

8184211

SkillsConveyor Kit

FESTO

SkillsConveyor

Assembly instructions

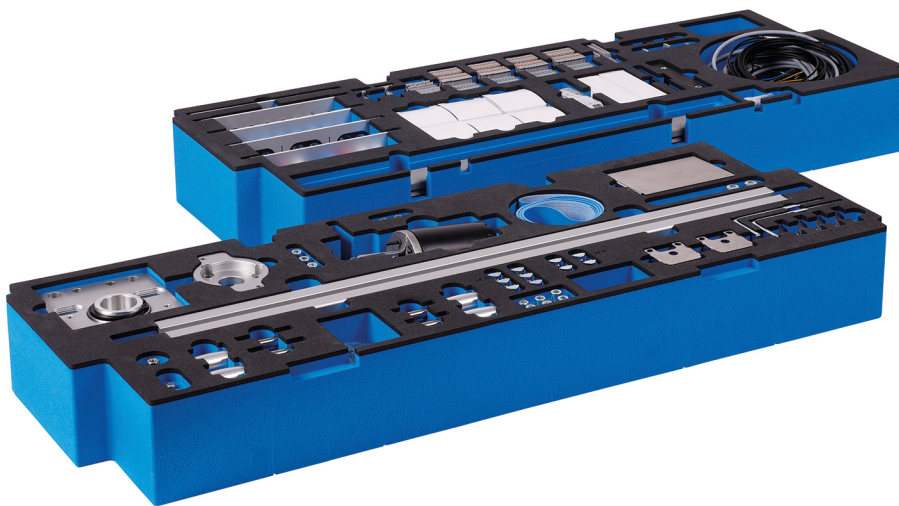


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1 About this document

1.1 General information

This documentation must be available to the user at all times. This documentation must be read before commissioning. The safety instructions must be observed. Non-observance may result in severe personal injury or damage to property.



For information, documentation, and software updates, visit: <https://ip.festo-didactic.com>

1.2 Applicable documents and media

In addition to this documentation, the specified applicable documents and media must also be observed:

Electrical circuit diagram



You can find the electrical circuit diagram here:
<https://ip.festo-didactic.com/go/SC-CircuitDiagrams>

2 Assembly

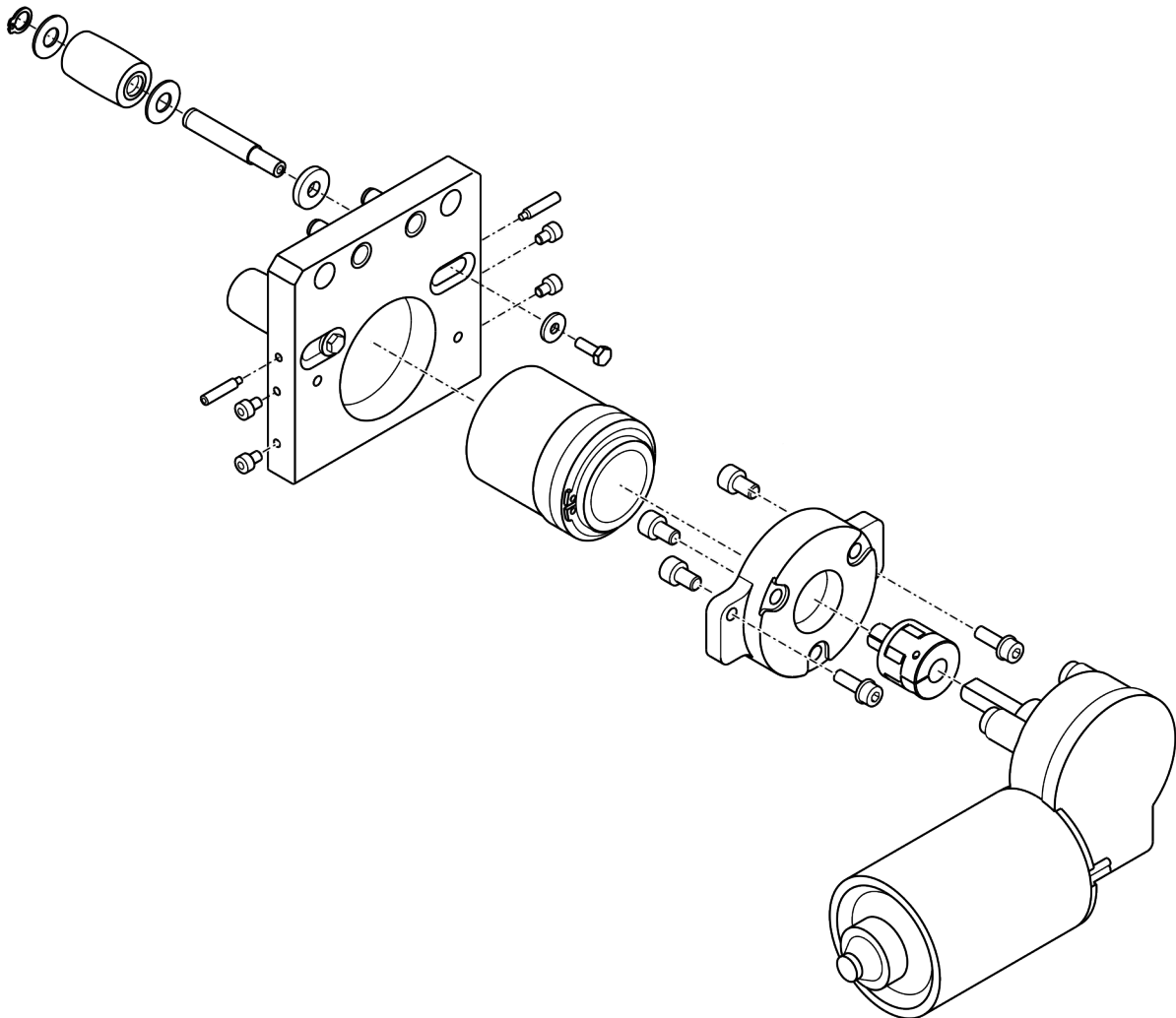
2.1 Mounting the drive Conveyor belt

Mounting the drive - overview

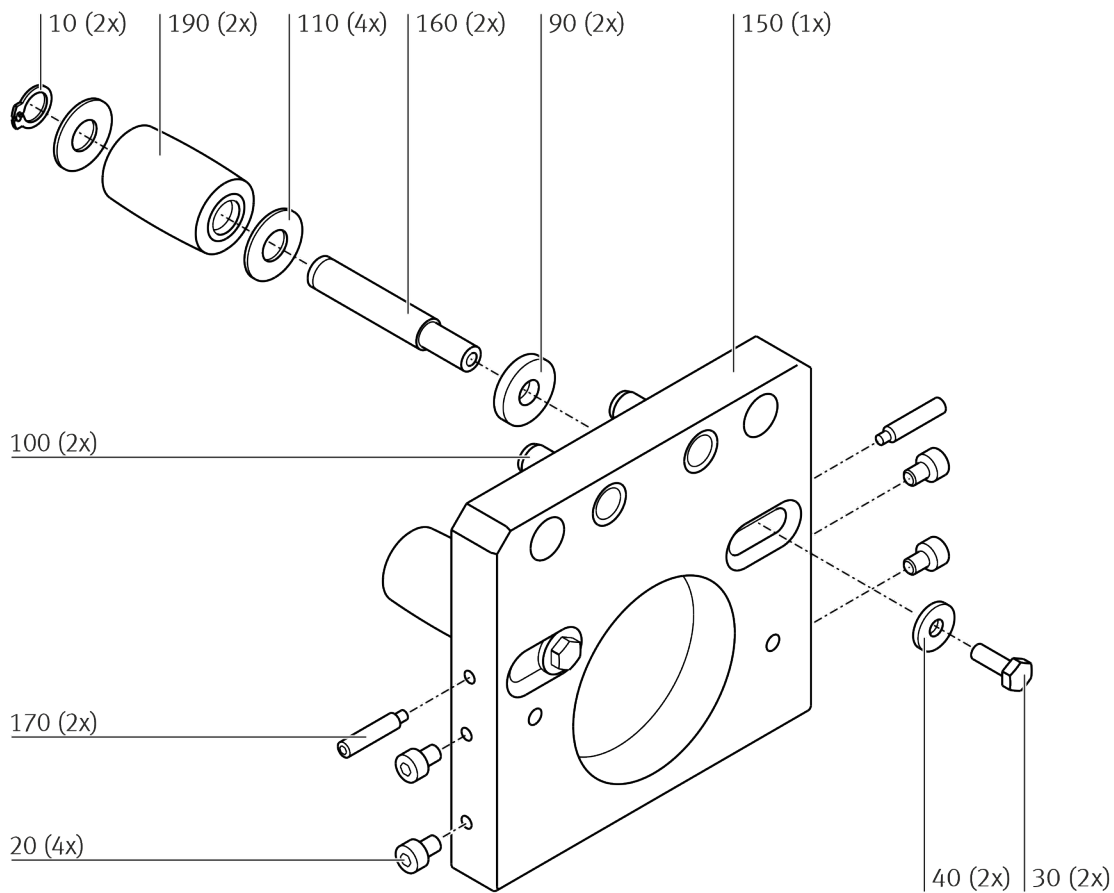


Tightening torques

Specified tightening torques must be observed. Otherwise, the tightening torques according to the valid standard apply. If no special specifications are given for the tolerances of the tightening torques, the general tolerance is $\pm 20\%$.



