

Installation Instructions



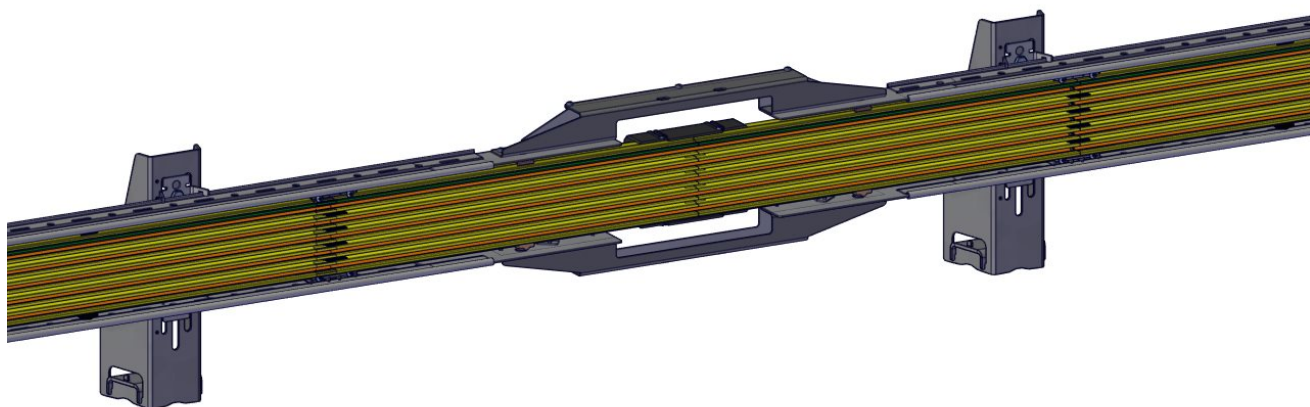
ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

Order Number:

0800xxx-...



Conductor Rail Program Single PowerLine 0812



Conductor Rail Program MultiLine 0831

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

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ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

1 Intended Use

These installation instructions apply to the installation of the Conductor Rail Systems 0831 and 0812 in the ProShell Support Profile System for horizontal installation at floor height with current collector insertion from the side. The installation of the ProShell Support Profile System is described in the Installation Instructions MV0800-0030.



WARNING!

Check deviating installation situations or combinations!

Deviating installation situations or combinations are only permitted after inspection and approval by the manufacturer!



CAUTION!

All illustrations are intended as visualization aids!

The illustrations may not correspond to the current version of a component or assembly!



Observe the installation instructions!

Conductix-Wampfler accepts no liability or responsibility for damages and production faults that result from failure to observe these installation instructions.

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

2 Personal Protective Equipment

The following protective equipment must be worn during installation:



- Protective gloves
- Protective eyewear
- Protective footwear
- Protective headgear/impact cap

3 Required tools

Requirements for the installation environment:

- The installation area must be accessible, dry and secure against moisture ingress.
- The floor must be level and suitable for setting the dowels.

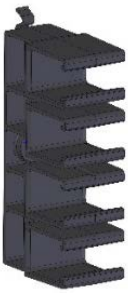
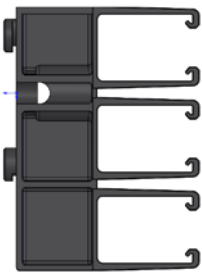
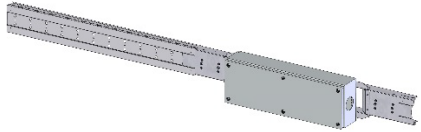
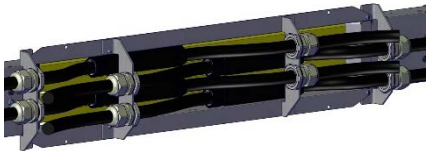


The following tools are required for the installation:

Conductor rail system:

- Hexagon socket wrench SW 4 for the screwable hanger clamps 0812 on the fastening frame or anchor points 0831 on the fastening frame
- Screwdriver for the screws of the connector caps 0831 and the anchor points 0831
- 2 socket wrenches SW10 for countering the nut of the anchor points 0831 and fastening the protective conductor connection 0812
- Torque wrench with a measuring range of 5 Nm to 20 Nm and socket SW13 for connectors 0812 and screwable hanger clamp 0812
- Cordless drill Ø 3.2 mm for drilling the insulating profile 0831
- Auxiliary console


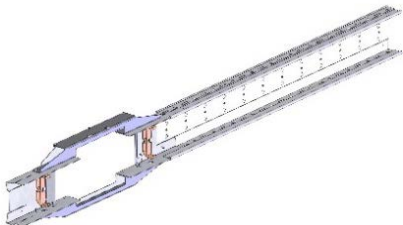
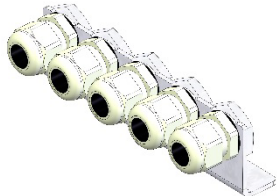
4 System Components

4.1 Conductor Rail System 0812

 <p>Fig. 1: Hanger clamp 0812 - 4-pole (Order No.: 08-S280-0656)</p>	 <p>Fig. 2: Hanger clamp 0812 - 3-pole (08-S280-0754)</p>	 <p>Fig. 3: Line feed 0812 4-pole with terminal box (Order No.: 08-E015-0542)</p>
 <p>Fig. 4: Line feed 0812 without terminal box (Order No.: 08-E015-0526 or 08-E015-0530)</p>	 <p>Fig. 5: Protective conductor connection (Order No.: 08-S212-0004)</p>	 <p>Fig. 6: Disassembly tool for opening the 0812 hanger clamps (Order No.: 08-W100-0607)</p>

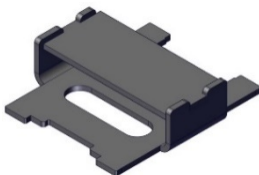
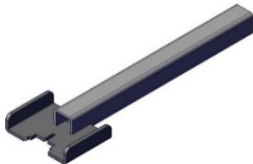
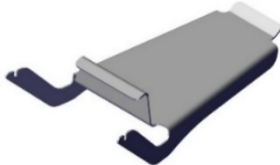
ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

4.2 Conductor Rail System 0831

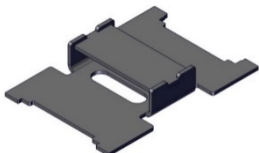

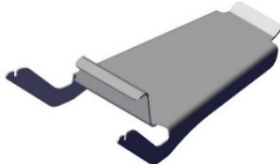
 <p>Fig. 7: Hanger clamp 0831 3-pole (Order No.: 08-S280-0770)</p>	 <p>Fig. 8: Hanger clamp 0831 4-pole (Order No.: 08-S280-0651)</p>	 <p>Fig. 9: Hanger clamp 0831 5-pole (Order No.: 08-S280-0652)</p>
 <p>Fig. 10: Line feed 0831 4-pole (Order No.: 08-E015-0528)/ Line feed 0831 5-pole (Order No.: 08-E015-0529)</p>	 <p>Fig. 11: Strain relief (Order No.: 08-Z008-0001)</p>	

4.3 Installation aid

Tool set ProShell 128 (Order No.: 08-W100-0592)

 <p>Fig. 12: Installation tool</p>	 <p>Fig. 13: Locking tool</p>	 <p>Fig. 14: Auxiliary console</p>
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Tool set ProShell 206 (Order No.: 08-W100-0604)

 <p>Fig. 15: Installation tool</p>	 <p>Fig. 16: Locking tool</p>	 <p>Fig. 17: Auxiliary console</p>
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5 Installation of Conductor Rail Systems in ProShell 128 and 206

5.1 Conductor Rail SinglePowerLine 0812



Observe the installation instructions!

For Program 0812, observe BAL0812-0001!



DANGER!

Observe the position of the PE rail!

If the protective conductor is interchanged with phase, a dangerous voltage is generated when touched. Conductix-Wampfler recommends attaching the PE rail as the last or lower pole (viewed from above).

→ Only use PE rails with a green strip as protective conductor.

The hanger clamps must be hung in the ProShell support profile before the Conductor Rail System 0812 can be installed in the ProShell support profile (see Section 5.1.1 and 5.2.1).

There are two different feed options for the Conductor Rail System 0812, which can be ordered in each basic module and are dependent on the respective support profile system variant and number of poles:

- Basic module ProShell 128 0812 with terminal box (Order no.: 08-E015-0542) (see Section 5.1.1)
- Basic module ProShell 206 0812 with terminal box (Order No.: 08-E015-0692 or 08-E015-0693)
- Basic module ProShell 128 0812 4P with individual connecting cables (Order No.: 08-E015-0526) (see Section 5.1.3)

For both feed options, the conductor rail system is installed in the ProShell support profile, starting with the conductor line feed.



NOTE!

The basic modules include the end caps, anchor points of the conductor rail system and the end modules of the ProShell support profile!

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

5.1.1 Install hanger clamps



NOTE!

The hanger clamps are not supplied preassembled! They are included as unassembled and must be assembled on site!

Requirement:

- The support profile system is installed (see MV0800-0030).
- The distances of the hanger clamps are selected as in Fig. 18 or Fig. 19

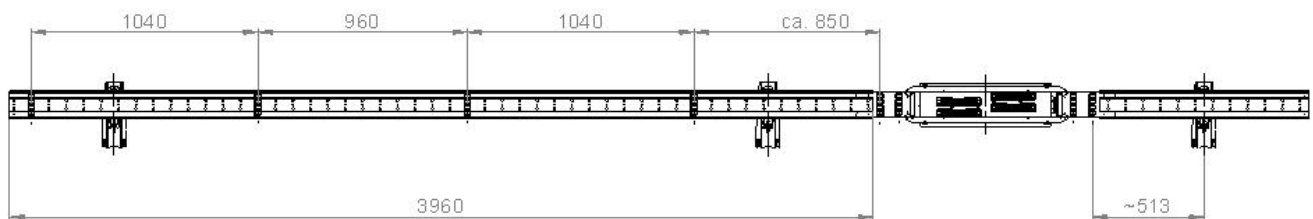


Fig. 18: Distances between hanger clamps 0812 in ProShell 128 support profile system

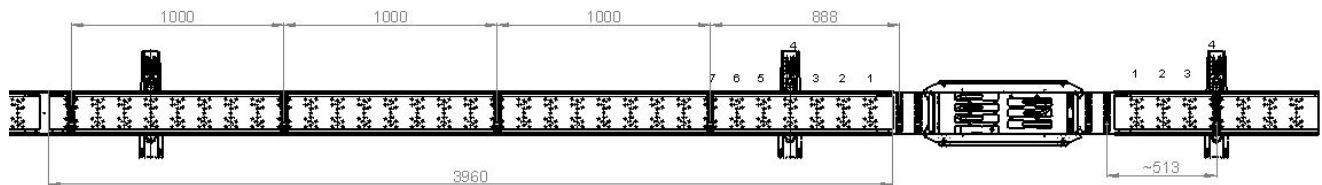


Fig. 19: Distances between hanger clamps 0812 in ProShell 206 support profile system

Installation Instructions



ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

Procedure:

1. Hook the locking clip (1) onto the upper frame of the ProShell support profile rail so that by screwing in the hanger clamp, the pins (2) are sunk onto the holes of the ProShell support profile (see Fig. 20 to Fig. 23).

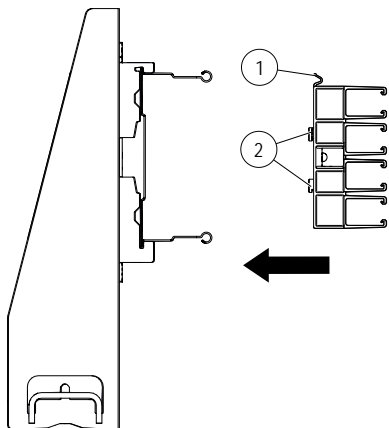


Fig. 20: Locking clip (1) and pin (2) of hanger clamp 0812

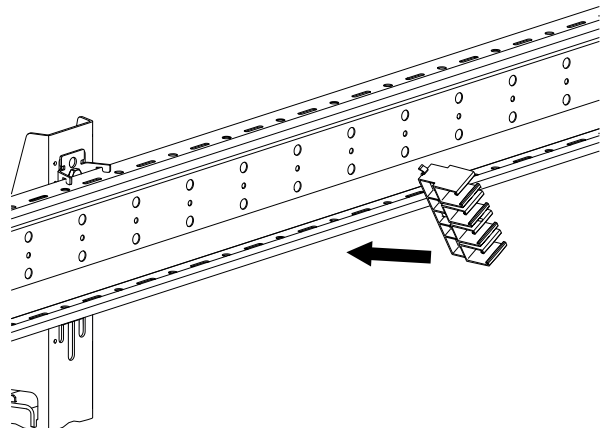


Fig. 21: Install hanger clamp 0812 onto ProShell support profile rail

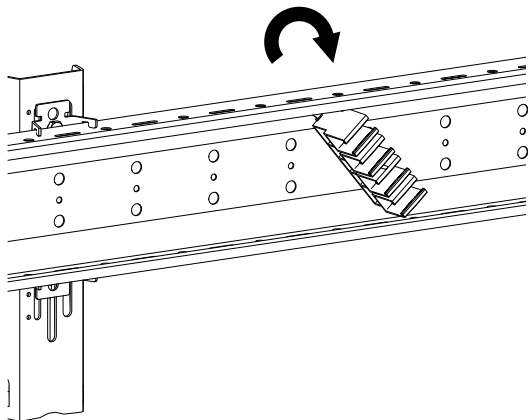


Fig. 22: Turn hanger clamp 0812 onto ProShell support profile rail

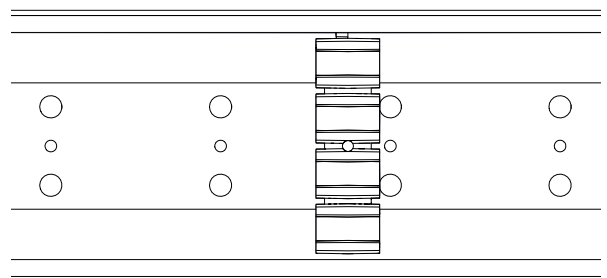


Fig. 23: Install hanger clamp 0812 onto ProShell support profile rail 128

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The special rows of holes in the ProShell support profile rails 206 allow the hanger clamps to be easily hung (see Fig. 24 and Fig. 25). For seven or eight poles, two different hanger clamps (e.g. 3-pole with 4-pole or 4-pole with 4-pole) are combined with one another.

