

Fuse-switch disconnecter EFD

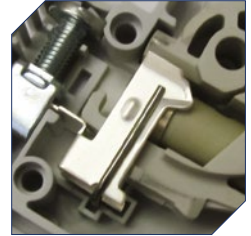
Modular design – it is possible to assemble multi-pole versions at the building site for EFD 8, EFD 10, EFD 14 and EFD 22



All plastic parts are made of material resistant to extremely high temperatures. Fuse carrier assures that a fuse link is not in touch with a housing



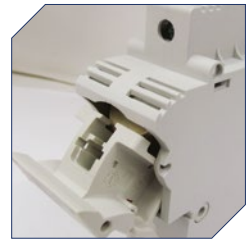
All contact surfaces are silver plated



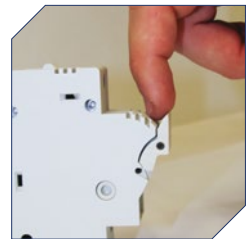
For all sizes a version with electronic indicator is available. L (LED) with built-in LED diode which blinks after the fuse-link operates. The indicator is capable of operating in conditions of open circuit with minimum capacitance between connection cables. Operating voltage range from 50V to 690V.



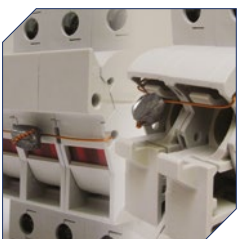
Complete protection against touch according to IP20
Changing of a fuse-link without danger of direct touch of parts under voltage



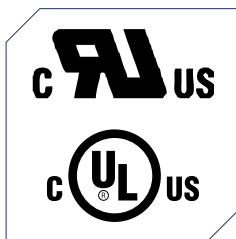
More space for finger to open fuse carrier



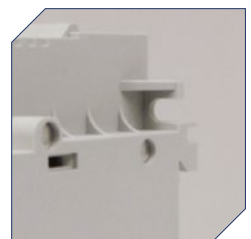
Possibility of sealing in ON or OFF positions



Compliance with IEC 60947-1, IEC 60947-3, UL 4248-1, UL 4248-4, UL 4248-8 and UL 486E



Mounting on standard DIN 35 mm rail (DIN EN60715). The sizes 22x58 can be also fixed with screws on a flat base



