

Low voltage fusegear for cylindrical fuses

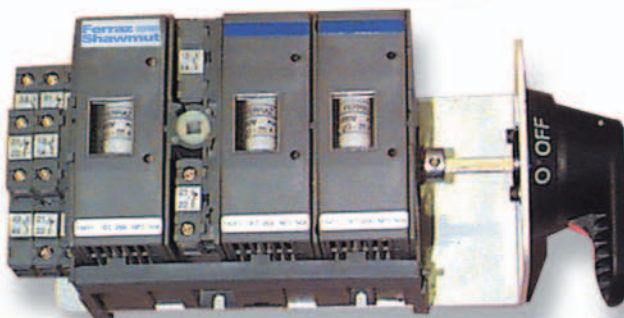


Fuse Holders

Fuse Disconnectors

Switch Disconnectors

Fused Switch Disconnectors





Fusegear

Needs and solutions

IEC standard 947-3

In the world of fusegear, a user's needs range from the simplest to the most complex, a gamut including:

Connecting fuses, with the goal of taking rapid action to replace them without having to touch the wiring.

Isolating a line, to be able to work in full safety on an installation, machinery or any kind of device downstream from it.

Isolating a line and protecting it from short-circuits with the triple goal of taking action in full safety with no energy in the circuit; disconnecting and electrically isolating the line from abnormal currents and avoiding any damage to the equipment and disturbance to systems with no defects upstream (selectivity); and finally, accessing fuses with no energy in the circuit.

Disconnecting and isolating a line, to be able to make or break a circuit in full safety and work downline in full safety.

Disconnecting and isolating the line and protecting it from short circuits to be able to disconnect or establish a circuit in full safety, on load and at any time, to be able to work on installations, machinery or devices in the vicinity, and be able to cut off and electrically isolate abnormal currents as quickly as possible to avoid damage to the equipment and disturbance to networks with no defect.

Solutions by function

	Disconnection	Emergency break	Break for maintenance	Operational control	Electrical protection
Fuse Holders 	No	No	No	Yes	Yes
Disconnecter 	Yes	No	No	No	No
Fuse-Disconnecter 	Yes	No	No	No	Yes
Switch-Disconnecter 	Yes	Yes	Yes	Yes	No
Switch-Disconnecter Fuses 	Yes	Yes	Yes	Yes	Yes
Fused Switch Disconnecter 	Yes	Yes	Yes	Yes	Yes

Type of current	categories of use		Typical applications Closure or opening
	Frequent operations	Infrequent operations	
Alternating current AC	AC 20 A	AC 20 B	No load
	AC 21 A	AC 21 B	On resistive loads, including moderate overloading
	AC 22 A	AC 22 B	On mixed resistive and inductive loads, including moderate overloading
Direct current DC	AC 23 A	AC 23 B	On loads consisting of motors and other highly inductive loads
	DC 20 A	DC 20 B	No load
	DC 21 A	DC 21 B	On resistive loads, including moderate overloading
	DC 22 A	DC 22 B	On mixed resistive and inductive loads, including moderate overloading (motor)



CC, CCR, MSC, CMS and US fuse holders CMS and ST fuse disconnectors ITC fused switches

**To cut short any risk of accident!...
and enhance the safety of your low voltage equipment and installations**

Ferraz Shawmut's range of fuse holders, fuse disconnectors and fused switch disconnectors is the widest on the market. It can meet even the most technically demanding needs and offers you maximum flexibility. Extensive approvals and listings are your proof of flawless development and world-class quality in manufacture.

The state-of-the-art modular design of this fuse-gear accommodates Ferraz Shawmut's full line of Ø 8, 10, 14, 22 and 27 cylindrical fuses (see chart on page 4).

Fuse holders

You can choose from two ranges:

- the compact CC and CCR range
- the highly flexible modular MSC, CMS and US range to meet your every need.

Fuse disconnectors

- The ST right side handle range for mounting inside or on a cubicle with outside control, delivered complete to ease your purchasing headaches

Switch disconnectors

- The ITC front and side handle range with its accessories

Fused switch disconnectors

- the ITC front handle range with its accessories
- the ITC side handle range with its accessories

The design of all these products and the materials selected for them mean they can be used with fuses of every operating class - gG, aM, gD, and even aR (see chart on page 4).

Ferraz Shawmut offers two types of products

- Fully assembled products
Ready-to-use, fully fitted products under a single product reference to ease your purchasing headaches
- Products with accessories

Basic models can be fitted with accessories to meet your needs for flexibility and inventory management, as any combination is possible.

- Fuse holders are insulated to IP20 standard whether open or closed, except the CC range.



Standards & Approvals

Fuses	Control Handle	Standard	NF USE	Bureau Véritas	LLOYDS Register	UL CSA
CC 8, 10, 14 et 22	Front	IEC 60-269-2-1				
CCR 8, 10	Front					
MSC 8, 10	Front					
USCC, USM	Front					
CMS 14, 22	Front	IEC 60-269-2-1				
US 14, 22	Front					
ST 27	Front	IEC 60-947-1				
US 27	Front	IEC 60-947-3				
ST 22	Side	IEC 60-947-1				
IT	Front & Side	IEC 60-947-3				
ITC	Front & Side					



Fuse Overview

Fuse ranges used in Ferraz Shawmut fusegear

Class	Size	8 x 31	10,3 x 38/CC	14 x 51	22 x 58	27 x 60
600V Class J Time Delay					AJT 1 to 30A	AJT 31 to 60A
600V Class J Fast acting			6JX, ATM, SBS 0.25 to 30		AJ 1 to 30A	A4J 31 to 60A
600V Class CC Time delay			ATDR, ATQR, ATMR 1/4 to 30A			
600V Class RK5 Time delay				TR 0 to 30A		
250V Class RK1 Fast acting				A2K 0 to 30A		
250V Class K-5				OT, OTN 0 to 30A		
250V Class RK1 Time delay				A2D, 0 to 30A		
500V Midget Time delay			ATQ 0.1 to 10A			
250V-300V Midget			OTM, TRM, A25Z-2 0.1 to 30A			
125V Midget Fast acting			GGU, GFN 3 to 30A			
aM	400V 1 to 10A		500V 0.16 to 32A	690V 0.25 to 50A	690V 1 to 125A	
gG	400V 0.5 to 25A		500V 0.5 to 32A	690V 1 to 50A	690V 2 to 125A	
660V gD				10 to 30A	35 to 60A	65 to 100A
aM with trip indicator			400V 2 to 32A	500V 1 to 50A	690V 1 to 125A	690V 63 to 160A*
gG with trip indicator			400V 2 to 32A	500V 2 to 50A	690V 4 to 125A	690V 63 to 160A*
UR			600V 0.1 to 0.8	690V 6 to 50A	690V 25 to 100A	
gR			660V 1 to 32A	690V 1 to 50A	690V 25 to 100A	
UR with trip indicator			500V 1 to 30A	660V 6 to 50A	660V 25 to 100A	660V 63 to 250V
gR with trip indicator				690V 1 to 50A	690V 25 to 100A	1000V 32 to 170A
						800V 8 to 110A

as well as all the fast-acting and time delay 5 x 20 and 6 x 32 miniature glass or ceramic fuses whatever their interrupting capacity

* under development



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CC 8x31 fuse holder

I_{th} max. 25A - Un 400V

for 8x31 fuses, with or without indicator light



Nb of Poles	Model with no indicator light screw-on		Model with no indicator light rail mounting			
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
N	Y214634	CC8N	C217697	CC8NR	1	12
1	E215146	CC81	M218212	CC81R	1	12
1+N	G215654	CC81N	Q219250	CC81NR	2	6
2	L216164	CC82	R219780	CC82R	2	6
3	L216670	CC83	C222458	CC83R	3	4
3+N	Z217188	CC83N	V222980	CC83NR	4	3

CC 10x38 fuse holder

I_{th} max. 32A - Un 500V

for 10x38 fuses, with or without indicator light



Nb of Poles	Model with no indicator light screw-on		Model with no indicator light rail mounting			
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
N	Y211046	CC10N	W214126	CC10NR	1	12
1	S211570	CC101	F215147	CC101R	1	12
1+N	Y212081	CC101N	M216165	CC101NR	2	6
2	N212601	CC102	M216671	CC102R	2	6
3	A213118	CC103	A217189	CC103R	3	4
3+N	S213617	CC103N	D217698	CC103NR	4	3

CC 14x51 fuse holder

I_{th} max. 50A - Un 690V

for 14x51 fuses, with or without indicator light



Nb of Poles	Model with no indicator light screw-on		Model with no indicator light rail mounting			
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
N	R219251	CC14N	C201827	CC14NR	1,5	12
1	S219781	CC141	Z211047	CC141R	1,5	12
1+N	D222459	CC141N	T211571	CC141NR	3	6
2	W222981	CC142	Z212082	CC142R	3	6
3	D200770	CC143	P212602	CC143R	4,5	4
3+N	V201314	CC143N	B213119	CC143NR	6	3



CC 22x58 fuse holder

I_{th} max. 125A - Un 690V

for 22x58 fuses, with or without striker

Nb. of Poles	Model with no indicator light screw-on		Model with no indicator light rail mounting			
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
N	T213618	CC22N	N216672	CC22NR	2	6
1	X214127	CC221	B217190	CC221R	2	6
1+N	A214636	CC221N	E217699	CC221NR	4	3
2	G215148	CC222	P218214	CC222R	4	3
3	J215656	CC223	C218732	CC223R	6	2
3+N	N216166	CC223N	S219252	CC223NR	8	1



