

## Motor protection switches M16 – 20A Main switches S25 – 25A



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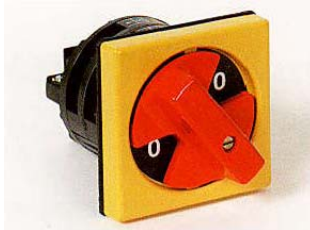
## Motor protection switches M16 – 20A / Main switches S25 – 25A

### Remark examples



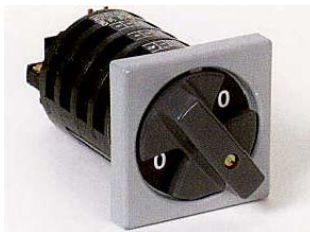
#### Switch type M 1611 KV 6.3 T2

Motor protection switch, 2-pole, single pole with thermal protection



#### Switch type M 1620 QV 2.5 T2 A1 P

Motor protection switches, 2-pole, thermal protection, operating current release, IP 54



#### Switch type M 1630 FV 12.5 T1 M H3 U5 N Z

Motor protection switch, 3-pole, thermal/magnetic protection, auxiliary contact, under voltage release, neutral conductor terminal and centre connection



#### Switch type S 2503 BR

Main switch with terminal cover



#### Switch type M 1630 EV 2.5 T2 M H3 U4 N

Motor protection switch, 3-pole, all poles with thermal/magnetic protection, auxiliary contact, under voltage release, neutral conductor terminal

#### M16-RSQ

Dust cover including yellow front panel and red knob, with rubber seal



#### Switch type M 1630 BV 4.0 T2

Main switch, 3-pole, all poles with thermal protection

#### M16-GEHP

Plastic enclosure IP 54

### Short described

DISA compact switches are available as motor protection, main, load disconnecting switches.

DISA **motor protection switches M16** are compact switches with built-in thermal release, available with or without electromagnetic quick release.

DISA **main switches S25** are compact switches without built-in electromagnetic quick release.

Electrical characteristics: 20A rated current for type M16 or 25A rated current for type S25 at 400 V~. 14 adjustment ranges available from 0.63A to 20A.

All switch types are available in 4 different front designs:

Flat front - light grey front panel with dark grey rotary knob or yellow front panel with red rotary knob.

Protective collar - same colour combinations as flat front design.

The protective collar prevents accidental operation of the rotary knob and can be fitted with up to 3 padlocks.

## Switch connections



Rotary knob, axial adjustment, clear and easily-visible position indicator, dark grey or red

1	0	standard display	on request no extra cost	1	0
0	1			off	on

Front panel or protective collar, light grey or yellow

Under voltage release \* or operating current release

Terminal for neutral conductor \*

Auxiliary contacts \*  
6A, 230V ~ 4A, 400V ~

Output 6  
Main connection 5

Centre connection \* W 6

Output 4  
Main connection 3  
Centre connection \* V 4

Output 2  
Main connection 1

Centre connection \* U 2

Terminal for protective conductor

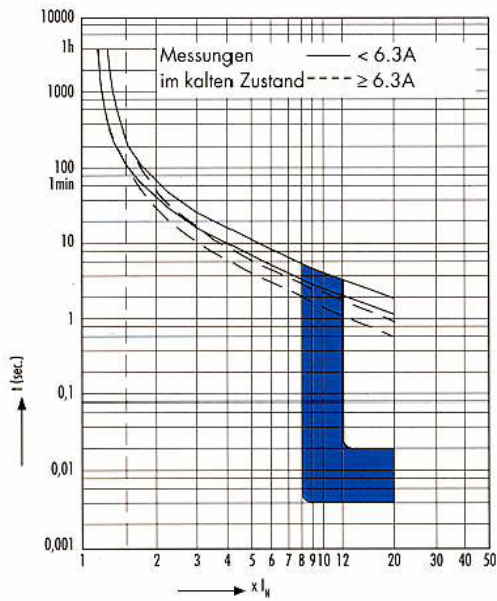
Protective collar, yellow or light grey, for fitting up to 3 padlocks