Technical data EFD

	EFD 8		EFD 10		EFD CC		EFD 14		EFD 22		EFD J30	
Fuse type	CH 8x32		CH 10x38		Class CC		CH 14x51		CH 22x58		Class J, size J30	
	IEC	IEC	UL	UL	IEC	UL	IEC	UL	IEC	UL	UL	
Versions	Without indicator/LED indicator				Without indicator / LED indicator							
Number of poles	1p, 1p+N, 2p, 3p, 3p+N		1p, 2p, 3p		1p, 1p+N, 2p, 3p, 3p+N		1p, 2p, 3p	1p, 1p+N, 2p, 3p, 3p+N		1p, 2p, 3p		
Rated operational voltage U _e	400V a.c.	690V a.c.	600V a.c./d.c.	600V a.c./d.c.	690V a.c.	600V a.c./d.c.	690V a.c.	600V a.c./d.c.	690V a.c.	600V a.c./d.c.	600V a.c./d.c.	
Rated operational current I _e	20A	32A	30A	30A	50A	50A	100A	100A	100A	100A	30A	
Maximum rated current of fuselinks	690V	10A gG			25A gG 25A aM		50A gG 50A aM		50A gG 50A aM			
	500V		25A gG 16A aM		50A gG		100A gG					
	400V	20A gG 10A aM	32A gG		50A aM		100A aM					
Rated frequency	50Hz	50Hz	60Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	60Hz	
Rated short-time withstand current I _{cw}	240A	300A/1s			600A/1s		1200A/1s					
Conventional free air thermal current I _{th}					50A		100A					
Rated conditional short-circuit current	50kA	100kA/400V	100kA	200kA	gG: 120kA/500V (50A gG) aM: 50kA/400V (50A aM)	100kA	gG: 120kA/500V (100A gG) aM: 50kA/400V (100A aM)	100kA	200kA			
Rated insulation voltage U _i	400V	690V			690V		690V					
Rated imp. withstand voltage U _{imp}	8kV	8kV			8kV		8kV					
Overvoltage category (according to Table H.1 in IEC 60947-1 and according to IEC 60099-1)	III	III			III		III					
Max power dissipation of the fuse-link (W)	gG: 2,5W aM: 0,9W	gG: 3W aM: 1,2W		3W	gG: 5W aM: 3W		gG: 9,5W aM: 7W				6W	
LED indicator operating range	50V-690V a.c.		50V - 600V a.c. 80V - 600V d.c.		50V-690V a.c.		50V - 600V a.c. 80V - 600V d.c.	50V-690V a.c.		50V - 600V a.c. 80V - 600V d.c.		
NEON indicator operating range	100V-750V a.c.	100V-750V a.c.										
Utilization category	AC-22B	AC-22B	Do not operate under load		AC-22B at 690V/50A	Do not operate under load	AC-21B at 690V/100A	Do not operate under load				
Operational performance (cycles with current)	300	300			300		300					
Operational performance (cycles without current)	1700	1700			1700		1700					
Humidity	90% at 20°C				90% at 20°C		90% at 20°C					
Operating ambient temperature	-5°C ... +40°C				-5°C ... +40°C		-5°C ... +40°C					
Store ambient temperature	-25°C ... +55°C				-25°C ... +55°C		-25°C ... +55°C					
Degree of protection (IEC 60529)	IP 20	IP 20			IP 20		IP 20					
Terminal capacity	1-25mm ²	1-25mm ²	AWG 18-8 solid&stranded Cu only		1,5-35mm ² rigid or flexible	AWG 16-6 solid&stranded Cu only	4-50mm ² rigid or flexible	AWG 12-2 solid&stranded Cu only				
Screw	PZ M5	PZ M5	PZ M5	PZ M5	PZ M5	PZ M5	PZ M6	PZ M6	PZ M6	PZ M6	PZ M6	
Torque	2Nm	2Nm	2Nm; 17,7 lb-in		2,5-3Nm	2Nm; 17,7 lb-in	3Nm	3Nm; 26,6 lb-in				
Mounting on EN 60715 rail	35mm rail											
Sealing possibility	ON and OFF											
Standards - fuse links	IEC/EN 60269-2	IEC/EN 60269-2	IEC/EN 60269-2	UL 248-4 IEC/EN 60269-2	IEC/EN 60269-2	IEC/EN 60269-2	IEC/EN 60269-2	IEC/EN 60269-2	IEC/EN 60269-2	IEC/EN 60269-2	UL 248-8 IEC/EN 60269-2	
Standards - Fuse-switch disconnectors/fuse holders	IEC 60947-1 IEC 60947-3		UL 4248-1 UL 4248-4 UL 486E		IEC 60947-1 IEC 60947-3	UL 4248-1 UL 486E	IEC 60947-1 IEC 60947-3	UL 4248-1 UL 486E				UL 4248-1 UL 4248-8 UL 486E
Test reports	CCA/CB	CCA/CB	UL	UL	CCA/CB	UL	CCA/CB	UL	UL	UL	UL	
Certificates			UR _{US}	UL _{US}		UR _{US}		UR _{US}		UL _{US}	UL _{US}	

C / Fuse-switch disconnectors for cylindrical fuse-links

Technical data EFD

Fuse type		EFD 8	EFD 10		EFD CC		EFD 14		EFD 22		EFD J30
		CH 8x32	CH 10x38		Class CC		CH 14x51		CH 22x58		Class J, size J30
		IEC	IEC	UL	UL	IEC	UL	IEC	UL	UL	
Derating factor of current I_n for different ambient temperatures	20°										
	30°										
	40°										
	50°										
	60°										
	70°										
Derating factor of current I_n for side by side mounting fuse holders (nr. of poles)	1-4										
	5-6										
	7-9										
	≥10										