Multi-pole assembly accessories

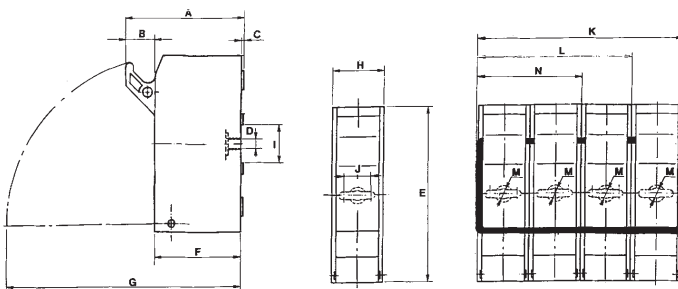
Nb. of Poles	CC8x31 and CC10x38		CC14x51		CC22x58		Pckg
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	
2	E200771	CC810SRA	C213120	CC14SRA	P216167	CC22SRA	10*
3	W201315	CC810PAK2	V213619	CC14PAK2	P216673	CC22PAK2	10*
4	D201828	CC810PAK3	Y214128	CC14PAK3	C217191	CC22PAK3	10*
Adapter for symmetrical rail	A211048	CC810PAK4	F217700	CC1422PAK4	F217700	CC1422PAK4	10*

* 10 per bag



D201828

Dimensions



	CC8/10	CC.14	CC.22
A	40	62	71
B	9	15,5	16
C	2	1	1
D	5,5	7,25	7,25
E	77,5	94	106
F	33	45,5	55
G	100	127	148
H	7,5	27	34
I	46	20,3	20,3
J	-	15,2	18
K	77,5	112	139
L	60	85	105
M	42,5	6	6
N	-	58	71

- Mounting on symmetrical DIN rail with adapter.
- Wiring cross sections
 - CC8/CC10; 1x10 mm²
 - CC14; 1x25 mm²
 - CC22; 1x50 mm²
- Screw-on mounting in back of panel
- Neutral tubes are systematically built in

With the indicator light a blown fuse can be quickly located if power is still on

- **Weight of a single-pole model**
 - 8x31 ; 56 g
 - 10x38 ; 48 g
 - 14x51 ; 130 g
 - 22x58 ; 190 g



CCRC 8x31 fuse holder

I_{th} max. 25A - Un 400V

for 8x31 fuses, with or without indicator light

Nb. of Poles	Model with no indicator light			
	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
N	Z214635	CCR810N	1	12
1	C200769	CCR81	1	12
1+N	A218730	CCR81N	1	12
2	V233721	CCR82	2	6
3	W233722	CCR83	3	4

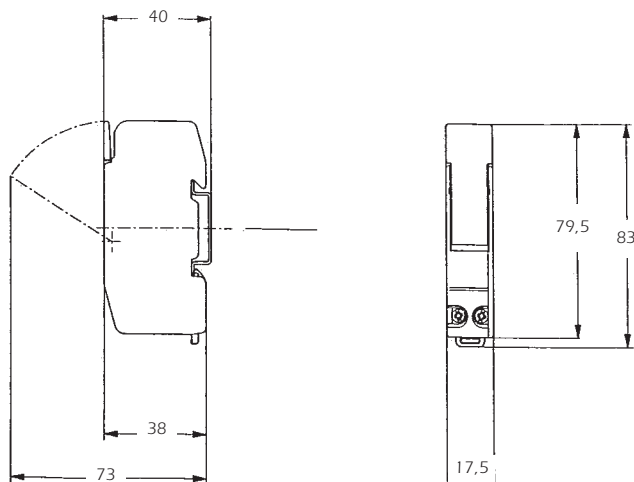
CCR 10x38 fuse holder

I_{th} max. 32A - Un 500V

for 10x38 fuses, with or without indicator light



Nb. of Poles	Model with no indicator light			
	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
N	Z214635	CCR810N	1	12
1	N218213	CCR101	1	12
1+N	H215655	CCR101N	1	12
2	X233723	CCR102	2	6
3	Y233724	CCR103	3	4



- **Direct** mounting on symmetrical DIN rail
- Wire cross sections: 1 x 10mm².
- **Compact footprint.**
- Insulated to IP 20 standard
- **Single-pole weight**
 - 8x31 ; 58g
 - 10x38 ; 63g
- Neutral tubes are systematically built in

With the indicator light a blown fuse can be quickly located if power is still on

Assembly accessory

NEW

Accessories	Ferraz Shawmut	Catalog #	Pckg
CCR multi-pole assembly kit	Z233725	CCRPTH	10*

* 10 per bag

MSM 5 fuse holder – no accessories

I_{th} max. 25A - Un 400V

for 5x20 miniature fuses

Nb. of Poles	Model without blown fuse indicator light			
	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
1	J225707	MSM51	1	12
1+N	K225708	MSM51N	1	12

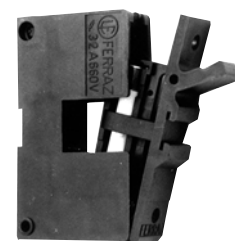


SI 6 fuse holder – no accessories

I_{th} max. 25A - Un 400V

for 6x32 miniature fuses

Nb. of poles	Model without blown fuse indicator light			
	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
1	M091482	SI61	1	10
1	N091483	SI61PRE	1	10
1	G082990	SI61PREBSM	1	10



M091482

N091483

MSC 8 fuse holder – no accessories

I_{th} max. 25A - Un 400V

for 8x31 fuses, with or without indicator light

Nb of Poles	Model without blown fuse indicator light		Model with blown fuse indicator light			
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
N	Q218215	MSC8N			1	12
1	T219253	MSC81	F222461	MSC811	1	12
1+N	B211049	MSC81N			2	6
2	R212604	MSC82			2	6
3	W213620	MSC83			3	4
3+N	C214638	MSC83N			4	3
4	Q216168	MSC84			4	3



MSC 8 fuse holder Phase + Neutral (1 mod.)

I_{th} max. 25A - Un 400V

for 8x31 fuses, with or without indicator light

Nb. of Poles	Model without blown fuse indicator light			
	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
1+N	F200772	MSC81N1M	1	12
3+N	J215150	MSC83N1M	3	4



Assembly accessories	Ferraz Shawmut	Catalog #	Pckg
2-pole pin	G215125	MSC810PAK2	10*
3-pole pin	Q216145	MSC810PAK3	10*
4-pole pin	A217166	MSC810PAK4	10*

* 10 per bag



MSC 10 fuse holder – no accessories

I_{th} max. 32A - Un 690V

for 10x38 fuses with no striker, with or without indicator light



Nb. of Poles	Model without blown fuse indicator light		Model with blown fuse indicator light			
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
N	Q218215	MSC8/10N			1	12
1	Q216674	MSC101	W219784	MSC101I	1	12
1+N	C212085	MSC101N	D232602	MSC101NI	2	6
2	E213122	MSC102	K215151	MSC102I	2	6
3	M215659	MSC103	R226611	MSC103I	3	4
3+N	E217193	MSC103N	E232603	MSC103NI	4	3
4	F218735	MSC104			4	3

MSC 10 fuse holder Phase + Neutral (1 mod.)

I_{th} max. 32A - Un 690V

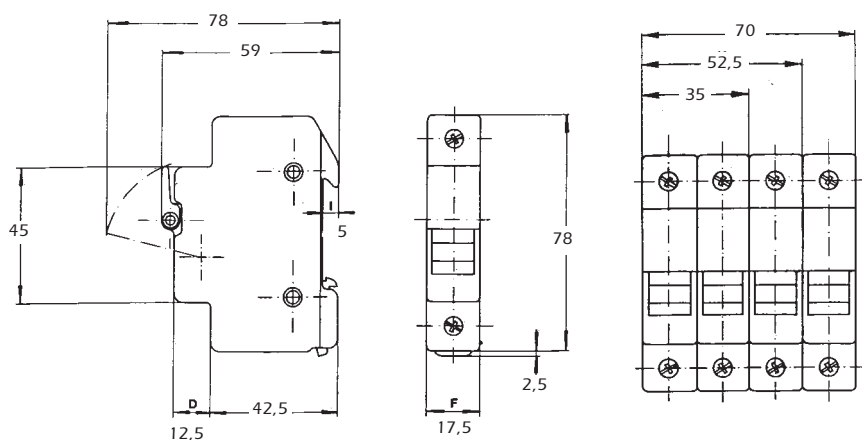


Nb. of Poles	Model without blown fuse indicator light		Model with blown fuse indicator light			
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
1+N	Y201317	MSC101N1M	C211050	MSC101N1MI	1	12
3+N	S218217	MSC103N3M	S226612	MSC103N3MI	3	4

Assembly accessories	Ferraz Shawmut	Catalog #	Pckg
2-pole pin	G215125	MSC810PAK2	10*
3-pole pin	Q216145	MSC810PAK3	10*
4-pole pin	A217166	MSC810PCK4	10*

* 10 per bag

Dimensions



- **Direct** mounting on symmetrical DIN rail
- Indicator light (120/690V)*
- Wiring cross sections:
 - single-pole: 1 x 16mm²
 - single-pole + neutral: 1 x 10 mm²
- Insulated to IP 20 standard
- **Single-pole weight**
 - 5x20 ; 63 g
 - 6x32 ; 33 g
 - 8x31 ; 63 g
 - 8x31 - Ph + N1M ; 63 g
 - 10x38 ; 63 g
 - 10x38 - Ph + N1M ; 68 g

* With the indicator light a blown fuse can be quickly located if power is still on

USCC fuse holder

I_{th} max. 30A - Un 600V

for CC class fuses



Nb. of Poles	Model without blown fuse indicator light		Model with blown fuse indicator light			
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
N	W201131	USN				12
1	B213441	USCC1	X213943	USCC1I	1	12
2	P216489	USCC2	D217008	USCC2I	2	6
3	M217522	USCC3	Y218038	USCC3I	3	4
3+N	G222048	USCC3N	N219593	USCC3IN	4	3
4	Q222792	USCC4	E223311	USCC4I	4	3



USM 10 fuse holders

I_{th} max. 30A - Un 800V

for 10 x 38 Midget fuses (1-1/2" x 13/32")
for 8x31 fuses, with or without indicator light



Nb. of Poles	Model without blown fuse indicator light		Model with blown fuse indicator light			
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Nb Mod	Pckg
N	W201131	USN				12
1	Y213944	USM1	L214462	USM1I	1	12
2	N217523	USM2	Z218039	USM2I	2	6
3	C218548	USM3	Y219073	USM3I	3	4
3+N	H222049	USM3N	P219594	USM3NI	4	3
4	R222793	USM4	F223312	USM4I	4	3

