BF rail (48 Vdc) with control gear box for mounting with ceiling adapter set

BF rail (48 Vdc) / length 200 cm with control gear box Control gear box incl. control gear (100 W / 220-240 Vac / 48 Vdc) For mounting with BF ceiling adapter set (3-piece)

Installation instructions







Contents: Protection classes, safety regulations and instructions _________2 Overview of installation variants with legend _______ 4–5 Control gear box freely positioned on rail _____ Control gear box positioned centrally on rail __________10–13 Control gear box positioned flush with rail end ________14–17 Overview of ceiling canopies_____

(Canopy can be ordered optionally / not included in the scope of delivery)





!\ Electrical connection and legal information:

- The luminaire may only be operated with a mains voltage of 220–240 V / 50–60 Hz.
- The electrical connection of fixed luminaires may only be carried out by a qualified electrician. The statutory installation and accident prevention regulations must be observed.
- Repairs may only be carried out by Baltensweiler AG or by qualified specialists in accordance with applicable standards.
- In the event of improper installation or manipulation, all warranty claims and the manufacturer's product liability in accordance with EU Directive 85/374/EEC and the Swiss Product Liability Act (PrHG) shall be void.
- · Baltensweiler AG accepts no liability for personal injury or property damage resulting from improper handling or failure to observe the safety instructions.

Operation and safety:

- The luminaire heats up during operation.
- Do not place or hang objects on the luminaire or cover it during operation (risk of breakage, falling or fire).
- Keep LEDs, optics and protective glasses clean at all times dust, dirt or foreign particles may lead to overheating or cause damage to the luminaire (refer to the care instructions).
- The LEDs are permanently installed and may only be replaced by the manufacturer.
- Before installation, cleaning or maintenance, always disconnect the power supply (unplug or switch off the circuit breaker).
- · For portable luminaires, regularly check the power cable for damage to the insulation and the secure fit of the strain relief. If damage is detected, the luminaire must be disconnected from the mains immediately and taken out of service. Operation may only be resumed after proper repair and inspection by the manufacturer.



IP20 The luminaire has protection rating IP20: Protection against contact and against solid foreign objects with a diameter ≥ 12.5 mm.

- Installation note: Neither the luminaire nor external control gear may be covered or enclosed with thermal insulation.
- The luminaire is classified as protection class II: Luminaires with reinforced or double insulation; no protective earth connection required.
- (III) Certain individual detachable parts of the luminaire are classified as protection class III: These parts are operated with safety extra-low voltage (SELV/PELV, e.g. 12, 24 or 48 V DC) and may only be used with the control gear integrated in the luminaire. Separate operation is not permitted. (The complete luminaire, including the control gear, is classified as protection class II.)
- External dimmers: External dimmers (including wall dimmers) are not permitted and may damage the electronics of the luminaire.
- ESD: Electronic components are sensitive to electrostatic discharge (ESD) and can be damaged even by touch. Appropriate ESD protection measures must be taken during installation.
- Magnetic notice: The luminaire contains small magnetic components. Magnets may interfere with the function of pacemakers or implanted defibrillators. The recommended minimum distance from the magnet is 85 mm for newer versions (max. magnetic field 1 mT = 10 G) and 105 mm for older versions (max. magnetic field 0.5 mT = 5 G).
- Warning intense light emission: Do not look directly into the LEDs!
- Care instructions: Disconnect the luminaire from the power supply before cleaning. Wipe the luminaire with a soft, damp cloth. Do not use abrasive, alcohol-based or electrostatically charged cleaning agents. The LEDs must not be touched or cleaned to avoid mechanical, chemical or electrostatic damage.
- Repairs / Returns: Repairs may only be carried out by Baltensweiler AG or by qualified specialists in accordance with applicable standards. This ensures that the quality and safety of the luminaire are maintained.

Returns are only possible with prior written approval from Baltensweiler AG and must be complete and in their original packaging. Damage resulting from improper packaging may be charged.

Further information on repairs and returns is available from Baltensweiler AG at info@baltensweiler.ch

- Proper disposal: The luminaire must not be disposed of with household waste.
- **Conformity:** according to EN standards and EU directives.





Scope of delivery in the packaging:

- (A) BF rail (48 Vdc) incl. secondary cable
- (B) Control gear box with cover (incl. control gear max. 100 W / 220–240 Vac / 48 Vdc)
- (c) Art.No. 7300-81 BF mounting accessories for control gear box
- (D) Art.No. 7200-60 1 BF ceiling adapter set black (3-piece, for rail length 200 cm)
- **E** Installation instructions for rail and control gear box (incl. control gear) (The installation and operating instructions for the corresponding lighting elements are included in the package of the lighting elements.)



(c) Contents of Art.No. 7300-81: BF mounting accessories for control gear box 2x control gear box holders incl. fixing screws (M3) 2x distance spacers 2x cable holders incl. plastic threaded pin 4x ferrules white (for secondary cable 48 Vdc / rail) 2x screws \emptyset 4×40 (for fixing the control gear box) 2x plugs ø 6×30 (for fixing the control gear box)

(D) Contents of Art.No. 7200-60 1: BF ceiling adapter set black (3-piece, for rail length 200 cm)

1x Allen key (for fixing the control gear box holders)



Required tools

- Cross-head screwdriver
- Slotted screwdriver
- Drill with ø 6 mm drill bit
- Crimping tool
- Wire stripper
- Side cutter
- Marking tool (e.g. line laser)

Note

- Two persons are required for installation.
- The installation and operating instructions for the lighting elements are included with the respective lighting elements.

(EN)

Overview of installation variants:

The BF rail can be combined with the control gear box in various installation variants. All variants are mounted using the BF ceiling adapter set (3-piece).

