SUMMARY OF MODELS

						
Type	**FH000**	**FH00**	**FH1**	**FH2**	**FH3**	**LTL4a**
Rated operating current I_e	160 A	160 A	250 A	400 A	630 A	1 600 A
Rated operating voltage AC/DC U_e	690 V	690 V	690 V	690 V	690 V	690 V
Size	000	00	1	2	3	4a
Fuse-link size	000	000/00	1	2	3	4a
Utilization category at AC 400 V	AC-23B	AC-23B	AC-23B	AC-23B	AC-23B	AC-22B

Accessories						
Remote signallings of cover position 	OD-FH-SK					EMV-LTL4a
Connecting sets 	CS-FH000-... , N3x10-FH000	CS-FH00-...	CS-FH12-..., CS-FH123-...	CS-FH12-..., CS-FH2-..., CS -FH123-...	CS-FH3-..., CS-FH123-...	-
Interconnecting busbars 	CS-FH000-3L.	CS-FH000-3L.	-	-	-	-
Adapters for busbar systems with spacing 60mm 	OD-FH000-AL60	OD-FH00-AL60	OD-FH1-AL60	OD-FH2-AL60	OD-FH3-AL60	-
Assembly kits for 2-pole, 4-pole 	OD-FH000-SS24	OD-FH00-SS24	OD-FH123-SS24			-
Connecting space covers 	OD-FH000-KPA	OD-FH00-KP.	OD-FH1-KP.	OD-FH2-KP.	OD-FH3-KP.	-
Barriers 	OD-FH000-Z.	OD-FH00-Z3	OD-FH1-Z3	OD-FH2-Z3	OD-FH3-Z3	-
Locking inserts 	OD-FH000-VU	-	OD-FH123-VU			-
Front shields 	OD-FH000-KR	OD-FH00-KR	OD-FH1-KR	OD-FH2-KR	OD-FH3-KR	-

SUMMARY OF MODELS

Description

Connecting sets

- **Accessory for disconnector FH000**
- For connection of CU/AL conductor of cross-section up to 95 mm^2.



- For connection of 3 Cu conductors/pole of cross-section 10 mm^2.



- **Accessory for switch-disconnector FH00**
- For connection of Cu/Al conductor of cross-section up to 95 mm^2.

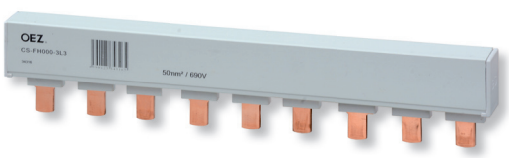


- **Accessory for switch-disconnector FH1, FH2 and FH3**
- For connection of Cu/Al conductor of cross--section up to 150 mm^2 for FH1 and FH2, up to 300 mm^2 for FH3.



Interconnecting busbar

- Accessory for switch-disconnector FH000 and FH00.
- For connection from 2 up to 5 pcs. 3-pole switch--disconnectors.



Barrier against accident contact

- To increase the safety of personnel in handling switch--disconnector.



Connecting space covers

- For additional covering of connecting space.





Remote signalling of fuse-link state

- Enables remote signalling of fuse-link in fuse switch--disconnector.

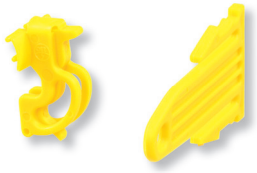
Front shield

- Additional covering of free space around the fuse switch--disconnector.



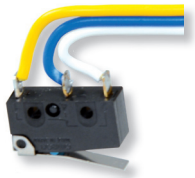
Locking insert

- For locking the switch-disconnector cover.



Remote signalling of cover position

- Indicates closed state.
- Cable length 1 m.



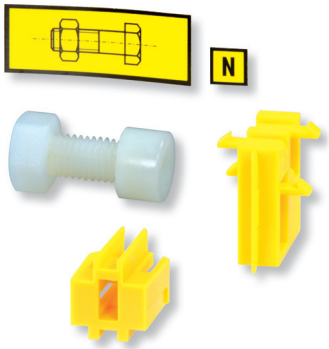
Adapter for busbar system with spacing 60 mm

- Busbar spacing 60 mm.
- Busbar thickness 5 ÷ 12 mm.
- Busbar width 12 ÷ 32 mm.
- Cable outlet bottom or top.



Assembly kit

- For assembling 2-pole or 4-pole.

