






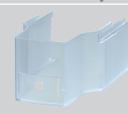
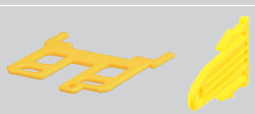
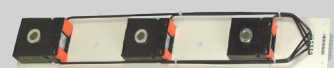


## SUMMARY OF MODELS OF FUSE SWITCH-DISCONNECTORS OF VERTICAL DESIGN

Type	FSD00	FSD1	FSD2	FSD3	SL3
Rated operating current $I_e$	160 A	250 A	400 A	630 A	910 A
Rated operating voltage AC/DC $U_e$	690 V	690 V	690 V	690 V	690 V
Size	00	1	2	3	3
Busbar spacing	100/185 mm	185 mm	185 mm	185 mm	185 mm
Mounting width	50 mm	100 mm	100 mm	100 mm	100 mm
Fuse-link size	000/00	1	2	3	3 (gTr)
Utilization category at AC 400 V	AC-23B	AC-23B	AC-23B	AC-23B	AC-22B

Accessories					
Remote signalling of fuse-link state		–		OD-FSD123-S	–
Remote signalings of cover position		OD-FH-SK		OD-FSD123-SK	–
Connecting sets		CS-FS00-3..		CS-FS123-WD	–
Levers of 3-pole control		OD-FSD00-TL		OD-FSD123-TL	–
Adapters for busbar system with spacing 185 mm		OD-FS00-.A		–	–
Covers with light indication of fuse state		–		OD-FSD12-VS	OD-FSD3-VS
Covers for cable outlet earthing and parallel outlet		–		OD-FSD12-V.	OD-FSD3-V.
Connecting space covers		OD-FS00-KP.		OD-FS123-K..	–
Locking inserts		OD-FH123-VU		OD-FSD123-VU	–
Measuring transformers		FSD00-3..-FC-.M..		MA1.-FS123-..	–

**Description**

**Connecting hooks**

- Busbar thickness  $5 \div 12$  mm.
- Busbar width  $12 \div 32$  mm.



**Adapter for busbar system with spacing 185 mm**

- It enables compensation of mounting depth in combination with FSD1, FSD2, FSD3.



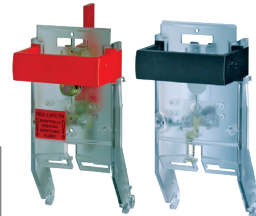
**Adapter for parallel outlet**

- It enables temporary connection of another outlet.



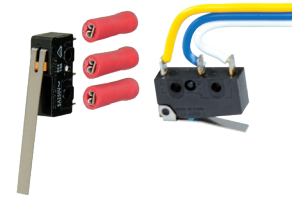
**Covers**

- For cable outlet earthing.
- For fuse adapter for parallel outlet HP-SE/L.
- With light indication of fuse-link state.



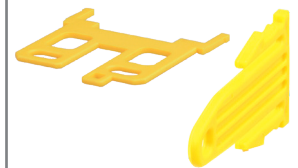
**Remote signalings of cover position**

- It indicates closed state.



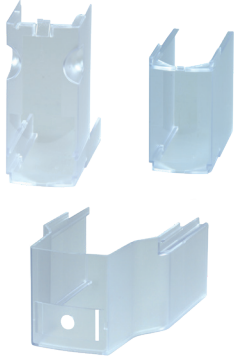
**Locking inserts**

- For locking the switch-disconnector cover.



**Connecting space covers**

- Additional covering of outlet connecting space.



- For compensate mounting height of FSD00-33K with FSD1, FSD2, FSD3.



**Connecting sets**

- Accessory for switch-disconnector FSD00.
- For connection of Cu/Al conductor of cross-section up to  $95 \text{ mm}^2$ .
- Accessory for switch-disconnector FSD123.
- For connection of Cu/Al conductor of cross-section  $2 \times 240 \text{ mm}^2$ .



**Remote signalling of fuse-link state**

- Delivered as set of microswitches, connecting cables and control levers.
- Conductors connected to the connector  $0.5 \div 2.5 \text{ mm}^2$ .



