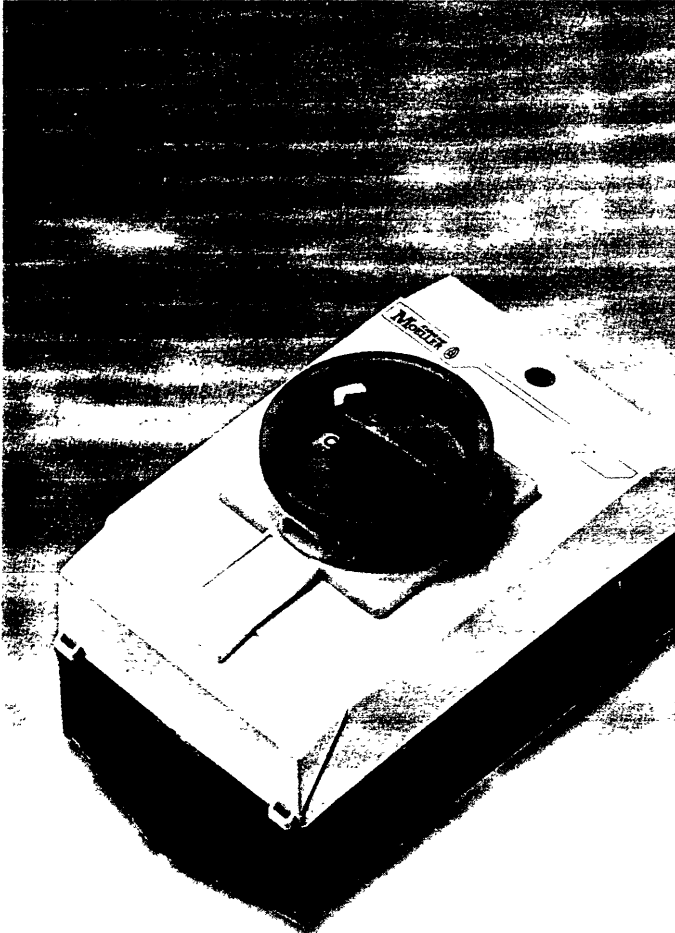
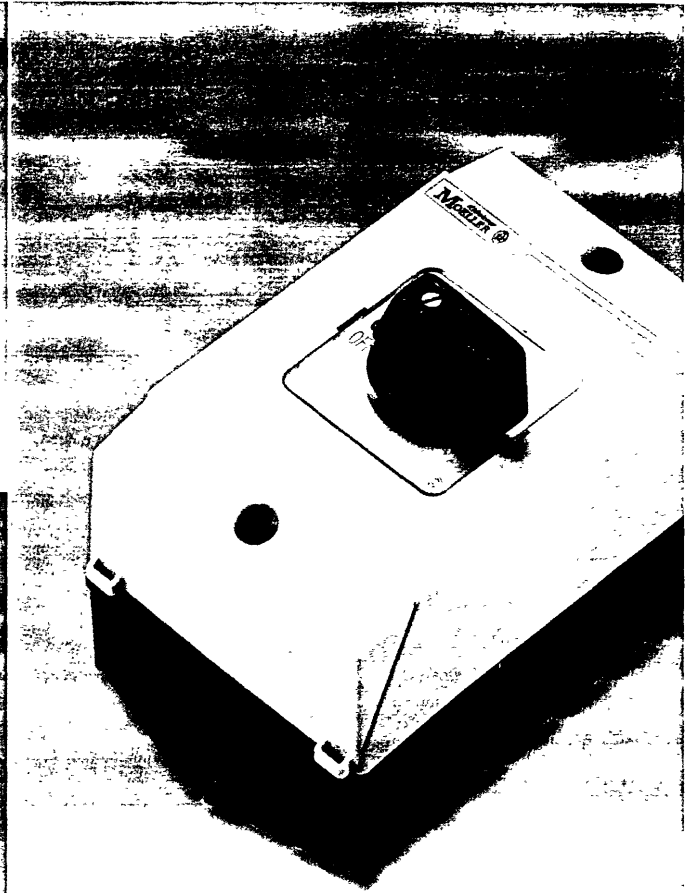
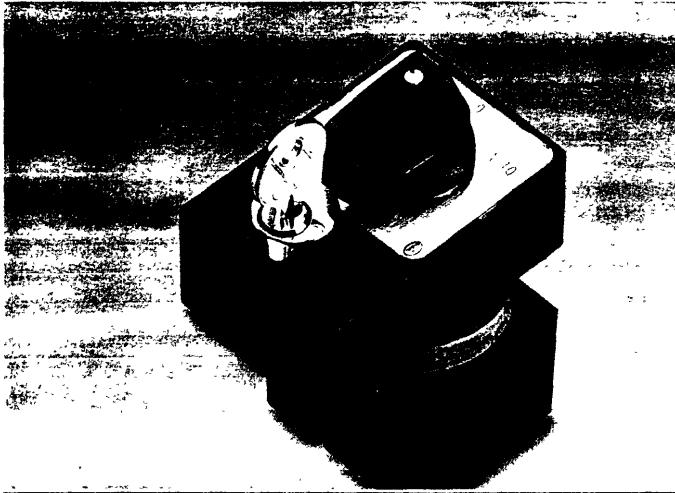
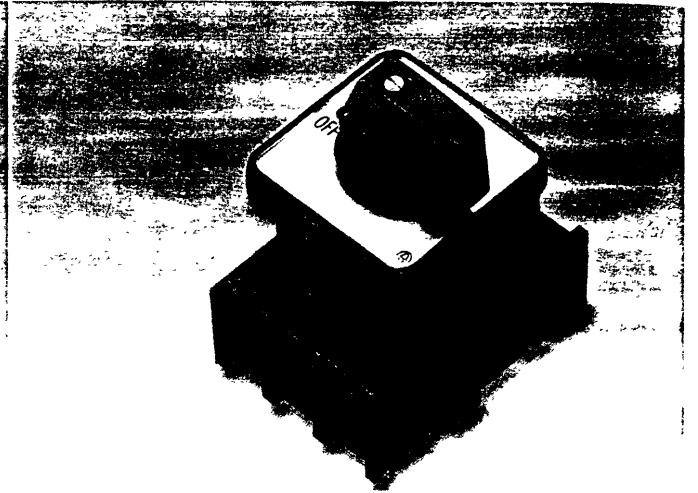
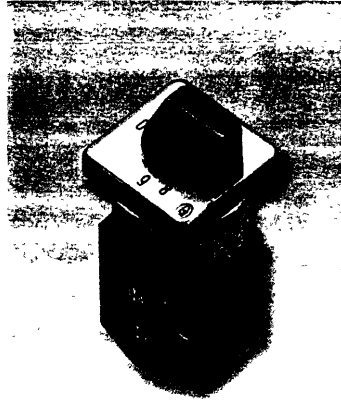


T Rotary Switches, P Switch-Disconnectors

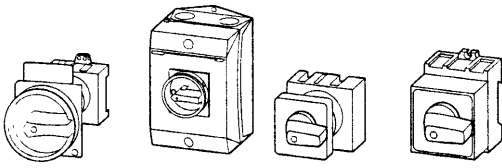
Rotary Switches
Switch-Disconnectors



T Rotary Switches, P Switch-Disconnectors

Overview

T rotary switches, P switch-disconnectors



TM mini rotary switches



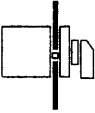
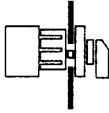
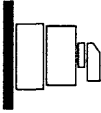
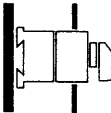
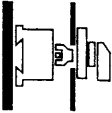
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Main switches	07/012
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Ordering of non-standard switches	07/108



T Rotary Switches, P Switch-Disconnectors

Overview of Functions

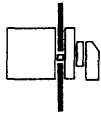
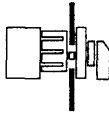
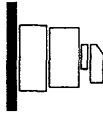
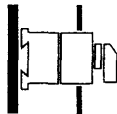
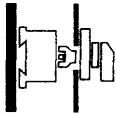
Function	Flush mounting .../E...	Centre mounting .../EZ...	Surface mounting .../I...	Service distribution board mounting .../IVS...	Rear mounting .../Z...
					
On-Off switches					
Main switches Maintenance switches For use as Emergency-Stop devices ¹	→ 07/012		→ 07/013		→ 07/013
Main switches Maintenance switches with auxiliary contacts For use as Emergency-Stop devices ¹	→ 07/014		→ 07/015		→ 07/015
Main switches Maintenance switches	→ 07/013		→ 07/013		→ 07/013
Main switches Maintenance switches with auxiliary contacts	→ 07/015		→ 07/015		→ 07/015
On-Off switches with black thumb-grip	→ 07/016 → 07/072	→ 07/017 → 07/072	→ 07/017	→ 07/017	→ 07/017
On-Off switches with black thumb-grip with auxiliary contacts	→ 07/018	→ 07/019	→ 07/019	→ 07/019	→ 07/019
On-Off switches For use as Emergency-Stop devices ¹	→ 07/020		→ 07/021	→ 07/021	
Control circuit isolators	→ 07/072				
Safety switches 25 – 100 A For use as Emergency-Stop devices ¹			→ 07/022		
Safety switches 25 – 100 A			→ 07/023		
Safety switches 63 – 200 A			→ 10/022		
Safety switches 250 – 315 A			→ 10/040		

Notes

¹ To IEC/EN 60 204-1;
With red thumb-grip and yellow front plate

T Rotary Switches, P Switch-Disconnectors

Overview of Functions

Function	Flush mounting .../E...	Centre mounting .../EZ...	Surface mounting .../I...	Service distribution board mounting .../IVS...	Rear mounting .../Z...
					
Control switches					
Changeover switches Mains transfer-, group switches	→ 07/024 → 07/073	→ 07/025 → 07/073	→ 07/025	→ 07/025	→ 07/025
Reversing switches	→ 07/030 → 07/080	→ 07/031 → 07/080	→ 07/031	→ 07/031	→ 07/031
Star-delta switches	→ 07/030	→ 07/031	→ 07/031	→ 07/031	→ 07/031
Multi-speed switches	→ 07/032	→ 07/033	→ 07/033	→ 07/033	→ 07/033
Step switches	→ 07/034 → 07/075	→ 07/034 → 07/075	→ 07/035	→ 07/035	→ 07/035
On-Off switches, changeover switches	→ 07/038 → 07/079	→ 07/038 → 07/079	→ 07/039	→ 07/039	→ 07/039
Hand/Auto switches	→ 07/040 → 07/074	→ 07/040 → 07/074	→ 07/041	→ 07/041	→ 07/041
Spring-return switches	→ 07/042 → 07/079	→ 07/042 → 07/079	→ 07/043	→ 07/043	→ 07/043
Universal control switches	→ 07/044	→ 07/044	→ 07/045	→ 07/045	→ 07/045
Coding switches	→ 07/044 → 07/080	→ 07/044 → 07/080	→ 07/045	→ 07/045	→ 07/045
Series switches	→ 07/044	→ 07/044	→ 07/045	→ 07/045	→ 07/045
Instrument selector switches (voltage)	→ 07/046	→ 07/046	→ 07/047	→ 07/047	→ 07/047
Instrument selector switches (current)	→ 07/046	→ 07/046	→ 07/047	→ 07/047	→ 07/047
Switches with locking arrangements	→ 07/048		→ 07/049		→ 07/049

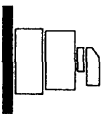
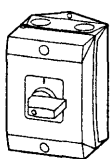
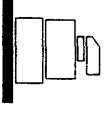
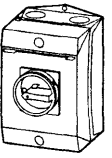
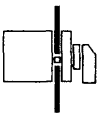
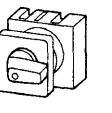
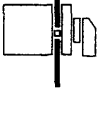
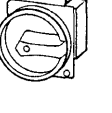
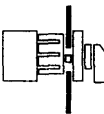
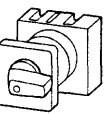
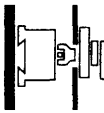
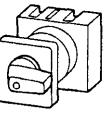
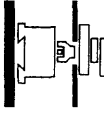
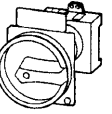
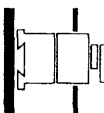
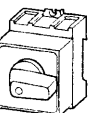
Rotary Switches
Switch-Disconnectors

T Rotary Switches, P Switch-Disconnectors

Technical Overview

				Switch size			
				TM	T0	T3	T5B
Three-phase motor rating	AC-3	220 – 240 V	kW	1,5	3	6,5	15
		380 – 440 V	kW	2,2	4	12	22
		690 V	kW	–	4	15	22
Rated operational current	AC-21	380 – 440 V, 3~	A	10	12	25	63
	AC-15	220 – 240 V	A	2,5	6	10	16
		380 – 415 V	A	1,5	4	6	6
Rated uninterrupted current			A	10	20	32	63

Mounting

		Type	Degree of protection				
Surface mounting¹⁾							
		..I ..	IP 65	–	●	●	●
		..I 45/..	IP 65	–	–	–	–
		...I 48/...	IP 65	–	–	–	–
Surface mounting main switch¹⁾							
		...I /SVB...	IP 65	–	●	●	●
Flush mounting							
		..E...	Front IP 65	●	●	●	●
Flush mounting main switch/flush mounting control circuit isolator							
		..EA/SVB...	Front IP 65	–	●	●	●
		TM...E/SVB	Front IP 65	●	–	–	–
Centre mounting							
		..EZ...	Front IP 65	–	●	●	–
		TM...EZ	Front IP 65	●	–	–	–
Rear mounting							
		..Z...	Front IP 65	–	●	●	●
Rear mounting main switch							
		...N/SVB...	Front IP 65	–	●	●	●
Service distribution board mounting							
		...IVS...	Front IP 30	–	●	–	–

Notes

¹⁾ Enclosures designed for metric cable glands to EN 50 262
Cable glands → Page 07/068

T Rotary Switches, P Switch-Disconnectors

Technical Overview

T5	T6-2	T6-3-8212	T6-160-6/...	T8-3-8342/...	T8-3-8212	P1	P3-63	P3-100
18,5	22	22	22	37	37	5,5 7,5	15	22
30	37	37	37	55	55	7,5 13	30	37
30	22	22	22	37	37	7,5 18,5	30	37
80	-	-	-	-	-	25 32	63	100
16	-	-	-	-	-			
6	-	-	-	-	-			
100	125	125	160	275/315	315	25 32	63	100

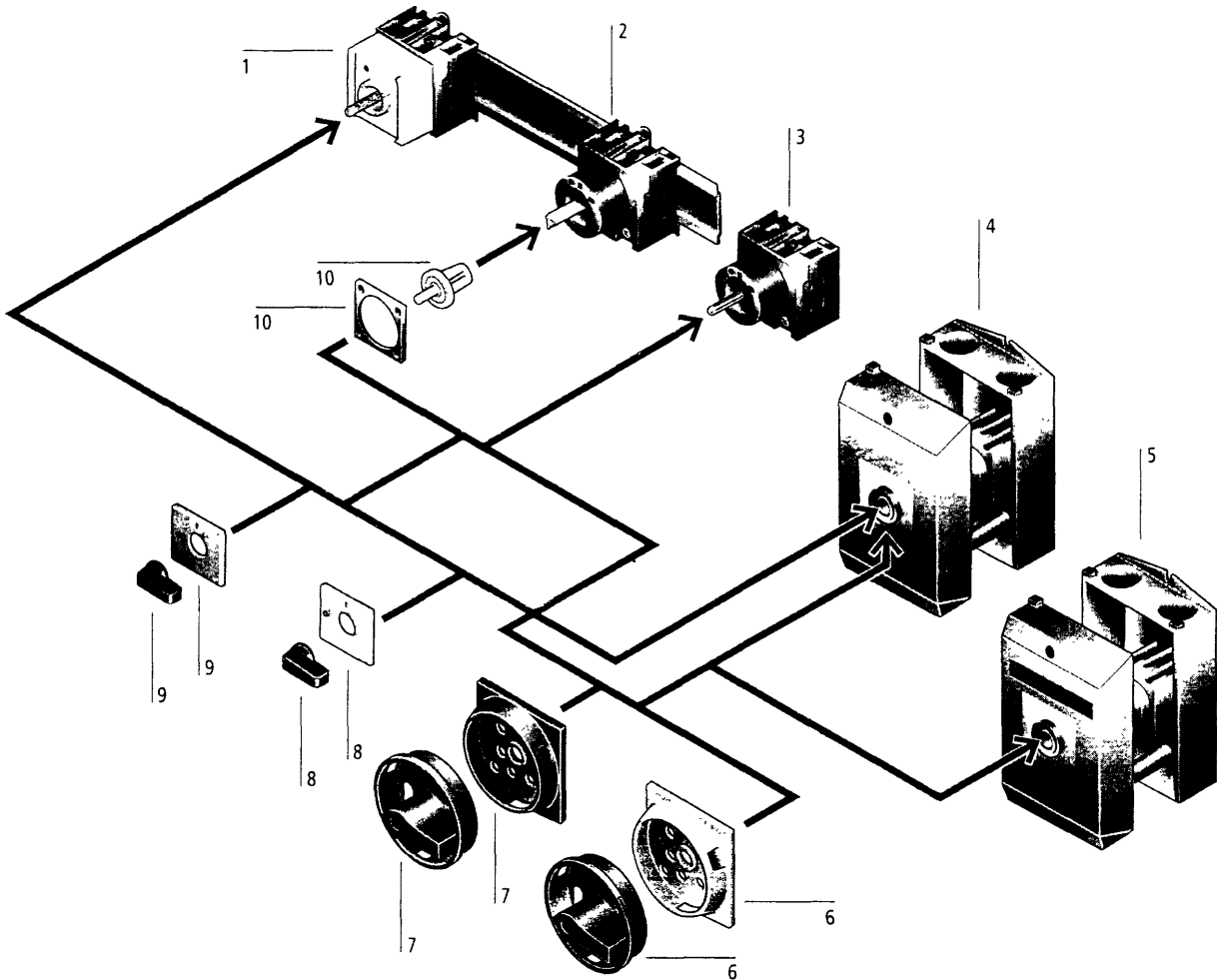
Rotary Switches
Switch-Disconnectors



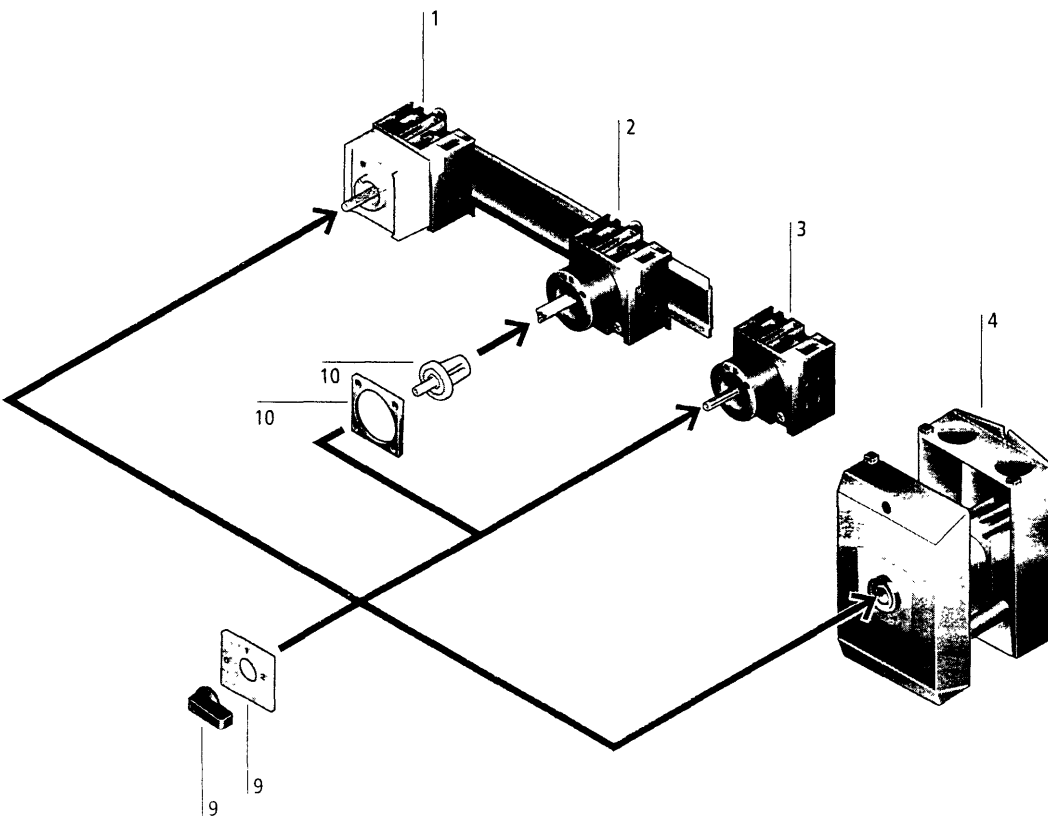
T Rotary Switches System Overview

Rotary Switches
Switch-Disconnectors

T0, T3, T5B, T5 On-Off switches






T0, T3, T5B, T5 control switches



T Rotary Switches

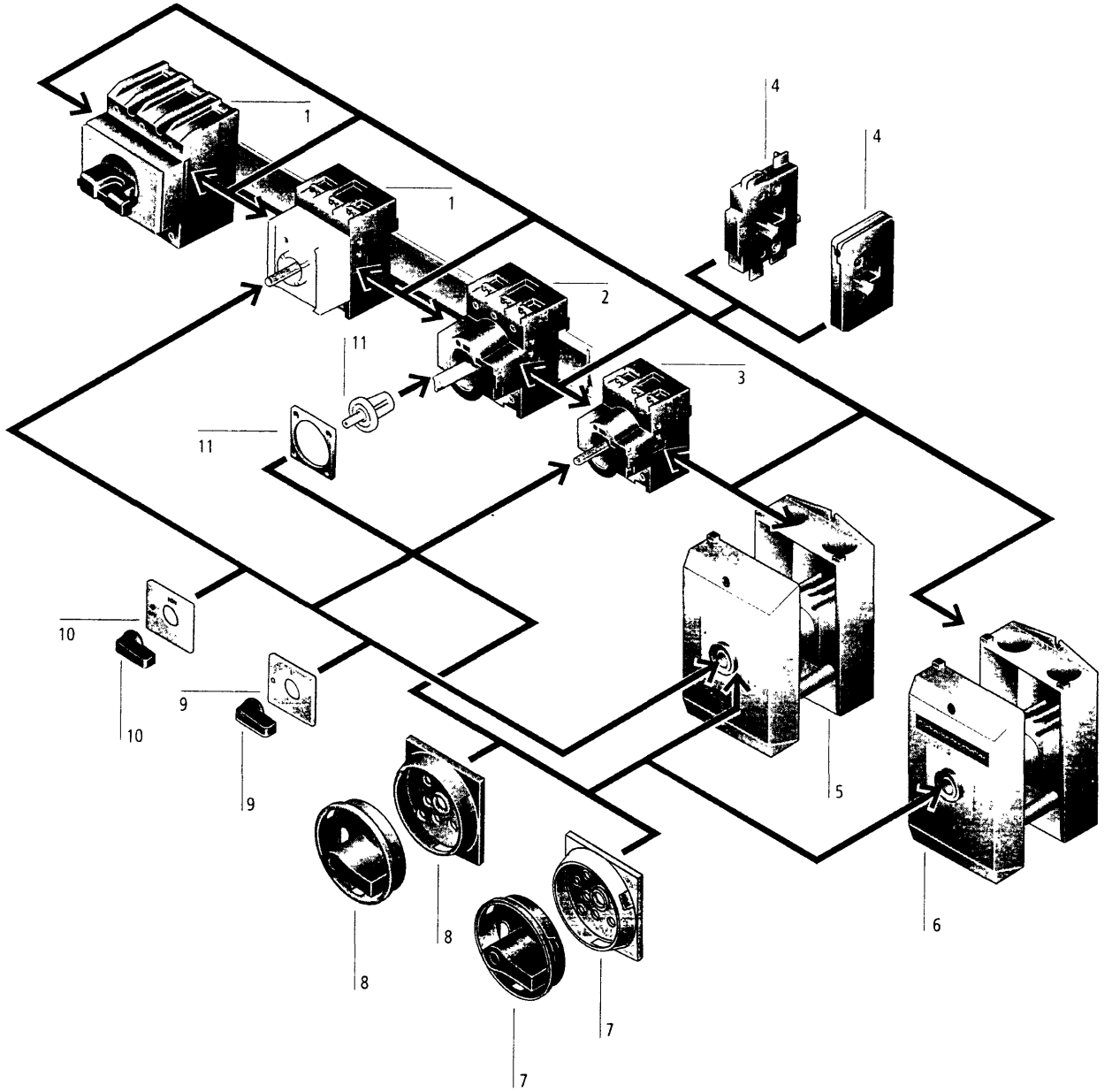
System Overview

Distribution board mounting (.../IVS) 1	Centre mounting (.../EZ) 3	Main switch (assembly kit) For use as Emergency-Stop device 6
Front IP 30	Front IP 65	To IEC/EN 60 204-1
For snap fitting on top-hat rail to EN 50 022	Mounting in a standard 22.3 mm aperture to IEC/EN 60 947-5-1	With red rotary handle and yellow locking collar
Flush mounting	Centre fixing means 'one-man' fitting	Lockable in the 0 (Off) position
- Up to three contact units in a service distribution board (45 mm mounting depth)		
- Up to 11 contact units in a control panel		
→ Page 07/017	→ Page 07/017	→ Page 07/060
Rear mounting (.../Z) 2	Surface mounting (.../I...) 4	Main switch (assembly kit) 7
Front IP 65	IP 65 	With black rotary handle and locking collar
Secure by snap fitting or screw fixing (T0 or T3)	Insulated PE terminal	Lockable in the 0 (Off) position
For snap fitting on top-hat rail to EN 50 022	Enclosures designed for metric cable glands to EN 50 262	
Coupling drive in door or cover		→ Page 07/060
Connection from front	→ Page 07/017	Thumb-grip for use in Emergency-Stop devices 8
→ Page 07/017	Surface mounting main switches (.../I...) 4	To IEC/EN 60 204-1
Rear mounting main switches (.../V/SVB) 2	IP 65 	Red thumb-grip with yellow front plate
Front IP 65	To IEC/EN 60 204 and IEC/EN 60 947 Part 3, up to 8 contacts for T0..., and up to 10 contacts for T3	→ Page 07/060
To IEC/EN 60 204 and IEC/EN 60 947 Part 3, up to 8 contacts for T0..., and up to 12 contacts for T3	Lockable in the 0 (Off) position using up to three padlocks	Thumb-grip 9
With door interlock in I (On) position	Enclosures designed for metric cable glands to EN 50 262	Black thumb-grip with silver-coloured front plate
→ Page 07/013	→ Page 07/013	→ Page 07/060
Flush mounting (.../E) 3	Safety switches (.../I...) 5	Coupling drive 10
Front IP 65	IP 65 	Includes push-fit shaft
Fitting and connection from rear	Insulated PE terminal	For retrofit conversion of T0(T3)-.../XZ basic switches to rear mounting form
Terminal: Pozidriv screw	With cover fixing in the 0 (Off) position	Spare part for T0(T3)/(P1)-.../Z
Finger- and back-of-hand proof	Lockable in the 0 (Off) position using up to three padlocks	For retrofit conversion of T5(B)-.../E flush mounting switches to rear mounting form
Type T8 with extension terminals as standard	Enclosures designed for metric cable glands to EN 50 262	Spare part for T5(B)-.../Z
→ Page 07/016	With 'Safety Switch' label Colour: orange	→ Page 07/064
Flush mounting main switches (.../EA/SVB) 3	For Switzerland: comply with the Swiss Accident Insurance Institute Directive	
Front IP 65	→ Page 07/022	
To IEC/EN 60 204 and IEC/EN 60 947 Part 3, 8 contacts for T0..., and up to 12 contacts for T3		
N terminal and PE terminal		
→ Page 07/012		




P Switch-Disconnectors System Overview

P1, P3 On-Off switches

Rotary Switches
Switch-Disconnectors



p Switch-Disconnectors System Overview

Distribution board mounting (.../IVS) 1	Flush mounting main switches (.../EA/SVB) 3	Safety switches (.../I...-SI) 6
Front IP 30	Front IP 65	IP 65 
Fitting dimensions to DIN 43 880	To IEC/EN 60 204 and IEC/EN 60 947 Part 3	Insulated PE terminal
For snap fitting on top-hat rail to EN 50 022	N terminal and PE terminal	With cover fixing in the 0 (Off) position
Space requirement P1, 3-pole: 3 width units P3, 3-pole: 4 width units	Lockable in the 0 (Off) position using up to three padlocks	Lockable in the 0 (Off) position using up to three padlocks
P3-.../IVS can be locked in 0 (Off) position by means of padlocking feature	2 add-on modules can be fitted (or retrofitted)	With 'Safety Switch' label Colour: orange
→ Page 07/017	→ Page 07/012	Enclosures designed for metric cable glands to EN 50 262
		For Switzerland: comply with the Swiss Accident Insurance Institute Directive
		→ Page 07/022
Rear mounting (.../Z) 2	Centre mounting (.../EZ) 3	Main switch (assembly kit) For use as Emergency-Stop device 7
Front IP 65	Front IP 65	To IEC/EN 60204 Part 1
Can be secured by snap fitting or screw fixing	Mounting in a standard 22.3 mm aperture to IEC/EN 60 947-5-1	With red rotary handle and yellow locking collar
For snap fitting on top-hat rail to EN 50 022	Centre fixing means 'one-man' fitting	Lockable in the 0 (Off) position
Coupling drive in door or cover	→ Page 07/017	→ Page 07/060
Connection from front		
2 add-on modules can be fitted (or retrofitted)		
→ Page 07/017		
	Add-on modules 4	Main switch (assembly kit) 8
	Switched neutral (early-make contact)	With black rotary handle and locking collar
	HI 11 auxiliary contact = 1 make contact + 1 break contact	Lockable in the 0 (Off) position
	Finger-proof	→ Page 07/060
	Auxiliary make contact: always connected as load-shedding contact (late-make, early-break)	
	→ Page 07/062	
Rear mounting main switches (.../I/SVB) 2	Surface mounting (.../I...) 5	Thumb-grip for use in Emergency-Stop devices 9
Front IP 65	IP 65 	To IEC/EN 60204 Part 1
To IEC/EN 60 204 and IEC/EN 60 947 Part 3	Insulated PE terminal	Red thumb-grip with yellow front plate
With door interlock in I (On) position	Add-on modules for retrofitting: P1: + 1, P3: + 2	→ Page 07/060
Maintenance key for commissioning or servicing	Enclosures designed for metric cable glands to EN 50 262	
Lockable in the 0 (Off) position using up to three padlocks	→ Page 07/017	
2 add-on modules can be fitted (or retrofitted)		
→ Page 07/013		
	Surface mounting main switches (.../I...) 5	Thumb-grip 10
	IP 65 	Black thumb-grip with silver-coloured front plate
	Insulated PE terminal	→ Page 07/060
	To IEC/EN 60 204 and IEC/EN 60 947 Part 3	
	Lockable in the 0 (Off) position using up to three padlocks	
	Add-on modules for retrofitting: P1: + 1, P3: + 2	
	Enclosures designed for metric cable glands to EN 50 262	
	→ Page 07/013	
		Coupling drive 11
		Includes push-fit shaft
		For retrofit conversion of T0(T3)-.../XZ basic switches to rear mounting form Spare part for T0(T3)/(P1)-.../Z
		For retrofit conversion of T5(B)-.../E flush mounting switches to rear mounting form Spare part for T5(B)-.../Z
		→ Page 07/064

T Rotary Switches, P Switch-Disconnectors Key to Type References, Modular System

Rotary switches are suitable for a number of different switching and control functions, e.g. as On-Off switches, main/Emergency-Stop switches, main circuit/control circuit switches, instrument selector switches.