Front panel protection class. IP 40 or IP 54 respectively \* with additional rubber seal (splash water protection)

\*Option subject to extra charge

## Electrical characteristics

### Release characteristics



measures in cold condition

### Electrical characteristics

< 6.3A	sluggish release
> 6.3A	quick release
	sluggish releases are available on request for the ranges 9.0A to 16.0A
20A / 690V	category of use AC 3
25A / 690V	without over current release
mechanical operating life	50'000 operations
disconnection capacity	
cos Ø 0.7, 500V	500A
disconnection time on short circuit	< 15 ms
M16 calibration at	20°
auxiliary contacts	6A / 230V~, 4A / 400V~
no. of poles	1 to 3-poles, irrespective of optional equipment
connection terminals	max 2x6mm <sup>2</sup>

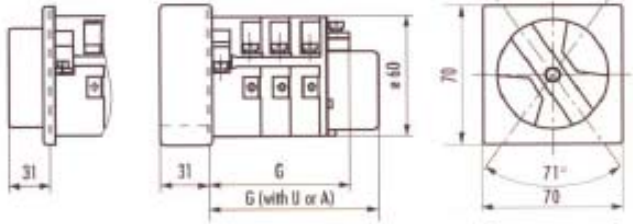
### Weight of switch types

S2502 FV	200g
S2502 KV	210g
S2503 FV	250g
M1630 FV 4.0	260g
M1630 FV 4.0M	290g
M1630 FV 4.0M with H1, H2 or H3	320g
M1630 FV 4.0M with H1, U1 or A1	385g

### Back-up fuses

Adjustment range in A Higher range used for ordering	M16 no magnetic quick release Back-up	M16 with magnetic quick release Back-up fuse in 230/400V~ a.c. 690V~ a.c.
0.063 – 0.1 T2M	only available with thermal and magnetic quick release	no back-up fuse required
0.1 – 0.16 T2M		short-circuit resistant
0.16 – 0.25 T2M		6A gG
0.25 – 0.4 T2M		10A gG
0.4 – 0.63 T2	2A gG	25A gG
0.63 – 1.0 T2	4A gG	25A gG
1.0 – 1.6 T2	6A gG	25A gG
1.6 – 2.5 T2	10A gG	25A gG
2.5 – 4.0 T2	10A gG	25A gG
4.0 – 6.3 T2	16A gG	25A gG
6.3 – 9.0 T1 (T2)	20A gG	25A gG
9.0 – 12.5 T1 (T2)	20A gG	25A gG
12.5 – 16.0 T1 (T2)	25A gG	25A gG
16.0 – 20.0 T1	25A gG	25A gG
	35A gG	35A gG

