



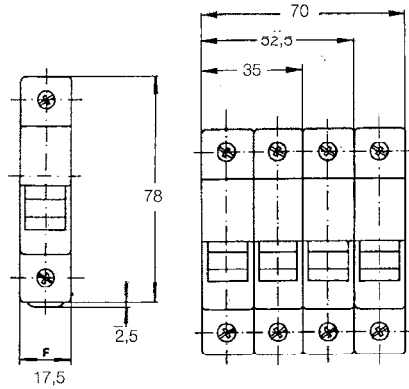
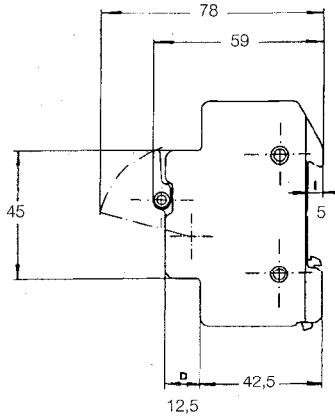
Blocks & Holders



French Ferrule Fuses

Modular fuse holders

MSC



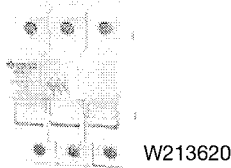
- Blown fuse indicator (120/690V)
- Cable size:
 - unipolar: 1 x 16mm²
 - unipolar + neutre: 1 x 10 mm²
- Provision for locking in versions without indicator.
- IP20



Poles	CATALOG NUMBER		REFERENCE NUMBER		N. Mod. (17,5 mm)	Packing
	Standard	+ indicator	Standard	+ indicator		

MSC 8: Fuse 8x31

In max: 25A ; Vn max: 400V



1	24002	24004	T219253	F222461	1	12
1 + N	24010		B211049		2	6
2	24012		H212604		2	6
3	24014		W213620		3	4
3 + N	24016		C214638		4	3
4	24019		Q216168		4	3
N	24000		Q218215		1	12

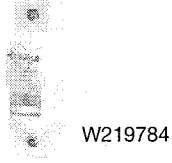
Phase + neutral (1 mod.)

1 + N	24006	24008	F200772	X201316	1	12
3 + N	24018		J215150		3	4



MSC 10: Fuse 10x38

In max: 32A; Vn max: 690V



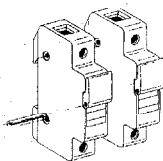
1	24202	24204	Q216674	W219784	1	12
1 + N	24210		C212085		2	6
2	24212	24213	E213122	K215151	2	6
3	24214		M215659		3	4
3 + N	24216		E217193		4	3
4	24219		F218735		4	3
N	24000		Q218215		1	12

Phase + neutral (1 mod.)

1 + N	24206	24208	Y201317	C211050	2	12
3 + N	24218		S218217		3	4



Assembly pin



Poles	CATALOG NUMBER	REFERENCE NUMBER	Packing
2	14030	G215125	10
3	14031	Q216145	10
4	14032	A217166	10

Standards: IEC 269-2-1/947. NFC 63.001/63.210. UNE 21103-2-1. 269-2-1. 947-3
 Approvals: Bureau Veritas / Lloyd's Register of Shipping

Fuses: See General Purpose Fuses, French Ferrule



Blocks & Holders



French Ferrule Fuses

Technical features - modular fuse holders

Fuse-link table I max. / Vn

Type	Fuse	In max.					Torque Maxi N.m.
		250	400	500	600	690	
CC	CC. 8	8 x 31		25A			2
	CC. 10	10 x 38		32A	25A		2
	CC. 14	14 x 51		50A	32A	25A	3,5
	CC. 22	22 x 58		125A	100A	80A	4
CCR	CCR. 8	8 x 31		25A			2
	CCR. 10	10 x 38		32A	25A		
MSC	MSC. 8	8 x 31		25A			2
	MSC. 10	10 x 38		32A	25A		
MSD	MSD (8x23)	8 x 23	10A				
	MSD (8x31)	8 x 31		20A			
	MSD (10x25)	10 x 25	16A				2
	MSD (10x31)	10 x 31		25A			
	MSD (10x38)	10 x 38		32A			
CMS	CMS. 14	14 x 51		50A	32A	25A	3,5
	CMS. 22	22 x 58		125A	100A	80A	4,5
MSM	MSM	5 x 20	16A				2

