

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)

Mounting instructions



Content:

Protection classes, safety regulations and instructions 2
 Scope of delivery / necessary tools 3
 Overview of mounting variants with legend 4-5

Variant 1:
 Control gear box freely positioned on the rail 6-9



Variant 2:
 Control gear box positioned centrally on the rail 10-13




Variant 3:
 Control gear box flush with the end of the rail 14-17





Variant 4:
 Control gear box positioned externally 18-19




Overview ceiling rosettes 20
 (Rosette can be ordered optionally / not included with the luminaire)


 The electrical connection may only be performed by a qualified specialist. The luminaire may only be used with a mains voltage of 220-240 V 50/60 Hz. For mounting, observe the statutory installation and safety regulations. Always disconnect the power supply when carrying out installation, cleaning or maintenance tasks. Repairs may only be carried out by the manufacturer or by a qualified specialist in accordance with the applicable standards. In the event of incorrect installation or that the luminaire has been tampered with, all warranty claims shall be rendered invalid, as will the manufacturer's product liability obligation in accordance with the European Directive concerning Liability for Defective Products (85/374/EEC) and the Swiss Federal Law on Product Liability (PrHG). BALTENSWEILER shall assume no liability for any loss or damage to persons or property caused by improper handling or non-adherence to the safety regulations!


 Small magnetic components are installed in the luminaire. Magnets may affect the function of pacemakers or implanted defibrillators. Recommended safety distance from the magnet:
85 mm for new versions with a max. permitted magnetic field of 1 mT = 10 G.
105 mm for old versions with a max. permitted magnetic field of 0.5 mT = 5 G.
You will find further information on: www.baltensweiler.ch/service/faq/


 External dimmers including wall-mounted dimmers are not permitted and can destroy the LED and the control gear!

 Care instructions: Disconnect the power supply. Wipe with a damp cloth. Do not use abrasive, alcoholic or electrostatically charged cleaning utensils.

 The rail system may only be installed in dry interior spaces.

 Correct disposal / rail system must not be disposed of with the normal household waste.

 For the control gear box (incl. control gear 220-240 Vac / 48 Vdc), protection class II applies:
Equipment with protection class II has reinforced or double insulation between the active and accessible parts equal to the rated insulation voltage.

 For the rail (48 Vdc), protection class III applies:
Protection class III equipment operates on safety extra-low voltage (SELF/PELFF), for example 12, 24, or 48 volts.

IP20 For the rail system, ingress protection rating IP20 applies:
Protection against contact with fingers and medium-sized solid foreign bodies $\varnothing \geq 12$ mm.

CE Technical conformity in accordance with EN directives.



Scope of delivery in the package:

- (A) BF rail (48 Vdc)
 - (B) Control gear box (incl. control gear 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 (3-piece / 200 cm)
 - (E) Mounting instructions for rail / control gear box (inkl. control gear)
- (The mounting and operating instructions for the corresponding lighting elements can be found in the package of the lighting elements)



(C) Content:



2x Control gear box holder including fastening screws (M3)



2x Spacer



2x Cable holder including plastic threaded pin



4x Ferrule, grey (for primary cable 220-240 Vac / control gear box)



4x Ferrule, white (for secondary cable 48 Vdc / rail)



2x Screw \varnothing 4 x 40 (for fastening the control gear box)



2x Dowel \varnothing 6 x 30 (for fastening the control gear box)

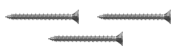


1x Allen key (for fastening the control gear box holders)

(D) Content:



3x BF ceiling adapter



3x Screw \varnothing 4 x 45



3x Dowel \varnothing 6 x 35

Necessary tools:

Phillips and flathead screwdrivers / drill including \varnothing 6 drill bit / crimping tool / wire stripper / side cutters / marking tool e.g. (line laser)
 —> **Two people are required for the installation.**

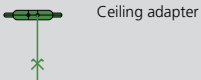
Cable routing:

The primary cable and also the secondary cable can be laid inside the rail as well as underneath the ceiling adapter.

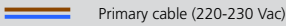
Only one cable can be laid in the same area (crossing is not possible).

In the area of the rail feed, no cable can be laid inside.

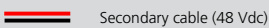
At the position where the cable is led out of the rail a cable holder must be used.



Ceiling adapter



Primary cable (220-230 Vac)



Secondary cable (48 Vdc)



Control gear box holder



Spacer



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



Cable holder



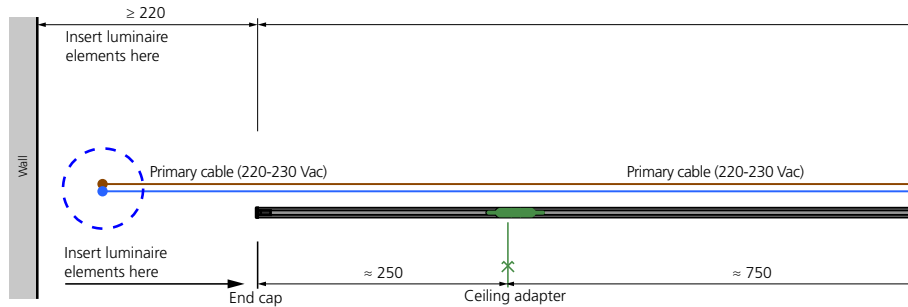
Primary connection on-site / ceiling rosette



Luminaire elements **cannot** be inserted here!

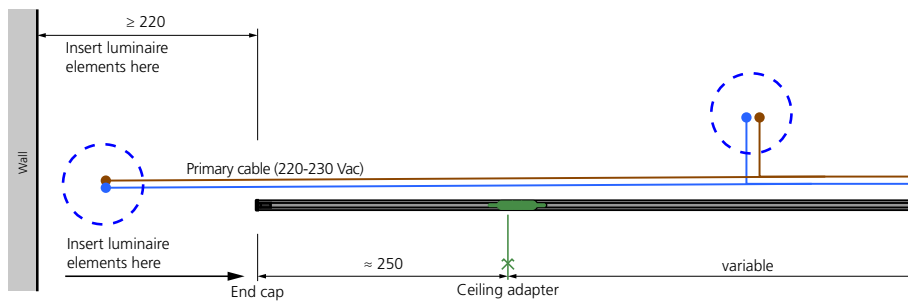
Variant 1

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



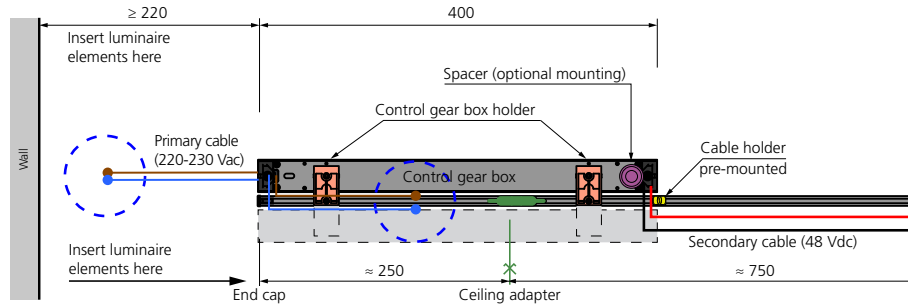
Variant 2

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



Variant 3

Control gear box flush with the end of the rail: Mounting instructions on pages 14–17

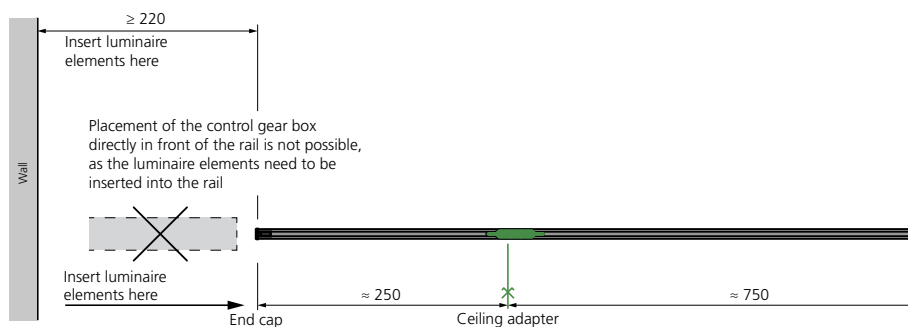


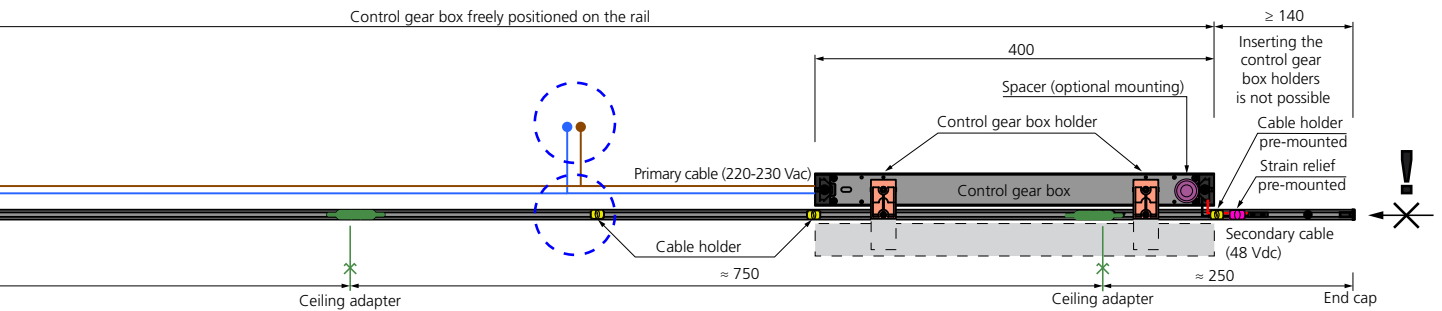
Please note:

Ceiling adapters cannot be positioned in the area of the control gear box holders. The cable holder should be moved to the cable exit position.