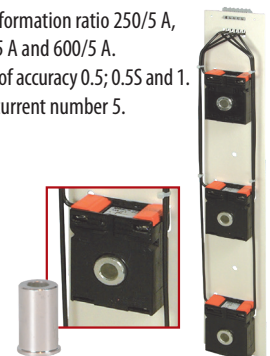
**Levers of 3-pole control**

- Change of the switch-disconnector from 1-pole to 3-pole control.



**Measuring adapters**

- Transformation ratio 250/5 A, 400/5 A and 600/5 A.
- Class of accuracy 0.5; 0.5S and 1.
- Overcurrent number 5.



D

## FUSE SWITCH-DISCONNECTORS OF VERTICAL DESIGN FSD00



FSD00-33K-FC

FSD00-31D-FC

FSD00-33D-FC

OD-FS00-KPD

OD-FH-SK

OD-FH123-VU

CS-FS00-3S

CS-FS00-3P1

CS-FS00-3H

- Fuse switch-disconnectors of vertical design are suitable for using in distribution and industrial LV switchboards with busbar spacing 100 or 185 mm.
- They are intended for fuse-links with blade contacts size 000 and 00.
- Modular design.
- 3-pole or 1-pole control (additionally interchangeable).
- Cable outlet bottom or top.
- Mounting directly on the busbar by means of screws M8/10 Nm.
- Connecting sets for Cu/Al conductors up to 95 mm<sup>2</sup>.
- Devices are intended for uninterrupted operation.

Design:

- ...-F without built-in connecting space cover
- ...-FC with built-in connecting space cover.
- Desing with built-in measuring current transformers:
  - ...-RM1 transformation ratio 100/5 A, power output 2.5 VA, class of accuracy 1.
  - ...-M1 transformation ratio 200/5 A, power output 3.75 VA, class of accuracy 1.
  - ...-M05 transformation ratio 200/5 A, power output 3.75 VA, class of accuracy 0.5.
  - ...-M05C with calibrated measuring transformer, transformation ratio 200/5 A, power output 3.75 VA, class of accuracy 0.5.

### 3-pole control with spacing 100 mm

I <sub>e</sub> [A]	Type	Order code	Weight [kg]	Package [pcs]
160	FSD00-33K-F	OEZ:43472	1.181	1
	FSD00-33K-FC	OEZ:43473	1.212	1
	FSD00-33K-FC-RM1	OEZ:43474	1.612	1
	FSD00-33K-FC-M1	OEZ:43476	1.612	1
	FSD00-33K-FC-M05	OEZ:43475	1.612	1
	FSD00-33K-FC-M05C	OEZ:43477	1.612	1

### 1-pole control with spacing 185 mm

I <sub>e</sub> [A]	Type	Order code	Weight [kg]	Package [pcs]
160	FSD00-31D-F	OEZ:43479	1.582	1
	FSD00-31D-FC	OEZ:43481	1.612	1
	FSD00-31D-FC-RM1	OEZ:43483	2.012	1
	FSD00-31D-FC-M1	OEZ:43487	2.012	1
	FSD00-31D-FC-M05	OEZ:43485	2.012	1
	FSD00-31D-FC-M05C	OEZ:43489	2.012	1


### 3-pole control with spacing 185 mm

I <sub>e</sub> [A]	Type	Order code	Weight [kg]	Package [pcs]
160	FSD00-33D-F	OEZ:43480	1.622	1
	FSD00-33D-FC	OEZ:43482	1.652	1
	FSD00-33D-FC-RM1	OEZ:43484	2.052	1
	FSD00-33D-FC-M1	OEZ:43488	2.052	1
	FSD00-33D-FC-M05	OEZ:43486	2.052	1
	FSD00-33D-FC-M05C	OEZ:43490	2.052	1

### Accessories

Connecting sets	CS-FS00-..	page D8
Connecting hooks	CS-FS00-3H	page D8
Adapters for busbar systems	OD-FS.00-.A	page D8
Locking insert	OD-FH123-VU	page D8
Remote signalling of cover position	OD-FH-SK	page D8
Connecting space cover	OD-FS..	page D9
Levers of 3-pole control	OD-FSD00-TL	page D9
Free place covers	OD-FSD00-KM.	page D9
Interchangeable cover	ND-FSD00-V1	page D9