Fuse-switch disconnecter EFD 8

Rated current
max. 20 A

Rated operational voltage
400 V

Utilization category
AC 22B

For fuse-links size
8x32

1-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
400	20	002520001	-		63	12/108
		002520011	L-LED		64	
		002520301	-	✓	68	
		002520311	L-LED	✓	69	

1-pole + N

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
400	20	002520002	-		128	6/54
		002520012	L-LED		129	
		002520302	-	✓	138	
		002520312	L-LED	✓	139	
		*002520007	-		128	
		*002520017	L-LED		129	
		*002520307	-	✓	138	
		*002520317	L-LED	✓	139	

*N pole on left "French version"

2-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
400	20	002520003	-		123	6/54
		002520013	L-LED		125	
		002520303	-	✓	134	
		002520313	L-LED	✓	135	



C / Fuse-switch disconnectors for cylindrical fuse-links

3-pole

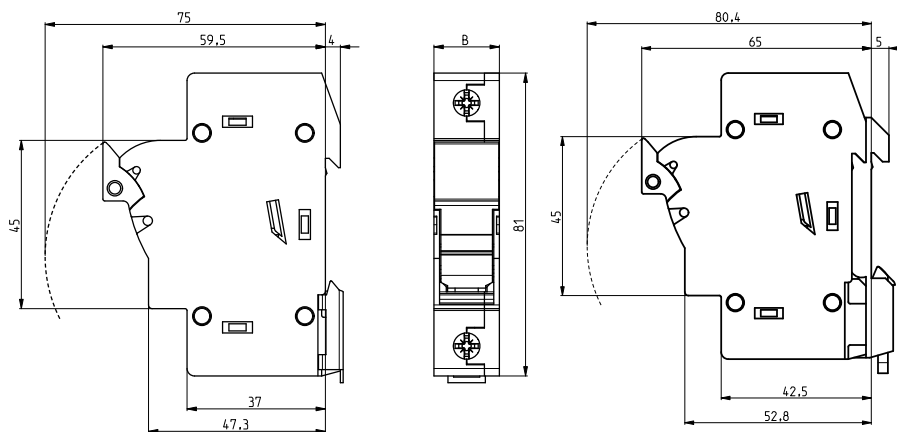
U_c/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
400	20	002520004	-		184	4/36
		002520014	L-LED		186	
		002520304	-	✓	200	
		002520314	L-LED	✓	201	



3-pole + N

U_c/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
400	20	002520005	-		252	3/27
		002520015	L-LED		254	
		002520305	-	✓	273	
		002520315	L-LED	✓	274	
		*002520008	-		252	
		*002520018	L-LED		254	
		*002520308	-	✓	273	
		*002520318	L-LED	✓	274	

*N pole on left "French version"



Version with adapter

Fuse-switch disconnecter EFD 8

type	dimension B
EFD 8 1p	17,5
EFD 8 1p+N	35
EFD 8 2p	35
EFD 8 3p	52,5
EFD 8 3p+N	70

Fuse-switch disconnecter EFD 10

Rated current
max. 32 A

Rated operational voltage
690 V

Utilization category
AC 22B

For fuse-links size
10x38

1-pole

U_c/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
690	32	002540001	-		63	12/108
		002540011	L-LED		64	
		002540301	-	✓	68	
		002540311	L-LED	✓	69	

1-pole + N

U_c/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
400/690	32	002540002	-		128	6/54
		002540012	L-LED		129	
		002540302	-	✓	138	
		002540312	L-LED	✓	139	
		*002540007	-		128	
		*002540017	L-LED		129	
		*002540307	-	✓	138	
		*002540317	L-LED	✓	139	

*N pole on left "French version"

2-pole

U_c/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
690	32	002540003	-		123	6/54
		002540013	L-LED		125	
		002540303	-	✓	134	
		002540313	L-LED	✓	135	