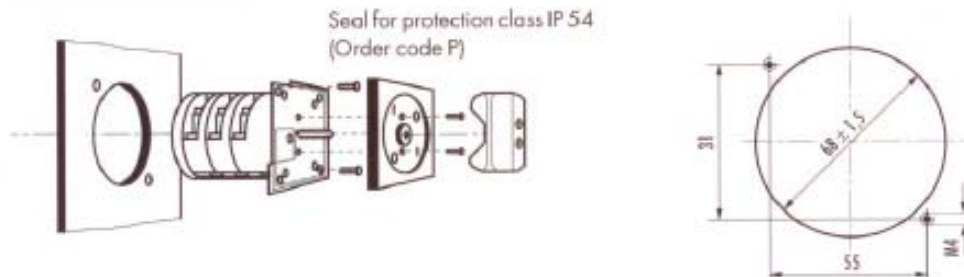
**Dimensions, installation**



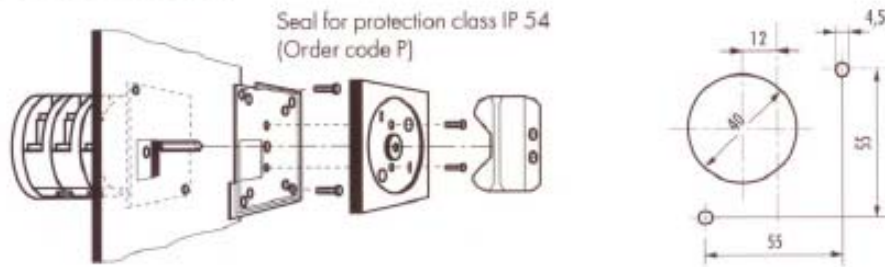
**Basic type and options**

Basic type	Auxiliary contacts	Undervoltage or operating current release	G (mm)		
			1 pole	2 pole	3 pole
*			43	58	73
*	*		56	71	86
*	*	*	67	82	97
*		*	54	69	84

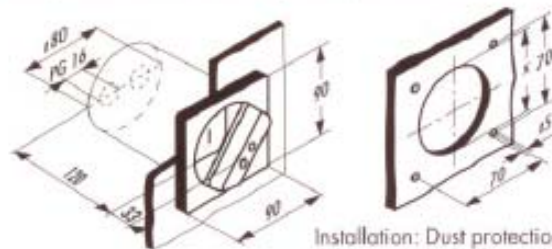
**Front mounting (V)**



**Rear mounting (R)**



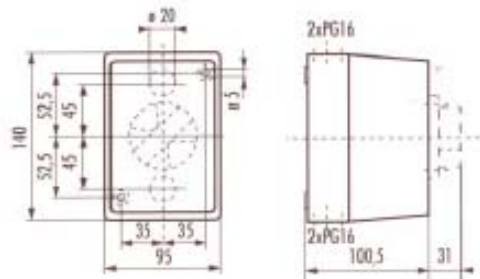
**Dust protection cover (designation M16-R5)**



Installation: Dust protection cover  
From rear: Hole diameter x = 75  
From front: Hole diameter x = 82



**Enclosure (designation M16-GEH)**



### Order example

Order number

**M1630 F V 12.5 T1 M U61 H1 PNZ**

Motor protection up to 20A			Main switch up to 25A	
No. of poles	All pole thermal protection	Just 1 pole thermal protection 2nd pole for neutral cond..	No. of poles	No magnetic quick release
1	M1610	-	1	S2501
2	M1620	M1611	2	S2502
3	M1630	-	3	S2503

Front panel/Knob/Colours										
Order code	Front panel		Front panel		Colour knob		Locking		Clamp cover	Additional equipment
	fl	hi	gr	ye	gr	re	on	off		
E										no front panel and knob
F	*		*		*					front panel, flat
K		*	*		*		*	*		collar
Q	*			*		*				
D		*	*		*		*	*	*	lockable
B		*	*		*		*	*	*	lockable

Type of assembly	
Order code	Assembly system
V	from front
R	from rear

Adjustment range		Please quote only the higher range when ordering			
0.063	- 0.1	0.4	- 0.63	4.0	- 6.3
0.1	- 0.16	0.63	- 1.0	6.3	- 9.0
0.16	- 0.25	1.0	- 1.6	9.0	- 12.5
0.25	- 0.4	1.6	- 2.5	12.5	- 16.0
		2.5	- 4.0	16.0	- 20.0

Thermal characteristics	
Order code	Thermal characteristics
T2	(sluggish) up to 6.3A standard (on request up to 16A)
T1	(quick) above 9A standard

Magnetic quick release

Additional equipment					
Under voltage release			Operating current release		
Order code			Order code		
Volts	50 Hz	60 Hz	Volts	50 Hz	60 Hz
110	U1	U61	110	A1	A61
230	U2	U62	230	A2	A62
240	U3	U63	240	A3	A63
400	U4	U64	400	A4	A64

Auxiliary contacts	
Order code	Contacts / Configuration
H3	13  14 N.O. 21  22 N.C.
H1	13  14 N.O. 23  24 N.O.
H2	11  12 N.C. 21  22 N.C.

Additional equipment	
Order code	Additional equipment
P	Protection class IP 54
N	Neutral conductor terminal
Z	Centre connection