Please note: The position of the control gear box holders, cable holders and ceiling adapters must be defined before installation, in order to avoid collisions or incorrect cable routing.

Cable routing:

Primary and secondary cables can be routed in the rail or under the ceiling adapters, but only one cable per section (no crossing).

Do not route any cables inside the rail in the area of the rail feed-in. A cable holder must be installed at the cable exit of the rail.

Legend:



Primary cable (220–240 Vac)





Distance spacer

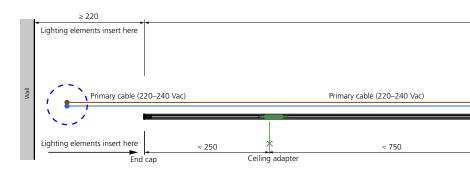
Strain relief (pre-installed / must not be adjusted!)

Cable holder

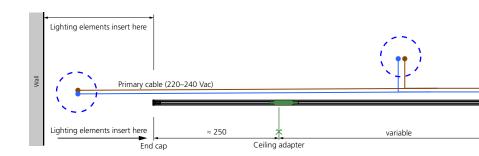




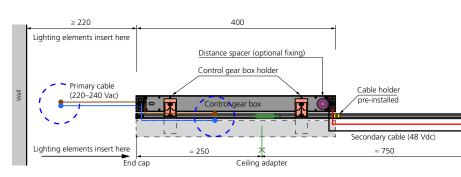
Control gear box freely positioned on the rail: Installation instructions pages 6–9



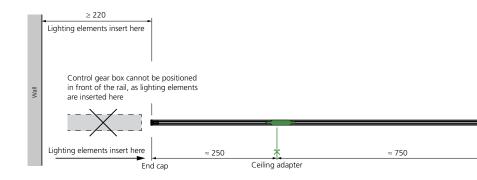
Control gear box positioned centrally on the rail: Installation instructions pages 10–13



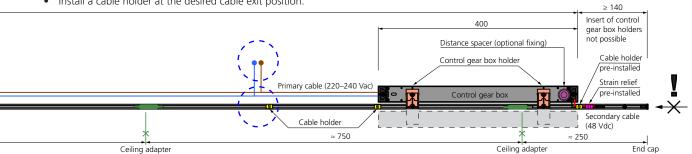
Control gear box positioned flush with rail end: Installation instructions pages 14–17



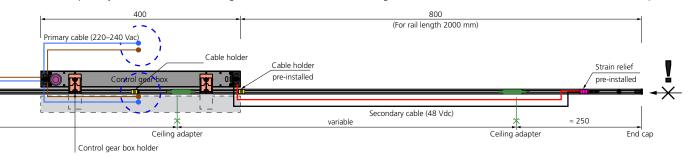
Control gear box positioned externally: Installation instructions pages 18–19



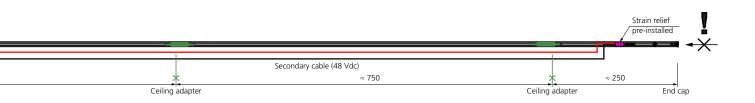
- Control gear box mounted laterally on the rail (position freely selectable within cable length limits).
- Caution: Ceiling adapters cannot be mounted in the area of the control gear box holders.
- Install a cable holder at the desired cable exit position.



- Control gear box mounted centrally on the rail.
- Caution: Ceiling adapters cannot be mounted in the area of the control gear box holders.
- If the primary connection (on-site ceiling outlet) lies between the control gear box holders, install an additional cable holder at that position.



- Control gear box mounted directly at the end of the rail (flush finish).
- Caution: Ceiling adapters cannot be mounted in the area of the control gear box holders.
- If the primary connection (on-site ceiling outlet) lies between the control gear box holders, install an additional cable holder at that position.



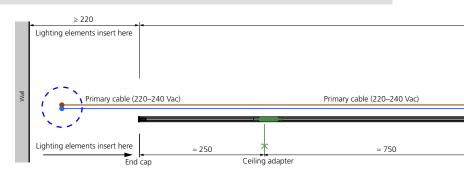
Control gear box mounted separately from the rail on the ceiling. Control gear box may be placed in front of the rail. Cable routing between rail and control gear box must be carried out professionally (cable duct or suitable holders). Observe the cable length limitation. Route secondary cable above the rail. 400 Ceiling fixing Distance spacer Ceiling fixing 340 Distance spacer Ceiling fixing hole spacing Primary cable Secondary cable (48 Vdc) Cable holder (220-240 Vac) pre-installed Strain relief pre-installed Ceiling adapter Ceiling adapter End cap

Important: The electrical connection must be carried out only by a qualified electrician. Before any installation work, disconnect power (remove fuse). 🗶

The rail system consists of:

- one rail with pre-installed secondary cable (48 Vdc output from the control gear to the rail, length 3.5 m),
- one control gear box with pre-installed primary cable (mains connection 220-240 Vac, length 3.5 m),
- and the required mounting accessories.

The control gear box is mounted laterally on the rail using mounting holders. Observe the permitted cable lengths.



Preparation

1) Disconnect power:

Switch off circuit breaker to ensure that the system is voltage-free.

The electrical connection must be carried out only by a qualified electrician.

Place the rail, control gear box and all mounting accessories on a clean, scratch-free working surface. Check scope of delivery according to the list on page 3.

(3) Prepare secondary cable (48 Vdc):

Release the Velcro strap on the rail and lay out the pre-installed secondary cable (do not remove!) next to the rail.

(4) Remove covers:

- Remove the end cap on the opposite side of the rail feed-in.
- Remove the cover of the control gear box (held magnetically).