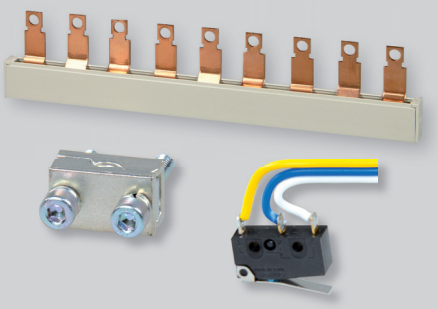


FUSE SWITCH-DISCONNECTORS FH00









- Fuse switch-disconnectors are intended for fuse-links with blade contacts size 00.
- Enable safe disconnection not only of rated current, but also overcurrent up to octuple rated current.
- Variability of connecting sets.
- Measuring holes in the cover.
- It is possible to lock the switch-disconnector cover.
- It is equipped with a label for description of the protected circuit
- Mounting directly on the panel by means of screws.
- Adapter for busbar system with spacing 60 mm, busbar thickness 5 ÷ 12 mm, busbar width 12 ÷ 32 mm for 3-pole.
- Terminals can be completed with terminal extensions for connection of conductors of cross-section up to 95 mm^2.
- More switch-disconnectors side-by-side or flat can be installed without limitation of electrical parameters.
- Connection Bottom connection is possible without limitation of electric parameters (the device should be marked „ATTENTION, BOTTOM CONNECTION“).

Fuse switch-disconnectors

I_n [A]	Number of poles	Type	Order code	Weight [kg]	Package [pcs]
160	1	**FH00-1A/F**	OEZ:18621	0.270	1
	3	**FH00-3A/F**	OEZ:18622	0.784	1

Fuse switch-disconnectors with remote signalling

- Includes a connector with a 1 m cable.

I_n [A]	Number of poles	Type	Order code	Weight [kg]	Package [pcs]
160	1	**FH00-1S/F**	OEZ:18623	0.287	1
	3	**FH00-3S/F**	OEZ:18624	0.712	1
	3	**FH00-3SB/F** *	OEZ:18625	0.825	1

* Connector without cable

Fuse switch-disconnectors with light indication

- By means of LED in each pole separately.
- The red LED is flashing in case of fuse-link blowing.

I_n [A]	Number of poles	Type	Order code	Weight [kg]	Package [pcs]
160	3	**FH00-3L/F**	OEZ:20767	0.790	1

Accessories

Interconnecting busbars	**CS-FH00-3L.**	page C16
Connecting sets	**CS-FH00-..**	page C16
Adapter for busbar system	**OD-FH00-AL60**	page C18
Assembly kit	**OD-FH00-SS24**	page C18
Remote signalling of cover position	**OD-FH-SK**	page C18
Connecting space covers	**OD-FH00-KP.**	page C18
Front shield	**OD-FH00-KR**	page C18
Barrier	**OD-FH00-Z3**	page C18
Spare parts	**ND-FH00-..**	page C19