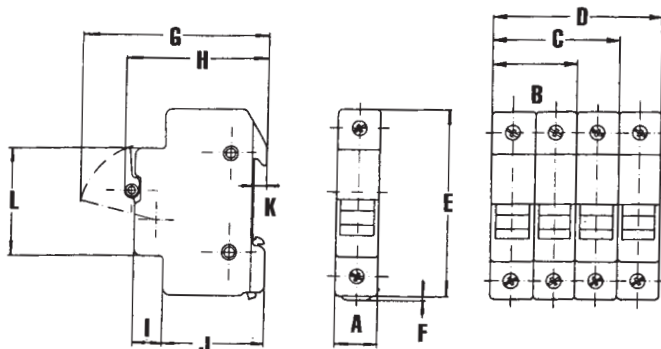


Assembly accessories	Ferraz Shawmut	Catalog #	Pckg
2-pole pin	F201646	USPTH2	10*
3-pole pin	C205047	USPTH3	10*
4-pole pin	P211383	USPTH4	10*

* 10 per bag

Dimensions

DIMENSION	mm	In
A	17.5	0.69
B	35.0	1.38
C	52.5	2.07
D	70.0	2.76
E	78.0	3.07
F	2.5	0.10
G	78.0	3.07
H	59.0	2.32
I	12.5	0.49
J	42.5	1.67
K	5.0	0.20
L	45.0	1.77



▪ Direct mounting on symmetrical DIN rail

▪ Single-pole weight

USCC ; 58g

USM ; 63g

* With the indicator light a blown fuse can be quickly located if power is still on



CMS-type IEC fuse holders - CMS-type I

The state-of-the-art modular design of this fusegear accommodates Ferraz Shawmut's fuses to enhance the safety of your low voltage electrical installations and equipment. The two CMS 690V ranges are built to IEC standards and the US 700V range is built to UL requirements.

These products were designed and the materials for them chosen to permit the use of CMS and US fusegear with fuses of every operating class: gG, aM, gD, aR (UR).

Standards - Approvals - Homologation

US fuse holders/fuse disconnectors:  For use with UL standard fuses

IEC fuse holders: EN 60 269-2, BUREAU VERITAS and LLOYDS REGISTER.
For use with fuses with no striker or with an indicator light

IEC fuse disconnectors: EN 60 947-3, BUREAU VERITAS, LLOYDS REGISTER.
For use with fuses with or without indicator light or with a striker.



Easy clip-on microswitch kit

Auxiliary microswitch state

These fuse holders and fuse disconnectors are insulated to IP20 standard, open or closed.



Blown fuse indicator light

Double foot-print screw

Communication

Blown fuse indicator light: With an indicator light a blown fuse can be quickly located if power is still on.
Operating range: 110V to 690V A.C./D.C.

Characteristics of auxiliary microswitches:

They are used to

- indicate that a fuse is in place (DPMM - Motor starting protection)
- indicate that a fuse has melted
- guarantee reliable pre-isolation ($t > 20$ ms) as per EN60947-1 standards



EC fuse disconnectors - US fuse holders

Ferraz Shawmut offers two types of products.

- completely assembled, ready-to-use models to ease your purchasing headaches thanks to a single product reference.
- three models with accessories that can be matched with any of 7 different kits of additional functions, giving you a vast array of possibilities – 28 models in all.

These two new ranges are in addition to the existing product offering of MSC8 & 10 fuse holders built to IEC standard for 8x32 and 10x38 fuses and USM10 & USCC for midget and class CC fuses built to UL standard.

Mounting

A design offering flexibility in use: Possibility of associating products to make a multipolar assembly according to need

Fuse holders: up to 6 poles.

Fuse disconnectors: up to 4 poles. (For safe and reliable operation of auxiliary microswitches, never use more than 3.)

Mounting:

Mounting on a 35mm symmetrical DIN rail with two fixed positions for the mounting clips for easier mounting, positioning and dismounting of these products.



Main characteristics and part #

Sealed in closed state

Lockable in open state

Multipole assembly via 3 clips and 1 stop pin

Environment

Material: Compliance with European environmental requirements.

- US fuse disconnectors: V1 class mineral reinforced thermoplastic as per UL 94 and tin-plated clips.
- IEC fuse holders and fuse disconnectors: V0 class glass-fiber reinforced thermoplastic as per UL 94. Silver-plated clips.

Vibration withstand: Test under sine vibrations and scanning of each of the product's three main axes.

Spectrum:

- 1st segment (2 to 16 Hz) constant trip $x = 5$ mm peak.
- 2nd segment (16 to 250 Hz) constant acceleration $g = 5$ g peak.
- Exponential scanning speed: 1 octave per min. Duration: 2 hours per axis.

Climatic conditions for use: This range of products is designed for use in temperate climates, if conditions are more severe the following indications must be complied with, considering the relevant nominal current derating.

Maximum temperature	20°C	40°C	50°C
Maximum relative humidity	95%	80%	50%
Derating factor	1	0.9	0.8



IEC fuse holders: CMS 14 IEC fuse disconnectors: CMS 14

Electrical characteristics

Rated insulation voltage U _i AC/DC	Rated impulse withstand voltage U _{imp}	Rated current	Max. power dissipation per fuse	Fuse rating	Maximum current in use for 1, 2, 3 et 3+N poles with FS-fuses. for 4, 5 and 6 poles, multiply by 0.8 for 7, 8, 9 x 0.7 and for ≥ 10 x 0.6						Recommended wire cross-section (mm ²)
					gG	aM	URD URC	URGA URGB	gRB	gLB	
690 V AC 20 B	8 kV	50 A	5 W	≤ 16	≤ 16	≤ 16	≤ 16	≤ 16	≤ 16	≤ 16	2.5
				20	20	20	18	18	18	20	2.5
				25	25	25	20	20	20	25	4
				32	32	32	25	25	25	32	6
				40	40	40	30	30	30	40	6
				50	50	50	35	35	35	45	10
				63			38				10

* Values shown for 20°C ambient temperature, see chart.

Ambient temperature	20°C	30°C	40°C	50°C
Derating factor	1	0.95	0.9	0.8

Material: V0 thermoplastic - Silver-plated copper contacts

Tightening torque: 3.5 Nm max

Wiring: min. 1.5 mm² - max 35 mm² solid- max 25 mm² stranded.

CMS 14 fuse holders

for 14x51 fuses with no striker or with indicator light



P217708

Fuse holders without indicator light				
Nb of Poles	References		Nb of Mod. (17.5 mm)	Pckg box of
	Ferraz Shawmut	Catalog #.		
N	N222468	CMS14N	1.5	6
1	F222990	CMS14I	1.5	6
1 + N	E201323	CMS141N	3	3
2	J211056	CMS142	3	3
3	J212091	CMS143	4.5	2
3 + N	L213128	CMS143N	6	1
4	G214136	CMS144	6	1

Fuse holders with indicator light				
Nb of Poles	References		Nb of Mod. (17.5 mm)	Pckg box of
	Ferraz Shawmut	Catalog #.		
1	M200778	CMS14I1	1.5	6
1 + N	M201836	CMS141NI	3	3
2	C211579	CMS142I	3	3
3	Z212611	CMS143I	4.5	2
3 + N	D213627	CMS143NI	6	1

for 14x51 fuses with striker

Nb of Pole	Standard ready for accessories		Nb of Mod. (17.5 mm)	Pckg box of	Possible Functions
	Ferraz Shawmut	Catalog #			
1	L223524	CMS141AC	1.5	6	Indicator light & blown fuse only

CMS 14 fuse disconnectors

for all types of 14x51 fuses



N201837

Nb of Pole	Model without indicator light ready for accessories		Model with indicator light ready for auxiliary microswitch		Model fitted with auxiliary microswitch		Model fitted with auxiliary microswitch & indicator light		Nb of Mod. (17.5 mm)	Pckg box of
	References		References		References		References			
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #		
N	N222468								1.5	6
1	P217708	CMS141P			K214645	CMS141M	N201837	CMS141MI	1.5	6
1 + N	P222469								3	3
2*	G222991	CMS142P			R215157	CMS142M	K211057	CMS142MI	3	3
3	N200779	CMS143P		consult us	T215665	CMS143M	D211580	CMS143MI	4.5	2
3*					Y216681	CMS143M2	K212092	CMS143MI2	4.5	2
3 + N	F201324	CMS3NP			L217199	CMS3NM	A212612	CMS3NMI	6	1
4									6	1

* Two auxiliary microswitches (see instructions for mounting) – The auxiliary microswitch function requires use of fuses with strikers.

Accessories

Description	Catalog #	References	Nb of Mod. (17.5 mm)	Pckg
Auxiliary microswitch kit 1 pole CMS 14	CMS14W1	M218741	1.5	1
Auxiliary microswitch kit 3 poles CMS 14	CMS14W2	C219261	4.5	1
2 auxiliary microswitch kit 3 poles CMS 14	CMS14W3	D219791	4.5	1
Auxiliary microswitch assembly pin (between 2 kits)	CMS1422PTH	J214138		10*
Enlargement pin for auxiliary microswitch	CMS14BP	F213629		10*
Multi-pole assembly kit	CMS14PAK	Z218223		10*
Indicator light kit	CMS14LH	A225653		1
Lock	CMS14LOK	M223525		1

For wiring bars and terminals, see page 19

* 10 per bag

IEC fuse holders: CMS 22

IEC fuse disconnectors: CMS 22

Electrical characteristics



Rated insulation voltage Ui AC/DC	Rated impulse withstand voltage Uimp	Rated current	Max. power dissipation per fuse	Fuse rating	Max operational current for 1, 2, 3 et 3+N poles with FS-fuses. for 4, 5 and 6 poles, multiply by 0.8 for 7, 8, 9 x 0.7 and for ≥ 10 x 0.6						Recommended wire cross-section (mm ²)
					gG	aM	URD URC	URGA URGB	gRB	gLB	
690 V AC 20 B	8 kV	125 A	9.5 W	≤ 16	≤ 16	≤ 16	≤ 16	≤ 16	≤ 16	≤ 16	2.5
				20	20	20	20	20	20	4	
				25	25	25	25	25	25	6	
				32	32	32	29	29	29	10	
				40	40	40	35	35	35	10	
				50	50	50	40	40	40	10	
				63	63	63	52	50	50	16	
				80	80	80	63	60	65	25	
				100	100	100	76	65	76	35	
				125	110	125	85			125	35

* Values shown for 20°C ambient temperature, see chart.