Mounting the control gear box on the rail Install holders:

(5) Install holders:

- Attach the control gear box holders on both sides of the box.
- · Tighten using the supplied Allen key

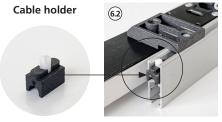
(6) Insert the box:

- Slide the control gear box with the mounted holders into the rail.
- Important: If the primary connection (on-site ceiling outlet) lies between the control gear box holders (A), install an additional cable holder at that position. Position the control gear box and tighten the holders with the Allen key.
- Consider the position of primary and secondary connections, the three ceiling adapters, and the on-site supply point (ceiling canopy). Observe the permitted cable lengths.



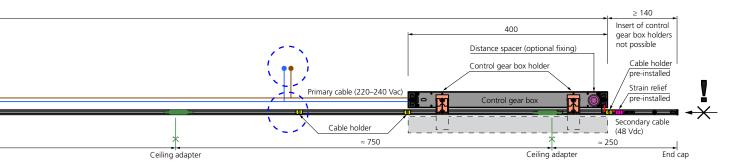
If the primary connection (on-site ceiling outlet) lies between the control gear box holders, install an additional cable holder at this point.











Cable routing

(7) General rules:

- Primary and secondary cables can be routed inside the rail or underneath the ceiling adapters.
- Only one cable may be routed per section (no crossing).
- Do not route cables inside the rail in the area of the rail feed-in.
- Cable exit points must be secured with cable holders.
- The strain relief (black marking) at the secondary connection must not be loosened or moved. (B)

Connecting the secondary cable (48 Vdc)

(8) Adjust cable holder:

- Loosen the pre-installed cable holder until it can be moved (slotted screwdriver No. 0).
- Move the cable holder to the desired exit position of the secondary cable and tighten.

9 Cut and prepare secondary cable (48 Vdc):

- Cut the secondary cable (48 Vdc) to the required length (allow for cable reserve in the box).
- Strip the cable. Strip only as much as required so that the double insulation is retained.
- Crimp white ferrules onto the wire ends and trim if necessary.

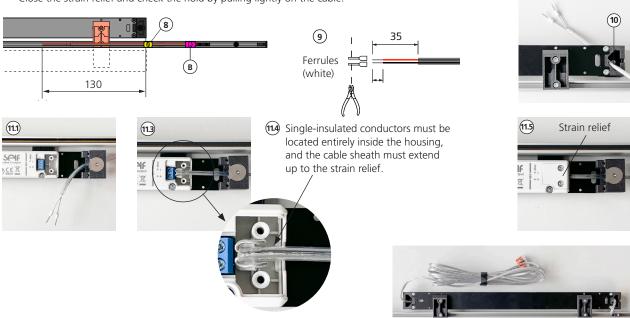
Ferrules are mandatory for stranded wires when using screw terminals!

(10) Insert cable:

• Insert the prepared secondary cable (48 Vdc) into the end cap of the control gear box.

(1) Connection to control gear:

- Rotate the box to access the terminal area.
- Remove the cover (strain relief).
- Connect the secondary cable to 48 Vdc (negative pole marked with black thread).
- Place wire ends completely inside the housing, and route the cable sheath up to the strain relief.
- Close the strain relief and check the hold by pulling lightly on the cable.



(EN)

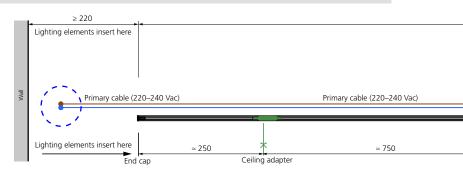
Important: The electrical connection must be carried out only by a qualified electrician.

Before any installation work, disconnect power (remove fuse).

The rail system consists of:

- one rail with pre-installed secondary cable (48 Vdc output from the control gear to the rail, length 3.5 m),
- one control gear box with pre-installed primary cable (mains connection 220–240 Vac, length 3.5 m),
- · and the required mounting accessories.

The control gear box is mounted laterally on the rail using mounting holders. Observe the permitted cable lengths.



Mounting the rail with ceiling adapters and control gear box

(12) Determine position:

- Rotate the levers of the ceiling adapters by 90°. (c)
- Place the adapters (3 pieces) onto the rail and position them according to the specified dimensions. (D)
- For special lengths (100–199 cm), adjust distances accordingly.
- Allow reserve for lateral adjustment.

Consider the position of box holders, cable holders, strain relief, feed-in point and ceiling canopy.

(13) Mark drill holes for the adapters:

- Drill holes must be perfectly aligned.
- Variant 1: Hold the rail against the ceiling and mark the positions.
- Variant 2: Transfer dimensions and mark drilling points.
- Caution: The drill hole in the adapter is not centered! (E)

(14) Install adapters:

- Remove the rail and take off the adapters. (C)
- Drill holes (ø 6 mm × 45 mm) and insert plugs.
- Fix adapters to the ceiling with screws.
- Check load-bearing capacity of the fixing and adapt or replace the fixing material according to the ceiling construction if necessary.

(15) Mark drill hole for the control gear box:

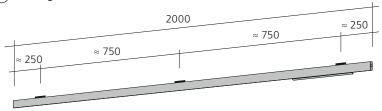
- To transfer the position accurately, fix the rail with the three adapters to the ceiling © and mark the drill hole position for the control gear box at the secondary connection point. (F)
- Remove the rail again, drill fixing hole (ø 6 mm × 45 mm) and insert plug.

© Mounting / removing the rail at the ceiling adapter

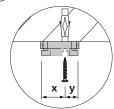
Rotate latch by 90°, place/remove rail, rotate latch back.



(D) Drilling dimensions for rail installation

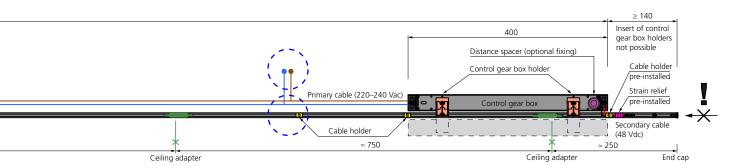


(E) Mounting adapter to ceiling



(F) Fixing hole for control gear box (secondary side)





Prepare primary cable Exit

16 Determine position:

• Determine where the primary cable should exit the control gear box – Variant 1 or Variant 2.