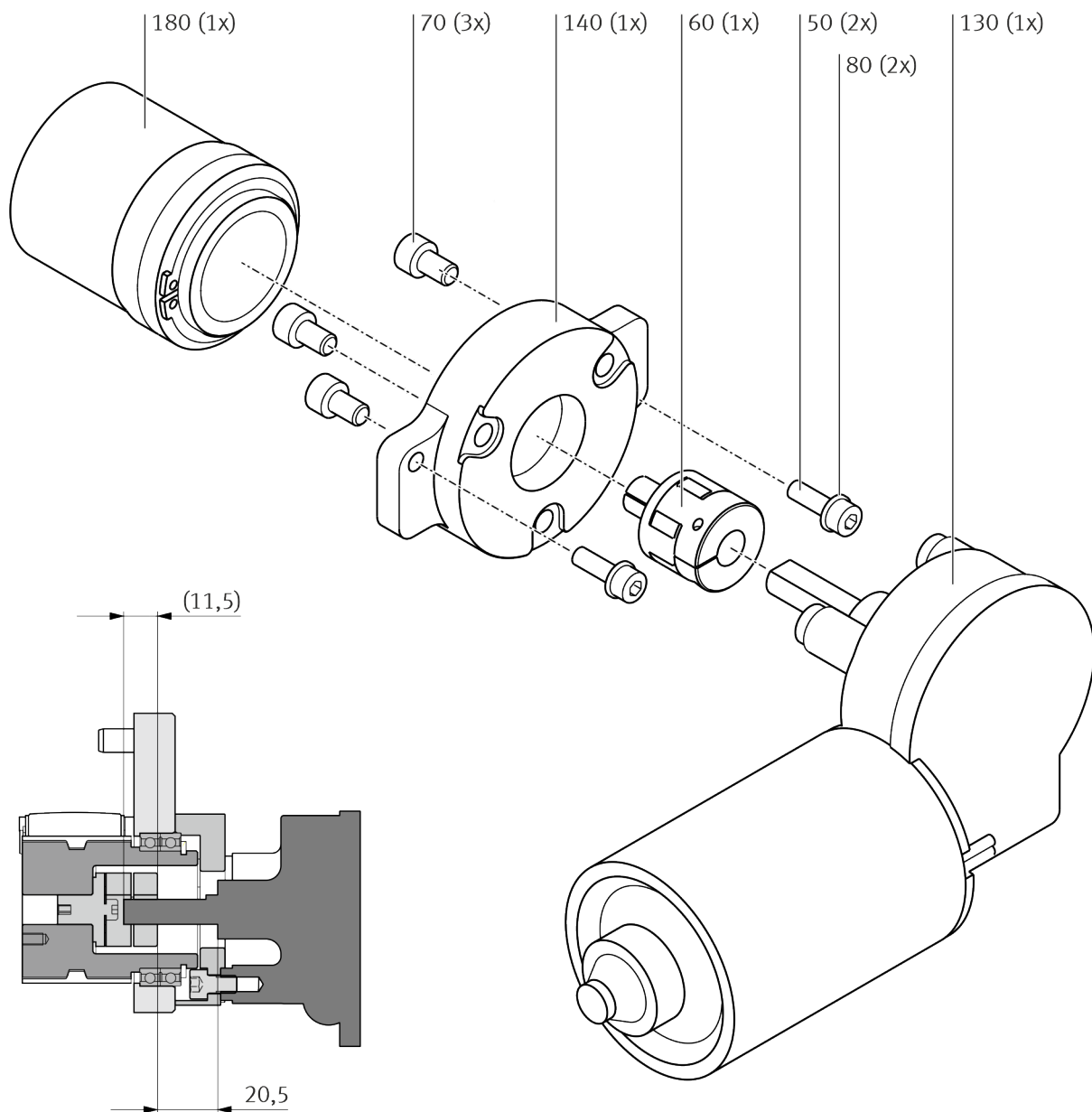
Mounting the drive - part 1



10	Retaining ring
20	Socket head screw
30	Hexagon head screw
40, 90, 110	Flat washer
100	Cylindrical pin

150	Base plate
160	Deflection shaft
170	Setscrew
190	Idler pulley

Mounting the drive - part 2

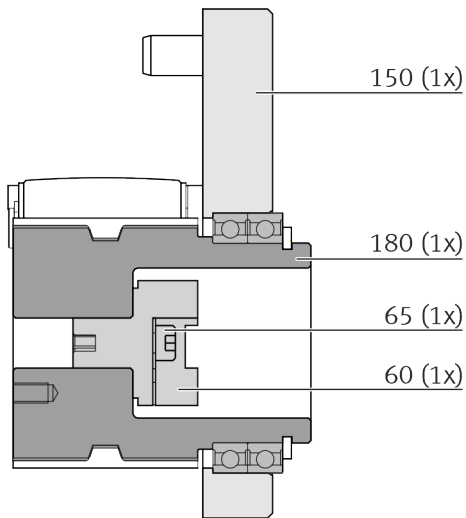


- 50, 70 Socket head screw
- 60 Coupling
- 80 Flat washer
- 130 Motor
- 140 Motor flange
- 180 Drive pulley

Mounting the coupling

1. ➤ Position the coupling half on the motor side according to the sectional drawing.
 2. ➤ Tighten the clamping screw on the motor side. Tightening torque: 2 Nm
 3. ➤ Insert the coupling half into drive pulley on belt side and press into fit.
 4. ➤ Tighten the clamping screw on the belt side. Tightening torque: 1.5 Nm
- ➡ The expanding mandrel clamps the coupling half in the fit of the drive pulley.

Disassembling the coupling half on hinge side



1. ➤ Loosen the clamping screw (65) by several turns.
 2. ➤ Press the expanding mandrel out of the clamping by lightly hitting the head of the clamping screw (65).
- ➡ The clamping between the drive pulley (180) and the coupling half (60) loosens.
3. ➤ Remove the coupling half on the belt side.