The switches consist of a handle, basic switch and mounting accessories.

The contact chambers (contact units) have one or two contacts.

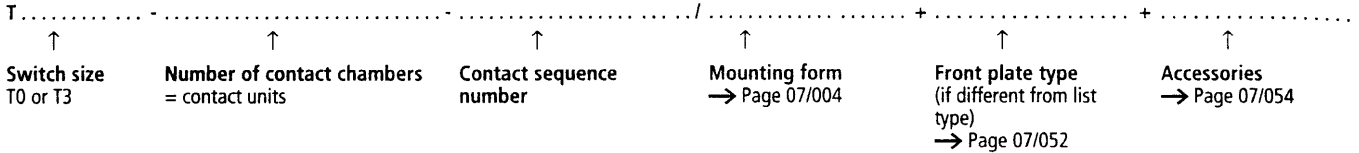
Catalogue K115 shows over 800 standard contact sequences (Please enquire).

Examples of the most important standard contact sequences are shown on the following pages.

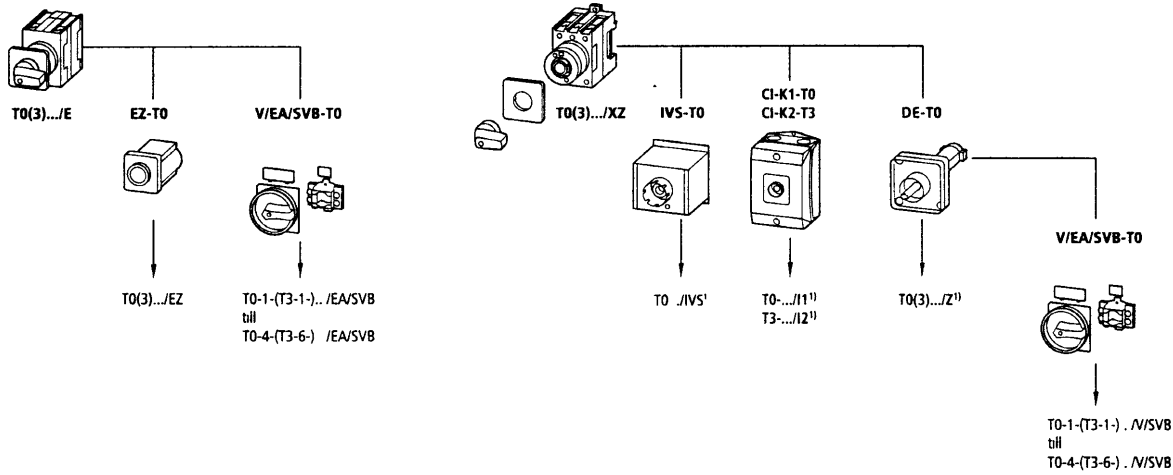
T rotary switches and P switch-disconnectors are manufactured without PCB, CFC, asbestos or silicon. The contacts are cadmium-free.

T0 and T3 rotary switches

Key to type references

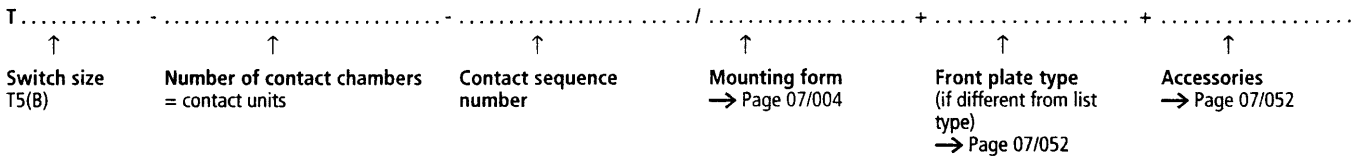


Using the modular system to convert the mounting form of T0 and T3

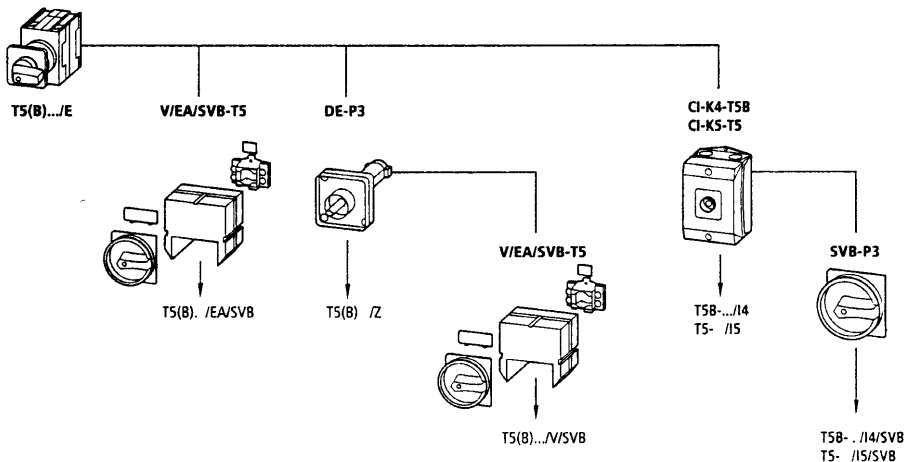


T5(B) rotary switches

Key to type references



Using the modular system to convert the mounting form of T5(B)



Notes

Types preceded by "+" are additions to the basic type and cannot be ordered separately.

¹ Includes shaft

T Rotary Switches, P Switch-Disconnectors

Main Switches, Maintenance Switches

Rotary Switches, P Switch-Disconnectors

Circuit diagram	Front plate no.	Main contacts	Auxiliary contacts	Max. three-phase motor rating (per set of 3 contacts) 50 – 60 Hz			Rated uninterrupted current I _n	For use as ->		
				AC-3				Flush mounting Front IP 65	Price See Price List	
		No. of poles		220 V	380 V	660 V	Basic type For ... insert mounting form	Mounting form Article no.		
				230 V	400 V	690 V				
	FS 908	M	M B	kW	kW	kW	A			
Main switches										
		1	0 0	1	1.3	-	20	T0-1-8200/...	EA/SVB 053110	
				1.8	3.6	-	32	T3-1-8200/...	EA/SVB 066576	
				5	7.3	-	63	T5B-1-8200/...	EA/SVB 094279	
				7.3	12.3	-	100	T5-1-8200/...	EA/SVB 097224	
		2	0 0	2.2	2.2	-	20	T0-1-102/...	EA/SVB 091078	
				3	5.5	-	32	T3-1-102/...	EA/SVB 014374	
				7.5	11	-	63	T5B-1-102/...	EA/SVB 094469	
				11	18.5	-	100	T5-1-102/...	EA/SVB 098808	
		3	0 0	3	4	4	20	T0-2-1/...	EA/SVB 038873	
				5.5	7.5	7.5	25	P1-25/...	EA/SVB 041097	
				7.5	13	15	32	P1-32/...	EA/SVB 081438	
				15	30	30	63	P3-63/...	EA/SVB 031607	
				22	37	37	100	P3-100/...	EA/SVB 074320	
				22	37	22	125	T6-2/...	EA/SVB 012679	
		3+N	0 0	3	4	4	20	T0-2-8900/...	EA/SVB 207400	
				5.5	7.5	7.5	25	P1-25/...	EA/SVB/N 081587	
				7.5	13	15	32	P1-32/...	EA/SVB/N 091079	
				15	30	30	63	P3-63/...	EA/SVB/N 010398	
				22	37	37	100	P3-100/...	EA/SVB/N 019890	
		6	0 0	3	4	4	20	T0-3-8342/...	EA/SVB 029382	
				6.5	12	15	32	T3-3-8342/...	EA/SVB 071326	
				15	22	22	63	T5B-3-8342/...	EA/SVB 092308	
				18.5	30	30	100	T5-3-8342/...	EA/SVB 096383	
		8	0 0	3	4	4	20	T0-4-8344/...	EA/SVB 008267	
				6.5	12	15	32	T3-4-8344/...	EA/SVB 008964	
				15	22	22	63	T5B-4-8344/...	EA/SVB 092062	
				22	30	30	100	T5-4-8344/...	EA/SVB 095961	

Standard pack: 1 off


Notes
 1) To IEC/EN 60 204 Part 1, with red rotary handle and yellow locking collar, lockable in 0 (Off) position
 2) With black rotary handle and locking collar, lockable in 0 (Off) position
 3) Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches, P Switch-Disconnectors

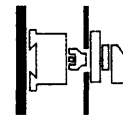
Main Switches, Maintenance Switches

Emergency-Stop device¹⁾

Surface mounting³⁾

 totally insulated
IP 65

Rear mounting
Front IP 65

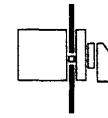


Mounting form
Article no.

Price
See Price List

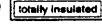
Without Emergency-Stop function²⁾

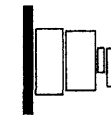
Flush mounting form
Front IP 65



Mounting form
Article no.

Price
See Price List

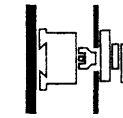
Surface mounting³⁾  totally insulated
IP 65



Mounting form
Article no.

Price
See Price List

Rear mounting
Front IP 65



Mounting form
Article no.

Price
See Price List

11/SVB 207145	V/SVB 057856	EA/SVB-SW 055483	11/SVB-SW 207146	V/SVB-SW 060229
12/SVB 207200	V/SVB 007255	EA/SVB-SW 068949	12/SVB-SW 207201	V/SVB-SW 004882
14/SVB 207240	V/SVB 094273	EA/SVB-SW 094278	14/SVB-SW 207241	V/SVB-SW 094272
15/SVB 207275	V/SVB 097222	EA/SVB-SW 097223	15/SVB-SW 207276	V/SVB-SW 097221
11/SVB 207143	V/SVB 095824	EA/SVB-SW 093451	11/SVB-SW 207144	V/SVB-SW 022330
12/SVB 207198	V/SVB 019120	EA/SVB-SW 016747	12/SVB-SW 207199	V/SVB-SW 021493
14/SVB 207238	V/SVB 094463	EA/SVB-SW 094468	14/SVB-SW 207239	V/SVB-SW 094462
15/SVB 207273	V/SVB 098806	EA/SVB-SW 098807	15/SVB-SW 207274	V/SVB-SW 098805
11/SVB 207147	V/SVB 043619	EA/SVB-SW 041246	11/SVB-SW 207148	V/SVB-SW 045992
12/SVB 207293	V/SVB 055335	EA/SVB-SW 048365	12/SVB-SW 207294	V/SVB-SW 050738
12/SVB 207314	V/SVB 095676	EA/SVB-SW 053111	12/SVB-SW 207315	V/SVB-SW 055484
14/SVB 207343	V/SVB 048218	EA/SVB-SW 057857	14/SVB-SW 207344	V/SVB-SW 060230
15/SVB 207373	V/SVB 088558	EA/SVB-SW 062603	15/SVB-SW 207374	V/SVB-SW 064976
-	V/SVB 015052	EA/SVB-SW 067349	-	V/SVB-SW 069722
11/SVB 207151	V/SVB 207405	EA/SVB-SW 207401	11/SVB-SW 207152	V/SVB-SW 207406
12/SVB/N 207298	V/SVB/N 086333	EA/SVB-SW/N 083960	12/SVB-SW/N 207296	V/SVB-SW/N 088706
12/SVB/N 207319	V/SVB/N 095825	EA/SVB-SW/N 093452	12/SVB-SW/N 207317	V/SVB-SW/N 098198
14/SVB/N 207349	V/SVB/N 015144	EA/SVB-SW/N 012771	14/SVB-SW/N 207346	V/SVB-SW/N 017517
15/SVB/N 207379	V/SVB/N 024636	EA/SVB-SW/N 022263	15/SVB-SW/N 207376	V/SVB-SW/N 027009
11/SVB 207159	V/SVB 034128	EA/SVB-SW 031755	11/SVB-SW 207160	V/SVB-SW 036501
12/SVB 207208	V/SVB 076072	EA/SVB-SW 073699	12/SVB-SW 207209	V/SVB-SW 078445
14/SVB 207242	V/SVB 092300	EA/SVB-SW 092307	14/SVB-SW 207243	V/SVB-SW 092299
15/SVB 207279	V/SVB 096381	EA/SVB-SW 096382	15/SVB-SW 207280	V/SVB-SW 096380
11/SVB 207163	V/SVB 014007	EA/SVB-SW 008268	11/SVB-SW 207164	V/SVB-SW 008272
12/SVB 207212	V/SVB 020598	EA/SVB-SW 008965	12/SVB-SW 207213	V/SVB-SW 008967
14/SVB 207248	V/SVB 092056	EA/SVB-SW 092061	14/SVB-SW 207249	V/SVB-SW 092055
15/SVB 207283	V/SVB 095959	EA/SVB-SW 095960	15/SVB-SW 207284	V/SVB-SW 095958

Standard pack: 1 off

Rotary Switches
Switch-Disconnectors

T Rotary Switches, P Switch-Disconnectors

Main Switches, Maintenance Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	Main contacts	Auxiliary contacts	Max. three-phase motor rating (per set of 3 contacts)	Rated uninter-rupted current I_u	For use as -> Flush mounting Front IP 65
	FS 908	No. of poles 		50 - 60 Hz AC-3 220 V 380 V 660 V 230 V 400 V 690 V 240 V 440 V		
		M	M B	kW kW kW	A	Basic type For ... insert mounting form
						Mounting form Article no.
						Price See Price List

Main switches with auxiliary contacts

	3	1 0	3 4 4	20	T0-2-15679/...	EA/SVB 081588
	3	1 1	5.5 7.5 7.5 7.5 13 15 15 30 30 22 37 37	25 32 63 100	P1-25/... P1-32/... P3-63/... P3-100/...	EA/SVB/HI11 091080 EA/SVB/HI11 072567 EA/SVB/HI11 019891 EA/SVB/HI11 029383
	3	2 1	3 4 4 6.5 12 15	20 32	T0-3-15683/... T3-3-15683/...	EA/SVB 015571 EA/SVB 040478
	3+N	1 1	3 4 4 6.5 12 15	20 32	T0-3-15680/... T3-3-15680/...	EA/SVB 038875 EA/SVB 012002
	3+N	1 1	5.5 7.5 7.5 7.5 11 15 15 30 30 22 37 37	25 32 63 100	P1-25/... P1-32/... P3-63/... P3-100/...	EA/SVB/N/HI11 048367 EA/SVB/N/HI11 057859 EA/SVB/N/HI11 067351 EA/SVB/N/HI11 076843
	3+N	1 1	3 4 4 6.5 12 15 15 22 22 18.5 30 30	20 32 63 100	T0-3-15681/... T3-3-15681/... T5B-3-8901/... T5-3-8901/...	EA/SVB 086335 EA/SVB 026240 EA/SVB 207420 EA/SVB 207408
	6	1 1	3 4 4 6.5 12 15 15 22 22 18.5 30 30	20 32 63 100	T0-4-15682/... T3-4-15682/... T5B-4-15682/... T5-4-15682/...	EA/SVB 019892 EA/SVB 054716 EA/SVB 207425 EA/SVB 207413
	6	1 1	22 37 37 37 55 37	160 315 ³⁾	T6-160-6/... T8-3-8342/...	- -

Standard pack: 1 off


Notes

- 1) To IEC/EN 60 204 Part 1; with red rotary handle and yellow locking collar, lockable in 0 (Off) position
- 2) With black rotary handle and locking collar, lockable in 0 (Off) position
- 3) Enclosed version, up to 275 A
- 4) Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068
- 5) Enclosure without flanges

T Rotary Switches, P Switch-Disconnectors

Main Switches, Maintenance Switches

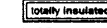
Emergency-Stop device¹⁾

Surface mounting⁴⁾

 IP 65

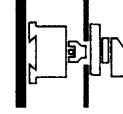
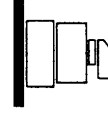
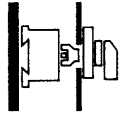
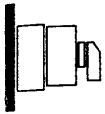
Rear mounting
 Front IP 65

Without Emergency-Stop function²⁾

Flush mounting
 Front IP 65

Surface mounting⁴⁾

 IP 65

Rear mounting
 Front IP 65



Mounting form
 Article no.

Price
 See Price List

Mounting form
 Article no.

Price
 See Price List

Mounting form
 Article no.

Price
 See Price List

Mounting form
 Article no.

Price
 See Price List

Mounting form
 Article no.

Price
 See Price List

11/SVB 207149	V/SVB 086334	EA/SVB-SW 083961	11/SVB-SW 207150	V/SVB-SW 088707
12/SVB/HI11 207297	V/SVB/HI11 095826	EA/SVB-SW/HI11 070194	12/SVB-SW/HI11 207295	V/SVB-SW/HI11 098199
12/SVB/HI11 207318	V/SVB/HI11 015145	EA/SVB-SW/HI11 012772	12/SVB-SW/HI11 207316	V/SVB-SW/HI11 017518
14/SVB/HI11 207348	V/SVB/HI11 024637	EA/SVB-SW/HI11 022264	14/SVB-SW/HI11 207345	V/SVB-SW/HI11 027010
15/SVB/HI11 207378	V/SVB/HI11 034129	EA/SVB-SW/HI11 031756	15/SVB-SW/HI11 207375	V/SVB-SW/HI11 036502
11/SVB 207157	V/SVB 015634	EA/SVB-SW 015600	11/SVB-SW 207158	V/SVB-SW 015664
12/SVB 207206	V/SVB 045224	EA/SVB-SW 042851	12/SVB-SW 207207	V/SVB-SW 047597
11/SVB 207153	V/SVB 043621	EA/SVB-SW 041248	11/SVB-SW 207154	V/SVB-SW 045994
12/SVB 207202	V/SVB 016748	EA/SVB-SW 014375	12/SVB-SW 207203	V/SVB-SW 019121
-	V/SVB/N/HI11 053113	EA/SVB-SW/N/HI11 050740	-	V/SVB-SW/N/HI11 055486
-	V/SVB/N/HI11 062605	EA/SVB-SW/N/HI11 060232	-	V/SVB-SW/N/HI11 064978
14/SVB/N/HI11 207350	V/SVB/N/HI11 072097	EA/SVB-SW/N/HI11 069724	14/SVB-SW/N/HI11 207347	V/SVB-SW/N/HI11 074470
15/SVB/N/HI11 207380	V/SVB/N/HI11 081589	EA/SVB-SW/N/HI11 079216	15/SVB-SW/N/HI11 207377	V/SVB-SW/N/HI11 083962
11/SVB 207155	V/SVB 091081	EA/SVB-SW 088708	11/SVB-SW 207156	V/SVB-SW 093454
12/SVB 207204	V/SVB 030986	EA/SVB-SW 028613	12/SVB-SW 207205	V/SVB-SW 033359
14/SVB 207244	V/SVB 207422	EA/SVB-SW 207421	14/SVB-SW 207245	V/SVB-SW 207423
15/SVB 207277	V/SVB 207410	EA/SVB-SW 207409	15/SVB-SW 207278	V/SVB-SW 207411
11/SVB 207161	V/SVB 024638	EA/SVB-SW 022265	11/SVB-SW 207162	V/SVB-SW 027011
12/SVB 207210	V/SVB 059462	EA/SVB-SW 057089	12/SVB-SW 207211	V/SVB-SW 061835
14/SVB 207246	V/SVB 207427	EA/SVB-SW 207426	14/SVB-SW 207247	V/SVB-SW 207428
15/SVB 207281	V/SVB 207415	EA/SVB-SW 207414	15/SVB-SW 207282	V/SVB-SW 207416
145/SVB/HI11 ⁵⁾ 201448	V/SVB/HI11 200619	-	145/SVB-SW/HI11 ⁵⁾ 201447	V/SVB-SW/HI11 200127
148/SVB/HI11 201450	V/SVB/HI11 200620	-	148/SVB-SW/HI11 201449	V/SVB-SW/HI11 200128

Standard pack: 1 off

Rotary Switches
Switch-Disconnectors

T Rotary Switches, P Switch-Disconnectors On-Off Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no	Main contacts	Auxiliary contacts	Max. three-phase motor rating (per set of 3 contacts) 50 – 60 Hz			Rated unin- ter- rupted current I_n	Flush mounting Front IP 65	Basic type For ... insert mounting form	Mounting form Article no	Price See Price List
				No of poles	kW	kW					
	FS 908	M	M B	AC-3 220 V 230 V 240 V	380 V 400 V 440 V	660 V 690 V	A				

On-Off switches¹⁾

	1	0	0	1	1.3	-	20	T0-1-8200/...	E	067352
				1.8	3.6	-	32	T3-1-8200/...	E	064208
				5	7.3	-	63	T5B-1-8200/...	E	094281
				7.3	12.3	-	100	T5-1-8200/...	E	097226
	2	0	0	2.2	2.2	-	20	T0-1-102/...	E	088709
				3	5.5	-	32	T3-1-102/...	E	076073
				7.5	11	-	63	T5B-1-102/...	E	094471
				11	18.5	-	100	T5-1-102/...	E	098810
	3	0	0	3	4	4	20	T0-2-1/...	E	024639
				5.5	7.5	7.5	25	P1-25/...	E	038724
				7.5	13	15	32	P1-32/...	E	079065
				15	30	30	63	P3-63/...	E	026861
				22	37	37	100	P3-100/...	E	067201
				22	37	22	125	T6-2/...	E	098106
	3+N	0	0	3	4	4	20	T0-2-8900/...	E	207398
				5.5	7.5	7.5	25	P1-25/...	E/N	076845
				7.5	13	15	32	P1-32/...	E/N	093456
				15	30	30	63	P3-63/...	E/N	019894
				22	37	37	100	P3-100/...	E/N	031759
	6	0	0	3	4	4	20	T0-3-8342/...	E	043624
				6.5	12	15	32	T3-3-8342/...	E	045225
				15	22	22	63	T5B-3-8342/...	E	092310
				18.5	30	30	100	T5-3-8342/...	E	096385
	8	0	0	3	4	4	20	T0-4-8344/...	E	014000
				6.5	12	-	32	T3-4-8344/...	E	020593
				15	22	22	63	T5B-4-8344/...	E	092064
				22	30	30	100	T5-4-8344/...	E	095963

Standard pack 1 off

Notes

- ¹⁾ With black thumb-grip and silver-coloured front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

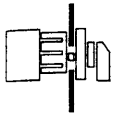
T Rotary Switches, P Switch-Disconnectors On-Off Switches

Centre mounting
Front IP 65

Surface mounting²⁾ totally insulated
IP 65

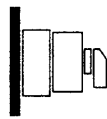
Service distribution board
mounting
Front IP 30

Rear mounting
Front IP 65



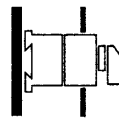
Mounting form
Article no.

Price
See Price
List



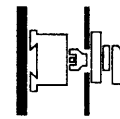
Mounting form
Article no.

Price
See Price
List



Mounting form
Article no.

Price
See Price
List



Mounting form
Article no.

Price
See Price
List


EZ 069725		I1 207074		IVS 074471		Z 076844	
EZ 066581		I2 207167		-		Z 071327	
-		I4 207218		-		Z 094270	
-		I5 207264		-		Z 097219	
EZ 091082		I1 207061		IVS 015147		Z 095828	
EZ 078446		I2 207165		-		Z 083192	
-		I4 207215		-		Z 094460	
-		I5 207262		-		Z 098803	
EZ 027012		I1 207081		IVS 031758		Z 036504	
EZ 041250		I2 207299		IVS 052962		Z 057708	
EZ 048369		I2 207320		IVS 093303		Z 098049	
-		I4 207356		IVS 041099		Z 050591	
-		I5 207381		IVS 081439		Z 090931	
-		-		-		-	
EZ 207402		I1 207109		IVS 207403		Z 207407	
EZ/N 079218		I2/N 207303		IVS/N 083964		Z/N 088710	
EZ/N 095829		I2/N 207324		IVS/N 010402		Z/N 015148	
-		I4/N 207360		IVS/N 022267		Z/N 027013	
-		I5/N 207385		IVS/N 034132		Z/N 038878	
EZ 045997		I1 207131		IVS 050743		Z 055489	
EZ 047598		I2 207187		-		Z 052344	
-		I4 207226		-		Z 092297	
-		I5 207267		-		Z 096378	
EZ 014002		I1 207139		IVS 014006		Z 014009	
EZ 020595		I2 207194		-		Z 020600	
-		I4 207233		-		Z 092053	
-		I5 207272		-		Z 095656	

Standard pack: 1 off

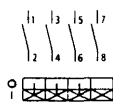
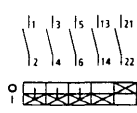
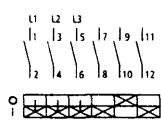
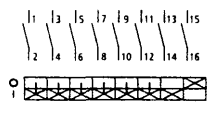
Rotary Switches
Switch-Disconnectors

T Rotary Switches, P Switch-Disconnectors
On-Off Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	Main contacts	Auxiliary contacts	Max. three-phase motor rating (per set of 3 contacts)	Rated uninter- rupted current I_u	Flush mounting Front IP 65	Basic type For ... insert mounting form	Mounting form Article no.	Price See Price List
		No. of poles		50 – 60 Hz					
				AC-3					
				220 V 380 V 660 V					
				230 V 400 V 690 V					
				240 V 440 V					
		M	M B	kW kW kW	A				

On-Off switches with auxiliary contacts¹⁾

	3	1 0	3 4 4	20	T0-2-15679/...	E 029387
	3	1 1	5.5 7.5 7.5	25	P1-25/...	E/H111 045998
			7.5 13 15	32	P1-32/...	E/H111 062609
			15 30 30	63	P3-63/...	E/H111 079220
			22 37 37	100	P3-100/...	E/H111 069574
	3	2 1	3 4 4	20	T0-3-15683/...	E 016619
			6.5 12 15	32	T3-3-15683/...	E 014377
	6	1 1	3 4 4	20	T0-4-15682/...	E 010405
			6.5 12 15	32	T3-4-15682/...	E 023869
			15 22 22	63	T5B-4-15682/...	E 207424
			18.5 30 30	100	T5-4-15682/...	E 207412

Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and silver-coloured front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

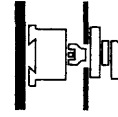
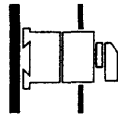
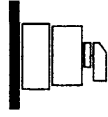
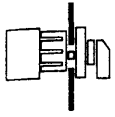
T Rotary Switches, P Switch-Disconnectors On-Off Switches

Centre mounting
Front IP 65

Surface mounting²⁾
Totally insulated
IP 65

Service distribution
board mounting
Front IP 30

Rear mounting
Front IP 65



Mounting form
Article no.

Price
See Price
List

Mounting form
Article no.

Price
See Price
List

Mounting form
Article no.

Price
See Price
List

Mounting form
Article no.

Price
See Price
List

EZ
031760

I1
207094

IVS
036506

Z
041252

EZ/HI11
048371

I2/HI11
207302

IVS/HI11
053117

Z/HI11
057863

EZ/HI11
064982

I2/HI11
207323

IVS/HI11
069728

Z/HI11
074474

-

I4/HI11
207359

IVS/HI11
081593

Z/HI11
086339

-

I5/HI11
207384

IVS/HI11
091085

Z/HI11
093304

EZ
016658

I1
207118

IVS
016722

Z
016843

EZ
040480

I2
207182

-

Z
019123

EZ
012778

I1
207135

IVS
017524

Z
022270

EZ
026242

I2
207190

-

Z
030988

-

I4
207229

-

Z
207429

-

I5
207269

-

Z
207417

Standard pack: 1 off

T Rotary Switches, P Switch-Disconnectors On-Off Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram

Front plate no.

Main contacts

Auxiliary contacts

Max. three-phase motor rating (per set of 3 contacts)
50 – 60 Hz

Rated uninter-
rupted current
 I_u

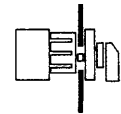
Flush mounting
Front IP 65



No. of poles



AC-3		
220 V	380 V	660 V
230 V	400 V	690 V
240 V	440 V	



FS 908 GE

M

M B

kW kW kW

A

Basic type
For ... insert
mounting
form

Mounting form
Article no.

Price
See Price
List

On-Off switches for use as Emergency-Stop devices¹⁾


Circuit diagram	Main contacts	Auxiliary contacts	220 V	380 V	660 V	Rated uninter- rupted current I_u	Basic type	Mounting form Article no.	Price See Price List
	1	0 0	1	1.3	-	20	T0-1-8200/...	E-RT 009474	
			1.8	3.6	-	32	T3-1-8200/...	E-RT 017025	
			5	7.3	-	63	T5B-1-8200/...	E-RT 094280	
			7.3	12.3	-	100	T5-1-8200/...	E-RT 097225	
	2	0 0	2.2	2.2	-	20	T0-1-102/...	E-RT 009046	
			3	5.5	-	32	T3-1-102/...	E-RT 016318	
			7.5	11	-	63	T5B-1-102/...	E-RT 094470	
			11	18.5	-	100	T5-1-102/...	E-RT 098809	
	3	0 0	3	4	4	20	T0-2-1/...	E-RT 011082	
			5.5	7.5	7.5	25	P1-25/...	E-RT 002388	
			7.5	13	15	32	P1-32/...	E-RT 003197	
			15	22	30	63	P3-63/...	E-RT 005743	
			22	37	37	100	P3-100/...	E-RT 007189	
	3+N	0 0	3	4	4	20	T0-2-8900...	E-RT 207399	
			5.5	7.5	7.5	25	P1-25/...	E-RT/N 002425	
			7.5	13	15	32	P1-32/...	E-RT/N 004555	
			15	22	30	63	P3-63/...	E-RT/N 007136	
			22	37	37	100	P3-100/...	E-RT/N 007280	

Standard pack: 1 off

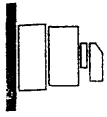
Notes

- ¹⁾ To IEC/EN 60 204 Part 1; with red thumb-grip and yellow front ring
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches, P Switch-Disconnectors On-Off Switches

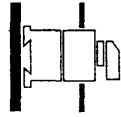
Surface mounting²⁾ 
IP 65

Service distribution board mounting
Front IP 30



Mounting form
Article no.