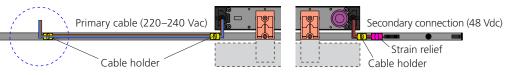
Variant 1:

- Route the primary cable directly from the control gear box.
- If required, cut the primary cable to the appropriate length and strip the insulation.



Variant 2:

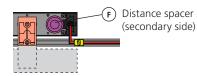
- Place the primary cable in the upper channel of the rail.
- Routing under the ceiling adapters is possible; in the adapter area the cable must not exit the rail.
- Install cable holders at the entry and exit points of the primary cable (slotted screwdriver No. 0).
- If required, cut the primary cable to the appropriate length and strip the insulation.



Final installation / primary connection (220-240 Vac)

(17) Install rail and control gear box:

- Place the rail onto the ceiling adapters, align it in longitudinal direction and rotate the adapter latches back by 90°.
- Fix the control gear box on both sides with one screw and two distance spacers above the prepared drill hole in the ceiling. (F)
- Carefully place the cover onto the control gear box (held magnetically).



(18) Primary connection (220–240 Vac)

- Carry out the primary connection in accordance with applicable installation regulations. Connection must be made exclusively inside the on-site ceiling outlet box.
- No additional terminals, strain reliefs or similar components may be installed inside the rail or the control gear box.
- If required, shorten and strip the primary cable
- Connect the luminaire's primary cable (220–240 Vac) to the on-site supply cable in the ceiling outlet box (neutral conductor is marked with a blue thread).
- Use of the supplied terminals is recommended.

(19) Important:

- For screw terminals (e.g. connector blocks), ferrules are mandatory and must be used for stranded wires.
- Ferrules must **not** be used on **solid conductors**.
- Depending on the ceiling canopy, the primary cable must be fed through the canopy before installation.
 See the overview of ceiling canopies on page 20 (optional, not included). Install according to the separate instructions.
- If the cable is not routed through a cable duct to the ceiling outlet box, an on-site strain relief must be provided.

(20) Install lighting elements

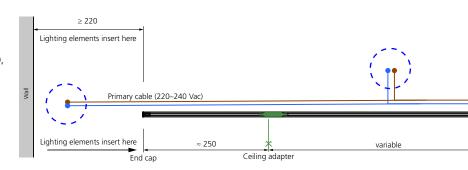
 Once the rail and control gear box are installed and the primary connection has been properly made at the ceiling outlet box, the lighting elements can be installed according to their separate instructions.

Important: The electrical connection must be carried out only by a qualified electrician. Before any installation work, disconnect power (remove fuse). 🗶

The rail system consists of:

- one rail with pre-installed secondary cable (48 Vdc output from the control gear to the rail, length 3.5 m),
- one control gear box with pre-installed primary cable (mains connection 220-240 Vac, length 3.5 m),
- and the required mounting accessories.

The control gear box is mounted laterally on the rail using mounting holders. Observe the permitted cable lengths.



Preparation

1) Disconnect power:

Switch off circuit breaker to ensure that the system is voltage-free.

The electrical connection must be carried out only by a qualified electrician.

Place the rail, control gear box and all mounting accessories on a clean, scratch-free working surface. Check scope of delivery according to the list on page 3.

(3) Prepare secondary cable (48 Vdc):

Release the Velcro strap on the rail and lay out the pre-installed secondary cable (do not remove!) next to the rail.

(4) Remove covers:

- Remove the end cap on the opposite side of the rail feed-in.
- Remove the cover of the control gear box (held magnetically).







Mounting the control gear box on the rail Install holders:

(5) Install holders:

- Attach the control gear box holders on both sides of the box.
- Tighten using the supplied Allen key

(6) Insert the box:

- Slide the control gear box with the mounted holders into the rail.
- Important: If the primary connection (on-site ceiling outlet) lies between the control gear box holders (A), install an additional cable holder at that position. Position the control gear box and tighten the holders with the Allen key.
- Consider the position of primary and secondary connections, the three ceiling adapters, and the on-site supply point (ceiling canopy). Observe the permitted cable lengths.

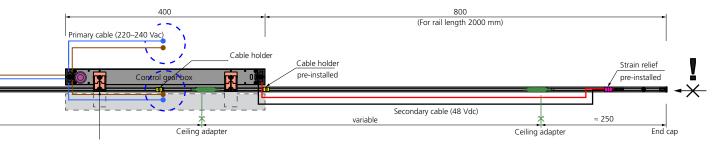


If the primary connection (on-site ceiling outlet) lies between the control gear box holders, install an additional cable holder at this point.









Cable routing

(7) General rules:

- Primary and secondary cables can be routed inside the rail or underneath the ceiling adapters.
- Only one cable may be routed per section (no crossing).
- Do not route cables inside the rail in the area of the rail feed-in.
- Cable exit points must be secured with cable holders.
- The strain relief (black marking) at the secondary connection must not be loosened or moved. (B)

Connecting the secondary cable (48 Vdc)

(8) Adjust cable holder:

- Loosen the pre-installed cable holder until it can be moved (slotted screwdriver No. 0).
- Move the cable holder to the desired exit position of the secondary cable and tighten.

9 Cut and prepare secondary cable (48 Vdc):

- Cut the secondary cable (48 Vdc) to the required length (allow for cable reserve in the box).
- Strip the cable. Strip only as much as required so that the double insulation is retained.
- Crimp white ferrules onto the wire ends and trim if necessary.