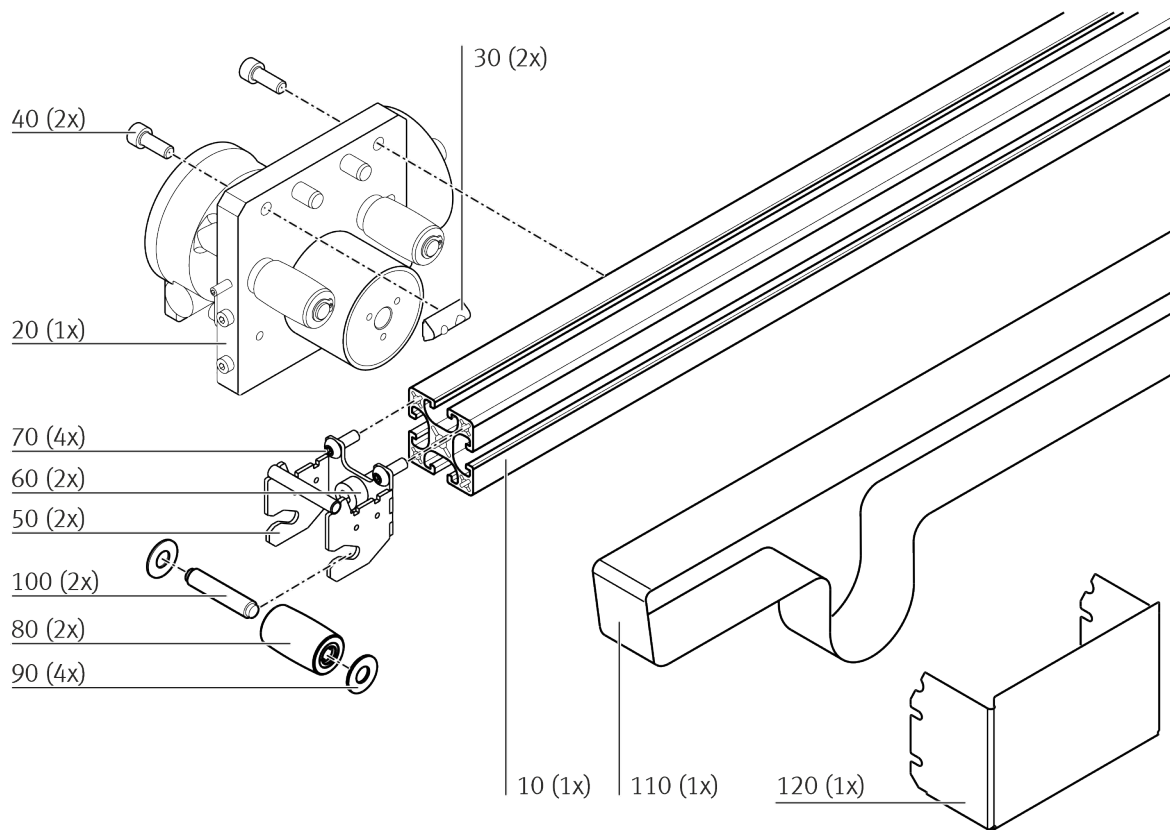
2.2 Assembly Conveyor belt

Mounting the drive - idler head - belt



Tightening torques

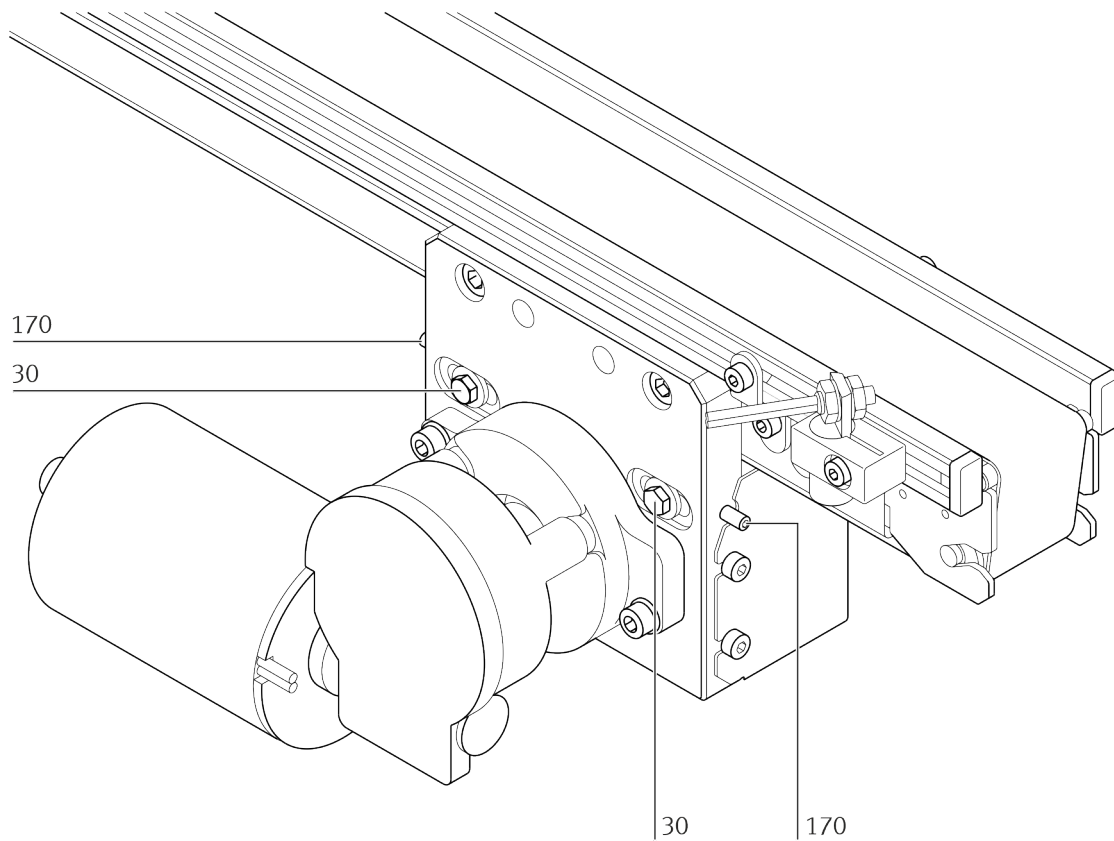
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- 10 Profile 40x40
- 20 Drive unit
- 30 Slot nut
- 40, 60 Socket head screw
- 50 Belt reversal
- 70 Flat head screw

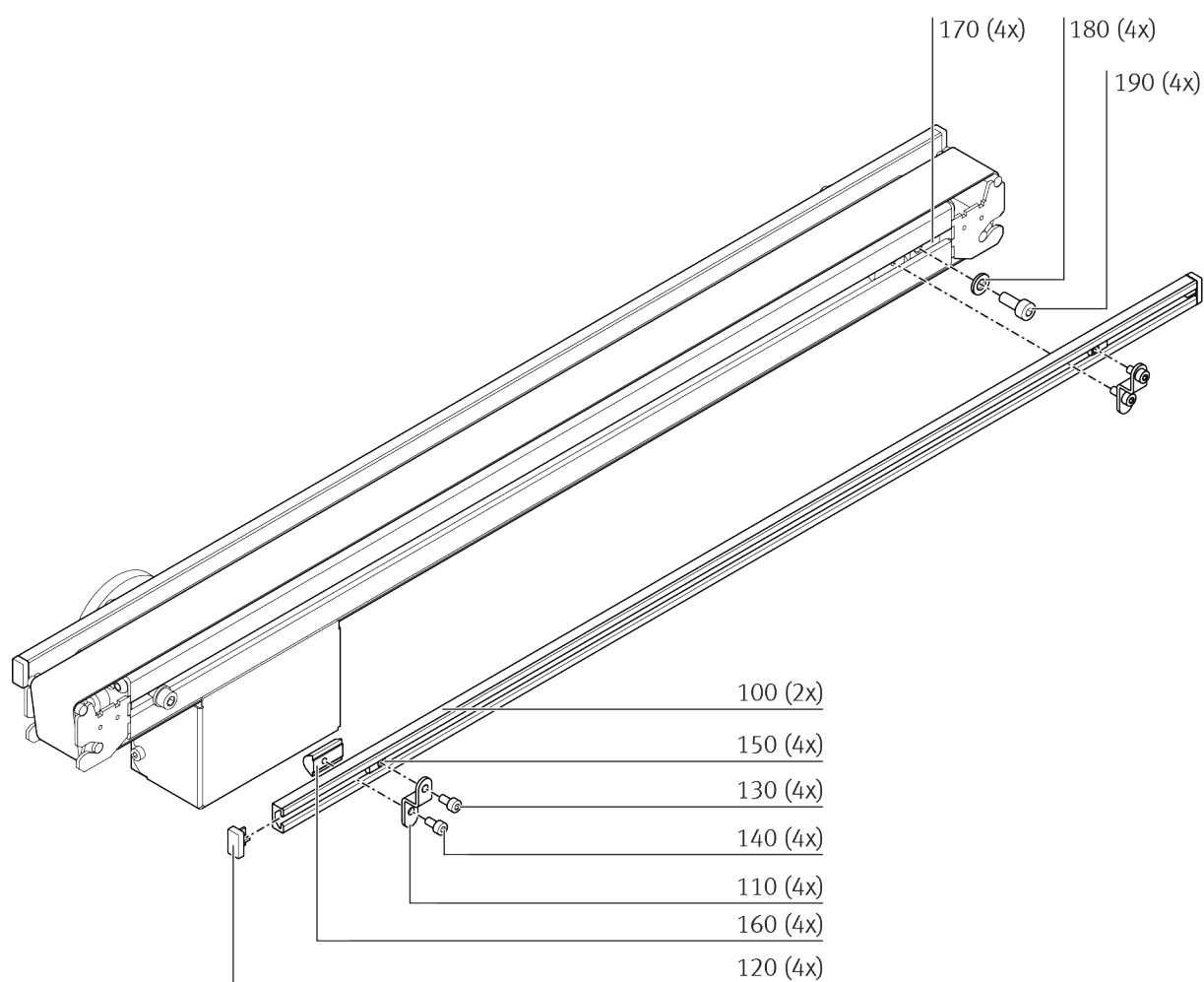
- 80 Idler pulley
- 90 Thrust washer
- 100 Deflection shaft
- 110 Belt
- 120 Covering hood

Adjusting the belt tension



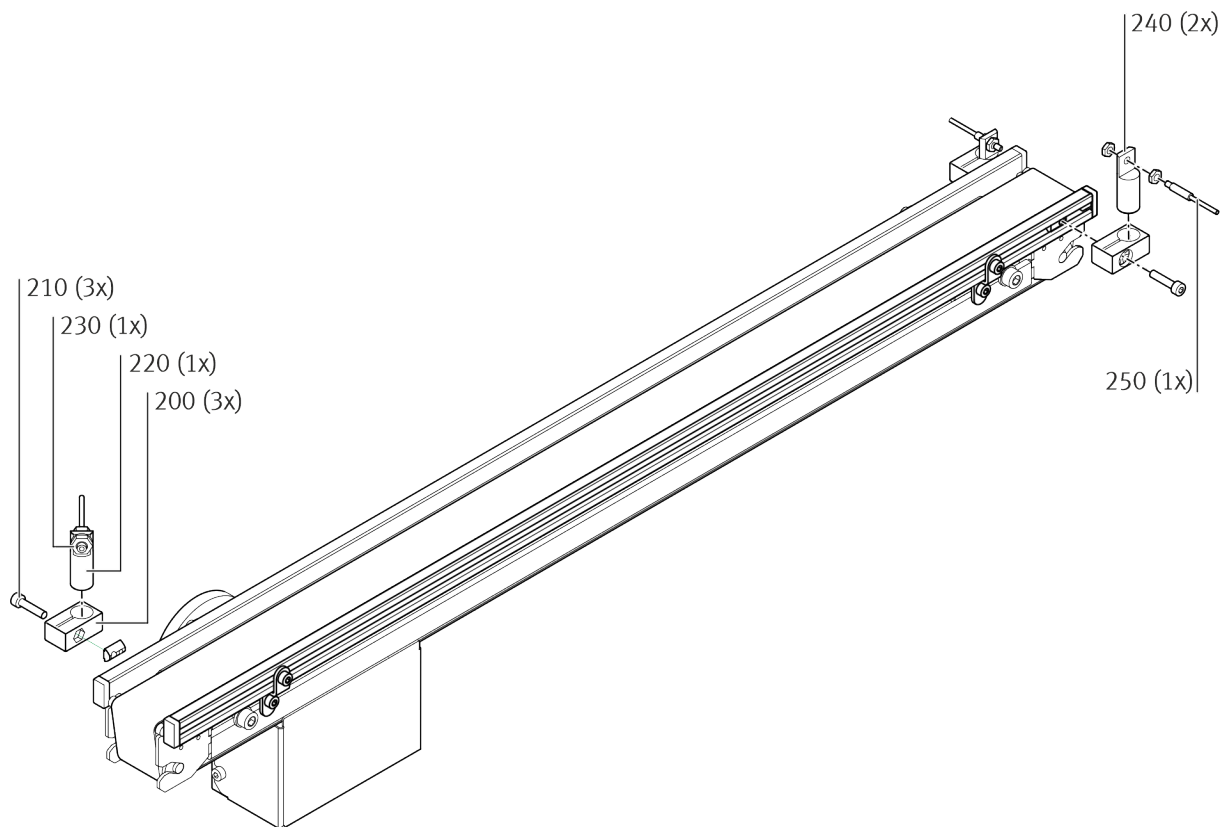
- 1.** Position the guide pulley on the motor side (shown here on the left) at the maximum tension in the direction of the drive pulley and tighten (30).
- 2.** Adjust the second guide pulley with the lateral setscrew (170) by 2 turns against the drive pulley and tighten (30).
- 3.** Alternatively, check the correct belt tension by measuring the current consumption of the motor: current consumption approx. 1 A.