1. First, hook the locking pins (2) of the 3-pole hanger clamp onto the lower part of the ProShell support profile. Then install the 4-pole hanger clamp onto the upper support profile system part using its locking clip (1) (see Fig. 27 to Fig. 29).

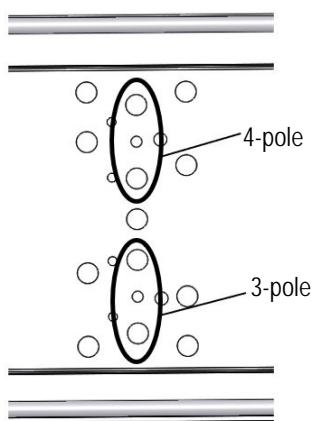


Fig. 24: Series of holes for 7-pole hanger clamp on ProShell Support Profile System

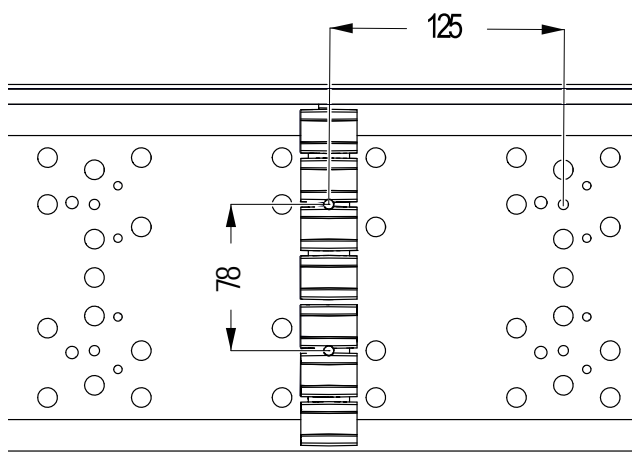


Fig. 25: Dimensions of hanger clamp 0812 on ProShell 206

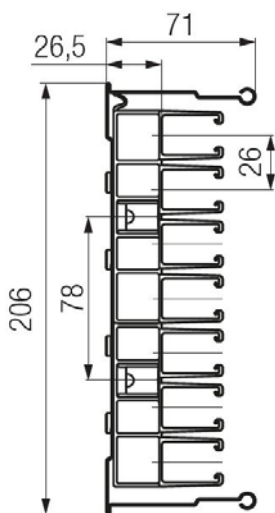


Fig. 26: Dimensions of 7-pole hanger clamp 0812

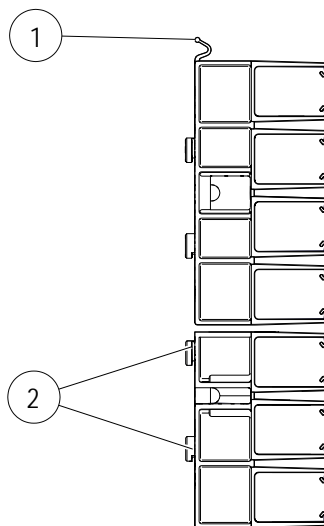


Fig. 27: Locking clip (1) and installing pin (2)

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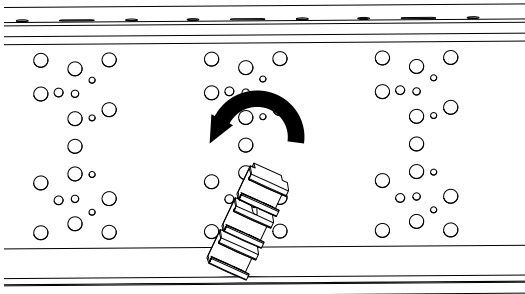


Fig. 28: Hook 3-pole hanger clamp onto ProShell 206 Support Profile System

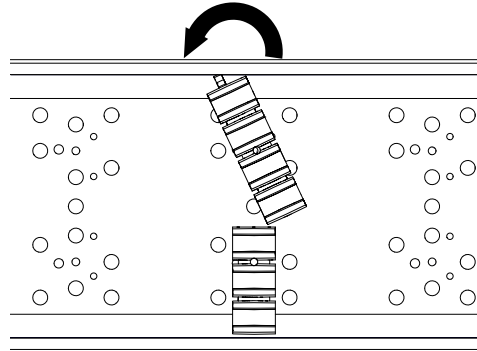


Fig. 29: Hook 4-pole rail hanger clamp onto ProShell 206 Support Profile System

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5.1.2 Install line feed with terminal box and additional rails



The hanger clamps (4) for the preassembled anchor points (3) on the conductor rail with line feed (1) must be installed on the ProShell support profile on the installation site using the cylinder screw M6x16 (A), washer (B) and hexagon nut M6 (C) (see Fig. 31 and Fig. 30)!

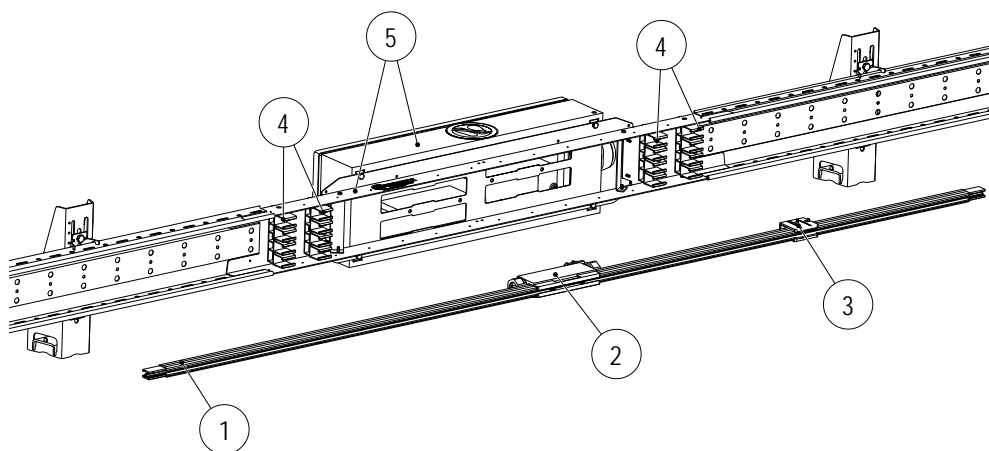


Fig. 30: Line feed option with terminal box

Pos.	Name
1	Conductor rail with installed line feed and anchor point
2	Line feed 0812
3	Anchor point 0813
4	Hanger clamp 0812
5	Fastening frame with terminal box

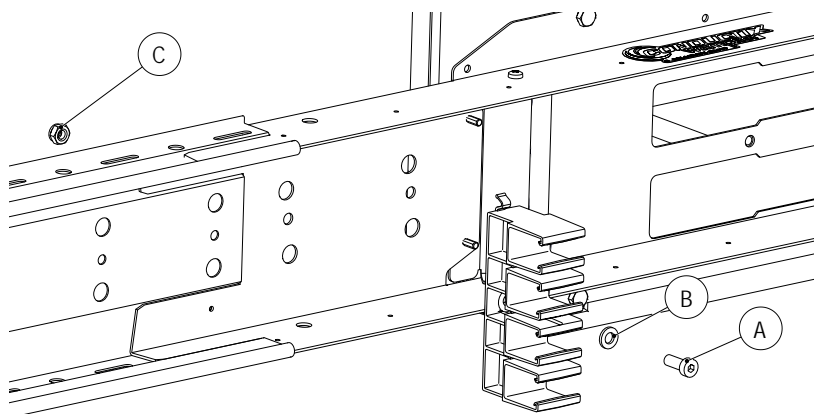


Fig. 31: Screw hanger clamp onto fastening frame

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Procedure:

1. Hook the auxiliary consoles (6) onto the ProShell support profile rails (see Fig. 32).

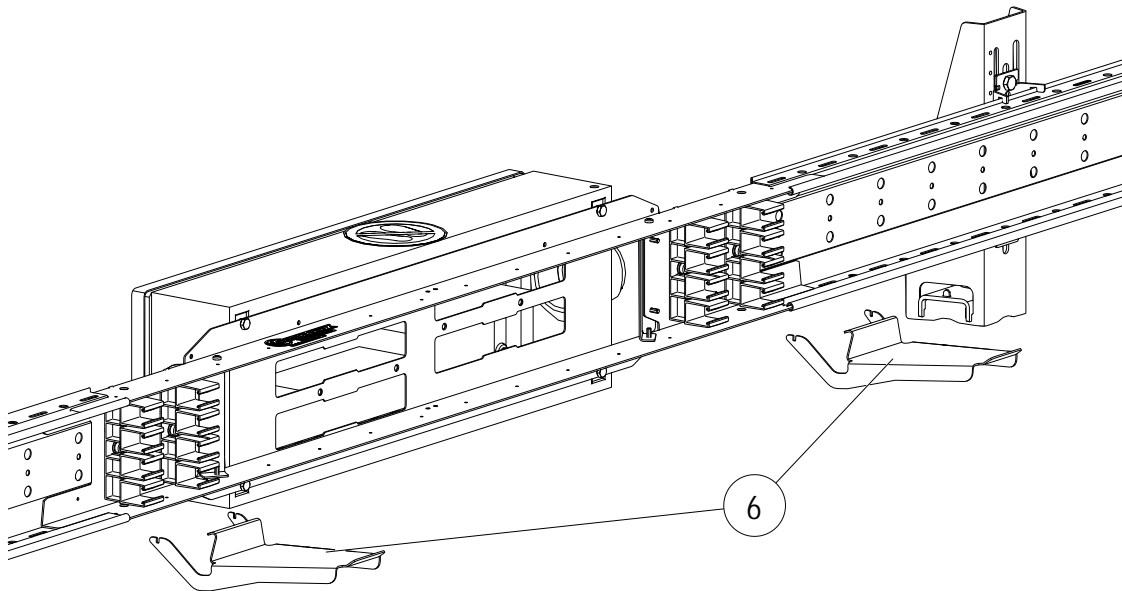


Fig. 32: Hook auxiliary console (6) onto ProShell support profile

2. Place the conductor rail with the installed line feed and anchor point (1) on the auxiliary consoles (6) to be able to connect the conductor rail (1) to the additional conductor rails on the right and left (see Fig. 33). For better handling during connection, auxiliary consoles should also be hooked onto the ProShell Support Profile System for the additional conductor rails.

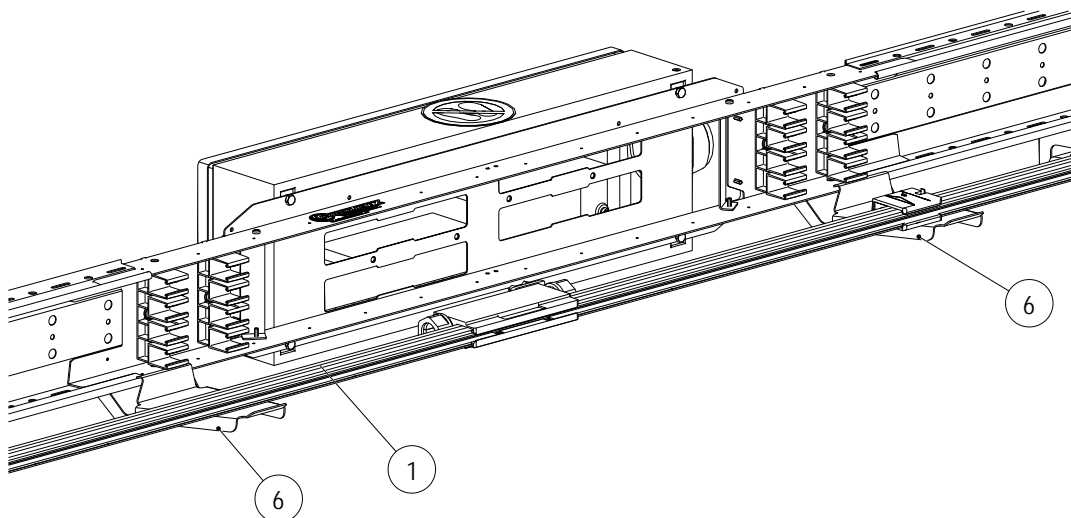


Fig. 33: Lay conductor rail with line feed and anchor point (1) on auxiliary consoles (6)

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If the conductor rail with the preassembled line feed and the anchor point (1) is the last rail of the conductor rail system, the end caps (8) must be installed in the terminal box before installation (see BAL0812-0001)!

This means that the short pieces (250 mm) (7) must be connected to the conductor rails (1) before installation in the terminal box (see Fig. 34).

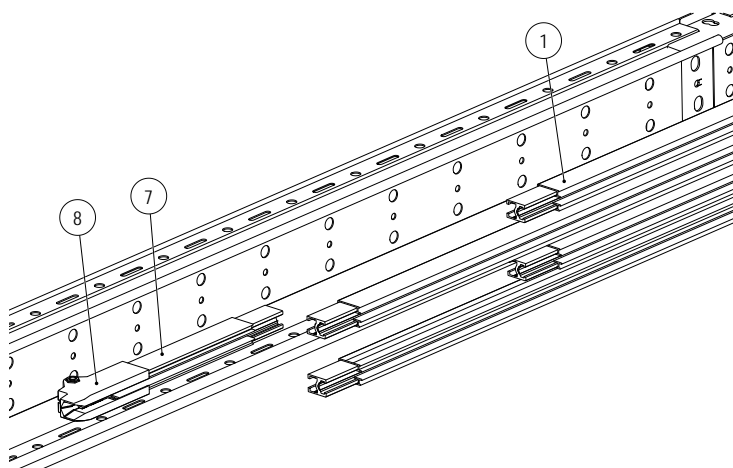


Fig. 34: Install short pieces (7) on conductor rail pieces

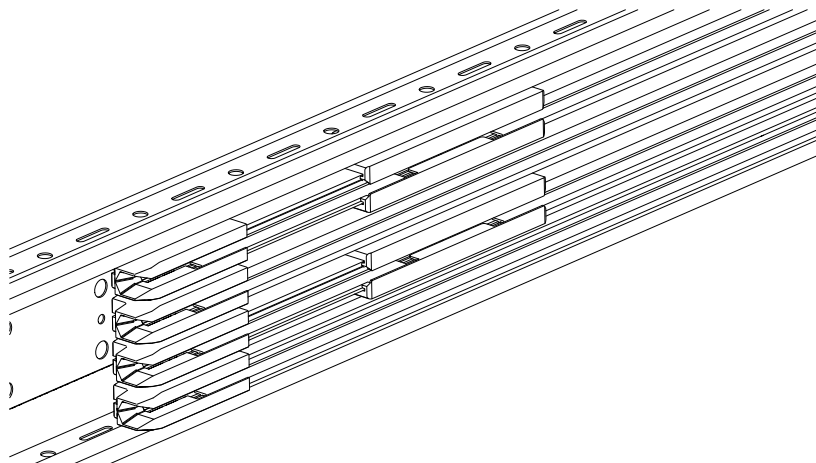


Fig. 35: All end caps are installed



Use the QR code ("click" or "scan") to see our animation:
Install short pieces and end caps 0812.