Price
See Price
List



Mounting form
Article no.

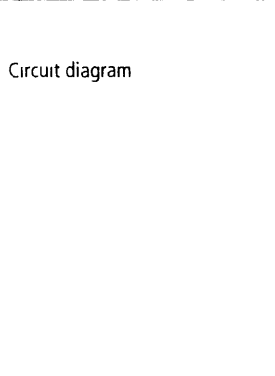
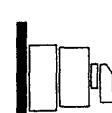
Price
See Price
List

I1-RT 207075		IVS-RT 081956	
I2-RT 207168		-	
I4-RT 207219		-	
I5-RT 207265		-	
I1-RT 207062		IVS-RT 079583	
I2-RT 207166		-	
I4-RT 207216		-	
I5-RT 207263		-	
I1-RT 207082		IVS-RT 084329	
I2-RT 207300		IVS-RT 013140	
I2-RT 207321		IVS-RT 022632	
I4-RT 207357		IVS-RT 045845	
I5-RT 207382		IVS-RT 086185	
I1-RT 207110		IVS-RT 207404	
I2-RT/N 207301		IVS-RT/N 017886	
I2-RT/N 207322		IVS-RT/N 027378	
I4-RT/N 207358		IVS-RT/N 041616	
I5-RT/N 207383		IVS-RT/N 034497	

Standard pack: 1 off

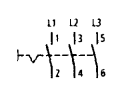
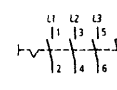
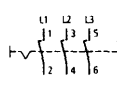
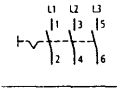
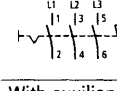
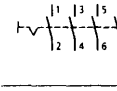
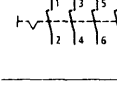
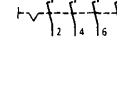
**T Rotary Switches, P Switch-Disconnectors
Safety Switches**

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	Main contacts	Auxiliary contacts	Max. three-phase motor rating (per set of 3 contacts) 50 – 60 Hz	Rated uninter-rupted current I _u	For use as -> Emergency-Stop device ¹⁾ Surface mounting totally insulated IP 65
	F5 908	No. of poles 	 	AC-3 220 V 380 V 660 V 230 V 400 V 690 V 240 V 440 V		
		M	M B	kW kW kW	A	Type Article no. Price See Price List

Safety switches



	3	0 0	5.5 7.5 7.5	25	P1-25/I2-SI 207308
			7.5 13 15	32	P1-32/I2-SI 207329
	3+N	0 0	5.5 7.5 7.5	25	P1-25/I2-SI/N 207312
			7.5 13 15	32	P1-32/I2-SI/N 207333
With auxiliary contacts	3	1 1	5.5 7.5 7.5	25	P1-25/I2-SI/HI11 207310
		1 1	7.5 13 15	32	P1-32/I2-SI/HI11 207331
	3	0 0	15 30 30	63	P3-63/I4-SI 207361
			15 30 30	100	P3-100/I5-SI 207386
	3+N	0 0	15 30 30	63	P3-63/I4-SI/N 207365
			15 30 30	100	P3-100/I5-SI/SIH/N 207390
With auxiliary contacts	3	1 1	15 30 30	63	P3-63/I4-SI/HI11 207363
		1 1	15 30 30	100	P3-100/I5-SI/HI11 207388
	6	0 0	11 15 11	63	T5B-3-8342/I4-SI 207250
			15 22 22	100	T5-3-8342/I5-SI 207447
	6	1 1	11 15 11	63	T5B-4-15682/I4-SI 207254
			15 22 22	100	T5-4-15682/I5-SI 207285
	6	2 0	11 15 11	63	T5B-4-8903/I4-SI 207258
			15 22 22	100	T5-4-8903/I5-SI 207289

Standard pack: 1 off

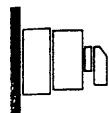
Notes

- ¹⁾ To IEC/EN 60 204 Part 1; with red rotary handle and yellow locking collar, lockable in 0 (Off) position with cover interlock
- ²⁾ With black rotary handle and locking collar, lockable in 0 (Off) position with cover interlock
- ³⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches, P Switch-Disconnectors Safety Switches

Without Emergency-Stop function²⁾

Surface mounting³⁾ totally insulated
IP 65



Type	Price
Article no.	See Price List

P1-25/12-SI-SW 207309	
P1-32/12-SI-SW 207330	
P1-25/12-SI/N-SW 207313	
P1-32/12-SI/N-SW 207334	
P1-25/12-SI/HI11-SW 207311	
P1-32/12-SI/HI11-SW 207332	
P3-63/14-SI-SW 207362	
P3-100/15-SI-SW 207387	
P3-63/14-SI/N-SW 207366	
P3-100/15-SI/N-SW 207391	
P3-63/14-SI/HI11-SW 207364	
P3-100/15-SI/HI11-SW 207389	
T5B-3-8342/14-SI-SW 207251	
T5-3-8342/15-SI/SIH-SW 207448	
T5B-4-15682/14-SI-SW 207255	
T5-4-15682/15-SI-SW 207286	
T5B-4-8903/14-SI-SW 207259	
T5-4-8903/15-SI-SW 207290	

Padlocking facility with captive cover fixing

With "Safety Switch" warning plate (other languages on request) neutral conductor or HI11 auxiliary contact can also be retrofitted to P1 and P3 safety switches
→ Page 07/063

No contacts can be retrofitted to T... rotary switches

Standard pack: 1 off

Notes

For general information on safety switches see
→ Page 07/111
Switches to the Swiss Accident Insurance Institute Directive on request from Klockner-Moeller, Switzerland

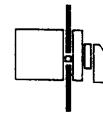
Rotary Switches
Switch-Disconnectors

T Rotary Switches

Control Switches: Changeover Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	No. of poles	Max. three-phase motor rating (per set of 3 contacts) 50 – 60 Hz			Rated uninter-rupted current I_u	Flush mounting Front IP 65	Basic type For ... insert mounting form	Mounting form Article no.	Price See Price List
			220 V	380 V	660 V					
		M	kW	kW	kW	A				



Changeover switches with 0 position¹⁾

Group switches, mains transfer switches

	 FS 684	1	1	1.3	–	20	T0-1-8210/...	E	012742			
			1.8	3.6	–	32	T3-1-8210/...	E	054718			
			5	7.3	–	63	T5B-1-8210/...	E	094261			
	 FS 684	2	2.2	2.2	–	20	T0-2-8211/...	E	022234			
			3	5.5	–	32	T3-2-8211/...	E	061837			
			7.5	11	–	63	T5B-2-8211/...	E	093094			
	 FS 684	3	3	4	4	20	T0-3-8212/...	E	029353			
			6.5	12	15	32	T3-3-8212/...	E	068956			
			15	22	22	63	T5B-3-8212/...	E	092386			
			18.5	30	30	100	T5-3-8212/...	E	096466			
			22	37	22	125	T6-3-8212/...	E	017425			
			37	55	37	315	T8-3-8212/...	E	019798			
	 FS 684	4	3	4	4	20	T0-4-8213/...	E	031726			
			6.5	12	15	32	T3-4-8213/...	E	076075			
			15	22	22	63	T5B-4-8213/...	E	092112			
			18.5	30	30	100	T5-4-8213/...	E	096014			
				 FS 953	3+N	3	4	4	20	T0-4-8294/...	E	010371
						6.5	12	15	32	T3-4-8294/...	E	002513
15	22	22				63	T5B-4-8294/...	E	092084			
	 FS 161629	3+N	15	22	22	63	T5B-4-8902/...	E	207430			
			18.5	30	22	100	T5-4-8902/...	E	207418			

Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and silver-coloured front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches

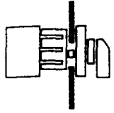
Control Switches: Changeover Switches

Centre mounting
Front IP 65

Surface mounting²⁾
Totally insulated
IP 65

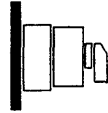
Service distribution
board mounting
Front IP 30

Rear mounting
Front IP 65



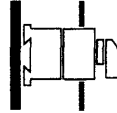
Mounting form
Article no.

Price
See Price
List



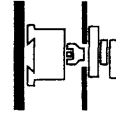
Mounting form
Article no.

Price
See Price
List



Mounting form
Article no.

Price
See Price
List



Mounting form
Article no.

Price
See Price
List

EZ 048337		I1 207076		IVS 074440		Z 019862	
EZ 003072		I2 207169		-		Z 057091	
-		I4 207432		-		Z 094258	
EZ 053083		I1 207102		IVS 076813		Z 029354	
EZ 003075		I2 207178		-		Z 064210	
-		I4 207220		-		Z 093082	
EZ 057829		I1 207123		IVS 079186		Z 036473	
EZ 003080		I2 207183		-		Z 071329	
-		I4 207223		-		Z 092383	
-		I5 207266		-		Z 096464	
-		-		-		-	
-		-		-		-	
EZ 062575		I1 207136		IVS 081559		Z 043592	
EZ 003079		I2 207191		-		Z 078448	
-		I4 207230		-		Z 092109	
-		I5 207270		-		Z 096012	
EZ 072069		I1 207138		IVS 043594		Z 048347	
EZ 001014		I2 207193		-		Z 004886	
-		I4 207232		-		Z 092081	
-		I5 207433		-		Z 095984	
-		I4 207237		-		Z 207431	
-		I5 207214		-		Z 207419	

Standard pack: 1 off

T Rotary Switches

Control Switches: Changeover Switches

Circuit diagram

Front plate no.

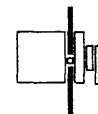
Max. three-phase motor rating (per set of 3 contacts)
50 – 60 Hz

Rated uninter-
rupted cur-
rent
 I_u

Flush mounting
Front IP 65

No. of poles

AC-3
220 V 380 V 660 V
230 V 400 V 690 V
240 V 440 V



FS 4011

M

kW kW kW

A

Basic type
For ... insert
mounting
form

Mounting
form
Article no.

Price
See Price
List

Changeover switches with 0 position¹⁾

With spring-return from both directions to 0

Circuit diagram	No. of poles	1 kW	3 kW	6 kW	Rated current I _u (A)	Basic type	Mounting form Article no.	Price
	1	1	1.3	–	20	T0-1-8214/...	E 019863	
		1.8	3.6	–	32	T3-1-8214/...	E 009632	
	2	2.2	2.2	–	20	T0-2-8215/...	E 022236	
		3	5.5	–	32	T3-2-8215/...	E 016751	
	3	3	4	4	20	T0-3-8216/...	E 024609	
		6.5	12	15	32	T3-3-8216/...	E 023870	

Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and silver-coloured front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches

Control Switches: Changeover Switches

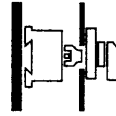
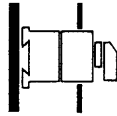
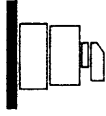
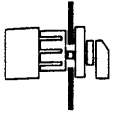
Centre mounting
Front IP 65

Surface mounting²⁾

IP 65

Service distribution board mounting
Front IP 30

Rear mounting
Front IP 65



Mounting form
Article no.

Price
See Price List

Mounting form
Article no.

Price
See Price List

Mounting form
Article no.

Price
See Price List

Mounting form
Article no.

Price
See Price List

EZ 076815		I1 207077		IVS 045967		Z 050720	
EZ 001073		I2 207170		-		Z 012005	
EZ 081561		I1 207103		IVS 048340		Z 053093	
EZ 001074		I2 207179		-		Z 019124	
EZ 086307		I1 207434		IVS 050713		Z 055466	
EZ 001077		I2 207184		-		Z 026243	

Standard pack: 1 off

T Rotary Switches

Control Switches: Changeover Switches

Circuit diagram

Front plate no.

No. of poles

Max. three-phase motor rating (per set of 3 contacts)
50 – 60 Hz

Rated uninter-
rupted cur-
rent
 I_u

Flush mounting
Front IP 65



FS 943

M

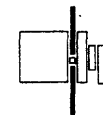
kW

kW

kW

A

Basic type
For ... insert
mounting
form



Mounting form
Article no.

Price
See Price
List

Changeover switches without 0 position¹⁾

Two-way switches

Circuit diagram	No. of poles	1.1	1.3	–	20	Product Code	Mounting form Article no.	Price
	1	1.1	1.3	–	20	T0-1-8220/...	E 031728	
		1.8	3.6	–	32	T3-1-8220/...	E 038108	
	2	2.2	2.2	–	20	T0-2-8221/...	E 038847	
		3	5.5	–	32	T3-2-8221/...	E 045227	
		7.5	11	–	63	T5B-2-8221/...	E 093047	
	3	3	4	4	20	T0-3-8222/...	E 048339	
		6.5	12	15	32	T3-3-8222/...	E 052346	
		15	22	22	63	T5B-3-8222/...	E 092378	
	4	3	4	4	20	T0-4-8223/...	E 050712	
		6.5	12	15	32	T3-4-8223/...	E 059465	
		15	22	22	63	T5B-4-8223/...	E 092108	
		18.5	30	30	100	T5-4-8223/...	E 096010	
	5	3	4	4	20	T0-5-8369/...	E 060204	
		6.5	12	15	32	T3-5-8369/...	E 066584	
	6	3	4	4	20	T0-6-8370/...	E 062577	
		6.5	12	15	32	T3-6-8370/...	E 073703	
	8	3	4	4	20	T0-8-8372/...	E 064950	
		6.5	12	15	32	T3-8-8372/...	E 080822	

Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and silver-coloured front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches

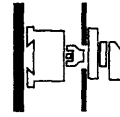
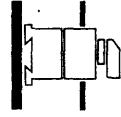
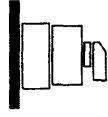
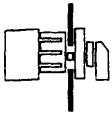
Control Switches: Changeover Switches

Centre mounting
Front IP 65

Surface mounting²⁾
Totally Insulated
IP 65

**Service distribution
board mounting**
Front IP 30

Rear mounting
Front IP 65



Mounting form
Article no.

Price
See Price
List

Mounting form
Article no.

Price
See Price
List

Mounting form
Article no.

Price
See Price
List

Mounting form
Article no.

Price
See Price
List

EZ 095799		I1 207078		IVS 055459		Z 086312	
EZ 001018		I2 207171		-		Z 040481	
EZ 010372		I1 207104		IVS 057832		Z 074450	
EZ 001025		I2 207180		-		Z 047600	
-		I4 207221		-		Z 093044	
EZ 015118		I1 207124		IVS 060205		Z 088686	
EZ 001069		I2 207185		-		Z 057092	
-		I4 207224		-		Z 092375	
EZ 019864		I1 207137		IVS 062578		Z 086315	
EZ 001070		I2 207192		-		Z 061838	
-		I4 207231		-		Z 092105	
-		I5 207271		-		Z 096008	
EZ 024610		-		IVS 064951		Z 098180	
EZ 004503		I2 207536		-		Z 068957	
EZ 029356		-		IVS 067324		Z 010380	
EZ 004506		-		-		Z 078449	
EZ 034102		-		IVS 069697		Z 012753	
EZ 004508		-		-		Z 083195	

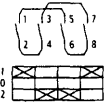

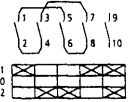

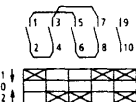

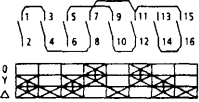

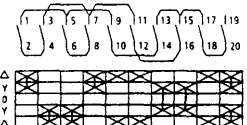

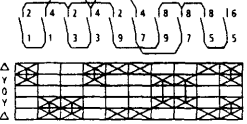

Standard pack: 1 off

Rotary Switches
Switch-Disconnectors

T Rotary Switches

Control Switches: Reversing Switches, Star-Delta Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	No. of poles	Max. three-phase motor rating (per set of 3 contacts)			Rated uninter-rupted current I_u	Basic type For ... insert mounting form	Flush mounting Front IP 65	Mounting form Article no.	Price See Price List
			50 - 60 Hz	AC-3	220 V					
			M	kW	kW	kW	A			
Reversing switches with 0 position¹⁾										
	 FS 684	2	2.2	2.2	-	20	T0-2-8400/...	E	053079	
			3	5.5	-	32	T3-2-8400/...	E	073695	
			7.5	11	-	63	T5B-2-8400/...	E	092918	
	 FS 684	3	3	4	4	20	T0-3-8401/...	E	091047	
			6.5	12	15	32	T3-3-8401/...	E	030992	
			15	22	22	63	T5B-3-8401/...	E	092296	
			18.5	30	30	100	T5-3-8401/...	E	096376	
With spring-return from both directions to 0										
	 FS 4011	3	3	4	4	20	T0-3-8228/...	E	015112	
			6.5	12	15	32	T3-3-8228/...	E	002538	
			15	22	22	63	T5B-3-8228/...	E	092374	
Star-delta switches¹⁾										
	 FS 635	3	4	5.5	5.5	20	T0-4-8410/...	E	024604	
			7.5	18.5	22	32	T3-4-8410/...	E	009657	
			22	37	37	63	T5B-4-8410/...	E	092052	
Reversing star-delta switches¹⁾										
	 FS 638	3	4	5.5	5.5	20	T0-5-15876/...	E	000893	
			7.5	18.5	22	32	T3-5-15876/...	E	016776	
	 FS 4017	3	22	30	37	63	T5B-5-15896/...	E	091953	

Standard pack: 1 off

Notes

- 1) With black thumb-grip and silver-coloured front plate
- 2) Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches

Control Switches: Reversing Switches, Star-Delta Switches

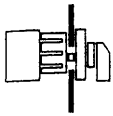
Centre mounting
Front IP 65

Surface mounting²⁾

IP 65

Service distribution board mounting
Front IP 30

Rear mounting
Front IP 65



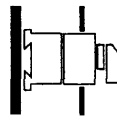
Mounting form
Article no.

Price
See Price List



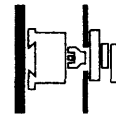
Mounting form
Article no.

Price
See Price List



Mounting form
Article no.

Price
See Price List



Mounting form
Article no.

Price
See Price List

EZ 055452		I1 207111		IVS 060198		Z 062571
EZ 000687		I2 207181		-		Z 095060
-		I4 207222		-		Z 092915
EZ 093420		I1 207132		IVS 098166		Z 010366
EZ 000694		I2 207188		-		Z 035739
-		I4 207227		-		Z 092293
-		I5 207268		-		Z 096374
EZ 048334		I1 207125		IVS 062572		Z 074437
EZ 000695		I2 207186		-		Z 004911
-		I4 207225		-		Z 092371
EZ 053080		I1 207140		IVS 064945		Z 083929
EZ 000721		I2 207195		-		Z 012030
-		I4 207234		-		Z 092049
EZ 000900		-		IVS 000902		Z 000942
EZ 000797		I2 207537		-		Z 019149
-		-		-		Z 091951

Standard pack: 1 off

Rotary Switches
Switch-Disconnectors

T Rotary Switches

Control Switches: Multi-Speed Switches, Reversing Multi-Speed Switches

Rotary Switches - Switch-Disconnectors

Circuit diagram	Front plate no.	no. of poles	Max. three-phase motor rating (per set of 3 contacts) 50 - 60 Hz			Rated uninter-rupted current I_u	Basic type For ... insert mounting form	Flush mounting Front IP 65	Mounting form Article no.	Price See Price List
			220 V	380 V	660 V					
			M	kW	kW	kW	A			
Multi-speed switches¹⁾										
Two-speed, non reversing										
For separate windings										
	FS 644	3	3	4	4	20	T0-3-8451/...	E	038849	
			6.5	12	15	32	T3-3-8451/...	E	028641	
			15	22	22	63	T5B-3-8451/...	E	092288	
For one tapped winding										
	FS 644	3	3	4	4	20	T0-4-8440/...	E	041222	
			6.5	12	15	32	T3-4-8440/...	E	035760	
			15	22	22	63	T5B-4-8440/...	E	092032	
	FS 684	3	3	4	4	20	T0-4-8441/...	E	043595	
			6.5	12	15	32	T3-4-8441/...	E	042879	
			15	22	22	63	T5B-4-8441/...	E	092028	
Reversing multi-speed switches¹⁾										
Two-speed										
For one tapped winding										
	FS 629	3	3	4	4	20	T0-6-15866/...	E	055460	
			6.5	12	15	32	T3-6-15866/...	E	054744	
	FS 441	3	15	22	22	63	T5B-7-66/...	E	091539	

Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and silver-coloured front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches

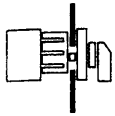
Control Switches: Multi-Speed Switches, Reversing Multi-Speed Switches

Centre mounting
Front IP 65

Surface mounting²⁾
(totally insulated)
IP 65

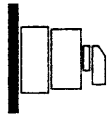
Service distribution
board mounting
Front IP 30

Rear mounting
Front IP 65



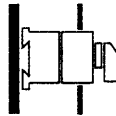
Mounting form
Article no.

Price
See Price
List



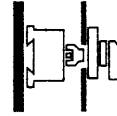
Mounting form
Article no.

Price
See Price
List



Mounting form
Article no.

Price
See Price
List



Mounting form
Article no.

Price
See Price
List

EZ 083936		I1 207133		IVS 026985		Z 043596	
EZ 000956		I2 207189		-		Z 031014	
-		I4 207228		-		Z 092285	
EZ 088682		I1 207141		IVS 029358		Z 048342	
EZ 000959		I2 207196		-		Z 038133	
-		I4 207235		-		Z 092029	
EZ 093428		I1 207142		IVS 031731		Z 053088	
EZ 000960		I2 207197		-		Z 045252	
-		I4 207236		-		Z 092025	
EZ 012747		-		IVS 036477		Z 067326	
EZ 000964		-		-		Z 057117	
-		-		-		Z 091501	

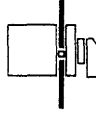
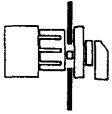
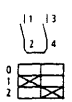

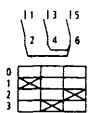

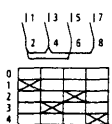

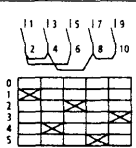

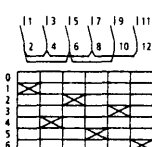

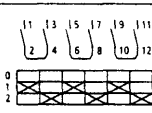

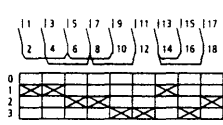

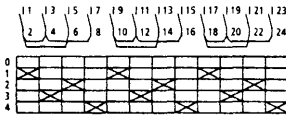

Standard pack: 1 off

Rotary Switches
Switch-Disconnectors

T Rotary Switches

Control Switches: Step Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	no. of poles	Steps	Basic type For ... insert mounting form	Flush mounting Front IP 65  Mounting form Article no.	Price See Price List	Centre mounting Front IP 65  Mounting form Article no.	Price See Price List
Step switches¹⁾								
One contact closed per step (without overlap)								
With additional 0 position								
	 FS 418	1	2	T0-1-8240/...	E 034105		EZ 043597	
	 FS 420	1	3	T0-2-8241/...	E 050716		EZ 053089	
	 FS 422	1	4	T0-2-8242/...	E 067327		EZ 069700	
	 FS 424	1	5	T0-3-8243/...	E 081565		EZ 083938	
	 FS 426	1	6	T0-3-8244/...	E 095803		EZ 098176	
	 FS 418	3	2	T0-3-8280/...	E 034106		EZ 036479	
	 FS 420	3	3	T0-5-8281/...	E 048344		EZ 050717	
	 FS 422	3	4	T0-6-8282/...	E 062582		EZ 064955	

Standard pack: 1 off

Notes

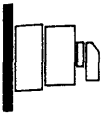
- ¹⁾ With black thumb-grip and silver-coloured front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches

Control Switches: Step Switches

Surface mounting²⁾

totally insulated
Front IP 65

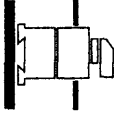


Mounting form
Article no.

Price
See Price List

Service distribution board mounting

Front IP 30

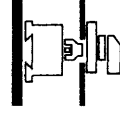


Mounting form
Article no.

Price
See Price List

Rear mounting

Front IP 65



Mounting form
Article no.

Price
See Price List

Notes

Suitable for actuating electronic devices (PLCs)

Rated uninterrupted current I_u 20 A

Rated operational current I_e

AC-15

220 - 240 V 6 A

380 - 415 V 4 A

AC-21 A 12 A

DC-13 32 V per contact 10 A

Further technical data → Page 07/088

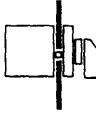
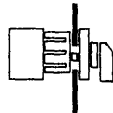
Mounting form Article no.	Price See Price List	Mounting form Article no.	Price See Price List	Mounting form Article no.	Price See Price List
I1 207079		IVS 027076		Z 060208	
I1 207107		IVS 057835		Z 062581	
I1 207108		IVS 074446		Z 076819	
I1 207128		IVS 088684		Z 091057	
I1 207129		IVS 012749		Z 015122	
I1 207130		IVS 041225		Z 043598	
-		IVS 055463		Z 057836	
-		IVS 069701		Z 072074	

Standard pack: 1 off

Rotary Switches
Switch-Disconnectors





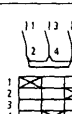





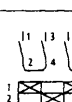



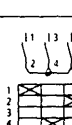

T Rotary Switches

Control Switches: Step Switches

Circuit diagram	Front plate no.	no. of poles	Steps	Flush mounting Front IP 65	Centre mounting Front IP 65
					
			Basic type For ... insert mounting	Mounting form Article no.	Price See Price List
					Mounting form Article no.
					Price See Price List

Step switches¹⁾

One contact closed per step
(without overlap)
Without 0 position

	 FS 943	1	2	T0-1-8220/...	E 031728	EZ 095799
	 FS 404	1	3	T0-2-8230/...	E 088685	EZ 091058
	 FS 606	1	4	T0-2-8231/...	E 012750	EZ 015123
	 FS 408	1	5	T0-3-8232/...	E 026988	EZ 029361
	 FS 410	1	6	T0-3-8233/...	E 041226	EZ 043599
	 FS 943	3	2	T0-3-8222/...	E 048339	EZ 015118
	 FS 404	3	3	T0-5-8270/...	E 091059	EZ 093432
	 FS 406	3	4	T0-6-8271/...	E 015124	EZ 017497

Standard pack: 1 off

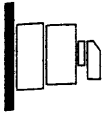
Notes

- ¹⁾ With black thumb-grip and silver-coloured front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches

Control Switches: Step Switches

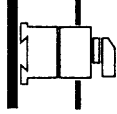
Surface mounting²⁾
 totally insulated
 IP 65



Mounting form
 Article no.

Price
 See Price List

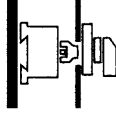
Service distribution board mounting
 Front IP 30



Mounting form
 Article no.

Price
 See Price List

Rear mounting
 Front IP 65



Mounting form
 Article no.

Price
 See Price List

Notes

Suitable for actuating electronic devices (PLCs)

Rated uninterrupted current I_u 20 A

Rated operational current I_e

AC-15

220 – 240 V 6 A

380 – 415 V 4 A

AC-21 A 12 A

DC-13 32 V per contact 10 A

Further technical data → Page 07/088

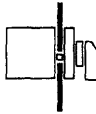
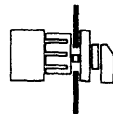






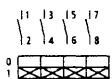



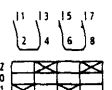

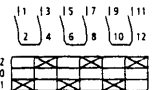

I1 207078	IVS 055459	Z 086312
I1 207105	IVS 095804	Z 098177
I1 207106	IVS 019869	Z 022242
I1 207126	IVS 034107	Z 036480
I1 207127	IVS 048345	Z 050718
I1 207124	IVS 060205	Z 088686
-	IVS 098178	Z 010378
-	IVS 022243	Z 024616

Standard pack: 1 off

T Rotary Switches

Control Switches: On-Off Switches, Changeover Switches

rotary switches
Switch-Disconnectors

Circuit diagram	Front plate no.	no. of poles	Basic type For ... insert mounting form	Flush mounting Front IP 65 	Price See Price List	Centre mounting Front IP 65 	Mounting form Article no.	Price See Price List
On-Off switches¹⁾								
	 FS 415	1	T0-1-15401/...	E 038854		EZ 041227		
	 FS 415	2	T0-1-15402/...	E 053092		EZ 055465		
	 FS 415	3	T0-2-15403/...	E 067330		EZ 069703		
	 FS 415	4	T0-2-15404/...	E 081568		EZ 083941		
Changeover switches¹⁾								
	 FS 429	1	T0-1-15421/...	E 095806		EZ 098179		
	 FS 429	2	T0-2-15422/...	E 019871		EZ 022244		
	 FS 429	3	T0-3-15423/...	E 034109		EZ 036482		


Standard pack: 1 off

- Notes**
- ¹⁾ With black thumb-grip and silver-coloured front plate
 - ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches

Control Switches: On-Off Switches, Changeover Switches

Surface mounting²⁾

 IP 65

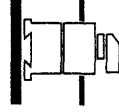


Mounting form
Article no.

Price
See Price List

Service distribution board mounting

Front IP 30

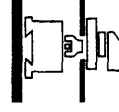


Mounting form
Article no.

Price
See Price List

Rear mounting

Front IP 65



Mounting form
Article no.