FUSE SWITCH-DISCONNECTORS FH00

Specifications

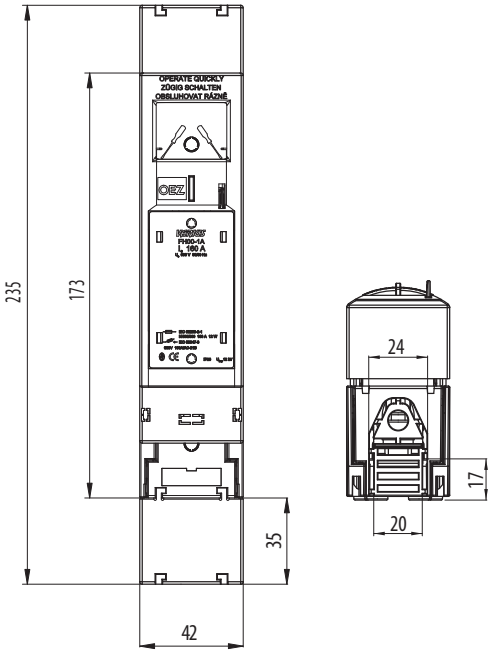
Type				FH00
Standards				IEC 60947-1 IEC 60947-3 EN 60947-1 EN 60947-3
Approval marks				
Rated operating current		I_e		160 A
Rated operating voltage		U_e		AC/DC 690 V (AC/DC 400 V / FH00-3L/.)
Utilization category [1]	FH00-1./.		AC 230 V	AC-23B
			DC 250 V	DC-21B
	FH00-3./.		AC 400 V	AC-23B
			AC 500 V	AC-22B
			AC 690 V	AC-22B / 100 A
			AC 690 V	AC-21B
		two-pole connection	DC 250 V	DC-21B
Rated thermal current with fuse-link		I_{th}		160 A
Rated thermal current with disconnecting link ZP000		I_{th}		250 A
Rated frequency		f_n		40 ÷ 60 Hz
Rated insulation voltage		U_i		AC 1000 V
Rated conditional short-circuit current (RMS)		I_{cc}	AC 400 V / 160 A	120 kA
			AC 500 V / 160 A	50 kA
			AC 690 V / 160 A	50 kA
Rated impulse withstand voltage		U_{imp}		12 kV / FH00-.A/.
				8 kV / FH00-.S/.
				12 kV / FH00-3L/.
Rated short-time withstand current		I_{cw}	1 s	5 kA
Fuse-link size				000, 00
Max. power losses of the fuse-link		P_v		12 W
Power losses at I_n without fuse-link		P_z		7 W
Overvoltage category for AC 690 V				IV
Connection				
Connecting screw				M8
Torque				10 Nm
Remote signalling				
Max. voltage/current		U_{max}/I_{max}		AC 250 V / 5 A
				DC 250 V / 0.2 A
Light indication				
Rated voltage		U_n		AC 24 ÷ 400 V
				DC 24 ÷ 450 V
Fuse-link is blown				red LED is blinking
Operating conditions				
Electrical endurance		operating cycles		300 at 100 A
				200 at 160 A
Mechanical endurance		operating cycles		2 000
Degree of protection from front side, built-in device, cover closed				IP20
Degree of protection from front side, built-in device, cover opened or removed				IP20
Operating ambient temperature				-25 ÷ +55 °C
Working position				arbitrary
Max. sea level				2 000 m
Pollution degree				3
Seismic resistance according to VE ŠKODA				0.25 ÷ 50 Hz / 3 g

[1] In case of use disconnecting links ZP000 in the switch-disconnector, the utilization category is decreased by one degree