Ambient temperature	20°C	30°C	40°C	50°C
Derating factor	1	0.95	0.9	0.8

Material: V0 thermoplastic – Silver-plated copper contacts

Tightening torque: max. 4.5 Nm

Wiring: min. 1.5 mm² – max. 50 mm² solid – max. 35 mm² stranded

CMS 22 fuse holders

for 22x58 fuses with no striker or with indicator light

Fuse holders without indicator light				
Nb of Poles	References		Nb of Mod. (17.5 mm)	Pckg box of
	Ferraz Shawmut	Catalog #.		
N	M213129	CMS22N	1.5	6
1	E213628	CMS221	1.5	6
1 + N	L214646	CMS221N	3	3
2	V215666	CMS222	3	3
3	Z216682	CMS223	4.5	2
3 + N	Q217709	CMS223N	6	1
4	N218742	CMS224	6	1

Fuse holders with indicator light				
Nb of Poles	References		Nb of Mod. (17.5 mm)	Pckg box of
	Ferraz Shawmut	Catalog #.		
		CMS22NI		
1	H214137	CMS221I	2	6
1 + N	S215158	CMS221NI	4	3
2	Z216176	CMS222I	4	3
3	M217200	CMS223I	6	2
3 + N	A218224	CMS223NI	8	1
		CMS224I		



G201325

for 22x58 fuses with striker

Nb of Pole	Standard ready for accessories		Nb of Mod. (17.5 mm)	Pckg box of	Possible Functions
	Ferraz Shawmut	Catalog #.			
1	P201838	CMS22AC	1.5	6	Indicator light & blown fuse only

CMS 22 fuse disconnectors

for all types of 22x58 fuses

Nb of Pole	Model without indicator light ready for accessories		Model with indicator light ready for auxiliary microswitch		Model fitted with auxiliary microswitch		Model fitted with auxiliary microswitch & indicator light		Nb of Mod. (17.5 mm)	Pckg box of
	Ferraz Shawmut	Catalog #.	Ferraz Shawmut	Catalog #.	Ferraz Shawmut	Catalog #.	Ferraz Shawmut	Catalog #.		
N	M213129	CMS22N							2	6
1	G201325	CMS221P			D219262	CMS221M	A216683	CMS221MI	2	6
1 + N	M214647	CMS221NP							4	3
2*	T215159	CMS222P	Consult us		E219792	CMS222M	N217201	CMS222MI	4	3
3	W215667	CMS223P			Q222470	CMS223M	R217710	CMS223MI	6	2
3*	W215667				H222992	CMS223M2	B218225	CMS223M2I	6	2
3 + N	A216177	CMS223NP			P200780	CMS223NM	P218743	CMS223NMI	8	1
4									8	1

* Two auxiliary microswitches (see instructions for mounting) – The auxiliary microswitch function requires use of fuses with strikers.



D219262

Accessories

Description	Catalog #	References	Nb of Mod. (17.5 mm)	Pckg
Auxiliary microswitch kit 1 pole CMS 22	CMS22W1	E211581	2	1
Auxiliary microswitch kit 3 poles CMS 22	CMS22W2	L21293	6	1
2 auxiliary microswitch kit 3 poles CMS 22	CMS22W3	B212613	6	1
Auxiliary microswitch assembly pin (between 2 kits)	CMS1422PTH	J214138		10*
Enlargement pin for auxiliary microswitch	CMS14BP	F213629		10*
Multi-pole assembly kit	CMS22PAK	L211058		10*
Indicator light kit	CMS14LIH	A225653		1
Lock	CMS14LOK	M223525		1

For wiring bars and terminals, see page 19.

* 10 per bag



Auxiliary microswitch kit E211581



Enlargement pin for auxiliary microswitch - F213629



Auxiliary microswitch assembly pin - J214138



US 14 fuse holders



Electrical characteristics



T227901

Rated insulation voltage U_i AC/DC	Rated impulse withstand voltage U_{imp}	Rated current	Max. power dissipation per fuse	Fuse rating	Maximum current in use for 1, 2, 3 et 3+N poles with FS-fuses. for 4, 5 and 6 poles, multiply by 0.8 for 7, 8, 9 x 0.7 and for ≥ 10 x 0.6						Recommended wire cross-section (mm ²)
					gG	aM	URD URC	URGA URGB	gRB	gLB	
750 V	8 kV	50 A	4.7 W	≤ 20	≤ 20	≤ 20	18	18	18	≤ 16	2.5 / 12
				≤ 25	≤ 25	20	20	20	20	4 / 10	
				≤ 30	≤ 30	18	18	18	25	6 / 10	
				32		32	25	25	25	32	6 / 10
				40		40	30	30	30	40	6 / 10
				50		50	35	35	35	45	10 / 8
				63		38			35	45	10 / 8

* Values shown for 20°C ambient temperature, see chart.

Ambient temperature	20°C	30°C	40°C	50°C
Derating factor	1	0.95	0.9	0.8

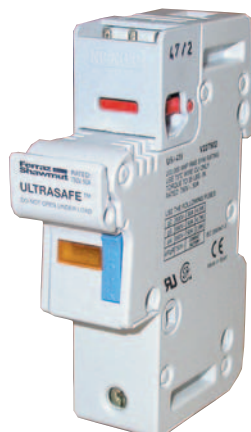
Material: V1 thermoplastic

Tightening torque: 3.5 Nm max. - 35 lbs.in

Wiring: min. 1.5 mm² / 16 AWG – max. 35 mm² / 3 AWG solid – max. 25 mm² / 4 AWG stranded

US 14 fuse disconnectors

for 14x51 fuses with no striker, or with indicator light or with striker



X227904

Nb of Poles	Model without indicator light ready for accessories		Model with indicator light ready for auxiliary contact		Model fitted with auxiliary contact		Model fitted with auxiliary contact & indicator light		Nb of Mod. (17.5 mm)	Pckg box of
	References		References		References		References			
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #		
N	S227900	US14N							1.5	6
1	T227901	US141	V227902	US141I	W227903	US141M	X227904	US141MI	1.5	6
1 + N	Y227905	US141N	Z227906	US141NI	A227907	US141NM	B227908	US141NMI	3	3
2	C227909	US142	D227910	US142I	E227911	US142M	F227912	US142MI	3	3
2*					G227913	US142M2	H227914	US142M2I	3	3
3	J227915	US143	K227916	US143I	L227917	US143M	M227918	US143MI	4.5	2
3*					N227919	US143M2	P227920	US143M2I	4.5	2
3 + N	Q227921	US143N	R227922	US143NI	S227923	US143NM	T227924	US143NMI	6	1
3 + N*					V227925	US143NM2	W227926	US143NM2I	6	1
4		US144		US144I		US144M		US144MI	6	1
4*						US144M2		US144M2I	6	1

* Two auxiliary microswitches (see instructions for mounting) – The auxiliary microswitch function requires use of fuses with strikers

Accessories



Auxiliary contact kit Y227928



Enlargement pin for auxiliary contact - F213629



Auxiliary contact assembly pin J214138

Description	Catalog #	References	Nb of Mod. (17.5 mm)	Pckg
Auxiliary contact kit 1 pole US 14	USMSW1	Y227928	1.5	1
Auxiliary contact kit 3 poles US 14	USMSW2	Z227929	4.5	1
2 auxiliary contact kit 3 poles US 14	USMSW3	A227930	4.5	1
Auxiliary contact assembly pin (between 2 kits)	US1422PTH	J214138		10*
Enlargement pin for auxiliary contact	US14BP	F213629		10*
Multi-pole assembly kit	US14PAK	X227927		10*
Indicator light kit	CMS14LIH	A225653		1
Lock	CMS14LOK	M223525		1

For wiring bars and terminals, see page 19

* 10 per bag

US 22 fuse holders



Electrical characteristics

Rated insulation voltage U _i AC/DC	Rated impulse withstand voltage U _{imp}	Rated current	Max. power dissipation per fuse	Fuse rating	Max operational current for 1, 2, 3 et 3+N poles with FS-fuses. for 4, 5 and 6 poles, multiply by 0.8 for 7, 8, 9 x 0.7 and for ≥ 10 x 0.6						Recommended wire cross-section (mm ²)
					gG	aM	URD URC	URGA URGB	gRB	gLB	
750 V	8 kV	125 A	9.5 W	≤ 16	≤ 16	≤ 16	≤ 16	≤ 16	≤ 16	≤ 16	2.5/12
				20	20	20	20	20	20	4/10	
				25	25	25	25	25	25	6/10	
				32	32	32	29	29	32	10/8	
				40	40	40	35	35	40	10/8	
				50	50	50	40	40	40	10/8	
				60/63	60	63	52	51	63	16/6	
				80		80	65	64	75	25/4	
				100		100	76	74	76	35/2	
				125		100	85			35/2	

* Values shown for 20°C ambient temperature, see chart.