Price
See Price List

Mounting form	Price	Mounting form	Price	Mounting form	Price
Article no.	See Price List	Article no.	See Price List	Article no.	See Price List
I1 207067		IVS 045973		Z 048346	
I1 207068		IVS 060211		Z 062584	
I1 207088		IVS 074449		Z 076822	
I1 207089		IVS 088687		Z 091060	
I1 207069		IVS 012752		Z 015125	
I1 207090		IVS 026990		Z 029363	
I1 207114		IVS 041228		Z 043601	

Standard pack: 1 off

Notes

Suitable for actuating electronic devices (PLCs)

Rated uninterrupted current I_u 20 A

Rated operational current I_e

AC-15 6 A

220 – 240 V 4 A

380 – 415 V 12 A

AC-21 A 10 A

DC-13 32 V per contact 10 A

Further technical data → Page 07/088

T Rotary Switches

Control Switches: Hand/Auto Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	no. of poles		Flush mounting Front IP 65	Centre mounting Front IP 65		
			Basic type For ... insert mounting form	Mounting form Article no.	Price See Price List	Mounting form Article no.	Price See Price List
Hand/Auto switches¹⁾							
Hand/Auto switches with locking arrangement → Page 07/050							
With 0 position							
		1	T0-1-15431/...	E 019872		EZ 022245	
		2	T0-2-15432/...	E 034110		EZ 036483	
		3	T0-3-15433/...	E 048348		EZ 050721	
With spring-return from HAND							
		1	T0-1-15434/...	E 062586		EZ 018053	
With spring-return from START							
		1	T0-2-15907/...	E 066931		EZ 069304	
Without 0 position							
		1	T0-1-15451/...	E 076824		EZ 079197	
		2	T0-2-15452/...	E 091062		EZ 093435	
		3	T0-3-15453/...	E 015127		EZ 017500	


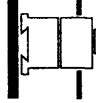
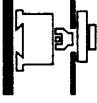
Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and silver-coloured front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches

Control Switches: Hand/Auto Switches

Surface mounting ²⁾ IP 65 		Service distribution board mounting Front IP 30 		Rear mounting Front IP 65 	
Mounting form	Price	Mounting form	Price	Mounting form	Price
Article no.	See Price List	Article no.	See Price List	Article no.	See Price List
I1 207070		IVS 026991		Z 029364	
I1 207091		IVS 041229		Z 043602	
I1 207115		IVS 055467		Z 057840	
I1 207071		IVS 069705		Z 072078	
I1 207095		IVS 076423		Z 078796	
I1 207072		IVS 083943		Z 086316	
I1 207092		IVS 098181		Z 010381	
I1 207116		IVS 022246		Z 024619	

Standard pack: 1 off

Notes

Suitable for actuating electronic devices (PLCs)

Rated uninterrupted current I_u 20 A

Rated operational current I_e

AC-15	6 A
220 - 240 V	4 A
380 - 415 V	12 A
AC-21 A	10 A
DC-13 32 V per contact	

Further technical data → Page 07/088

Rotary Switches
Switch-Disconnectors

T Rotary Switches

Control Switches: Spring-Return Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	no. of poles	Basic type For ... insert mounting form	Flush mounting Front IP 65 Mounting form Article no.	Price See Price List	Centre mounting Front IP 65 Mounting form Article no.	Price See Price List
On switches (make contacts)¹⁾							
Spring-return from position 1							
		1		T0-1-15321/... E 086317		EZ 088690	
	FS 4721						
		2		T0-1-15322/... E 010382		EZ 012755	
	FS 4721						
		3		T0-2-15323/... E 024620		EZ 026993	
	FS 4721						
On-Off spring-return switches¹⁾							
Spring-return from positions 0 and 1							
		To control 1 contactor		T0-1-15366/... E 081572		EZ 083945	
	FS 456						
On-Off spring-return switches¹⁾							
Spring-return from START							
		1		T0-1-15511/... E 019875		EZ 022248	
	FS 147767						
		2		T0-2-15512/... E 034113		EZ 036486	
	FS 147767						
		3		T0-3-15513/... E 048351		EZ 050724	
	FS 147767						
		To control 1 reversing contactor		T0-2-8177/... E 015130		EZ 017503	
	FS 140660						

Standard pack: 1 off

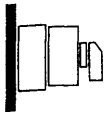
Notes
 1) With black thumb-grip and silver-coloured front plate
 2) Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches

Control Switches: Spring-Return Switches

Surface mounting²⁾

totally insulated
IP 65

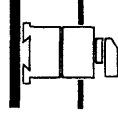


Mounting form
Article no.

Price
See Price List

Service distribution board mounting

Front IP 30

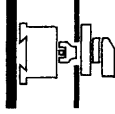


Mounting form
Article no.

Price
See Price List

Rear mounting

Front IP 65



Mounting form
Article no.

Price
See Price List

Mounting form	Price	Mounting form	Price	Mounting form	Price
Article no.	See Price List	Article no.	See Price List	Article no.	See Price List
I1 207064		IVS 093436		Z 095809	
I1 207065		IVS 017501		Z 019874	
I1 207087		IVS 031739		Z 034112	
I1 207066		IVS 088691		Z 091064	
I1 207073		IVS 026994		Z 029367	
I1 207093		IVS 041232		Z 043605	
I1 207117		IVS 055470		Z 057843	
I1 207107		IVS 022249		Z 024622	

Standard pack: 1 off

Notes

Suitable for actuating electronic devices (PLCs)

Rated uninterrupted current I_u 20 A

Rated operational current I_e

AC-15 220 – 240 V 6 A

380 – 415 V 4 A

AC-21 A 12 A

DC-13 32 V per contact 10 A

Further technical data → Page 07/088

Rotary Switches
Switch-Disconnectors

T Rotary Switches

Control Switches: Universal Control Switches, Coding Switches, Series Switches

Circuit diagram	Front plate no.	no. of poles	Basic type For ... insert mounting form	Flush mounting Front IP 65 Mounting form Article no.	Price See Price List	Centre mounting Front IP 65 Mounting form Article no.	Price See Price List
Universal control switches¹⁾							
Stay-put switches with 3 positions 1 contact closed in each position; in addition, 1 contact closed in positions 0 and 1 1 contact closed in positions 0 and 2 1 contact closed in positions 1 and 2							
		-	T0-3-15391/...	E 029365		EZ 031738	
As above, but with spring-return from positions 1 and 2							
		-	T0-3-15394/...	E 072079		EZ 074452	
Coding switches¹⁾							
With complete rotation in both directions							
		Dual BCD CODE	T0-4-15602/...	E 029368		EZ 031741	
Series switches¹⁾							
With 0 position (Heater switches)							
		1	T0-1-91/...	E 072082		EZ 074455	

Standard pack: 1 off

Notes

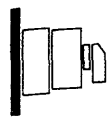
- ¹⁾ With black thumb-grip and silver-coloured front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches

Control Switches: Universal Control Switches, Coding Switches, Series Switches

Surface mounting²⁾

IP 65

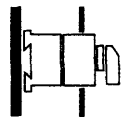


Mounting form
Article no.

Price
See Price List

Service distribution board mounting

Front IP 30

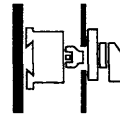


Mounting form
Article no.

Price
See Price List

Rear mounting

Front IP 65



Mounting form
Article no.

Price
See Price List

Notes

Suitable for actuating electronic devices (PLCs)

Rated uninterrupted current I_u 20 A

Rated operational current I_e

AC-15

220 – 240 V 6 A

380 – 415 V 4 A

AC-21 A 12 A

DC-13 32 V per contact 10 A

Further technical data → Page 07/088

I1 207112	IVS 036484	Z 038857
--------------	---------------	-------------

I1 207113	IVS 079198	Z 081571
--------------	---------------	-------------

I1 207134	IVS 036487	Z 038860
--------------	---------------	-------------

I1 207080	IVS 079201	Z 081574
--------------	---------------	-------------

Standard pack: 1 off

Rotary Switches
Switch-Disconnectors

T Rotary Switches

Control Switches: Instrument Selector Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	no. of poles	Flush mounting Front IP 65	Centre mounting Front IP 65	Basic type For ... insert mounting form	Mounting form Article no.	Price See Price List	Mounting form Article no.	Price See Price List
Instrument selector switches¹⁾									
Voltmeter									
		3 × phase to phase With 0 position	T0-2-15920/...	E 038861		EZ 041234			
		3 × phase to phase Without 0 position	T0-2-15922/...	E 053099		EZ 055472			
		3 × phase to N With 0 position	T0-2-15921/...	E 067337		EZ 069710			
		3 × phase to phase + 3 × phase to N With 0 position	T0-3-8007/...	E 095813		EZ 098186			
		3 × phase to phase + 3 × phase to N Without 0 position With complete rotation in both directions	T0-3-15924/...	E 019878		EZ 022251			
Ammeter									
With complete rotation in both directions									
Measurement via current transformers									
		With 0 position	T0-3-8048/...	E 034116		EZ 036489			
Voltmeter and ammeter									
With complete rotation in both directions									
Measurement via current transformers (For other circuits, see catalogue K 115)									
		With 0 position	T0-3-8030/...	E 013401		EZ 013402			

Standard pack: 1 off

Notes

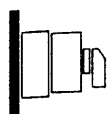
- 1) With black thumb-grip and silver-coloured front plate
- 2) Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches

Control Switches: Instrument Selector Switches

Surface mounting²⁾

totally insulated
IP 65

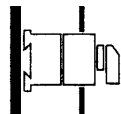


Mounting form
Article no.

Price
See Price List

Service distribution board mounting

Front IP 30

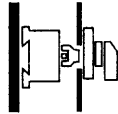


Mounting form
Article no.

Price
See Price List

Rear mounting

Front IP 65



Mounting form
Article no.

Price
See Price List

Notes

Suitable for actuating electronic devices (PLCs)

Rated uninterrupted current I_u 20 A

Rated operational current I_e

AC-15

220 – 240 V 6 A

380 – 415 V 4 A

AC-21 A 12 A

DC-13 32 V per contact 10 A

Further technical data → Page 07/088

I1
207098

IVS
029452

Z
048353

I1
207100

IVS
060218

Z
062591

I1
207099

IVS
074456

Z
076829

I1
207120

IVS
012759

Z
015132

I1
207119

IVS
026997

Z
029370

I1
207122

IVS
041235

Z
043608


I1
207121

IVS
013404

Z
013406

Standard pack: 1 off

T Rotary Switches, P Switch-Disconnectors Switches with Locking Arrangements

Circuit diagram	Front plate no.	no. of poles	Max. three-phase motor rating (per set of 3 contacts) 50 – 60 Hz	Rated uninter-rupted current	Flush mounting Front IP 65	Price See Price List
			AC-3 220 V 380 V 660 V 230 V 400 V 690 V 240 V 440 V	I_u		
			kW kW kW	A	Mounting form Article no.	

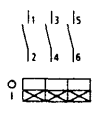
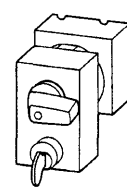
Switches with locking arrangements, KMS 1 lock mechanism

Panic switches without Emergency-Stop function¹⁾

With SVA cylinder lock

Key withdrawable in positions 0 and I

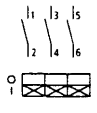
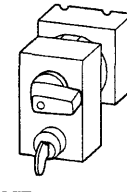
When the key is withdrawn in position I, the switch can still be switched Off, but cannot be switched back On again without the key

Circuit diagram	Front plate no.	no. of poles	Max. three-phase motor rating (per set of 3 contacts)			Rated uninter-rupted current	Mounting form	Article no.	Price
			kW	kW	kW				
	FS 908	3	3	4	4	20			
			4	5.5	7.5	25			
			5.5	11	15	32			
			5.5	11	15	32			
							T0-2-1/E/SVA(S) 050977		
							P1-25/E/SVA(S) 050966		
							P1-32/E/SVA(S) 044977		
							T3-2-1/E/SVA(S) 050983		

On-Off switches without Emergency-Stop function¹⁾

With SVA cylinder lock

Key withdrawable in position 0 only (code letter A)

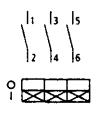
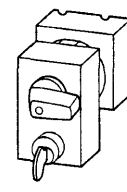
Circuit diagram	Front plate no.	no. of poles	Max. three-phase motor rating (per set of 3 contacts)			Rated uninter-rupted current	Mounting form	Article no.	Price
			kW	kW	kW				
	FS 908	3	3	4	4	20			
			4	5.5	7.5	25			
			5.5	11	15	32			
			5.5	11	15	32			
							T0-2-1/E/SVA(A) 050976		
							P1-25/E/SVA(A) 050965		
							P1-32/E/SVA(A) 050970		
							T3-2-1/E/SVA(A) 050982		

Panic switches with Emergency-Stop function²⁾

With SVA cylinder lock

Key can be withdrawn in positions 0 and 1

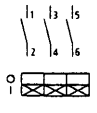
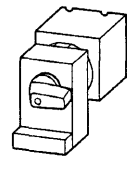
When the key is withdrawn in position 1, the switch can still be switched Off, but cannot be switched back On again without the key

Circuit diagram	Front plate no.	no. of poles	Max. three-phase motor rating (per set of 3 contacts)			Rated uninter-rupted current	Mounting form	Article no.	Price
			kW	kW	kW				
	FS 908 GE	3	3	4	4	20			
			4	5.5	7.5	25			
			5.5	11	15	32			
			5.5	11	15	32			
							T0-2-1/E/SVA(S)-RT 044971		
							P1-25/E/SVA(S)-RT 050967		
							P1-32/E/SVA(S)-RT 050971		
							T3-2-1/E/SVA(S)-RT 044972		

Panic switches with Emergency-Stop function²⁾

With SVC padlocking feature

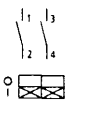
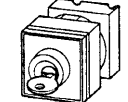
Locking slide can be padlocked in positions 0 and 1. When the locking slide is padlocked in position 1, the switch can still be switched Off, but cannot be switched back On again without first removing the padlock. Lockable with up to 3 padlocks.

Circuit diagram	Front plate no.	no. of poles	Max. three-phase motor rating (per set of 3 contacts)			Rated uninter-rupted current	Mounting form	Article no.	Price
			kW	kW	kW				
	FS 908 GE	3	3	4	4	20			
			4	5.5	7.5	25			
			5.5	11	15	32			
			5.5	11	15	32			
							T0-2-1/E/SVC(S)-RT 044973		
							P1-25/E/SVC(S)-RT 044974		
							P1-32/E/SVC(S)-RT 044975		
							T3-2-1/E/SVC(S)-RT 044976		

On-Off switches without Emergency-Stop function³⁾

With S-T0 key operations

Key withdrawable in position 0 only (code letter A)


Circuit diagram	Front plate no.	no. of poles	Max. three-phase motor rating (per set of 3 contacts)			Rated uninter-rupted current	Mounting form	Article no.	Price
			kW	kW	kW				
	FS 908	2	2.2	2.2	-	20			
							T0-1-102/EZ/S 014933		

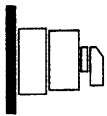
Notes

- With black thumb-grip and silver-coloured front plate
- To IEC/EN 60 204-1; with red thumb-grip handle and yellow front plate
- With silver-coloured front plate
- Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

T Rotary Switches, P Switch-Disconnectors Switches with Locking Arrangements

Surface mounting⁴⁾

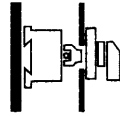
 **Totally Insulated**
Front IP 65



Mounting form
Article no.

Price
See Price
List

Rear mounting
Front IP 65

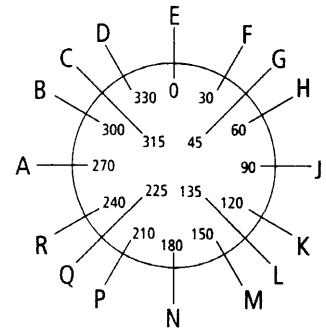


Mounting form
Article no.

Price
See Price
List

Std.
pack

Notes



Code letters for the lockable switch positions
Letter S for panic lock with FS 908 GE

Rotary Switches
Switch-Disconnectors

T0-2-1/I1/SVA(S) 207084		-	
P1-25/I2/SVA(S) 207305		-	
P1-32/I2/SVA(S) 207326		-	
T3-2-1/I2/SVA(S) 207173		-	
T0-2-1/I1/SVA(A) 207083		T0-2-1/Z/SVA(A) 050978	
P1-25/I2/SVA(A) 207304		P1-25/Z/SVA(A) 050969	
P1-32/I2/SVA(A) 207325		P1-32/Z/SVA(A) 050973	
T3-2-1/I2/SVA(A) 207172		T3-2-1/Z/SVA(A) 050984	
T0-2-1/I1/SVA(S)-RT 207085		-	
P1-25/I2/SVA(S)-RT 207306		-	
P1-32/I2/SVA(S)-RT 207327		-	
T3-2-1/I2/SVA(S)-RT 207174		-	
T0-2-1/I1/SVC(S)-RT 207086		-	
P1-25/I2/SVC(S)-RT 207307		-	
P1-32/I2/SVC(S)-RT 207328		-	
T3-2-1/I2/SVC(S)-RT 207175		-	

1 off



T0-1-102/I1/S
207063



T0-1-102/Z/S
014971

T Rotary Switches

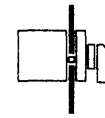
Switches with Locking Arrangements

Circuit diagram

Front plate no.

Rated uninterrupted current I_u

Flush mounting
Front IP 65



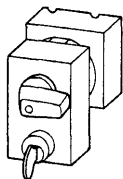
Mounting form
Article no.

Price
See Price List

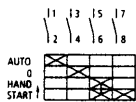
A

Switches with locking arrangements, KMS 1 lock mechanism

Hand/Auto switches with SVA cylinder lock



Key withdrawable in all positions
When the key is withdrawn in the HAND position, then START can be actuated without the key, but not position O (only permissible with separate Off switch)



FS 1413890

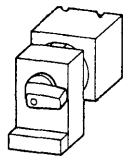
20

T0-2-15907/E/SVA(C,E,G-J)
050979

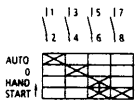
32

T3-2-15907/E/SVA(C,E,G-J)
050985

Hand/Auto switches With SVC padlocking feature



Locking slide can be padlocked in all positions
When the locking slide is padlocked in the HAND position, then START can be actuated without first removing the padlock, but not position O (only permissible with separate Off switch).



FS 1413890

20

T0-2-15907/E/SVC(C,E,G-J)
044996

32

T3-2-15907/E/SVC(C,E,G-J)
044997

Notes

¹⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/068

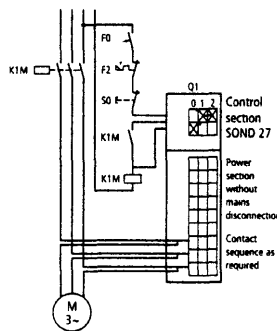
Contactor interlocking circuits

Control section for standard contactor interlocking circuits
If a standard switch is intended to contain one of the contactor interlocking circuits as well, it can be ordered using another circuit number from Catalogue K 115 (please enquire), or as a non-standard switch.

The electrical interlocking of a rotary switch and contactor makes possible a wide range of control functions.

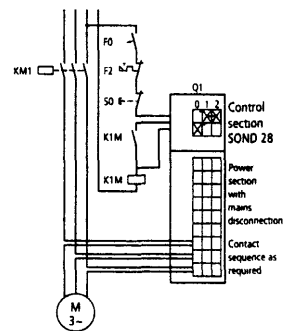
For example: remote disconnection via a stop switch, overload protection via overload relays, protection against automatic restarting after a power failure or overload, and Off position interlocking, etc.

SOND 27



Mains disconnection **only** by contactor
Restarting possible only with the rotary switch in the O position
Application: primarily for star-delta circuits (only at 60° or 90° switching angles)

SOND 28

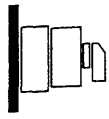


Mains disconnection by contactor and rotary switch together
Restarting: as SOND 27
Application: primarily for star-delta and changeover circuits (only at 60° or 90° switching angles)

T Rotary Switches

Switches with Locking Arrangements

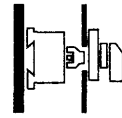
Surface mounting¹⁾ totally insulated
IP 65



Mounting form
Article no.

Price
See Price
List

Rear mounting
Front IP 65



Mounting form
Article no.

Price
See Price
List

Std.
pack

Notes

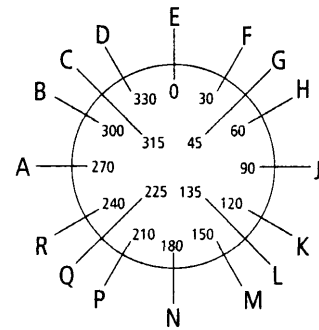
Suitable for actuating electronic devices (PLCs)
Rated uninterrupted current I_u 20 A
Rated operational current I_e

AC-15	
220 - 240 V	6 A
380 - 415 V	4 A
AC-21 A	12 A
DC-13 32 V per contact	10 A

Further technical data → Page 07/088

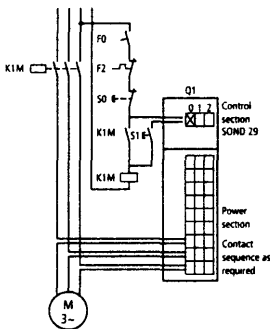
Rotary switches with an SVA locking arrangement can also be used as Operating Mode Selector Switches for the purposes of EU Machine Directive 89/392 (Min. switching angle: 60°)

Code letters for lockable switch positions



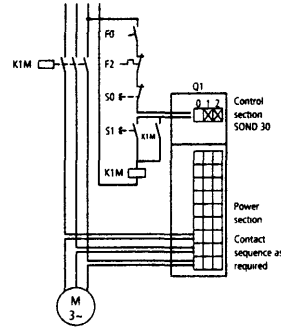
T0-2-15907/I1/SVA(C,E,G-J) 207096	-	-	1 off
T3-2-15907/I2/SVA(C,E,G-J) 207176	-	-	
T0-2-15907/I1/SVC(C,E,G-J) 207097	T0-2-15907/Z/SVC(C,E,G-J) 050980		
T3-2-15907/I2/SVC(C,E,G-J) 207177	T3-2-15907/Z/SVC(C,E,G-J) 050986		

SOND 29



Mains connection by contactor **only** with the rotary switch in the 0 position (Off position interlock)
Application: star-delta, changeover and multi-speed circuits

SOND 30



Mains connection by contactor **only** with the rotary switch in a run position
Each change in switch position causes the contactor to drop out.
Application: changeover and multi-speed circuits

Rotary Switches
Switch-Disconnectors

T Rotary Switches, P Switch-Disconnectors Front Plates

Rotary Switches
Switch-Disconnectors

Switch size	Dimensions	Standard front plates		Emergency-Stop front plates		Blank plates	
		Type Article no. State front plate no. required	Price See Price List	Type Article no.	Price See Price List	Type Article no.	Price See Price List
	mm						Can be engraved on rear
Standard front plates							
T0, T3, P1	45 x 45 (frame size 48 x 48)	FS...-T0 903197		FS 908 GE-T0 003198		FS 980-T0 003199	
P3, T5, T58	84 x 84 (frame size 88 x 88)	FS...-P3 995545		FS 908 GE-P3 031475		FS 980-P3 043340	
TM	29 x 29 (frame size 30 x 30)	-		-		FS 980-TM-E 071438	
		-		-		FS 980-TM-EZ 073811	

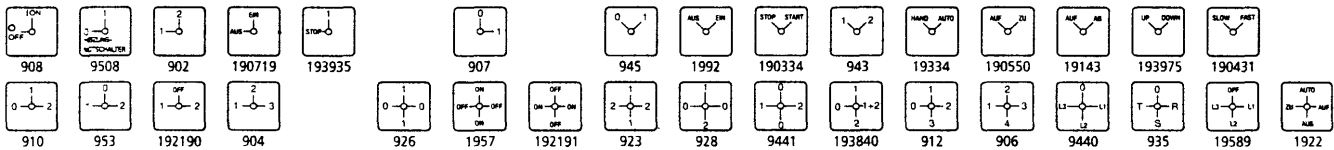
Standard front plates
Silver-coloured with black lettering

Standard pack: 1 off

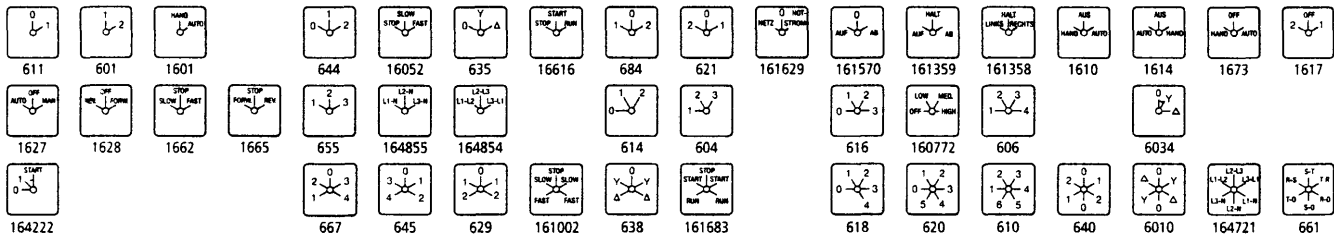
The standard front plates illustrated should be used for non-standard switches where possible. Standard catalogue front plates for standard switches can be exchanged on request with order, for those illustrated here, at no extra charge (not applicable to T6, T8 and TM), provided the switching angles, the number of switch positions, and the location of the 0 position match.

Example: T0-1-8210/E+FS161570

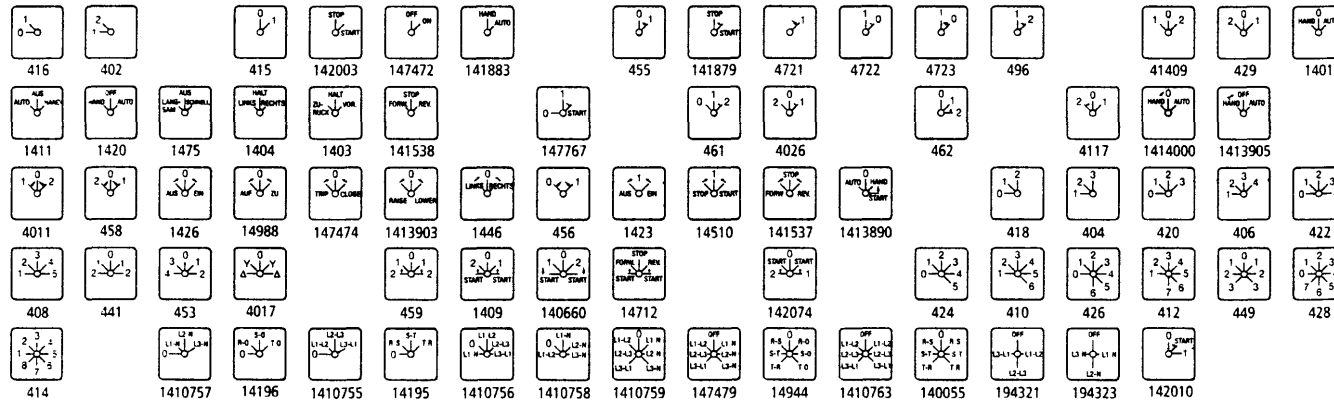
Switching angle 90°



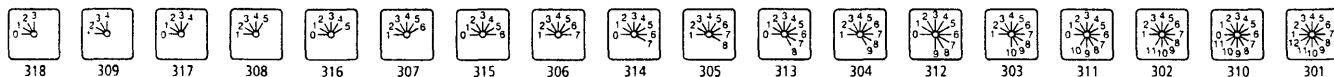
Switching angle 60°



Switching angle 45°



Switching angle 30°



T Rotary Switches, P Switch-Disconnectors Front Plates

Non-standard front plates

Non-standard front plates

Height of letters		Type	Price	Type suffix	Price
≤ 2 characters	> 2 characters	Article no.	See Price List	Article no.	See Price List
mm	mm				
Non-standard front plates					
4.0	3.0	FS-SOND-T0 003200		+FS-SOND-T0 065213	
8.0	5.0	FS-SOND-P3 060606		+FS-SOND-P3 065214	
3.5	2.5	FS-SOND-TM-E 092829		-	
3.5	2.5	FS-SOND-TM-EZ 095202		-	

Non-standard front plates

Silver-coloured with black lettering

Inscription to order (note maximum number of characters per field)

The FS number is sufficient for reordering.

For non-standard T0, T3 and T5(B) switches, the front plate is included in the price.

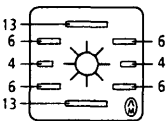
For standard switches, the front plate is included in the price for orders exceeding 49 off.