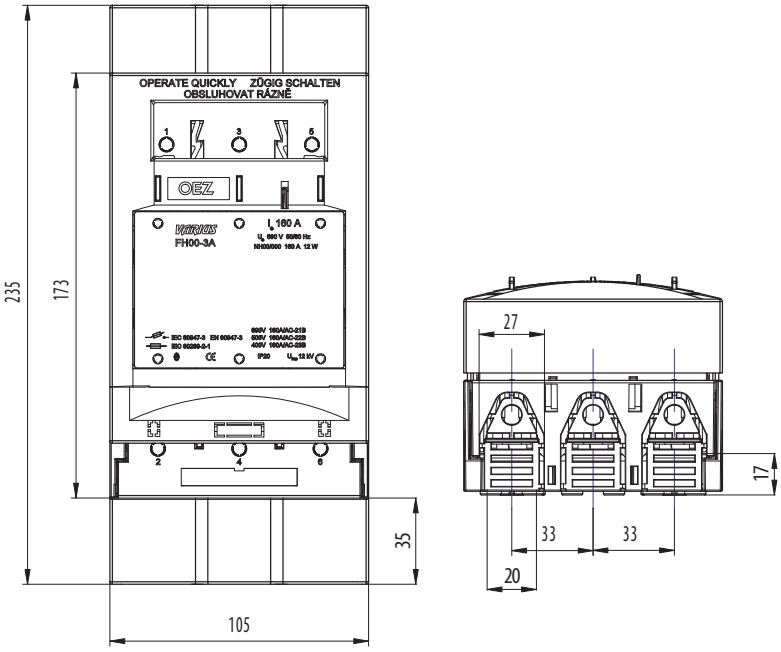
FUSE SWITCH-DISCONNECTORS FH00

Dimensions

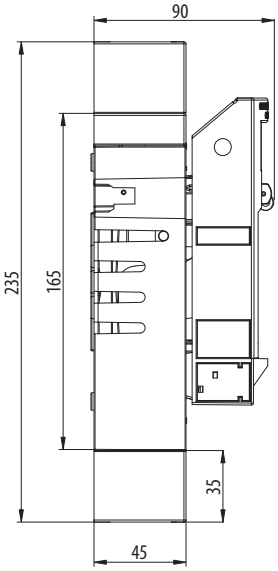
FH00-1A/F

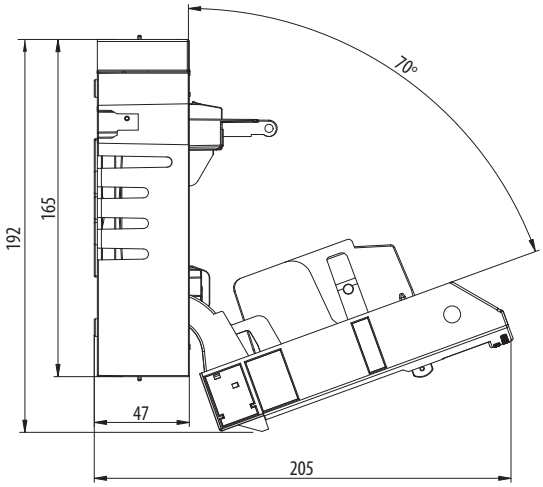


FH00-3A/F and FH00-3L/F

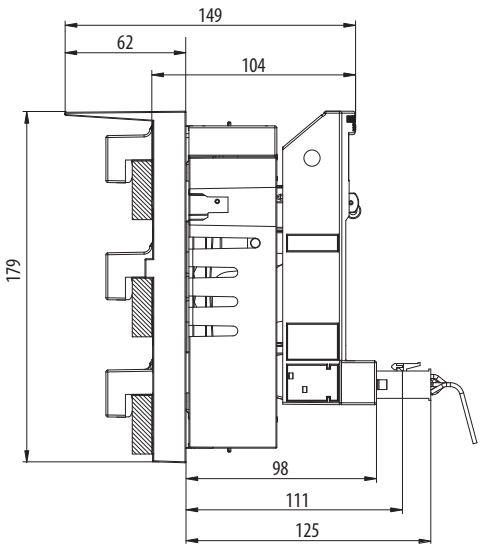


FH00-1A/F, FH00-3A/F and FH00-3L/F

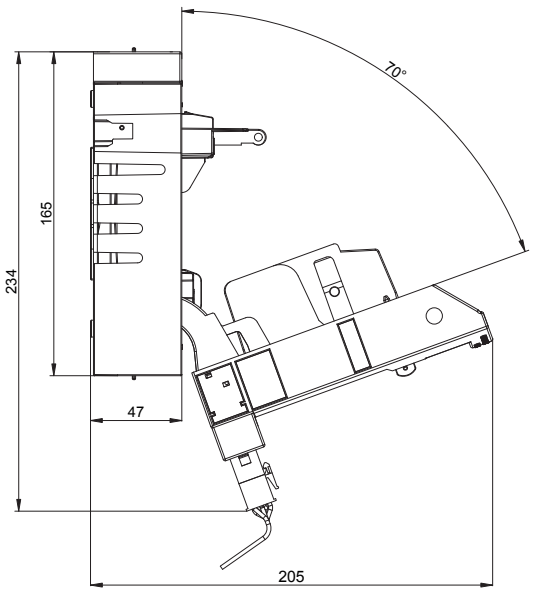




FH00-3... + OD-FH00-AL60



FH00-3S/F and FH00-1S/F

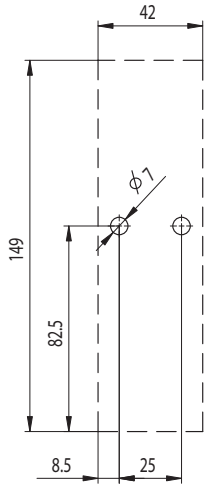


FUSE SWITCH-DISCONNECTORS FH00

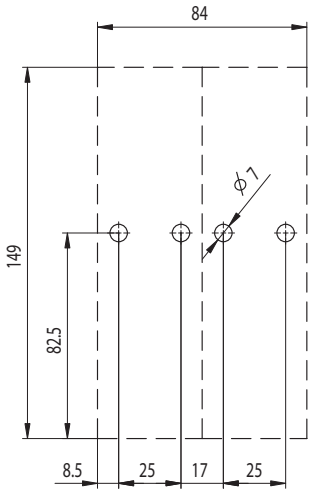
Dimensions

Clearance and drilling diagrams

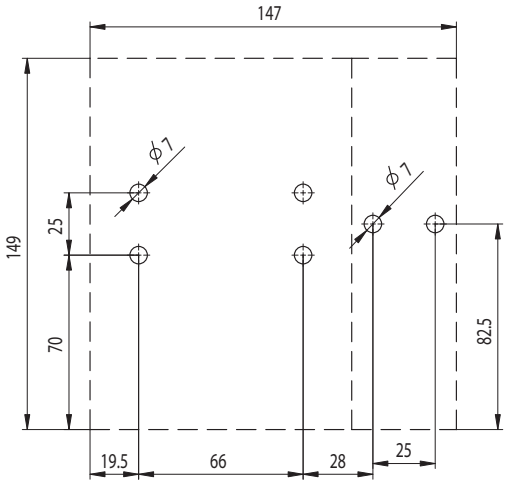
1-pole



2-pole



3-pole, 4-pole

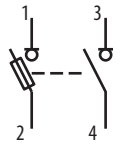


Diagram

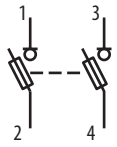
FH00-1..



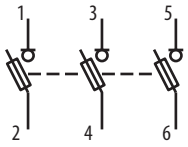
2x FH00-1..



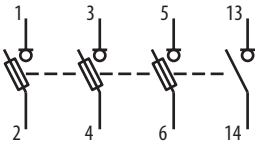
2x FH00-1..



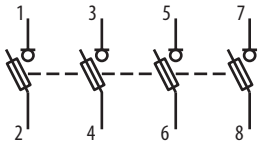
FH00-3..



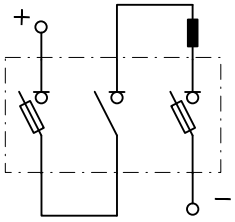
FH00-1.. + FH00-3..



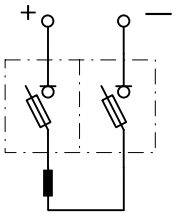
FH00-1.. + FH00-3..



2-pole connection of 3-pole fuse switch-disconnector for DC application, see Utilization category

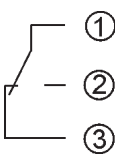