3-pole

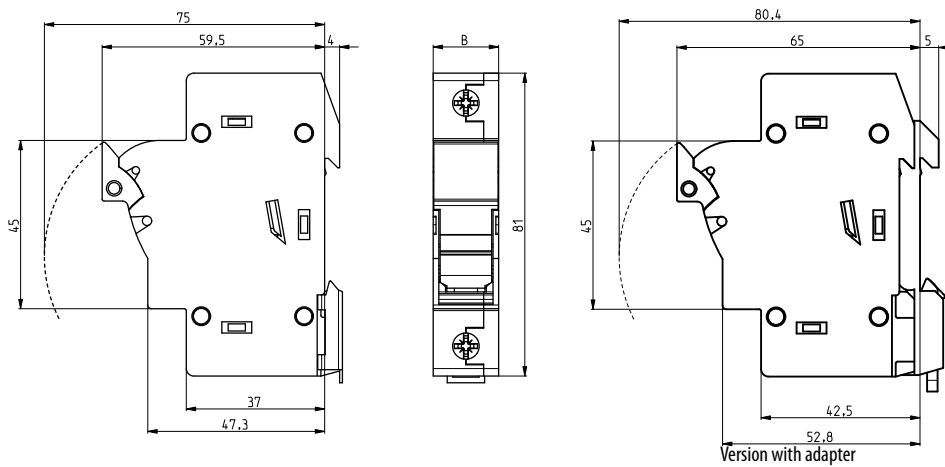
U_c/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
690	32	002540004	-		184	4/36
		002540014	L-LED		186	
		002540304	-	✓	200	
		002540314	L-LED	✓	201	



3-pole + N

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
690	32	002540005	-		252	3/27
		002540015	L-LED		254	
		002540305	-	✓	273	
		002540315	L-LED	✓	274	
		*002540008	-		252	
		*002540018	L-LED		254	
		*002540308	-	✓	273	
		*002540318	L-LED	✓	274	

*N pole on left "French version"



Fuse-switch disconnector EFD 10

type	dimension B
EFD 10 1p	17,5
EFD 10 1p+N	35
EFD 10 2p	35
EFD 10 3p	52,5
EFD 10 3p+N	70

Fuse-switch disconnecter EFD CC

Rated current
max. 30 A

Rated operational voltage
600 V

For fuse-links
Class CC acc to UL4248-4

1-pole

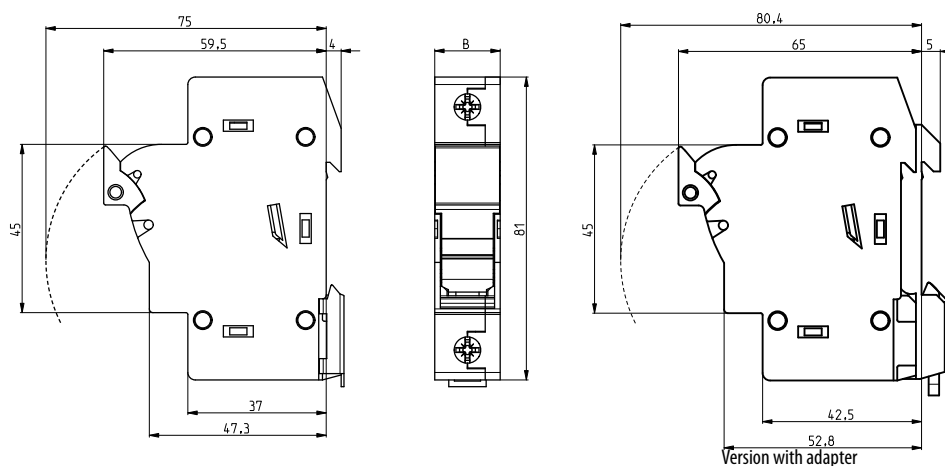
U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
600	30	002540101	-		63	12/108
		002540111	L-LED		64	
		002540401	-	✓	68	
		002540411	L-LED	✓	69	

2-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
600	30	002540103	-		123	6/54
		002540113	L-LED		125	
		002540403	-	✓	134	
		002540413	L-LED	✓	135	

3-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Adapter	Weight [g]	Packaging [pcs]
600	30	002540104	-		184	4/36
		002540114	L-LED		186	
		002540404	-	✓	199	
		002540414	L-LED	✓	201	