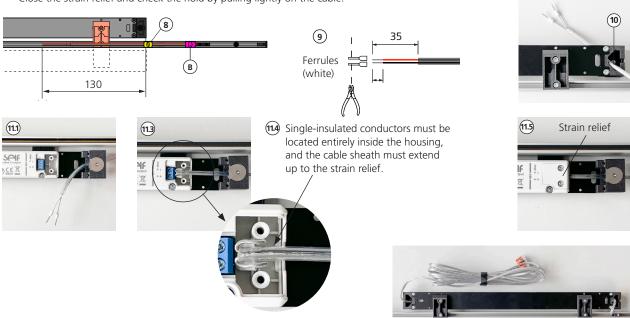
Ferrules are mandatory for stranded wires when using screw terminals!

(10) Insert cable:

• Insert the prepared secondary cable (48 Vdc) into the end cap of the control gear box.

(1) Connection to control gear:

- Rotate the box to access the terminal area.
- Remove the cover (strain relief).
- Connect the secondary cable to 48 Vdc (negative pole marked with black thread).
- Place wire ends completely inside the housing, and route the cable sheath up to the strain relief.
- Close the strain relief and check the hold by pulling lightly on the cable.

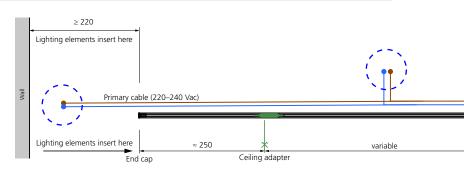


Important: The electrical connection must be carried out only by a qualified electrician. Before any installation work, disconnect power (remove fuse).

The rail system consists of:

- one rail with pre-installed secondary cable (48 Vdc output from the control gear to the rail, length 3.5 m),
- one control gear box with pre-installed primary cable (mains connection 220-240 Vac, length 3.5 m),
- and the required mounting accessories.

The control gear box is mounted laterally on the rail using mounting holders. Observe the permitted cable lengths.



Mounting the rail with ceiling adapters and control gear box

(12) Determine position:

- Rotate the levers of the ceiling adapters by 90°. (c)
- Place the adapters (3 pieces) onto the rail and position them according to the specified dimensions. (D)
- For special lengths (100–199 cm), adjust distances accordingly.
- Allow reserve for lateral adjustment.

Consider the position of box holders, cable holders, strain relief, feed-in point and ceiling canopy.

(13) Mark drill holes for the adapters:

- Drill holes must be perfectly aligned.
- Variant 1: Hold the rail against the ceiling and mark the positions.
- Variant 2: Transfer dimensions and mark drilling points.
- **Caution:** The drill hole in the adapter is not centered! (E)

(14) Install adapters:

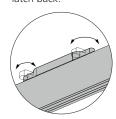
- Remove the rail and take off the adapters. (c)
- Drill holes (ø 6 mm × 45 mm) and insert plugs.
- Fix adapters to the ceiling with screws.
- · Check load-bearing capacity of the fixing and adapt or replace the fixing material according to the ceiling construction if necessary.

(15) Mark drill hole for the control gear box:

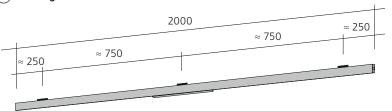
- To transfer the position accurately, fix the rail with the three adapters to the ceiling (c) and mark the drill hole position for the control gear box at the secondary connection point. (F)
- Remove the rail again, drill fixing hole (ø 6 mm × 45 mm) and insert plug.

(c) Mounting / removing the rail at the ceiling adapter

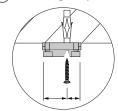
Rotate latch by 90°, place/remove rail, rotate latch back.



(D) Drilling dimensions for rail installation

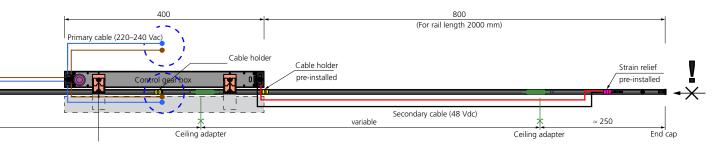


(E) Mounting adapter to ceiling



(F) Fixing hole for control gear box (secondary side)





Prepare primary cable Exit

(16) Determine position:

• Determine where the primary cable should exit the control gear box – Variant 1 or Variant 2.



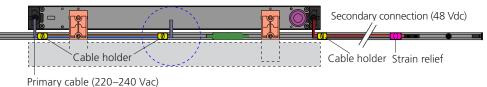
Variant 1:

- Route the primary cable directly from the control gear box.
- If required, cut the primary cable to the appropriate length and strip the insulation.



Variant 2:

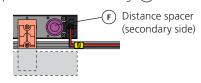
- Place the primary cable in the upper channel of the rail.
- Routing under the ceiling adapters is possible; in the adapter area the cable must not exit the rail.
- Install cable holders at the entry and exit points of the primary cable (slotted screwdriver No. 0).
- If required, cut the primary cable to the appropriate length and strip the insulation.



Final installation / primary connection (220-240 Vac)

(17) Install rail and control gear box:

- Place the rail onto the ceiling adapters, align it in longitudinal direction and rotate the adapter latches back by 90°. (C)
- Fix the control gear box on both sides with one screw and two distance spacers above the prepared drill hole in the ceiling. (F)
- Carefully place the cover onto the control gear box (held magnetically).



18 Primary connection (220–240 Vac)

- Carry out the primary connection in accordance with applicable installation regulations. Connection must be made exclusively inside
 the on-site ceiling outlet box.
- No additional terminals, strain reliefs or similar components may be installed inside the rail or the control gear box.
- If required, shorten and strip the primary cable.
- Connect the luminaire's primary cable (220–240 Vac) to the on-site supply cable in the ceiling outlet box (neutral conductor is marked with a blue thread).
- Use of the supplied terminals is recommended.