Standard pack: 1 off

Switching angle

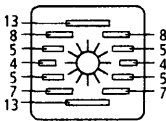
90°/45°

Max. number of characters



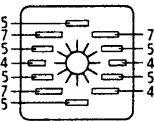
60°/30°

FS-SOND-T0 (T3, T5)



60°/30°

FS-SOND-TM-E (EZ)



FS-SOND-T0 (T3, T5, P1, P3)

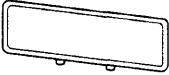
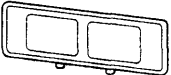
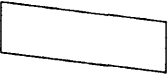
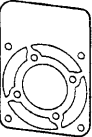
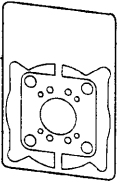
Standard front plates

arranged in their numerical sequence:

301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317
318	402	404	406	408	410	412	414	415	416	418	420	422	424	426	428	429
441	449	453	455	456	458	459	461	462	496	601	604	606	610	611	614	616
618	620	621	629	635	638	640	644	645	655	661	667	684	902	904	906	907
908	910	912	923	926	928	935	943	945	953	980	1401	1403	1404	1409	1411	1420
1423	1426	1446	1475	1601	1610	1614	1617	1627	1628	1662	1665	1673	1922	1957	1992	4011
4017	4026	4117	4721	4722	4723	6010	142010	6034	9440	9441	9508	14195	14196	14510	14712	14944
14988	16052	16616	19143	19334	19589	41409	140055	140660	141537	141538	141879	141883	142003	142074	147472	147474
147479	147767	160772	161002	161358	161359	161570	161629	161683	164222	164721	164854	164855	190334	190431	190550	190719
192190	192191	193840	193935	193975	194321	194323	1410755	1410756	1410757	1410758	1410759	1410763	1413890	1413903	1413905	1414000

T Rotary Switches, P Switch-Disconnectors

Accessories

	For use with	Type suffix Article no.	Price See Price List
		When ordered with basic unit	
Add-on front plates, clip-on			
			
For use with front plates and for padlocking features. They comprise a black label mount and an aluminium-coloured insert plate.			
Blank, can be engraved	T.../I2/SVB(-SW) and P.../I2/SVB(-SW) except ...I1, 2.../IVS	-	
	T..., P... except /I1, 2, 3.../IVS	-	
With inscription: "Main Switch – Open only in the Off position"	T.../E, T.../Z, P.../E, P.../Z 61/62 = German/English, 63 = French	+ZFS 61/62-T0 065740 +ZFS 63-T0 065741 +ZFS 61/62-P3 065742 +ZFS 63-P3 065743	
Label mounts, black			
			
	T.../I2/SVB(-SW) and P.../I2/SVB(-SW) except ...I1, 2.../IVS	-	
	T..., P... except /I1, 2, 3.../IVS	-	
Insert labels, aluminium-coloured			
			
Blank, can be engraved	ZFSX-T0	-	
With inscription as specified Black lettering		-	
Blank, can be engraved	ZFSX-P3	-	
With inscription as specified Black lettering		-	
Legend plates, aluminium-coloured			
			
Blank, can be engraved	T0-.../E, .../EZ, .../Z T3-.../E, .../EZ, .../Z P1-.../E, .../EZ, .../Z	-	
With inscription as specified Narrow script to DIN 30 640, black		-	
			
Blank, can be engraved	T5(B)-.../E, T5(B).../Z P3-.../E, .../Z T6-2I.../SVB(SW)	-	
With inscription as specified Narrow script to DIN 30 640, black		-	

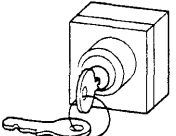
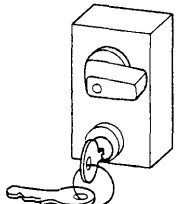
T Rotary Switches, P Switch-Disconnectors Accessories

Type	Price		
Article no.	See Price List	Std. pack	
When ordered separately			
ZFS 60-T0 019924		25 off	ZFS...-T0 and ZFS...-P3 can be used for any T... and P... switches, as required, and also for PKZ 2.
ZFS 60-P3 022297		25 off	
ZFS 61/62-T0 030170		25 off	Included as standard with: T.../EA/SVB, P.../EA/SVB T.../V/SVB, P.../V/SVB For ZFS in other languages → Page 07/086
ZFS 63-T0 047424			
ZFS 61/62-P3 065739			
ZFS 63-P3 047423			
ZFSX-T0 024670		25 off	ZFSX...-T0 and ZFSX...-P3 can be used for any T... and P... switches, as required
ZFSX-P3 027043		25 off	Dimensions with frame W × H = 48 × 17 mm Dimensions with frame W × H = 88 × 27 mm
BS 45×14-T0 029416		25 off	
BS 45×14-SOND-T0 034162		1 off	Letter height (mm) 3.5 5 7 10 Number of lines 2 2 1 1 Letters per line 20 14 11 9
BS 84×24-P3 031789		25 off	
BS 84×24-SOND-P3 036535		1 off	Letter height (mm) 3.5 5 7 10 Number of lines 4 3 2 2 Letters per line 39 26 20 25
ZS 60-T0 003201		1 off	
ZS-SOND-T0 003203		1 off	Letter height (mm) 3.5 5 7 Number of lines 2(3) ¹⁾ 1 1 Letters per line 23 16 11
ZS 60-P3 003202		1 off	
ZS-SOND-P3 003205		1 off	Letter height (mm) 3.5 5 7 Number of lines 6 4 2 Letters per line 41 27 15

Rotary Switches
Switch-Disconnectors



T Rotary Switches, P Switch-Disconnectors Accessories

	For use with	Key withdrawal	Type suffix Article no. When ordered with basic unit	Price See Price List
S-T0 key operated lock mechanism, Front IP 53 Includes two keys				
				
KMS 1 lock mechanism Individual lock mechanism, not suitable for master key systems	T0-.../E, .../EZ, .../I1, .../Z Up to 6 contact units T3-.../E, .../I2, .../Z Up to 5 contact units P1-.../E, .../I2, .../Z	Key withdrawal positions are programmed ex-works to match the switch	+S-T0 001753 +S-SOND(KMS...)-T0 903210 +S-SOND(SAE)-T0 003212 +S-SOND(SA...)-T0 914737	
KMS 2-10 ¹⁾ lock mechanism KMS 201-400 ¹⁾ lock mechanism Individual lock mechanisms, not suitable for master key systems There is no master key for KMS... lock mechanisms				
(SAE) = Individual lock mechanism supplied with a security certificate				
(SA...) = Master key system (with master key) supplied with a security certificate. See also note below.				
SVA-T3 cylinder lock, Front IP 65 Includes two keys				
				
Key can be withdrawn in all positions				
KMS 1 lock mechanism Individual lock mechanism, not suitable for master key systems	T0-.../E, .../I1, .../Z T3-.../E, .../I2, .../Z P1-.../E, .../I2, .../Z	Key withdrawal positions are programmed ex-works to match the switch	+SVA-T3 050962 +SVA-SOND-KMS...-T3 907739 +SVA-SOND-KM...-T3 907738	
KMS 2-10 ¹⁾ lock mechanisms KMS 201-400 ¹⁾ lock mechanism Individual lock mechanisms, not suitable for master key systems				
KM... lock mechanisms				
Key withdrawable in positions as specified				
KMS 1 lock mechanism Switches with FS 908 suitable for use as main switches: T0-1-... to T0-4-.../I1, .../E T3-1-... to T3-5-.../I2 T3-1-... to T3-6-.../E P1-.../I2, .../E	T0-.../E, .../I1, .../Z T3-.../E, .../I2, .../Z P1-.../E, .../I2, .../Z	Withdrawal po- sitions are pro- grammed ex- works as or- dered	+SVA(...)-T3 907737 +SVA(...)-SOND-KMS...-T3 907734 +SVA(...)-SOND-SAE-T3 907736 +SVA(...)-SOND(SA...)-T3 914735	
KMS 2-10 ¹⁾ lock mechanisms KMS 201-400 ¹⁾ lock mechanisms Individual lock mechanisms, not suitable for master key systems				
(SAE) = Individual lock mechanism supplied with a security certificate				
(SA...) = Master key system (with master key) supplied with a security certificate. Order must include a lock plan (FO 276) showing the full con- figuration of the envisaged lock system. For subsequent part orders, sim- ply state the item number within the lock plan, e.g. (X4711, item 7).				

Notes

¹⁾ KMS 1: can be supplied ex-stock; KMS 2 - 9, 201 - 400
and master key systems: delivery time >6 weeks

T Rotary Switches, P Switch-Disconnectors Accessories

Key with- drawal	Type Article no.	Price See Price List	Std. pack
	When ordered separately		
Key with- drawal positions can be programmed by user	S-T0 086709		1 off
	S-SOND(KMS...)-T0 903207		
	S-SOND(SAE)-T0 003209		
	S-SOND-(SA...)-T0 991023		

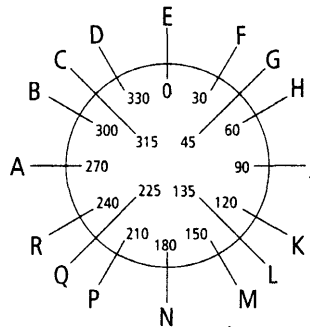
Key with- drawal positions can be programmed by user	SVA-T3 050974		1 off
	SVA-SOND-KMS...-T3 907747		
	SVA-SOND-KM...-T3 907746		

Key with- drawal positions are programmed ex-works as ordered	SVA(...)-T3 907745	
	SVA(...)-SOND-KMS...-T3 907742	
	SVA(...)-SOND-SAE-T3 907744	
	SVA(...)-SOND-(SA...)-T3 914736	

Notes

S-T0 can be used for P1-..., T0-1... to T0-6... and T3-1... to T3-5... switches.
The key replaces the thumb-grip. Switching is not possible without the key. The switch position indicator is on the lock. In standard applications, the key can be withdrawn in any position, on switches with FS 908, only in the 0 position. New positions for key withdrawal can be selected (even retroactively) by fitting VR-T0 locking cams. The switching angle is determined by the switch. When retrofitting the S-T0, use the front plate supplied with the switch.
Lock mechanism: standard KMS 1 (CES lock)
If required, other lock mechanisms or master key systems are available.

SVA-T3 can be fitted to T0, T3 and P1 switches. Switching is carried out using the thumb-grip. The switch is locked by turning the key; the key is withdrawable. In standard applications, all positions are lockable. When retrofitting the SVA-T3, used the front plate supplied with the switch.
Lock mechanism: standard KMS 1 (CES lock). If required, other lock mechanisms can be used, and if planned in advance, even master key systems. Individual positions or ranges can be locked (also with VR-T3 fitted by the user). The key cannot be withdrawn from positions which are not lockable. Where ranges are locked, switching without the key is possible only within a locked range.
The lockable positions or ranges are shown below; use the code letters to state selection on order.
Example 1: SVA(A)-T3 = Only position A lockable
Example 2: SVA(A, E)-T3 = Positions A and E lockable
Example 3: SVA(A-J)-T3 = Range A to J lockable
Example 4: SVA(S)-T3 = Panic lock for Emergency-Stop and main switches, lockable in positions A and E; switching is still possible from E to A, but not from A to E.

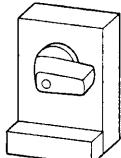
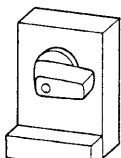





Letter S for panic lock with FS 908

Ordering example:
SVA(A-G)-SOND-(SAA 6294-1/2)

Rotary Switches
Switch-Disconnectors

T Rotary Switches, P Switch-Disconnectors Accessories

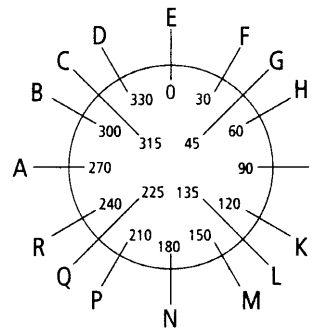
	For use with	Locking facility	Type suffix Article no. When ordered with basic unit	Price See Price List
SVC-T3 padlocking feature, Front IP 65				
In the depressed position, the locking slide is lockable with up to 3 padlocks				
				
All positions or ranges are lockable	T0-.../E, .../I1, .../Z T3-.../E, .../I2, .../Z P1-.../E, .../I2, .../Z	Lockable positions are programmed ex-works to match the switch	+SVC-T3 050963	
Specified positions or ranges are lockable Switches (on the right) with FS 908 may be used as main switches.	T0-1-... to T0-4-.../I1, .../E T3-1-... to T3-5-.../I2 T3-1-... to T3-6-.../E P1-.../I2, .../E	Lockable positions are programmed ex-works to order	+SVC(...)-T3 907740	
DTV-T3 push-button interlock, padlockable, Front IP 65				
As SVC-T3, but with the following added function: With a padlock in place, it is possible to switch from an unlocked position or range into a locked position or range, but not the reverse.				
				
Specified positions locked Release mechanism can be locked with up to 2 padlocks	T0-.../E, .../I1, .../Z T3-.../E, .../I2, .../Z P1-.../E, .../I2, .../Z Lockable with up to 2 padlocks	Lockable positions are programmed ex-works to match the switch	+DTV-T3 050961	
	-	Lockable positions are programmed ex-works to order	+DTV(...)-T3 907733	
Locking cams (2 cams per set)				
User can select indexing position in which key can be withdrawn	S-T0 for all switching angles	-	-	
				
Changing the locked positions/ranges	SVA-T3 and SVC-T3 for all switching angles For DTV-T3: order 2 x VR-T3	-	-	
				
Keys				
				
For KMS 1 individual lock mechanism	S-T0, SVA-T3	-	-	
For KMS 2 - 10 or KMS 201 - 400 individual lock mechanisms	S-T0, SVA-T3	-	-	
For master key systems and individual lock mechanisms: state lock plan number and lock	S-T0, SVA-T3	-	-	

T Rotary Switches, P Switch-Disconnectors Accessories

Locking facility	Type	Price	Std. pack
	Article no.	See Price List	
	When ordered separately		
Lockable positions can be programmed by user	SVC-T3 050975		1 off
Positions which can be interlocked are programmed ex-works as ordered	SVC(...)-T3 907748		1 off
	VR-T0 089082		1 off
	VR-T3 050987		1 off
	SVS-KMS1 001871		1 off
	SVS-KM... 914714		
	SVS-SA(...) 901982		

Notes

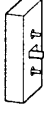
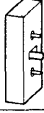


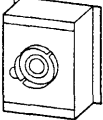
SVC-T3 can be fitted to T0, T3 and P1 switches. Switching is carried out using the thumb-grip, and interlocking by pressing an actuator which can be locked in position using up to 3 padlocks. In standard applications, all positions are lockable. With type reference SVC(...)-T3, only the specified positions or ranges are lockable. Where ranges are locked, switching is only possible within a locked range unless the padlock is removed first. The lockable positions or ranges for SVC(...)-T3 and the locked position for DTV(...)-T3 are shown below. As with SVA(...)-T3, use the code letters to state selection on order. Example 1: SVC(A)-T3 = Only position A lockable Example 2: SVC(A, E)-T3 = Positions A and E lockable Example 3: SVC(A-J)-T3 = Range A to J lockable Example 4: DTV(G)-T3 = The release mechanism must be actuated to allow switching in this position. Example 5: SVC(S)-T3 = 'Panic lock' for main switches suitable as Emergency-Stop devices to IEC/EN 60 204-1, with red thumb-grip and yellow front plate; lockable in positions A and E; switching is still possible from E to A, but not from A to E. When retrofitting the SVC-T3, use the front plate supplied with the switch. Letter S for panic lock requires FS 908 GE front plate.



Master keys must always be ordered separately. Please send or submit the security certificate with repeat orders. For SA(...), the precise designation of the key must be stated, e.g. GHS-SA(A6294)-1/2.

Rotary Switches, P Switch-Disconnectors

T Rotary Switches, P Switch-Disconnectors Accessories

	For use with	Type suffix Article no. When ordered with basic unit	Price See Price List
Neutral poles			
Early-make, late-break			
			
Can be fitted to left and/or right of 3-pole P switch-disconnectors	P1-.../E, .../EA, .../EZ	-	
N-P1Z or HI11-P1/P3Z can be fitted to left only of P1-.../I2 switch-disconnectors	P1-.../Z, .../N, .../I2, .../IVS	+N-P1Z 000416	
	P3-.../E, .../EA	-	
	P3-.../Z, .../N, .../IVS P3-63/E, .../Z, .../I4 P3-100/E, .../Z, .../I5	+N-P3Z 009036	
Auxiliary contacts			
One make contact, one break contact			
			
Can be fitted to left and/or right of 3-pole P switch-disconnectors	P1-.../E, .../EA..., .../EZ P3-.../E, .../EA	+HI11-P1/P3E 064100	
N-P1Z or HI11-P1/P3Z can be fitted to left only of P1-.../I2 switch-disconnectors	P1-.../Z, .../N, .../I2, .../IVS P3-63/Z, .../N, .../I4, .../IVS P3-100/Z, .../N, .../I5, .../IVS	+HI11-P1/P3Z 064526	
Centre mounting accessories			
For single-hole fitting Mounting diameter 22.3 mm			
			
With front plate	T0-.../E, T3-.../E	+EZ-T0 001750	
Without front plate For engraved front plate	T0-.../E, T3-.../E	+EZ/OFS-T0 001751	
Mounting diameters 22.3 mm and 30.5 mm	T0-.../E, T3-.../E, P1-.../E	+EZ-P1 026222	
			
Service distribution board mounting accessories			
Including push-fit shaft			
	T0-.../XZ	+IVS-T0 045472	
			
For retrofitting of T0-.../XZ basic switches as T0-.../IVS into service distribution boards			

T Rotary Switches, P Switch-Disconnectors

Accessories

Type	Price		
Article no.	See Price List	Std. pack	
When ordered separately			
N-P1E 000651		5 off	The neutral contact is always early-make and late-break
N-P1Z 000652			Switching capacity of N-P1... equivalent to P1-32... contacts
N-P3E 062432			The neutral contact is always early-make and late-break
N-P3Z 064805			Switching capacity N-P3... equivalent to P3-100... contacts

HI11-P1/P3E 061813		5 off	The make contact is always connected as a load-shedding contact, i.e. late-make, early-break.
HI11-P1/P3Z 062031		5 off	

EZ-T0 081622		1 off	Rapid snap-fitting in panel sides, plates and doors Legend plates from the RMQ range of control circuit devices can be used
EZ/OFS-T0 001869		1 off	
EZ-P1 091455		5 off	Screw-fixing enables one person to fit it into panel sides, plates and doors Legend plates from the RMQ range of control circuit devices can be used



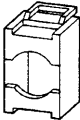

IVS-T0 091114		1 off	Use the front plate of the basic switch
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T Rotary Switches, P Switch-Disconnectors

Accessories

 Rotary Switches
Switch-Disconnectors

	For use with	Type suffix Article no. When ordered with basic unit	Price See Price List
Coupling drive			
Including push-fit shaft			
			
For fitting T0(T3)-.../XZ basic switch as a rear mounting switch Spare part for T0(T3)/(P1)-.../Z		-	
For conversion of T5 (B)-.../E flush mounting switch into a rear mounting switch Spare part for T5(B)/(P3)-.../Z		-	
Interlock sections			
			
With N- and PE conductor connection	T0-.../E, .../EZ T3-.../E, .../EZ P1-.../E, .../EZ	+UV-T0 038519	
	T5(B)-.../E P3-.../E	+UV-P3 030402	
	T0-.../Z T3-.../Z P1-.../Z	+UV-T0 038519	
For cover and door interlock With N- and PE conductor connection	T5(B)-.../Z P3-.../Z	+UV-P3 030402	
Interlock extensions			
Up to four off, 25 mm each, can be plugged onto interlock section (An equal number of shaft extensions is required for this purpose)	UV-T0	+ZVV-T0¹⁾ 024662	
	UV-P3	+ZVV-P3²⁾ 024379	
			
Shaft extensions			
Up to four off, 25 mm each, can be plugged onto switch shaft	T0-.../Z T3-.../Z P1-.../Z	+ZAV-T0 023736	
	T5(B)-.../Z P3-.../Z	+ZAV-P3 026623	
			
Notes	¹⁾ For use only with T0/T3-.../Z and P1-.../Z ²⁾ For use only with T5(B)-.../Z and P3-.../Z		

T Rotary Switches, P Switch-Disconnectors

Accessories

Type	Price	Std.
Article no.	See Price List	pack
When ordered separately		

DE-T0 093487		1 off
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DE-P3 093972		3 off
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UV-T0 019925		1 off
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UV-P3 048289		
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UV-T0 019925		
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UV-P3 048289		
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ZVV-T0 022298		10 off
------------------	--	--------

ZVV-P3 024671		10 off
------------------	--	--------

ZAV-T0 027044		10 off
------------------	--	--------

ZAV-P3 029417		10 off
------------------	--	--------

Fits on the reverse of the flush mounting switch

With interlocking function for rear mounting switches

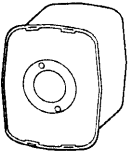
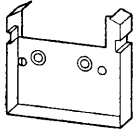
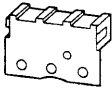
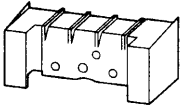
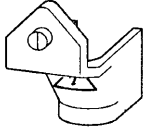
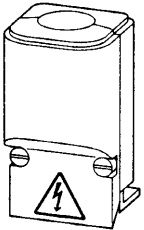
Notes relating to installation in enclosures
→ Page 07/107

Notes relating to installation in enclosures
→ Page 07/107

Rotary Switches
Switch-Disconnectors

T Rotary Switches, P Switch-Disconnectors
Accessories

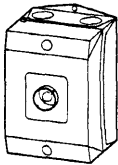
Rotary Switches
Switch-Disconnectors

	For use with	Type suffix Article no.	Price See Price List
		When ordered with basic unit	
<p>Sleeves/covers For flush mounting switches with up to four contact units</p> 	T0-.../E T3-.../E P1-.../E	-	
<p>Cover for protection of terminals For up to 2 contact units</p> 	T5(B)-.../E, .../Z	-	
<p>Extension of H1-T5 cover To protect 3 to 8 contact units</p>	H1-T5	-	
<p>To cover terminals on 3-pole switch-disconnectors</p> 	P1-.../E, .../EZ, .../Z, .../EA, .../V P1-...N, ...HI11, ...N...HI11	-	
<p>To cover terminals on 3-pole open switch-disconnectors with N neutral conductor and/or HI11 auxiliary contact modules fitted</p> 	P3-.../E, .../Z, .../EA, .../V P3-...N, ...HI11, ...N...HI11	-	
<p>Cover assembly to protect the 6 terminals on</p> 	T6-160-6/...	-	
<p>Cover assembly to protect the 6 terminals on</p> 	T8-3-8342/...	-	

T Rotary Switches, P Switch-Disconnectors Accessories

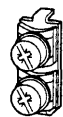
Type	Price	Std.	
Article no.	See Price List	pack	
When ordered separately			
H3-T0 093828		1 off	Cable entries Quantity: 2 × Ø 20 mm + 2 × Ø 15 mm Cross-section: 5 × 6 mm ² 5 × 2.5 mm ²
H1-T5 045062		1 off	Can be used for input and/or output wiring
HZ-T5 045063		10 off	1 × HZ-T5 required per contact unit
H-P1 017253		5 off	Can be used for input and/or output wiring
H-P14 019626		5 off	
H-P3 021999		5 off	The shroud is designed for fitting onto both sides of the switch-disconnector. Parts which are not required can be broken off.
H-T6-160 200183		1 off	
H-T8 200184		1 off	

T Rotary Switches, P Switch-Disconnectors Accessories

	For use with	Type Article no.	Price See Price List	Std. pack										
Insulated enclosures¹⁾ IP 65²⁾ totally insulated														
														
1 - 2 contact units	T0-.../XZ	CI-K1-T0-2 207435		1 off	Cable sizes which may be pushed through the membrane <table border="1"> <thead> <tr> <th>Type</th> <th colspan="2">Main/control current</th> </tr> </thead> <tbody> <tr> <td>CI-K1-T0-...</td> <td>12 mm</td> <td>-</td> </tr> <tr> <td>CI-K2-T3-...</td> <td>16 mm</td> <td>8 mm</td> </tr> </tbody> </table>	Type	Main/control current		CI-K1-T0-...	12 mm	-	CI-K2-T3-...	16 mm	8 mm
Type	Main/control current													
CI-K1-T0-...	12 mm	-												
CI-K2-T3-...	16 mm	8 mm												
3 - 4 contact units	T0-.../XZ	CI-K1-T0-4 207436												
1 - 2 contact units	T3-.../XZ P1-...	CI-K2-T3-2 207437												
3 - 5 contact units	T3-.../Z	CI-K2-T3-5 207438												
1 - 2 contact units	T5B-.../E P3-63/...	CI-K4-T5B-2 207439												
3 - 4 contact units	T5B-.../Z	CI-K4-T5B-4 207440												
1 - 2 contact units	T5-.../Z P3-100/...	CI-K5-T5-2 207441			Converts T5-.../Z into T5-.../I5 and T5B-.../E into T5B-.../I4: Order AW-T5-... extension terminals in addition → Page 07/069									
3 - 4 contact units	T5-.../Z	CI-K5-T5-4 207442												

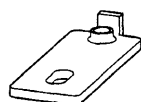
Neutral terminal

For connection of 5th conductor



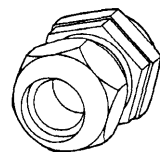
T0-.../I1, CI-K1-T0-...	K-CI-K1/2 207451	1 off
T3-.../I2, CI-K2-T3-...		
P1-.../I2		
T5B-.../I4, CI-K4-T5B-..., P3-.../I4	K-CI-K4 206916	1 off

Set of external fixing brackets



T5B-.../I4, T5-.../I5, P3-63/I4, P3-100/I5,	AB-CI-K4/5 206914	1 off
--	----------------------	-------

Metric cable glands to EN 50 262



Thread size		
M20	V-M20 206910	1 off
M25	V-M25 206911	
M32	V-M32 206912	
M50	V-M50 206913	

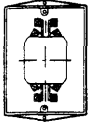

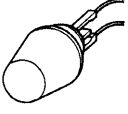
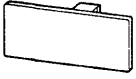
Metric cable grommets to EN 50 262

For M20	KT-M20 207602	100 off
For M25	KT-M25 207603	
For M32	KT-M32 207604	

Notes

- Enclosures designed for metric cable glands to EN 50 262
- Max. degree of protection with cable passing through membrane: IP 54

T Rotary Switches, P Switch-Disconnectors Accessories

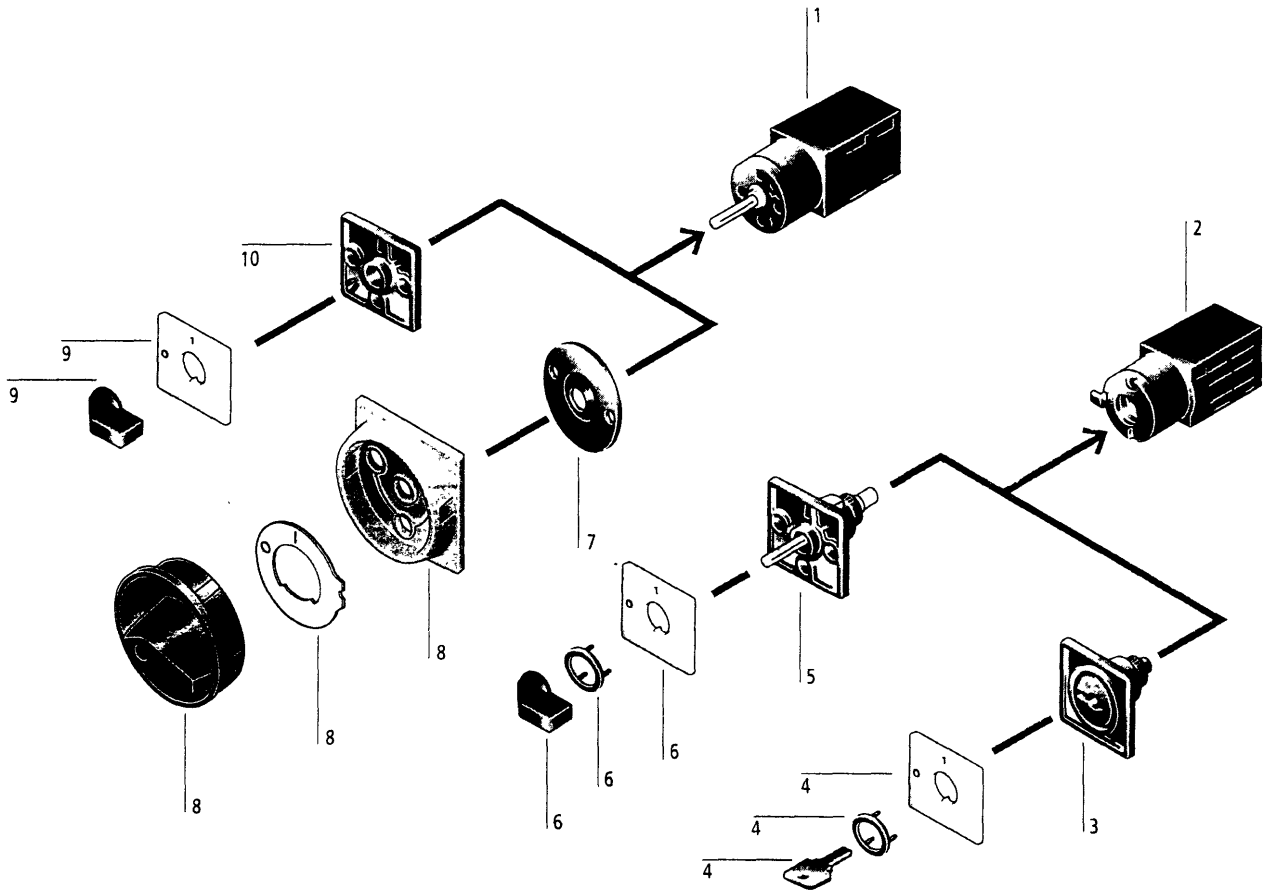
	For use with	Type Article no.	Price See Price List	Std. pack	
Set of extension terminals					
For cable connection in the enclosure					
					
For the lowest contact unit	T5B-.../I4 T5-.../I5	AW-T5-1/2 032601		1 off	Included with T5B-.../I4 and T5-.../I5 as standard Fit T5(B) with extension terminals to install it as T5(B)-.../E in an insulated enclosure
For the second contact unit from the bottom	T5-.../I5	AW-T5-3/4 032602		1 off	
Indicator lights with neon bulb					
For mounting in enclosure covers					
					
Colour: white Voltage range: 230-400 V	P1-.../I2, P3-.../I..., T-.../I...	L-PKZ 0 (400 V) 082152		10 off	Other voltages → Page 08/019
Colour: green Voltage range: 230-400 V		L-PKZ 0 -GN (400 V) 082155		5 off	
Colour: red Voltage range: 230-400 V		L-PKZ 0-RT (400 V) 082158		5 off	
Indicator lights, conical, without neon bulb					
For mounting in cable entries					
					
Colour: red	P1-.../I2, P3-.../I..., T-.../I...	L-CIK-R 207033		10 off	For neon bulbs and BA 9s filament bulbs up to 2.4 W
Colour: white		L-CIK-W 207034			
Colour: green		L-CIK-G 207035			
Colour: yellow		L-CIK-Y 207036			
XGKS component labelling system					
→ Page 15/090					
Label plate with fixing stud					
					
18 × 17.5 mm	T0-... T3-... T5B-... P1-... P3-...	XGKS-Z 207508		500 off	

Rotary Switches, P Switch-Disconnectors

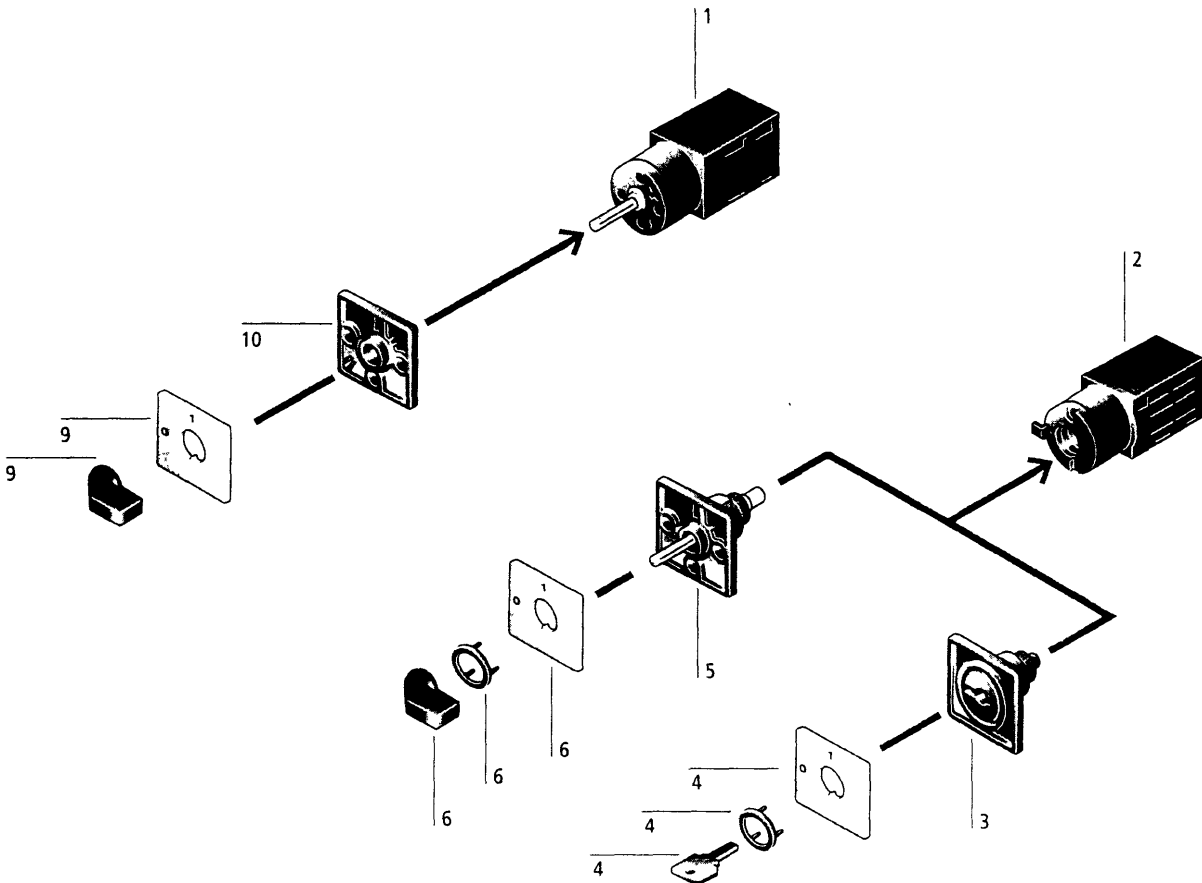
07/069

TM Mini Rotary Switches System Overview

TM On-Off switches



TM control switches



TM Mini Rotary Switches System Overview

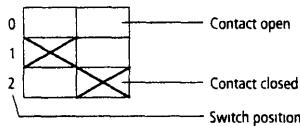
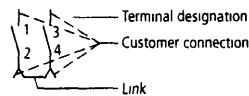
Flush mounting (.../E) 1 Front IP 65 Fitting from the rear in panel sides, plates or doors Terminal: Pozidriv screw Finger-proof → Page 07/072	Centre mounting (.../EZ) 2 Front IP 65 Mounting in a standard 16.2 mm aperture, or in 22.3 mm to IEC/EN 60 947-5-1 following removal of supplied adapter MBS... legend plates from the control circuit device range can be used (see Page 03/074) → Page 07/072	Centre mounting switches, standard 5,6 With black thumb-grip and silver-coloured front plate → Page 07/072
Flush mounting control circuit isolators (.../E/SVB) 1 Front IP 65 To IEC/EN 60 947-5 Lockable in the Off position using 2 padlocks (4 mm Ø) or 1 padlock (6 mm Ø) Can be used at up to 250 V AC per contact Up to 6 contacts admissible → Page 07/072	Centre mounting, key operated 3,4 Two keys supplied Option for key withdrawal at 90° using KABA Micro cylinder lock Option for key withdrawal at 60° using RONIS cylinder lock The position in which the key is to be withdrawable must be stated → Page 07/081	Control circuit isolators 7,8 With red rotary handle and yellow locking collar Lockable in the 0 (Off) position → Page 07/072
		Flush mounting switches, standard 9,10 With black thumb-grip and silver-coloured front plate → Page 07/072

Product attributes

Contact chamber

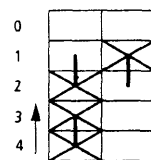
- Rated uninterrupted current 10 A
- Gold-plated contacts for safe switching of extra low voltages and currents even in corrosive atmospheres
- Positively opening contacts
- 1 – 2 contacts per contact chamber, up to 16 contacts per switch
- Switching of differing potentials
- Control circuit reliability

Circuit diagrams (examples)



Switch position 1:
Contact 1 – 2 open,
Contact 3 – 4 closed.