Mounting guardrails



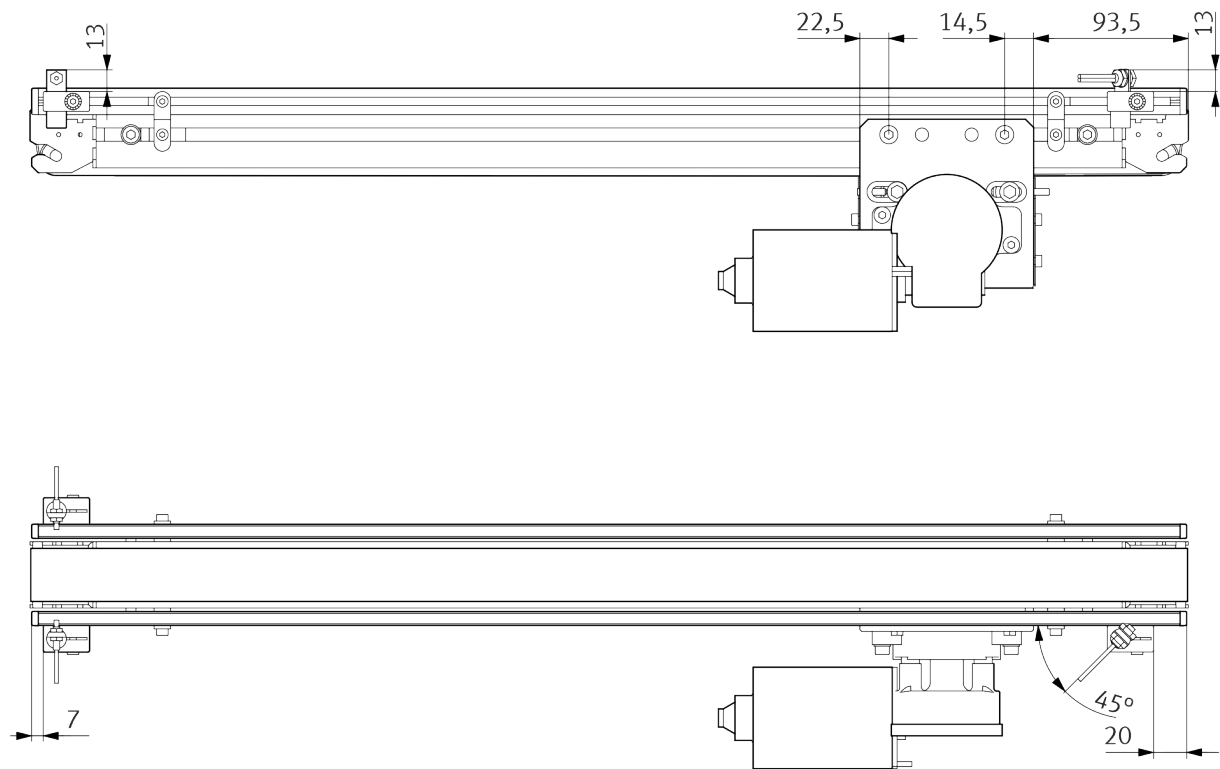
100	Profile 16x8
110	Retaining bracket
120	End cap
130, 140, 190	Socket head screw
150, 160, 170	Slot nut
180	Flat washer

Mounting sensors



- 200 Sensor bracket
- 210 Socket head screw
- 220 Sensor bracket diffuse light sensor
- 230 Light guide M6
- 240 Sensor bracket through-beam sensor
- 250 Light guide M4

Setting sensors



All dimensions in mm

- ➔ Mount the sensors according to dimensional specifications. Depending on the application, readjustment of the sensors may be required.