1-pole connection of two 1-pole fuse switch-disconnectors for DC applications, see Utilization category



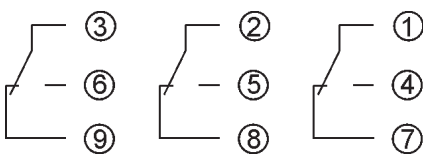
Remote signalling of fuse state in 1-pole fuse switch-disconnector

State of contacts with not blown fuse:
contacts 1 – 3 closed



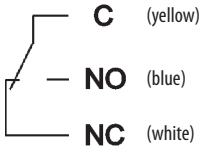
Remote signalling of fuse state in 3-pole fuse switch-disconnector

State of contacts with not blown fuse:
contacts 1 – 7, 2 – 8, 3 - 9 closed

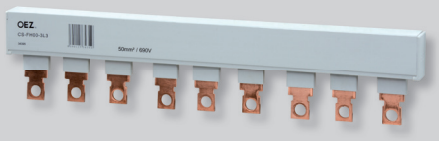


Remote signalling of cover position of 1-pole and 3-pole switch-disconnectors

State of contacts with open cover:
contacts C – NC closed



ACCESSORIES FOR FH00



Interconnecting busbars

- For connection from 2 up to 5 three-pole switch-disconnectors.
- Cross-section of busbar 50 mm².
- Spacing of outlets 33 mm.
- The busbar is made covered.

Number of poles	Number of outlets	Type	Order code	Weight [kg]	Package [pcs]
2	2x3	**CS-FH00-3L2**	OEZ:34394	0.91	5
3	3x3	**CS-FH00-3L3**	OEZ:34395	1.61	5
4	4x3	**CS-FH00-3L4**	OEZ:34396	2.31	5
5	5x3	**CS-FH00-3L5**	OEZ:34397	3.01	5



Terminal extensions up to 70 mm²

- Clip terminals for connection of Cu/Al conductor.
- Cross-section of Cu/Al conductor 2.5 ÷ 70 mm².
- Torque 3 Nm.