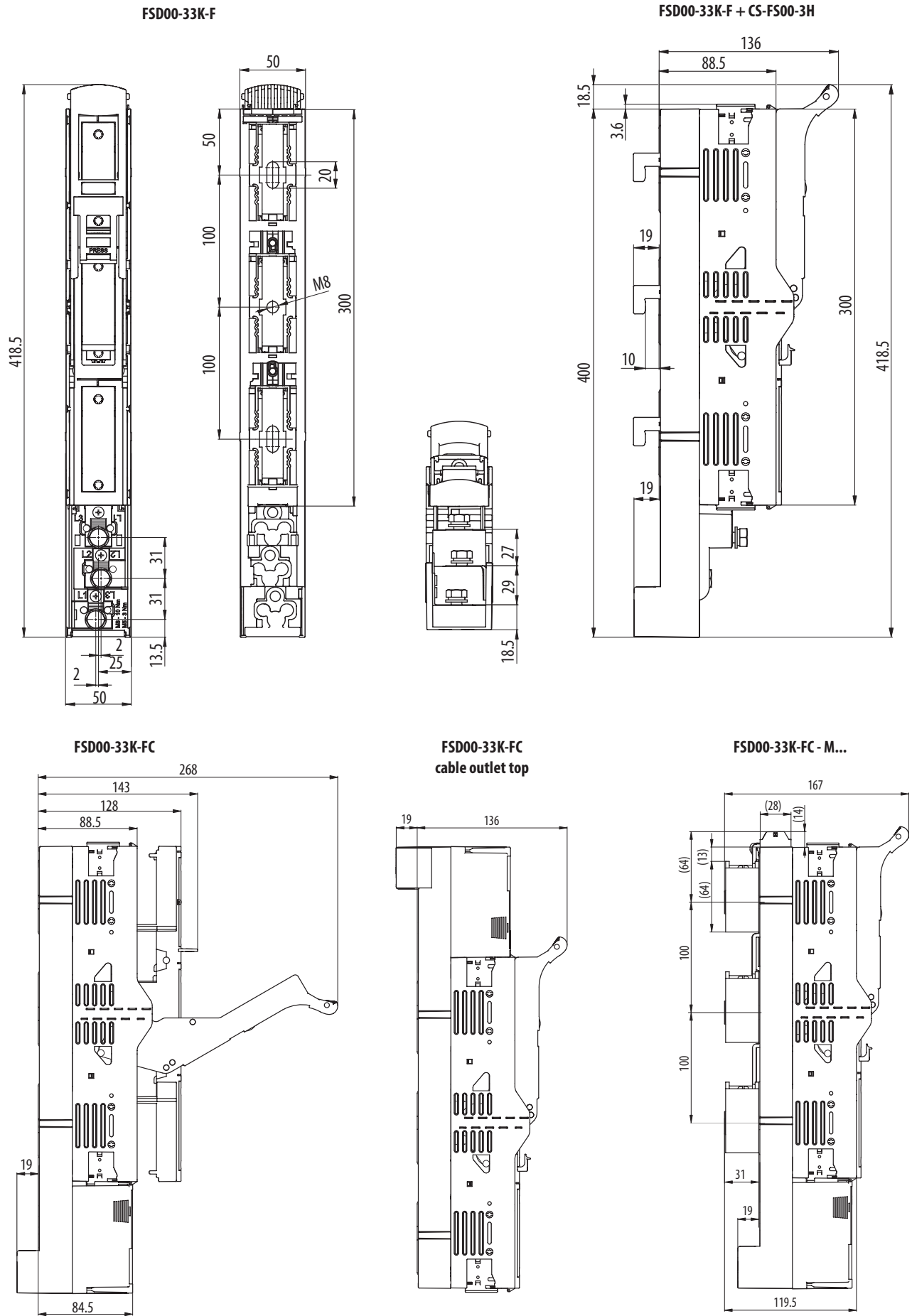
## Specifications

Type		FSD00	
Standards		IEC 60947-1 IEC 60947-3 EN 60947-1 EN 60947-3	
Approval marks			
Rated operating current	$I_e$	160 A	
Rated operating voltage	$U_e$	AC/DC 690 V	
Utilization category	FSD00-33K..	AC 400 V	AC-23B / 100 A
		AC 500 V	AC-22B
		AC 690 V	AC-21B
		DC 250 V	DC-21B
	FSD00-3.D..	AC 400 V	AC-23B
		AC 500 V	AC-22B
		AC 690 V	AC-22B / 100 A
		AC 690 V	AC-21B
	DC 250 V	DC-21B	
Rated thermal current with fuse-link	$I_{th}$	160 A	
Rated thermal current with disconnecting link ZP000	$I_{th}$	240 A	
Rated frequency	$f_n$	40 ÷ 60 Hz	
Rated insulation voltage	$U_i$	AC 1 000 V	
Short-circuit strength with fuse-link gG, AC 400 V		160 A / 120 kA	
Rated conditional short-circuit current with fuse-links PNA (RMS)	$I_{cc}$	AC 400 V / 160 A	120 kA
		AC 500 V / 160 A	50 kA
Rated impulse withstand voltage	$U_{imp}$	8 kV	
Fuse-link size		000 (00C), 00	
Max. power losses of the fuse-link	$P_v$	12 W	
Power losses at $I_e$ without fuse-link	$P_z$	7 W	
Overvoltage category at AC 690 V		III	
<b>Connection</b>			
Connecting screws / cable lugs / busbars		M8 / max. $\varnothing$ 25 mm, max. width 25 mm	
Torque		10 Nm	
<b>Remote signalling</b>			
Max. voltage/current	$U_{max}/I_{max}$	AC 250 V / 5 A	
		DC 250 V / 0.2 A	
<b>Operating conditions</b>			
Electrical endurance	operating cycles	300 at 100 A	
		200 at 160 A	
Mechanical endurance	operating cycles	1 700	
Rated duty		uninterrupted	
Degree of protection from front side, built-in device, cover closed		IP30	
Degree of protection from front side, built-in device, cover opened or removed		IP20	
Operating ambient temperature		-25 ÷ +55 °C	
Working position		see page H3	
Max. sea level		2 000 m	
Pollution degree		3	
Seismic resistance according to VE ŠKODA		8 ÷ 50 Hz / 3 g	

According to standard EN 60947-3 ed. 2/A2, p. C.5. Instructions for the use of 1-pole controlled device states:

