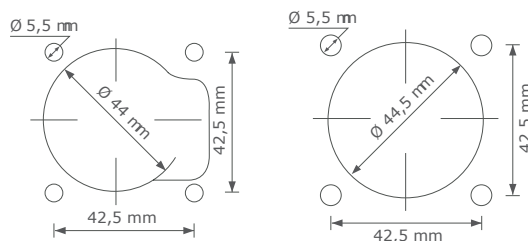
Panel source front/rear

Chain Pilot Box

The non-sequential safety box

The PowerSyntax Chain Pilot box features a set of PowerSyntax Chain Pilot connectors with L1+L2+L3+N+PE (or L1+L2+L3+PE), each one with its built-in microswitch. The connector's microswitches control an auxiliary circui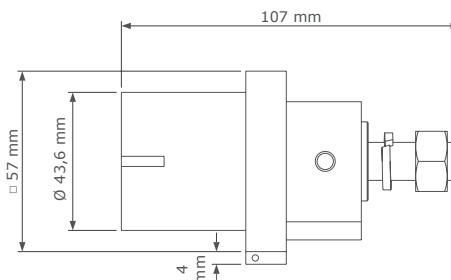t connected to an external device (breaker, contactor, etc.), so that the system will only be activated once all the mechanically keyed cable connectors have been inserted in the corresponding panel-mount connectors on the Chain Pilot Box. So there is no need to respect a sequential order when mating or unmating your connectors, unlike other Powerlock-compatible boxes.

All connectors will de-energise should one become disconnected when in use.

international
PATENT

Product overview

- Insert all the cable connectors to activate the breaker or protection device.
- All connectors will de-energise should one become disconnected when in use.
- Built-in microswitch for electrical interlock on all connectors.
- No mechanical locks / longer lifespan.
- Ensures safe connection of all phases, neutral and earth.
- Electrical safety guaranteed.
- International patent on connectors

Supply notice
Environmental caps supplied as a standard to ensure IP67 even when connectors are unmated.

Technical features

- Intermateable with standard PowerSyntax or other powerlock-style connectors.
- Microswitch-controlled auxiliary circuit ensures that the system will only be energised when all 5 connectors on the box have been mated.
- Total electrical safety as all connectors are de energised should one become disconnected.
- Color coded connectors.
- 5-pole (E-N-L1-L2-L3) or 4-pole (E-L1-L2-L3) system with Panel Drain or Source connectors.
- Mechanically keyed connectors to prevent mating errors.
- Secondary lock for added mechanical safety.
- IP2X finger-proof protection.
- 2U 19" rack-mountable box.
- IP67 rating on connectors' front mating side.
- Microswitch-controlled auxiliary circuit ensures that the system will only be energised when all connectors on the box have been mated.

Chain Pilot panel connectors are patented by Syntax

Technical data

- Rated current: 480amp or 750amp
- Rated voltage: 1000V AC / 1500V DC
- Color coding:
  EUROPE: color coded connectors and panel inscriptions (E-green, N-blue, L1-brown, L2-black, L3-grey)
  UK (old): color coded connectors (E-green, N-black, L1-red, L2-yellow, L3-blue)
  AUSTRALIA: color coded connectors (E-green, N-black, L1-red, L2-white, L3-blue)
  USA: color coded connectors (E-green, N-white, L1-black, L2-red, L3-blue)
- Model: source or drain
- Contact material: silver plated copper
- Box material: high temperature thermoplastic

- Rack space: 2U or 2.5U
- Endurance: 500 + connection cycles
- Degree of protection (connectors front side): IP67 when mated of with environmetal caps fitted (IP67 caps supplied as a standard)
- Degree of protection (connectors without caps): IP2X finger-proof
- Flammability: UL94 - V0
- Operating temperature: -30°C to +85°C
- Safety notice: The PowerSyntax chain pilot box should only be installed and operated by suitably qualified persons

Possible configurations

Configure your own Chain Pilot Box choosing between a wide range of options: 4 or 5 poles, color coding by geographical region, source or drain connectors, up to 480A or up to 750A, 2U or 2,5U of box height and contact type, threaded post or threaded hole.
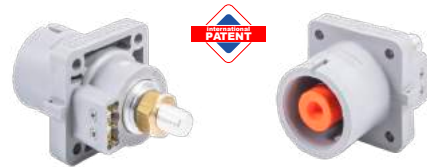
1.
Choose your connector style

The PowerSyntax Chain Pilot connectors are available in Panel Drain e Panel Source versions.
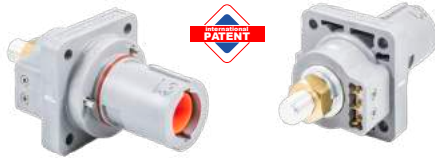
Panel drain
With microswitch

On the panel drain, the spring device activating the microswitch is placed outside the mating part of the connector's shell.

Panel source
With microswitch

On the panel source, the spring device activating the microswitch is placed inside the mating part of the connector's shell.

2.
Choose the number of poles

The Chain Pilot Box can be ordered with the standard 5-poles (G - N - L1 - L2 - L3) or in the 4-poles (G - L1 - L2 - L3) version.

5-poles version

4-poles version

3.
Choose the color coding

The PowerSyntax Chain Pilot connectors can be coded for Europe, UK (old), Australia and U.S.A. color schemes.

Identification color codes (5-POLES)

	Ground	Neutral	Line 1	Line 2	Line 3
Europe & UK	green	blue	brown	black	grey
UK (old)	green	black	red	yellow	blue
Australia	green	black	red	white	blue
U.S.A	green	white	black	red	blue

Identification color codes (4-POLES)

	Ground	Line 1	Line 2	Line 3
Europe & UK	green	brown	black	grey
UK (old)	green	red	yellow	blue
Australia	green	red	white	blue
U.S.A	green	black	red	blue

4.
Choose the contact's terminal

The PowerSyntax Chain Pilot Panel connectors in the Chain Pilot Box are equipped with different contact types, depending on current rating (480amp or 750amp) and cable terminations.

M12 extended threaded post

M12 threaded-post contact, up to 480 amp or 750 amp (all-copper contact). Lug terminal retained through M12 nut. Longer contact allows connectors mating without interfering with the microswitch's contacts.

M12 threaded hole

M12 threaded-hole contact, up to 480 amp or 750 amp (all-copper contact). Lug terminal retained through M12 bolt. Used as an alternative for M12 threaded-post contacts on SPX 4 and SPX 7 panel-mount connectors.

5.
Choose the box height

Pick the right box for your rack, we can provide two options:
2U and 2.5U. Both choices are available for the 4-poles or the 5-poles versions.
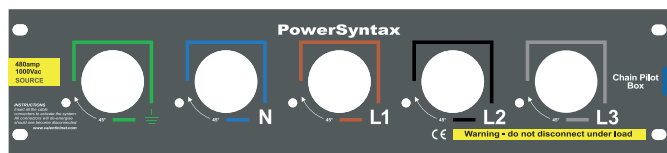
Box height: 2U (88mm)
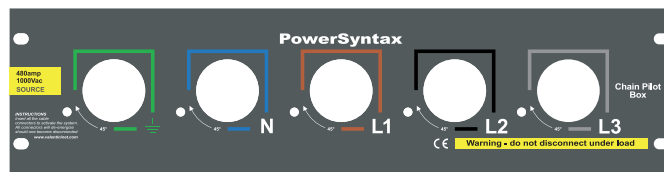
Box height: 2.5U (108mm)