Material: V1 thermoplastic

Tightening torque: 4 Nm max. - 45 lbs.in

Wiring: min. 1.5 mm² / 16 AWG – max. 50 mm² / 1 AWG solid – max. 35 mm² / 2 AWG stranded

Ambient temperature	20°C	30°C	40°C	50°C
Derating factor	1	0.95	0.9	0.8



C227932

US 22 fuse disconnectors



for 22x58 fuses with no striker, or with indicator light or with striker

Nb of Poles	Model without indicator light ready for accessories		Model with indicator light ready for auxiliary contact		Model fitted with auxiliary contact		Model fitted with auxiliary contact & indicator light		Nb of Mod. (17.5 mm)	Pckg box of
	References		References		References		References			
	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #		
N	B227931	US22N							1.5	6
1	C227932	US221	D227933	US221I	E227934	US221M	F227935	US221MI	1.5	6
1 + N	G227936	US221N	H227937	US221NI	J227938	US221NM	K227939	US221NMI	3	3
2	L227940	US222	M227941	US222I	N227942	US222M	P227943	US222MI	3	3
2*					Q227944	US222M2	R227945	US222M2I	3	3
3	S227946	US223	T227947	US223I	V227948	US223M	W227949	US223MI	4.5	2
3*					X227950	US223M2	Y227951	US223M2I	4.5	2
3 + N	Z227952	US223N	A227953	US223NI	B227954	US223NM	C227955	US223NMI	6	1
3 + N*					D227956	US223NM2	E227957	US223NM2I	6	1
4		US224		US224I		US224M		US224MI	6	1
4*						US224M2		US224M2I	6	1

* Two auxiliary microswitches (see instructions for mounting) – The auxiliary microswitch function requires use of fuses with strikers



F227935

Accessories

Description	Catalog #	References	Nb of Mod. (17.5 mm)	Pckg
Auxiliary contact kit 1 pole US 22	USMSW/6	G227959	1.5	1
Auxiliary contact kit 3 poles US 22	USMSW/5	H227960	4.5	1
2 auxiliary contact kit 3 poles US 22	USMSW/4	J227961	4.5	1
Auxiliary contact assembly pin (between 2 kits)	US1422PTH	J214138		10*
Enlargement pin for auxiliary contact	US14BP	F213629		10*
Multi-pole assembly kit	US22PAK	F227958		10*
Indicator light kit	CMS14LIH	A225653		1
Lock	CMS14LOK	M223525		1

For wiring bars and terminals, see page 19

* 10 per bag

Auxiliary contact kit G227959



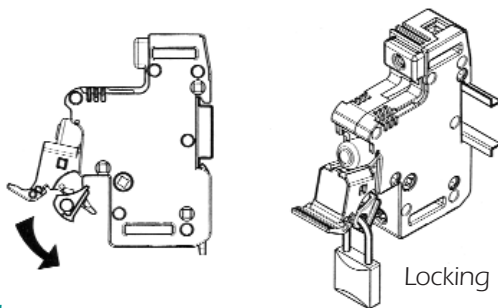
Enlargement pin for auxiliary contact - F213629



Auxiliary contact assembly pin J214138

14 and 22 fuse holders and fuse disconnectors

Locking system

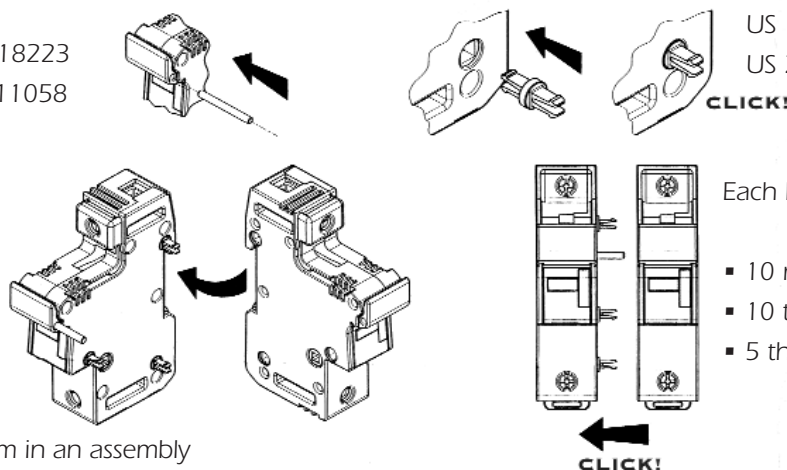


Locking reference: M223525A

Multipole assembly

Assembly kit
 CMS 14: Z218223
 CMS 22: L211058

Assembly kit
 US 14: X227927J
 US 22: F227958J

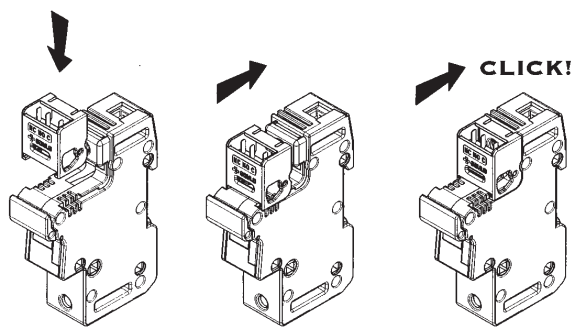


Each bag of kits is sufficient for

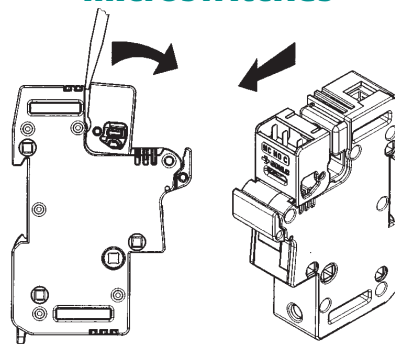
- 10 multipole assemblies
- 10 two-pole assemblies
- 5 three-pole assemblies

NB: 6 poles maximum in an assembly

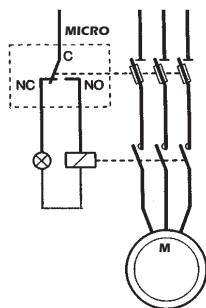
Mounting auxiliary microswitches



Dismounting auxiliary microswitches



Auxiliary microswitch functions



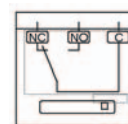
- Fuse melting:** A fuse holder containing a fuse with a striker sends out a signal when the fuse element melts
- Pre-isolation:** When the fuse holder opens
- Presence:** Sends a signal when the holder is closed with no fuse in it

Characteristics of the auxiliary microswitch

Min. voltage and current for operation 10VAC-DC - 100mA

Rated current and breaking capacity (1) at 250V	6A	AC 12
	3A	AC 13
	0,3A	AC 14
	0,1A	DC 12/13/14
Rated current and breaking capacity (1) at 2 and 24 V	6A	DC 12/DC13
	5A	AC 13
	2A	AC 14/DC 13
	0,6A	DC 14

(1) as per standard IEC 947-5



With the fuse in the handle closed state.



No fuse
 Fuse blown
 Handle open



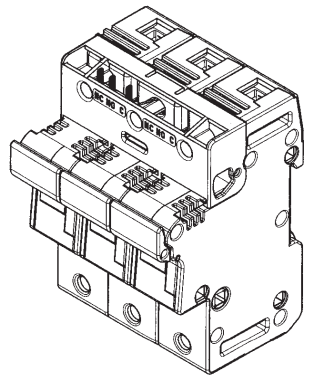
14 and 22 fuse holders and fuse disconnectors

Microswitch options

Auxiliary microswitches can only be mounted on previously prepared fuse disconnectors. Use of the auxiliary microswitch for fuse melting requires the use of fuses with strikers.

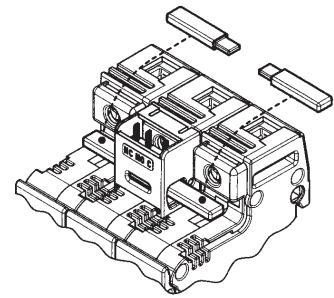
1 auxiliary microswitch

CMS 14 (C219261) - US14 (Z227929)
 CMS 22 (L212093) - US 22 (H227960)



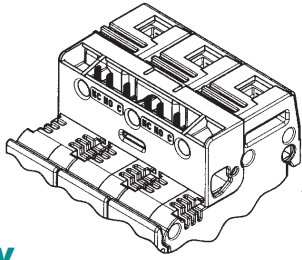
or 1 auxiliary microswitch

CMS 14 (M218741+F213629)
 CMS 22 (E211581+F213629)
 US 14 (Y227928+F213629)
 US 22 (G229759+F213629)



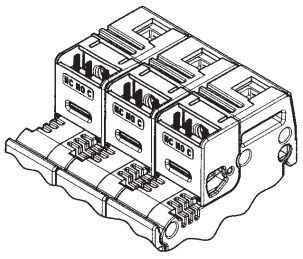
2 auxiliary microswitches

CMS 14 (D219791) - US14 (A227930)
 CMS 22 (B212613) - US 22 (J227961)



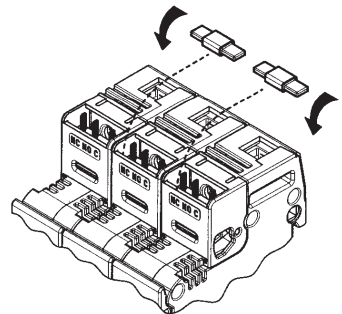
3 independent auxiliary microswitches

CMS 14 (3 x M218741)
 CMS 22 (3 x E211581)
 US 14 (3 x Y227928)
 US 22 (3 x G227959)



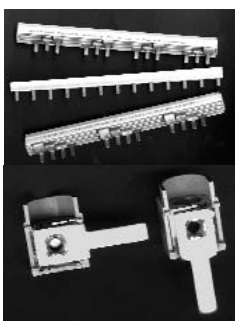
3 mechanically interconnected auxiliary microswitches

CMS 14 (3 x M218741+2 x J214138)
 CMS 22 (3 x E211581+2 x J214138)
 US 14 (3 x Y227928) + (2 x J214138)
 US 22 (3 x G227959) + (2 x J214138)



NOTE: Do not fit with more than 3 microswitches

Supply wiring bars and terminals



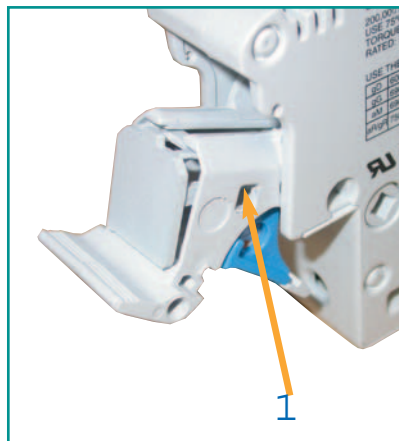
Description	References	Maximum acceptable RMS current (A)	Pckg
Wiring bar for 4 (CMS 14/US 14) 3 poles	A210312	100	5
Wiring bar for 6 (CMS 14/US 14) 2 poles	Z210311	63	5
Wiring bar for 12 (CMS 14/US 14) 1 pole	Y210310	63	5
Wiring bar for 6 (CMS 22/US 22) 2 poles	C210314	150	5
Wiring bar for 12 (CMS 22/US 22) 1 pole	B210313	90	5
Single-pole terminal, side	E210316	90	50
2/3-pole terminal, side	G210318	90	50
Single-pole terminal, axial	D210315	90	50
2/3-pole terminal, axial	F210317	90	50