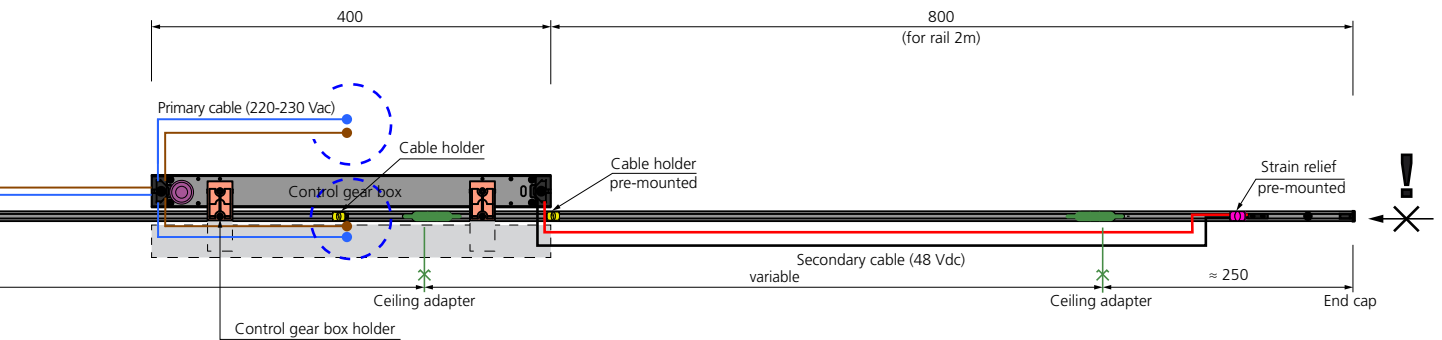
Variant 4

Control gear box positioned externally: Mounting instructions on pages 18–19

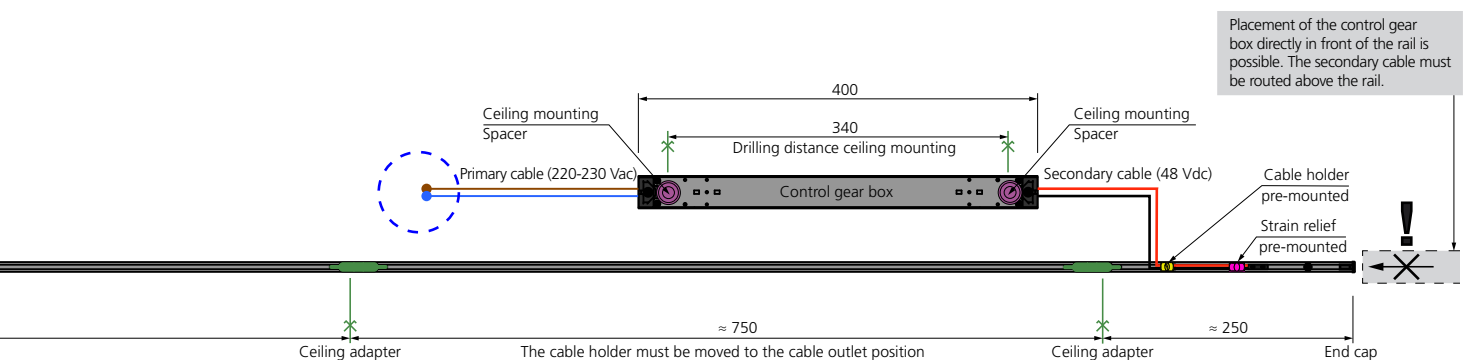
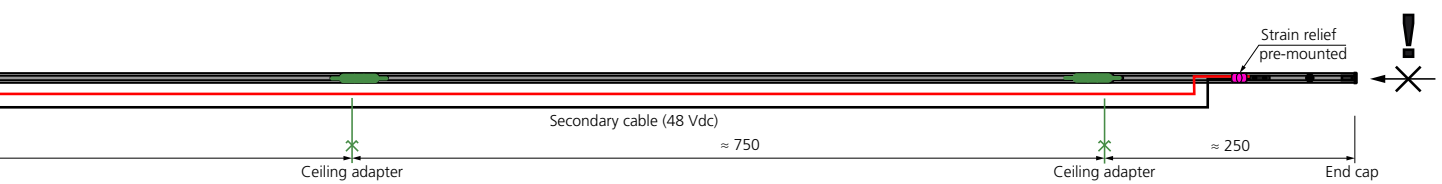





Please note:
Ceiling adapters cannot be positioned in the area of the control gear box holders.
The cable holder should be moved to the cable exit position.



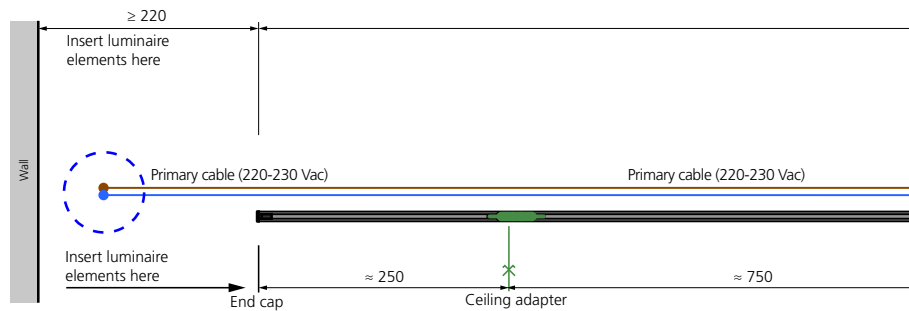
Please note:
Ceiling adapters cannot be positioned in the area of the control gear box holders.
The cable holder should be moved to the cable exit position.



Important: Connection to the power supply may only be performed by a qualified specialist.
 Disconnect the power supply during installation (remove the fuse). 

The rail system consists of a rail with a pre-installed secondary cable (48 Vdc, length 3.5 m), a control gear box with a pre-installed primary cable (220-240 Vac, length 3.5 m), and the mounting materials. The control gear box is attached to the side of the rail using two control gear box holders.

For positioning the rail and correctly positioning the control gear box on the rail, the maximum cable lengths must be considered.

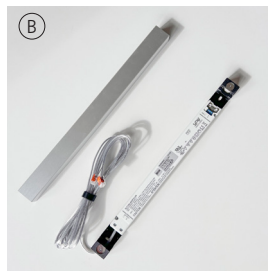
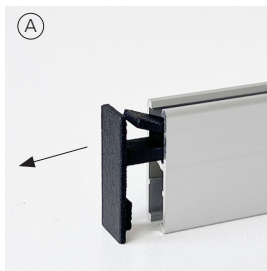


Cable routing

The primary and secondary cables can be routed within the rail as well as below the ceiling adapters. Only one cable can be routed in the same area (crossing is not possible). No cables can be routed within the rail in the area of the rail's power feed. At the position where the cable exits the rail, a cable holder must be used.

Mounting the control gear box to the rail

- Loosen the Velcro strap on the rail and lay the secondary cable alongside the rail. (The secondary cable is pre-installed on the rail – do not disconnect it!)
- Prepare the rail, control gear box, and mounting materials on a clean, scratch-free work surface – check materials against the material list (page 3) for completeness. Loosen the Velcro strap on the rail and lay out the secondary cable.
- On the opposite side of the rail's power feed, remove the end cap. (A)
- Remove the cover from the control gear box (holds magnetically). (B)

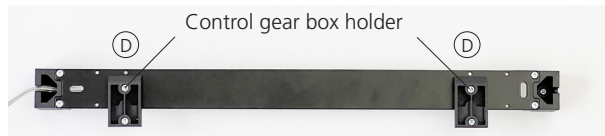
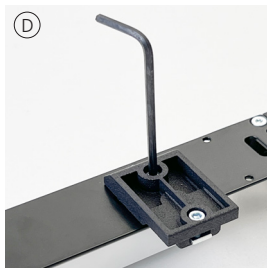


- Rotate the control gear box upwards and position it next to the rail (C). Pay attention to the position of the primary and secondary connections and determine the position of the control gear box.

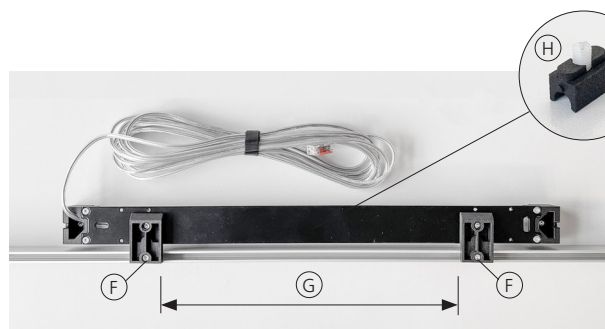
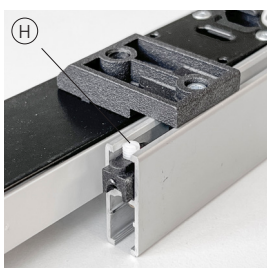
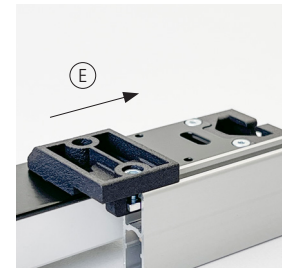
Important: Consider the position of the building's power supply connection (ceiling rosette) and the three ceiling adapters.

- Attach the control gear box holders to the desired side of the control gear box and screw them in place using the provided Allen key. (D)
- Insert the control gear box holders, including the control gear box, into the top of the rail (E), position them, and screw them in place using the Allen key. (F)

If the primary connection is located between the two control gear box holders (G) when installed, an additional cable holder (H) must be placed between the control gear box holders.



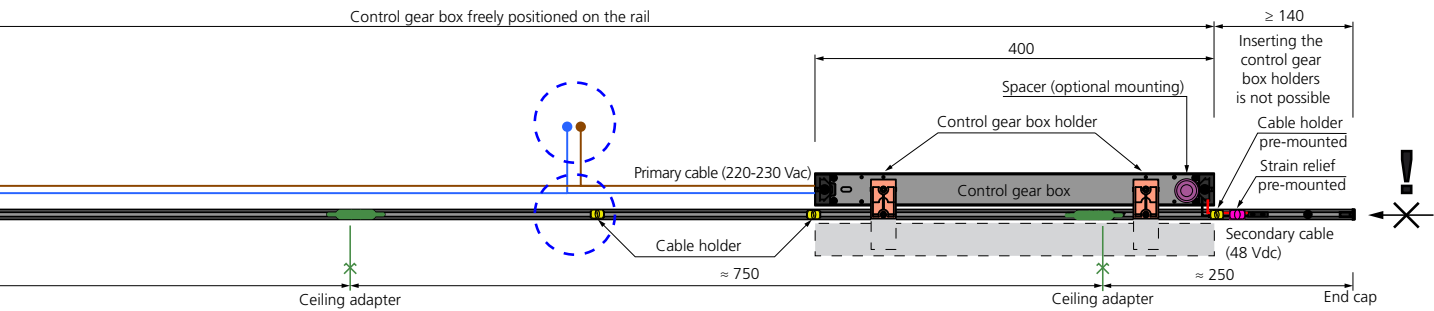
Primary connection
 (The primary cable is factory-connected to the control gear)



If the primary connection is located between the control gear box holders, a cable holder must be placed in this area beforehand!

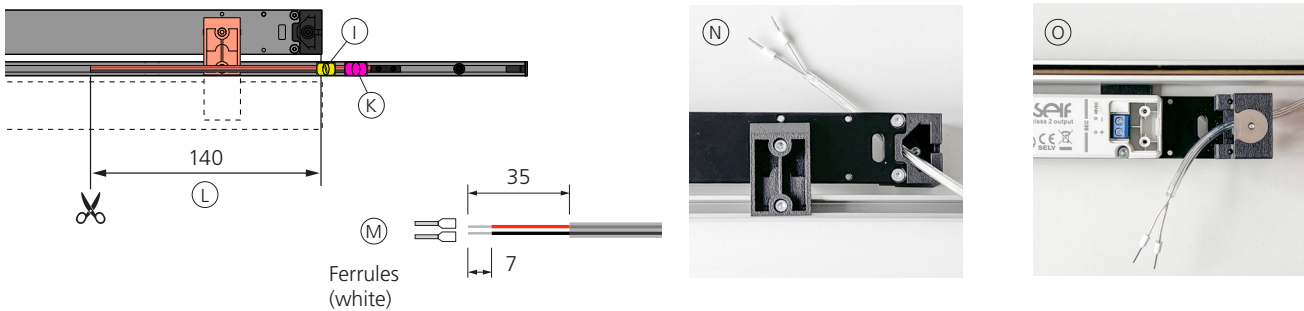
Important:

The ceiling adapters and cable holders cannot be positioned in the area of the control gear box holders. The cable holder should be moved to the cable exit position.