Overall dimensions
Chain pilot box
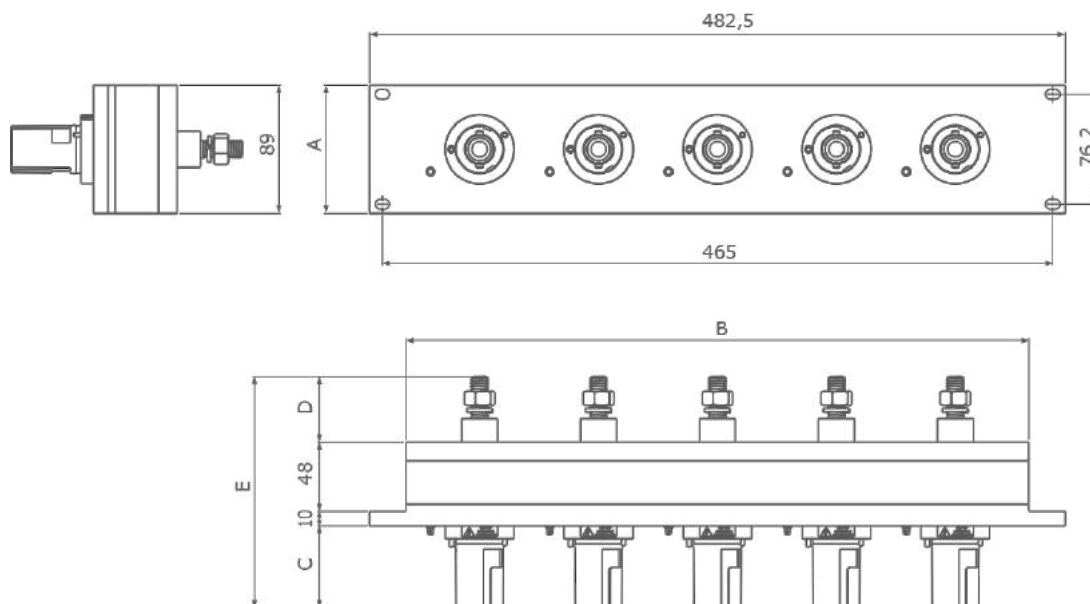
Type	Poles	Units	Contact	A	B	C	D	E
Drain	4	2U	M12 post	88 mm	349,5 mm	57 mm	46 mm	161 mm
Drain	4	2U	M12 hole	88 mm	349,5 mm	57 mm	16,3 mm	131,3 mm
Drain	4	2.5U	M12 post	108 mm	349,5 mm	57 mm	46 mm	161 mm
Drain	4	2.5U	M12 hole	108 mm	349,5 mm	57 mm	16,3 mm	131,3 mm
Drain	5	2U	M12 post	88 mm	432 mm	57 mm	46 mm	161 mm
Drain	5	2U	M12 hole	88 mm	432 mm	57 mm	46 mm	161 mm
Drain	5	2.5U	M12 post	108 mm	432 mm	57 mm	46 mm	161 mm
Drain	5	2.5U	M12 hole	108 mm	432 mm	57 mm	16,3 mm	131,3 mm
Source	4	2U	M12 post	88 mm	349,5 mm	35 mm	46 mm	139 mm
Source	4	2U	M12 hole	88 mm	349,5 mm	35 mm	16,3 mm	109,3 mm
Source	4	2.5U	M12 post	108 mm	349,5 mm	35 mm	46 mm	139 mm
Source	4	2.5U	M12 hole	108 mm	349,5 mm	35 mm	16,3 mm	109,3 mm
Source	5	2U	M12 post	88 mm	432 mm	35 mm	46 mm	139 mm
Source	5	2U	M12 hole	88 mm	432 mm	35 mm	16,3 mm	109,3 mm
Source	5	2.5U	M12 post	108 mm	432 mm	35 mm	46 mm	139 mm
Source	5	2.5U	M12 hole	108 mm	432 mm	35 mm	16,3 mm	109,3 mm
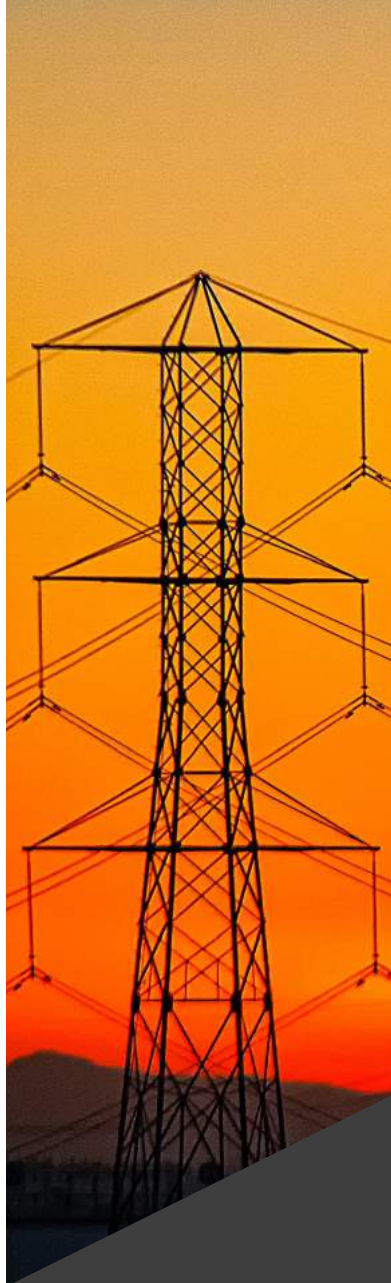
Basic panel or shelter

Panel source, panel drain, with threaded body and backshell

Discover our innovative, Powerlock compatible, single pole panel connectors: 3 options that will improve your productivity while bringing you peace of mind on all electrical insulation and safety-related issues. And no compromises on connectors' design and performances.

Basic panel connector
Panel Drain or Panel Source

Specific housing for protection cap lacing moulded on the plastic body of the flange. IP2X protection through patented drain contact lock and source finger protection to prevent touching live parts. Contact to housing retention through flame-retardant UL94-VO plastic cotter pin. No special assembling tools needed. Secondary locking safety system. Front or rear panel mount. Optional M5 threaded fittings available for rear panel mount. Permanent phase / line identification and safety information markings embossed on connector's shell. No additional information stickers applied. SPX 4 480amp and SPX 7 750amp versions available. M12 contacts with M12 threaded post or M12 threaded hole. Set screw, Crimp or EasiLug contacts available or request. Threaded body with thermoplastic backshell and IP68 cable gland available. For secondary lock release, use SyntaxLock or standard release key.

Panel drain
Front view

Panel drain
Rear view

Panel source
Rear view

Panel source
Front view

Shelter panel connector
with threaded body and backshell

The PowerSyntax SPX panel mount connectors are available with threaded body to fit a thermoplastic backshell. As well as the backshell, this system features an IP68 cable gland and provides IP67 watertight seal at the cable clamp. This version can be supplied with a set-screw contact terminal with reduction sleeves for 25-150 mm² copper cables up to 480 amp

Panel mount cut-out options
Basic panel and shelter

Ø 5,5 mm 95 mm Ø 44 mm 42,5 mm 42,5 mm

Panel drain front/rear

Ø 5,5 mm 95 mm Ø 44 mm 42,5 mm 42,5 mm

Panel source front/rear
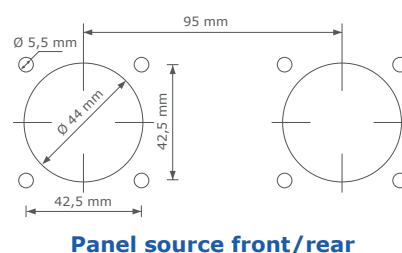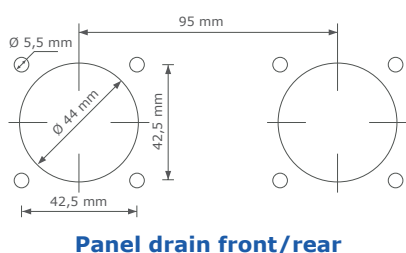
Overall dimensions

Basic panel and shelter
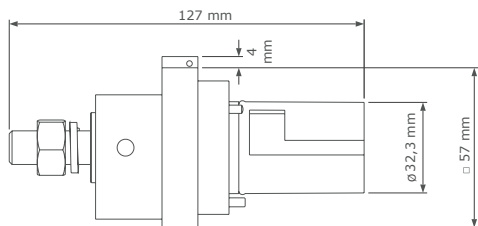
Panel drain
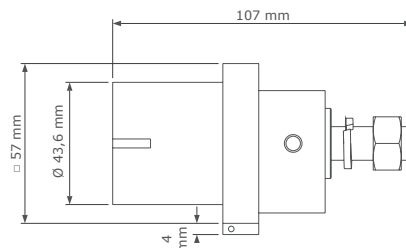
with M12 standard threaded post