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3. Connect the additional conductor rails. For this, please refer to BAL0812-0001.
4. Hang the connected conductor rails on the hanger clamps in such a way that the installed line feed (2) fits on the terminal box recess and the anchor point (3) is positioned between its hanger clamps (4) (see Fig. 36). Observe the PE position of the conductor rail (Conductix-Wampfler recommends attaching the PE rail as the last or lower pole (viewed from above)). Hang the additional conductor rails on the hanger clamps. For better handling, do not yet hang the additional conductor rails on the last two hanger clamps (see Fig. 37).



Use the QR code ("click" or "scan") to see our animation:
Connect conductor rail to preassembled line feed.

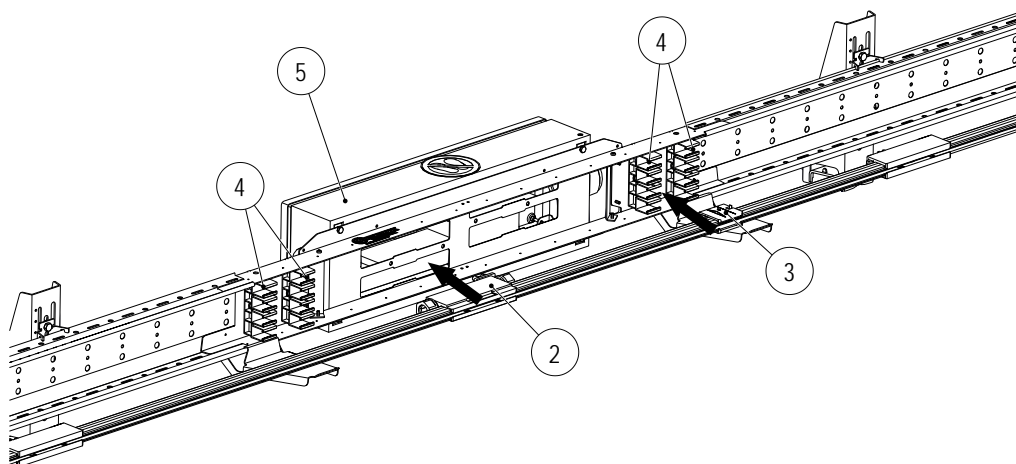


Fig. 36: Install the conductor rail with line feed (2) and anchor point (3) on terminal box (5)

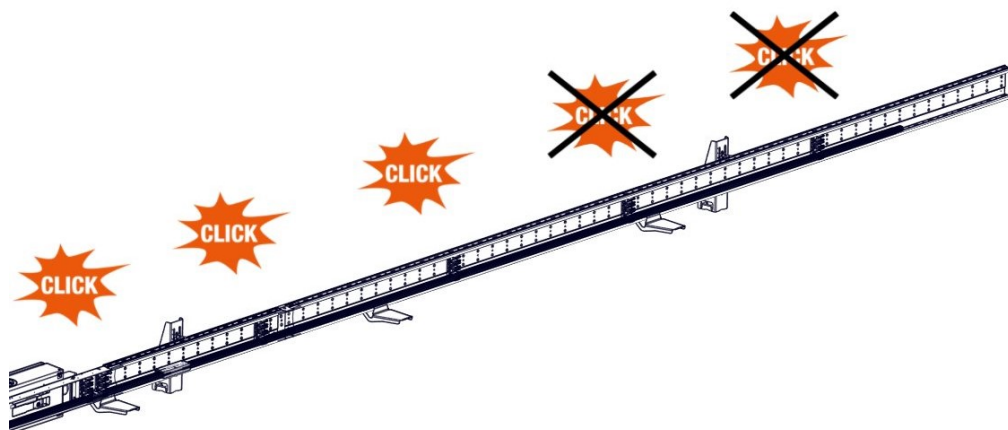


Fig. 37: Do not attach last hanger clamps to additional conductor rails

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5. Install all other conductor rail poles in the same way and remove the auxiliary consoles from the ProShell support profile (see Fig. 38).

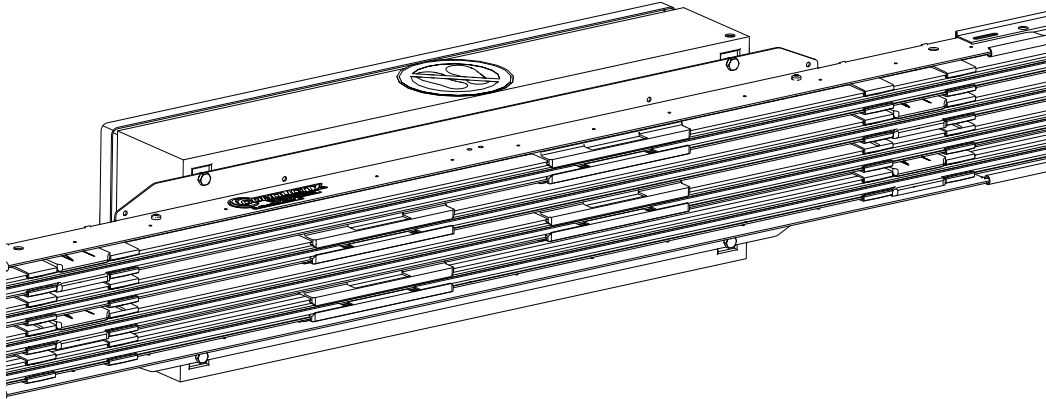


Fig. 38: All conductor rail poles are installed



Use the QR code ("click" or "scan") to see our animation:
Connect conductor rail to preassembled line feed.

6. Due to the offset arrangement of the line feeds in the terminal box or the connectors, the additional conductor rails on the track are not at the same level. In order to bring the conductor rails back to the same height, a short piece (250 mm) (7) with a connector is installed on each of the short ends of the conductor rails before the conductor rails can continue to be installed on the track (see Fig. 39 to Fig. 41).

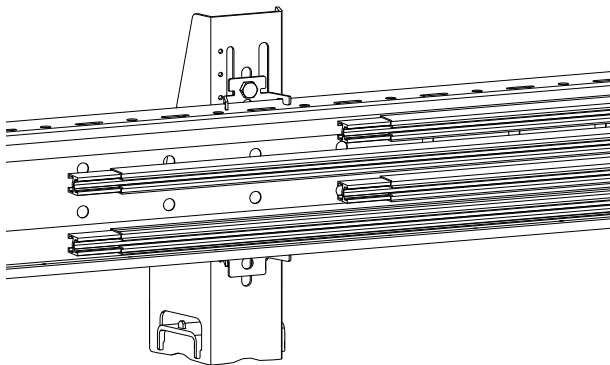


Fig. 39: Conductor rails are not at same height

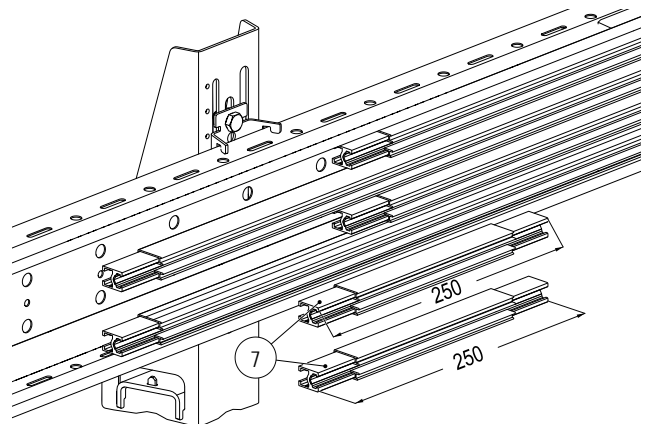


Fig. 40: Short pieces (7) are installed for height equalization

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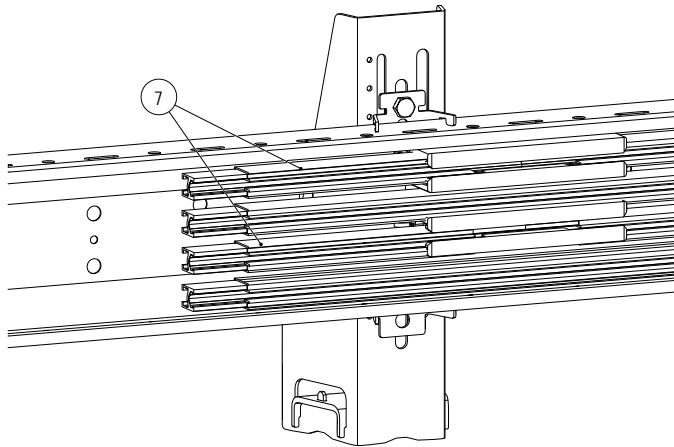


Fig. 41: Conductor rails are at same height

7. Connect the conductor rails on the track to the end of the system (see BAL0812-0001). Note that the distance between the hanger clamps and the connectors must be at least 250 mm (see Fig. 42 to Fig. 44). If the conductor rail with the line feed and the anchor point is the last conductor rail of the system, the short pieces (7) and end caps (8) must be installed beforehand (see Fig. 34).
8. Connect the connecting cables as described in Section 5.1.4.

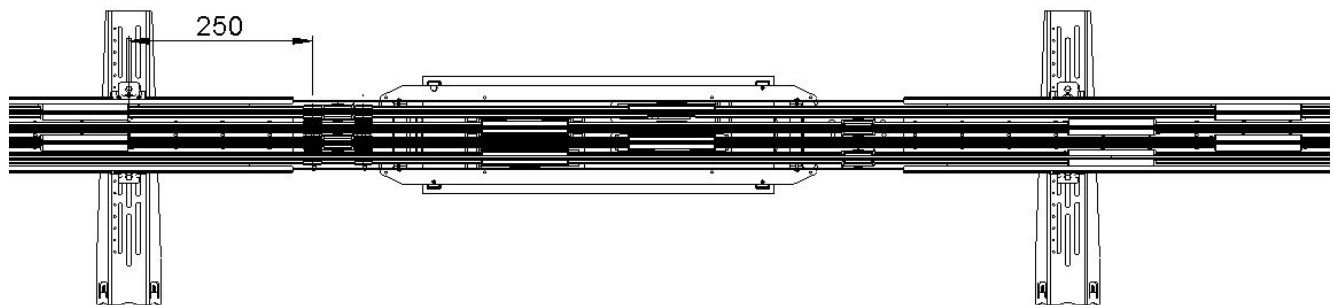


Fig. 42: Distance between connector and hanger clamp

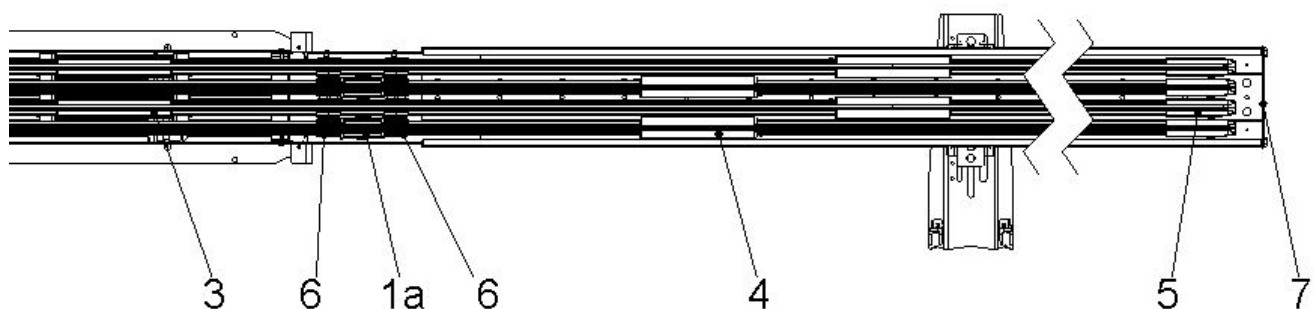


Fig. 43: System overview toward end of system

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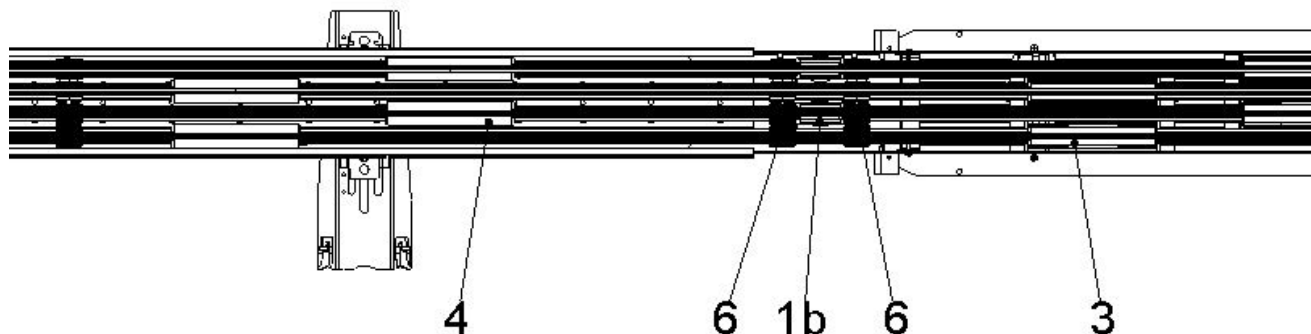


Fig. 44: System overview on track

Pos.	Name
1a	Installed anchor point on the system end side
5.1b	Installed anchor point on the track side
3	Line feed
4	Connector
5	End cap
6	Hanger clamps installed on the line feed
7	End assembly



Use the QR code ("click" or "scan") to see our animation:
Install additional rails 0812.