(19) Important:

- For screw terminals (e.g. connector blocks), ferrules are mandatory and must be used for stranded wires.
- Ferrules must **not** be used on **solid conductors**.
- Depending on the ceiling canopy, the primary cable must be fed through the canopy before installation.
 See the overview of ceiling canopies on page 20 (optional, not included). Install according to the separate instructions.
- If the cable is not routed through a cable duct to the ceiling outlet box, an on-site strain relief must be provided.

(20) Install lighting elements

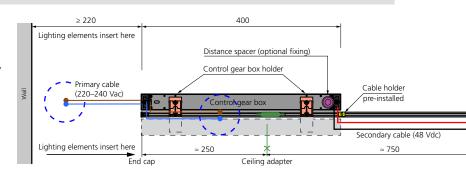
• Once the rail and control gear box are installed and the primary connection has been properly made at the ceiling outlet box, the lighting elements can be installed **according to their separate instructions**.

Important: The electrical connection must be carried out only by a qualified electrician. Before any installation work, disconnect power (remove fuse). 🗶

The rail system consists of:

- one rail with pre-installed secondary cable (48 Vdc output from the control gear to the rail, length 3.5 m),
- one control gear box with pre-installed primary cable (mains connection 220-240 Vac, length 3.5 m),
- and the required mounting accessories.

The control gear box is mounted laterally on the rail using mounting holders. Observe the permitted cable lengths.



Preparation

1) Disconnect power:

Switch off circuit breaker to ensure that the system is voltage-free.

The electrical connection must be carried out only by a qualified electrician.

Place the rail, control gear box and all mounting accessories on a clean, scratch-free working surface. Check scope of delivery according to the list on page 3.

(3) Prepare secondary cable (48 Vdc):

Release the Velcro strap on the rail and lay out the pre-installed secondary cable (do not remove!) next to the rail.

(4) Remove covers:

- Remove the end cap on the opposite side of the rail feed-in.
- Remove the cover of the control gear box (held magnetically).







Mounting the control gear box on the rail Install holders:

(5) Install holders:

- Attach the control gear box holders on both sides of the box.
- · Tighten using the supplied Allen key

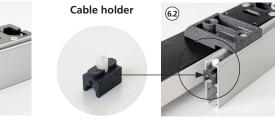
(6) Insert the box:

- Slide the control gear box with the mounted holders into the rail.
- Important: If the primary connection (on-site ceiling outlet) lies between the control gear box holders (A), install an additional cable holder at that position. Position the control gear box and tighten the holders with the Allen key.
- Consider the position of primary and secondary connections, the three ceiling adapters, and the on-site supply point (ceiling canopy). Observe the permitted cable lengths.



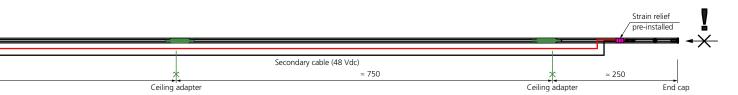
If the primary connection (on-site ceiling outlet) lies between the control gear box holders, install an additional cable holder at this point.











Cable routing

(7) General rules:

- Primary and secondary cables can be routed inside the rail or underneath the ceiling adapters.
- Only one cable may be routed per section (no crossing).
- Do not route cables inside the rail in the area of the rail feed-in.
- Cable exit points must be secured with cable holders.
- The strain relief (black marking) at the secondary connection must not be loosened or moved. (B)

Connecting the secondary cable (48 Vdc)

(8) Adjust cable holder:

- Loosen the pre-installed cable holder until it can be moved (slotted screwdriver No. 0).
- Move the cable holder to the desired exit position of the secondary cable and tighten.

9 Cut and prepare secondary cable (48 Vdc):

- Cut the secondary cable (48 Vdc) to the required length (allow for cable reserve in the box).
- Strip the cable. Strip only as much as required so that the double insulation is retained.
- Crimp white ferrules onto the wire ends and trim if necessary.

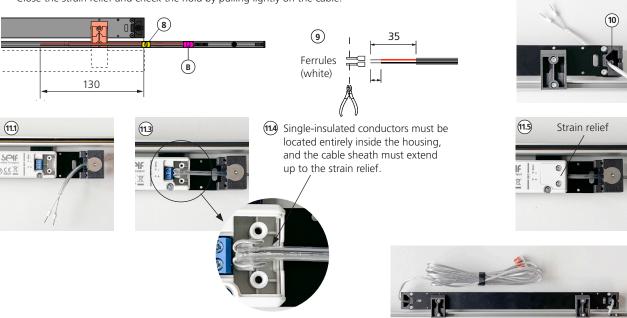
Ferrules are mandatory for stranded wires when using screw terminals!

(10) Insert cable:

• Insert the prepared secondary cable (48 Vdc) into the end cap of the control gear box.

(1) Connection to control gear:

- Rotate the box to access the terminal area.
- Remove the cover (strain relief).
- Connect the secondary cable to 48 Vdc (negative pole marked with black thread).
- Place wire ends completely inside the housing, and route the cable sheath up to the strain relief.
- Close the strain relief and check the hold by pulling lightly on the cable.



(EN)

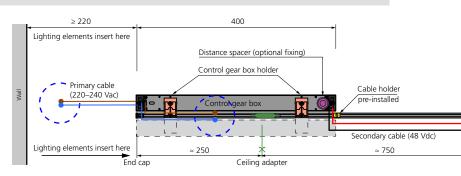
Important: The electrical connection must be carried out only by a qualified electrician.

Before any installation work, disconnect power (remove fuse).

The rail system consists of:

- one rail with pre-installed secondary cable (48 Vdc output from the control gear to the rail, length 3.5 m),
- one control gear box with pre-installed primary cable (mains connection 220–240 Vac, length 3.5 m),
- and the required mounting accessories.