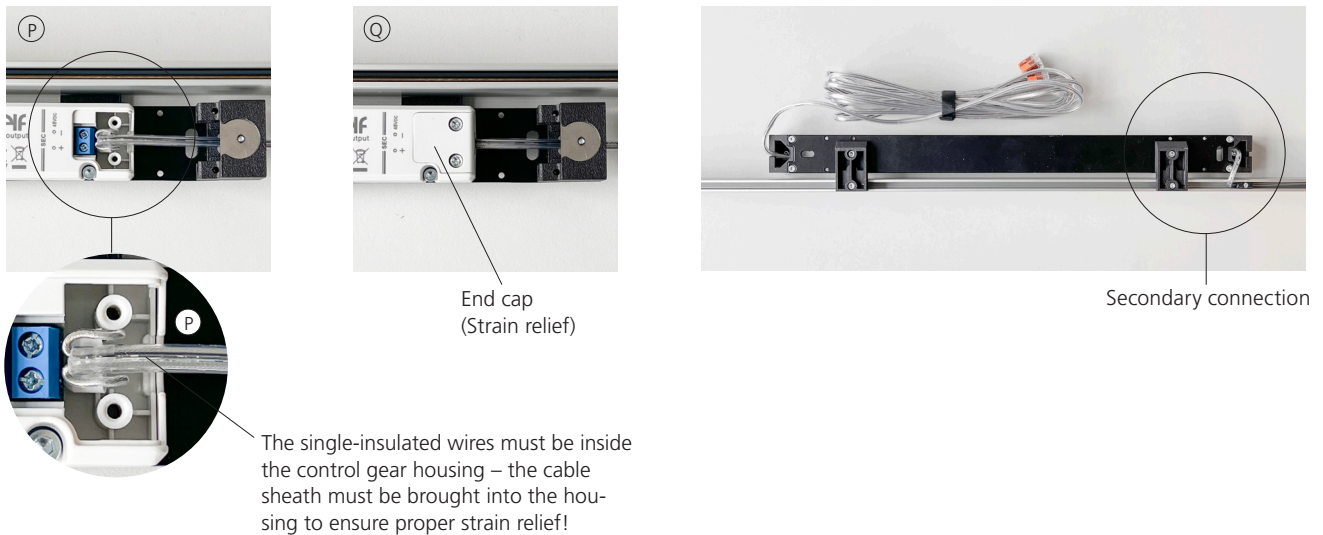



Connecting the secondary cable to the control gear

- Loosen the pre-installed cable holder enough so that it can be moved (flathead screwdriver No. 0). (I)
- The strain relief (with black marking) at the secondary connection to the rail must NOT be loosened or moved! (K)
- Move the cable holder to the desired cable exit position of the secondary cable and secure it (flathead screwdriver No. 0). (I)
- Shorten the secondary cable from the rail according to the position of the control gear box – **Important:** Note cable loss in the box! (L)
- Strip the secondary cable and crimp the wire end ferrules (white) using crimping tool and shorten the ferrules if necessary. (M)
(With screw contacts, wire end ferrules are prescribed for stranded cables and must be used!)
- **Important:** Strip just enough to maintain double insulation.
- Feed the prepared secondary cable through the end cap of the control gear box. (N)
- To make the secondary connection to the control gear, rotate the rail, including the box. (O)

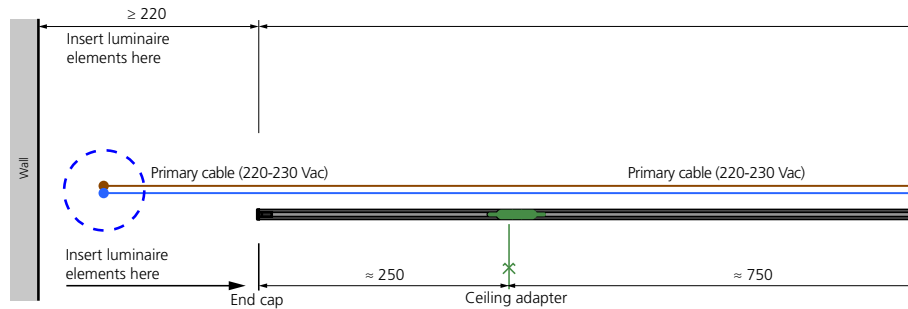


- Remove the end cap of the control gear on the secondary side and connect the rail's secondary cable to the 48 Vdc terminal (⊖ the negative pole is marked with a black thread). (P)
- Reattach the end cap (strain relief) on the secondary side of the control gear. (Q)
- **Important:** The single-insulated wires must be inside the control gear housing, and the cable must be securely fixed with the end cap (strain relief). Pull on the cable and check the strain relief.
- Afterwards, the rail, including the control gear, is ready for further mounting (see pages 8–9).



Important: Connection to the power supply may only be performed by a qualified specialist.
 Disconnect the power supply during installation (remove the fuse). 

The rail system consists of a rail with a pre-installed secondary cable (48 Vdc, length 3.5 m), a control gear box with a pre-installed primary cable (220-240 Vac, length 3.5 m), and the mounting materials. The control gear box is attached to the side of the rail using two control gear box holders. For positioning the rail and correctly positioning the control gear box on the rail, the maximum cable lengths must be considered.



Mounting the rail, including control gear box

→ It is recommended that two people carry out the installation of the rail!

To determine the mounting holes, proceed as follows:

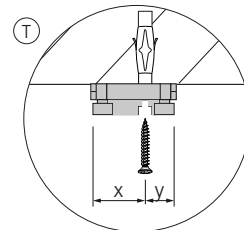
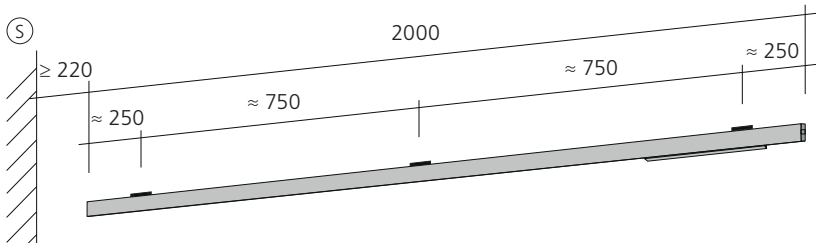
- Rotate the levers of the ceiling adapters 90° so that the ceiling adapters (3 pieces) can be placed onto the rail. (R)
- Position the ceiling adapters in the rail according to the recommendation (see dimensions) (S) (for rails with special lengths of 100 cm to 199 cm, adjust the spacing of the ceiling adapters accordingly).

Important: If possible, position the ceiling adapters so that there is some room for lateral adjustment (along the longitudinal axis) during mounting. The position of the control gear box holders, cable holders, strain relief, rail power feed and power feed area (ceiling rosette) must also be considered!

- Three ceiling adapters must be mounted per rail (applies to rail lengths of 100 cm to 200 cm)
- Transfer the drill holes for the ceiling adapters to the ceiling. The drill holes must be perfectly aligned!
- Variant 1: Hold the rail up to the ceiling and transfer the positions of the ceiling adapters to the ceiling using a pencil.
- Variant 2: Mark the drill holes on the ceiling by measuring.

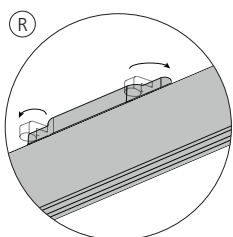
Important: The drill hole in the ceiling adapter is not centred! (T)

- Then, remove the ceiling adapters from the rail (rotate the latches of the ceiling adapters 90°).

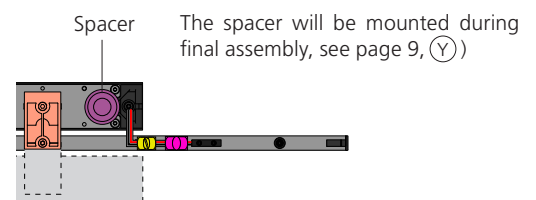
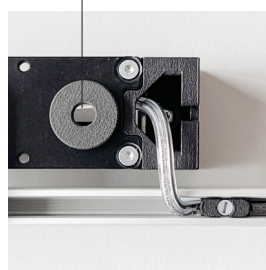


- Drill holes and insert the dowels (drill hole \varnothing 6 x 45 mm).
- Mount the ceiling adapters to the ceiling with screws (T). Check the load-bearing capacity of the fixture and, if necessary, adapt it to the respective ceiling construction or replace it.
- To accurately transfer the drill hole for the control gear box, secure the rail to the ceiling using the three ceiling adapters (R) – now, on the side of the secondary connection, mark the hole position for the control gear box with a pencil. (U)
- Next, remove the rail from the ceiling again, drill the mounting hole for the control gear box, and insert the dowel (drill \varnothing 6 x 45 mm).

Rotate the side latches of the adapter 90°, place the rail and align it as desired in the longitudinal direction, then rotate the latches of the adapter back 90°.

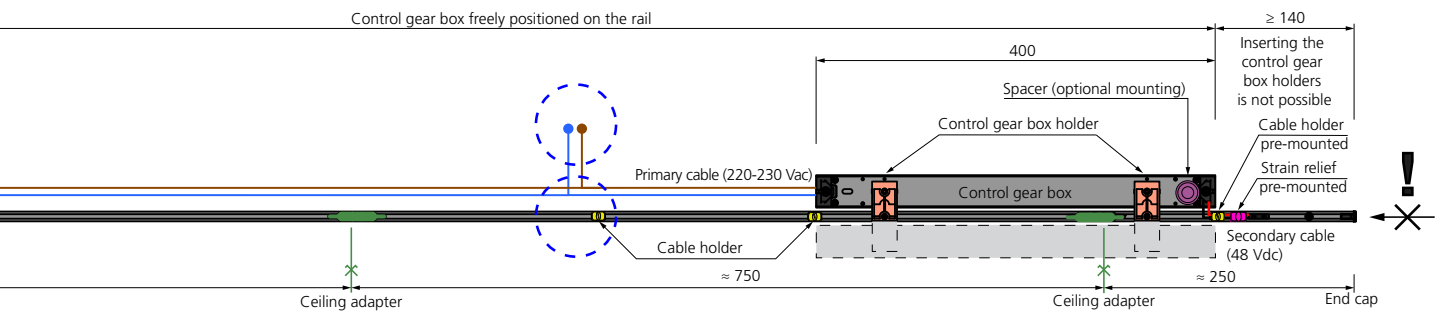


(U) Mounting hole (slotted hole) for the control gear box (secondary side)



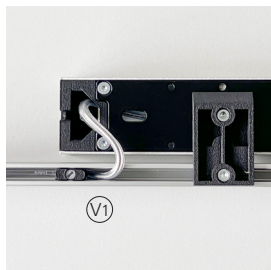
Important:

The ceiling adapters and cable holders cannot be positioned in the area of the control gear box holders.
The cable holder should be moved to the cable exit position.