- At the end of the system, slide the end cover plate of the end assembly onto the ProShell support profile end and screw it on with the corresponding hexagon screws M6. Due to the linear expansion, a distance of at least 100 mm must be maintained (see MV0800-0030).

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5.1.3 Install line feed with individual connecting cables and additional rails



The hanger clamps (7) for the preassembled anchor points (5) on the conductor rail with line feed (1) must be installed on the ProShell support profile at the installation site using the cylinder screw M6x16 (A), washer (B) and hexagon nut M6 (C) (see Fig. 31 and Fig. 45)!

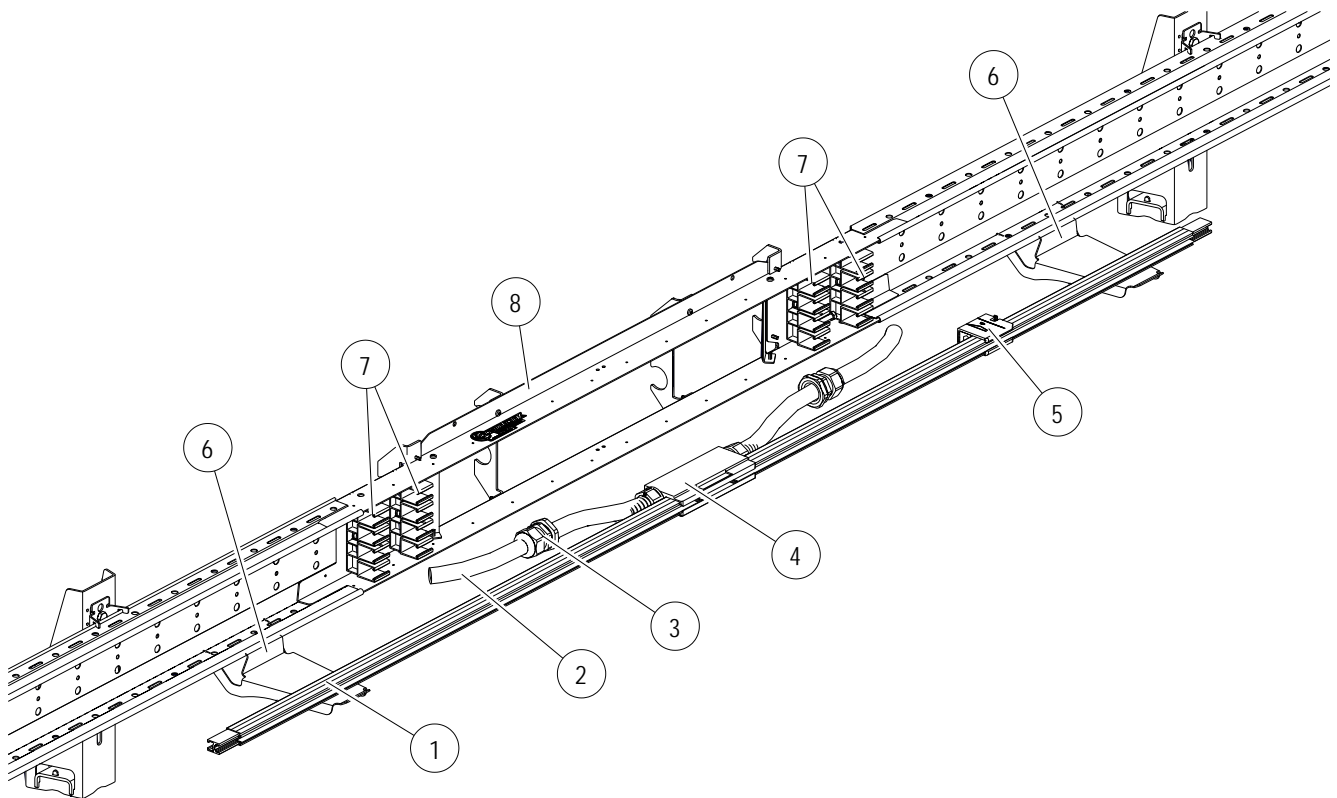


Fig. 45: Line feed option with connecting cables

Pos.	Name
1	Conductor rail with installed line feed and anchor point
2	Line feed connecting cable
3	Strain relief consisting of screw connection and lock nut
4	Line feed 0812
5	Anchor point 0812
6	Auxiliary console
7	Hanger clamp
8	Fastening frame

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

Procedure:

1. Hook auxiliary consoles (6) onto the ProShell support profile rails (see Fig. 46).

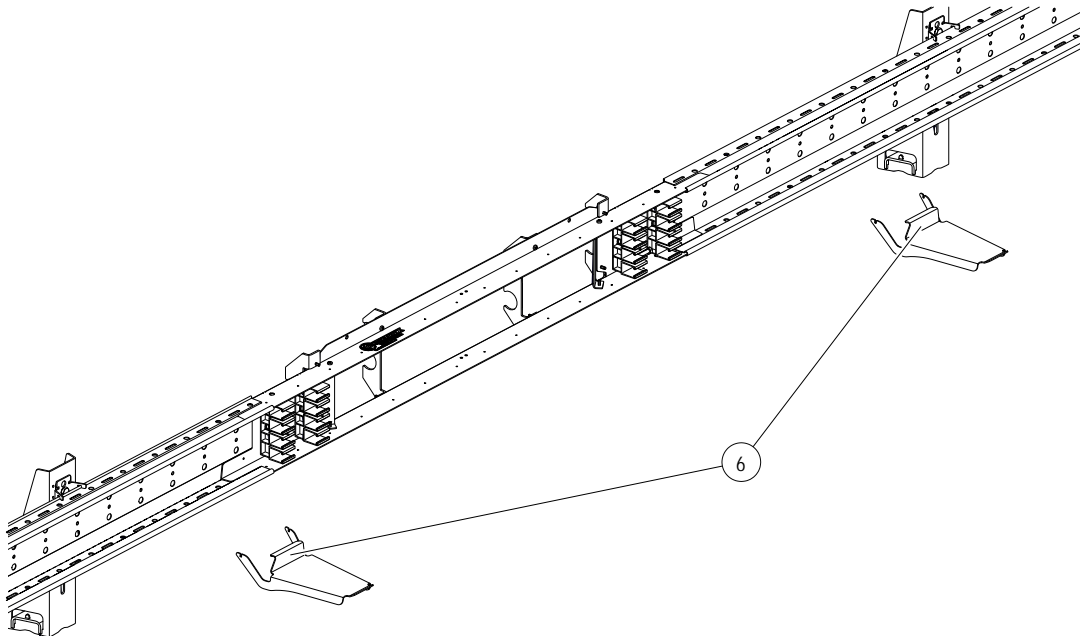


Fig. 46: Hook auxiliary console (6) onto the ProShell support profile

2. Place the conductor rail with the installed line feed and anchor point (1) on the auxiliary consoles (6) in order to be able to connect the conductor rail (1) to the additional conductor rails on the right and left (see Fig. 45). For better handling when connecting, auxiliary consoles should also be hooked onto the ProShell support profile for the additional conductor rails (also see BAL0812-0001).
3. Connect the additional conductor rails. For this, please refer to BAL0812-0001.
4. Hang the conductor rails with the preassembled line feed and anchor point (1) on the hanger clamps (7) on the right and left of the fastening frame (8). Start with the lower-most conductor rail pole and observe the PE position (Conductix-Wampfler recommends attaching the PE rail as the last or lower pole (viewed from above)) (see Fig. 47).
5. Lay the connecting cables (2) through the fastening frame to the rear (8) so that the line feed cap (4) fits into the cut-out of the fastening frame (8) and the preassembled anchor points (5) are positioned between their hanger clamps. In addition, hang the connected conductor rails on the additional hanger clamps (9) (see Fig. 47).

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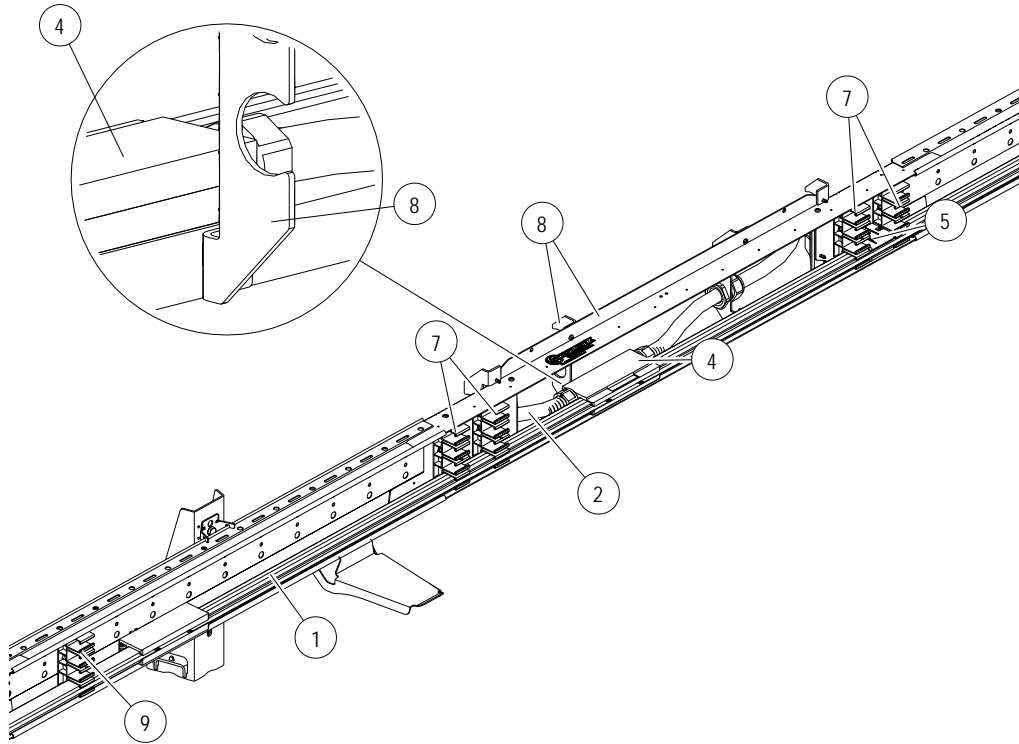


Fig. 47: Install conductor rail (1) on ProShell support profile



Use the QR code ("click" or "scan") to see our animation:
Connect conductor rail to preassembled line feed.

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

6. Fasten the connecting cables to the metal plates of the fastening frame (8) using the strain relief, consisting of the lock nut (10) and screw connection (11) (see Fig. 48).

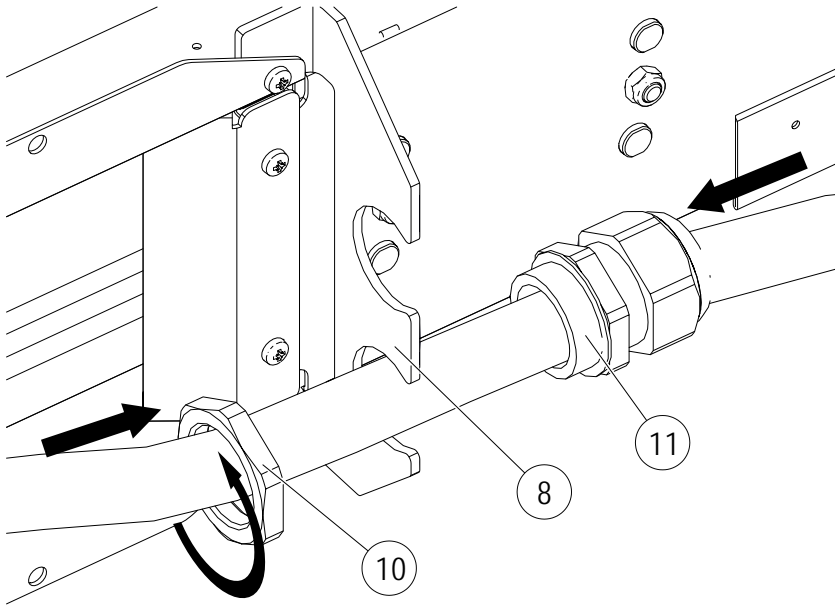


Fig. 48: Install strain relief

7. Due to the offset arrangement of the line feeds in the and the connectors, the additional conductor rails on the track are not at the same level. In order to bring the conductor rails back to the same height, a short piece (250 mm) (7) with a connector is installed on each of the short ends of the conductor rails before the conductor rails can continue to be installed on the track (see Fig. 39 to Fig. 41).



Use the QR code ("click" or "scan") to see our animation:
Install short pieces and end caps 0812.

8. Install all other conductor rail poles in the same way and remove the auxiliary consoles from the ProShell support profile (see Fig. 49 and Fig. 50).