Switching from 1 to 2:
Contact 1 – 2 early-make
Contact 3 – 4 late-break

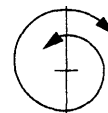


Switching from 2 to 3:
Contact 1 – 2 opens briefly.

Switching from 3 to 4:
Contact 1 – 2 remains closed

Switch position


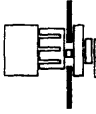
- Reliable switching due to indexing mechanism
- Switching angles 30°, 45°, 60°, 90°
- Spring-return
- Complete rotation
- Switching angle of 360° allows complete rotation in both directions



TM Mini Rotary Switches







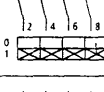

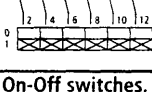

Control Circuit Isolators, On-Off Switches

Rotary Switches
Switch-Disconnectors







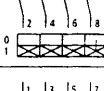

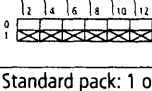

Circuit diagram	Front plate no.	no. of poles	Flush mounting Front IP 65	Centre mounting Front IP 65	Price See Price List	Price See Price List
					Type Article no.	Type Article no.

Control circuit isolators, 90°

With padlocking facility, lockable in the Off position
Up to 250 V AC for each contact

		1	TM-1-8290/E/SVB 045477	-		
		2	TM-1-8291/E/SVB 045478	-		
		3	TM-2-8292/E/SVB 045484	-		
		3+N	TM-2-8293/E/SVB 045485	-		
		6	TM-3-8326/E/SVB 045498	-		

On-Off switches, 90°

	 F 056	1	TM-1-8290/E 070131	TM-1-8290/EZ 000693		
	 F 056	2	TM-1-8291/E 072504	TM-1-8291/EZ 015073		
	 F 056	3	TM-2-8292/E 074877	TM-2-8292/EZ 015096		
	 F 056	3+N	TM-2-8293/E 077250	TM-2-8293/EZ 045486		
	 F 056	6	TM-3-8326/E 079623	TM-3-8326/EZ 045499		

Standard pack: 1 off

TM Mini Rotary Switches

Control Switches: Changeover Switches

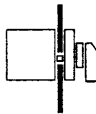
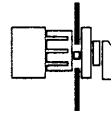
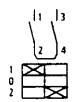

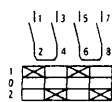

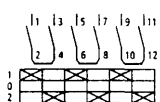

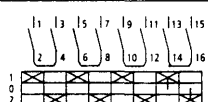



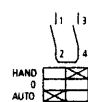

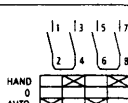

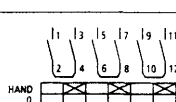

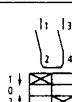

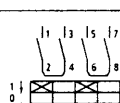

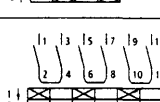

Circuit diagram	Front plate no.	no. of poles	Flush mounting Front IP 65		Centre mounting Front IP 65	
			Type Article no.	Price See Price List	Type Article no.	Price See Price List
Changeover switches without 0 position, 60°						
		1	TM-1-8220/E 081996		TM-1-8220/EZ 000692	
		2	TM-2-8221/E 084369		TM-2-8221/EZ 015197	
		3	TM-3-8222/E 086742		TM-3-8222/EZ 045493	
		4	TM-4-8223/E 089115		TM-4-8223/EZ 046119	
		5	TM-5-8369/E 091488		TM-5-8369/EZ 046126	
		6	TM-6-8370/E 093861		TM-6-8370/EZ 046130	
Changeover switches with 0 (Off) position, 60°						
		1	TM-1-8210/E 096234		TM-1-8210/EZ 015137	
		2	TM-2-8211/E 098607		TM-2-8211/EZ 015166	
		3	TM-3-8212/E 010807		TM-3-8212/EZ 045491	
		4	TM-4-8213/E 013180		TM-4-8213/EZ 045847	

Standard pack: 1 off

TM Mini Rotary Switches

Control Switches: Changeover Switches, Hand/Auto Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	no. of poles	Flush mounting Front IP 65	Centre mounting Front IP 65	Price See Price List	Price See Price List	
					Type Article no.	Type Article no.	
Changeover switches with 0 (Off) position, 90°							
	 F 057	1			TM-1-8218/E 015553	TM-1-8218/EZ 045476	
	 F 057	2			TM-2-8219/E 017926	TM-2-8219/EZ 045482	
	 F 057	3			TM-3-8299/E 020299	TM-3-8299/EZ 045497	
	 F 057	3+N			TM-4-8294/E 022672	TM-4-8294/EZ 046121	
Hand/Auto switches, 60°							
	 F 288	1			-	TM-1-8220 F288/EZ 016925	
	 F 085	1			TM-1-15431/E 025045	TM-1-15431/EZ 000691	
	 F 085	2			TM-2-15432/E 027418	TM-2-15432/EZ 016878	
	 F 085	3			TM-3-15433/E 029791	TM-3-15433/EZ 045490	
Changeover switches with spring-return from both directions, 30°							
	 F 025	1			TM-1-8214/E 032164	TM-1-8214/EZ 016673	
	 F 025	2			TM-2-8215/E 034537	TM-2-8215/EZ 045481	
	 F 025	3			TM-3-8216/E 036910	TM-3-8216/EZ 045492	

Standard pack: 1 off

TM Mini Rotary Switches

Control Switches: Step Switches

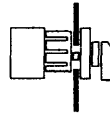
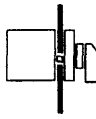
Circuit diagram

Front plate no.

no. of poles

Flush mounting
Front IP 65

Centre mounting
Front IP 65



Type
Article no.

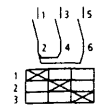
Price
See Price List

Type
Article no.

Price
See Price List

Step switches without 0 position, 60°

3 steps

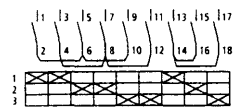


1

TM-2-8230/E
039283

TM-2-8230/EZ
000701

F 076



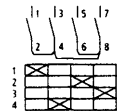
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TM-5-8270/E
041656

TM-5-8270/EZ
046124

F 076

4 steps

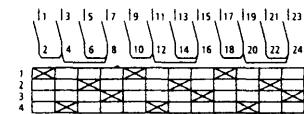


1

TM-2-8231/E
044029

TM-2-8231/EZ
000700

F 077



3

TM-6-8271/E
046402

TM-6-8271/EZ
046128

F 077

Standard pack: 1 off

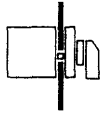
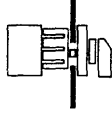
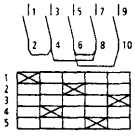

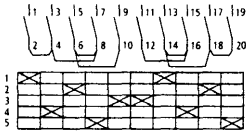

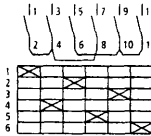

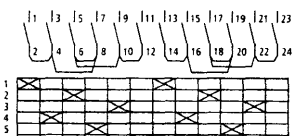

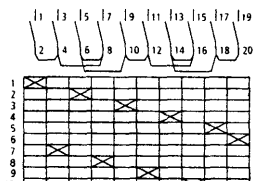

Rotary Switches
Switch-Disconnectors



TM Mini Rotary Switches

Control Switches: Step Switches

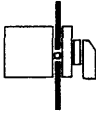
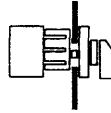
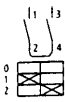

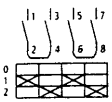

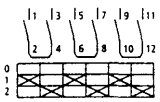

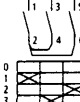

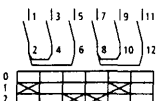

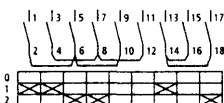

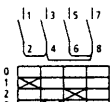

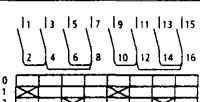

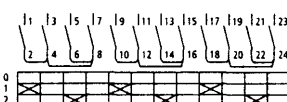

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	no. of poles	Flush mounting Front IP 65	Centre mounting Front IP 65
				
			Type Article no.	Price See Price List Type Article no. Price See Price List
Step switches without 0 position				
5 steps, 60°				
	 F 078	1	TM-3-8232/E 039298	TM-3-8232/EZ 015592
	 F 078	2	TM-5-8252/E 041671	TM-5-8232/EZ 046123
6 steps, 60°				
Without complete rotation				
	 F 079	1	TM-3-8233/E 053521	TM-3-8233/EZ 015630
	 F 079	2	TM-6-8253/E 055894	TM-6-8253/EZ 046127
10 steps, 30°				
	 F 011	1	TM-5-8237/E 069150	TM-5-8237/EZ 015661

Standard pack. 1 off

TM Mini Rotary Switches

Control Switches: Step Switches

Circuit diagram	Front plate no.	no. of poles	Flush mounting Front IP 65	Centre mounting Front IP 65
				
			Type	Price
			Article no.	See Price List
			Type	Price
			Article no.	See Price List
Step switches with additional 0 position				
2 steps, 60°				
	 F 075	1	TM-1-8240/E 058267	TM-1-8240/EZ 015226
	 F 075	2	TM-2-8260/E 060640	TM-2-8260/EZ 045483
	 F 075	3	TM-3-8280/E 063013	TM-3-8280/EZ 045496
3 steps, 45°				
	 F 109	1	TM-2-8241/E 065386	TM-2-8241/EZ 015256
	 F 109	2	TM-3-8261/E 067759	TM-3-8261/EZ 000698
	 F 109	3	TM-5-8281/E 070132	TM-5-8281/EZ 046125
4 steps, 30°				
	 F 002	1	TM-2-8242/E 072505	TM-2-8242/EZ 015506
	 F 002	2	TM-4-8262/E 074878	TM-4-8262/EZ 046120
	 F 002	3	TM-6-8282/E 077251	TM-6-8282/EZ 046129

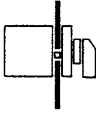
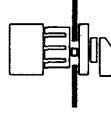
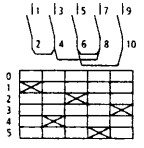

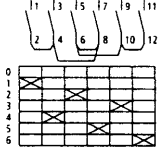

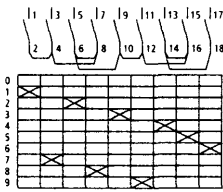

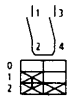

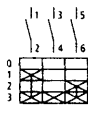

Standard pack: 1 off

Rotary Switches
Switch-Disconnectors



TM Mini Rotary Switches
Control Switches: Step Switches, Group Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	no. of poles	Flush mounting Front IP 65	Centre mounting Front IP 65
				
			Type Article no.	Type Article no.
			Price See Price List	Price See Price List
Step switches with additional 0 position, 30°				
5 steps				
	 F 003	1	TM-3-8243/E 079624	TM-3-8243/EZ 015537
6 steps				
	 F 004	1	TM-3-8244/E 081997	TM-3-8244/EZ 045495
9 steps				
	 F 007	1	TM-5-8247/E 009741	TM-5-8247/EZ 015565
Group switches				
2 groups, 60°				
	 F 075	1	TM-1-8310/E 084370	TM-1-8310/EZ 045479
3 groups, 30°				
	 F 001	1	TM-2-8311/E 086743	TM-2-8311/EZ 045487

Standard pack: 1 off

TM Mini Rotary Switches

Control Switches: On/Off Switches, Spring-Return

Circuit diagram	Front plate no.	no. of poles	Flush mounting Front IP 65		Centre mounting Front IP 65	
			Type Article no.	Price See Price List	Type Article no.	Price See Price List
On-Off spring-return switches, 30°						
Off spring-return switches						
		1	TM-1-8174/E 089116		TM-1-8174/EZ 016646	
On spring-return switches						
		1	TM-1-8175/E 091489		TM-1-8175/EZ 015690	
On-Off spring-return switches						
		1	TM-1-8176/E 093862		TM-1-8176/EZ 016714	
		2	TM-2-8183/E 096235		TM-2-8183/EZ 045480	
On-Off spring-return switches, 90°/30°						
With spring-return from START to 1						
		1	TM-1-8178/E 098608		TM-1-8178/EZ 016786	

Standard pack: 1 off

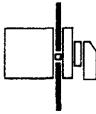
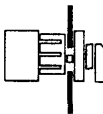
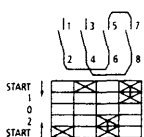

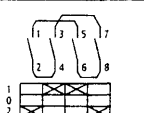

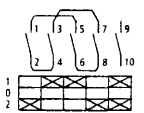

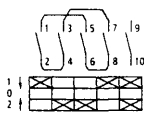

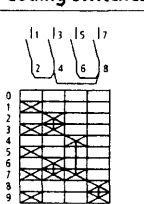

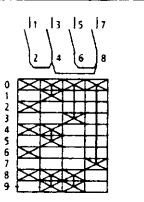

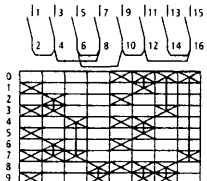

Rotary Switches
Switch-Disconnectors



TM Mini Rotary Switches

Control Switches: Reversing Switches, Coding Switches

Rotary Switches
Switch-Disconnectors

Circuit diagram	Front plate no.	no. of poles	Flush mounting Front IP 65	Centre mounting Front IP 65
				
			Type Article no.	Type Article no.
			Price See Price List	Price See Price List
Reversing switches				
With spring-return from START to 1 or 2, 60°/30°				
	 F 121	1	TM-2-8177/E 010808	TM-2-8177/EZ 016838
Reversing switches, 60°				
	 F 071	2	TM-2-8400/E 013181	TM-2-8400/EZ 045488
	 F 071	3	TM-3-8401/E 015554	TM-3-8401/EZ 045500
Reversing switches with spring-return to 0, 30°				
	 F 025	3	TM-3-8228/E 017927	TM-3-8228/EZ 045494
Coding switches BCD Code 0 – 9, 30°				
	 F 007	1	TM-2-8550/E 020300	TM-2-8550/EZ 000699
Complementary BCD Code 0 – 9, 30°				
	 F 007	1	TM-2-8551/E 022673	TM-2-8551/EZ 045489
BCD Code 0 – 9 + complement, 30°				
	 F 007	1	TM-4-8552/E 025046	TM-4-8552/EZ 046122

Standard pack. 1 off

TM Mini Rotary Switches

Accessories

Rotary Switches
Switch-Disconnectors

	Type	Price
	Article no.	See Price List
TM non-standard front plates		
Volume price structure applies when ordered with switch		
Quantity of switches:		
1 - 4	+FS-SOND-TM 020953	
5 - 9	+FS-SOND-TM>4 000543	
10 - 19	+FS-SOND-TM>9 000547	
20 - 49	+FS-SOND-TM>19 000542	
50 - 99	+FS-SOND-TM>49 000546	
> 99	+FS-SOND-TM>99 000548	
<p>Silver-coloured front plate with black lettering, inscribed on the reverse. It is not necessary to state .../E or .../EZ in the type suffix. Individual front plates → Page 07/053</p>		
Lock mechanism, key operated		
Includes two keys		
KABA lock for 90° switching angle		
Degree of protection IP 65		
Key withdrawable at:		
0°	+EZ/S-A 045458	
270°	+EZ/S-B 045459	
270 + 0°	+EZ/S-F 045463	
0 + 90°	+EZ/S-E 045462	
270 + 0 + 90°	+EZ/S-R 045471	
270 + 0 + 90 + 180°	+EZ/S-G 045464	
<p>The key can be withdrawn only in certain positions, see diagram below. However, the KABA lock mechanism for 90° can also be used for other switching angles provided the positions for key withdrawal correspond with those specified for the type of switch. Example: +EZ/S-B can be used on a step switch having a switching angle of 30° provided the key is to be withdrawn only in the Off position at 9 o'clock. The key is not withdrawable in positions which exceed the total switching angle of the switch.</p>		
Options for key withdrawal		
<p>For example of position marking see → Page 07/109</p>		
RONIS lock for 60° switching angle		
Degree of protection IP 55		
Key withdrawable at:		
0 + 180°	+EZ/S-C 045460	
270 + 90°	+EZ/S-D 045461	
300 + 0 + 60 + 120 + 180 + 240°	+EZ/S-H 045465	
270 + 330 + 30 + 90 + 150 + 210°	+EZ/S-J 045466	
0 + 60 + 180 + 240°	+EZ/S-M 045467	
270 + 330 + 90 + 150°	+EZ/S-N 045468	
300 + 0 + 120 + 180°	+EZ/S-P 045469	
270 + 30 + 90 + 210°	+EZ/S-Q 045470	

Standard pack: 1 off

T Rotary Switches
T0, T3 Non-Standard Switches

Rotary Switches
Switch-Disconnectors

Type	Price See Price List	Std. pack	Type	Price See Price List	Std pack
T0 rotary switches		1 off	T0 rotary switches		1 off
T0-1-SOND.../E			T0-5-SOND.../E		
T0-1-SOND.../EA/SVB			T0-5-SOND.../EZ		
T0-1-SOND.../EA/SVB-SW			T0-5-SOND.../EZ/OFS		
T0-1-SOND.../EZ			T0-5-SOND.../IVS		
T0-1-SOND.../EZ/OFS			T0-5-SOND.../XZ		
T0-1-SOND.../I1			T0-5-SOND.../Z		
T0-1-SOND.../I1/SVB					
T0-1-SOND.../I1/SVB-SW			T0-6-SOND.../E		
T0-1-SOND.../IVS			T0-6-SOND.../EZ		
T0-1-SOND.../V/SVB			T0-6-SOND.../EZ/OFS		
T0-1-SOND.../V/SVB-SW			T0-6-SOND.../IVS		
T0-1-SOND.../XZ			T0-6-SOND.../XZ		
T0-1-SOND.../Z			T0-6-SOND.../Z		
T0-2-SOND.../E			T0-7-SOND.../E		
T0-2-SOND.../EA/SVB			T0-7-SOND.../EZ		
T0-2-SOND.../EA/SVB-SW			T0-7-SOND.../EZ/OFS		
T0-2-SOND.../EZ			T0-7-SOND.../IVS		
T0-2-SOND.../EZ/OFS			T0-7-SOND.../XZ		
T0-2-SOND.../I1			T0-7-SOND.../Z		
T0-2-SOND.../I1/SVB					
T0-2-SOND.../I1/SVB-SW			T0-8-SOND.../E		
T0-2-SOND.../IVS			T0-8-SOND.../EZ		
T0-2-SOND.../V/SVB			T0-8-SOND.../EZ/OFS		
T0-2-SOND.../V/SVB-SW			T0-8-SOND.../IVS		
T0-2-SOND.../XZ			T0-8-SOND.../XZ		
T0-2-SOND.../Z			T0-8-SOND.../Z		
T0-3-SOND.../E			T0-9-SOND.../E		
T0-3-SOND.../EA/SVB			T0-9-SOND.../EZ		
T0-3-SOND.../EA/SVB-SW			T0-9-SOND.../EZ/OFS		
T0-3-SOND.../EZ			T0-9-SOND.../IVS		
T0-3-SOND.../EZ/OFS			T0-9-SOND.../XZ		
T0-3-SOND.../I1			T0-9-SOND.../Z		
T0-3-SOND.../I1/SVB					
T0-3-SOND.../I1/SVB-SW			T0-10-SOND.../E		
T0-3-SOND.../IVS			T0-10-SOND.../EZ		
T0-3-SOND.../V/SVB			T0-10-SOND.../EZ/OFS		
T0-3-SOND.../V/SVB-SW			T0-10-SOND.../IVS		
T0-3-SOND.../XZ			T0-10-SOND.../XZ		
T0-3-SOND.../Z			T0-10-SOND.../Z		
T0-4-SOND.../E			T0-11-SOND.../E		
T0-4-SOND.../EA/SVB			T0-11-SOND.../EZ		
T0-4-SOND.../EA/SVB-SW			T0-11-SOND.../EZ/OFS		
T0-4-SOND.../EZ			T0-11-SOND.../IVS		
T0-4-SOND.../EZ/OFS			T0-11-SOND.../XZ		
T0-4-SOND.../I1			T0-11-SOND.../Z		
T0-4-SOND.../I1/SVB					
T0-4-SOND.../I1/SVB-SW					
T0-4-SOND.../IVS					
T0-4-SOND.../V/SVB					
T0-4-SOND.../V/SVB-SW					
T0-4-SOND.../XZ					
T0-4-SOND.../Z					

Notes

These pages show T rotary switches with non-standard contact sequences (-SOND ..) and are priced accordingly. Use the Initial Order form on → Page 07/110 for any T rotary switch combination

For subsequent orders, state contact sequence number together with country identifier (e.g. 4711GB).

The contact numbers for non-standard contact sequences are: >200 <8000 or >9000 <15000 or >16000

T Rotary Switches
T0, T3 Non-Standard Switches

Type	Price See Price List	Std. pack	Type	Price See Price List	Std. pack
T3 rotary switches		1 off	T3 rotary switches		1 off
T3-1-SOND.../E			T3-5-SOND.../E		
T3-1-SOND.../EA/SVB			T3-5-SOND.../EA/SVB		
T3-1-SOND.../EA/SVB-SW			T3-5-SOND.../EA/SVB-SW		
T3-1-SOND.../EZ			T3-5-SOND.../EZ		
T3-1-SOND.../EZ/OFS			T3-5-SOND.../EZ/OFS		
T3-1-SOND.../I2			T3-5-SOND.../I2		
T3-1-SOND.../I2/SVB			T3-5-SOND.../I2/SVB		
T3-1-SOND.../I2/SVB-SW			T3-5-SOND.../I2/SVB-SW		
T3-1-SOND.../V/SVB			T3-5-SOND.../V/SVB		
T3-1-SOND.../V/SVB-SW			T3-5-SOND.../V/SVB-SW		
T3-1-SOND.../XZ			T3-5-SOND.../XZ		
T3-1-SOND.../Z			T3-5-SOND.../Z		
T3-2-SOND.../E			T3-6-SOND.../E		
T3-2-SOND.../EA/SVB			T3-6-SOND.../EA/SVB		
T3-2-SOND.../EA/SVB-SW			T3-6-SOND.../EA/SVB-SW		
T3-2-SOND.../EZ			T3-6-SOND.../EZ		
T3-2-SOND.../EZ/OFS			T3-6-SOND.../EZ/OFS		
T3-2-SOND.../I2			T3-6-SOND.../V/SVB		
T3-2-SOND.../I2/SVB			T3-6-SOND.../V/SVB-SW		
T3-2-SOND.../I2/SVB-SW			T3-6-SOND.../XZ		
T3-2-SOND.../V/SVB			T3-6-SOND.../Z		
T3-2-SOND.../V/SVB-SW			T3-7-SOND.../E		
T3-2-SOND.../XZ			T3-7-SOND.../EZ		
T3-2-SOND.../Z			T3-7-SOND.../EZ/OFS		
T3-3-SOND.../E			T3-7-SOND.../XZ		
T3-3-SOND.../EA/SVB			T3-7-SOND.../Z		
T3-3-SOND.../EA/SVB-SW			T3-8-SOND.../E		
T3-3-SOND.../EZ			T3-8-SOND.../EZ		
T3-3-SOND.../EZ/OFS			T3-8-SOND.../EZ/OFS		
T3-3-SOND.../I2			T3-8-SOND.../XZ		
T3-3-SOND.../I2/SVB			T3-8-SOND.../Z		
T3-3-SOND.../I2/SVB-SW			T3-9-SOND.../E		
T3-3-SOND.../V/SVB			T3-9-SOND.../EZ		
T3-3-SOND.../V/SVB-SW			T3-9-SOND.../EZ/OFS		
T3-3-SOND.../XZ			T3-9-SOND.../XZ		
T3-3-SOND.../Z			T3-9-SOND.../Z		
T3-4-SOND.../E			T3-10-SOND.../E		
T3-4-SOND.../EA/SVB			T3-10-SOND.../EZ		
T3-4-SOND.../EA/SVB-SW			T3-10-SOND.../EZ/OFS		
T3-4-SOND.../EZ			T3-10-SOND.../XZ		
T3-4-SOND.../EZ/OFS			T3-10-SOND.../Z		
T3-4-SOND.../I2			T3-11-SOND.../E		
T3-4-SOND.../I2/SVB			T3-11-SOND.../EZ		
T3-4-SOND.../I2/SVB-SW			T3-11-SOND.../EZ/OFS		
T3-4-SOND.../V/SVB			T3-11-SOND.../XZ		
T3-4-SOND.../V/SVB-SW			T3-11-SOND.../Z		
T3-4-SOND.../XZ					
T3-4-SOND.../Z					

Rotary Switches
Switch-Disconnectors



T Rotary Switches

T5B, T5, TM Non-Standard Switches

Rotary Switches
Switch-Disconnectors

Type	Price See Price List	Std. pack	Type	Price See Price List	Std. pack
T5B rotary switches	T5B-1-SOND.../E		T5B rotary switches	T5B-5-SOND.../E	
	T5B-1-SOND.../EA/SVB			T5B-5-SOND.../EA/SVB	
	T5B-1-SOND.../EA/SVB-SW			T5B-5-SOND.../EA/SVB-SW	
	T5B-1-SOND.../I4			T5B-5-SOND.../I4/SVB	
	T5B-1-SOND.../I4/SVB			T5B-5-SOND.../I4/SVB-SW	
	T5B-1-SOND.../I4/SVB-SW			T5B-5-SOND.../X	
	T5B-1-SOND.../V/SVB			T5B-5-SOND.../Z	
	T5B-1-SOND.../V/SVB-SW				
	T5B-1-SOND.../X			T5B-6-SOND.../E	
	T5B-1-SOND.../Z			T5B-6-SOND.../EA/SVB	
				T5B-6-SOND.../EA/SVB-SW	
	T5B-2-SOND.../E			T5B-6-SOND.../I4/SVB	
	T5B-2-SOND.../EA/SVB			T5B-6-SOND.../I4/SVB-SW	
	T5B-2-SOND.../EA/SVB-SW			T5B-6-SOND.../V/SVB	
	T5B-2-SOND.../I4			T5B-6-SOND.../V/SVB-SW	
	T5B-2-SOND.../I4/SVB			T5B-6-SOND.../X	
	T5B-2-SOND.../I4/SVB-SW			T5B-6-SOND.../Z	
	T5B-2-SOND.../V/SVB				
	T5B-2-SOND.../V/SVB-SW			T5B-7-SOND.../E	
	T5B-2-SOND.../X			T5B-7-SOND.../EA/SVB	
	T5B-2-SOND.../Z			T5B-7-SOND.../EA/SVB-SW	
				T5B-7-SOND.../I4/SVB	
	T5B-3-SOND.../E			T5B-7-SOND.../I4/SVB-SW	
	T5B-3-SOND.../EA/SVB			T5B-7-SOND.../V/SVB	
	T5B-3-SOND.../EA/SVB-SW			T5B-7-SOND.../V/SVB-SW	
	T5B-3-SOND.../I4			T5B-7-SOND.../X	
	T5B-3-SOND.../I4/SVB			T5B-7-SOND.../Z	
	T5B-3-SOND.../I4/SVB-SW				
	T5B-3-SOND.../V/SVB			T5B-8-SOND.../E	
	T5B-3-SOND.../V/SVB-SW			T5B-8-SOND.../EA/SVB	
	T5B-3-SOND.../X			T5B-8-SOND.../EA/SVB-SW	
	T5B-3-SOND.../Z			T5B-8-SOND.../I4/SVB	
				T5B-8-SOND.../I4/SVB-SW	
	T5B-4-SOND.../E			T5B-8-SOND.../V/SVB	
	T5B-4-SOND.../EA/SVB			T5B-8-SOND.../V/SVB-SW	
	T5B-4-SOND.../EA/SVB-SW			T5B-8-SOND.../X	
	T5B-4-SOND.../I4			T5B-8-SOND.../Z	
	T5B-4-SOND.../I4/SVB				
	T5B-4-SOND.../I4/SVB-SW			T5B-9-SOND.../E	
	T5B-4-SOND.../V/SVB			T5B-9-SOND.../X	
T5B-4-SOND.../V/SVB-SW		T5B-9-SOND.../Z			
T5B-4-SOND.../X					
T5B-4-SOND.../Z		T5B-10-SOND.../E			
		T5B-10-SOND.../X			
		T5B-10-SOND.../Z			

Notes

These pages show T rotary switches with non-standard contact sequences (-SOND...) and are priced accordingly. Use the Initial Order form on → Page 07/110 for any T rotary switch combination.

For subsequent orders, state contact sequence number together with country identifier (e.g. 4711GB).