Panel source

with M12 standard threaded post
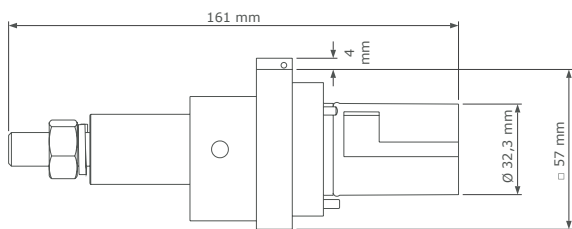
Panel drain

with M12 extended threaded post

Panel source

with M12 extended threaded post

Panel drain

with set screw contact

Panel source

with set screw contact
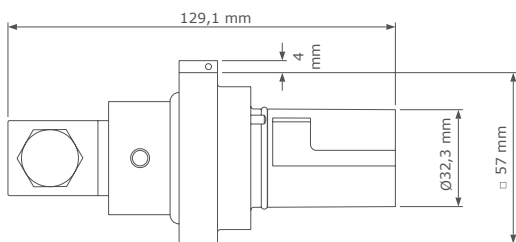
Panel drain

with ComLug L
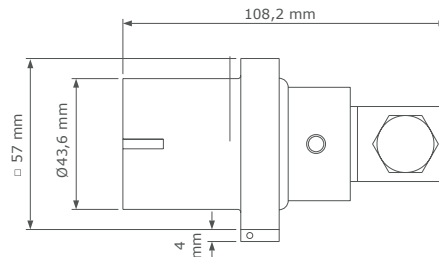
Panel source

with ComLug L
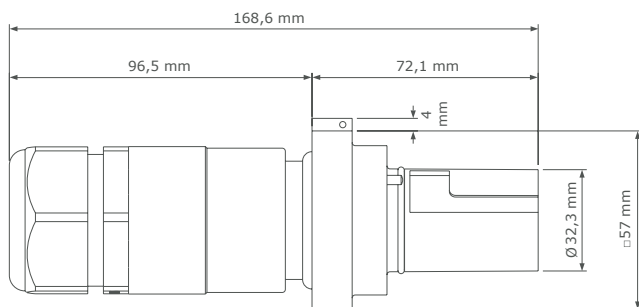
Shelter panel drain

with backshell
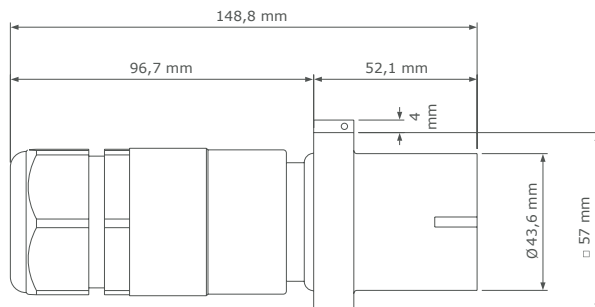
Shelter panel source

with backshell

Contacts
for panel-mount connectors

The PowerSyntax Panel connectors are equipped with different contact types, depending on current rating (480amp or 750amp) and cable terminations.

M12 threaded post
for Basic panel

Up to 480 amp or 750 amp (all copper contact). Lug terminal retained through M12 nut. Used as a standard on SPX 4 and SPX 7 panel-mount connectors.

M12 threaded hole
for Basic panel

Up to 480 amp or 750 amp (allcopper contact). Lug terminal retained through M12 bolt. Used as an alternative for M12 threaded-post contacts on SPX 4 and SPX 7 panel-mount connectors.

SPY ComLug
for Basic panel

Available in two different models: the first can carry up to 480 amp, the second, entirely made of copper, up to 750 amp. Depending on the model, they can be suitable for lug terminals up to 240 mm².

SPX SPZ set screw contact
for Basic panel and shelter

Up to 480amp. Cable retained through reduction sleeve (25-150 mm²) and set screws suitable reduction sleeve is included. Used as a standard on SPX/SPZ 480amp line source/drain connectors, the set screw contact is also available for panel-mount connectors on request.

Sleeve adapter system
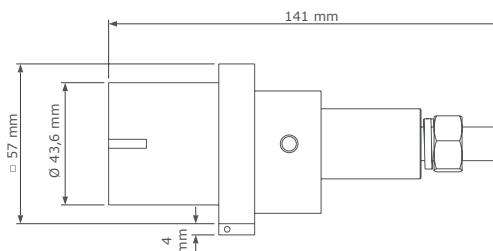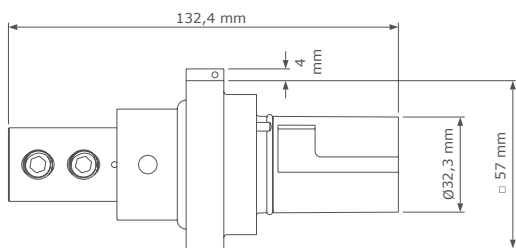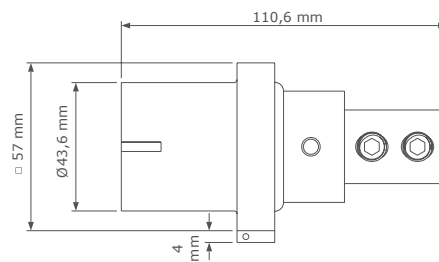### for set screw contacts
The ultimate solution for 25 to 95 mm² cables.

The PowerSyntax Sleeve Adapter is a unique mechanical solution for ideal cable retention when a PowerSyntax with set screw contact is used with cable sections of 95 mm² or smaller.
On other connectors on the market, multiple concentric sleeves are used to reduce the cable section from 150 or 120 mm² down to the smaller section specifically needed. The thoughtful design and the mechanical reliability of the our sleeve adapter eliminates the need to use multiple concentric sleeves.

Cable section (class 5)	25 mm²	35 mm²	50 mm²	70 mm²	95 mm²	120 mm²	150 mm²
Recommended sleeve adapter (p/n)	SPX-RED025	SPX-RED035	SPX-RED050	SPX-RED070	SPX-RED095	-	-
Cable strip length	33 mm	33 mm	33 mm	33 mm	33 mm	33 mm	33 mm
Set screw tightening torque	12Nm	12Nm	12Nm	12Nm	12Nm	12Nm	12Nm
M10 hex set screw (2pcs)	allen key size 5	allen key size 5	allen key size 5	allen key size 5	allen key size 5	allen key size 5	allen key size 5

Line connectors

Line source and Line drain
480 and 750 amp

A full range of high current, Powerlock compatible, single pole connectors for your cables. With 3 different shell versions and 6 contact types, an unprecedented range of combinations is made available for you.
No matter the section of your cables, in the PowerSyntax range you are sure to find YOUR ideal solution to manage any sections from 25 to 300 mm^2. For copper or aluminium cables, with no compromises on connectors' design and performances.

Short body connector
Line drain and line source | 480 amp

Innovative ergonomic hand grip for easy handling. IP2X protection through patented drain contact lock and source finger protection to prevent touching live parts. Contact to housing retention through flame-retardant UL94-VO plastic cotter pin. No special assembling tools needed. Secondary locking safety system. Set Screw termination for 25 mm² - 150 mm² cables. IP68 watertight m40 plastic cable gland for cable strain relief, with 15 - 32 mm clamping range. Permanent phase/line identification and safety information markings embossed on connector's shell. No additional information stickers applied.

Line drain
Short body connector

Line source
Short body connector

Line drain
Standard body connector

Line source
Standard body connector

Standard body connector
Line drain and line source
480 amp & 750 amp

Innovative ergonomic hand grip for easy handling. IP2X protection through patented drain contact lock and source finger protection to prevent touching live parts. Contact to housing retention through flame-retardant UL94-VO plastic cotter pin. No special assembling tools needed. Secondary locking safety system. Set Screw termination for 25 mm² - 150 mm² cables. Crimp termination for cables up to 300 mm². IP68 plastic cable gland for cable strain relief, with 15 - 32 mm (M40) or 30 - 38 mm (M50) clamping range. Permanent phase/line identification and safety information markings embossed on connector's shell. No additional information stickers applied.

Oversized body connector
Line drain and line source | 750 amp

Extra large body cavity, ideal when using lug terminals for big cable sections. Improved hand grip for easy handling. IP2X protection through patented drain contact lock and source finger protection to prevent touching live parts. Contact to housing retention through flame-retardant UL94-VO plastic cotter pin. No special assembling tools needed. Secondary locking safety system. IP68 plastic cable gland for cable strain relief, with 30 - 38 mm (M50) clamping range. Permanent phase/line identification and safety information markings embossed on connector's shell. No additional information stickers applied.

Line drain
Oversized body connector

Line source
Oversized body connector

Hanger grip

These heavy duty wire mesh hangers are designed to ensure the right retention of the cable without any sliding or scraping of the external jacket. This item can be used to hang the cable so to protect it from accidental pulls when mounting.

Part No.	Cable O.D. Min.	Cable O.D. Max
7ZHG1	12 mm	16 mm
7ZHG2	16 mm	18 mm
7ZHG3	19 mm	21 mm

Contacts
and cable retention types for line connectors

The PowerSyntax connectors are equipped with different contact types, depending on current rating (480amp or 750amp), cable material (aluminum or copper), connectors body type (line or panel-mount) and cable terminations.

Solutions for copper cables

SPX SPZ set screw contact
for Basic panel and shelter

Up to 480amp. Cable retained through reduction sleeve (25-150 mm²) and set screws suitable reduction sleeve is included. Used as a standard on SPX/SPZ 480amp line source/drain connectors, the set screw contact is also available for panel-mount connectors on request.

Sleeve adapter system
for set screw contacts
The ultimate solution for 25 to 95 mm² cables.

The PowerSyntax Sleeve Adapter is a unique mechanical solution for ideal cable retention when a PowerSyntax with set screw contact is used with cable sections of 95 mm² or smaller. On other connectors on the market, multiple concentric sleeves are used to reduce the cable section from 150 or 120 mm² down to the smaller section specifically needed. The thoughtful design and the mechanical reliability of the our sleeve adapter eliminates the need to use multiple concentric sleeves.