The control gear box is mounted laterally on the rail using mounting holders. Observe the permitted cable lengths.



Mounting the rail with ceiling adapters and control gear box

(12) Determine position:

- Rotate the levers of the ceiling adapters by 90°. (c)
- Place the adapters (3 pieces) onto the rail and position them according to the specified dimensions. (D)
- For special lengths (100–199 cm), adjust distances accordingly.
- Allow reserve for lateral adjustment.

Consider the position of box holders, cable holders, strain relief, feed-in point and ceiling canopy.

(13) Mark drill holes for the adapters:

- Drill holes must be perfectly aligned.
- Variant 1: Hold the rail against the ceiling and mark the positions.
- Variant 2: Transfer dimensions and mark drilling points.
- Caution: The drill hole in the adapter is not centered! (E)

(14) Install adapters:

- Remove the rail and take off the adapters. ©
- Drill holes (ø 6 mm × 45 mm) and insert plugs.
- Fix adapters to the ceiling with screws.
- Check load-bearing capacity of the fixing and adapt or replace the fixing material according to the ceiling construction if necessary.

(15) Mark drill hole for the control gear box:

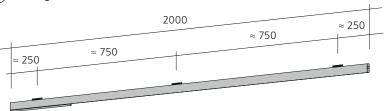
- To transfer the position accurately, fix the rail with the three adapters to the ceiling © and mark the drill hole position for the control gear box at the secondary connection point. (F)
- Remove the rail again, drill fixing hole (ø 6 mm × 45 mm) and insert plug.

© Mounting / removing the rail at the ceiling adapter

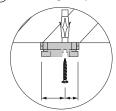
Rotate latch by 90°, place/remove rail, rotate latch back.



(D) Drilling dimensions for rail installation

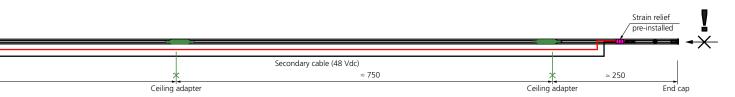


(E) Mounting adapter to ceiling



(F) Fixing hole for control gear box (secondary side)





Prepare primary cable Exit

(16) Determine position:

• Determine where the primary cable should exit the control gear box – Variant 1 or Variant 2.



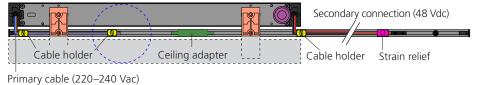
Variant 1:

- Route the primary cable directly from the control gear box.
- If required, cut the primary cable to the appropriate length and strip the insulation.



Variant 2:

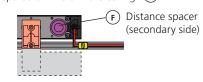
- Place the primary cable in the upper channel of the rail.
- Routing under the ceiling adapters is possible; in the adapter area the cable must not exit the rail.
- Install cable holders at the entry and exit points of the primary cable (slotted screwdriver No. 0).
- If required, cut the primary cable to the appropriate length and strip the insulation.



Final installation / primary connection (220-240 Vac)

(17) Install rail and control gear box:

- Place the rail onto the ceiling adapters, align it in longitudinal direction and rotate the adapter latches back by 90°.
- Fix the control gear box on both sides with one screw and two distance spacers above the prepared drill hole in the ceiling. (F)
- Carefully place the cover onto the control gear box (held magnetically).



(18) Primary connection (220–240 Vac)

- Carry out the primary connection in accordance with applicable installation regulations. Connection must be made exclusively inside the on-site ceiling outlet box.
- No additional terminals, strain reliefs or similar components may be installed inside the rail or the control gear box.
- If required, shorten and strip the primary cable.
- Connect the luminaire's primary cable (220–240 Vac) to the on-site supply cable in the ceiling outlet box (neutral conductor is marked with a blue thread).
- Use of the supplied terminals is recommended.

(19) Important:

- For screw terminals (e.g. connector blocks), ferrules are mandatory and must be used for stranded wires.
- Ferrules must **not** be used on **solid conductors**.
- Depending on the ceiling canopy, the primary cable must be fed through the canopy before installation.
 See the overview of ceiling canopies on page 20 (optional, not included). Install according to the separate instructions.
- If the cable is not routed through a cable duct to the ceiling outlet box, an on-site strain relief must be provided.

20 Install lighting elements

• Once the rail and control gear box are installed and the primary connection has been properly made at the ceiling outlet box, the lighting elements can be installed **according to their separate instructions**.

(EN)

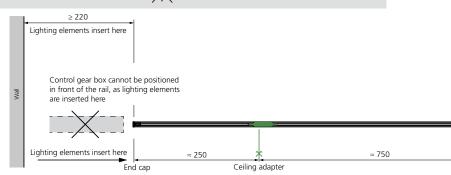
Important: The electrical connection must be carried out only by a qualified electrician.

Before any installation work, disconnect power (remove fuse).

The rail system consists of:

- one rail with pre-installed secondary cable (48 Vdc output from the control gear to the rail, length 3.5 m),
- one control gear box with pre-installed primary cable (mains connection 220–240 Vac, length 3.5 m),
- · and the required mounting accessories.

The control gear box is mounted laterally on the rail using mounting holders. Observe the permitted cable lengths.



Preparation

1 Disconnect power:

Switch off circuit breaker to ensure that the system is voltage-free.

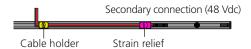
The electrical connection must be carried out only by a qualified electrician.

(2) Check materials:

Place the rail, control gear box and all mounting accessories on a clean, scratch-free working surface. Check scope of delivery according to the list on page 3.