The contact numbers for non-standard contact sequences are: >200 <8000 or >9000 <15000 or >16000.

T Rotary Switches
T5B, T5, TM Non-Standard Switches

Type	Price See Price List	Std. pack
T5 rotary switches		1 off
T5-1-SOND.../E		
T5-1-SOND.../EA/SVB		
T5-1-SOND.../EA/SVB-SW		
T5-1-SOND.../I5		
T5-1-SOND.../I5/SVB		
T5-1-SOND.../I5/SVB-SW		
T5-1-SOND.../V/SVB		
T5-1-SOND.../V/SVB-SW		
T5-1-SOND.../X		
T5-1-SOND.../Z		
T5-2-SOND.../E		
T5-2-SOND.../EA/SVB		
T5-2-SOND.../EA/SVB-SW		
T5-2-SOND.../I5		
T5-2-SOND.../I5/SVB		
T5-2-SOND.../I5/SVB-SW		
T5-2-SOND.../V/SVB		
T5-2-SOND.../V/SVB-SW		
T5-2-SOND.../X		
T5-2-SOND.../Z		
T5-3-SOND.../E		
T5-3-SOND.../EA/SVB		
T5-3-SOND.../EA/SVB-SW		
T5-3-SOND.../I5		
T5-3-SOND.../I5/SVB		
T5-3-SOND.../I5/SVB-SW		
T5-3-SOND.../V/SVB		
T5-3-SOND.../V/SVB-SW		
T5-3-SOND.../X		
T5-3-SOND.../Z		
T5-4-SOND.../E		
T5-4-SOND.../EA/SVB		
T5-4-SOND.../EA/SVB-SW		
T5-4-SOND.../I5		
T5-4-SOND.../I5/SVB		
T5-4-SOND.../I5/SVB-SW		
T5-4-SOND.../V/SVB		
T5-4-SOND.../V/SVB-SW		
T5-4-SOND.../X		
T5-4-SOND.../Z		
T5-5-SOND.../E		
T5-5-SOND.../EA/SVB		
T5-5-SOND.../EA/SVB-SW		
T5-5-SOND.../V/SVB		
T5-5-SOND.../V/SVB-SW		
T5-5-SOND.../X		
T5-5-SOND.../Z		
T5-6-SOND.../E		
T5-6-SOND.../EA/SVB		
T5-6-SOND.../EA/SVB-SW		
T5-6-SOND.../V/SVB		
T5-6-SOND.../V/SVB-SW		
T5-6-SOND.../X		
T5-6-SOND.../Z		

1 off

Type	Price See Price List	Std. pack
T5 rotary switches		1 off
T5-7-SOND.../E		
T5-7-SOND.../EA/SVB		
T5-7-SOND.../EA/SVB-SW		
T5-7-SOND.../V/SVB		
T5-7-SOND.../V/SVB-SW		
T5-7-SOND.../X		
T5-7-SOND.../Z		
T5-8-SOND.../E		
T5-8-SOND.../EA/SVB		
T5-8-SOND.../EA/SVB-SW		
T5-8-SOND.../V/SVB		
T5-8-SOND.../V/SVB-SW		
T5-8-SOND.../X		
T5-8-SOND.../Z		
T5-9-SOND.../E		
T5-9-SOND.../X		
T5-9-SOND.../Z		
T5-10-SOND.../E		
T5-10-SOND.../X		
T5-10-SOND.../Z		

Type	Price See Price List	Std. pack
TM mini rotary switches		
TM-1-SOND.../E		
TM-1-SOND.../EZ		
TM-2-SOND.../E		
TM-2-SOND.../EZ		
TM-3-SOND.../E		
TM-3-SOND.../EZ		
TM-4-SOND.../E		
TM-4-SOND.../EZ		
TM-5-SOND.../E		
TM-5-SOND.../EZ		
TM-6-SOND.../E		
TM-6-SOND.../EZ		
TM-7-SOND.../E		
TM-7-SOND.../EZ		
TM-8-SOND.../E		
TM-8-SOND.../EZ		

Rotary Switches
Switch-Disconnectors



T Rotary Switches, P Switch-Disconnectors Accessories

 Rotary Switches
Switch-Disconnectors

Language	Language code no.	Type suffix	Type suffix	Type	Type
		When ordered with basic unit	When ordered with basic unit	When ordered separately	When ordered separately
		+ZFS...-T0 Article no. ¹⁾	+ZFS...-P3 Article no. ¹⁾	ZFS...-T0 Article no. ¹⁾	ZFS...-P3 Article no. ¹⁾
		See Price List	See Price List	See Price List	See Price List

Add-on front plates, clip-on



For use with front plates and for padlocking features. They comprise a black label mount and an aluminium-coloured insert plate. Inscription: "Main Switch – Open only in the Off position"

German	61	205499	205516	205533	205550
English	62	205500	205517	205534	205551
Bulgarian	64	205501	205518	205535	205552
Danish	65	205502	205519	205536	205553
Finnish	66	205503	205520	205537	205554
Dutch	67	065744	065747	065750	065753
Italian	68	065745	065748	065751	065754
Greek	69	205504	205521	205538	205555
Norwegian	70	205505	205522	205539	205556
Polish	71	205506	205523	205540	205557
Portuguese	72	205507	205524	205541	205558
Romanian	73	205508	205525	205542	205559
Russian	74	205509	205526	205543	205560
Swedish	75	205510	205527	205544	205561
Serbo-Croat	76	205511	205528	205545	205562
Spanish	77	065746	065749	065752	047422
Czech	78	205512	205529	205546	205563
Turkish	79	205513	205530	205547	205564
Hungarian	80	205514	205531	065748	205565
Afrikaans	81	205515	205532	205549	205566

Notes

¹⁾ For ordering purposes, insert the language code number into the type reference/type suffix

T Rotary Switches, P Switch-Disconnectors

Contact Sequences

	Basic type	Contact sequence		Basic type	Contact sequence
Main switches On-Off switches Safety switches without auxiliary contacts Switching angle 90°	T0-1-8200/...		Main switches On-Off switches Safety switches with auxiliary contacts Switching angle 90°	T0-2-15679/...	
	T3-1-8200/...			P1-25/.../HI11	
	T5B-1-8200/...			P1-32/.../HI11	
	T5-1-8200/...			P3-63/.../HI11	
	T0-1-102/...			P3-100/.../HI11	
	T3-1-102/...			T0-3-15683/...	
	T5B-1-102/...			T3-3-15683/...	
	T5-1-102/...			P1-25/.../N/HI11	
	T0-2-1/...			P1-32/.../N/HI11	
	P1-25/...			P3-63/.../N/HI11	
	P1-32/...			P3-100/.../N/HI11	
	P3-63/...			T0-3-15681/...	
	P3-100/...			T3-3-15681/...	
	T6-2/...			T5B-3-8901/...	
	T0-2-8900/...			TB-3-8901/...	
	P1-25/.../N			T0-4-15682/...	
	P1-32/.../N			T3-4-15682/...	
	P3-63/.../N			T5B-4-15682/...	
	P3-100/.../N			T5-4-15682/...	
	T0-3-8342/...			T6-160-6/...	
	T3-3-8342/...			T8-3-8342/...	
	T5B-3-8342/...			T5B-4-8903/...	
	T5-3-8342/...			T5-4-8903/...	
	T0-4-8344/...				
	T3-4-8344/...				
	T5B-4-8344/...				
	T5-4-8344/...				



Rotary Switches
Switch-Disconnectors




T Rotary Switches

Technical Data

 Rotary Switches
Switch-Disconnectors

		T0-...	T3-...	T5B-...	T5-...	T6-...(T6-160)	T8-...
General							
Standards		IEC/EN 60 947, IEC/EN 60 204, CSA, UL Switch-disconnectors to IEC/EN 60 947 Part 3  Load-break switches to IEC/EN 60 947 Part 3  Shipping classifications → Page 17/008					
Lifespan, mechanical	Operations	> 10 ⁶	5 × 10 ⁵	5 × 10 ⁵	5 × 10 ⁵	> 10 ⁵	> 10 ⁵
Max. operating frequency	Ops./h	3000	3000	3000	3000	50	50
Climatic proofing		Damp heat, constant, to IEC 60 068 Part 2-3 Damp heat, cyclic, to IEC 60 068 Part 2-30					
Ambient temperature	Open	Min./Max.	°C	-25/+50	-25/+50	-25/+50	-25/+50
	Enclosed	Min./Max.	°C	-25/+40	-25/+40	-25/+40	-25/+40
Mounting position		As required					
Dimensions		→ Page 07/095		→ Page 07/100		→ Page 07/102	
Weights		→ Page 18/025					
Mechanical shock resistance (shock duration 20 ms)		g	> 15	> 15	> 15	> 15	-
Contacts							
Rated operational voltage U _e		V AC	690	690	690	690	690
Rated impulse withstand voltage U _{imp}		V	6000	6000	6000	6000 (8000) ²⁾	8000
Overvoltage category/pollution degree			III/3	III/3	III/3	III/3	III/3
Rated uninterrupted current I _a open/I _{the} enclosed (with max. cable connected)		A	22/20	35/32	72/63	100/85	125 (160) ²⁾ 315/275
Load-carrying capacity in intermittent operation, Class 12, AB 60/40/25		% DF	1.3/1.6/2 × I _e				
Short-circuit rating max. fuse		A gL	20	25	80	100	200 (160) ²⁾ 315
Rated short-time withstand current (1 s current) I _{cw}		A _{rms}	320	650	1300	1850	2000 (3000) ²⁾ 4200
Safe isolation to VDE 0106 Part 101 and Part 101 A1 between the contacts		V AC	440	440	440	440	-
Protection against direct contact			Finger- and back-of-hand proof to IEC 536			-	-
Switching angles			90°/60°/45°/30°			90°/60°	60° (90°) ³⁾
Contact units		Max.	11	11	10	10	3
Double-break contacts		Max.	22	22	20	20	6
Current heat loss per contact at I _e		W	0,6	1,1	4,5	7,5	11
Terminal capacity							
Solid or stranded ¹⁾		mm ²	1 × (1 - 2.5)	1 × (1 - 6)	1 × (2.5 - 35)	1 × (2.5 - 35)	1 × 70 (95) ²⁾ 150
		mm ²	2 × (1 - 2.5)	2 × (1 - 6)	2 × (2.5 - 16)	2 × (2.5 - 16)	2 × 25 -
Flexible including ferrule ¹⁾ (ferrule to DIN 46 228)		mm ²	1 × (0.75 - 1.5)	1 × (0.75 - 4)	1 × (1.5 - 25)	1 × (1.5 - 25)	1 × 50 (50) ²⁾ 120
		mm ²	2 × (0.75 - 1.5)	2 × (0.75 - 4)	2 × (1.5 - 10)	2 × (1.5 - 10)	2 × 16 -
Flat strip connection		mm ²	-	-	-	-	1 strip 25 × 5 ³⁾ 2 strips 20 × 3 ³⁾
Terminal screw			M3,5	M4	M6	M6	M12

		T0-1- to T0-4-	T3-1- to T3-6-	T5B-...	T5-...	T6-... (T6-160-6)	T8-3-8342
Switch-disconnectors  (Main switches)							
Switching angles		90°	90°	90°	90°	90°	90°
Max. number of switch positions		2	2	2	2	2	2
Max. number of contacts for isolating characteristics to IEC/EN 60 947		8	12	20	20	3 (6)	6
Isolating characteristics to IEC/EN 60 947		Up to V AC	500	500	660/690	660/690	660/690

Notes

- ¹⁾ T0(3), (6), (8)...:
Max. 2 sizes difference admissible between 2 conductors
T5(B)-...:
Max. 2 sizes difference admissible between 2 conductors
- ²⁾ For T6-160/...
- ³⁾ For T8 - 3 - 8342/..

T Rotary Switches

Technical Data

			T0-...	T3-...	T5B-...	T5-...	T6-...(T6-160)	T8-...	
Switching capacity									
AC									
	Rated making capacity	$\cos \varphi = 0.35$	A	130	320	800	950	1600	2390
	Rated breaking capacity	230 V AC, $\cos \varphi = 0.35$	A	100	260	520	760	1280	1910
	Motor load switches	400 V AC, $\cos \varphi = 0.35$	A	110	260	600	740	900	1800
		500 V AC, $\cos \varphi = 0.35$	A	80	240	480	590	880	1200
		690 V AC, $\cos \varphi = 0.35$	A	60	170	340	420	340	420
AC-21A	Load-break switches	Rated operational current I_e 380 – 440 V, 3 ~	A	12	25	63	80	125 (160)	315
AC-3	Motor load switches, for operational switching Star-delta values $Y\Delta$: for star-delta switches without spring-return	220 – 240 V, 3~	kW	3	6.5	15	18.5	22	37
		220 – 240 V, $Y\Delta$	kW	4	11	22	30	–	–
		380 – 440 V, 3~	kW	4	12	22	30	37 (45)	55
		380 – 440 V, $Y\Delta$	kW	5.5	18.5	37	45	–	–
		500 V, 3~	kW	5.5	15	22	37	37	37
		500 V, $Y\Delta$	kW	7.5	22	37	55	–	–
		660/690 V, 3~	kW	4	15	22	30	22	37
AC-23A	Motor load switches (Main switches, maintenance switches)	220 – 240 V, 3~	kW	3.5	7.5	18.5	18.5	37	75
		380 – 440 V, 3~	kW	6.5	13	22	30	45 (55)	132
		500 V, 3~	kW	7.5	15	22	37	55	75
		660/690 V, 3~	kW	–	–	22	30	30	37
AC-15	Control switches	Rated operational current I_e 220 – 240/380 – 415/500 V	A	6/4/2	10/6/4	16/6/4	16/6/4	–	–
DC									
DC-1	Load-break switches L/R = 1 ms	Rated operational current I_e	A	10	25	63	80	125	315
		Voltage per contact pair in series	V	60	60	60	60	42	42
DC-21A		240 V	A	1 (1)	1 (1)	–	–	–	–
DC-23A	Motor load switches L/R = 15 ms	24 V	A	10 (1)	25 (1)	50 (1)	–	125 (1)	250 (1)
		48 V	A	10 (2)	25 (2)	50 (2)	–	125 (2)	250 (2)
		60 V	A	10 (3)	25 (3)	50 (3)	–	125 (3)	125 (3)
		120 V	A	5 (3)	12 (3)	25 (3)	–	50 (3)	50 (3)
		240 V	A	5 (5)	10 (5)	20 (6)	–	–	–
DC-13	Control switches L/R = 50 ms	Rated operational current I_e	A	10	20	25	–	125	250
		Voltage per contact pair in series	V	32	32	24	–	24	–
Control circuit reliability 24 V DC, 10 mA		Fault probability	H _F	< 10 ⁻⁵ , < 1 fault in 100 000 operations					

T6 – 160 – 6/...
T8 – 3 – 8342/...

Auxiliary contacts

Standards


Rated insulation voltage U_i	V AC	500
Rated uninterrupted current I_u with max. cable connected	A	10
Rated operational current I_e AC-15 at 220 – 240/380 – 415/500 V	A	6/4/3
Short-circuit rating without welding Maximum fuse	A gL	10
Terminal capacity s = solid	Min. s/f	mm ² 0.75/0.5
f = flexible with ferrule	Max. s/f	mm ² 2.5/1.5
Control circuit reliability 24 V DC, 10 mA	Fault probability	H _F < 10 ⁻⁵ , < 1 fault in 100 000 operations

Control circuit isolators to IEC/EN 60 947 Part 5 ☉



P Switch-Disconnectors

Technical Data

			P1-25	P1-32	P3-63	P3-100	
General							
Standards			IEC/EN 60 947, IEC/EN 60 204, CSA, UL Switch-disconnectors to IEC/EN 60 947-3 				
Lifespan, mechanical	Operations		3×10^5	3×10^5	10^5	10^5	
Max. operating frequency	Ops./h		50	50	50	50	
Climatic proofing			Damp heat, constant, to IEC 60 068 Part 2-3 Damp heat, cyclic, to IEC 60 068 Part 2-30				
Ambient temperature	Open	Min./Max.	°C	-25/+50	-25/+50	-25/+50	-25/+50
	Enclosed	Min./Max.	°C	-25/+40	-25/+40	-25/+40	-25/+40
Mounting position			As required				
Dimensions			→ Page 07/103				
Weights			→ Page 18/025				
Mechanical shock resistance (half-sinusoidal shock 20 ms)			g	> 20	> 20	> 20	> 20
Contacts							
Rated operational voltage U_e			V AC	690	690	690	690
Rated impulse withstand voltage U_{imp}			V	6000	6000	6000	6000
Overvoltage category/pollution degree				III/3	III/3	III/3	III/3
Rated uninterrupted current I_u (with max. cable connected)			A	25	32	63	100
Load-carrying capacity in intermittent operation, Class 12, AB 60/40/25 % DF $\times I_e$				1.3/1.6/2	1.3/1.6/2	1.3/1.6/2	1.3/1.6/2
Short-circuit rating Max. fuse			A gL	25	50	80	100
Rated short-time withstand current (1 s current) I_{cw}			A_{rms}	640	640	1260	2000
Isolating characteristics to IEC/EN 60 947			Up to VAC	660/690	660/690	660/690	660/690
Safe isolation to VDE 0106 Part 101 and Part 101 A1 between the main contacts and the auxiliary contacts			V AC	440	440	440	440
Protection against direct contact				Finger- and back-of-hand proof to IEC 536			
Switching angles				90°	90°	90°	90°
Contacts (current paths)			Max.	7	7	7	7
Current heat loss per contact at I_e			W	1.1	1.8	4.5	7.5
Terminal capacity							
Solid or stranded ¹⁾			mm ²	1 × (1.5 – 6)	1 × (1.5 – 6)	1 × (2.5 – 35)	1 × (2.5 – 35)
			mm ²	2 × (1.5 – 6)	2 × (1.5 – 6)	2 × (2.5 – 10)	2 × (2.5 – 10)
Flexible including ferrule ¹⁾ (ferrule to DIN 46 228)			mm ²	1 × (1 – 4)	1 × (1 – 4)	1 × (1.5 – 25)	1 × (1.5 – 25)
			mm ²	2 × (1 – 4)	2 × (1 – 4)	2 × (1.5 – 6)	2 × (1.5 – 6)
Terminal screw				M4	M4	M5	M5
Notes							
			Main switch characteristics to IEC/EN 60 204; positive opening of contacts, operator element positively located on shaft			¹⁾ P1-...: Max. 2 sizes difference admissible between 2 conductors P3-...: Max. 2 sizes difference admissible between 2 conductors	

P Switch-Disconnectors

Technical Data

			P1-25	P1-32	P3-63	P3-100	
Switching capacity							
AC							
	Rated making capacity	$\cos \varphi = 0.35$	A	240	320	800	950
	Rated breaking capacity	230 V AC, $\cos \varphi = 0.35$	A	190	260	640	760
	Motor load switches	400 V AC, $\cos \varphi = 0.35$	A	150	300	600	740
		500 V AC, $\cos \varphi = 0.35$	A	170	290	590	880
		690 V AC, $\cos \varphi = 0.35$	A	150	250	340	520
AC-21A	Load-break switches	Rated operational current I_e 380 – 440 V, 3~	A	25	32	63	100
AC-3	Motor load switches, for operational switching	220 – 240 V, 3~	kW	5.5	7.5	15	22
		380 – 440 V, 3~	kW	7.5	13	30	37
		500 V, 3~	kW	7.5	18.5	30	45
		660/690 V, 3~	kW	7.5	15	30	37
AC-23A	Motor load switches (Main switches, maintenance switches)	220 – 240 V, 3~	kW	7	8.5	18.5	30
		380 – 440 V, 3~	kW	13	15	37	50
		500 V, 3~	kW	11	18.5	37	65
		660/690 V, 3~	kW	11	18.5	30	75
DC							
DC-1	Load-break switches L/R = 1 ms	Rated operational current I_e	A	25	32	63	100
		Voltage per contact pair in series	V	60	60	60	60
DC-23A	Motor load switches L/R = 15 ms	24 V	A	25 (1)	25 (1)	50 (1)	50 (1)
		48 V	A	25 (2)	25 (2)	50 (2)	50 (2)
		60 V	A	25 (3)	25 (3)	50 (3)	50 (3)
		120 V	A	12 (3)	12 (3)	25 (3)	25 (3)
	Figures in brackets: number of contacts to be switched in series						

N-P1...

N-P3...

Switched neutral

Switching capacity

As P1-32

As P3-100

HI11-P1/P3

Auxiliary contacts

Standards

Control circuit isolators to IEC/EN 947
Part 5/EN 60 947 Part 5 ⊕Rated insulation voltage U_i

V AC 500

Rated uninterrupted current I_u
with max. cable connected

A 10

Rated operational current I_e
AC-15 at 220 – 240/380 – 415/500 V

A 6/4/3

Short-circuit rating without welding
Maximum fuse

A gL 10

Terminal capacity $s = \text{solid}$ Min. s/f mm² 0.75/0.5 $f = \text{flexible with ferrule}$ Max. s/f mm² 2.5/1.5Control circuit reliability
24 V DC, 10 mA

Fault probability

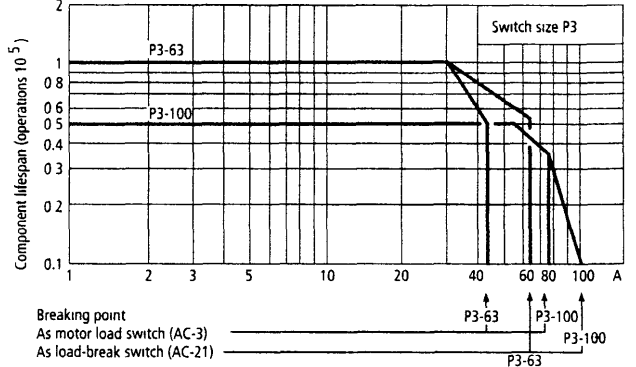
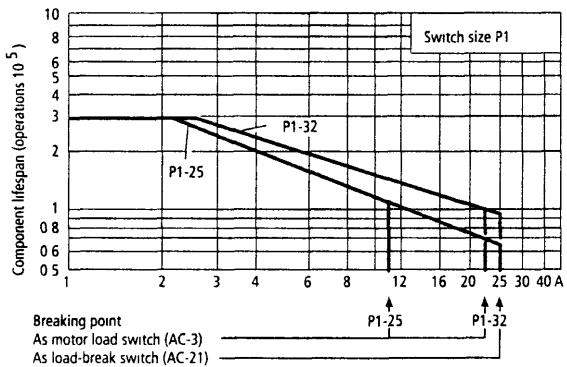
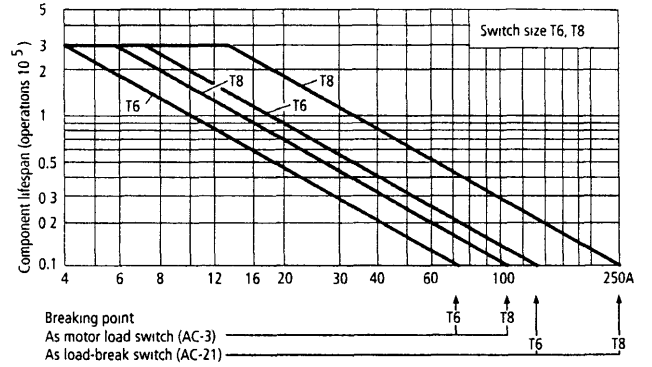
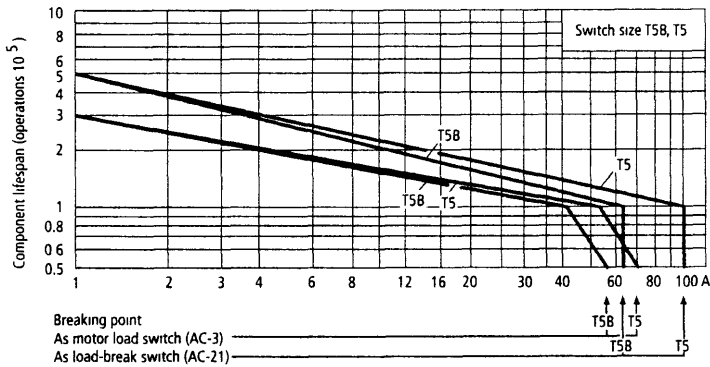
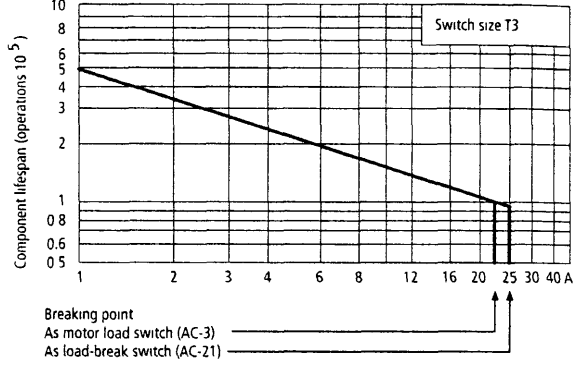
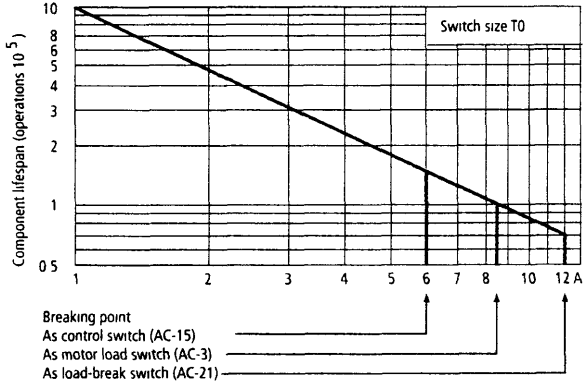
 $H_f < 10^{-5}$, < 1 fault in 100 000 operations

T Rotary Switches, P Switch-Disconnectors Selection Guidelines

Component lifespan in relation to breaking current and utilization category

In order to achieve a reasonable lifespan in utilization category AC-4 (severe duty: 100 % inching, reversing or plugging), the stalled motor current should not exceed the rated current of the switch at AC-21.

Rotary Switches
Switch-Disconnectors



TM Mini Rotary Switches

Technical Data

General					
Standards					IEC/EN 60 947, VDE 0660 UL, CSA Control switches to IEC/EN 60 947-5-1 ☉ Control circuit isolators to IEC/EN 60 947-5-1
Control circuit isolators (IEC/EN 60 947-5-1)					Maximum 6 contacts; switching 90° (see Types TM.../SVB → Page 07/071)
Lifespan, mechanical		Operations		Ops.	> 1 × 10 ⁶
Max. operating frequency				Ops./h	3000
Climatic proofing					Damp heat, constant, to IEC 60 068 Part 2-3 Damp heat, cyclic, to IEC 60 068 Part 2-30
Ambient temperature	Open	Min./Max.			-25/+50
	Enclosed	Min./Max.			-25/+40
Mounting position					As required
Mechanical shock resistance (shock duration 20 ms)				g	> 15
Protection against direct contact					Finger- and back-of-hand proof to IEC 536
Terminal capacity	solid	1 conductor	Min./Max.	mm ²	0.75/1.5
		2 conductors	Max.	mm ²	1.5 AWG 14
	flexible	1 conductor	Min.	mm ²	0.75 AWG 18
		2 conductors	Max.	mm ²	0.75
Terminal screw					M 2,5
Dimensions					→ Page 07/094
Contacts					
Mechanical values					
Contacts				Max.	16
Contact units				Max.	8
Switching angle					90°/60°/45°/30°
Min. switching angle for On-Off-On					60°
Switch positions				Max.	12
Thickness of gold coating				µm	35
Electrical values					
Rated operational voltage U _e				V AC	500
Rated impulse withstand voltage U _{imp} applicable to system with earthed star point					4 kV
Overvoltage category/pollution degree					III/3
Rated insulation voltage U _i				V AC	500 (UL/CSA 300 V AC)
Rated uninterrupted current I _v (with max. cable connected)				A	10
Switching capacity					
AC-23A	220 – 240 V, 3~			kW	1.8
Motor load switches	380 – 440 V, 3~			kW	3
	500 V, 3~			kW	3.7
AC-15	220 – 240 V, 1~			kW	0.75
	380 – 440 V, 1~			kW	1.1
	440 V, 1~			A	1
DC-1	1 – 24 V DC			A	10
	110 – 240 V DC			A	0.7 – 0.3
DC-13	U/R = 50 ms			A	3
	max. 32 V DC per contact				
Switching capacity for North America					
	240 V, 3~			HP	1
	277 V, 1~			HP	¾
	300 V AC			A	10 Heavy duty
Short-circuit protective device					
Maximum fuse				A gL	10
Control circuit reliability					
24 V DC, 10 mA		Fault probability		H _F	< 10 ⁻⁵ , < 1 fault in 100 000 operations

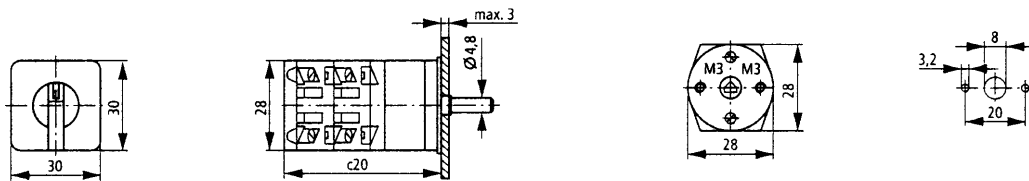
TM Mini Rotary Switches

Dimensions

Flush mounting

TM.../E

Drilling dimensions

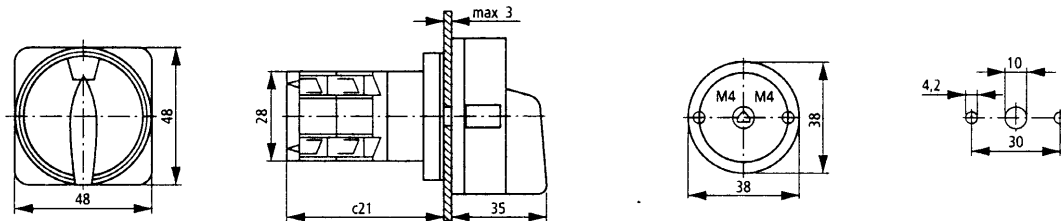


Control circuit isolators

For 2 padlocks with 4 mm or 1 padlock with 6 mm hasp thickness

TM.../E/SVB

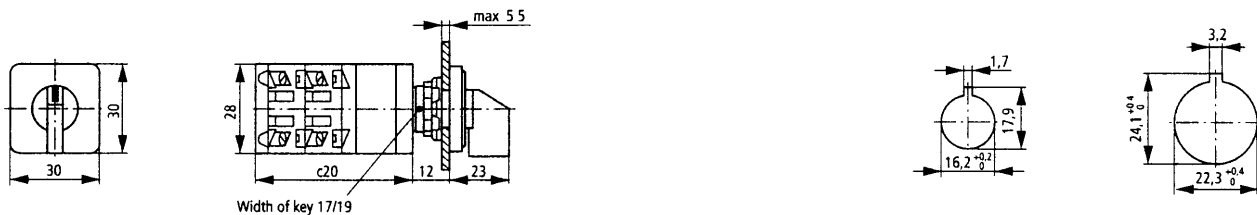
Drilling dimensions



Centre mounting

TM.../EZ

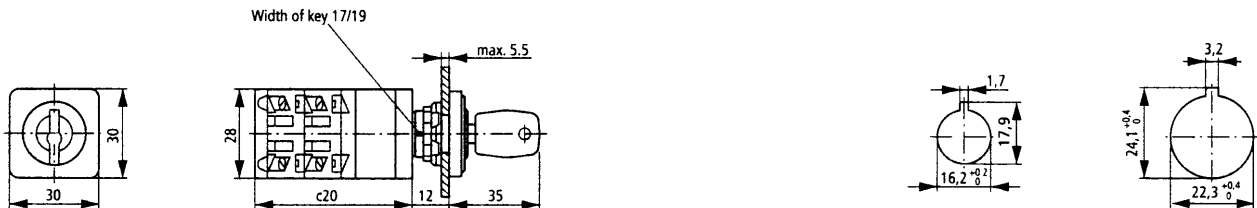
Drilling dimensions¹⁾



Centre mounting, key operated

TM...+EZ/S-

Drilling dimensions¹⁾



Type	c20	c21
TM-1...	39	42
TM-2...	51	54
TM-3...	63	66
TM-4...	75	
TM-5...	87	
TM-6...	99	
TM-7...	111	
TM-8...	123	