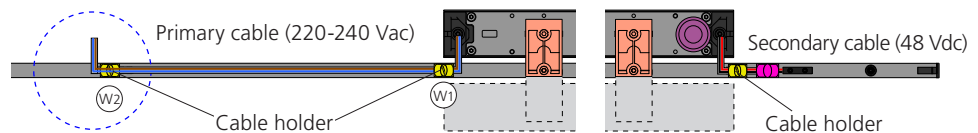


Preparing the primary cable / primary connection:

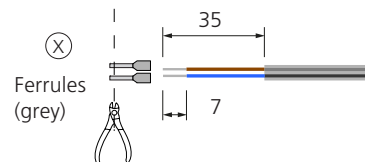
- Define the cable exit for the primary cable from the control gear box: (V1) or (V2)



- (V1) - Place the primary cable in the upper section of the rail channel – the cable can be routed under the ceiling adapters (in the area of the ceiling adapters, the primary cable cannot exit the rail).
- Position and secure a cable holder at the desired cable entry (W1) and cable exit position (W2) for the primary cable (flathead screwdriver No. 0).
- Shorten the primary cable to the desired length and strip it and if needed crimp the wire end ferrules (grey) using crimping tool and shorten the ferrules if necessary. (X)



- (V2) - Shorten the primary cable to the desired length and strip it and if needed crimp the wire end ferrules (grey) using crimping tool and shorten the ferrules if necessary. (X)



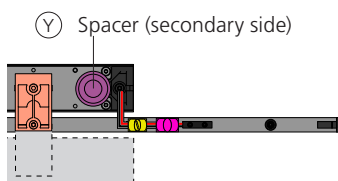
Primary connection in ceiling box / final rail mounting

—> There must be sufficient space on-site for the electrical connection (flush-mounted connection) – no additional terminal blocks, strain reliefs or similar can be stored within the rail / control gear box.


- It is recommended to use the supplied connection terminals for the connection. For on-site terminals with screw contacts, wire end ferrules are prescribed for stranded cables and must be used! (X)
(No wire end ferrules may be used for on-site power supply connections made from solid wires!)
- Connect the primary cable of the control gear box to the ceiling box.

Important: Depending on the ceiling rosette selected, the primary cable may need to be routed through the rosette and/or a strain relief must be installed – if the cable is not routed through a conduit to the ceiling box, strain relief in the ceiling box is mandatory (ensure strain relief is provided on site).

- See the overview of ceiling rosettes on page 20 (the rosette can be ordered optionally / not included with the luminaire).
The rosette must be installed according to the separate instructions.
- Once the installation has been properly completed, place the rail onto the ceiling adapters and align it as desired in the longitudinal direction, then rotate the adapter latches back 90° (see page 8). (R)
- Secure the control gear box to the ceiling using screws through the prepared drill hole (including dowel) and two spacers. (Y)
- Carefully mount the cover on the control gear box (holds magnetically). (Z)

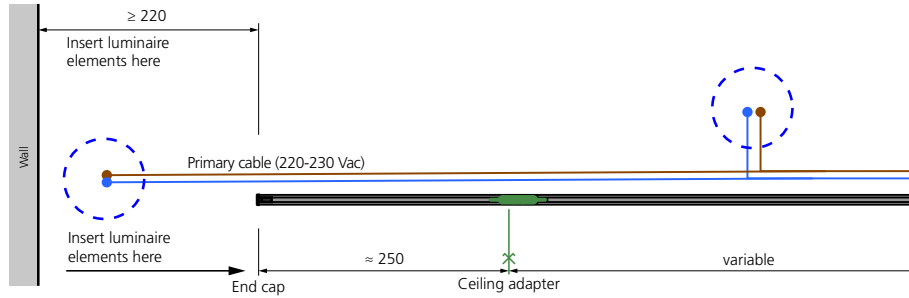


Once the rail, including the control gear box, is mounted and the primary connection is correctly made to the ceiling box, the corresponding light elements can be mounted according to the separate instructions.

Important: Connection to the power supply may only be performed by a qualified specialist.
 Disconnect the power supply during installation (remove the fuse). 

The rail system consists of a rail with a pre-installed secondary cable (48 Vdc, length 3.5 m), a control gear box with a pre-installed primary cable (220-240 Vac, length 3.5 m), and the mounting materials. The control gear box is attached to the side of the rail using two control gear box holders.

For positioning the rail and correctly positioning the control gear box on the rail, the maximum cable lengths must be considered.

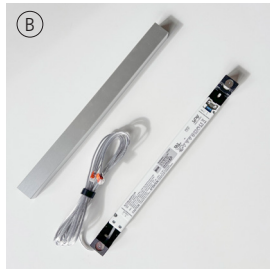
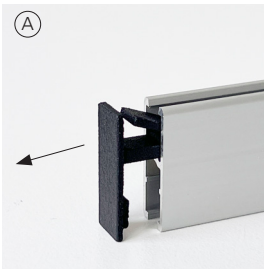


Cable routing

The primary and secondary cables can be routed within the rail as well as below the ceiling adapters. Only one cable can be routed in the same area (crossing is not possible). No cables can be routed within the rail in the area of the rail's power feed. At the position where the cable exits the rail, a cable holder must be used.

Mounting the control gear box to the rail

- Loosen the Velcro strap on the rail and lay the secondary cable alongside the rail. (The secondary cable is pre-installed on the rail – do not disconnect it!)
- Prepare the rail, control gear box, and mounting materials on a clean, scratch-free work surface – check materials against the material list (page 3) for completeness. Loosen the Velcro strap on the rail and lay out the secondary cable.
- On the opposite side of the rail's power feed, remove the end cap. (A)
- Remove the cover from the control gear box (holds magnetically). (B)

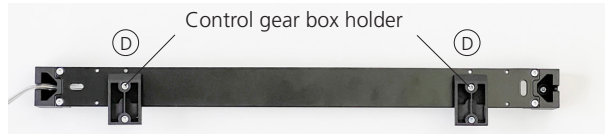
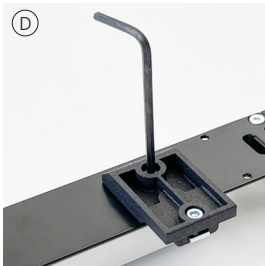


- Rotate the control gear box upwards and position it next to the rail (C). Pay attention to the position of the primary and secondary connections and determine the position of the control gear box.

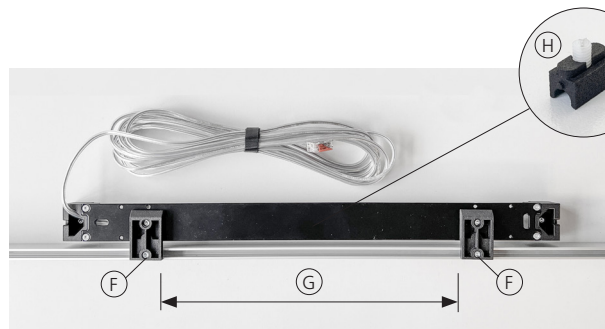
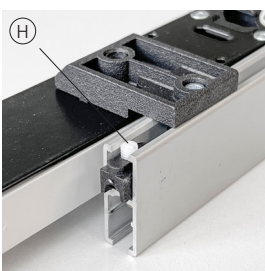
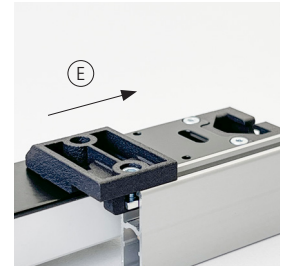
Important: Consider the position of the building's power supply connection (ceiling rosette) and the three ceiling adapters.

- Attach the control gear box holders to the desired side of the control gear box and screw them in place using the provided Allen key. (D)
- Insert the control gear box holders, including the control gear box, into the top of the rail (E), position them, and screw them in place using the Allen key. (F)

If the primary connection is located between the two control gear box holders (G) when installed, an additional cable holder (H) must be placed between the control gear box holders.



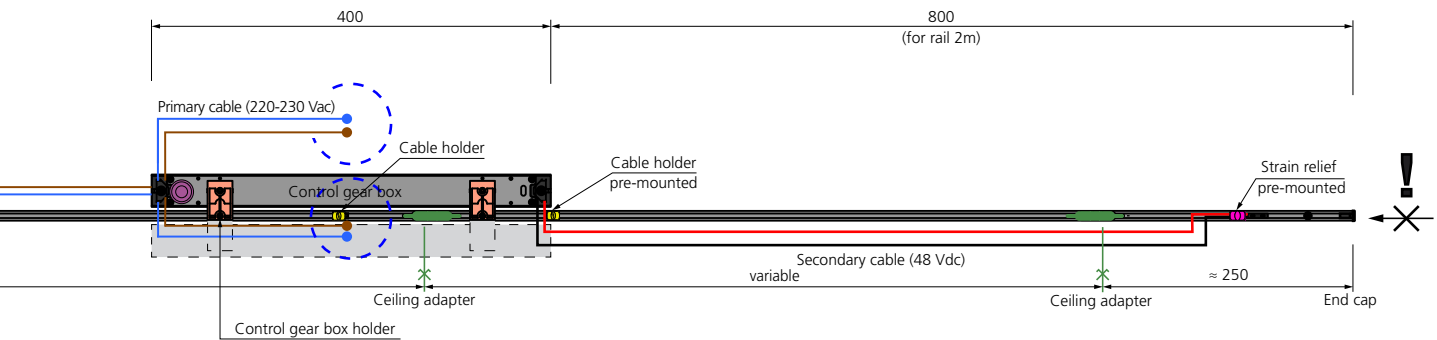
Primary connection
 (The primary cable is factory-connected to the control gear)



If the primary connection is located between the control gear box holders, a cable holder must be placed in this area beforehand!

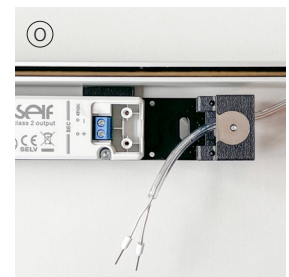
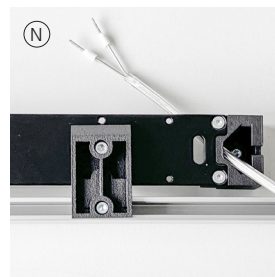
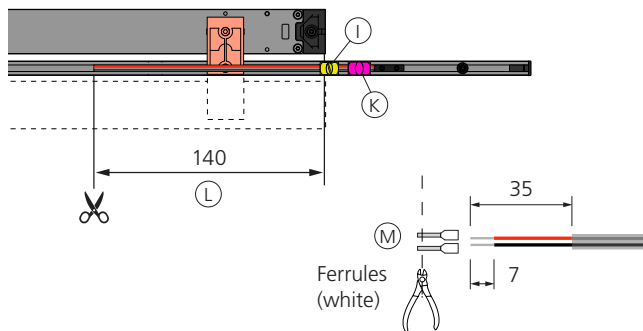
Important:

The ceiling adapters and cable holders cannot be positioned in the area of the control gear box holders. The cable holder should be moved to the cable exit position.