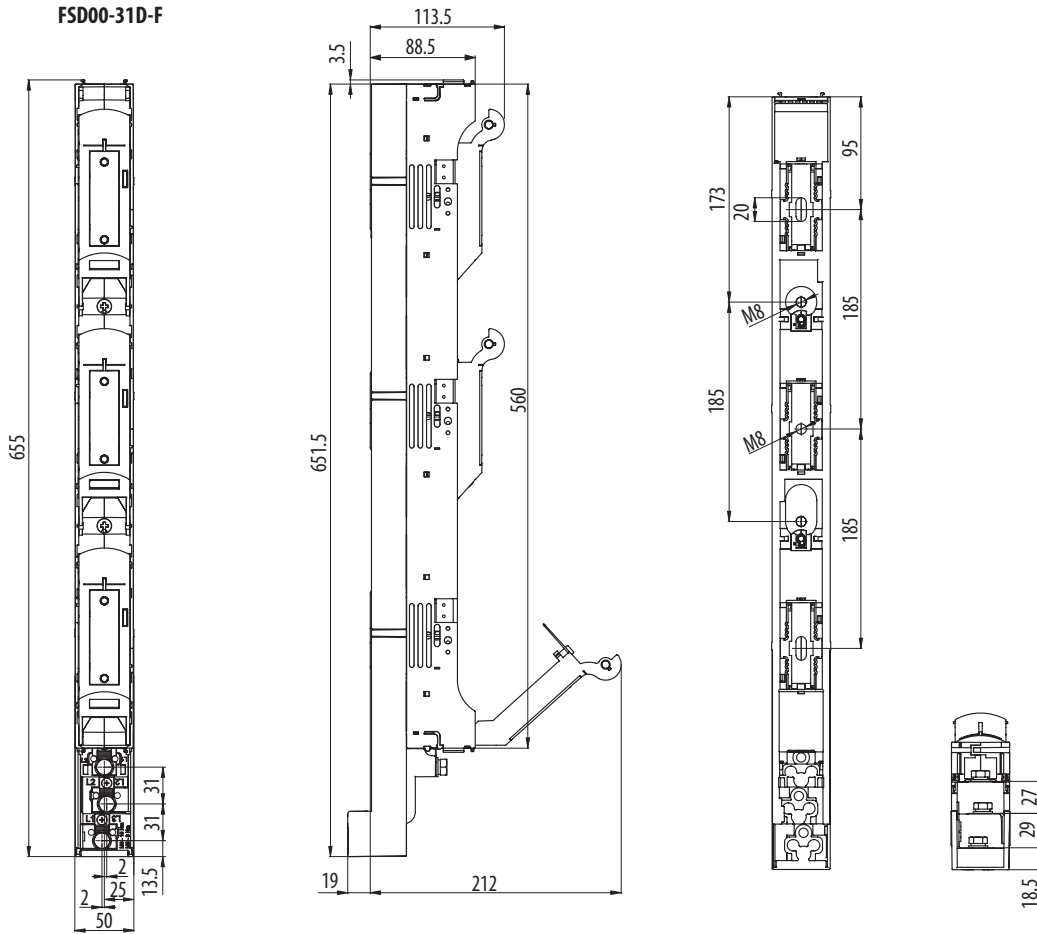
These devices are intended for distribution systems, with possible necessity of switching and/or safe disconnection of individual phases, and should not be used for switching a primary circuit of a three-phase equipment

Dimensions

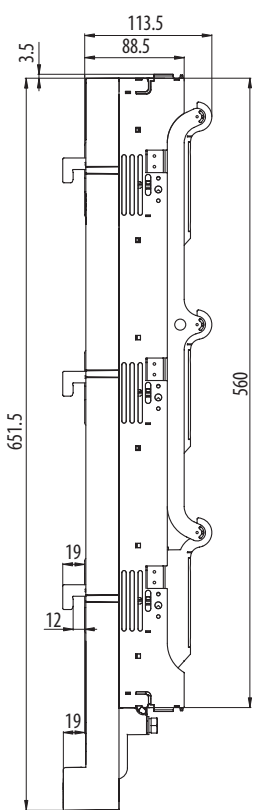


Dimensions

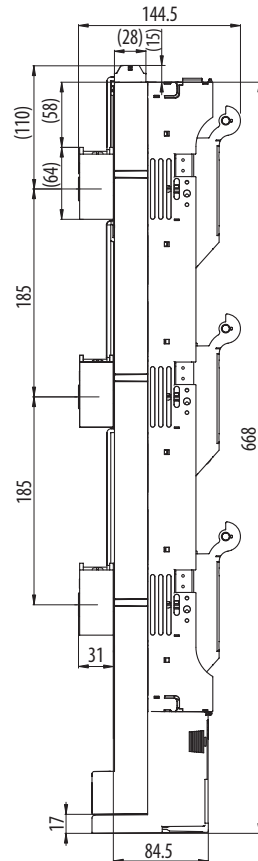
FSD00-31D-F



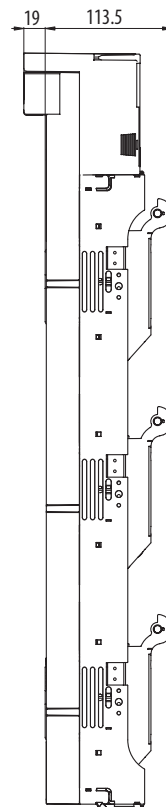
FSD00-33K-F + CS-FS00-3H



FSD00-31D-FC-M...