Cable section (class 5)	25 mm²	35 mm²	50 mm²	70 mm²	95 mm²	120 mm²	150 mm²
Recommended sleeve adapter (p/n)	SPX-RED025	SPX-RED035	SPX-RED050	SPX-RED070	SPX-RED095	-	-
Cable strip length	33 mm	33 mm	33 mm	33 mm	33 mm	33 mm	33 mm
Set screw tightening torque	12Nm	12Nm	12Nm	12Nm	12Nm	12Nm	12Nm
M10 hex set screw (2pcs)	allen key size 5	allen key size 5	allen key size 5	allen key size 5	allen key size 5	allen key size 5	allen key size 5

SPX crimp contact
for standard body connector

Crimp contact, up to 750 amp, and up to up to 300 mm² cable sections. The position and number of cable compressions very according to the different cable sections. Cable stripping length is 42 mm.

For all crimping data see the section starting from page 24

300 mm²

240 mm²

185 mm²

150 mm²

Lug converters for copper cables terminated with common lugs

SPY ComLug L
Lug Converter

For standard body connector

Contact available in two different models: the first can carry up to 480 amp, the second, entirely made of copper, up to 750 amp. Depending on the model, they can be suitable for lug terminals up to 240 mm².

SPY ComLug XL
Lug Converter

For oversized body connector

Entirely designed and produced by Syntax, contact up to 750 amp and suitable for lug terminals up to 300 mm² of cable section. To be used in combination with the oversized body.
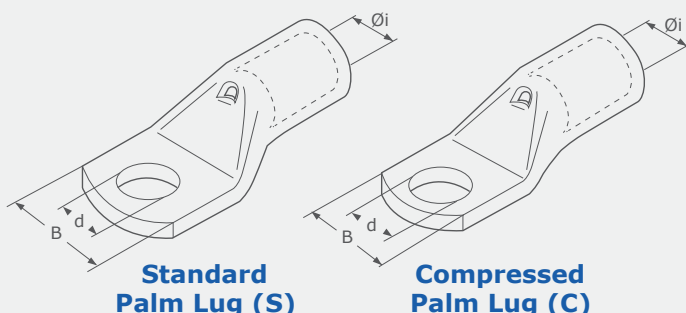
Standard Palm Lug (S)

Compressed Palm Lug (C)

Lug Type	B	Cable section (flex)	Øi	d Ø screw	Contact
S	25,0	70 - 95 mm²	13,5	12 mm	L
S	28,5	95 - 120 mm²	15,2	12 mm	L
S	31,5	120 - 150 mm²	16,7	12 mm	L
S	35,5	150 - 185 mm²	19,2	12 mm	XL
C	31,0	240 mm²	21,1	12 mm	XL
C	31,0	300 mm²	23,7	12 mm	XL

Contacts for aluminium cables
480 amp

SPY EasiLug - Bimetal

Complete EasiLug contact with bi-metal (aluminium/copper terminal) for aluminium cable. Used as a standard on SPY EasiLug connectors for aluminium cables, this contact type is also available for panel-mount connectors on request.

For all crimping data see the section starting from page 24

SPV - Bimetal

Bimetal (aluminium/copper) crimp contact for up to 300 mm² cable sections. Designed to be used in combination with aluminium cables.

For all crimping data see the section starting from page 24

Crimping data

and cable stripping

On crimp contacts (up to 750amp copper / 480amp bimetal, and up to up to 300 mm² cable sections), the position and number of cable compressions very according to the different cable sections (see tables below).
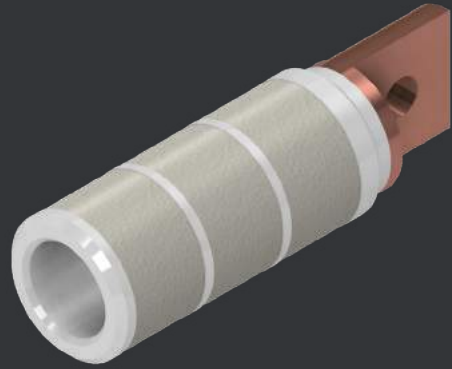
Aluminium cables - SPY EasiLug
Class 5

Lug model	120 mm²	150 mm²	185 mm²	240 mm²	300 mm²
Contact internal Ø	15 mm	16,5 mm	18,5 mm	21,3 mm	23,3 mm
Cable strip length (L)	60 mm	60 mm	60 mm	60 mm	60 mm
No. of crimpings	3	3	3	3	3
Crimping width	14 mm	14 mm	14 mm	14 mm	14 mm
Crimp die set p/n	SBH-CRIMP-120AL	SBH-CRIMP-150AL	SBH-CRIMP-185AL	SBH-CRIMP-240AL	SBH-CRIMP-300AL
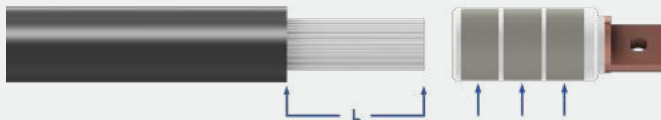
Crimp in the middle of each crimping area, inside the guides.

Aluminium cables - SPV
Class 5

Lug model	120 mm²	150 mm²	185 mm²	240 mm²	300 mm²
Contact internal Ø	15 mm	16,5 mm	18,5 mm	21,3 mm	23,3 mm
Cable strip length (L)	42 mm	42 mm	42 mm	42 mm	42 mm
No. of crimpings	2	2	2	2	2
Crimping width	14 mm	14 mm	14 mm	14 mm	14 mm
Crimp die set p/n	SBH-CRIMP-120AL	SBH-CRIMP-150AL	SBH-CRIMP-185AL	SBH-CRIMP-240AL	SBH-CRIMP-300AL

Crimp in the middle of each crimping area, inside the guides.
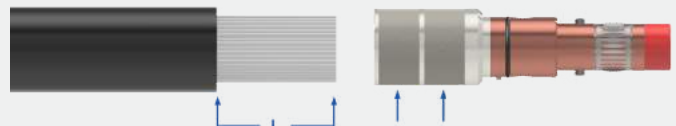
Copper cables - SPX
Class 5

Contact model source/drain	150 mm²	185/240 mm²	240/300 mm²	300 mm²
Contact internal Ø	17,9 mm	19,7 mm	22,2 mm	23,7 mm
Cable strip length (L)	42 mm	42 mm	42 mm	42 mm
No. of crimpings	2	2	2	2
Crimping width	14 mm	14 mm	7 mm	7 mm
Crimp die set p/n	SBH-CRIMP-185/240RM	SBH-CRIMP-185/240RM	SBH-CRIMP-240/300RM	SBH-CRIMP-240/300RM
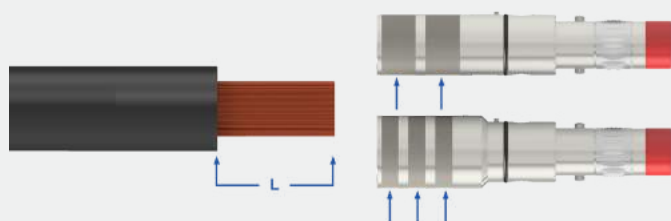
Crimp in the middle of each crimping area, inside the guides.

Hydraulic crimp tool
Hand operated and cordless

Hand operated hydraulic crimp tool
Part No. **SBH-CRIMP-B**

Cordless hydraulic crimp tool
Part No. **SBH-CRIMP-C**

300 mm² 240 mm² 185 mm²
150 mm² 120 mm²

Alumnium
Crimp die set for hydraulic crimp tools

185/240 mm² 240/300 mm²

Copper
Crimp die set for hydraulic crimp tools

Overall dimensions

Line version

Short body
Line drain | Actual product

171 mm
Ø 51,6 mm
Ø 32,3 mm
Ø 47 mm
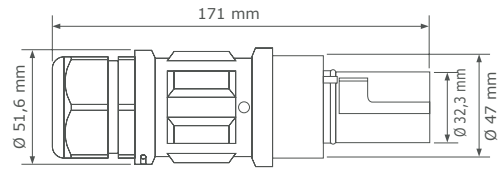
Short body
Line drain | Dimensions

Short body
Line source | Actual product
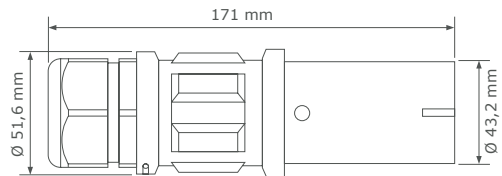
171 mm
Ø 51,6 mm
Ø 43,2 mm