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

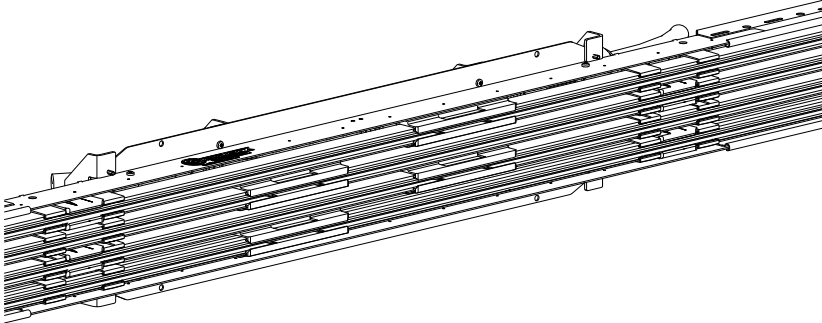


Fig. 49: Front view

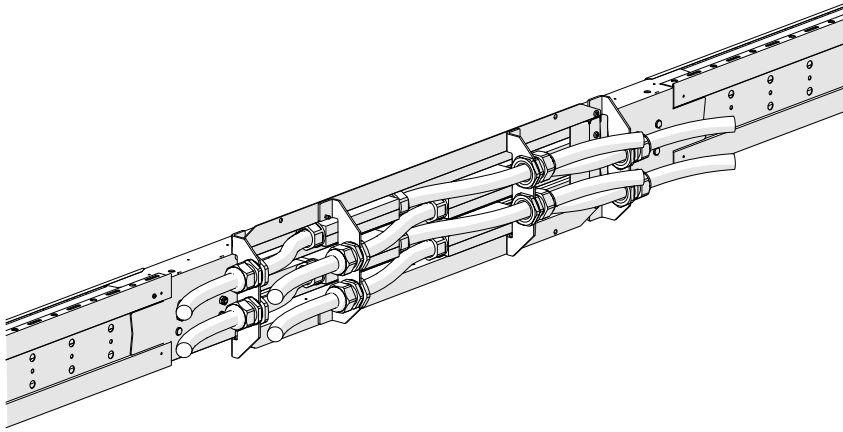


Fig. 50: Rear view



Use the QR code ("click" or "scan") to see our animation:
Connect conductor rail to preassembled line feed.

9. Install the end caps on the conductor rails at the end of the system (see BAL0812-0001) before hanging the conductor rails. If the conductor rail with the line feed and the anchor point is the last conductor rail of the system, the short pieces (7) and end caps (8) must be installed beforehand (see Fig. 34).
10. Slide the end cover plate of the end assembly onto the ProShell support profile end and screw it on with the corresponding hexagon screws M6. Due to the linear expansion, a distance of at least 100 mm must be maintained (see MV0800-0030).

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5.1.4 Electrical connection of conductor rails



DANGER!

Inadequately trained persons are at risk of injury!

Improper connection of the cable can lead to significant personal injury and property damage.

→ Placement and connection of the cable must be carried out by an electrician.



DANGER!

Observe the position of the PE rail!

If the protective conductor is interchanged with phase, a dangerous voltage is generated when touched. Conductix-Wampfler recommends attaching the PE rail as the last or lower pole (viewed from above).

→ Only use PE rails with a green strip as protective conductor.

When electrically connecting the conductor rail system, the following points must be observed:

1. The connecting cables (4) are not included in the scope of delivery (see Fig. 51).
2. The connection of the cables to the tubular cable lugs (2 and 3) of the conductor rail line feed is to be carried out by the customer (see Fig. 51).
3. A strain relief for the connecting cable (4) must be installed on site. The round screw connection (1) on the terminal box must not be used as strain relief (see Fig. 51).

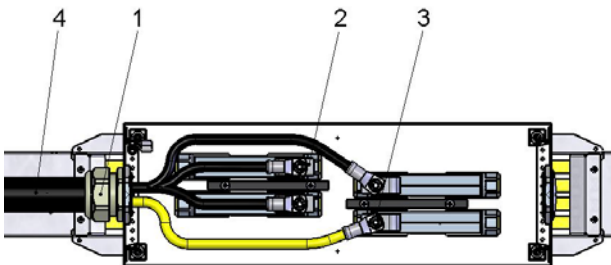


Fig. 51: Possible connection diagram for ProShell 128 Support Profile System

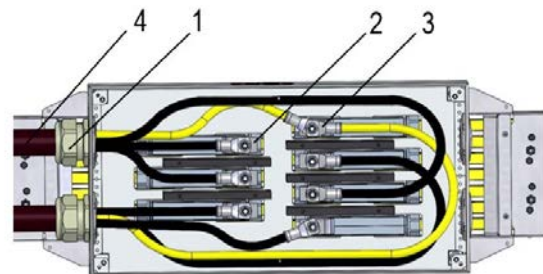


Fig. 52: Possible connection diagram for ProShell 206 Support Profile System

Pos.	Name
1	Round cable collar M63x1.5 – for cable outer diameter max. Ø42
2	Tubular cable lug M8 for 70mm ² – phase (ProShell 128: 3 pcs. – 1 pc./pole)/ (ProShell 206: 6 pcs. – 1 pc./pole)
3	Tubular cable lug M8 for 70mm ² – protective conductor (ProShell 128: 1 pc. – 1 pc./pole)/ (ProShell 206: 2 pc. – 2 pc./pole)
4	On site connecting cable

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Use the QR code ("click" or "scan") to see our animation:
Connect line feed/terminal box ProShell 0812.

5.1.5 Install ProShell protective conductor connection (optional)

A protective conductor connection between the PE rail and the ProShell Support Profile System is installed for regular, intermediate grounding on long lanes. For this purpose, the normal rail connector is replaced by a grounding connector. Conductix-Wampfler recommends that the protective conductor connection be made every 16 m.

Procedure:

1. Attach a ring terminal (4) to each end of the PE cable (1) (see Fig. 53).
2. Tighten the PE cable (1) with locking edge washer (2) and hexagon nut (3) to the connector bolts of the PE rail with a torque wrench (SW 13, torque: 12 Nm) (see Fig. 53).

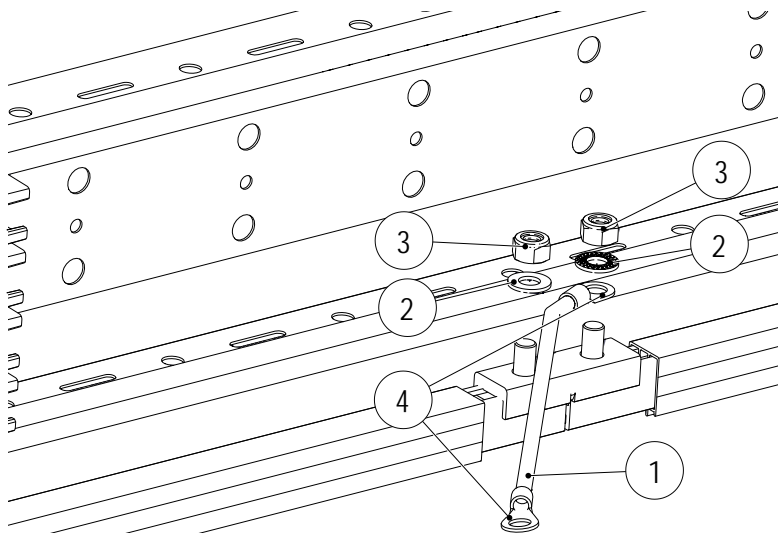


Fig. 53: Install PE cable (1) on PE rail connector

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

- In order to be able to thread the PE cable through the connector cap, replace a normal cap half with a cap with a hole for the PE cable (see Fig. 54).

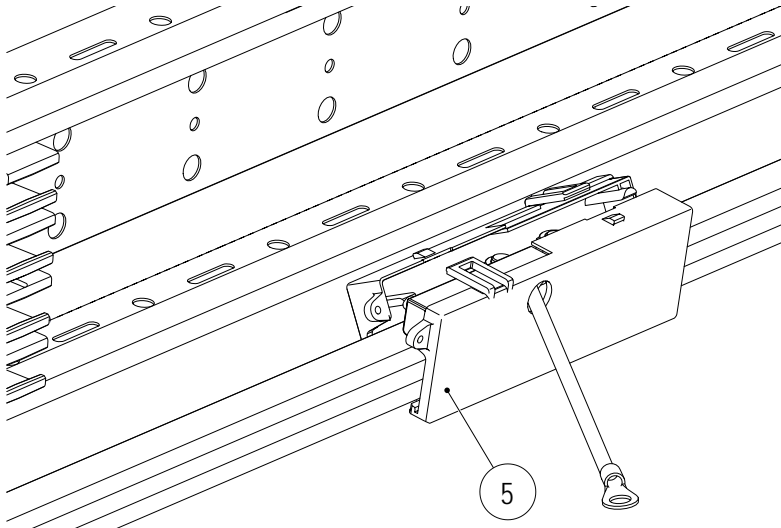
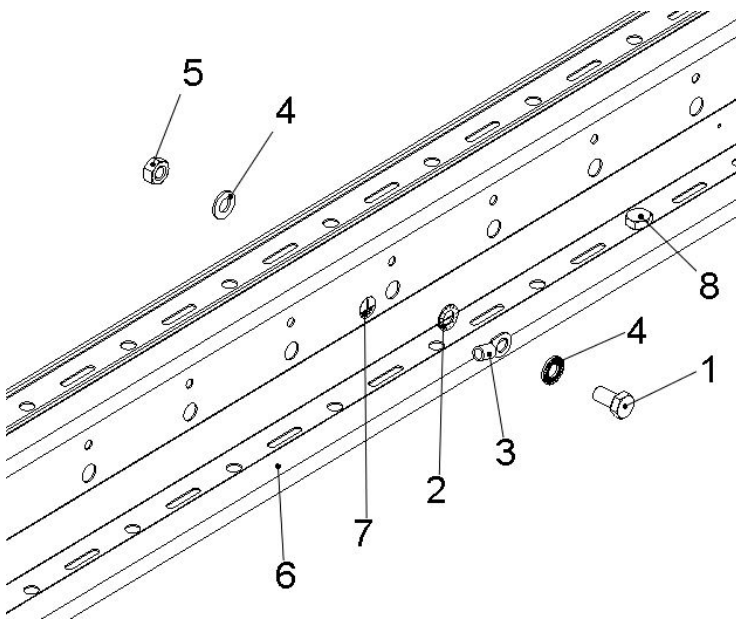


Fig. 54: Use connector cap with hole (5) for PE cable

- Lay the other PE cable end in a loop on the ProShell support profile (see Fig. 56) and attach the ring terminal to the PE cable using the screw elements (1, 2, 4 and 5) on the ProShell support profile (see Fig. 55). For this purpose, an existing bore in the ProShell support profile rail can be used. Laying the PE cable in a loop is therefore important, since the conductor rail, including its connector, is subject to thermal expansion and can therefore lengthen or shorten (see Fig. 56).



Pos.	Name
1	Screw DIN 933
2	Serrated washer DIN 6798
3	PE cable ring terminal
4	Locking edge washer
5	Nut DIN 934 M8
6	ProShell support profile
7	Grounding symbol
8	Connecting bolt

Fig. 55: Installation of PE cable on support profile (exploded view)

Installation Instructions



ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

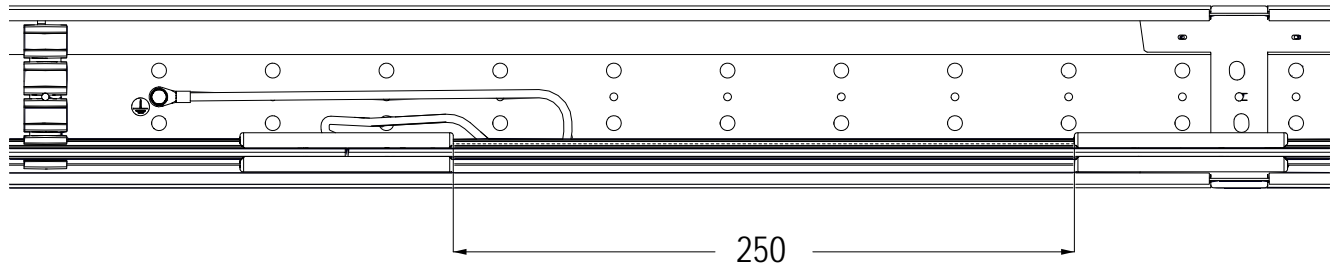


Fig. 56: Distance from connector with protective conductor connection to normal connector



Use the QR code ("click" or "scan") to see our animation:
Install protective conductor connection ProShell 0812.

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

5.2 Conductor Rail MultiLine 0831



NOTE!

The installation of the system always begins with the line feed!

When installing the system, begin with the line feed and then install the track to the left and right away from the line feed.



Observe the installation instructions!

For Program 0831, observe MV0831-0006!



DANGER!

Observe the position of the PE rail!

If the protective conductor is interchanged with phase, a dangerous voltage is generated when touched. Conductix-Wampfler recommends attaching the PE rail as the last or lower pole (viewed from above).

→ Only use PE rails with a green strip as protective conductor.

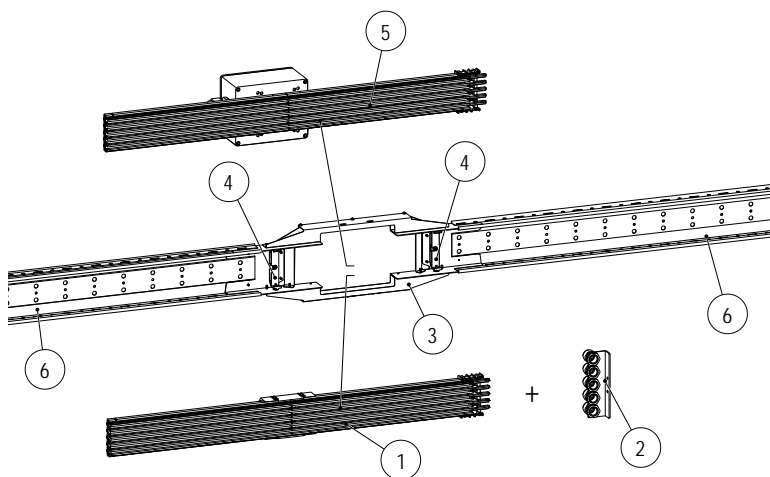


NOTE!

The basic modules contain the end caps, anchor points of the conductor rail system and the end modules of the ProShell support profile!

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

The hanger clamps must be hung in the ProShell Support Profile System before the Conductor Rail System 0813 can be installed in the ProShell Support Profile System (see Section 5.2.1). In addition, the fastening frame (3) for the line feed (1 or 5) must be installed. Either the line feed (5) (see Section 5.2.2) or the line feed (1) (see Section 5.2.3) is installed on this fastening frame using the anchor point in the ProShell support profile (see Fig. 57). A strain relief (2) is installed on the rear side of the fastening frame (3) for the line feed (1) in order to be able to lay the connecting cables without tensile force.