Type	Order code	Description	Weight [kg]	Package [pcs]
CS-FH00-1S	OEZ:18626	package contains set of 1 pcs	0.018	1
CS-FH00-3S	OEZ:18627	package contains set of 3 pcs	0.054	1



Terminal extensions up to 95 mm²

- Prismatic clamps for connection of Cu/Al conductor.
- Cross-section of Cu/Al conductor 10 ÷ 95 mm².
- Torque 2.5 Nm.

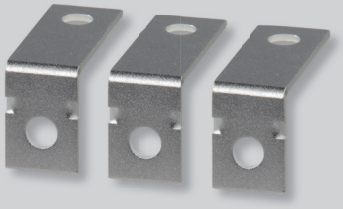
Type	Order code	Description	Weight [kg]	Package [pcs]
CS-FH00-1P1	OEZ:18628	package contains set of 1 pcs	0.045	1
CS-FH00-3P1	OEZ:18629	package contains set of 3 pcs	0.132	1



Terminal extension for connection of cable lugs outside the connection space

- Accessory for switch-disconnector FH00-3./F.
- It is recommended to use the connection space covers.
- Torque 2.5 ÷ 3 Nm.

Type	Order code	Description	Weight [kg]	Package [pcs]
CS-FH00-3N	OEZ:20764	package contains set of 3 pcs	0.051	1



Terminals for rear connection

- Accessory for switch-disconnector FH00-3./F.
- Torque 2.5 ÷ 3 Nm.

Type	Order code	Description	Weight [kg]	Package [pcs]
CS-FH00-3Z	OEZ:20765	package contains set of 3 pcs	0.077	1

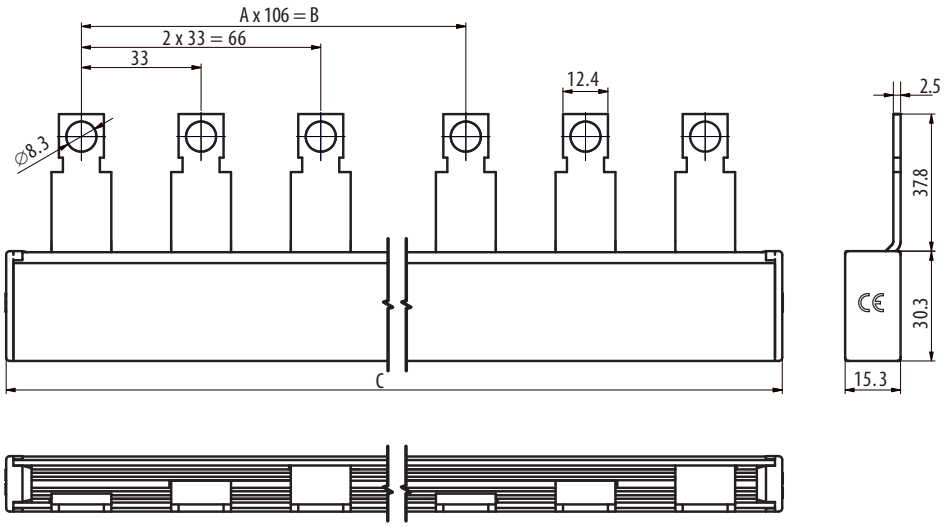
ACCESSORIES FOR FH00

Specifications

Type		CS-FH00-3L.
Rated operating voltage	U_e	AC/DC 690 V
Loading current		160 A
Max. busbar current 160 A		CS-FH00-3L4, CS-FH00-3L5
Max. busbar current 250 A		CS-FH00-3L2, CS-FH00-3L3
Cross-section of busbar		50 mm²
Power supply by a conductor in terminal extension with long terminal, connection cross-section max. Cu/Al		120 mm²
Recommended value of max current can not be exceeded in no place of interconnecting busbar		

Dimensions

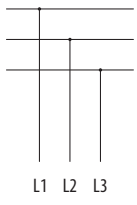
CS-FH00-3L.



Type	Dimensions		
	A [number]	B [mm]	C [mm]
CS-FH00-3L2	1	106	212
CS-FH00-3L3	2	212	318
CS-FH00-3L4	3	318	424
CS-FH00-3L5	4	424	530

Diagram

CS-FH000-3L.