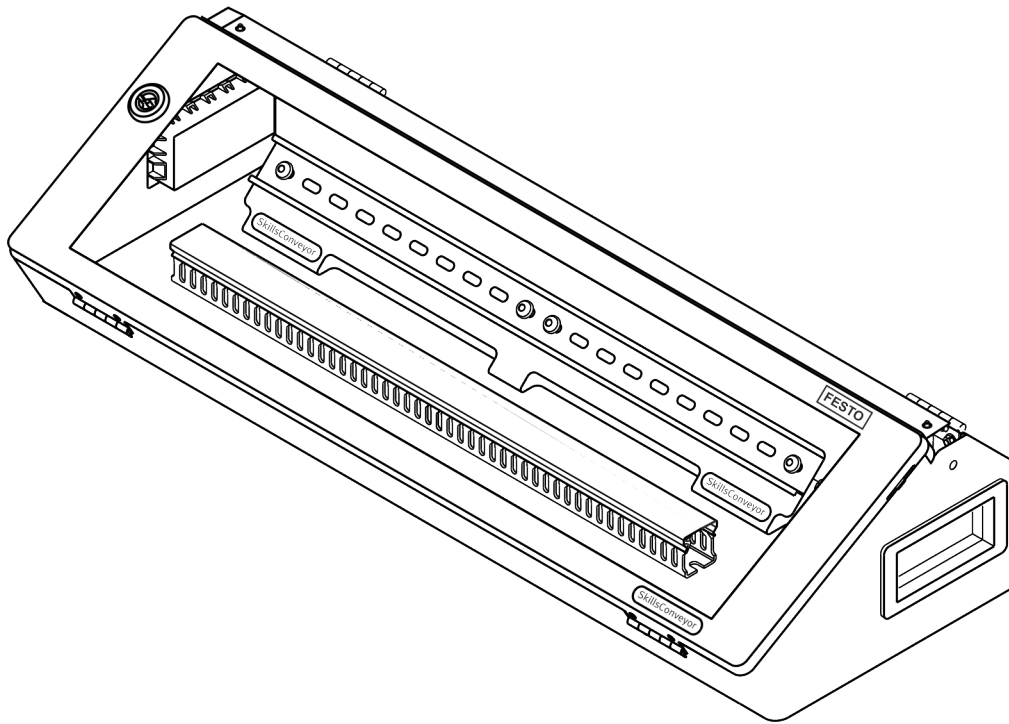
2.3 Assembly Connection box

Mounting the connection box - overview

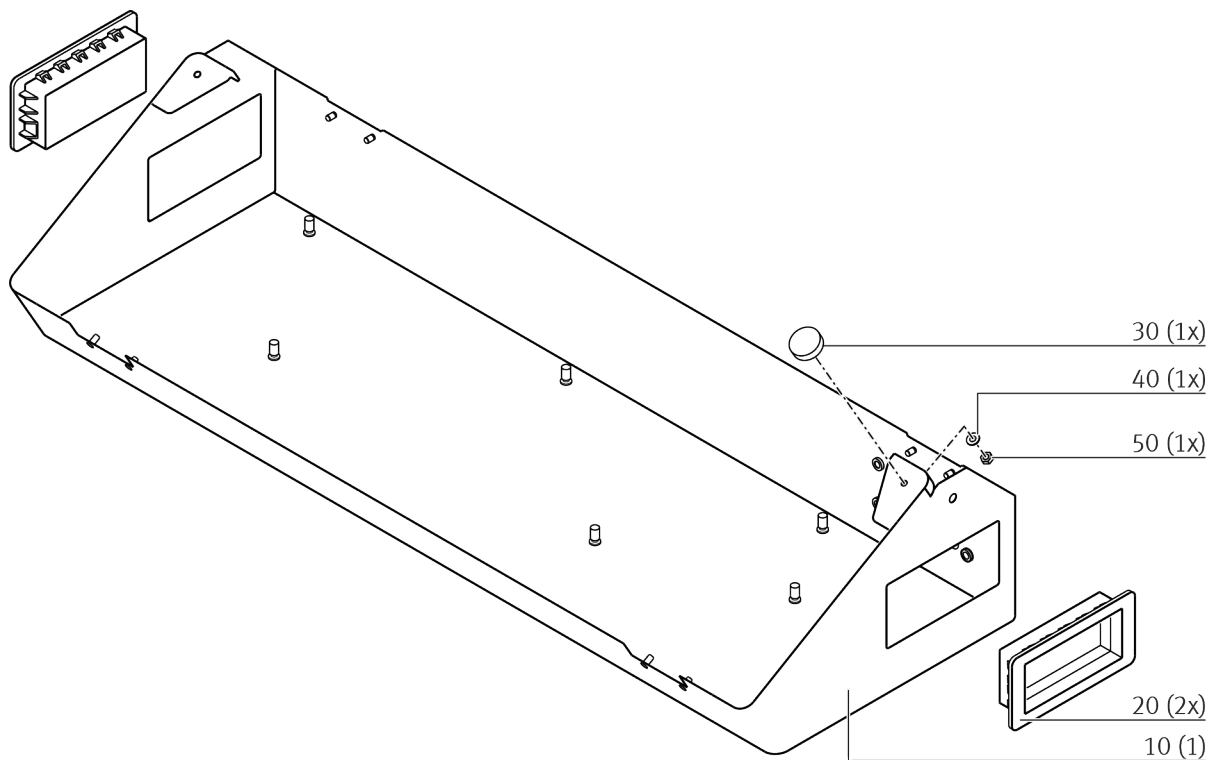


Tightening torques

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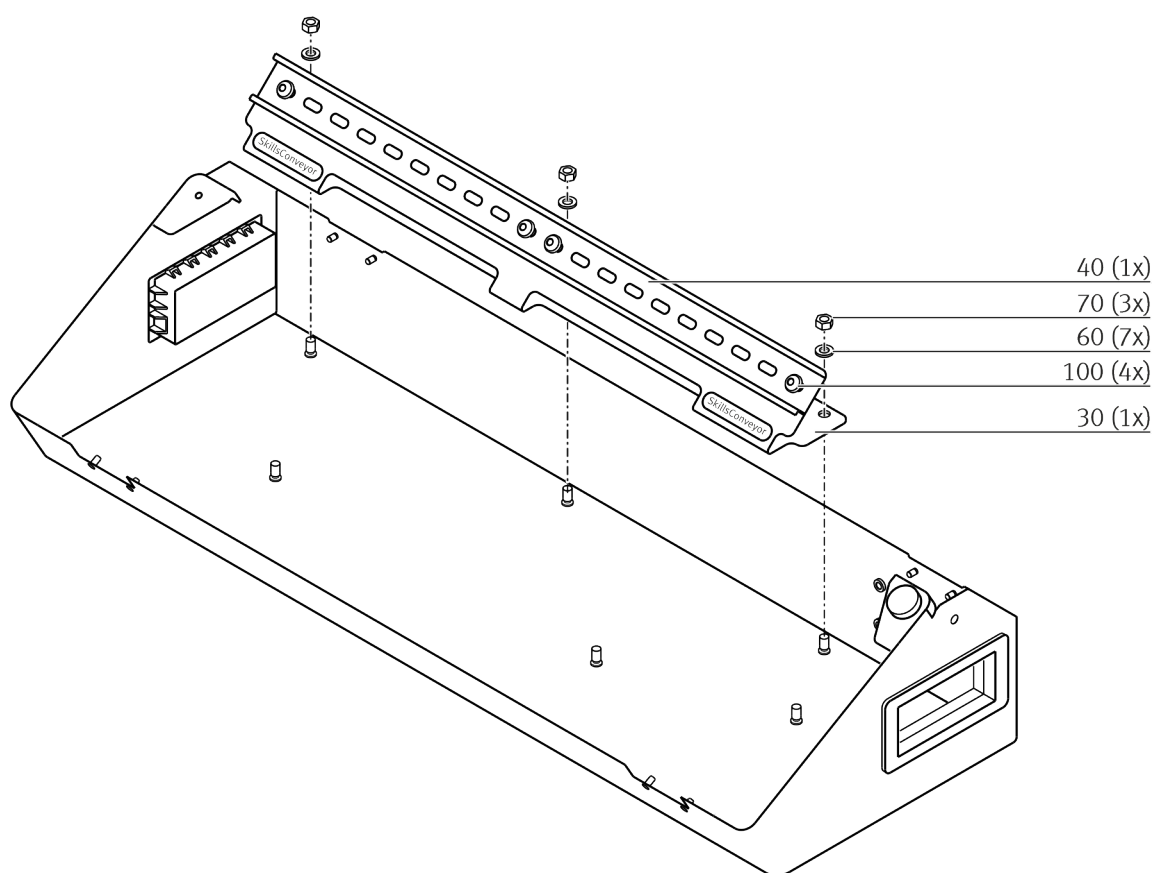


Mounting the recessed grip and magnetic closure



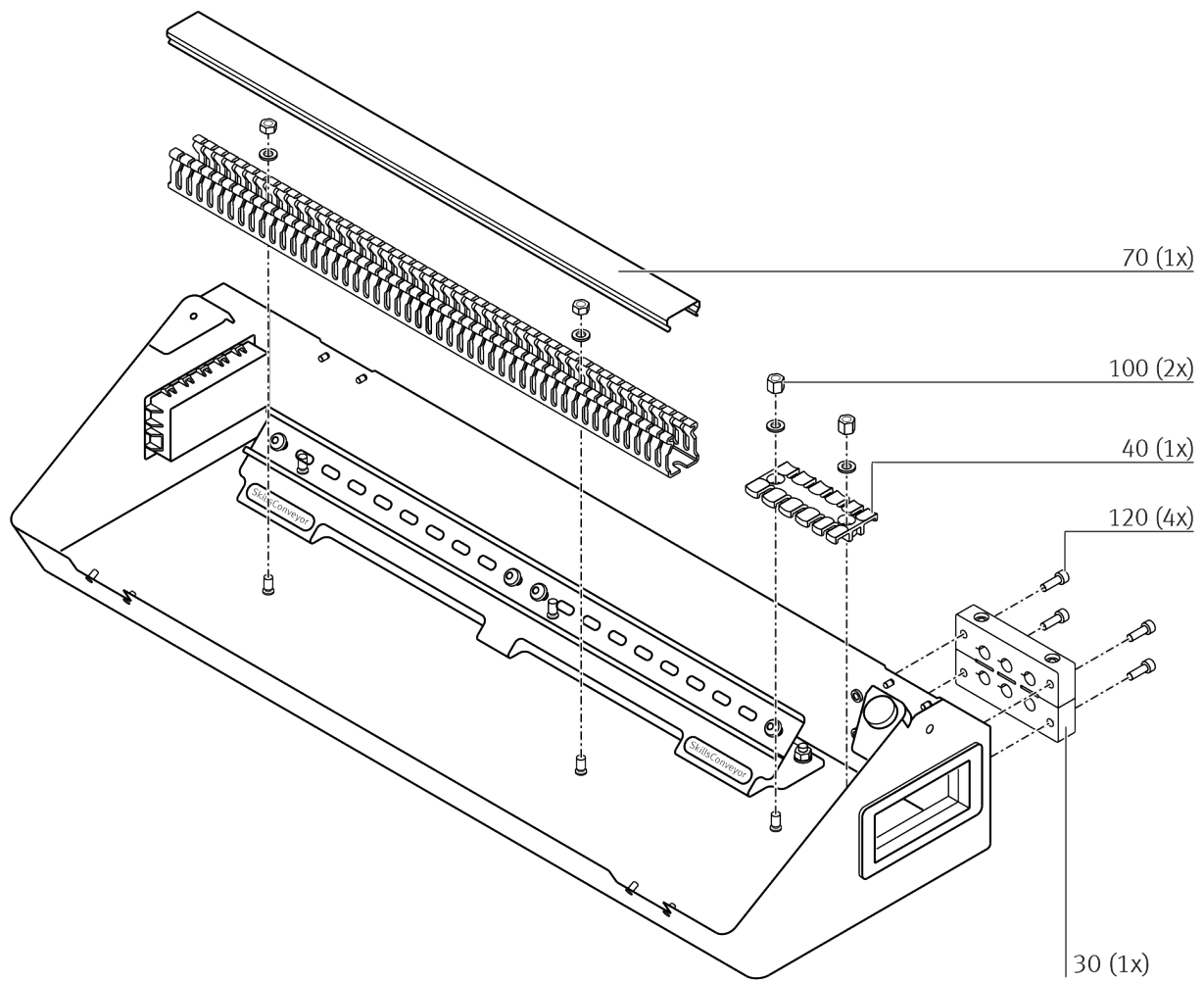
- 10 Housing
- 20 Recessed grip
- 30 Magnet
- 40 Flat washer
- 50 Hex nut

Mounting the DIN-rail



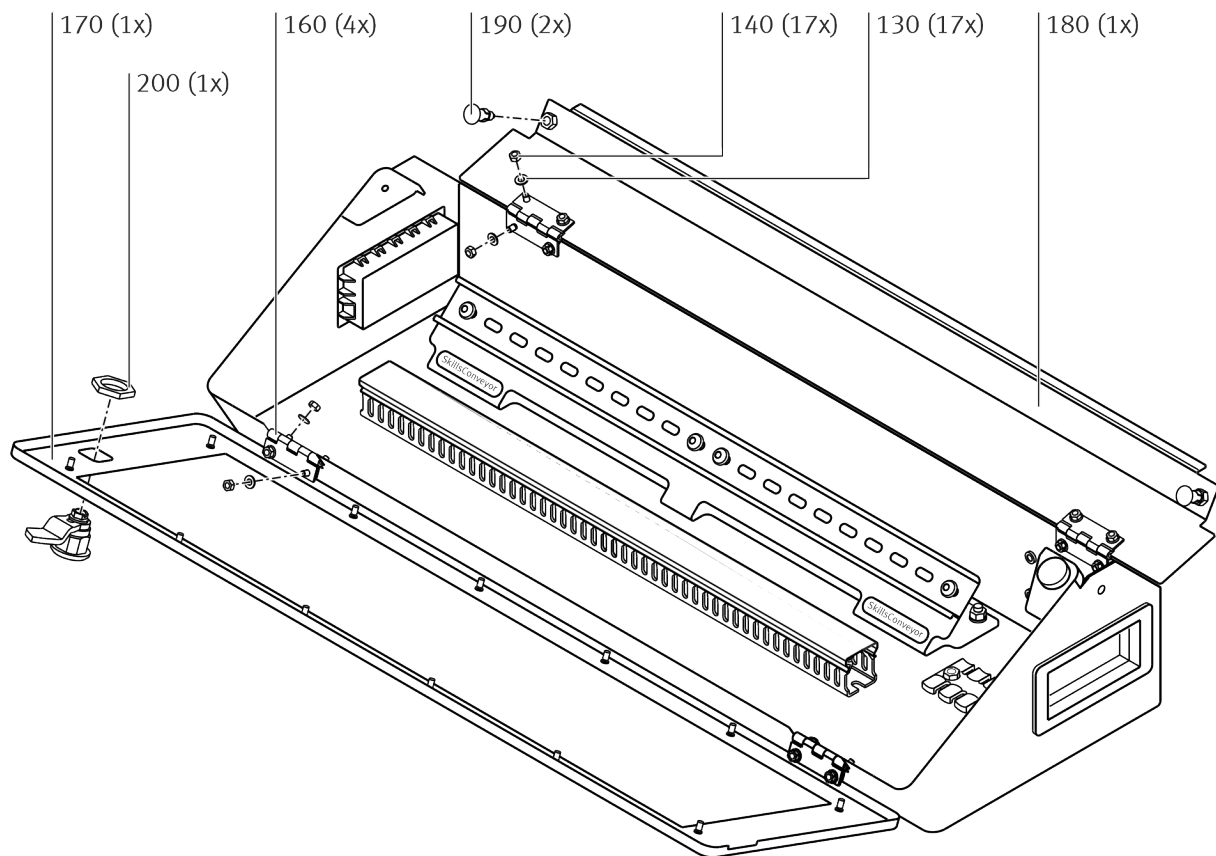
- 30 Angle plate
- 40 DIN rail
- 60 Flat washer
- 70 Hex nut
- 100 Raised head screw

Mounting the cable duct, cable entry and strain relief



- 30 Cable entry
- 40 Strain relief
- 70 Cable duct
- 100 Hex nut
- 120 Socket head screw