Prepare secondary cable (48 Vdc) on the rail

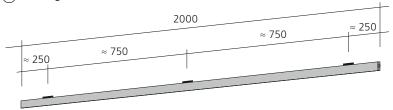
- Determine the exit position of the secondary cable.
 - Loosen the pre-installed cable holder so that it can be moved (slotted screwdriver No. 0).
 - The strain relief (black marking) at the secondary connection must not be loosened or moved!
 - Move the cable holder to the desired exit position and tighten again (slotted screwdriver No. 0).



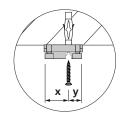
Mount the rail to the ceiling

- For each rail, three ceiling adapters must be installed (lengths 100–200 cm).
 - Mark the fixing holes according to the specified dimensions (adjust distances for special lengths 100–199 cm). (c)
 - Caution: The drill hole in the adapter is not centered! (D)
 - Drill three holes and insert plugs (\emptyset 6 \times 45 mm). Consider the position of cable exit and cable holder.
 - Screw the ceiling adapters to the ceiling in a straight alignment.
 - Check load-bearing capacity and adapt to the ceiling construction if required.
 - Place the rail onto the ceiling adapters, align it in longitudinal direction and rotate the adapter latches back by 90°. (E)

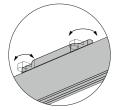
(c) Drilling dimensions for rail installation



(D) Mounting adapter to ceiling

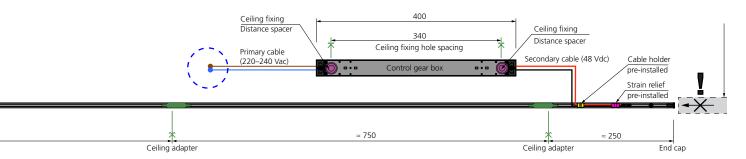


(E) Mounting / removing the rail at the ceiling adapter



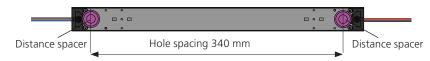
Rotate latch by 90°, place/remove rail, rotate latch back.

Positioning the control gear box directly in front of the rail is possible. The secondary cable must be routed above the rail.



Mounting the control gear box to the ceiling

- (5) Consider the position of the primary and secondary connections and determine the mounting location of the box (length 400 mm).
 - Mark the fixing holes of the box (hole spacing 340 mm).
 - Drill holes and insert plugs (ø 6 × 45 mm).
 - Carefully remove the cover (magnetically attached).
 - Fix the control gear box using screws and one distance spacer on each side.





Connecting the secondary cable (48 Vdc)

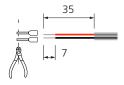
(8) Cut and prepare secondary cable:

- Shorten the secondary cable according to the position of the box (consider cable loss in the box of approx. 80 mm!).
- Strip the cable. Strip only as much as required to maintain double insulation.
- Crimp white ferrules onto the wire ends and trim if necessary.
- For screw terminals, ferrules are mandatory and must be used for stranded wires.

(9) Insert cable:

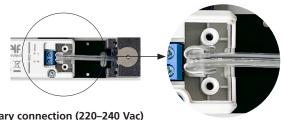
. Insert the prepared secondary cable into the end cap of the control gear box





(10) Connection to control gear:

- Depending on the situation, fix the cable beforehand in an on-site cable duct or with suitable holders.
- Remove the secondary cover (strain relief) and connect the cable to 48 Vdc (negative marked with black thread).
- Place wire ends completely inside the housing and route the cable sheath up to the strain relief.
- Close the strain relief and check the hold by gently pulling on the cable.



Single-insulated conductors must be located entirely inside the housing, and the cable sheath must extend up to the strain relief.



Final installation / primary connection (220-240 Vac)

(7) Primary connection (220–240 Vac):

- Carry out the primary connection in accordance with applicable installation regulations. Connection must be made exclusively inside
 the on-site ceiling outlet box.
- No additional terminals, strain reliefs or similar components may be installed inside the rail or the control gear box.
- · Shorten and strip the primary cable if required.
- Connect the luminaire's primary cable (220–240 Vac) to the on-site supply cable in the ceiling outlet box (neutral conductor marked with blue thread).
- Use of the supplied terminals is recommended.

8 Important

- For screw terminals (e.g. connector blocks), ferrules are mandatory and must be used for stranded wires.
- Ferrules must **not** be used on **solid conductors**.
- Depending on the ceiling canopy, the primary cable must be fed through the canopy before installation.
 See the overview of ceiling canopies on page 20 (optional, not included). Install according to the separate instructions.
- If the cable is not routed through a cable duct to the ceiling outlet box, an on-site strain relief must be provided.

(9) Install lighting elements

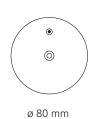
Once the rail and control gear box are installed and the primary connection has been properly made at the ceiling outlet box, the
lighting elements can be installed according to their separate instructions.

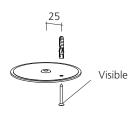
Select the ceiling canopy according to the rail installation and the existing electrical connection:

Flush-mounted ceiling canopy / Art.No. 7200-66

- · Vertical cable entry.
- Not suitable in the area of the rail or the control gear box.
- Mount on the primary cable before making the electrical connection.
- Installation according to separate instructions (included with the ceiling canopy).



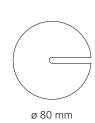


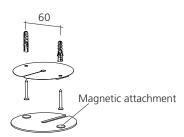


Flush-mounted ceiling canopy / slotted, Art.No. 7200-67

- · Installation between rail and ceiling.
- Covers the connection at the luminaire supply point.
- Install after making the electrical connection.
- Installation according to separate instructions (included with the ceiling canopy).







Surface-mounted ceiling canopy / Art.No. 5050-60

- Side cable entry.
- Installation below the rail or below the control gear box is not possible.
- Installation according to separate instructions (included with the ceiling canopy).