Short body
Line source | Dimensions

Standard body
Line drain | Actual product
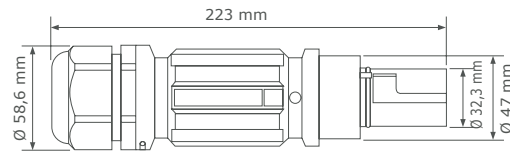
223 mm
Ø 58,6 mm
Ø 32,3 mm
Ø 47 mm

Standard body
Line source | Dimensions

Standard body
Line source | Actual product

223 mm
Ø 58,6 mm
Ø 43,2 mm
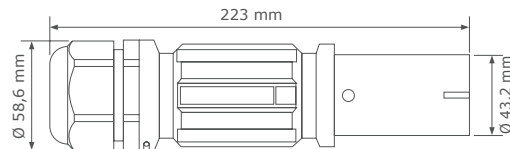
Standard body
Line drain | Dimensions

Oversized body
Line drain | Actual product

291,4 mm
Ø 67 mm
Ø 32,3 mm
Ø 47 mm
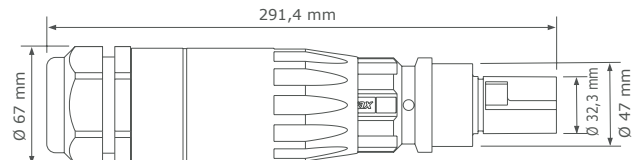
Oversized body
Line source | Dimensions

Oversized body
Line source | Actual product

271,8 mm
Ø 67 mm
Ø 43,2 mm
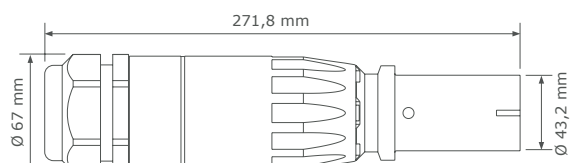
Oversized body
Line drain | Dimensions

Phase Inverters / Adaptors

Fast, safe and reliable reversal of two phase conductors.

Discover the whole range of products, available for currents up to 480 or 750 amp and in every combination of phases and colors.

The PowerSyntax® Phase Inverters/Adaptors,
available for electric currents up to 480 amp and now also up to 750 amp,
have been designed to solve two specific problems: reverse the rotation direction in three-phase motors, etc... by changing the phase sequence (L1-L2-L3) between the power source and the connected devices; provide those who use only one model of phase conductor (L1, L2 or L3) to operate L1-L2-L3+Neutral systems with an interface between standard 3-phase power generators and distros and their devices. The former is a common demand in industrial applications.
The latter is a specific need of entertainment and cinema industries.

480 amp
available version and p/n

IN male	EU	UK	AU	US	OUT female	EU	UK	AU	US	Part Number
L1	■	■	■	■	L2	■	■	□	■	SPZ4LD1_ _ - LS2_ _
L1	■	■	■	■	L3	■	■	■	■	SPZ4LD1_ _ - LS3_ _
L2	■	■	□	■	L1	■	■	■	■	SPZ4LD2_ _ - LS1_ _
L2	■	■	□	■	L3	■	■	■	■	SPZ4LD2_ _ - LS3_ _
L3	■	■	■	■	L1	■	■	■	■	SPZ4LD3_ _ - LS1_ _
L3	■	■	■	■	L2	■	■	□	■	SPZ4LD3_ _ - LS2_ _

750 amp
available version and p/n

IN male	EU	UK	AU	US	OUT female	EU	UK	AU	US	Part Number
L1	■	■	■	■	L2	■	■	□	■	SPZ7LD1_ _ - LS2_ _
L1	■	■	■	■	L3	■	■	■	■	SPZ7LD1_ _ - LS3_ _
L2	■	■	□	■	L1	■	■	■	■	SPZ7LD2_ _ - LS1_ _
L2	■	■	□	■	L3	■	■	■	■	SPZ7LD2_ _ - LS3_ _
L3	■	■	■	■	L1	■	■	■	■	SPZ7LD3_ _ - LS1_ _
L3	■	■	■	■	L2	■	■	□	■	SPZ7LD3_ _ - LS2_ _

L3 - L2

L3 - L1

L2 - L3

L2 - L1

L1 - L3

L1 - L2

S2W 480amp PowerSyntax

Multiplier | Adaptor | Phase inverter

Available with EU, UK, AUS and USA color coding.

A complete range of PowerSyntax multipliers, adaptors and phase inverters for currents up to 480 amp, available in stardard or reverse versions and with EU, UK, AUS, and USA color coding options.

S2W 480amp PowerSyntax multiplier

S2W with 1 drain | 2 source Syntax® PowerSyntax 480amp connectors. Available with EU, UK, AUS and USA color coding. Standard and reverse versions are available. The reverse version differs from the standard only for the position where the input connector is assembled (on the reverse version, the input is inline with one of the outputs).

Example p/n - EU color coding

1 input male	color	2 output female	color	Part Number
Line 1		Line 1		S2WX111000S
Line 2		Line 2		S2WX222000S
Line 3		Line 3		S2WX333000S
Neutral		Neutral		S2WXNNN000S
Ground		Ground		S2WXGGG000S

Notice:
- for the reverse version replace final "S" by "R" in the Part Number
- for the version with safety lacing add "-L" at the end of the Part Number
- IP67 or IP53 protection caps available on request.

Typical applications

- All temporary electrical systems
- Power distribution
- Outdoor concerts and sports events
- Outdoor broadcasting
- Theaters, studios and film sets
- Mobile generators
- Industrial vehicles
- Railway and military installations
- Load banks
- Back-up power systems

S2W 480amp PowerSyntax phase inverters/adaptors

The PowerSyntax Phase Inverters/Adaptors (up to 480A have been designed to solve two specific problems:
- reverse the rotation direction in 3-phase motors, etc. by changing the phase sequence (L1-L2-L3) between the power source and the connected devices;
- provide those who use only one model of phase conductor (L1, L2 or L3) to operate L1-L2-L3+Neutral systems with an interface between standard three-phase power generators/distros and their devices.

The former is a common demand in industrial applications. The latter is a specific need of entertainment and cinema industries.Standard and reverse versions are available (standard versions in the photo). The reverse version differs from the standard only for the position where the input connector is assembled (on the reverse version, the INPUT is inline with one of the outputs).

Available versions and p/n

1 input male	color	2 output female	color	Part Number
Line 1		Line 3		S2WX133000S
Line 2		Line 3		S2WX233000S
Line 3		Line 2		S2WX322000S
Line 1		Line 2		S2WX122000S
Line 2		Line 1		S2WX211000S
Line 3		Line 1		S2WX311000S

Notice:
- for the reverse version replace final "S" by "R" in the Part Number
- for the version with safety lacing add "-L" at the end of the Part Number
- IP67 or IP53 protection caps available on request.

sy

Cable protection and management

## Wire mesh strain reliefs, hanger grips and pulling grips

Explore our full range of wire mesh cable management solutions for our Syntax connectors, designed to ease optimal cable laying and organization and to provide protection from excessive bending due to gravity or any unwanted external force, in order to sensibly increase the life span of your connections.

For a perfect connection you'll need more than a great connector

Discover our cable management solutions

The quality of a connection depends on many factors. There's the connector, of course, and the cables are a top priority too. Not just in terms of production quality and the materials involved, but also in many aspects of the job that must not be overlooked. How you lay a cable, how you protect it from unwanted stresses, how you make sure it will be safe from external elements over time, these decisions are all integral to the achievement of a reliable connection.

That's why we offer you quality accessories thoughtfully designed and manifactured for all your cable managment, handling and protection needs.
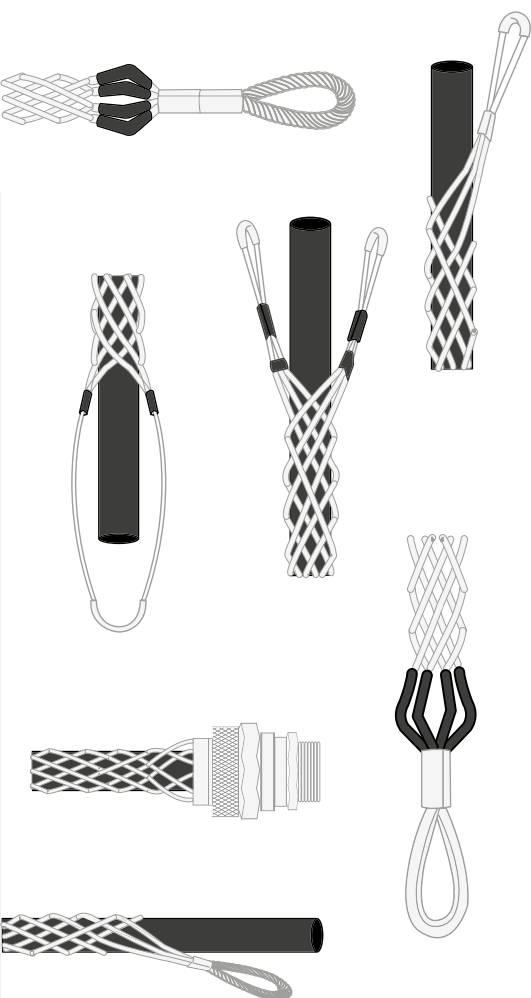
Strain Reliefs

Thoughtfully designed to reduce tension on cables and, therefore, stress related damages to your connections due to excessive bending. Available in a wide range of thread sizes and overall diameters to fit any connector and cable combination.