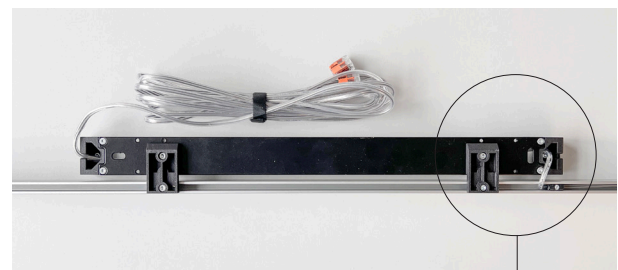
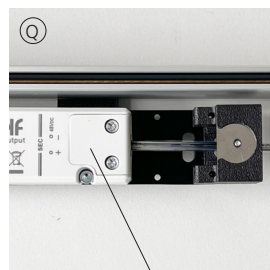
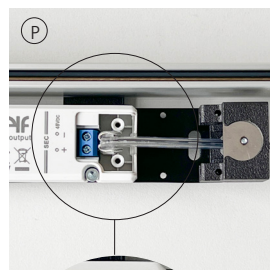


Connecting the secondary cable to the control gear

- Loosen the pre-installed cable holder enough so that it can be moved (flathead screwdriver No. 0). (I)
- The strain relief (with black marking) at the secondary connection to the rail must NOT be loosened or moved! (K)
- Move the cable holder to the desired cable exit position of the secondary cable and secure it (flathead screwdriver No. 0). (I)
- Shorten the secondary cable from the rail according to the position of the control gear box – **Important:** Note cable loss in the box! (L)
- Strip the secondary cable and crimp the wire end ferrules (white) using crimping tool and shorten the ferrules if necessary. (M)
- (With screw contacts, wire end ferrules are prescribed for stranded cables and must be used!)
- Important:** Strip just enough to maintain double insulation.
- Feed the prepared secondary cable through the end cap of the control gear. (N)
- To make the secondary connection to the control gear, rotate the rail, including the box. (O)

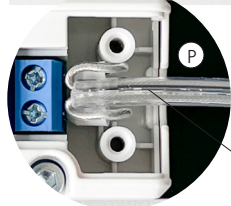


- Remove the end cap of the control gear on the secondary side and connect the rail's secondary cable to the 48 Vdc terminal (⊖ the negative pole is marked with a black thread). (P)
- Reattach the end cap (strain relief) on the secondary side of the control gear. (Q)
- Important:** The single-insulated wires must be inside the control gear housing, and the cable must be securely fixed with the end cap (strain relief). Pull on the cable and check the strain relief.
- Afterwards, the rail, including the control gear, is ready for further mounting (see pages 12–13).




End cap (Strain relief)

Secondary connection

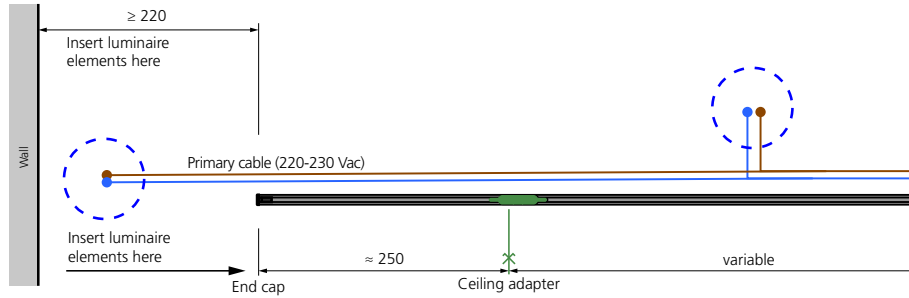


The single-insulated wires must be inside the control gear housing – the cable sheath must be brought into the housing to ensure proper strain relief!

Important: Connection to the power supply may only be performed by a qualified specialist.
 Disconnect the power supply during installation (remove the fuse). 

The rail system consists of a rail with a pre-installed secondary cable (48 Vdc, length 3.5 m), a control gear box with a pre-installed primary cable (220-240 Vac, length 3.5 m), and the mounting materials. The control gear box is attached to the side of the rail using two control gear box holders.

For positioning the rail and correctly positioning the control gear box on the rail, the maximum cable lengths must be considered.



Mounting the rail, including control gear box

→ It is recommended that two people carry out the installation of the rail!

To determine the mounting holes, proceed as follows:

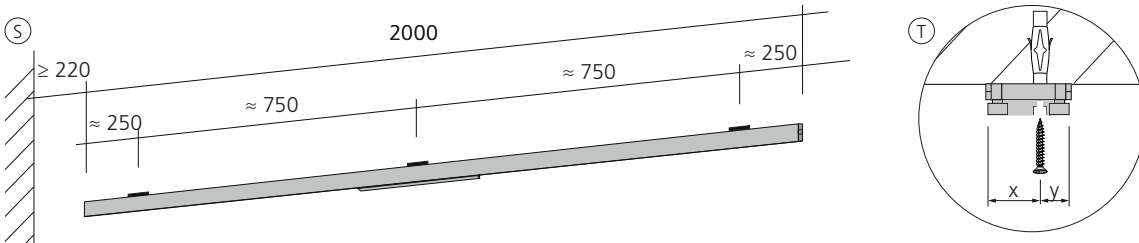
- Rotate the levers of the ceiling adapters 90° so that the ceiling adapters (3 pieces) can be placed onto the rail. (R)
- Position the ceiling adapters in the rail according to the recommendation (see dimensions) (S) (for rails with special lengths of 100 cm to 199 cm, adjust the spacing of the ceiling adapters accordingly).

Important: If possible, position the ceiling adapters so that there is some room for lateral adjustment (along the longitudinal axis) during mounting. The position of the control gear box holders, cable holders, strain relief, rail power feed and power feed area (ceiling rosette) must also be considered!

- Three ceiling adapters must be mounted per rail (applies to rail lengths of 100 cm to 200 cm)
- Transfer the drill holes for the ceiling adapters to the ceiling. The drill holes must be perfectly aligned!
- Variant 1: Hold the rail up to the ceiling and transfer the positions of the ceiling adapters to the ceiling using a pencil.
- Variant 2: Mark the drill holes on the ceiling by measuring.

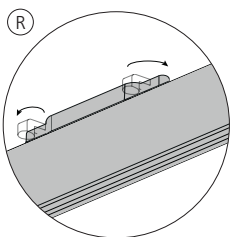
Important: The drill hole in the ceiling adapter is not centred! (T)

- Then, remove the ceiling adapters from the rail (rotate the latches of the ceiling adapters 90°).

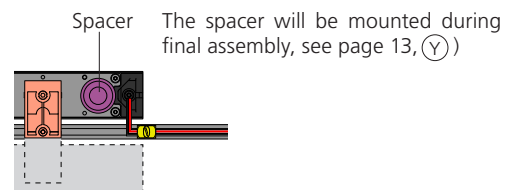
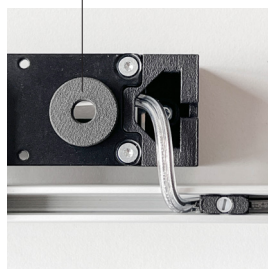


- Drill holes and insert the dowels (drill hole $\varnothing 6 \times 45$ mm).
- Mount the ceiling adapters to the ceiling with screws (T). Check the load-bearing capacity of the fixture and, if necessary, adapt it to the respective ceiling construction or replace it.
- To accurately transfer the drill hole for the control gear box, secure the rail to the ceiling using the three ceiling adapters (R) – now, on the side of the secondary connection, mark the hole position for the control gear box with a pencil. (U)
- Next, remove the rail from the ceiling again, drill the mounting hole for the control gear box, and insert the dowel (drill $\varnothing 6 \times 45$ mm).

Rotate the side latches of the adapter 90°, place the rail and align it as desired in the longitudinal direction, then rotate the latches of the adapter back 90°.

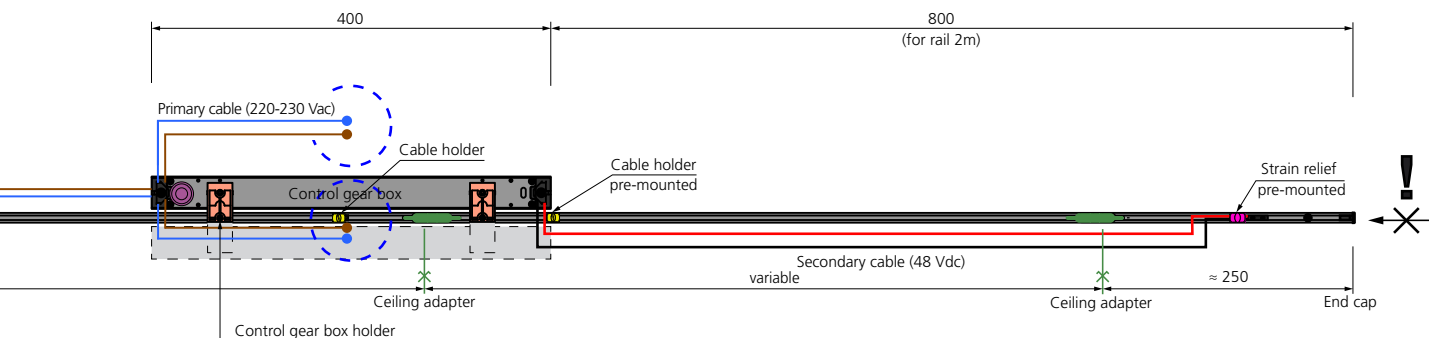


(U) Mounting hole (slotted hole) for the control gear box (secondary side)



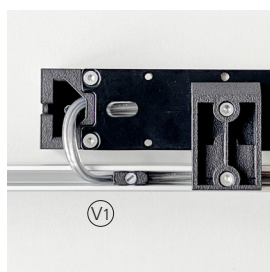
Important:

The ceiling adapters and cable holders cannot be positioned in the area of the control gear box holders. The cable holder should be moved to the cable exit position.

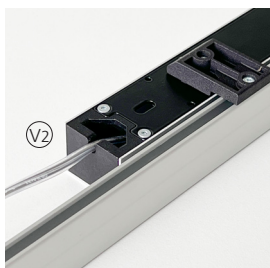
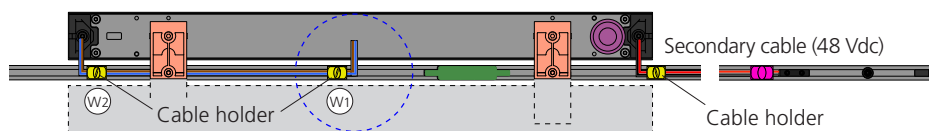


Preparing the primary cable / primary connection:

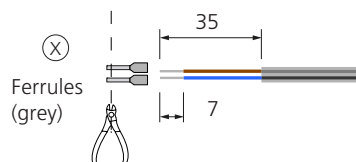
- Define the cable exit for the primary cable from the control gear box: (V1) or (V2)



- (V1) - Place the primary cable in the upper section of the rail channel – the cable can be routed under the ceiling adapters (in the area of the ceiling adapters, the primary cable cannot exit the rail).
- Position and secure a cable holder at the desired cable entry (W1) and cable exit position (W2) for the primary cable (flathead screwdriver No. 0).
- Shorten the primary cable to the desired length and strip it and if needed crimp the wire end ferrules (grey) using crimping tool and shorten the ferrules if necessary. (X)



- (V2) - Shorten the primary cable to the desired length and strip it and if needed crimp the wire end ferrules (grey) using crimping tool and shorten the ferrules if necessary. (X)



Primary connection in ceiling box / final rail mounting

—> There must be sufficient space on-site for the electrical connection (flush-mounted connection) – no additional terminal blocks, strain reliefs or similar can be stored within the rail / control gear box.

- It is recommended to use the supplied connection terminals for the connection. For on-site terminals with screw contacts, wire end ferrules are prescribed for stranded cables and must be used! (X)
- (No wire end ferrules may be used for on-site power supply connections made from solid wires!)

- Connect the primary cable of the control gear box to the ceiling box.