Fuse-switch disconnecter EFD CC

type	dimension B
EFD CC 1p	17,5
EFD CC 2p	35
EFD CC 3p	52,5

Fuse-switch disconnector EFD 14

Rated current
max. 50 A

Rated operational voltage
690 V

Utilization category
AC 22B

For fuse-links size
14x51

1-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
690	50	002560001	-	102	12/96
		002560011	L-LED	103	

1-pole + N

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
690	50	002560002	-	226	6/48
		002560012	L-LED	227	
		*002560007	-	226	
		*002560017	L-LED	227	

*N pole on left "French version"

2-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
690	50	002560003	-	206	6/48
		002560013	L-LED	208	

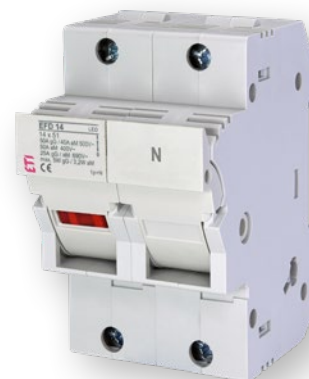
3-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
690	50	002560004	-	310	4/32
		002560014	L-LED	313	

3-pole + N

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
690	50	002560005	-	434	3/24
		002560015	L-LED	437	
		*002560008	-	434	
		*002560018	L-LED	437	

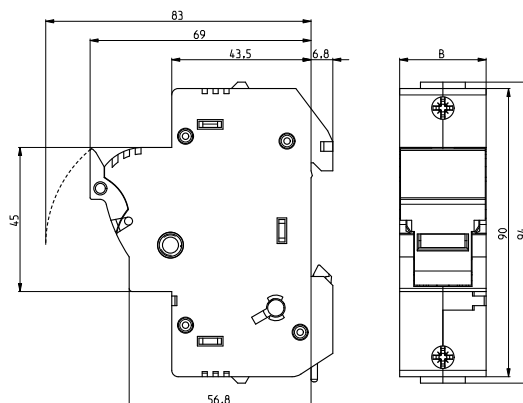
*N pole on left "French version"



C / Fuse-switch disconnectors for cylindrical fuse-links

Fuse-switch disconnecter EFD 14

type	dimension
	B
EFD 14 1p	27
EFD 14 1p+N	54
EFD 14 2p	54
EFD 14 3p	81
EFD 14 3p+N	108



Fuse-switch disconnecter EFD 22

For fuse-links size
22x58

Rated current
max. 100 A

Rated operational voltage
690 V

Utilization category
AC 21B

1-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
690	100	002570001	-	156	3/105
		002570011	L-LED	158	

1-pole + N

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
690	100	002570002	-	351	2/48
		002570012	L-LED	353	
		*002570007	-	351	
		*002570017	L-LED	353	

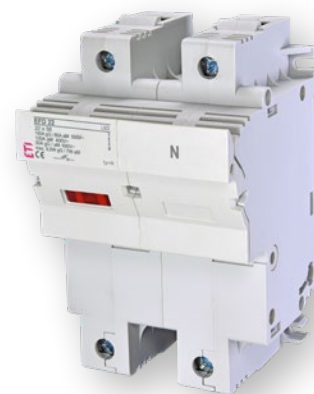
*N pole on left "French version"

2-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
690	100	002570003	-	317	2/48
		002570013	L-LED	321	

3-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
690	100	002570004	-	476	1/35
		002570014	L-LED	485	



C / Fuse-switch disconnectors for cylindrical fuse-links

3-pole + N

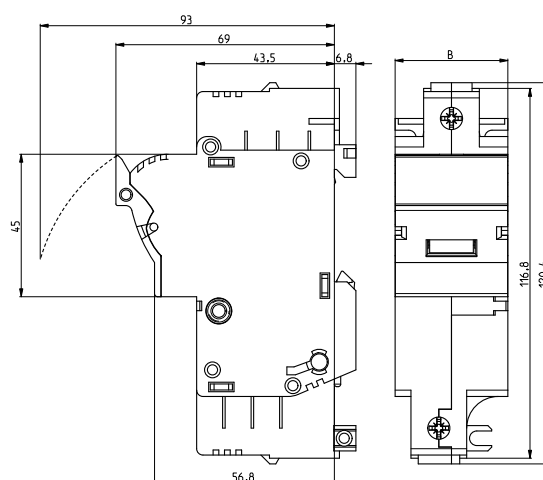
U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
690	100	002570005	-	671	1/24
		002570015	L-LED	677	
		*002570008	-	671	
		*002570018	L-LED	677	