FSD00-31D-FC  
 cable outlet top



## ACCESSORIES FOR FSD00



CS-FS00-3S

### Connecting set up to 70 mm<sup>2</sup>

- Cross-section of Cu conductor: 2.5 ÷ 70 mm<sup>2</sup>.
- Torque 3 Nm.

Type	Order code	Description	Weight [kg]	Package [pcs]
CS-FS00-3S	OEZ:43425	clip terminal, 3 pcs	0.053	1



CS-FS00-3P1

### Connecting set up to 95 mm<sup>2</sup>

- Cross-section of Cu/Al conductor: 10 ÷ 95 mm<sup>2</sup>.
- Torque 3 Nm.

Type	Order code	Description	Weight [kg]	Package [pcs]
CS-FS00-3P1	OEZ:43423	prismatic clamp, 3 pcs	0.110	1



CS-FS00-3H

### Connecting hooks

- Busbar thickness 5 ÷ 12 mm.
- Busbar width 12 ÷ 32 mm.
- Torque 5 Nm.

Type	Order code	Description	Weight [kg]	Package [pcs]
CS-FS00-3H	OEZ:43421	set of 3 pcs	0.102	1



OD-FSD00-KA

OD-FS00-DA

### Adapters for busbar systems

- Busbar spacing 185 mm.
- For connection of two fuse switch-disconnectors.
- It enables compensation of mounting depth in combination with FSD1, FSD2, FSD3.

Type	Order code	Description	Weight [kg]	Package [pcs]
OD-FSD00-KA	OEZ:43429	for FSD00-33K-..	0.707	1
OD-FS00-DA	OEZ:43428	for FSD00-3.D-..	0.730	1

Technical information see page D10



OD-FH123-VU

### Locking insert

- For locking the switch-disconnector cover.
- Max. diameter of the padlock lifting lug is 4.5 mm.
- The padlock is not a part of delivery.

Type	Order code	Weight [kg]	Package [pcs]
OD-FH123-VU	OEZ:18230	0.006	1



OD-FH-SK

### Remote signalling of cover position

- It indicates closed state.
- Cable length 1 m.
- Possibility of mounting up to 2 microswitches per one switch-disconnector.

Type	Order code	Weight [kg]	Package [pcs]
OD-FH-SK	OEZ:12929	0.031	1

Technical information see page D10



**Connecting space covers**

- Additional covering of outlet connecting space.

Type	Order code	Description	Weight [kg]	Package [pcs]
<b>OD-FSD00-KPK</b>	OEZ:43432	for FSD00-33K-..	0.062	1
<b>OD-FS00-KPD</b>	OEZ:43426	for FSD00-3.D-..	0.077	1

**Extension cover**

- It extends the connecting space cover by 80 mm.
- It is possible to connect more extension covers in series.
- Extension cover is applied on connecting space cover OD- FS00- KP.

Type	Order code	Weight [kg]	Package [pcs]
<b>OD-FS00-DK</b>	OEZ:43427	0.079	1

**Compensation cover**

- It enables compensation of mounting height with FSD1, FSD2 and FSD3.
- Upper and lower set.

Type	Order code	Description	Weight [kg]	Package [pcs]
<b>OD-FSD00-VK</b>	OEZ:43433	for FSD00-33K-..	0.143	1

**Lever of 3-pole control**

- Change of the switch-disconnector from 1-pole to 3-pole control.

Type	Order code	Description	Weight [kg]	Package [pcs]
<b>OD-FSD00-TL</b>	OEZ:43431	for FSD00-31D-.., 2 pcs	0.045	1

**Free place covers**

- They are intended for covering of the switchboard free place between two switch-disconnectors.
- Width 50 mm.
- Delivered with free place cover clips.