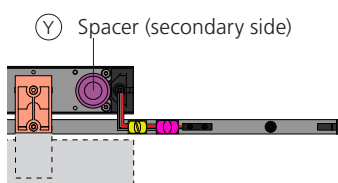
Important: Depending on the ceiling rosette selected, the primary cable may need to be routed through the rosette and/or a strain relief must be installed – if the cable is not routed through a conduit to the ceiling box, strain relief in the ceiling box is mandatory (ensure strain relief is provided on site).

- See the overview of ceiling rosettes on page 20 (the rosette can be ordered optionally / not included with the luminaire). The rosette must be installed according to the separate instructions.


- Once the installation has been properly completed, place the rail onto the ceiling adapters and align it as desired in the longitudinal direction, then rotate the adapter latches back 90° (see page 12). (R)

- Secure the control gear box to the ceiling using screws through the prepared drill hole (including dowel) and two spacers. (Y)

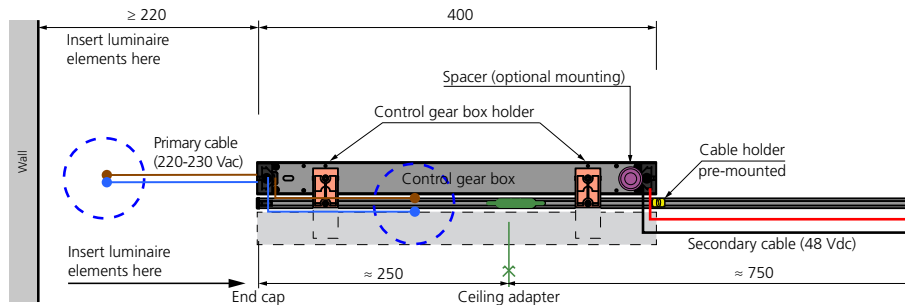
- Carefully mount the cover on the control gear box (holds magnetically). (Z)



Once the rail, including the control gear box, is mounted and the primary connection is correctly made to the ceiling box, the corresponding light elements can be mounted according to the separate instructions.

Important: Connection to the power supply may only be performed by a qualified specialist.
Disconnect the power supply during installation (remove the fuse). 

The rail system consists of a rail with a pre-installed secondary cable (48 Vdc, length 3.5 m), a control gear box with a pre-installed primary cable (220-240 Vac, length 3.5 m), and the mounting materials. The control gear box is attached to the side of the rail using two control gear box holders. For positioning the rail and correctly positioning the control gear box on the rail, the maximum cable lengths must be considered.

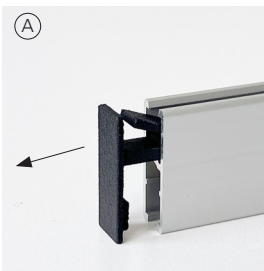


Cable routing

The primary and secondary cables can be routed within the rail as well as below the ceiling adapters. Only one cable can be routed in the same area (crossing is not possible). No cables can be routed within the rail in the area of the rail's power feed. At the position where the cable exits the rail, a cable holder must be used.

Mounting the control gear box to the rail

- Loosen the Velcro strap on the rail and lay the secondary cable alongside the rail. (The secondary cable is pre-installed on the rail – do not disconnect it!)
- Prepare the rail, control gear box, and mounting materials on a clean, scratch-free work surface – check materials against the material list (page 3) for completeness. Loosen the Velcro strap on the rail and lay out the secondary cable.
- On the opposite side of the rail's power feed, remove the end cap. (A)
- Remove the cover from the control gear box (holds magnetically). (B)

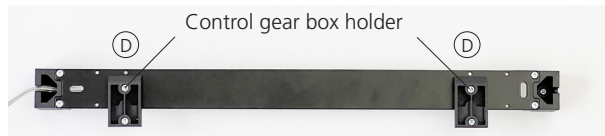
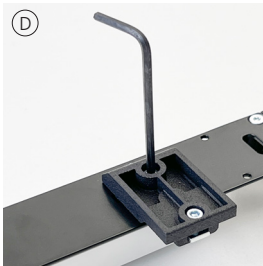


- Rotate the control gear box upwards and position it next to the rail (C). Pay attention to the position of the primary and secondary connections and determine the position of the control gear box.

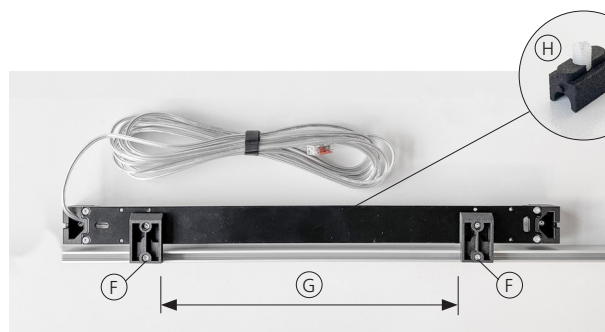
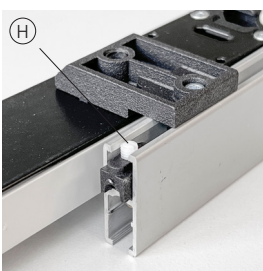
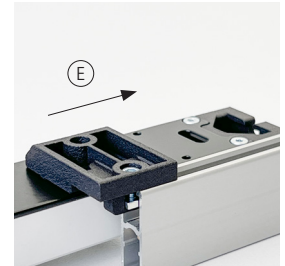
Important: Consider the position of the building's power supply connection (ceiling rosette) and the three ceiling adapters.

- Attach the control gear box holders to the desired side of the control gear box and screw them in place using the provided Allen key. (D)
- Insert the control gear box holders, including the control gear box, into the top of the rail (E), position them, and screw them in place using the Allen key. (F)

If the primary connection is located between the two control gear box holders (G) when installed, an additional cable holder (H) must be placed between the control gear box holders.



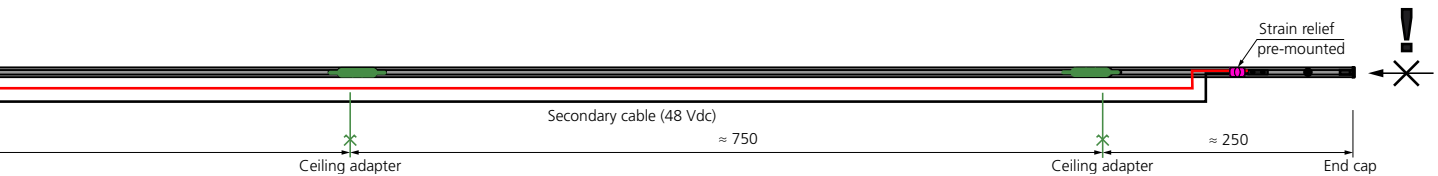
Primary connection
(The primary cable is factory-connected to the control gear)



If the primary connection is located between the control gear box holders, a cable holder must be placed in this area beforehand!

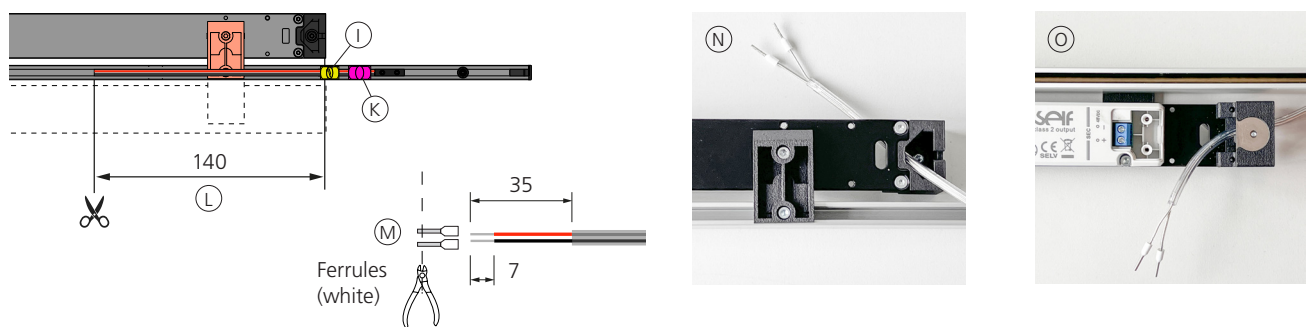
Important:

The ceiling adapters and cable holders cannot be positioned in the area of the control gear box holders. The cable holder should be moved to the cable exit position.

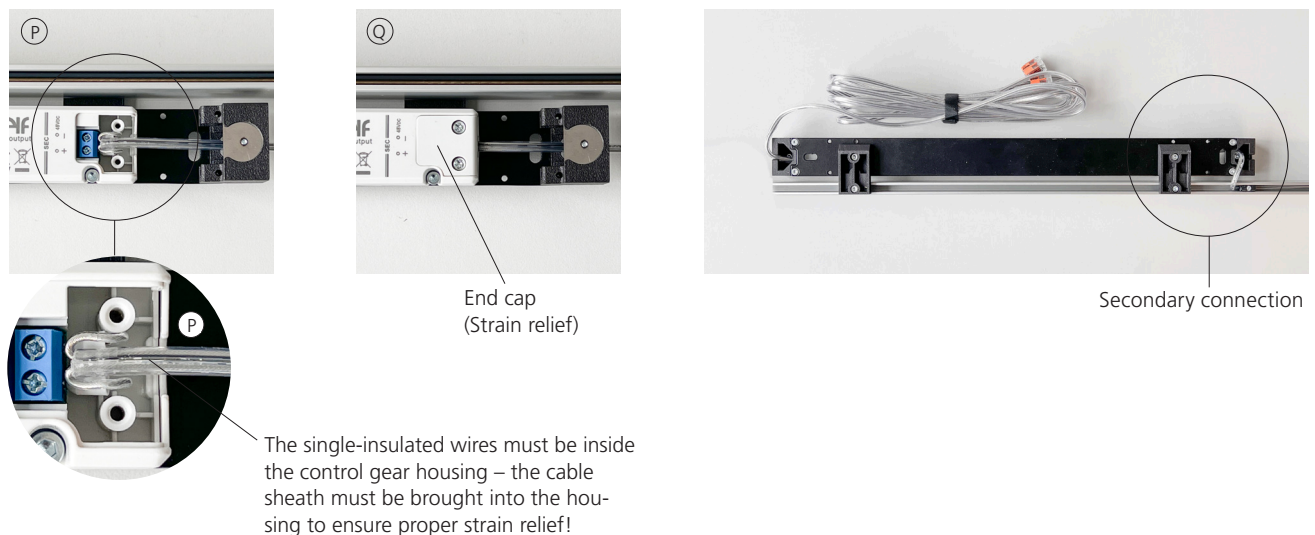



Connecting the secondary cable to the control gear

- Loosen the pre-installed cable holder enough so that it can be moved (flathead screwdriver No. 0). (I)
- The strain relief (with black marking) at the secondary connection to the rail must NOT be loosened or moved! (K)
- Move the cable holder to the desired cable exit position of the secondary cable and secure it (flathead screwdriver No. 0). (I)
- Shorten the secondary cable from the rail according to the position of the control gear box – **Important:** Note cable loss in the box! (L)
- Strip the secondary cable and crimp the wire end ferrules (white) using crimping tool and shorten the ferrules if necessary. (M)
(With screw contacts, wire end ferrules are prescribed for stranded cables and must be used!)
- **Important:** Strip just enough to maintain double insulation.
- Feed the prepared secondary cable through the end cap of the control gear box. (N)
- To make the secondary connection to the control gear, rotate the rail, including the box. (O)

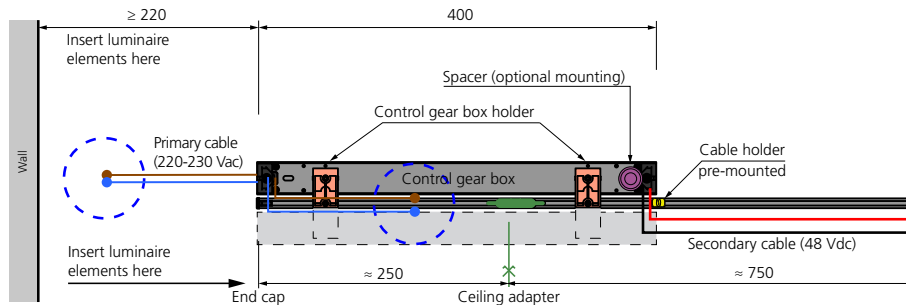


- Remove the end cap of the control gear on the secondary side and connect the rail's secondary cable to the 48 Vdc terminal (⊖ the negative pole is marked with a black thread). (P)
- Reattach the end cap (strain relief) on the secondary side of the control gear. (Q)
- **Important:** The single-insulated wires must be inside the control gear housing, and the cable must be securely fixed with the end cap (strain relief). Pull on the cable and check the strain relief.
- Afterwards, the rail, including the control gear box, is ready for further mounting (see pages 16–17).