14 and 22 fuse holders and fuse disconnectors

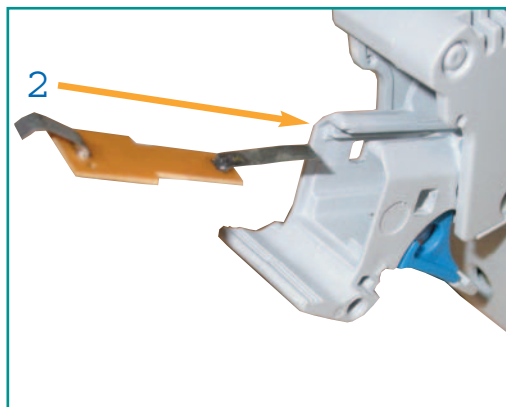
Indicator light kit

With the indicator light a blown fuse can be quickly located if power is still on

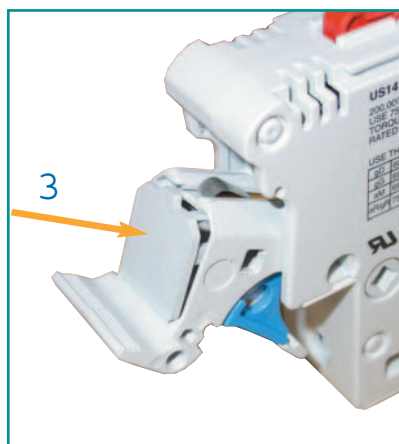
- 1 Carefully remove the cover with 2 screw drivers.



- 2 Slip the indicator light's top insert into the rails, being careful not to twist the contact tabs.



- 3 Put the cover back on



Assembly precautions in multipole assemblies

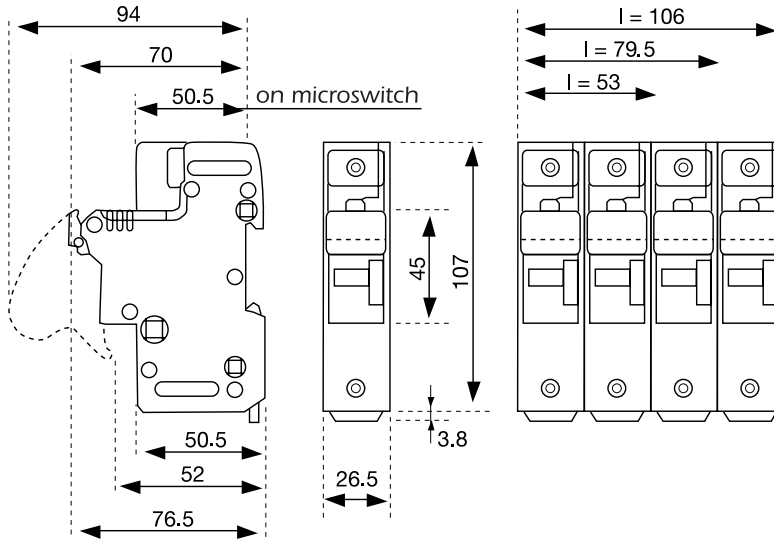
When fuse holders are side by side or very near each other (less than one module apart), they must be derated again, in addition to derating for temperature (pages 4, 5, 6, 7).

Number of 17.5 mm modules	Derating factor
1-2-3	None = 1
4-5-6	0.8
7-8-9	0.7
> 10	0.6



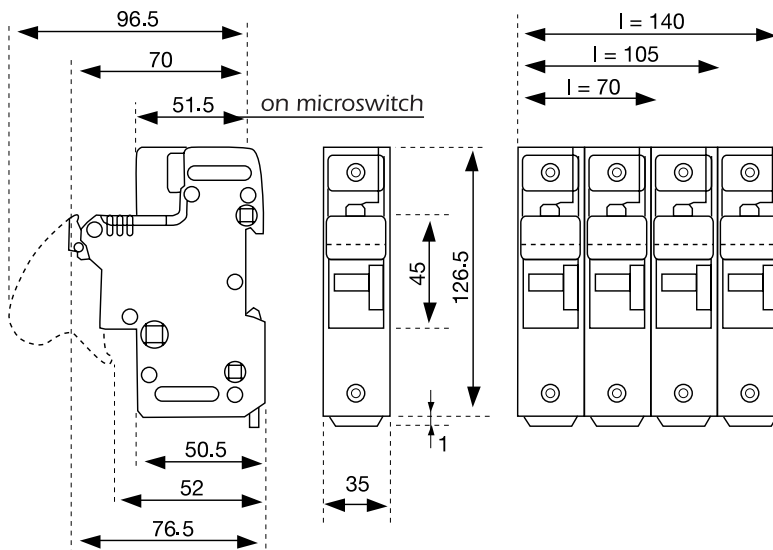
CMS and US fuse holders

Dimensions of CMS 14 and US 14 products



width depending on nb. of 17.5 mm modules	Nb of poles	1	2	3	4	5	6
	Nb of modules	1.5	3	4.5	6	7.5	9
	l (mm)	26.5	53	79.5	106	132.5	159

Dimensions of CMS 22 and US 22 products



width depending on nb. of 17.5 mm modules	Nb of poles	1	2	3	4	5	6
	Nb of modules	2	4	6	8	10	12
	l (mm)	35	70	105	140	175	210



ST 27 fuse holders for fuses without strikers

I_{th} max. 150A - Un 800V
no auxiliary microswitch provided



AC/DC

Nb of Poles	Model for fuses without stiker without indicator lights		
	Ferraz Shawmut	Catalog #	Pckg
N	B210152(1)	ST27N	3
1	R210580(1)	ST271	3
1+N	S210581(1)	ST271N	1
2	T210582(1)	ST272	1
3	V210583(1)	ST273	1
3+N	W210584(1)	ST273N	1

(1) Does not accommodate auxiliary microswitch; choose from the US 27 range

US 27 fuse holders and fuse disconnectors

For fuses with or without strikers, fitted to accommodate an auxiliary microswitch-indicator light

Nb of Poles	Model for fuses without stiker without indicator lights		
	Ferraz Shawmut	Catalog #	Pckg
N	B210152	ST27N	3
1	J226420	US271I	3
1+N	K226421	US271NI	1
2	L226422	US272I	1
3	M226423	US273I	1
3+N	N226424	US273NI	1

Accessories	Ferraz Shawmut	Catalog #	Pckg
single pole auxiliary microswitch**	E227612	US27P	1
multi-pole assembly kit	H227615	US27PAK	1*

* 10 per bag

** for a two-pole US 27, two single pole auxiliary microswitches are required

AC/DC US 27 fuse disconnectors – Fully fitted

27x60 fuses with or without striker

Nb. of Poles	Model with auxiliary microswitch but no indicator light		
	Ferraz Shawmut	Catalog #	Pckg
1	R227600	US271MI	3
2	S227601	US272MI	1
2*	T227602	US272M2I	1

(*) two single-pole auxiliary microswitches

For a three-pole version, 3 single-pole auxiliary microswitches are required

▪ US 27 approved materials include VO UL 94 compliant plastics.

▪ **Connection** by fixed screw clamp for wiring:

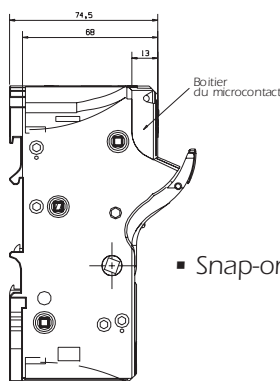
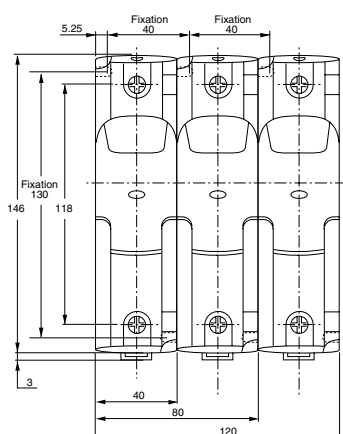
Max. cross sectional area:

- 1 conductor, solid or stranded: 35 mm² (3AWG).
- 2 conductors, stranded: 36 mm² (6AWG), or solid
tightening torque: 2.8 to 3.5 Nm (30 lb.in).
- Connection to type B terminal.

Mounting:

- Snap-on to symmetrical DIN rail, 35 mm (EN 50022 standard) and 75 mm with 2 locking positions.
- Directly on the panel with M4 screws tightened to a torque of 0.2 Nm (1B.in)

▪ on a 35 mm asymmetrical DIN rail with an adapter (ref. Q098500).