Hanger grips

Heavy duty wire mesh hangers are designed to ensure optimal support and right retention of the cable without any sliding or scraping of the external jacket. Different styles and sizes are available in stock for any kind of application, both indoors or outdoors.

Pulling grips

Created to provide the operators an efficient way to pull cables through ducts or other spaces in the safest possible way. Made to be extremely resistant and conveniently reusable, and fit to a large number of applications. Different models available.

SyntaxLock

PATENT PENDING
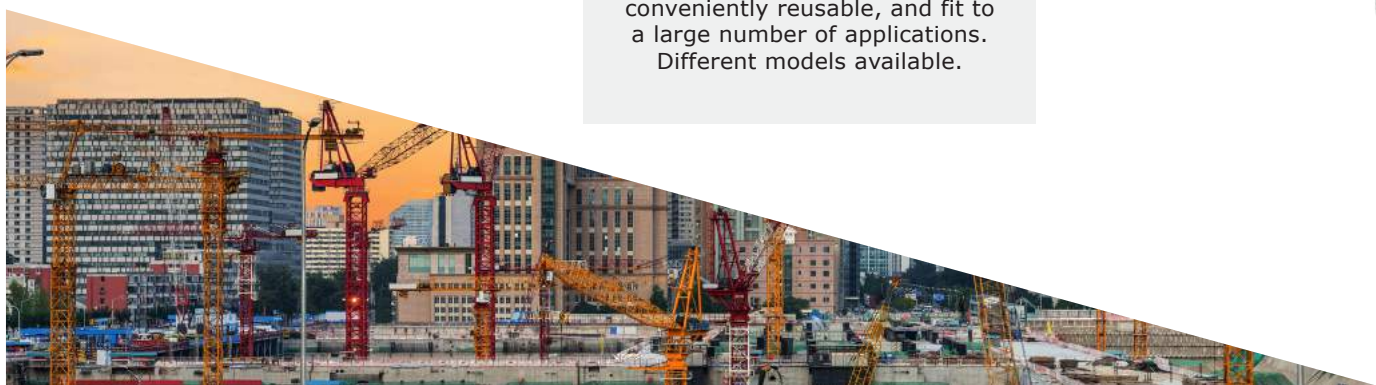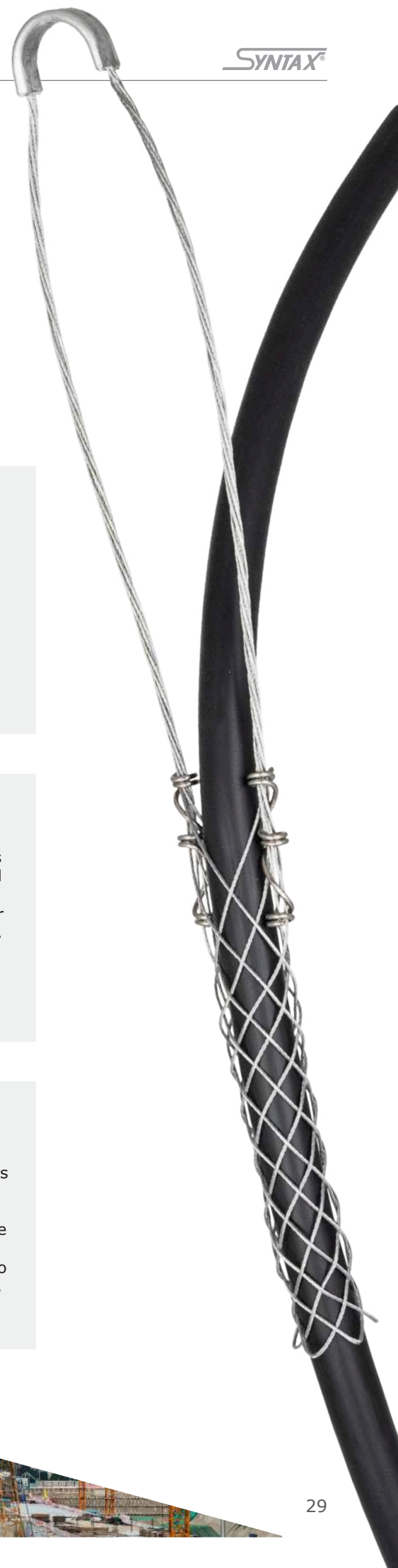
Release system

Suitable for all PowerSyntax connectors.
Can be fitted or removed at any time.
A simple, universal accessory.
Quick and easy to install

SyntaxLock is a proprietary release system for the secondary lock on PowerSyntax connectors and IP67 protection caps.
It is very easy to install and to use but, in full compliance with the international electrical regulations, unmating still needs a voluntary operation on the key. SyntaxLock is supplied as a separate accessory and can be used for the retrofit of all PowerSyntax connectors built as of 2011.

A kit for every need

The SyntaxLock is supplied as a universal kit to be fitted on line source or panel source connectors and on IP67 protection caps for drain line and panel connectors. The kit consists of a universal collar, one release key for a panel source connector, one release key for either a line source connector or a IP67 protection cap for drain connectors, one nut and bolt set.

PATENT PENDING

Panel
SyntaxLock
for panel source

Line
SyntaxLock
for line source

Caps
SyntaxLock
with IP67 protection caps

Protection caps
IP67 and IP53

The PowerSyntax IP67 caps ensure complete waterproof protection and IP53 caps area fast, easy way to protect connectors.

IP67 Protection caps

The PowerSyntax IP67 caps ensure complete waterproof protection

The PowerSyntax caps are universally keyed to be fitted on any connector's phase, so that just one cap version is needed respectively for Source and Drain connectors resulting in easier management and lower investment through reduced stock assortment. For full safety, the PowerSyntax IP67 caps feature the secondary locking system. The secondary lock will be released using SyntaxLock or a standard release key.

IP67 protective cover for source
with special housing on caps for lacing

IP67 protective cover for drain
with special housing on caps for lacing

Protection caps lacing

On the PowerSyntax caps, all details have been designed with a strong focus on resistance and reliability. A specific housing for the cap's lacing has been moulded directly on the flange of the panel-mount versions and on the body of the inline versions. The caps are laced to the connector's body through a special high-resistance cable made up of seven stainless strands, and covered by anti-scratch teflon black tubing.

IP53 Protection caps

The IP53 caps are fast, easy way to protect PowerSyntax connectors

The use of protective caps results in:
- Extended life span of the connectors as the mating faces are protected against impact damage and abrasion.
- Improved safety as contacts are protected against dust and water even when the connectors are not mated.

IP53 protective cover for source
with special housing on caps for lacing

IP53 protective cover for drain
with special housing on caps for lacing

PART NUMBER EXPLANATION
PowerSyntax Line connectors version short and standard

Example Part Number   SPX 4 LD E GN 025 MQ

CONNECTOR SERIES

MAXIMUM CURRENT RATING

CONNECTOR STYLE

KEY COMPOSITION

INSULATOR COLOR

CONTACT VERSIONS

CABLE GLAND

SPECIAL VERSIONS

Connector Series
SPX Standard body
SPZ Short body

Maximum Current Rating
4 Up to 480amp (25 to 150mm²)
7 Up to 750amp (185 to 300mm²)
- Crimp contact also available from 25 to 150mm² on request

Connector Style
LD Line Drain
LS Line Source

Key Composition
E Earth
N Neutral
1 Phase 1
2 Phase 2
3 Phase 3

Insulator Color
GN Green
BL Blue
BR Brown
BK Black
GY Gray
RD Red
YE Yellow
WH White

Contact Versions
Set-screw contact
025 25 mm²
035 35 mm²
050 50 mm²
070 70 mm²
095 95 mm²
120 120 mm²
150 150 mm²

Crimp contact (only SPX series)
179 150/185 mm²| internal Ø 17,9 mm | No. of crimpings 2
197 185/240 mm²| internal Ø 19,7 mm | No. of crimpings 2
222 240/300 mm² | internal Ø 22,2 mm | No. of crimpings 3
237 300 mm² | internal Ø 23,7 mm | No. of crimpings 3