Pos.	Name
1	Line feed without terminal box (Order No.083151- ... and 083154-...)
2	Strain relief (Order No.: 08-Z008-0001)
3	Fastening frame
4	Anchor point
5	Line feed with terminal box (Order No.:083152- ...)
6	ProShell support profile rails

Fig. 57: Overview of various line feeds 0831

5.2.1 Install hanger clamps



NOTE!

The hanger clamps are not supplied preassembled! They are included as unassembled and must be assembled on site!

Requirement:

- The support profile system is installed (see MV0800-0030).
- The distances of the hanger clamps are selected as in Fig. 58

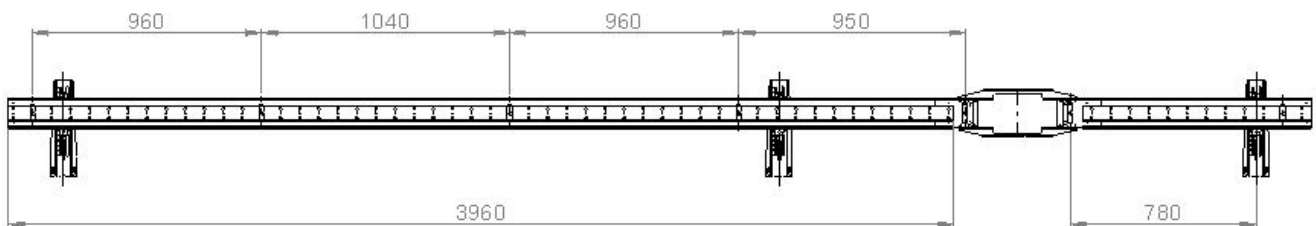


Fig. 58: Distances between hanger clamps 0831 in ProShell 128 Support Profile System

Installation Instructions



ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

Procedure:

1. Hook the locking pin (4) of the hanger clamp onto the lower frame of the ProShell support profile so that by screwing in the hanger clamp, the two pins (3) are sunk into the holes of the ProShell support profile (see Fig. 59 to Fig. 62).

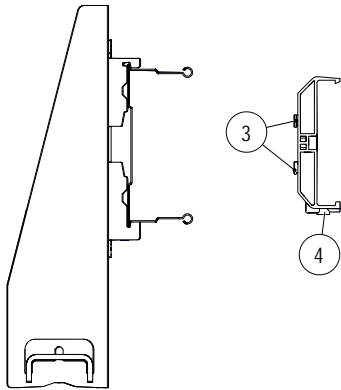


Fig. 59: Locking pin (4) and pin (3) of hanger clamp 0812

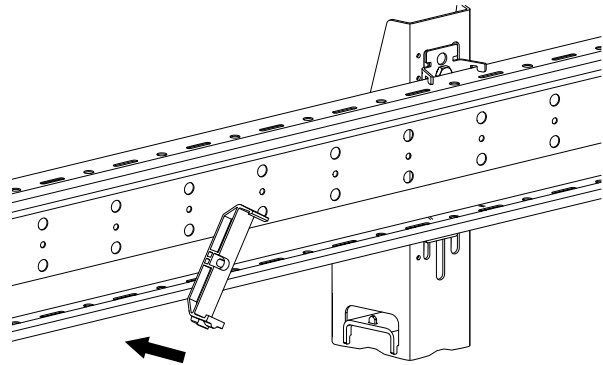


Fig. 60: Install hanger clamp 0831 onto ProShell support profile rail

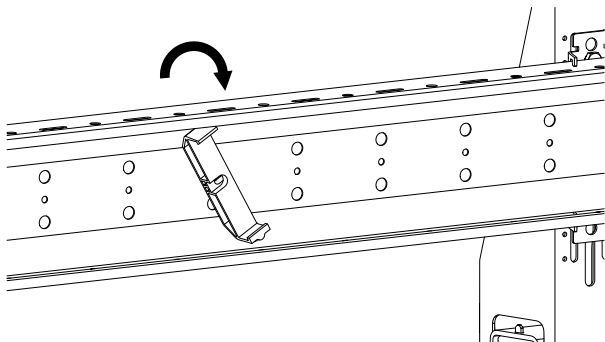


Fig. 61: Turn hanger clamp 0831 onto ProShell support profile rail

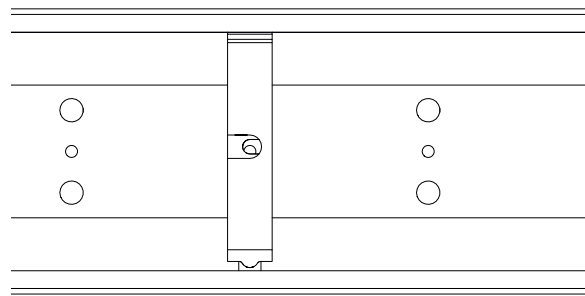


Fig. 62: Install hanger clamp 0831 onto ProShell support profile rail

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

The special rows of holes in the ProShell 206 support profile rails allow the hanger clamps to be easily hung (see Fig. 63). For seven or eight poles, two different hanger clamps (e.g. 3-pole with 4-pole or 5-pole with 3-pole or 4-pole with 4-pole) are combined with one another (see Fig. 64 to Fig. 65).

1. Hook the locking pin (4) of the hanger clamp onto the lower frame of the ProShell support profile so that by screwing in the hanger clamp, the two pins (3) are sunk into the holes of the ProShell support profile (see Fig. 65 to Fig. 68). Install the 4-pole hanger clamp in the upper part of the ProShell support profile in the same way as the 3-pole hanger clamp

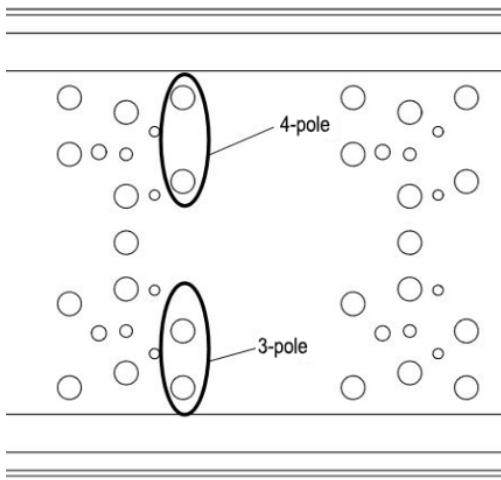


Fig. 63: Series of holes for 7-pole hanger clamp 0831 in ProShell 206 Support Profile System

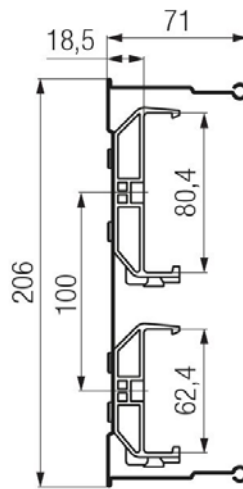


Fig. 64: Dimensions of 7-pole hanger clamp 0831 in ProShell 206

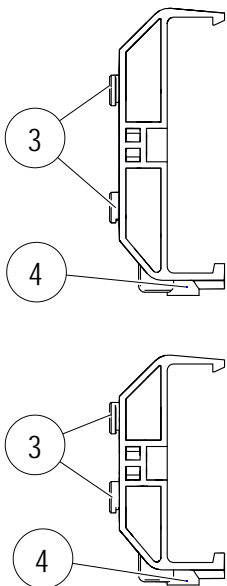


Fig. 65: Locking pin (4) and pin (3)

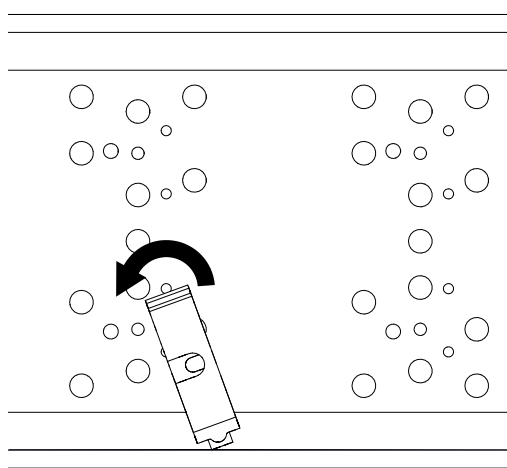


Fig. 66: Hook 3-pole hanger clamp onto the ProShell 206 Support Profile System

Installation Instructions



ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

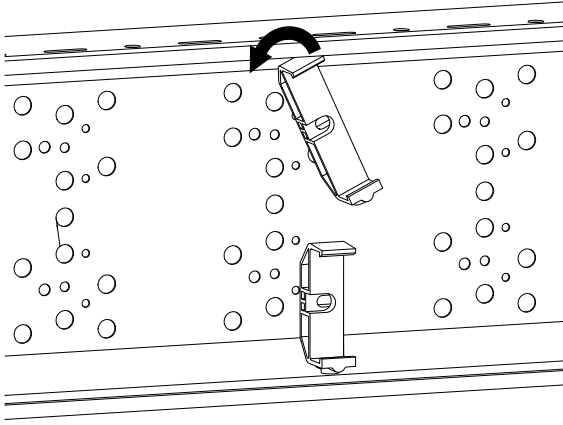


Fig. 67: Hook 4-pole rail hanger clamp onto the ProShell 206 Support Profile System

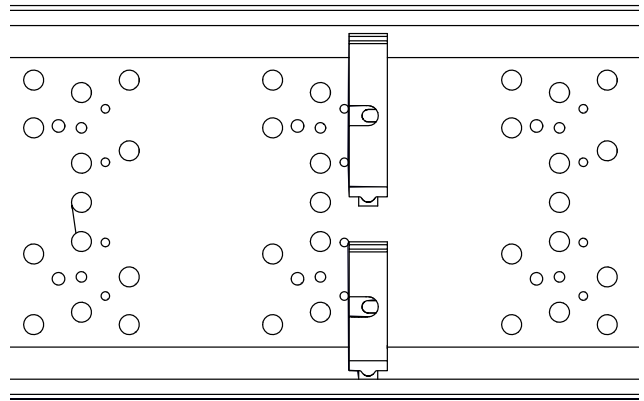


Fig. 68: 7-pole hanger clamp 0831

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

5.2.2 Install line feed with terminal box and additional rails

Procedure:

1. If the anchor points (4) are not yet installed on the fastening frame (3), they must first be installed using the screw connections (A, B and C) (see Fig. 69 and Fig. 70).

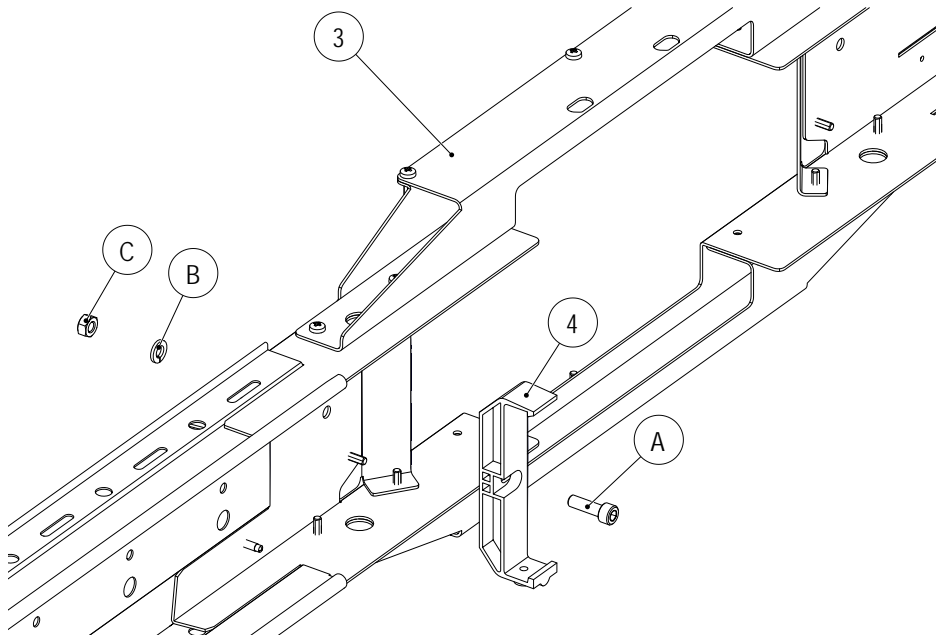


Fig. 69: Install anchor point (4) on fastening frame (3)

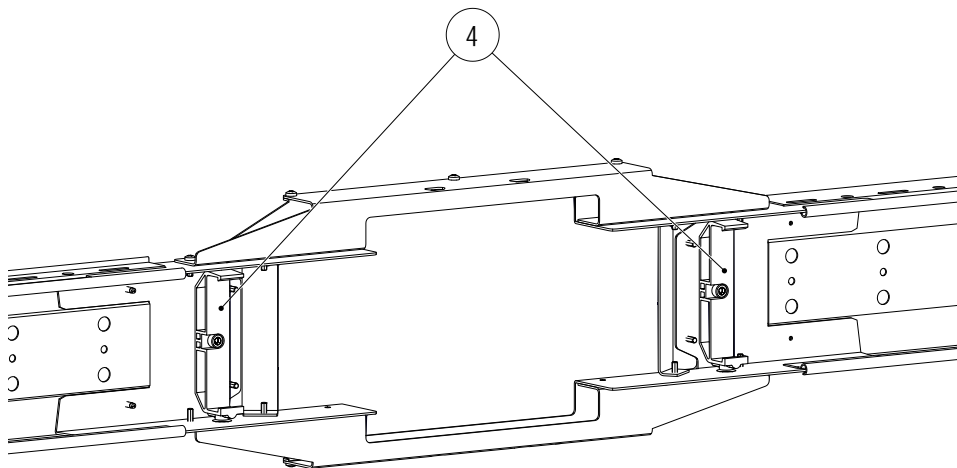


Fig. 70: Anchor points (4) are installed

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2. Hang the line feed with terminal box in the anchor points on the fastening frame. Observe the PE position during this. Conductix-Wampfler recommends attaching the PE rail as the last or lower pole (viewed from above) (see Fig. 71).