*N pole on left "French version"



Fuse-switch disconnecter EFD 22 & EFD J30

type	dimension B
EFD 22, J30 1p	35,6
EFD 22 1p+N	71,2
EFD 22, J30 2p	71,2
EFD 22, J30 3p	106,8
EFD 22 3p+N	142,4



Fuse-switch disconnecter EFD J30

Rated current
max. 30 A

Rated operational voltage
600 V

For fuse-links
Class J acc to UL4248-8

1-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
600	30	002570101	-	156	3/105
		002570111	L-LED	158	

2-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
600	30	002570103	-	317	2/48
		002570113	L-LED	321	

3-pole

U_e/U_i [V]	I_{max} [A]	Code No.	Indicator	Weight [g]	Packaging [pcs]
600	30	002570104	-	476	1/35
		002570114	L-LED	485	

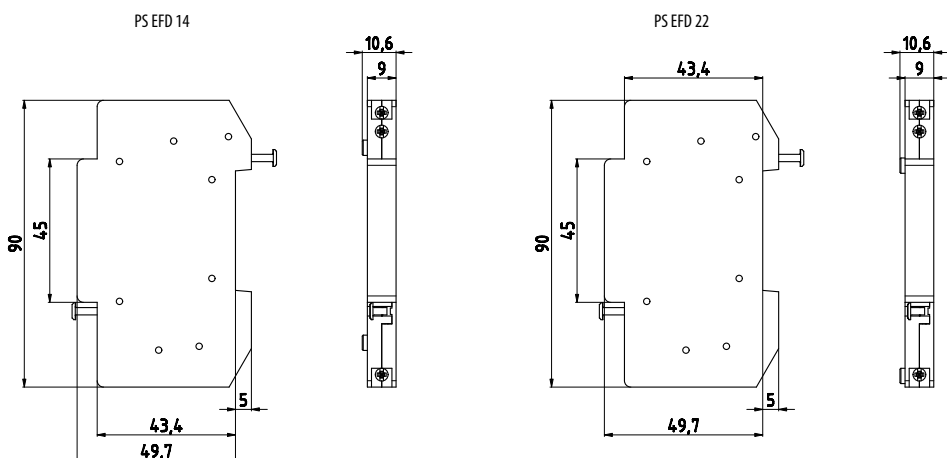


Accessories

Auxiliary switch PS EFD is intended to be mounted with disconnectors EFD 14 and EFD 22 for all versions (1p, 2p, 1p+N, 3p, 3p+N). The width of apparatus is 9 mm, other dimensions comply with EFD 14 and EFD 22 series switches. Auxiliary switch PS EFD signals the operation of CH14 or CH 22 fuse-links only in the case a fuse-link is fitted with striking pin - see IEC 60 269-2 Figure 1a (III).

Auxiliary switch PS EFD

U _n [V]	I _n [A]	Code No. EFD14	Code No. EFD22	Weight [g]	Packaging [pcs]	Contact
250	5	002569001	002579001	50	1/10	1 x make 1 x break



Connection kit

Description	Code No.	For use with	Weight [g]	Packaging [pcs]
Connection kit 2p	002540948	EFD 8, EFD 10, EFH 10, PCF 8, PCF 10	96	1*/20
Connection kit 3p	002540949	EFD 8, EFD 10, PCF 8, PCF 10	162	1*/20
Connection kit 2p	002560948	EFD 14, EFH 14	144	1*/20
Connection kit 3p	002560949	EFD 14	217	1*/20
Connection kit 2p	002570948	EFD 22, EFD J30	191	1*/20
Connection kit 3p	002570949	EFD 22, EFD J30	300	1*/20

*Note: 1 kit suffices for the assembly of 50 sets