Application coefficient of multipolar fuse-links

N. mod (17,5 mm)	Fuse-link I max.
1 - 2 - 3	In
4 - 5 - 6	0,8 x In
7 - 8 - 9	0,7 x In
> 10	0,6 x In

Correction of available current based on temperature

Temperature	Available x In
20°C	1
30°C	0,95
40°C	0,9
50°C	0,8



Blocks & Holders



French Ferrule Fuses

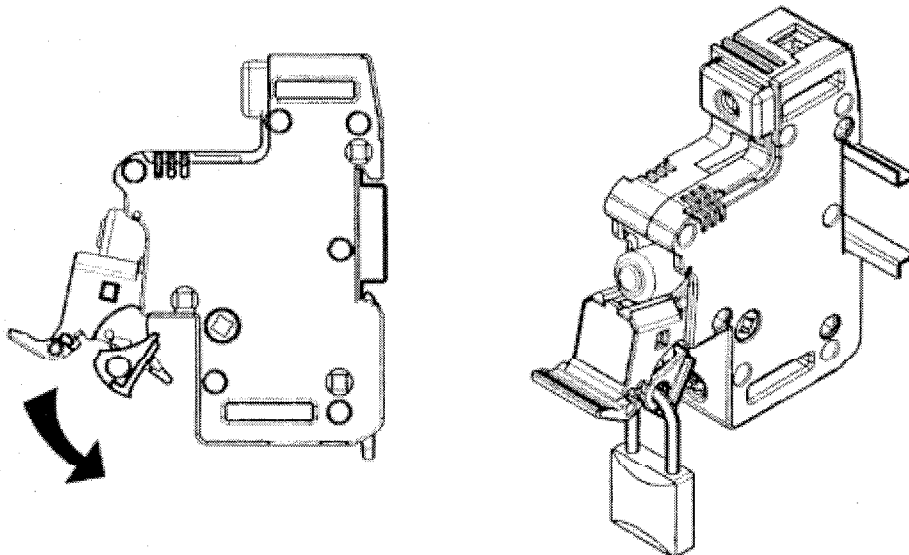
Technical features - CMS

Table of electrical characteristics

	Rating UN(V)	Uimp (kV)	Fuse current rating IN(A)	Maximim fuse operating current (A)				Recom-mended copper wire size (mm2)	Torque Maxi N.m.
				gG	aM	gRC	UR		
CMS 14	690	8	0,25	0,25	0,25				
			0,5						
			1						
			2						
			4						
			6						
			8						
			10						
			12						
			16						
			20						
			25						
			32						
CMS 22	690	8	1	1	1				
			2						
			4						
			6						
			8						
			10						
			12						
			16						
			20						
			25						
			32						
			40						
			50						
63									
80									
100									
125									

Lock installation

Reference Number M223525





Blocks & Holders



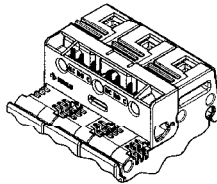
French Ferrule Fuses

Technical features - CMS

Microswitch options

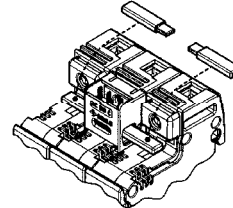
Ref. Number CMS 14 (D219791) • Art. N° CMS 22 (B212613)

2 microswitches



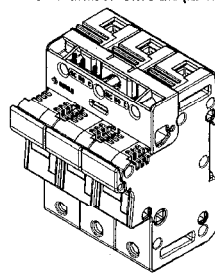
Ref. Number CMS 14 (M218741+F213629)
Ref. Number CMS 22 (M218741+F213629)

1 microswitch



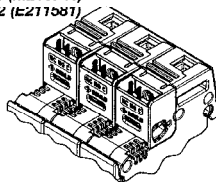
Ref. Number CMS 14 (C219261)
Ref. Number CMS 22 (L212090)

1 microswitch



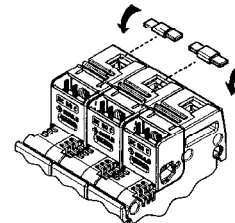
Ref. Number CMS 14 (M218741)
Ref. Number CMS 22 (E211581)

3 independent
microswitches



Ref. Number CMS 14 (M218741+J214138)
Ref. Number CMS 22 (E211581+J214138)

3 mechanically
interconnected
microswitches

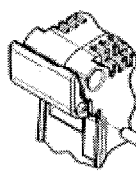


Fuse holder assembly

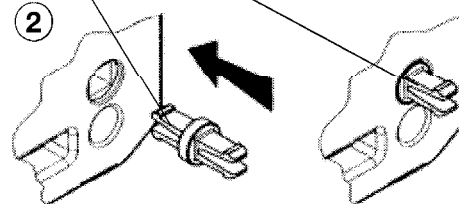
Ref. Number CMS 14/22 (Z218223)

Z218223

①

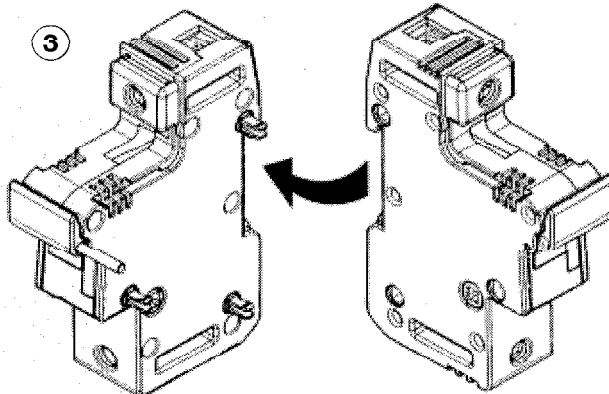


②

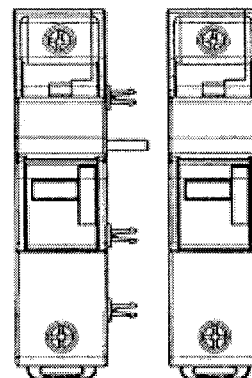


CLICK!