Type	Order code	Description	Weight [kg]	Package [pcs]
<b>OD-FSD00-KMK</b>	OEZ:43434	for FSD00-33K-..	0.102	1
<b>OD-FSD00-KMD</b>	OEZ:43435	for FSD00-3.D-..	0.148	1

**Interchangeable cover**

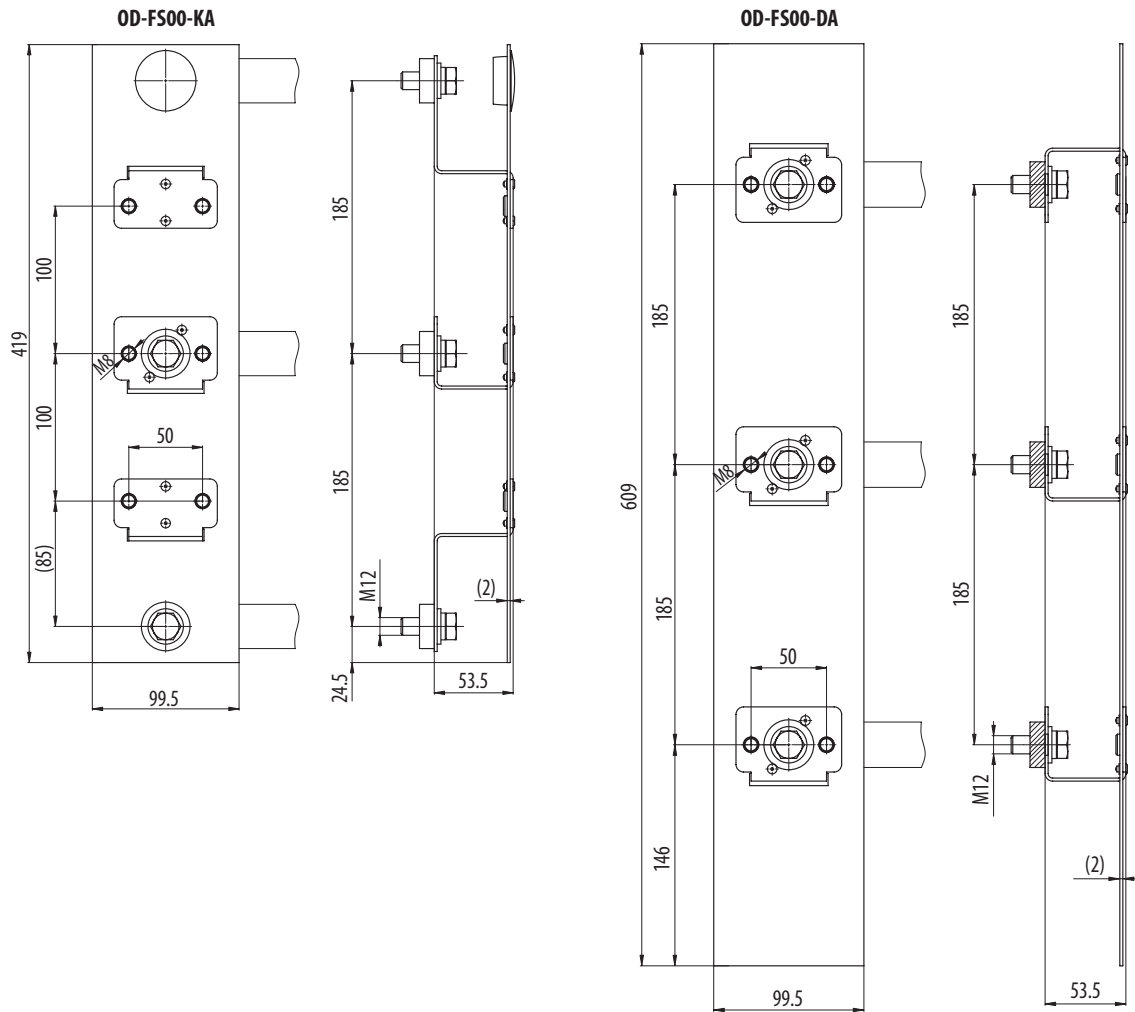
- 1-pole cover.

Type	Order code	Description	Weight [kg]	Package [pcs]
<b>ND-FSD00-V1</b>	OEZ:43436	for FSD00-3.D-..	0.048	1

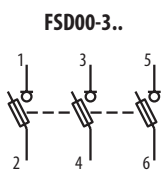




Dimensions



Diagram



Remote signalling of the fuse switch-disconnector cover position

Contact state with open cover:  
contacts C - NC closed