Mounting the flap



130	Flat washer
140	Hex nut
160	Hinge
170, 180	Flap
190	Locking pin
200	Control cabinet lock

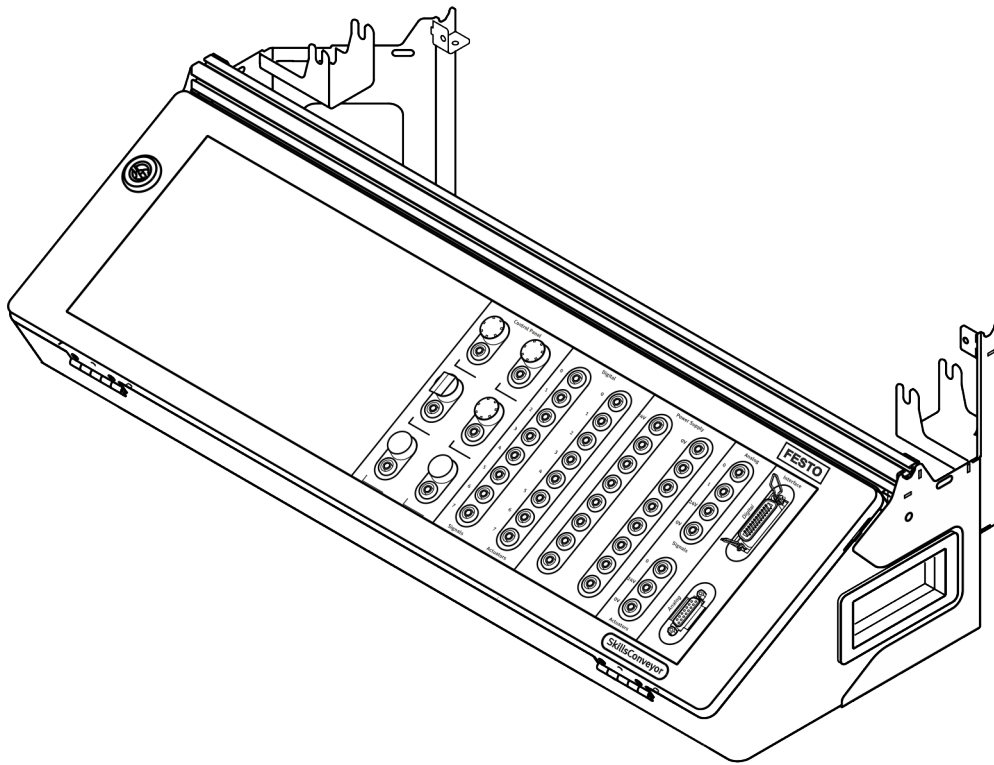
2.4 Mounting the rack and connection box

Mounting the rack and connection box - overview

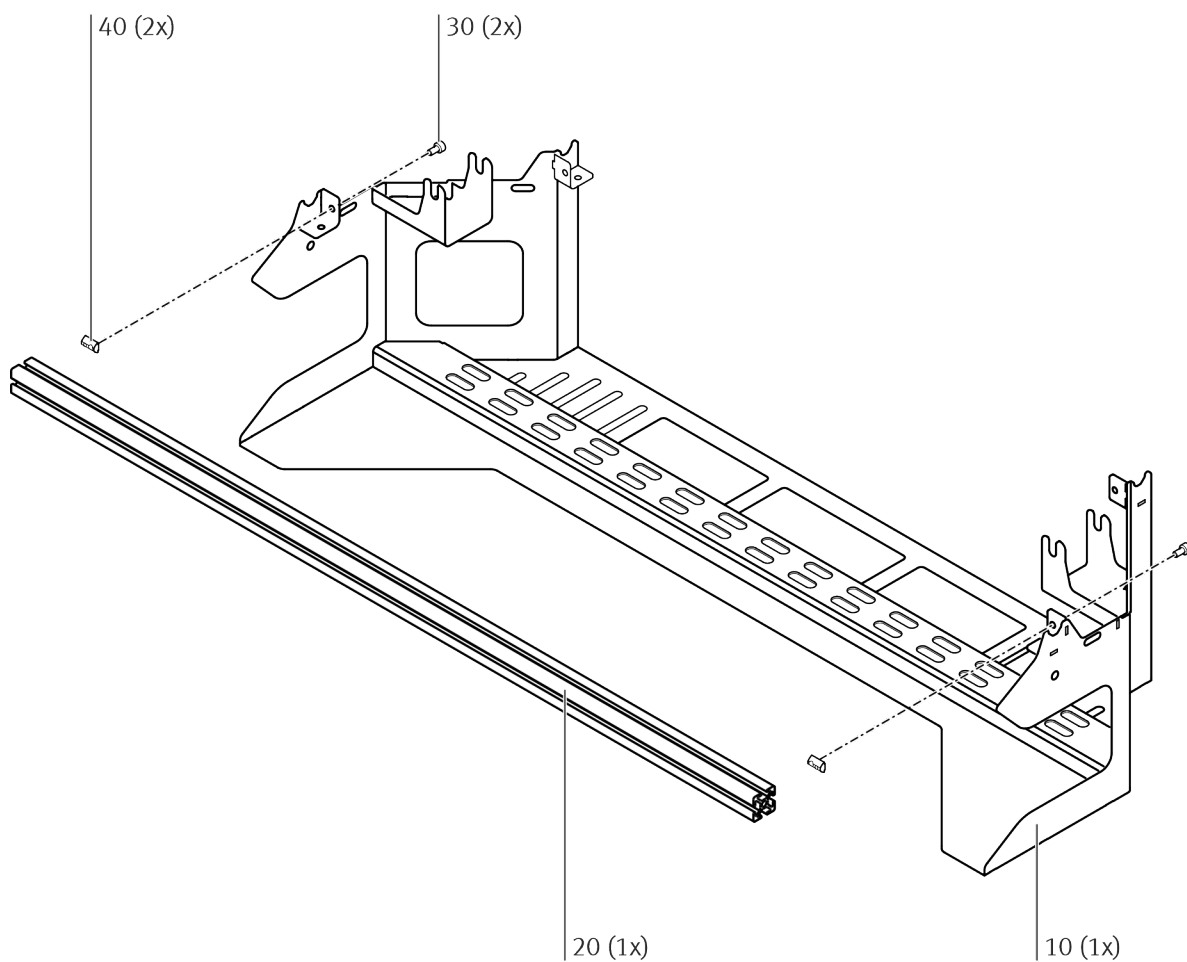


Tightening torques

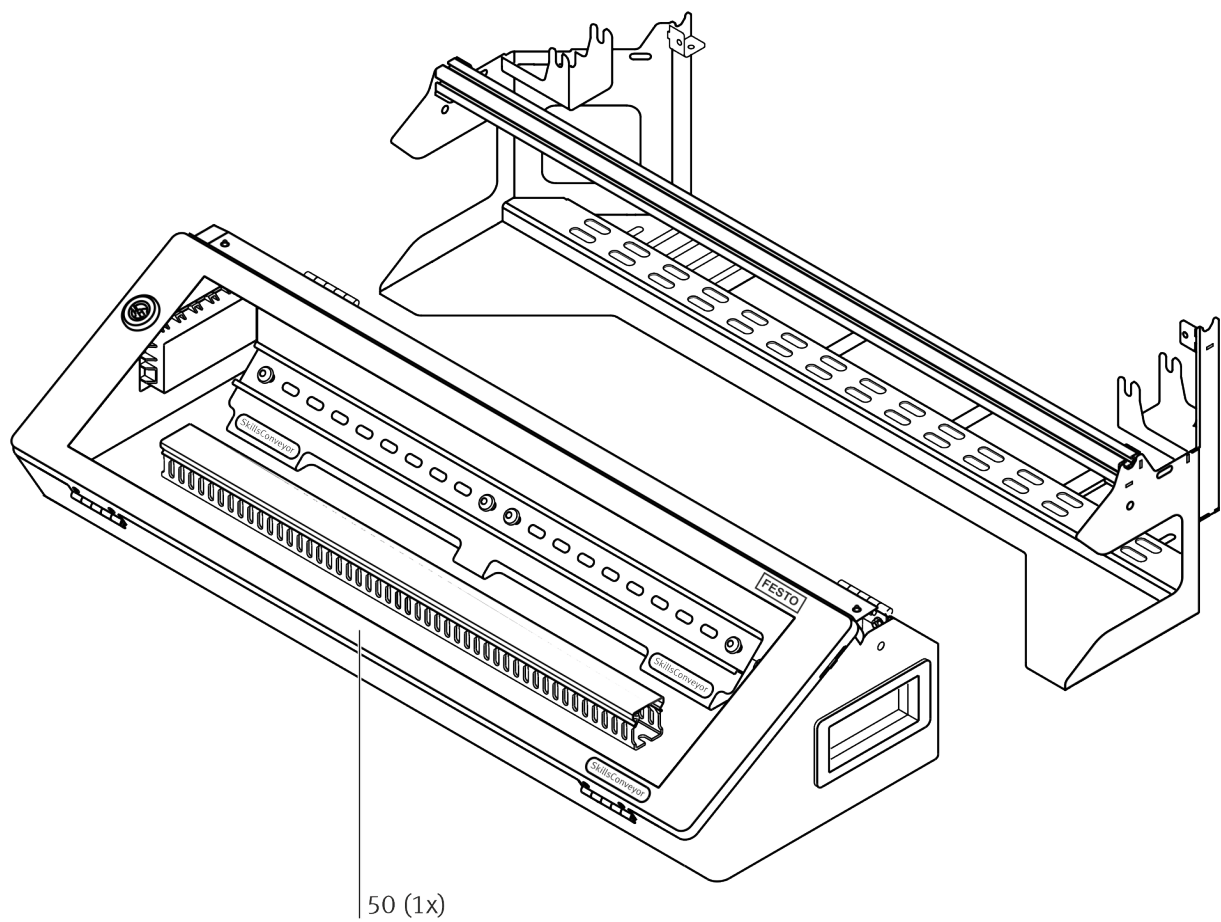
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Mounting the support profile to rack