ST 22 fuse disconnecter with right side handle – Fully fitted

I_{th} max. 125A - Un 690V

Model fitted with indicator light and accessories

Nb of Poles	Nb FOs	Nb DPMM	Handle ref. Ferraz Shawmut	Ferraz Shawmut	Catalog #	Pckg
	0	1		N220398	ST221D	1
1	1	0		M220397	ST221FO	1
	1	1		P220399	ST22FOD	1
	0	1		D220619	ST221ND	1
1+N	1	0		E220620	ST221NFO	1
	1	1		D220573	ST221NFOD	1
	0	1		S220402	ST222D	1
2	1	0		R220401	ST222FO	1
	1	1	included	T220403	ST222FOD	1
	1	0		V209640	ST223D	1
3	2	0		R209637	ST223FOFO	1
	1	1		T209639	ST223FOD	1
	2	1		S209638	ST223FOFOD	1
	1	0		Q209636	ST223NFO	1
3+N	2	0		N209634	ST223NFOFO	1
	1	1		P209635	ST223NFOD	1
	2	1		M209633	ST223NFOFOD	1
4	0	1		H205926	ST224D	

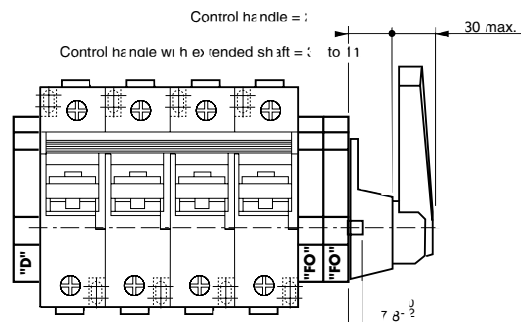
version for eye lug connection (type B terminal) exists

Additional accessories	Ferraz Shawmut	Catalog #	Pckg
Single pole locking kit	H098493	ST22LOCK1	1
2 pole locking kit	J098494	ST22LOCK2	1
3 pole locking kit	K098485	ST22LOCK3	1
3+N locking kit	F098491	ST22LOCK3N	1
Wiring bar for 6 poles	C210314	ST22PEI6	5
Wiring bar for 12 poles	B210313	ST22PEI12	5
Single-pole terminal, side	E210316		50
2/3-pole terminal, side	G210318		50
Single-pole terminal, axial	D210315		50
2/3-pole terminal, axial	F210317		50
Adapter for asymmetrical DIN rail mounting	Q098500		50

FO = NO/NC microswitch

DPMM = Motor starting protection

For further details see The Advisor





IT modular switch disconnectors

25 to 125 A

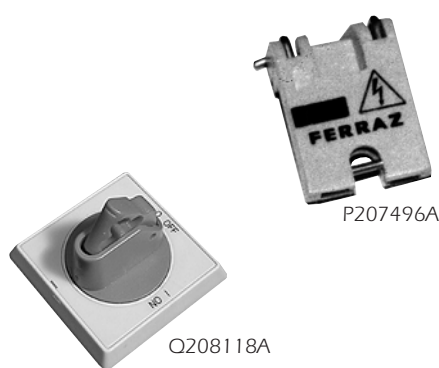


Description	Ref	Catalog #
IT 25 E III Front handle	F210064A	IT253CF
IT 25 E IV Front handle	G210065A	IT254CF
IT 32 E III Front handle	D207486A	IT323CF
IT 32 E IV Front handle	E207487A	IT324CF
IT 50 E III Front handle	F207488A	IT503CF
IT 50 E IV Front handle	G207489A	IT504CF
IT 63 E III Front handle	H207490A	IT633CF
IT 63 E IV Front handle	J207491A	IT634CF
IT 80 E III Front handle	B208956A	IT803CF
IT 80 E IV Front handle	C208957A	IT804CF
IT 125 E III Front handle	D208958A	IT1253CF
IT 125 E IV Front handle	E208959A	IT1254CF

DIN rail on back of cubicle mounting. Delivered with handle
Protection against accidental contact with the original IP20 insulated terminals

Accessories	Description	Ref.	Catalog #
Outside front handle	Lockable black handle IT25E to IT125E	N207702A	PINIT25/125
	Lockable red&yellow handle IT 25E to IT 125E	H208571A	PIRJIT25/125
Front handle pin	IT 25 to 125: Long pin. 130 sq. mm 5 mm	M207701A	AIT130
	IT 25 to 125: Long pin. 330 sq. mm 5 mm	T208558A	AIT330
Auxiliary pre-isolating microswitch	IT 25 to 125: Single NO microswitch (max. 2 switches)	M207494A	FOIT25/125ETNO
	IT 25 to 125: Single NO microswitch (max. 2 switches)	L207493A	FOIT25/125ETNC
	IT 25 to 125: NO/NC side reversing microswitch	D210453A	FOIT25/125INV
Additional pole for 3-pole modular IT	4th pole for IT 25 & 32 III	S208120A	4PIT25/32
	4th pole for IT 50E-63E III	T208121A	4PIT50/63
	4th pole for IT 80E III	F208960A	4PIT80
	4th pole for IT 125E III	G208961A	4PIT125
6 and 8-pole adapter and reversing switch for IT 32 to 125E	IT 32 to 125E: 6 and 8-pole adapter (1)	N097118A	ADAIT32/125
	IT 32 to 125E: Reversing switch	A092598A	INVIT32/125
Locking system for modular IT with inside handle	Locking system IT 50E to 160E	P207496A	CADIT50/160

(1) V209916A handle and H2081703A shaft must be ordered



Description	Ref.	Catalog #
IT32 ET III for door mounting	N208116A	IT323MP
IT 50 ET III for door mounting	R209085A	IT503MP
IT 63 ET III for door mounting	S209086A	IT633MP

Accessories	Description	Ref.	Catalog #
Handle for door-mounted IT 32 to 63 A (control shaft not required)	IT 32 ET: Snap-on black handle	Q208118A	PINCIT32ET
	IT 32 ET: Snap-on red and yellow handle	P208117A	PICRJIT32ET
	IT 32 ET to 63ET: black handle	Q209084A	PINIT32ET
	IT 32ET to 63ET: red and yellow handle	P209083A	PIRJIT32ET
Auxiliary pre-isolating microswitch for IT for control on door	IT 25ET to 125ET: single NO microswitch (max. 2)	M207494A	FOIT25/125ETNO
	IT 25ET to 125ET: single NC microswitch (max. 2)	L207493A	FOIT25/125ETNC
Additional modular IT pole 3 poles for door mounting	4th pole for IT 32 (door mount)	R208119A	4PIT32ET
	Ground pole for IT 32ET III	T209754A	PTIT32ET
	4th pole for IT50-63ET (door mount)	V209087A	4PIT50/63
	Ground pole IT 50-63 ET III	V209755A	PTIT50/63

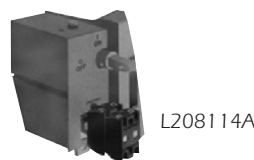
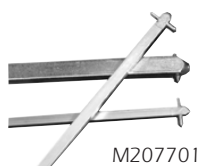


IT switch disconnectors for 160 to 3150 A panels

Description	Ref.	Catalog #
IT 160E III Front handle	D208107A	IT1603CF
IT 160E IV Front handle	E208108A	IT1604CF
IT 250K III Front handle	L202134A	IT2503CF
IT 250K IV Front handle	D202127A	IT2504CF
IT 315K III Front handle	R202139A	IT3153CF
IT 315K IV Front handle	P202137A	IT3154CF
IT 350K III Front handle	F202152A	IT3503CF
IT 350K IV Front handle	E202151A	IT3504CF
IT 500 III Front handle	M096450A	IT5003CF
IT 500 IV Front handle	P096498A	IT5004CF
IT 630K III Front handle	M096151A	IT6303CF
IT 630K IV Front handle	N096152A	IT6304CF

Description	Ref.	Catalog #
IT 800K III Front handle	P096153A	IT8003CF
IT 800K IV Front handle	Q096154A	IT8004CF
IT 1000K III Front handle	B081559A	IT10003CF
IT 1000K IV Front handle	C081560A	IT10004CF
IT 1250K III Front handle	T096157A	IT12503CF
IT 1250K IV Front handle	V096158A	IT12504CF
IT 1600K III Front handle	R096155A	IT16003CF
IT 1600K IV Front handle	S096156A	IT16004CF
IT 2500K III Front handle	J081681A	IT25003CF
IT 2500K IV Front handle	H081680A	IT25004CF
IT 3150K III Front handle	B202148A	IT31503CF
IT 3150K IV Front handle	A202147A	IT31504CF

DIN-rail mounting possible for IV 160



Accessories	Description	Ref.	Catalog #	
Inside front handle	IT 160E: red and black inside handle	G208110A	PIRNIT160	
IT 160 to 1600	IT 250 to 350: adapter for outside handle (1)	X202167A	APIIT250/350	
	IT 500 to 800: adapter for outside handle (1)	C092600A	APIIT500/800	
	IT 1000 to 1600: adapter for outside handle (1)	R092084A	APIIT1000/1600	
	IT 160E : red and black outside handle	M209909A	PERNIT160	
Outside front handle	IT 160E : red and yellow outside handle	N209910A	PERJIT160	
	IT 250 to 350K : red and black outside handle	S209914A	PERNIT250/350	
	IT 250 to 350K : red and yellow outside handle	T209915A	PERJIT250/350	
	IT 500 to 1600K : red and black outside handle	Q209912A	PERNIT500/1600	
	IT 500 to 1600K : red and yellow outside handle	R209913A	PERJIT500/1600	
	IT 2500 to 3150K : red and black outside handle	Y210678A	PERNIT2500/3150	
	IT 2500 to 3150K : red and yellow outside handle	Z210679A	PERJIT2500/3150	
	IT 2500 to 3150K : pull-out red handle	F099549A	PEDIT2500/3150	
	IT 250 to 350 one shield per terminal	A202170A	CBIT250/3503	
	IT500 III shield for 3 terminals upstream/downstream (2)	Q096499A	CBIT5004	
	Protection against contact with live terminals IT160 to 1500	IT500 VI shield for 4 terminals upstream/downstream (2)	Z096507A	CBIT5004
		IT630 III shield for 3 terminals upstream/downstream (2)	F080137A	CBIT6303
IT630 VI shield for 4 terminals upstream/downstream (2)		E080136A	CBIT6304	
IT800 III shield for 3 terminals upstream/downstream (2)		G080138A	CBIT8003	
IT800 VI shield for 4 terminals upstream/downstream (2)		D080135A	CBIT8004	
IT 1000 to 1600 : 1 shield per terminal		S095880	CBIT1000/1600	
IT 3150 III 1 screen for the upstream and downstream terminals (2)		L099554A	EIT31503	
IT 3150 VI 1 screen for the upstream and downstream terminals (2)		K099553A	EIT31504	
6 and 8-pole adapter and reversing switch for front handle IT160 to 1600	IT 160 : 6 and 8-pole adapter	A209024A	ADAIT160	
	IT 160 : Reversing switch	T081713A	INVIT160	
	IT 250 to 350: 6 and 8-pole adapter	B202171A	ADAIT250/350	
	IT 250 to 350: Reversing switch	C202172A	INVIT250/350	
	IT 500 to 1600: 6 and 8-pole adapter (3)	P097119A	ADAIT500/1600	
Auxiliary pre-isolating microswitch IT 160 to ITC 630	IT 500 to 1600 : Reversing switch	B092599A	INVIT500/1600	
	IT 160 Microswitch adapter (microswitch not included)	K208113A	ADFOIT160	
	IT 160 NC microswitch (max. 3)	L208114A	FOIT160NC	
	IT 160 NO microswitch (max. 3)	M208115A	FOIT160NO	
	IT 250 to 350 1xNO and 1xNC microswitches	Y202168A	FOIT250NO/NC	
	IT 250 to 350 2xNO and 2xNC microswitches	Z202169A	FOIT2502NO/NC	
	IT 500 to 3150 1xNO and 1xNC microswitches	S086588A	FOIT500NO/NC	
	IT 500 to 3150 2xNO and 2xNC microswitches	L097300A	FOIT5002NO/NC	
IT 500 to 3150 2xNO and 2xNC (4) microswitches	J208020A	FOIT5002NONCBN		