③



④



CLICK!



Blocks & Holders



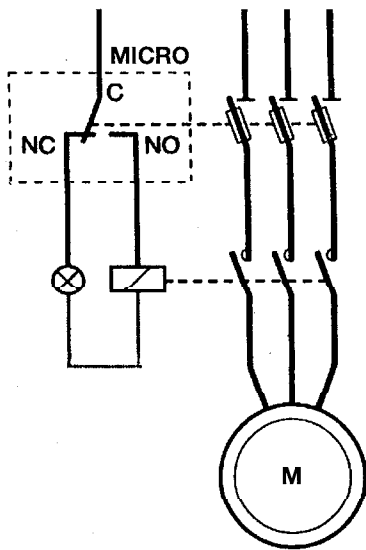
French Ferrule Fuses

Technical features - CMS

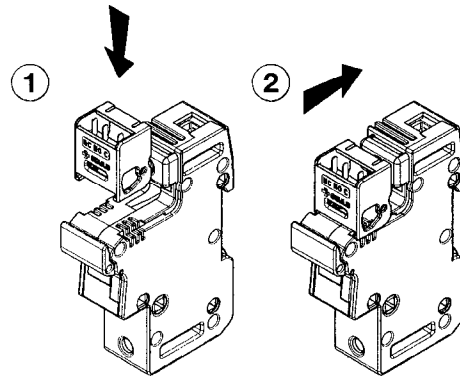
Microswitch mounting instructions (*)

Reference Number CMS 14 (M218/41 / G219261 / D219791)

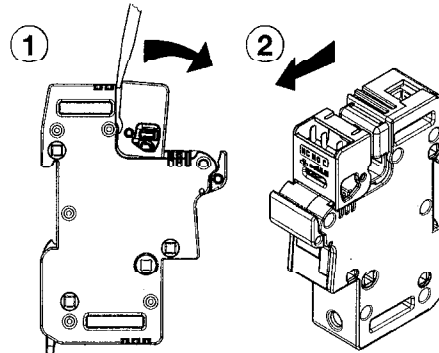
Reference Number CMS 22 (E211581 / L212093 / B212613)



Assembly



Disassembly



Auxilliary microswitch caracteristics

Minimum voltage and current for operation: 10VAC/DC 100mA

(*)Microswitch functions

Blown fuse: Fuse holder containing fuse with striker sends message when fuse blown

Prebreaking: When fuse holder opens

Presence: Sends message or not depending on fuse presence

Nominal current and interrupting rating(1) at 250V	6A	AC12
	3A	AC13
	0,3A	AC14
	0,1A	DC12/13/14

Nominal current and interrupting rating(1) at 2 and 24 V	6A	DC12/DC13
	5A	AC13
	2A	AC14/DC13
	0,6A	DC14

(1) According IEC947-5 standard



Blocks & Holders



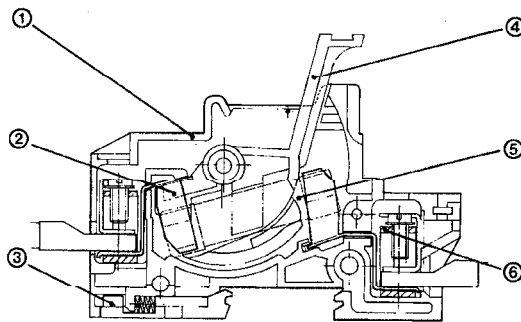
French Ferrule Fuses

Modular fuse holders

MS

MS Modular fuse base
for industrial cylindrical fuse-links

Note:
In 2001, these products will be cross-referenced to MSC10, CMS14 and CMS22 (see previous pages)



- 1 Base
- 2 Contact
- 3 Slide
- 4 Handle
- 5 Fuse-link
- 6 Bolt

Material:
 Handle: Thermal polyester (PU)
 Base: Highly temperature resistant polyamide.
 Self-extinguishable.
 Contacts: Silver-plated.
 Protection Index: IP 20
 Live parts inaccessible.

MS fuse holder operations
 with:

- Fuse indicator (250/690V~)
 Indicator lights up when:
 - Fuse melts
 - No fuse-link
- Reversing microswitch 5A-250V~
 The microswitch operates:
 - When fuse-link absent
 - When fuse base open
 - By trip-indicator action

Type	Fuse base In. (*)	Fuse-link	Fuse-link max.		
			400 V~	500 V~	690 V~
MS. 10	32A	10 x 38	32A	25A	-
MS. 14	50A	14 x 51	50A	40A	25A
MS. 22	125A	22 x 58	125A	100A	80A

(*) In intermittent operation
Do not open under load

Standards:
 CEI 269-2-1, 947-3
 NFC 63210 - 63001
 VDE 0636 - 1
 UNE 20129 - 21103

Approvals:
 Lloyd's Register of Shipping
 bureau veritas