Important: Connection to the power supply may only be performed by a qualified specialist.
Disconnect the power supply during installation (remove the fuse). 

The rail system consists of a rail with a pre-installed secondary cable (48 Vdc, length 3.5 m), a control gear box with a pre-installed primary cable (220-240 Vac, length 3.5 m), and the mounting materials. The control gear box is attached to the side of the rail using two control gear box holders. For positioning the rail and correctly positioning the control gear box on the rail, the maximum cable lengths must be considered.



Mounting the rail, including control gear box

→ It is recommended that two people carry out the installation of the rail!

To determine the mounting holes, proceed as follows:

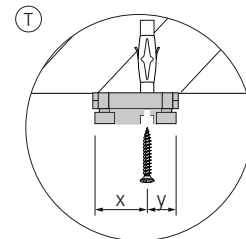
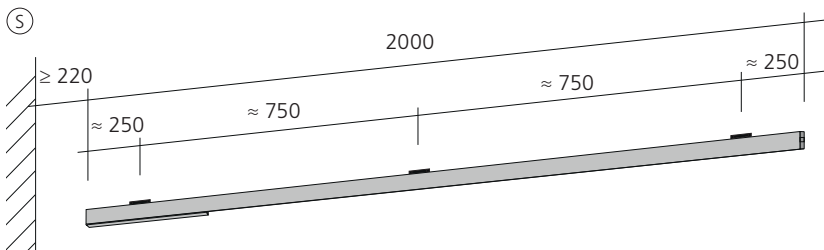
- Rotate the levers of the ceiling adapters 90° so that the ceiling adapters (3 pieces) can be placed onto the rail. (R)
- Position the ceiling adapters in the rail according to the recommendation (see dimensions) (S) (for rails with special lengths of 100 cm to 199 cm, adjust the spacing of the ceiling adapters accordingly).

Important: If possible, position the ceiling adapters so that there is some room for lateral adjustment (along the longitudinal axis) during mounting. The position of the control gear box holders, cable holders, strain relief, rail power feed and power feed area (ceiling rosette) must also be considered!

- Three ceiling adapters must be mounted per rail (applies to rail lengths of 100 cm to 200 cm)
- Transfer the drill holes for the ceiling adapters to the ceiling. The drill holes must be perfectly aligned!
- Variant 1: Hold the rail up to the ceiling and transfer the positions of the ceiling adapters to the ceiling using a pencil.
- Variant 2: Mark the drill holes on the ceiling by measuring.

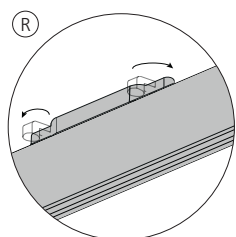
Important: The drill hole in the ceiling adapter is not centred! (T)

- Then, remove the ceiling adapters from the rail (rotate the latches of the ceiling adapters 90°).

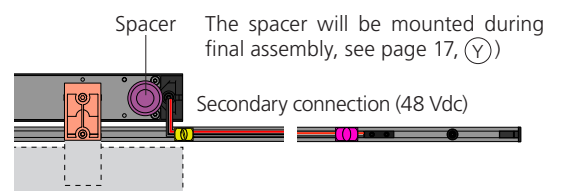
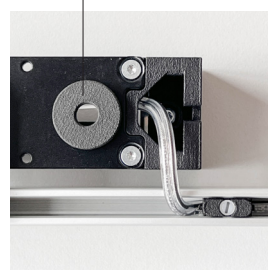


- Drill holes and insert the dowels (drill hole \varnothing 6 x 45 mm).
- Mount the ceiling adapters to the ceiling with screws (T). Check the load-bearing capacity of the fixture and, if necessary, adapt it to the respective ceiling construction or replace it.
- To accurately transfer the drill hole for the control gear box, secure the rail to the ceiling using the three ceiling adapters (R) – now, on the side of the secondary connection, mark the hole position for the control gear box with a pencil. (U)
- Next, remove the rail from the ceiling again, drill the mounting hole for the control gear box, and insert the dowel (drill \varnothing 6 x 45 mm).

Rotate the side latches of the adapter 90°, place the rail and align it as desired in the longitudinal direction, then rotate the latches of the adapter back 90°.

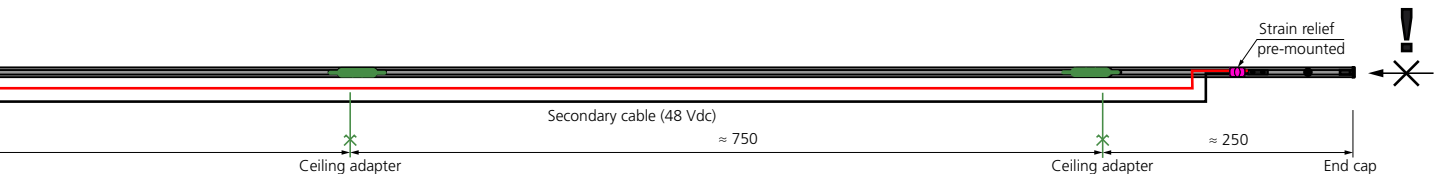


(U) Mounting hole (slotted hole) for the control gear box (secondary side)



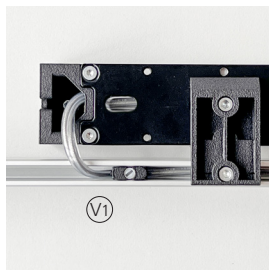
Important:

The ceiling adapters and cable holders cannot be positioned in the area of the control gear box holders.
The cable holder should be moved to the cable exit position.

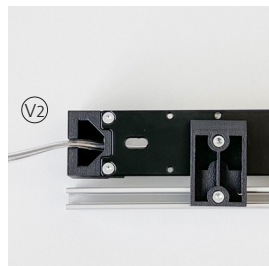
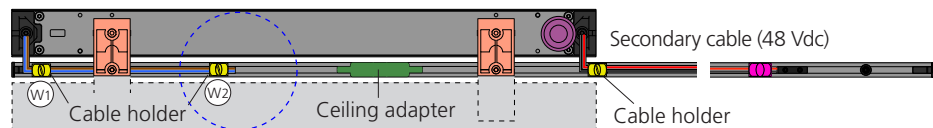


Preparing the primary cable / primary connection:

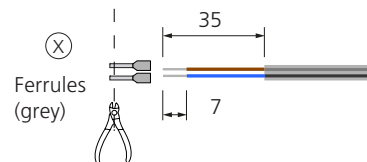
- Define the cable exit for the primary cable from the control gear box: (V1) or (V2)



- (V1) - Place the primary cable in the upper section of the rail channel – the cable can be routed under the ceiling adapters (in the area of the ceiling adapters, the primary cable cannot exit the rail).
- Position and secure a cable holder at the desired cable entry (W1) and cable exit position (W2) for the primary cable (flathead screwdriver No. 0).
- Shorten the primary cable to the desired length and strip it and if needed crimp the wire end ferrules (grey) using crimping tool and shorten the ferrules if necessary. (X)

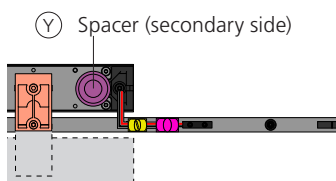


- (V2) - Shorten the primary cable to the desired length and strip it and if needed crimp the wire end ferrules (grey) using crimping tool and shorten the ferrules if necessary. (X)




Primary connection in ceiling box / final rail mounting

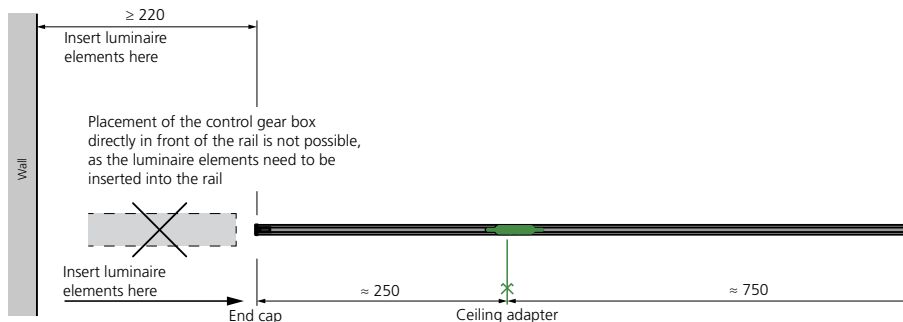
- > There must be sufficient space on-site for the electrical connection (flush-mounted connection) – no additional terminal blocks, strain reliefs or similar can be stored within the rail / control gear box.
- It is recommended to use the supplied connection terminals for the connection. For on-site terminals with screw contacts, wire end ferrules are prescribed for stranded cables and must be used! (X)
(No wire end ferrules may be used for on-site power supply connections made from solid wires!)
- Connect the primary cable of the control gear box to the ceiling box.
- Important:** Depending on the ceiling rosette selected, the primary cable may need to be routed through the rosette and/or a strain relief must be installed – if the cable is not routed through a conduit to the ceiling box, strain relief in the ceiling box is mandatory (ensure strain relief is provided on site).
- **See the overview of ceiling rosettes on page 20** (the rosette can be ordered optionally / not included with the luminaire).
The rosette must be installed according to the separate instructions.
- Once the installation has been properly completed, place the rail onto the ceiling adapters and align it as desired in the longitudinal direction, then rotate the adapter latches back 90° (see page 16). (R)
- Secure the control gear box to the ceiling using screws through the prepared drill hole (including dowel) and two spacers. (Y)
- Carefully mount the cover on the control gear box (holds magnetically). (Z)



Once the rail, including the control gear box, is mounted and the primary connection is correctly made to the ceiling box, the corresponding light elements can be mounted according to the separate instructions.

Important: Connection to the power supply may only be performed by a qualified specialist.
 Disconnect the power supply during installation (remove the fuse). 

The rail system consists of a rail with a pre-installed secondary cable (48 Vdc, length 3.5 m), a control gear box with a pre-installed primary cable (220-240 Vac, length 3.5 m), and the mounting materials.
 Placement of the control gear box on the secondary side directly in front of the rail is possible. The secondary cable must be routed above the rail.