(1) for IT 250 to 1600 order an adapter for an outside handle + an outside handle

(2) Upstream/downstream: screen to protect the 3 or 4 terminals upstream or the 3 or 4 terminals downstream

(3) Order an outside handle ref. Y210678A + L097093A

(4) Low level

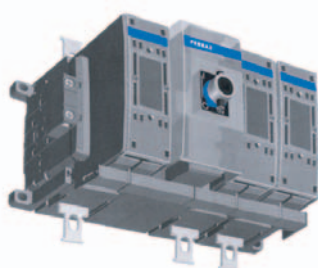
Fused switch disconnectors front or side handle

Model with front handle				Model with side handle		
Sizes	Poles	Ferraz Shawmut	Catalog #	Ferraz Shawmut	Catalog #	Pckg
10x38 32A	3	J205283	ITC323	F210087	ITC323H	1
	3+N	K205284	ITC323N			
	4	L205285	ITC324			
14x51 50A	3	Y209896	ITC503	D209901	ITC503H	1
	4	Z209897	ITC503N			
22x58 125A	3	L210782	ITC1253	P210785	ITC1253H	1
	3+N	M210783	ITC1253N			
	4	N210784	ITC1254			
27x60 160A	3	B210888	ITCP1603			

ITC 32
(10x38)



ITC 50
(14x51)

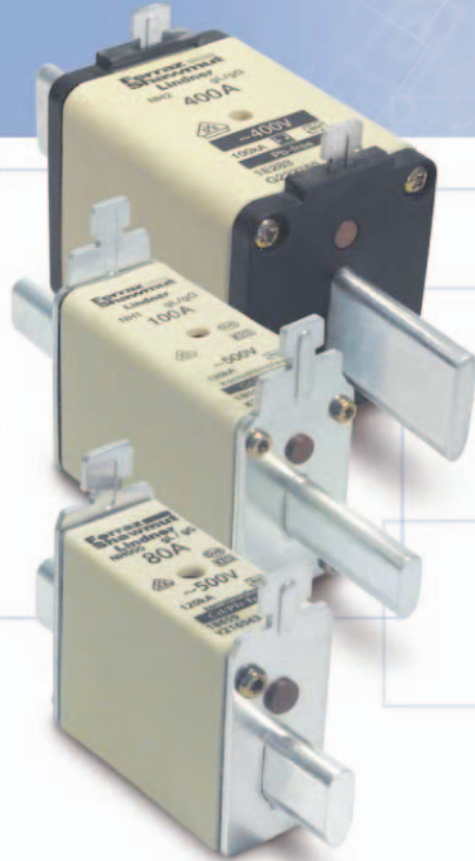


ITC 125
(22x58)
and
ITCP 160
(27x60)

Accessories	Ferraz Shawmut	Catalog #	Pckg
single NC microswitch (1)	H209882	FOITC32/160NC	1
single NO microswitch (1)	L207493	FOITC32/160NO	1
double NO and NC microswitch (1)	P205288	FOITC32 NO/NC	1
double NO and NC microswitch (1)	O205289	DITC323 NO/NC	1
double NO and NC microswitch (1)	R205290	DITC323N/4NO/NC	1
double NO and NC microswitch (1)	Z210104A	DITC503 NO/NC	1
double NO and NC microswitch (1)	A210105A	DITC503N/4 NO/NC	1
double NO and NC microswitch (1)	A210473A	DITC125 3/4 NO/NC	1
Lockable insulating front handle ITC 32 (10x38)	N205287	PIITC32	1
Lockable insulating front handle ITC ITC 50 & 125 (14x51, 22x58)	E210109	PIITC50/160	1
Lockable insulating side handle ITC32, black	V209916	PENITC32	1
Lockable insulating side handle ITC32, red and yellow	C210084	PERJITC32	1
Lockable insulating side handle ITC50 (14x51), black	M209909	PENITC32/160	1
Lockable insulating side handle ITC125 (22x58), red and yellow	N209910	PERJITC50/160	1
Lockable insulating front handle ITC 32 (10x38), black	A210082	PENITC32L	1
Lockable insulating front handle ITC 32 (10x38), red and yellow	B210083	PERJITC32L	1
Lockable insulating side handle ITC 50FS (14x51), black	D210085	PENITC50/160	1
Lockable insulating side handle ITC125M (22x58), red and yellow	E210086	PERJITC50/160	1
Shaft extensions ITC32	T208558	AITC32/32L 330	1
Shaft extensions ITC50	B210106	AITC50/180 290	1
Shaft extensions ITC125	C210107	AITC50/160 430	1
Protection against accidental contact with terminals ITC32/ITC50 1 shield per connection	N210207	CBITC 125/160/L	1
Neutral tube 8x32	X211045	FRN832	10
Neutral tube 10x38	R211569	FRN1038	10
Neutral tube 14x51	M212600	FRN1451	10
Neutral tube 22x58	R213616	FRN2258	10
6 and 8-pole 32A adapter	N097118	EXITC32	1
6 and 8-pole 50A and 160A adapter	A209024	EXITC50/160	1
32A reversing switch	A092598	INITC32	1
50A and 160A reversing switch	T081713	INITC50/160	1

(1) = see technical characteristics in The Advisor

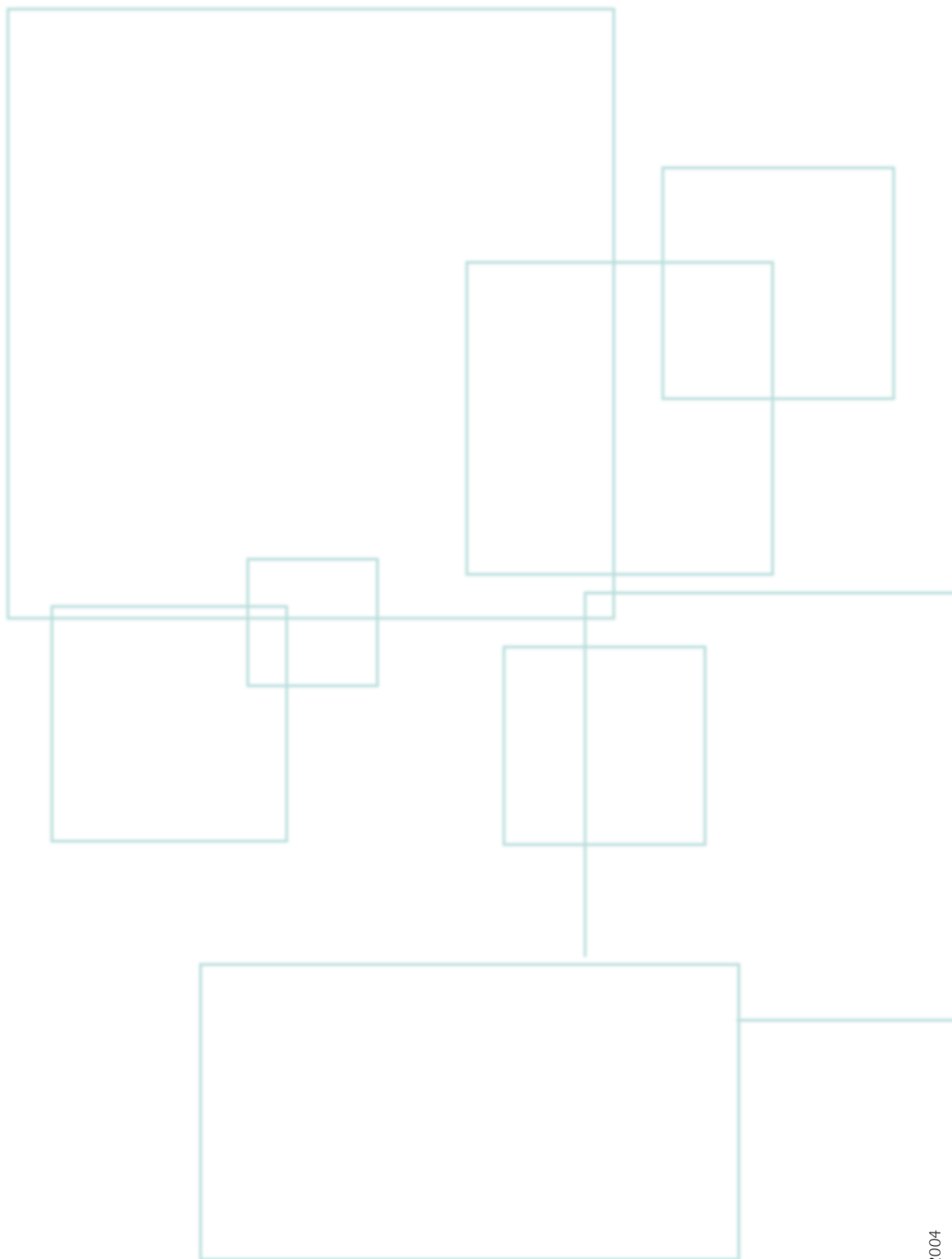
NH-Fuse system Low voltage



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