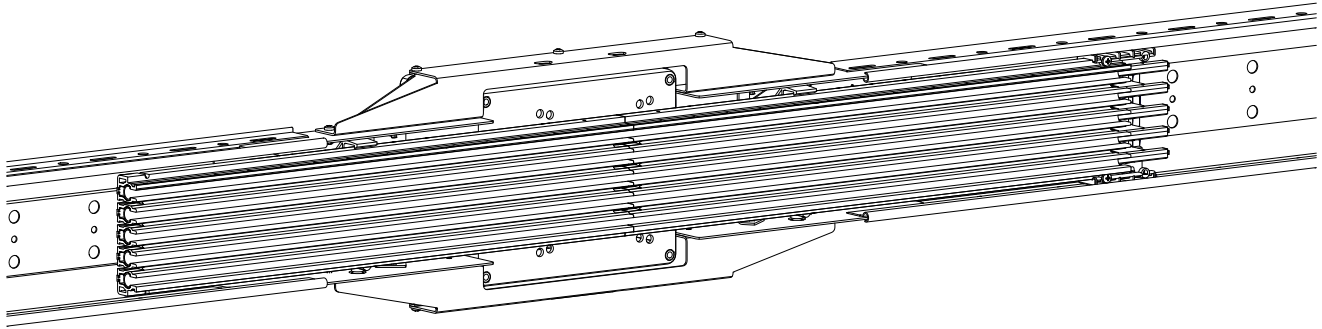


Fig. 71: Line feed with terminal box is installed on fastening frame



Use the QR code ("click" or "scan") to see our animation:
Line feed in basic module.

3. Hang the additional conductor rails on the right and left on the hanger clamps and connect them to the line feed (terminal box). For connecting to the installation block, please refer to MV0831-0006.



Use the QR code ("click" or "scan") to see our animation:
Install and join rail in hanger clamps.

4. Install the end caps at the end of the conductor rail system. For end cap installation, it must be noted that on the pin side of the conductor rail, the connector pins including the connector must be removed with pliers so that the end cap can be installed on the conductor rail end (see MV0831-0006).
5. Slide the end assembly onto the ProShell support profile end and screw it on with the corresponding hexagon screws M6. Due to the linear expansion, a distance of at least 100 mm must be maintained (see MV0800-0030).
6. When connecting the on-site connecting cable, the tightening torques of the connector screws of the tubular cable lugs connector screws must be observed (see Section 5.2.5).

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831



Use the QR code ("click" or "scan") to see our animation:
Install end caps and end assemblies 0831.

5.2.3 Install line feed with strain relief and additional rails

Requirement:

- The anchor points are installed on the right and left of the fastening frame (see Fig. 69 and Fig. 70)

Procedure:

1. Install the line feed without terminal box on the right and left anchor points of the fastening frame (see Fig. 57).
2. Loosen the rear hexagon nut of the anchor point (A) with an open-end wrench SW 10. Remove the spring washer (B) and the hexagon nut (A) and sufficiently lift for the later installation of the strain relief plate (see Fig. 72).

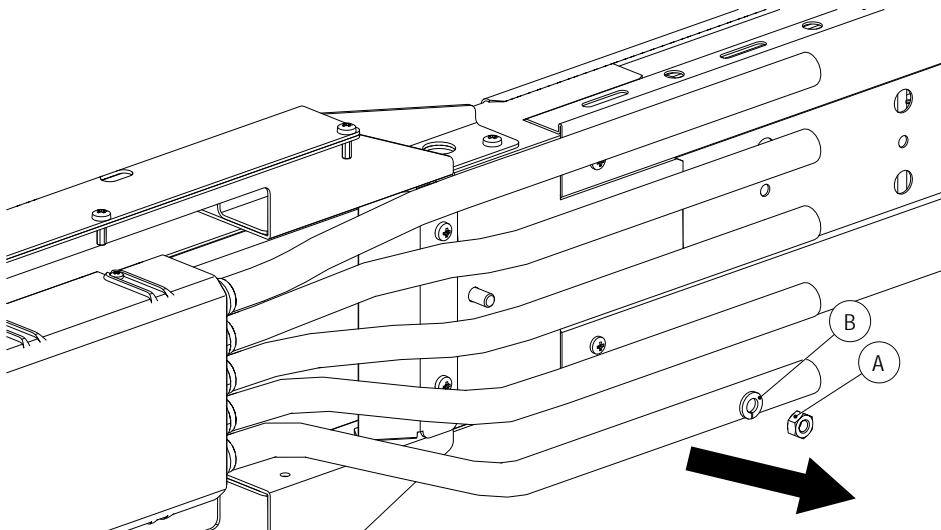


Fig. 72: Loosen rear hexagon nut M6 (A) of anchor point

3. Loosen the lock nuts (C) from the screw connections (D) and slide both onto the connecting cables in such a way that there is still space for the strain relief plate (see Fig. 73).

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

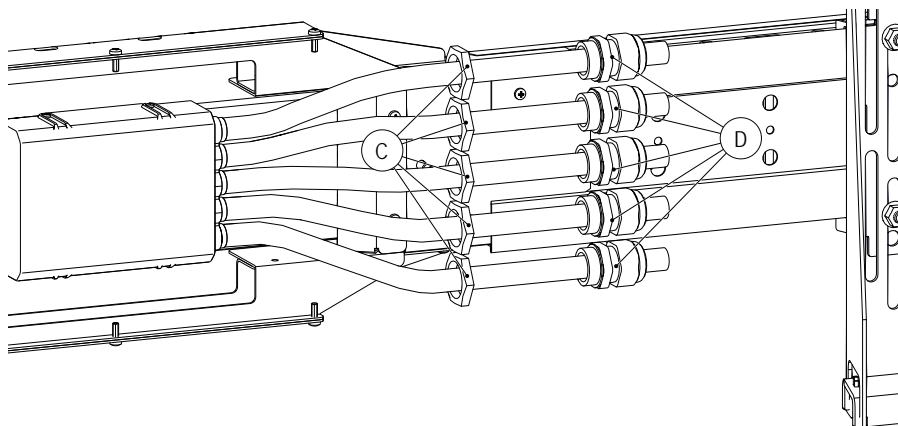


Fig. 73: Slide lock nuts (C) and screw connections (D) onto connecting cables

- Slide the strain relief plate (1) onto the fastening frame (2) and behind the connecting cables (3) so that the individual connecting cables are seated in the protrusions of the strain relief plate (1) (see Fig. 74).

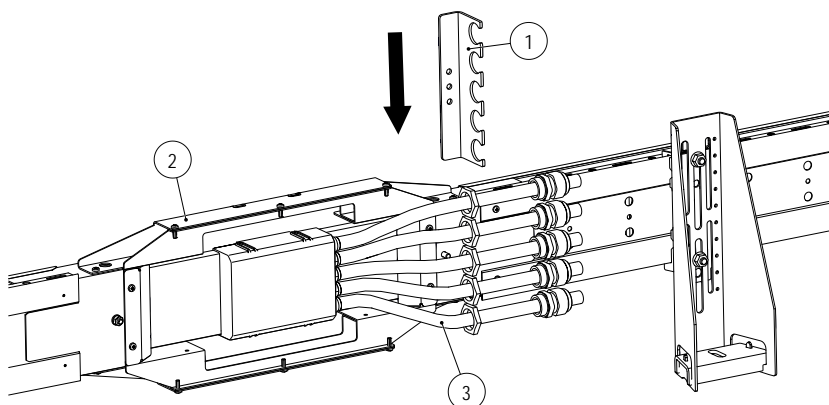


Fig. 74: Slide strain relief plate (1) behind the connecting cables

- Tighten the strain relief plate (1) on the fastening frame with the hexagon nut (A) and the spring washer (B) using an open-end wrench SW10 (see Fig. 75).

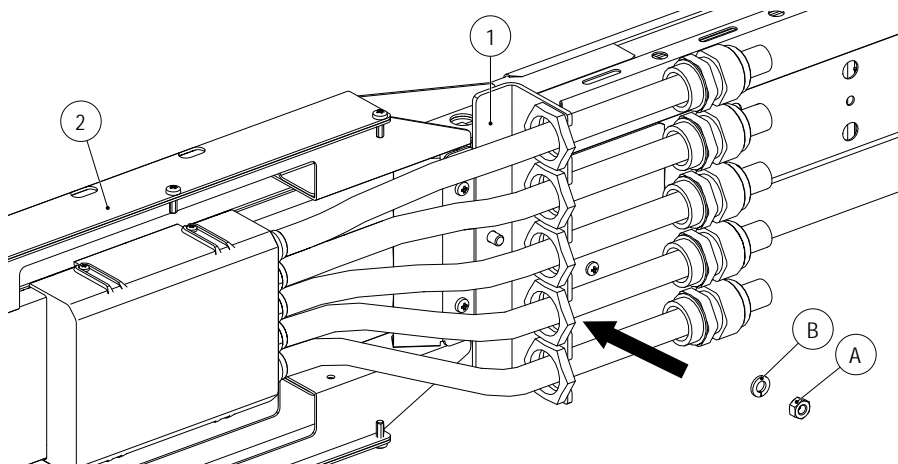


Fig. 75: Install strain relief plate (1)

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

6. Fasten the connecting cables (3) to the strain relief plate (1) using the screw connections (D) and their lock nuts (C) (see Fig. 76).

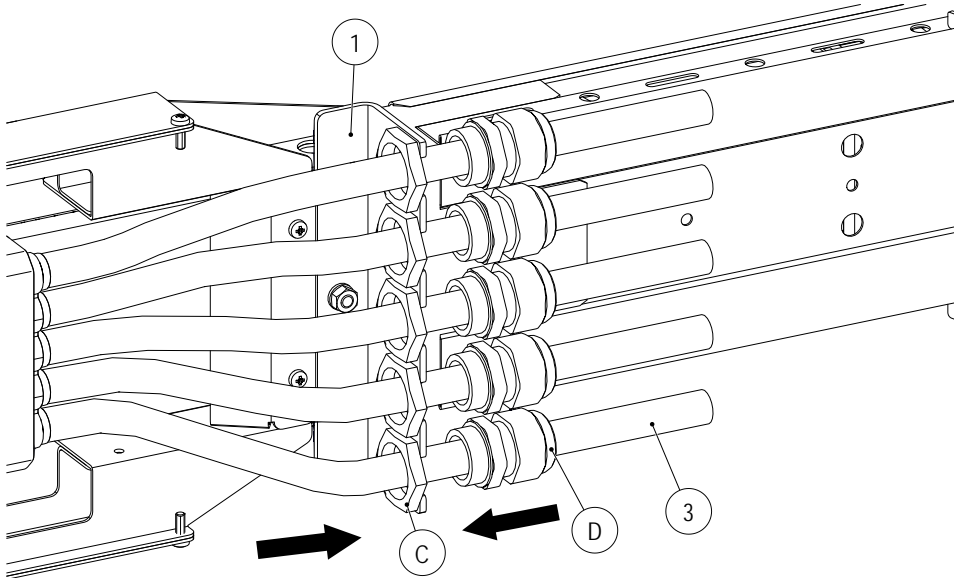


Fig. 76: Screw connecting cables (3) to strain relief plate (1)



Use the QR code ("click" or "scan") to see our animation:
Strain relief.

5. Hang the additional conductor rails on the right and left on the hanger clamps and connect them to the line feed without terminal box. For connecting to the installation block, please refer to MV0831-0006.



Use the QR code ("click" or "scan") to see our animation:
Install and join rails on hanger clamps.

6. Install the end caps at the end of the conductor rail system. For end cap installation, it must be noted that on the pin side of the conductor rail, the connector pins including the connector must be removed with pliers so that the end cap can be installed on the conductor rail end (see MV0831-0006).

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

7. Slide the end assembly onto the ProShell support profile end and screw it on with the corresponding hexagon screws M6. Due to the linear expansion, a distance of at least 100 mm must be maintained (see MV0800-0030).



Use the QR code ("click" or "scan") to see our animation:
Install end caps and end assemblies 0831.

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

5.2.4 Install anchor point

Requirement:

- The anchor points are installed on the fastening frame of the line feed (see Fig. 69) and the conductor rails are completely hung.

Procedure:

1. The insulating profile must be drilled out for the fillister head screw (C), which ensures the fastening of the conductor rail system. For this purpose, drill through the transverse bore of the anchor point (B) and the first insulating profile wall (D) with a drill $\varnothing 3.2$ mm. The conductor bar must not be damaged. The fastening frame has an extra hole (A) for this purpose, so that the conductor rails can be drilled in the hung state (see Fig. 77 and Fig. 78).

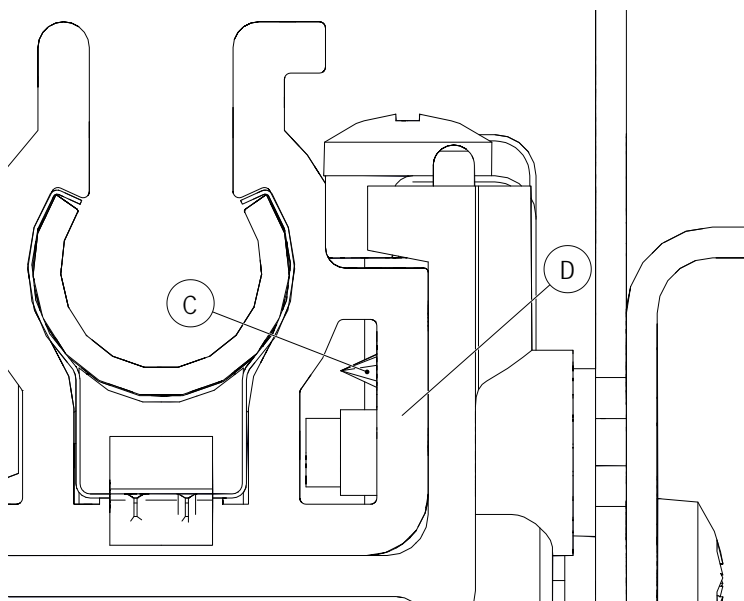


Fig. 77: Drill through first insulating profile wall for anchor point screw

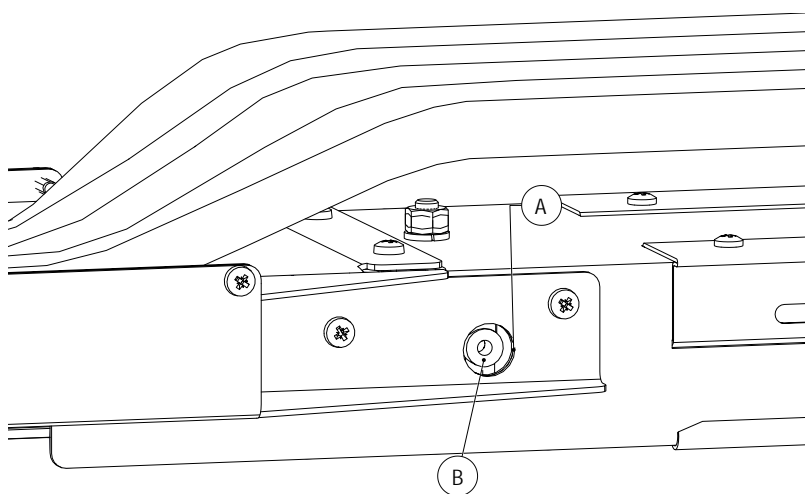


Fig. 78: Pre-drill for fillister head screw

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

- Using a crosshead screwdriver, tighten the fillister head screw (C) so that the screw head rests on the transverse bore of the anchor point (see Fig. 79).