Cable Gland
MQ Reduced M40 gland Ø 15-23 mm
MP Normal M40 gland Ø 19-28 mm
MR Oversized M40 gland Ø 22-32 mm
MU M50 gland Ø 30-38 mm

Special Versions

Compatible accessories to be ordered separately
SPX-SYLOCK SyntaxLock quick secondary lock release system
SPXTKEY Secondary lock release key

SPXDCS-SC IP53 Protective plastic cap kit for source connectors
SPXDCD-SC IP53 Protective plastic cap kit for drain connectors
SPXDCS-SC-IP67 IP67 protection cap for source connectors
SPXDCD-SC-IP67 IP67 protection cap for drain connectors

SPX-RED025 Sleeve adapter for 25mm² set-screw contact
SPX-RED035 Sleeve adapter for 35mm² set-screw contact
SPX-RED050 Sleeve adapter for 50mm² set-screw contact
SPX-RED070 Sleeve adapter for 70mm² set-screw contact
SPX-RED095 Sleeve adapter for 95mm² set-screw contact

PART NUMBER EXPLANATION
PowerSyntax panel connectors

Example Part Number | SPX | 4 | PD | E | GN | 150 | MQ | T5

- CONNECTOR SERIES
- MAXIMUM CURRENT RATING
- CONNECTOR STYLE
- KEY COMPOSITION
- INSULATOR COLOR
- CONTACT VERSIONS
- SHELTER VERSIONS
- SPECIAL VERSIONS

Connector Series
SPX Standard version

Maximum Current Rating
4 Up to 480amp (25 to 150mm²)
7 Up to 750amp (185 to 300mm²)

Connector Style
PD Panel Drain
PS Panel Source

Key Composition
E Earth
N Neutral
1 Phase 1
2 Phase 2
3 Phase 3

Insulator Color
GN Green
BL Blue
BR Brown
BK Black
GY Gray
RD Red
YE Yellow
WH White

Contact Versions
M02 Threaded M12 hole
M12 Threaded M12 post

Set-screw contact
025 25 mm²
035 35 mm²
050 50 mm²
070 70 mm²
095 95 mm²
120 120 mm²
150 150 mm²

Crimp contact (only SPX series)
179 150/185 mm²| internal Ø 17,9 mm | No. of crimpings 2
197 185/240 mm²| internal Ø 19,7 mm | No. of crimpings 2
222 240/300 mm² | internal Ø 22,2 mm | No. of crimpings 3
237 300 mm² | internal Ø 23,7 mm | No. of crimpings 3

SHELTER Special Versions with backshell
00 Connector body without backshell thead
M0 Backshell without cable gland
MQ Threaded body with backshell and reduced M40 gland Ø 15-23 mm
MP Threaded body with backshell and normal M40 gland Ø 19-28 mm
MR Threaded body with backshell and oversized M40 gland Ø 22-32 mm
MU Threaded body with backshell, M40-M50 adaptor M50 gland Ø 30-38 mm
(please contact us for more information about the sizes)

Special Versions
00 No special version
T5 Brass M5 threaded inserts
(4 inserts applied to the connector)
NF No flange

Compatible accessories to be ordered separately
SPX-SYLOCK SyntaxLock quick secondary lock release system
SPXTKEY Secondary lock release key

SPXDCS-SC IP53 Protective plastic cap kit for source connectors
SPXDCD-SC IP53 Protective plastic cap kit for drain connectors
SPXDCS-SC-IP67 IP67 protection cap for source connectors
SPXDCD-SC-IP67 IP67 protection cap for drain connectors

SPX-RED025 Sleeve adapter for 25mm² set-screw contact
SPX-RED035 Sleeve adapter for 35mm² set-screw contact
SPX-RED050 Sleeve adapter for 50mm² set-screw contact
SPX-RED070 Sleeve adapter for 70mm² set-screw contact
SPX-RED095 Sleeve adapter for 95mm² set-screw contact

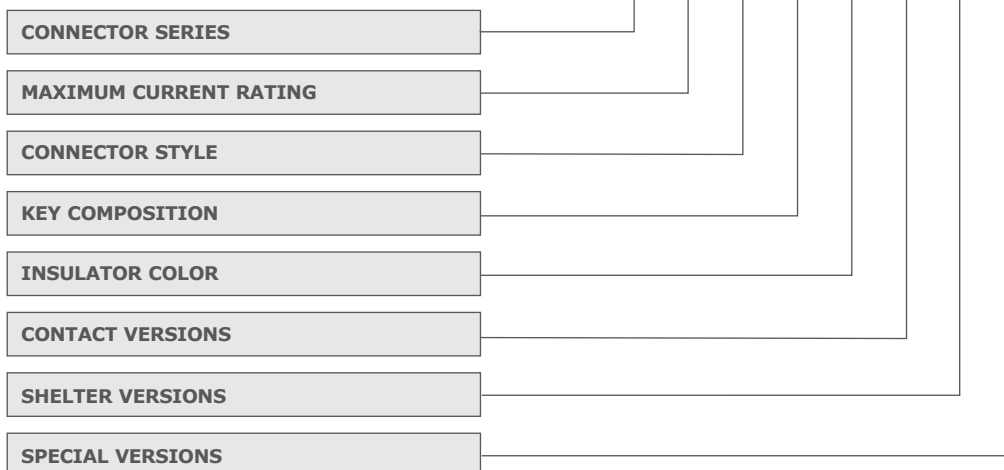## PART NUMBER EXPLANATION
PowerSyntax Chain Pilot connectors with microswitch

international
PATENT

Example Part Number | SCP | 4 | PD | E | GN | 150 | 00T5 |

CONNECTOR SERIES

MAXIMUM CURRENT RATING

CONNECTOR STYLE

KEY COMPOSITION

INSULATOR COLOR

CONTACT VERSIONS

SPECIAL VERSIONS

Connector Series
SCP Chain Pilot version

Maximum Current Rating
4 Up to 480amp (25 to 150mm²)
7 Up to 750amp (185 to 300mm²)

Connector Style
PD Panel Drain
PS Panel Source

Key Composition
E Earth
N Neutral
1 Phase 1
2 Phase 2
3 Phase 3

Insulator Color
GN Green
BL Blue
BR Brown
BK Black
GY Gray
RD Red
YE Yellow
WH White

Contact Versions
M02 Threaded M12 hole
M12 Threaded M12 post
M22 Extended threaded M12 hole
M32 Extended threaded M12 post
025 25 mm² Set-screw contact
035 35 mm² Set-screw contact
050 50 mm² Set-screw contact
070 70 mm² Set-screw contact
095 95 mm² Set-screw contact
120 120 mm² Set-screw contact
150 150 mm² Set-screw contact
Crimp contact (only SPX series)
179 150/185 mm²| internal Ø 17,9 mm | No. of crimpings 2
197 185/240 mm²| internal Ø 19,7 mm | No. of crimpings 2
222 240/300 mm² | internal Ø 22,2 mm | No. of crimpings 3
237 300 mm² | internal Ø 23,7 mm | No. of crimpings 3

Special Versions
00T5 Brass M5 threaded inserts
(4 inserts applied to the connector)

Compatible accessories to be ordered separately
SPX-SYLOCK SyntaxLock quick secondary lock release system
SPXTKEY Secondary lock release key

SPXDCS-SC IP53 Protective plastic cap kit for source connectors
SPXDCD-SC IP53 Protective plastic cap kit for drain connectors
SPXDCS-SC-IP67 IP67 protection cap for source connectors
SPXDCD-SC-IP67 IP67 protection cap for drain connectors

SPX-RED025 Sleeve adapter for 25mm² set-screw contact
SPX-RED035 Sleeve adapter for 35mm² set-screw contact
SPX-RED050 Sleeve adapter for 50mm² set-screw contact
SPX-RED070 Sleeve adapter for 70mm² set-screw contact
SPX-RED095 Sleeve adapter for 95mm² set-screw contact

PART NUMBER EXPLANATION
Chain Pilot Box

Patented Chain Pilot connectors with microswitches are employed in our Chain Pilot Box

Example Part Number SPB 4 D 04 EU D H S

| SERIES |
| MAXIMUM CURRENT RATING |
| INSIDE CONNECTORS STYLE |
| POLES COMPOSITIONS |
| INSULATOR COLORS |
| INCLUDED ACCESSORIES |
| CONTACT VERSIONS |
| BOX HEIGHT |

Series
SPB Chain Pilot box version

Maximum Current Rating
4 480amp
7 750amp

Inside Connectors Style
D Drain
S Source

Poles compositions
04 L1 - L2 - L3 - PE
05 L1 - L2 - L3 - N - PE
22 Pos - Neg / Pos - Neg

Insulator Colors
EU Europe
AU Australia
UK United Kingdom
US United States
DC Two Batteries unit (Red - Black / Red - Black)