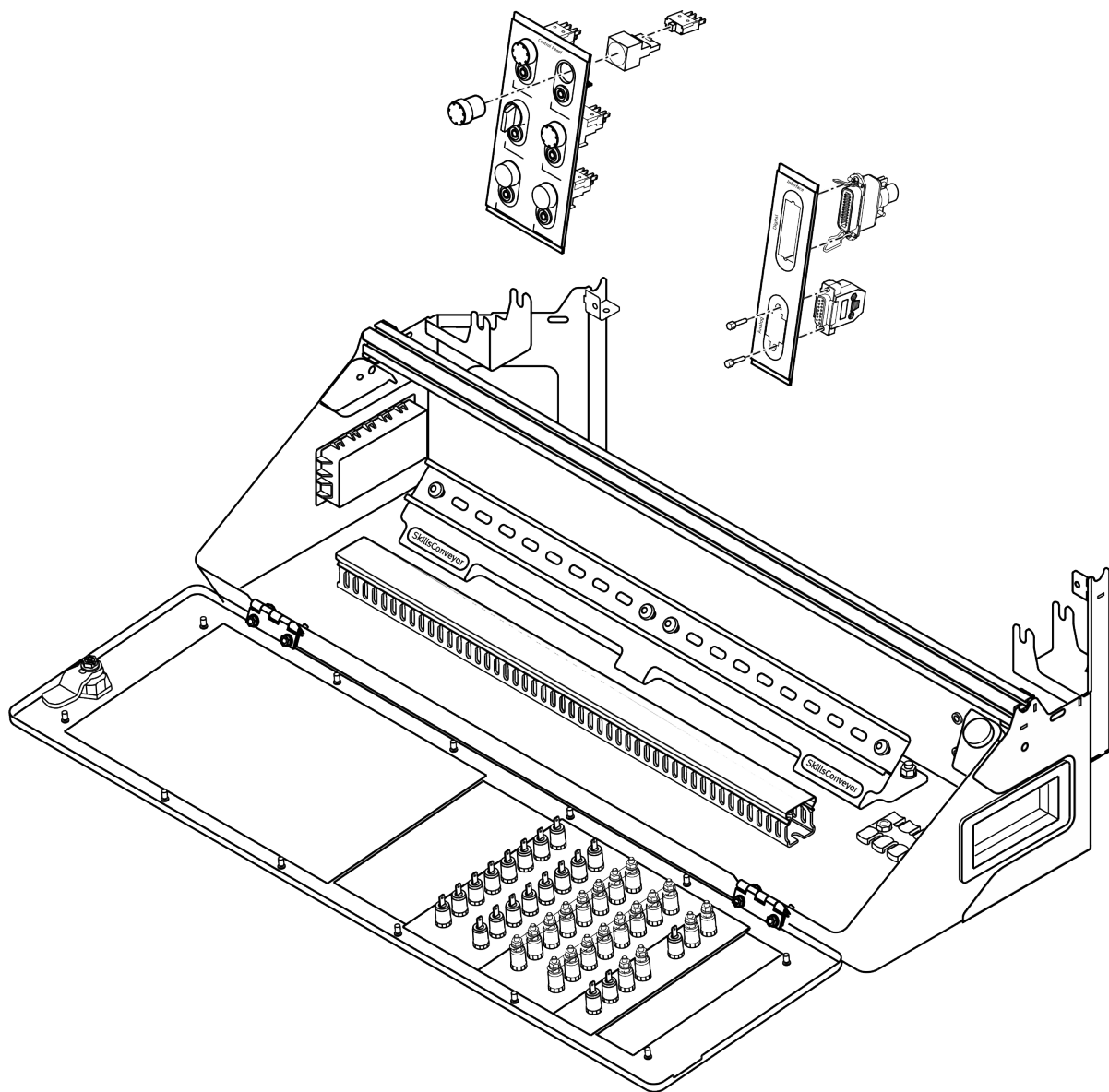


Mounting the connection box to rack

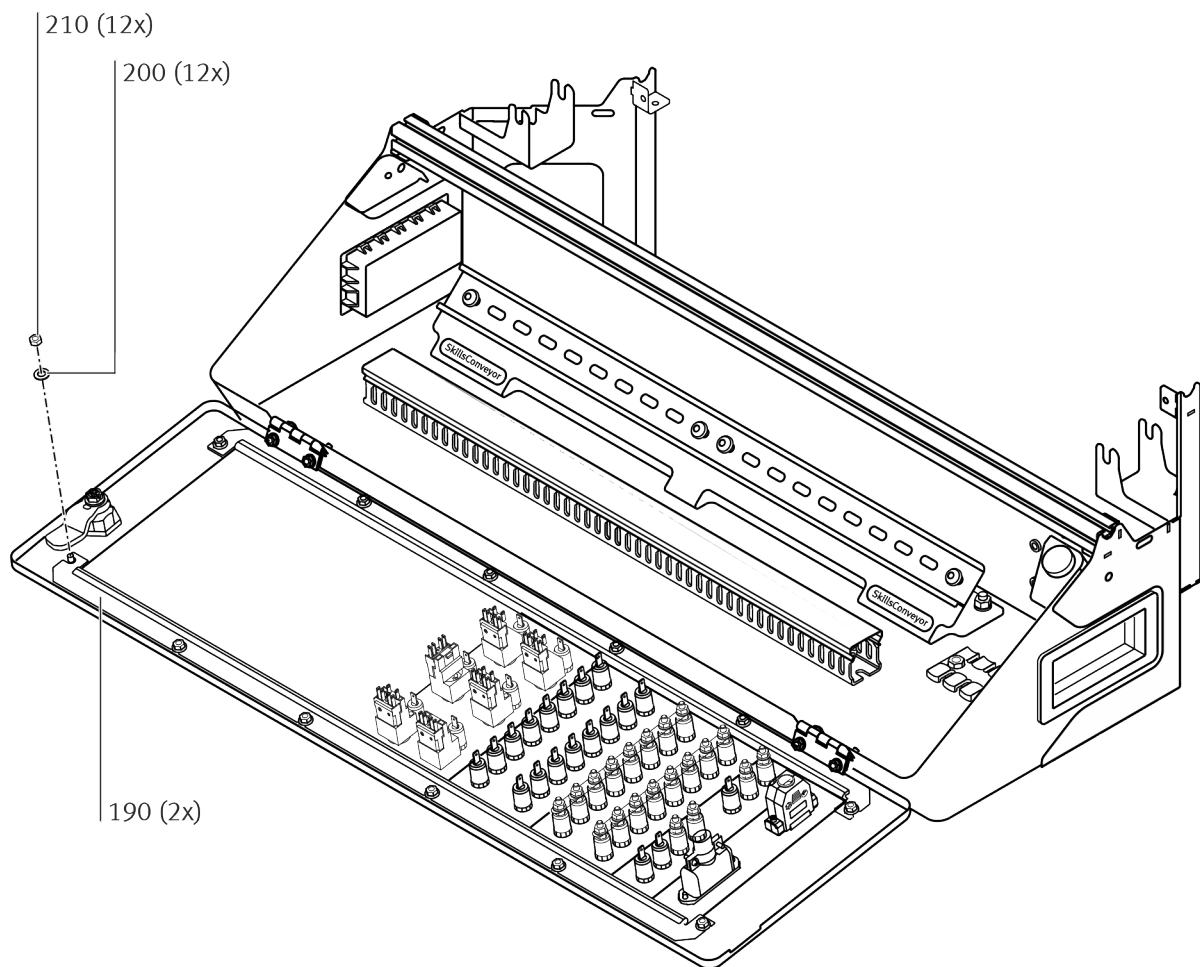


50 Connection box

Mounting the front panels in connection box flap



Mounting the guiding plate for front panels



- 190 Guide plate
- 200 Flat washer
- 210 Hex nut

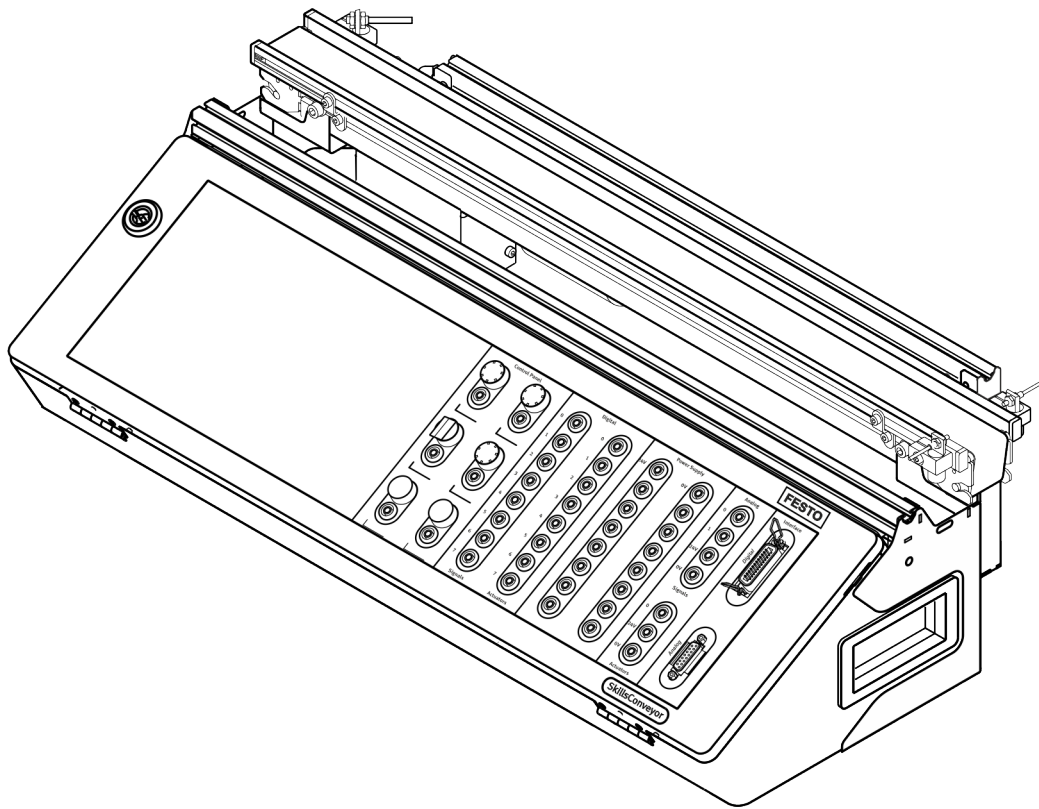
2.5 Assembly

Assembly - Overview

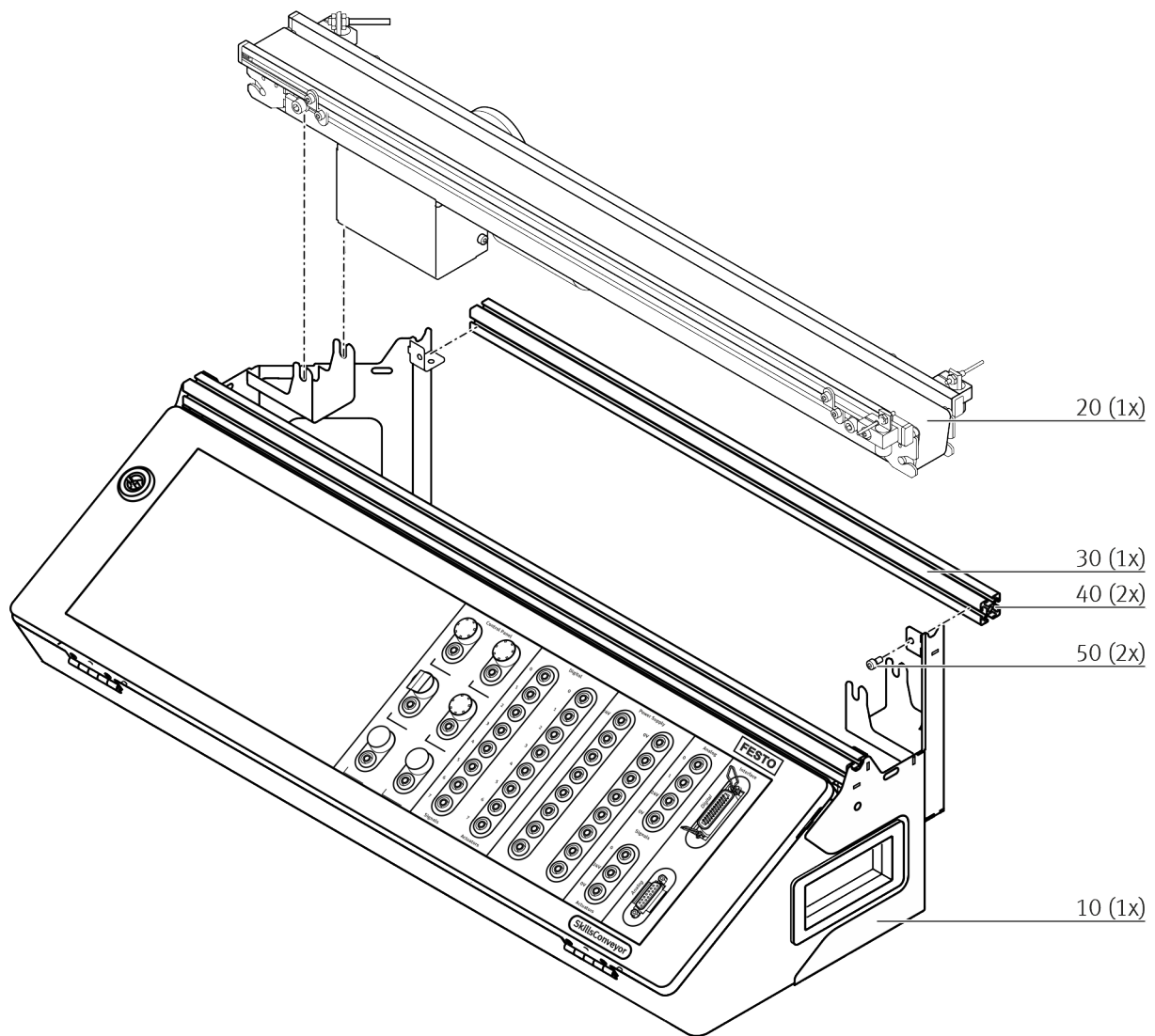


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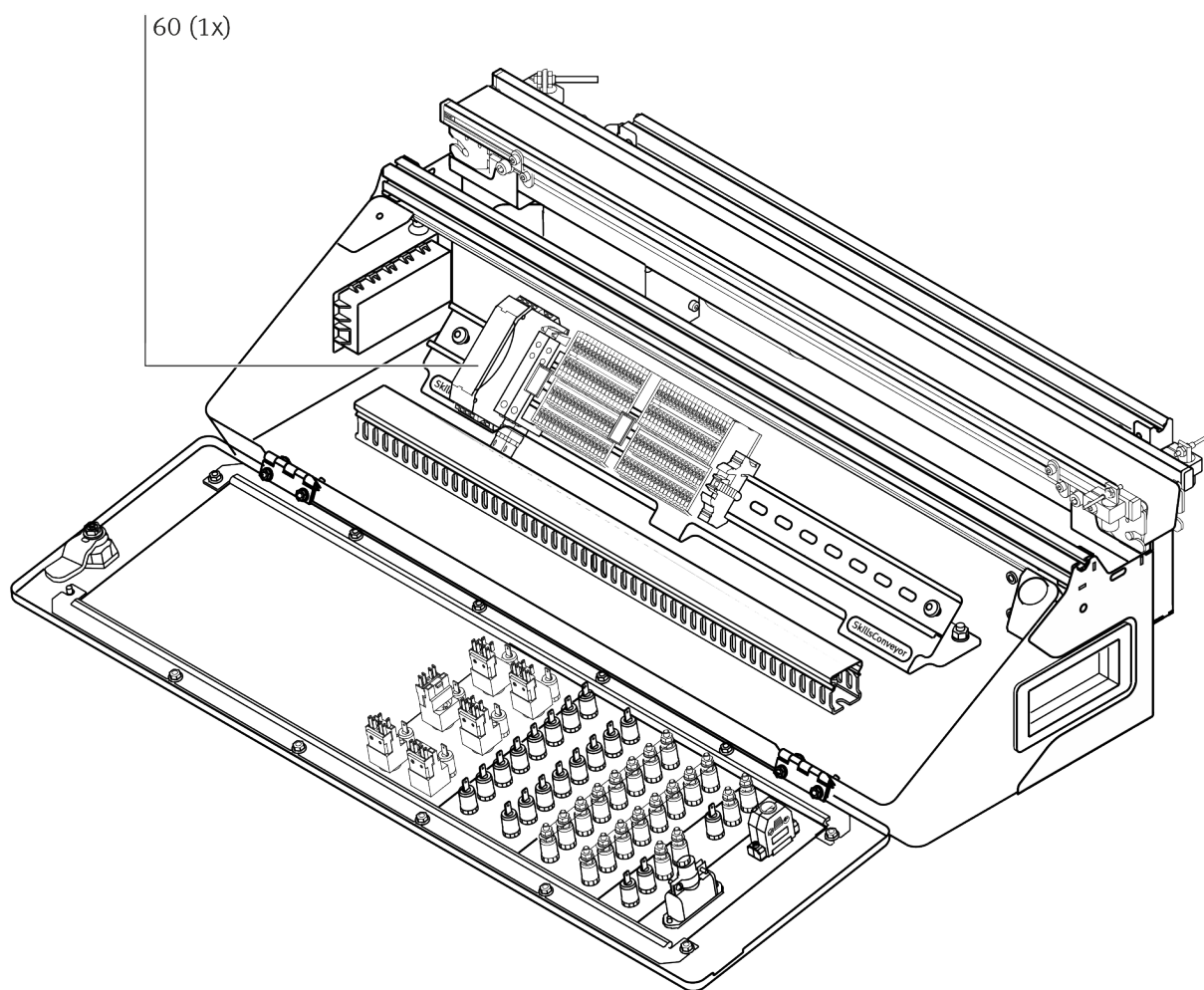


Mounting the conveyor belt on rack



- 10 Framework
- 20 Universal belt
- 30 Profile 20x20
- 40 Slot nut
- 50 Socket head screw

Equipping connection box with electrical components



60 Electrical components

3 Electrical installation

Electrical components are included and must be mounted and wired according to the circuit diagram.

More information on electrical installation:


- 1.** ➤ Mount all electrical components on the DIN rail.
- 2.** ➤ Wire all connections according to the circuit diagram.
- 3.** ➤ Final inspection by qualified electrician.

4 Cleaning

The components and system by Festo Didactic SE are largely maintenance-free.

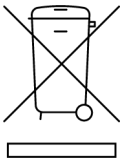
At regular intervals, the following components should be cleaned with a soft, lint-free cloth or brush:

- The lens elements on the optical sensors, the fiber optics and the reflectors.
- The active surface of the proximity switch.
- The entire product.

	<p>NOTICE!</p> <p>Do not use any aggressive or abrasive cleaning agents.</p>
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Protective covers made of plastic must not be cleaned with alcohol-based cleaning agents. There is a risk of embrittlement.

5 Disposal



According to European regulations, used electrical and electronic equipment may no longer be disposed of as unsorted waste. This symbol indicates that separate collection is required. Dispose of electronic waste at designated collection points.

Manufacturer:
Festo Didactic SE
Rechbergstraße 3
73770 Denkendorf
Germany

+49 711 3467-0
www.festo-didactic.com
did@festo.com

UK Importer:
Festo Ltd
Applied Automation Centre
Brackmills
Northampton
NN4 7PY
United Kingdom
+44 1604 66700
www.festo.co.uk