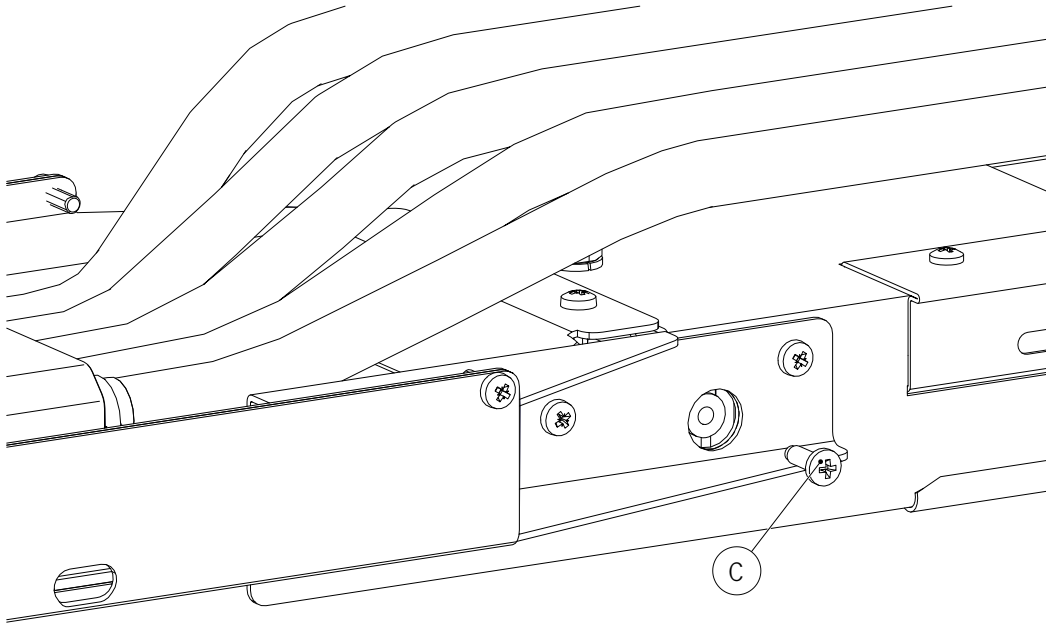


Fig. 79: Tighten fillister head screw (C)

- Install the second anchor point (1) in the same way (see Fig. 80).

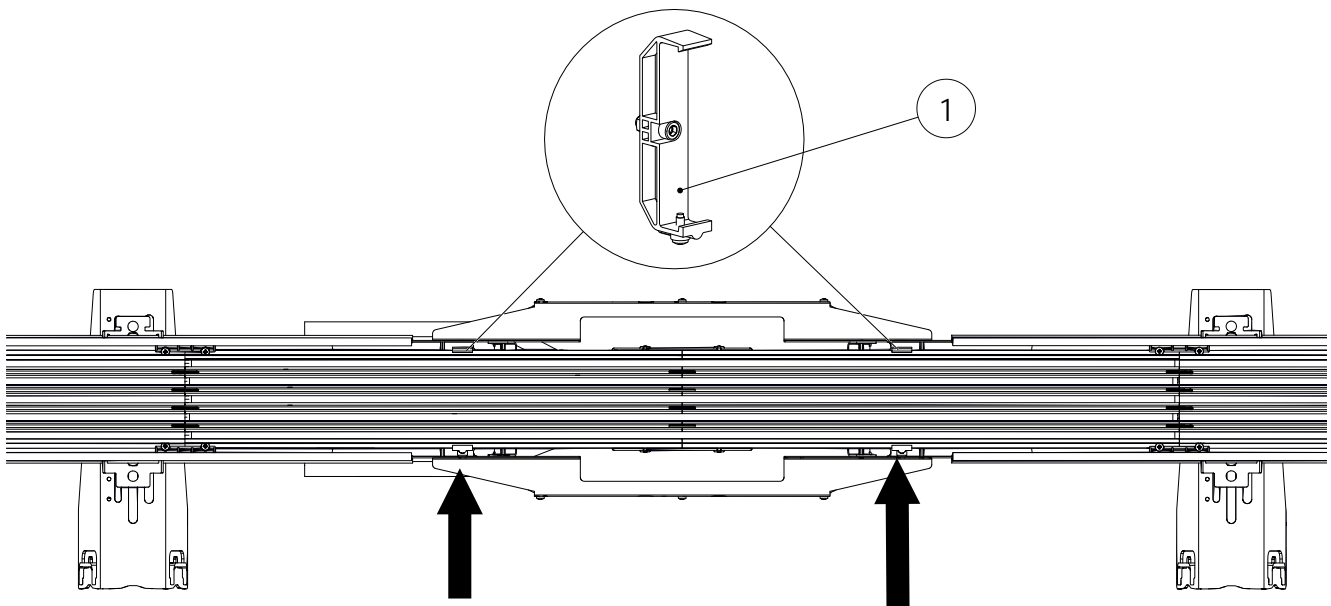


Fig. 80: Position of anchor point

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831



Use the QR code ("click" or "scan") to see our animation: Tighten anchor point screws.

5.2.5 Tightening torque

Relevant components	M6 [Nm]	M8 [Nm]	Screws
			Additional information
End and Line feed	max. 10	max. 25	-
Hanger clamp/Anchor point	4.5	-	-
Fillister head screw for anchor point	-	-	Screw in until its mechanical stop (flush)
Connector	-	-	
End cap/End cap for transfers	-	-	

Fig. 81: Screw tightening torques

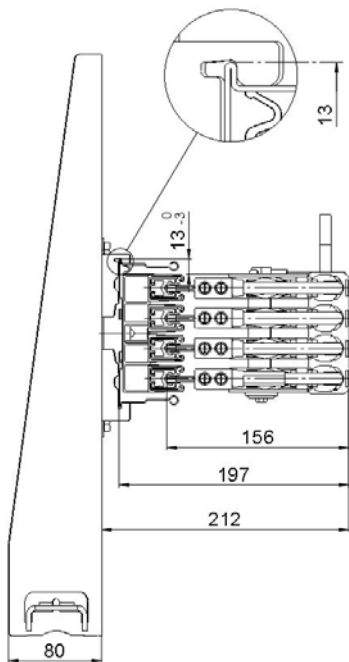
ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

5.3 Install current collector

The current collector is screwed onto the moving part (SRU/sliding carriage) via the installing holes of the current collector unit on the vehicle.

Requirement for the function of the current collector:

- Observe the distance between the installing plane of the current collector unit and the contact surface of the conductor rail according to the installation drawing (see Fig. 82 to Fig. 85):
- Too great a distance will result in a loss of contact.
- Too small a distance will result in increased wear of the contact surface.
- The current collector must be perpendicular to the contact surface (see Fig. 82 to Fig. 85). If necessary, the position of the current collector must be adjusted. A height offset can lead to damage to the surface contacts and the insulating profile.
- Always implement the PE current collector and PH current collector as a dual current collector.
- Max. permissible current collector cable length is max. 3 m (current collector up to 1st on-site terminal box).
- The connecting cables must be finely stranded.
- The connecting cables must be free, moveable and do not exert any force on the surface contacts (never bundle the cables or lead them through a spiral hose and do not lead them on the current collector arm or other components).



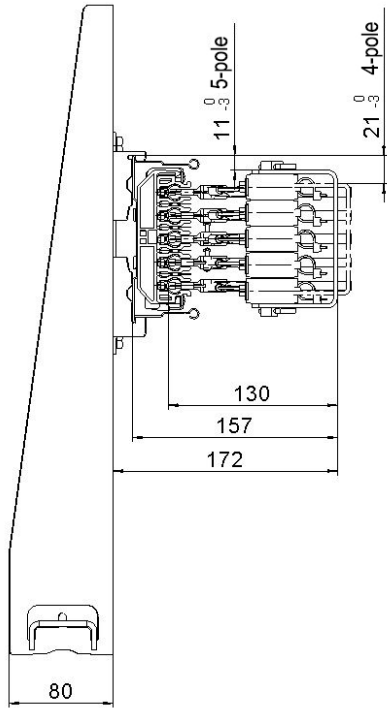
Current collector 0812:

The current collector must be installed in such a way that the vertical distance between the upper edge of the connecting plate to the upper edge of the ProShell support profile is max. 13 mm (+/- 3 mm tolerance). The distance of the screw surface to the outer edge on the console should be 212 mm (+/- 2 mm tolerance). Alternatively, it is possible to measure to the rear side of the ProShell support profile. The distance is then 197 mm (+/- 2 mm tolerance), while the setting distance of the current collector to the contact surface is then 156 mm (+/- 2 mm tolerance).

Contact force: 10 N

Fig. 82: Current collector 0812 (Order No.: 08120A-X#)

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

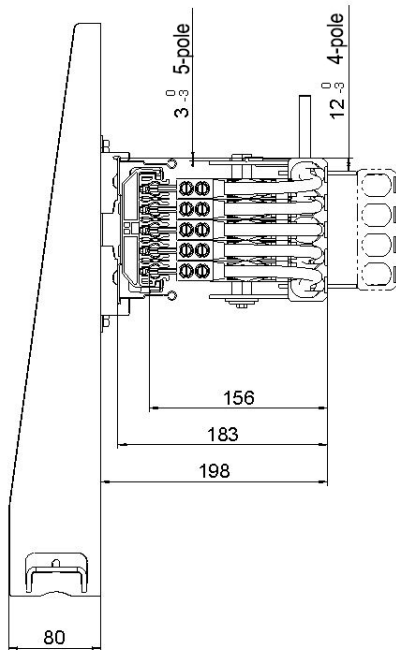


Current collectors 083102 and 083103:

The current collector must be installed in such a way that the vertical distance between the upper edge of the connecting plate to the upper edge of the ProShell support profile respectively is max. 11 mm (+/- 3 mm tolerance) and max. 21 mm (+/- 3 mm tolerance). The distance of the screw surface to the outer edge on the console should be 172 mm (+/- 2 mm tolerance). Alternatively, it is possible to measure to the rear side of the ProShell support profile. The distance is then 157 mm (+/- 2 mm tolerance), while the setting distance of the current collector to the contact surface is then 130 mm (+/- 2 mm tolerance).

Contact force per current collector arm: 5 N

Fig. 83: Current collector 0831 (Order No.: 083103-...)



Current collector 0831:

The current collector must be installed in such a way that the vertical distance between the upper edge of the connecting plate to the upper edge of the ProShell support profile respectively is max. 3 mm (+/- 3 mm tolerance) and max. 12 mm (+/- 3 mm tolerance). The distance of the screw surface to the outer edge on the console should be 198 mm (+/- 2 mm tolerance). Alternatively, it is possible to measure to the rear side of the ProShell support profile. The distance is then 183 mm (+/- 2 mm tolerance), while the setting distance of the current collector to the contact surface is then 156 mm (+/- 2 mm tolerance).

Contact force per current collector arm: 5 N

Fig. 84: Current collector 0831 (Order No. : 08310A-X#)

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

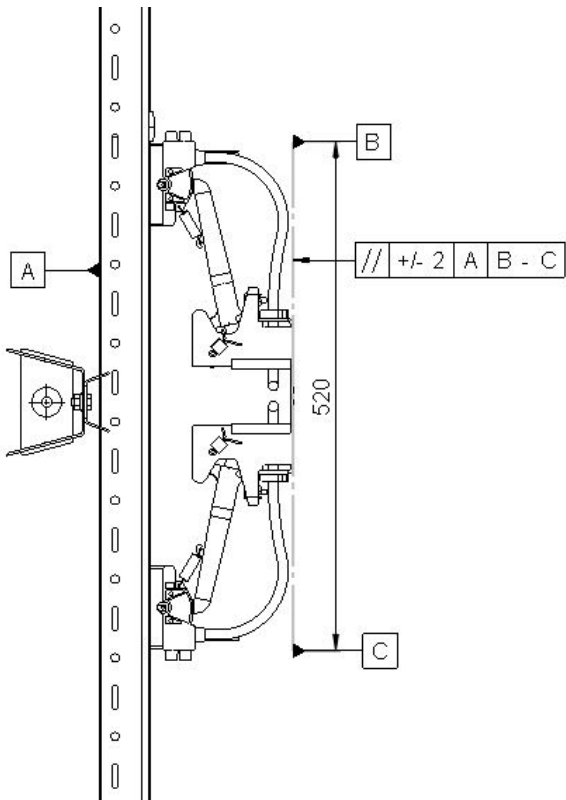


Fig. 85: Tolerance parallelism



Use the QR code ("click" or "scan") to see our animation:
Current collector 0831.



Use the QR code ("click" or "scan") to see our animation:
Current collector 0812 tolerances.

ProShell Support Profile Systems 128 and 206 for Conductor Rail Systems 0812 and 0831

6 Applicable Documents

- BAL0812-0001 SinglePowerLine 0812
- MV0831-0006 Compact Conductor Rail System 0831
- MV0800-0030 ProShell Support Profile System 128_206

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