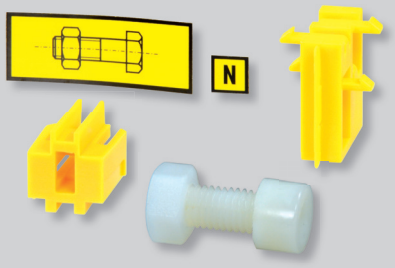
ACCESSORIES FOR FH00



Adapter for busbar system

- Busbar spacing 60 mm.
- Busbar thickness 5 ÷ 12 mm.
- Busbar width 12 ÷ 32 mm.
- Mounting width 150 mm.
- Cable outlet bottom or top.

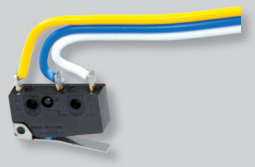
Type	Order code	Weight [kg]	Package [pcs]
OD-FH00-AL60	OEZ:18630	0.513	1



Assembly kit

- For assembling 2-pole or 4-pole.
- 2-pole unit is assembled by means of two FH00-1...
- 4-pole unit is assembled by means of one FH00-1... and one FH00-3...

Type	Order code	Weight [kg]	Package [pcs]
OD-FH00-SS24	OEZ:18631	0.007	1

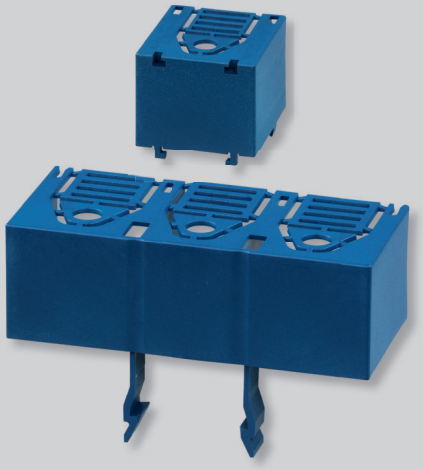


Remote signalling of cover position

- 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

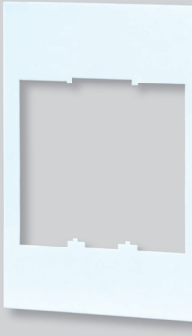
Technical information see page C15



Connecting space covers for adapter

- Identical for both upper and lower space.
- For additional covering of connecting space.

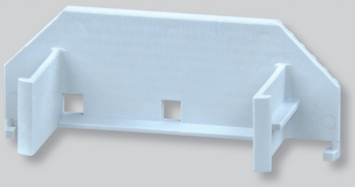
Type	Order code	Description	Weight [kg]	Package [pcs]
OD-FH00-KP1	OEZ:18632	pro 1-pole design	0.013	1
OD-FH00-KP3	OEZ:18633	pro 3-pole design	0.070	1



Front shield

- Additional covering of free space around the fuse switch-disconnector.

Type	Order code	Weight [kg]	Package [pcs]
OD-FH00-KR	OEZ:18635	0.026	1



Barrier against accident contact

- Increases the safety of personnel in handling fuse-links.

Type	Order code	Weight [kg]	Package [pcs]
OD-FH00-Z3	OEZ:18634	0.016	1

ACCESSORIES FOR FH00



Spare parts

Description	Type	Order code	Weight [kg]	Package [pcs]
Cover without signalling of fuse state, 1-pole, size 00	**ND-FH00-V1**	OEZ:33722	0.083	1
Cover without signalling of fuse state, 3-pole, size 00	**ND-FH00-V3**	OEZ:33721	0.230	1
Cover with signalling of fuse state, 1-pole, includes a cable with connector	**ND-FH00-VS1**	OEZ:18680	0.100	1
Cover with signalling of fuse state, 3-pole, includes a cable with connector	**ND-FH00-VS3**	OEZ:18681	0.238	1
Cover with light indication of fuse state, 3-pole	**ND-FH00-VL3**	OEZ:33510	0.279	1
Connector for 1-pole switch-disconnector with remote signalling of fuse state, without cable, with 3 pins	**ND-FH-SZ10**	OEZ:33519	0.028	1
Connector for 1-pole switch-disconnector with remote signalling of fuse state, with 3-core cable	**ND-FH-SZ13**	OEZ:33520	0.045	1
Connector for 3-pole switch-disconnector with remote signalling of fuse state, without cable, with 9 pins	**ND-FH-SZ30**	OEZ:33521	0.038	1
Connector for 3-pole switch-disconnector with remote signalling of fuse state, with 9-core cable	**ND-FH-SZ39**	OEZ:33522	0.055	1