Cable routing

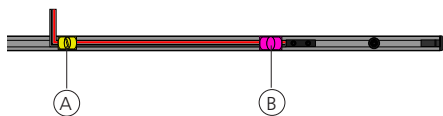
The secondary cable can be routed within the rail as well as below the ceiling adapters.
 No cables can be routed in the area of the rail's power feed. At the position where the cable exits the rail, a cable holder must be used.

Preparing the rail and control gear box

- Loosen the Velcro strap on the rail and lay the secondary cable alongside the rail. (The secondary cable is pre-installed on the rail – do not disconnect it!)
- Prepare the rail, control gear box, and mounting materials on a clean, scratch-free work surface – check materials against the material list (page 3) for completeness.
- Remove the cover from the control gear box – store the cover safely.

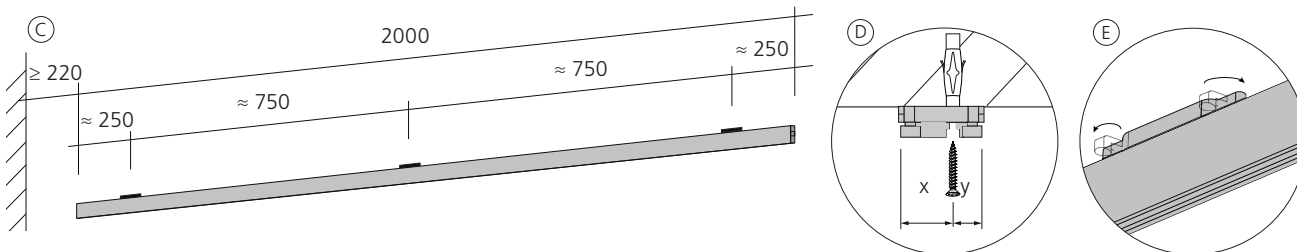
Preparing the secondary cable from the rail

- Determine the cable exit for the secondary cable.
- Loosen the pre-installed cable holder enough so that it can be moved (flathead screwdriver No. 0). **(A)**
- The strain relief (with black marking) at the secondary connection to the rail must NOT be loosened or moved! **(B)**
- Move the cable holder to the desired cable exit position of the secondary cable and secure it (flathead screwdriver No. 0). **(A)**



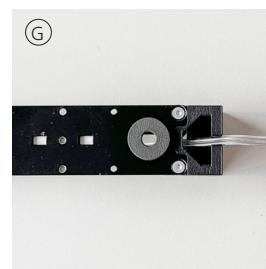
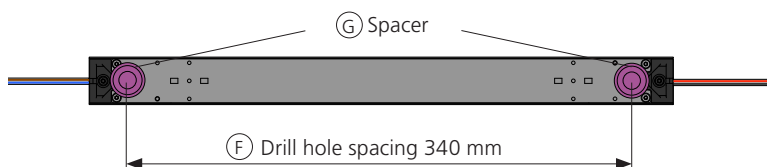
Mounting the rail to the ceiling

- Three ceiling adapters must be mounted per rail (applies to rail lengths of 100 cm to 200 cm)
- Mark the mounting holes for the ceiling adapters according to the recommendation (see dimensions) **(C)**. (For rails with special lengths of 100 cm to 199 cm, adjust the spacing of the ceiling adapters accordingly)
- Important:** The drill hole in the ceiling adapter is not centred! **(D)**
- Drill three holes and insert the dowels (drill hole \varnothing 6 x 45 mm). The position of the cable exit and cable holder must also be considered!
- Align the ceiling adapters with the screws and mount them to the ceiling **(D)**. Check the load-bearing capacity of the fixture and, if necessary, adapt it to the respective ceiling construction or replace it.
- Rotate the side latches of the adapter 90°, place the rail, and align it as desired in the longitudinal direction, then rotate the latches of the adapter back 90°. **(E)**

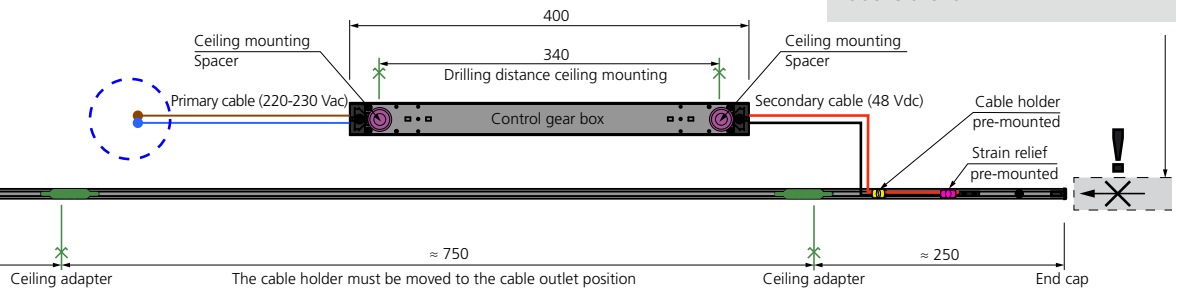


Mounting the control gear box to the ceiling

- Pay attention to the position of the primary and secondary connections, and determine the position of the control gear box (length: 400 mm).
- Mark the two mounting holes for the control gear box (drill hole spacing: 340 mm). **(F)**
- Drill holes and insert the dowels (drill hole \varnothing 6 x 45 mm).
- Carefully remove the cover from the control gear box (holds magnetically)
- Mount the control gear box to the ceiling using screws and one spacer per side. **(G)**

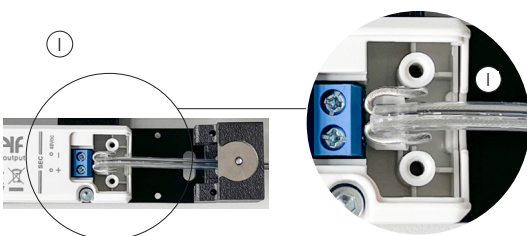
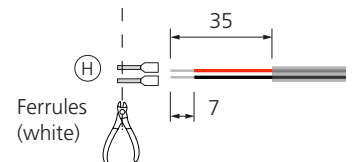


The control gear box can be positioned directly in front of the rail. Secondary cable must be routed above the rail.

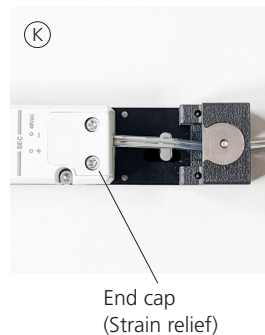


Connecting the secondary cable to the control gear box

- Shorten the secondary cable from the rail according to the position of the control gear box – **Important:** Cable loss in the box approx. 140 mm!
- Strip the secondary cable and crimp the wire end ferrules (white) using crimping tool and shorten the ferrules if necessary. (H)
(With screw contacts, wire end ferrules are prescribed for stranded cables and must be used!)
Important: Strip just enough to maintain double insulation.
- Feed the prepared secondary cable through the end cap of the control gear box.
Important: Depending on the situation, the secondary cable may need to be fixed in advance in a building-installed cable duct or with clips to the ceiling.
- Remove the end cap of the control gear on the secondary side and connect the rail's secondary cable to the 48 Vdc terminal (⊖ the negative pole is marked with a black thread). (I)
- Reattach the end cap (strain relief) on the secondary side of the control gear. (K)
Important: The single-insulated wires must be inside the control gear housing, and the cable must be securely fixed with the end cap (strain relief). Pull on the cable and check the strain relief.

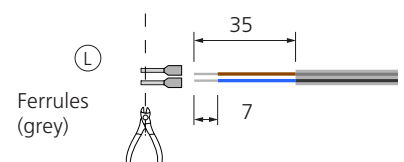


The single-insulated wires must be inside the control gear housing – the cable sheath must be brought into the housing to ensure proper strain relief!



Primary connection in ceiling box / final mounting

- > There must be sufficient space on site for the electrical connection (flush-mounted connection) – no additional terminal blocks, strain reliefs, or similar can be stored inside the control gear box.
- It is recommended to use the supplied connection terminals for the connection. For on-site terminals with screw contacts, wire end ferrules are prescribed for stranded cables and must be used! (L)
(No wire end ferrules may be used for on-site power supply connections made from solid wires!)
- Shorten the primary cable to the desired length and strip it and if needed crimp the wire end ferrules (grey) using crimping tool and shorten the ferrules if necessary. (L)
- Connect the primary cable of the control gear box to the ceiling box.
Important: Depending on the situation, the primary cable may need to be routed through a ceiling rosette and/or a strain relief must be installed – if the cable is not routed through a conduit to the ceiling box, strain relief in the ceiling box is mandatory (ensure strain relief is provided on site).
- See the overview of ceiling rosettes on page 20 (the rosette can be ordered optionally / not included with the luminaire).
- The rosette must be mounted according to the separate instructions.
- Carefully mount the cover on the control gear box (holds magnetically).



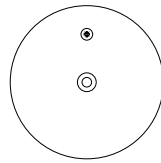
Once the rail, including the control gear box, is mounted and the primary connection is correctly made to the ceiling box, the corresponding light elements can be mounted according to the separate instructions.

EN Overview ceiling rosettes – Rosette can be ordered optionally / not included with the luminaire

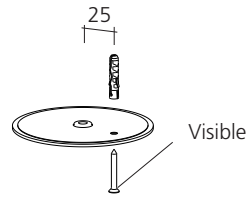
Choose the ceiling rosette according to the selected rail mounting and the existing electrical connection:

Rosette, for mounting flush with the ceiling / Art. 7200-66

A ceiling rosette with vertical cable routing – not suitable for electrical connection in the area of the rail or control gear box.
This ceiling rosette must be mounted on the primary cable of the luminaire before the electrical connection to the building's power supply cable (at the luminaire connection point)!
(The mounting of the ceiling rose must be carried out according to the separate instructions – instructions are included with the rose.)

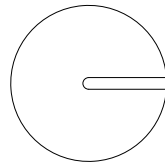


ø 80 mm

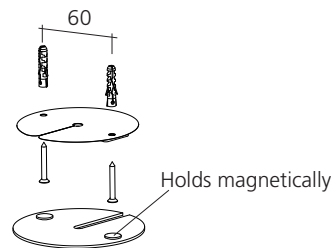


Rosette, for mounting flush with the ceiling / slotted / Art. 7200-67

A ceiling rosette for mounting between the rail and the ceiling (covers the electrical connection at the luminaire connection point in the area of the rail or control gear box).
The mounting of this ceiling rosette takes place after the electrical connection (luminaire connection point).
(The mounting of the ceiling rose must be carried out according to the separate instructions – instructions are included with the rose.)

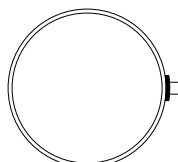


ø 80 mm

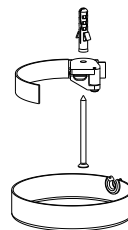


Surface-mounted rosette / Art. 5050-60

Surface-mounted rosette with lateral cable routing.
The mounting of this surface-mounted rosette is not possible below the rail or control gear box.
(The surface-mounted rosette must be mounted according to the separate instructions – instructions are included with the rosette.)



ø 80 mm
(h = 18 mm)



BALTENSWEILER AG
Staldenhof 2
6014 Luzern

T +41 41 429 00 30
info@baltensweiler.ch