Included accessories
D IP67 Protection caps

Contact Versions
H Threaded M12 hole
P Threaded M12 post

Box Height
S 2 units
F 2,5 units

Compatible accessories to be ordered separately
SPX-SYLOCK SyntaxLock quick secondary lock release system

Spare parts
SPXDCS-SC-IP67 IP67 protection cap for source connectors
SPXDCD-SC-IP67 IP67 protection cap for drain connectors
SPXTKEY Secondary lock release key

PART NUMBER EXPLANATION
Lug Converters with SPY ComLug and EasiLug contacts - Line version

Example Part Number   **SPY** **4** **LD** **E** **GN** **1L** **120** **MQ**

CONNECTOR SERIES

MAXIMUM CURRENT RATING

CONNECTOR STYLE

KEY COMPOSITION

INSULATOR COLOR

LUG CONTACT TYPE AND BODY

CABLE CONDUCTOR SIZE

CABLE GLAND

SPECIAL VERSIONS

Connector Series
SPY for Lug Series

Maximum Current Rating
4 Up to 480amp (25 to 150mm²)
7 Up to 750amp (185 to 300mm²)

Connector Style
LD Line Drain
LS Line Source

Key Composition
E Earth
N Neutral
1 Phase 1
2 Phase 2
3 Phase 3

Insulator Color
GN Green
BL Blue
BR Brown
BK Black
GY Gray
RD Red
YE Yellow
WH White

Lug contact type and body
0L EasiLug without lug terminal (standard body)
1L EasiLug with lug terminal (standard body)
8L ComLug L Threaded M12 (standard body)
9L ComLug XL Threaded M12 (oversized body)

Cable Conductor size for EasiLug terminal
000 Without EasiLug terminal / For ComLug L or XL
120 120 mm² aluminum cable
150 150 mm² aluminum cable
185 185 mm² aluminum cable
240 240 mm² aluminum cable
300 300 mm² aluminium cable

Cable Gland
M0 NO cable gland
MQ Reduced M40 gland Ø 15-23 mm
MP Normal M40 gland Ø 19-28 mm
MR Oversized M40 gland Ø 22-32 mm
MU M50 gland Ø 30-38 mm

Special versions
00 No special version

Compatible accessories, to be ordered separately
SPX-SYLOCK SyntaxLock quick secondary lock release system
SPXTKEY Secondary lock release key

SPXDCS-SC IP53 Protective plastic cap kit for source connectors
SPXDCD-SC IP53 Protective plastic cap kit for drain connectors
SPXDCS-SC-IP67 IP67 protection cap for source connectors
SPXDCD-SC-IP67 IP67 protection cap for drain connectors

PART NUMBER EXPLANATION
Lug Converters with SPY ComLug and EasiLug contacts - Panel version

Example Part Number SPY 4 PD E GN 1L 120 MQ

- CONNECTOR SERIES
- MAXIMUM CURRENT RATING
- CONNECTOR STYLE
- KEY COMPOSITION
- INSULATOR COLOR
- LUG CONTACT TYPE
- CABLE CONDUCTOR SIZE
- CABLE GLAND
- SPECIAL VERSIONS

Connector Series
SPY for Lug Series

Maximum Current Rating
4 Up to 480amp (25 to 150mm²)
7 Up to 750amp (185 to 300mm²)

Connector Style
PD Panel Drain
PS Panel Source

Key Composition
E Earth
N Neutral
1 Phase 1
2 Phase 2
3 Phase 3

Insulator Color
GN Green
BL Blue
BR Brown
BK Black
GY Gray
RD Red
YE Yellow
WH White

Lug contact type
0L EasiLug without lug terminal
1L EasiLug with lug terminal
8L ComLug L Threaded M12 480amp
9L ComLug XL Threaded M12 750amp (oversized body)

Cable Conductor size for EasiLug terminal
000 Without EasiLug terminal / For ComLug L or XL
120 120 mm² aluminum cable
150 150 mm² aluminum cable
185 185 mm² aluminum cable
240 240 mm² aluminum cable
300 300 mm² aluminium cable

SHELTER Special Versions with backshell
00 Connector body without backshell thead
M0 Backshell without cable gland
MQ Threaded body with backshell and reduced M40 gland Ø 15-23 mm
MP Threaded body with backshell and normal M40 gland Ø 19-28 mm
MR Threaded body with backshell and oversized M40 gland Ø 22-32 mm
MU Threaded body with backshell, M40-M50 adaptor M50 gland Ø 30-38 mm
(please contact us for more information about the sizes)

Special versions
00 No special version

Compatible accessories, to be ordered separately
SPX-SYLOCK SyntaxLock quick secondary lock release system
SPXTKEY Secondary lock release key

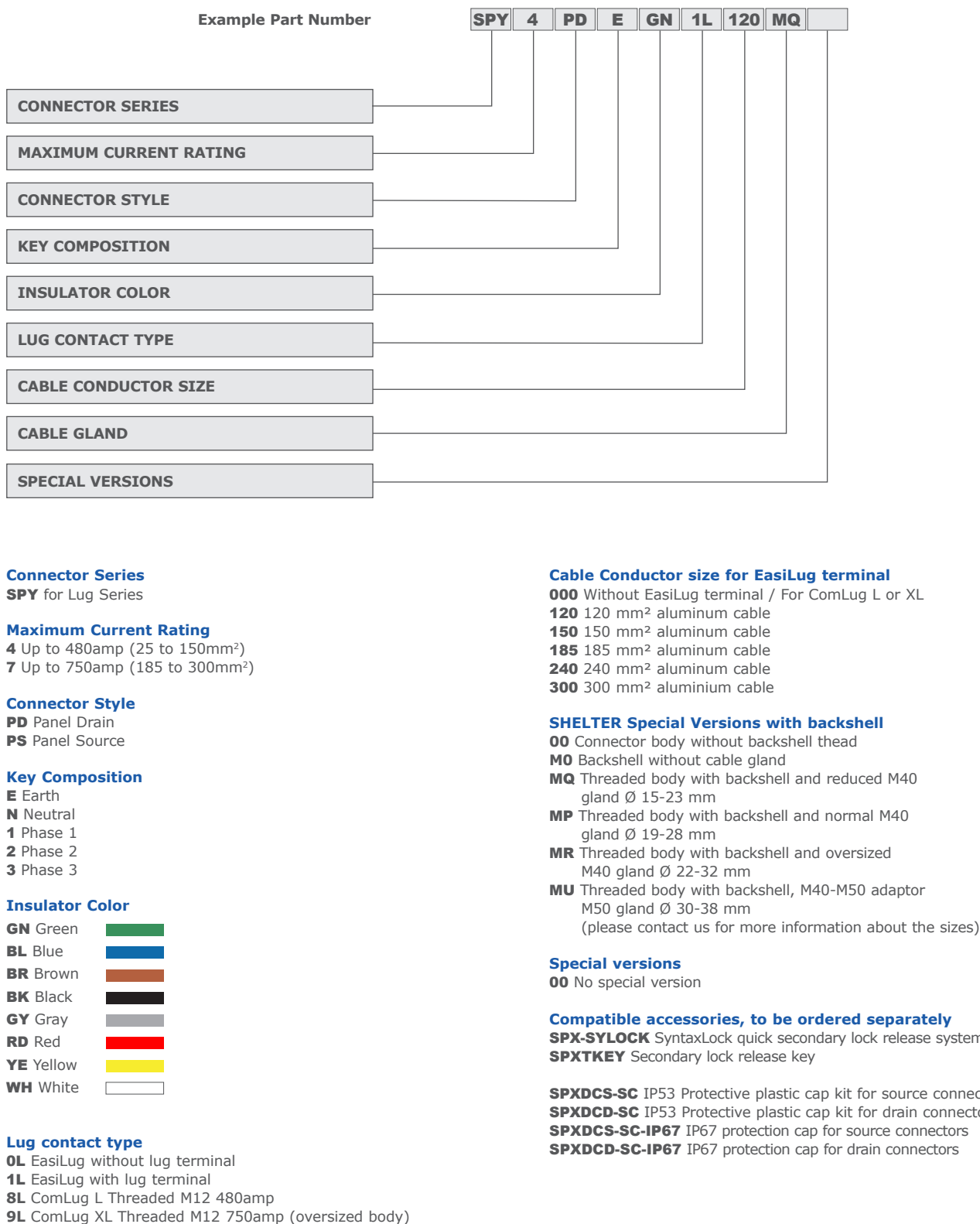SPXDCS-SC IP53 Protective plastic cap kit for source connectors
SPXDCD-SC IP53 Protective plastic cap kit for drain connectors
SPXDCS-SC-IP67 IP67 protection cap for source connectors
SPXDCD-SC-IP67 IP67 protection cap for drain connectors

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