Depth of one contact unit: 12 mm

Notes

¹⁾ Drilling dimension options:
 16.2 mm (as RMQ 16) - use without adapter
 22.3 mm (as RMQ 22) - adapter required

T0, T3 Rotary Switches Dimensions

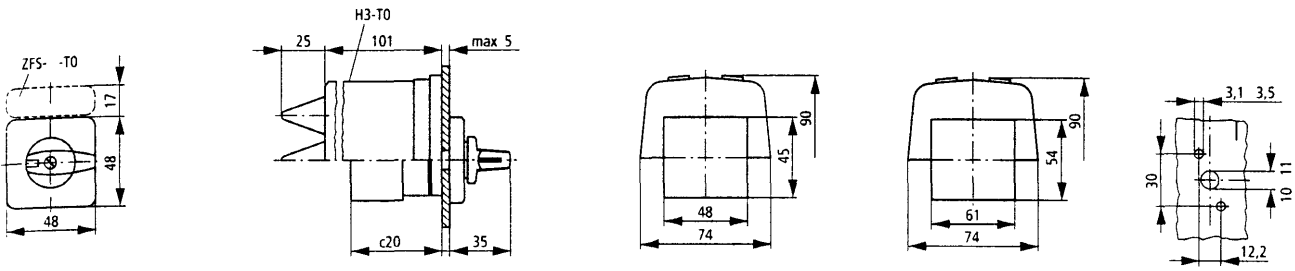
Flush mounting

T0 .. /E (+ H3-T0)
T3 .. /E (+ H3-T0)

T0 .. /E + H3-T0

T3 .. /E + H3-T0

Drilling dimensions



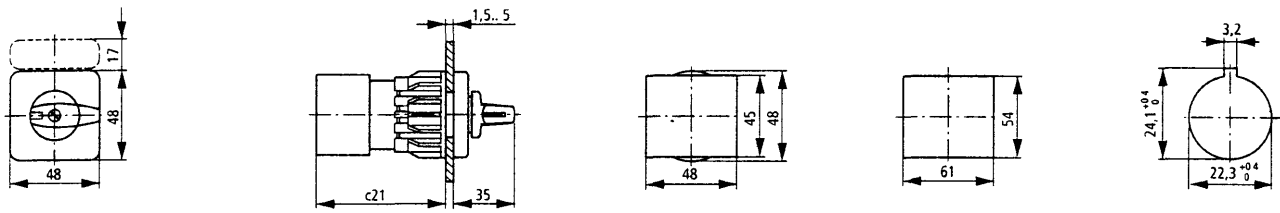
Centre mounting

T0.. /EZ (/OFS)
T3 .. /EZ (/OFS)

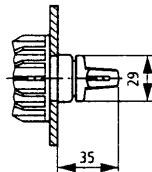
T0

T3

Drilling dimensions



T.../EZ/OFS



Type	c20	c21
T0-1...	41	61
T0-2...	50	70
T0-3...	60	80
T0-4...	69	89
T0-5...	79	99
T0-6...	88	108
T0-7...	98	118
T0-8...	107	127
T0-9...	117	137
T0-10...	126	146
T0-11...	136	156

Depth of one contact unit:
9.5 mm

Type	c20	c21
T3-1...	44	64
T3-2...	56	76
T3-3...	67	87
T3-4...	79	99
T3-5...	90	110
T3-6...	102	122
T3-7...	113	133
T3-8...	125	145
T3-9...	136	156
T3-10...	148	168
T3-11...	159	179

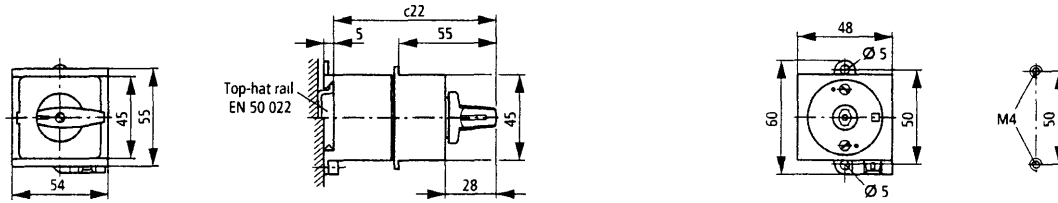
Depth of one contact unit:
11.5 mm

T0, T3 Rotary Switches Dimensions

(Service) distribution board mounting

T0.../IVS

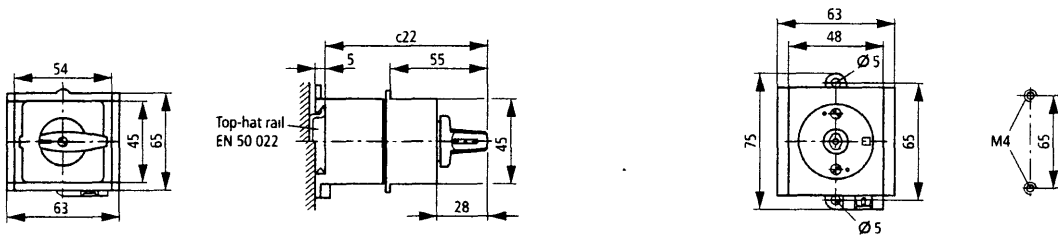
Drilling dimensions
Base



Distribution board mounting

T3.../XZ + IVS-T0

Drilling dimensions
Base

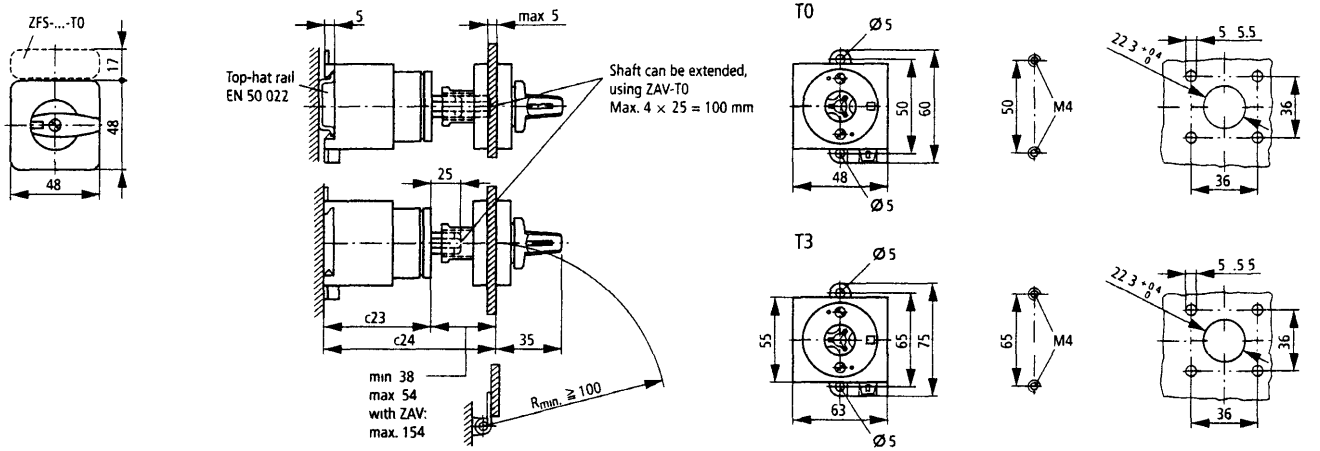


Rear mounting

T0.../Z
T3.../Z

Drilling dimensions
Base

Drilling dimensions
Door



Type	c20	c21	c22	c23	c24 Min./Max.	c24 with up to 4 ZAV	c25
T0-1...	41	61	77	48	86 - 102	202	72
T0-2...	50	70	87	57	96 - 112	212	72
T0-3...	60	80	96	67	105 - 121	221	91
T0-4...	69	89	106	76	115 - 131	231	91
T0-5...	79	99	115	86	124 - 140	240	-
T0-6...	88	108	125	95	134 - 150	250	-
T0-7...	98	118	134	105	143 - 159	259	-
T0-8...	107	127	144	114	153 - 169	269	-
T0-9...	117	137	154	124	162 - 178	278	-
T0-10...	126	146	163	133	172 - 188	288	-
T0-11...	136	156	173	143	181 - 197	297	-

Depth of one contact unit: 9.5 mm

Type	c20	c21	c22	c23	c24 Min./Max.	c24 with up to 4 ZAV	c25
T3-1...	44	64	80	51	86 - 105	205	79
T3-2...	56	76	92	63	101 - 115	216	79
T3-3...	67	87	103	74	112 - 128	228	101
T3-4...	79	99	115	86	124 - 139	239	101
T3-5...	90	110	126	97	135 - 151	251	-
T3-6...	102	122	138	109	147 - 162	262	-
T3-7...	113	133	149	120	158 - 174	274	-
T3-8...	125	145	161	132	170 - 185	285	-
T3-9...	136	156	172	143	181 - 196	296	-
T3-10...	148	168	184	155	193 - 208	308	-
T3-11...	159	179	195	166	204 - 219	319	-

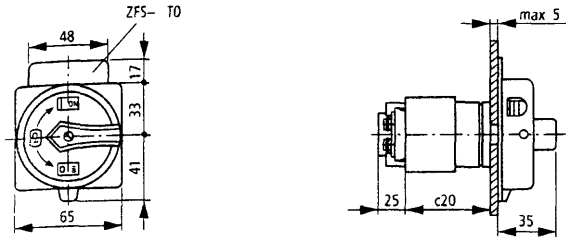
Depth of one contact unit: 11.5 mm

Rotary Switches
Switch-Disconnectors

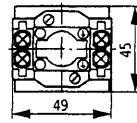
T0, T3 Rotary Switches Dimensions

Flush mounting main switches

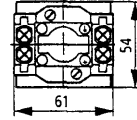
T0.../EA/SVB
T3.../EA/SVB



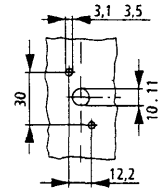
T0



T3

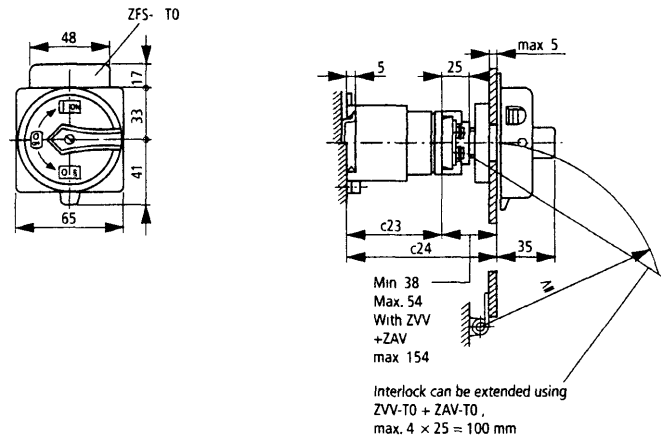


Drilling dimensions
Door

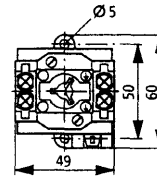


Rear mounting main switches

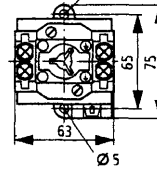
T0.../V/SVB
T3.../V/SVB



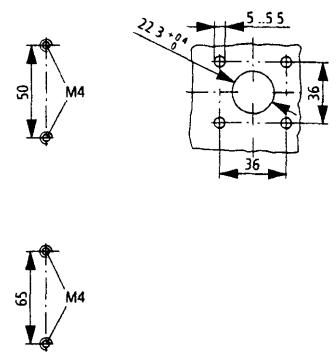
T0



T3



Drilling dimensions
Base Drilling dimensions
Door



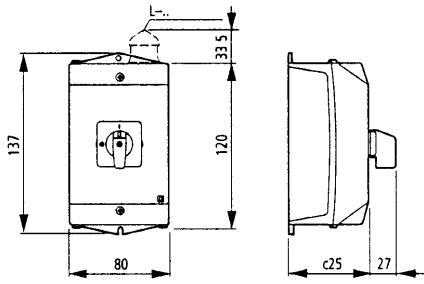
Rotary Switches
Switch-Disconnectors



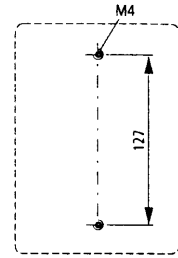
T0, T3 Rotary Switches Dimensions

Surface mounting

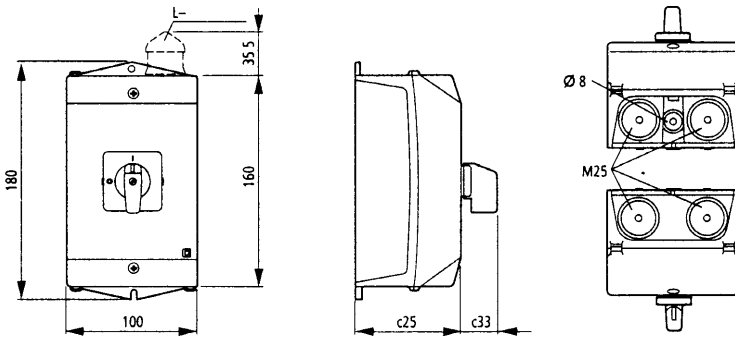
T0.../I1



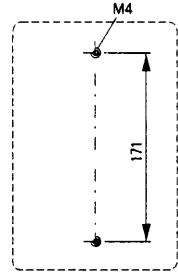
Drilling dimensions
Base



T3.../I2

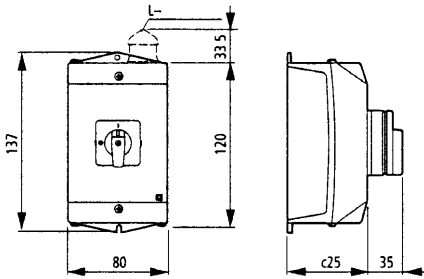


Drilling dimensions
Base

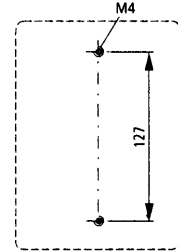


Surface mounting main switches

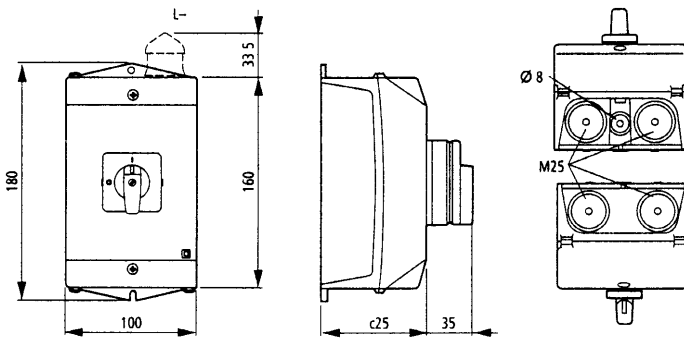
T0.../I1/SVB



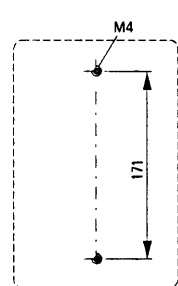
Drilling dimensions
Base




T3.../I2/SVB



Drilling dimensions
Base



Up to 3 padlocks can be fitted

 $d = 4 - 8 \text{ mm}$
 $b + d = \text{max. } 47 \text{ mm}$

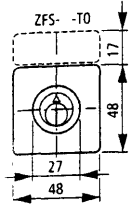
Type	c25	Type	c25	c33
T0-1...	75	T3-1...	80	27
T0-2...	75	T3-2...	80	27
T0-3...	95	T3-3...	145	35
T0-4...	95	T3-4...	145	35
		T3-5...	145	35

T0, T3 Rotary Switches, Accessories

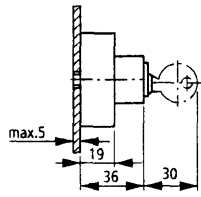
Dimensions

Key operation

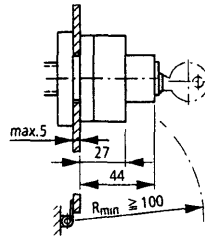
S-T0
S-SOND...-T0



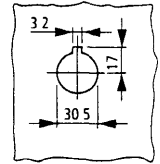
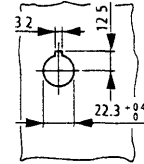
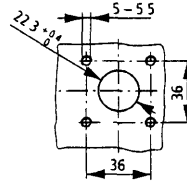
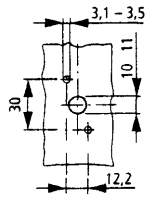
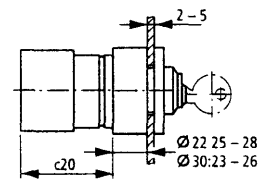
T0.../E(I1) + S-(SOND)-T0
T3.../E(I2) + S-(SOND)-T0



T0.../Z + S-(SOND)-T0
T3.../Z + S-(SOND)-T0

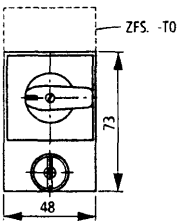


T0.../EZ Δ T0 /E + EZ-T0 + S-(SOND)-T0
T3.../EZ Δ T3.../E + EZ-T0 + S-(SOND)-T0

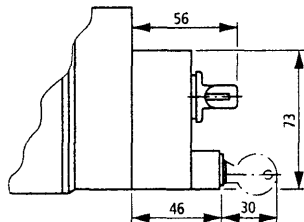


Cylinder lock

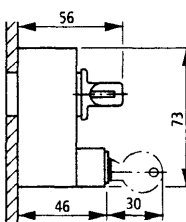
SVA-T3



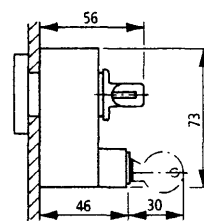
T0.../I1/SVA
T3.../I2/SVA



T0.../E/SVA...
T3.../E/SVA...



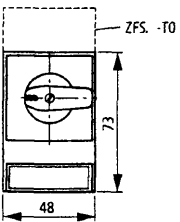
T0.../Z/SVA...
T3.../Z/SVA...



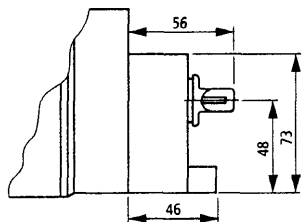
Padlocking feature

Dimensions as DTV-T3

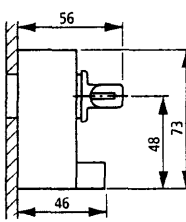
SVC-T3



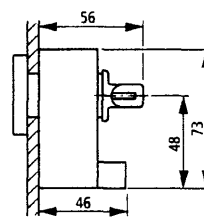
T0.../I1/SVC
T3.../I2/SVC



T0.../E/SVC...
T3.../E/SVC...

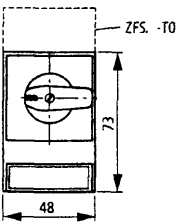


T0.../Z/SVC...
T3.../Z/SVC...

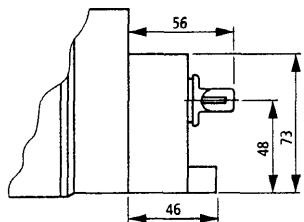


Push-button interlock

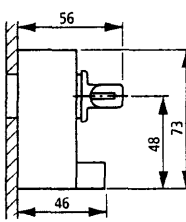
DTV-T3



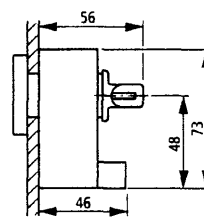
T0.../I1/DTV
T3.../I2/DTV



T0.../E/DTV...
T3.../E/DTV...

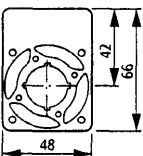


T0.../Z/DTV...
T3.../Z/DTV...

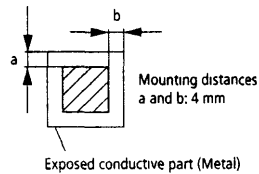


Legend plate

ZS...-T0



Mounting clearance



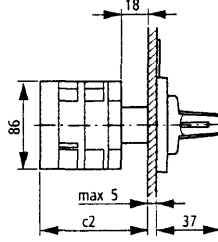
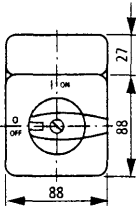
Rotary Switches
Switch-Disconnectors



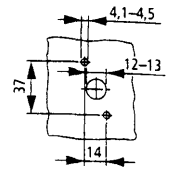
T5B, T5 Rotary Switches Dimensions

Flush mounting

T5(B).../E

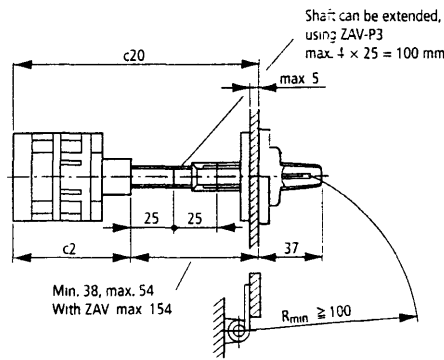
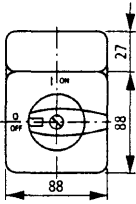


Drilling dimensions
Door

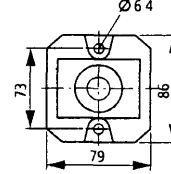


Rear mounting

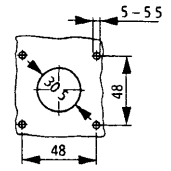
T5(B).../Z



Drilling dimensions
Base

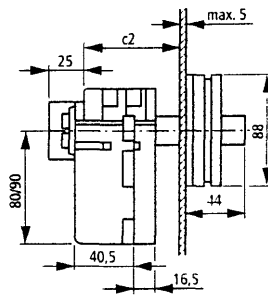
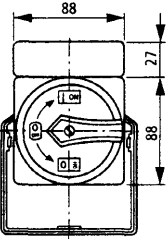


Drilling dimensions
Door

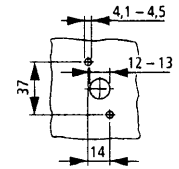


Flush mounting main switches

T5(B).../EA/SVB

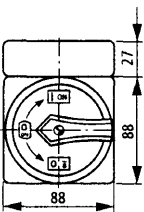


Drilling dimensions
Door

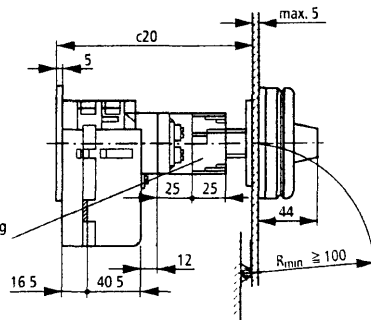


Rear mounting main switches

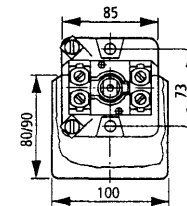
T5(B).../V/SVB



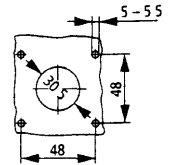
Interlock can be extended using
ZVV-P3 + ZAV-P3,
max. 4 x 25 = 100 mm



Drilling dimensions
Base



Drilling dimensions
Door



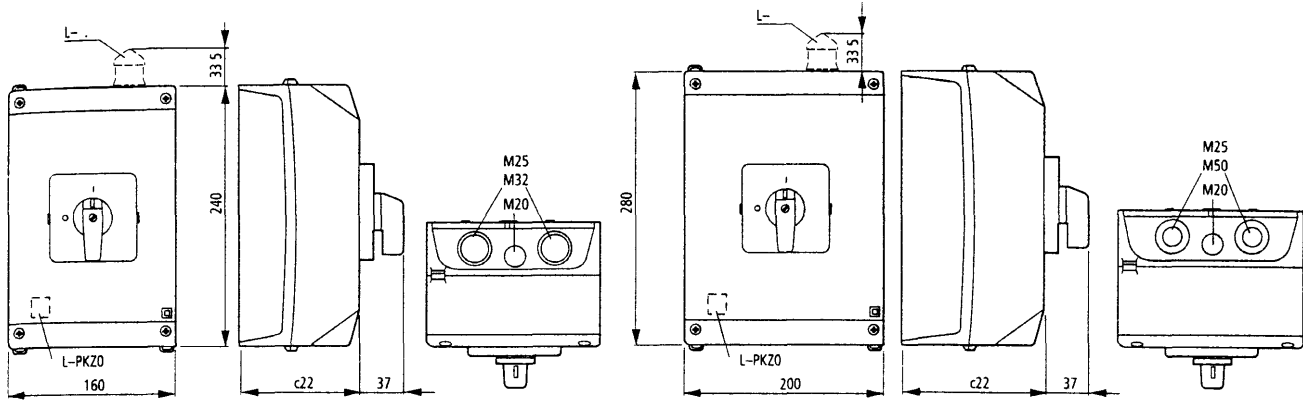
T5B, T5 Rotary Switches

Dimensions

Surface mounting

T5(B)../14

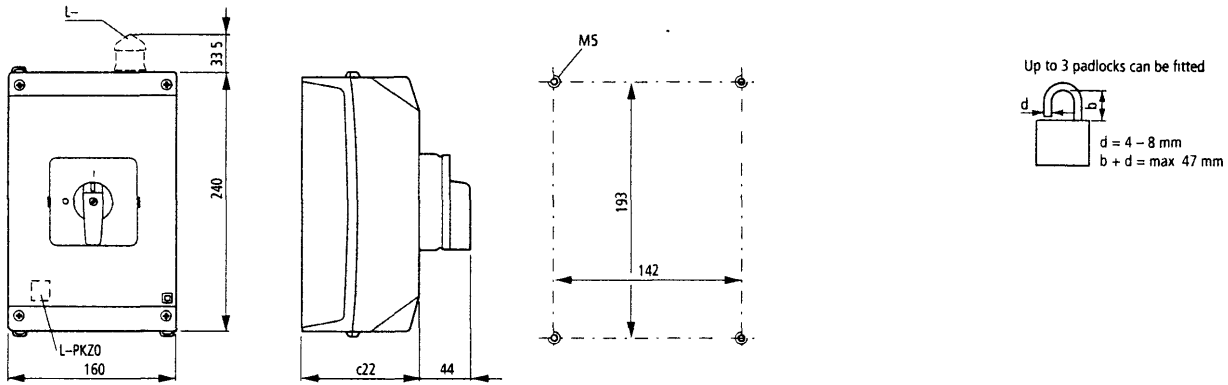
T5.../15



Surface mounting main switches

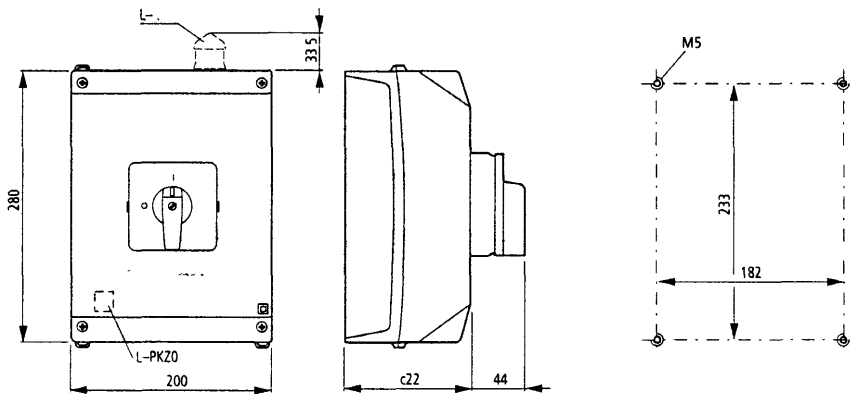
T5(B).../14/SVB¹⁾

Drilling dimensions

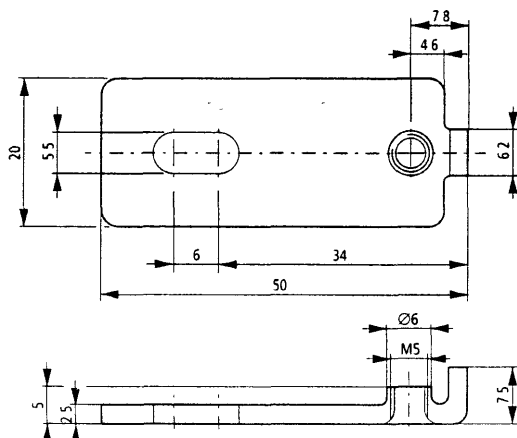


T5.../15/SVB

Drilling dimensions



External fixing bracket



Type	c2	c20 Min./Max.	c20 with up to 4 ZAV	c21	c22
T5(B)-1...	54	92 - 107	207	90	125 (95)
T5(B)-2...	71	109 - 124	224	90	125 (95)
T5(B)-3...	87	125 - 140	240	123	160 (160)
T5(B)-4...	104	142 - 157	257	123	160 (160)
T5(B)-5...	120	158 - 173	273	-	-
T5(B)-6...	137	175 - 190	290	-	-
T5(B)-7...	153	191 - 206	306	-	-
T5(B)-8...	170	208 - 223	323	-	-
T5(B)-9...	186	224 - 239	339	-	-
T5(B)-10...	203	240 - 356	356	-	-

Depth of one contact unit: 16.5 mm

T5B and T5 rotary switches are identical in construction and differentiated only by their contacts.

Rotary Switch
Switch Disconnector

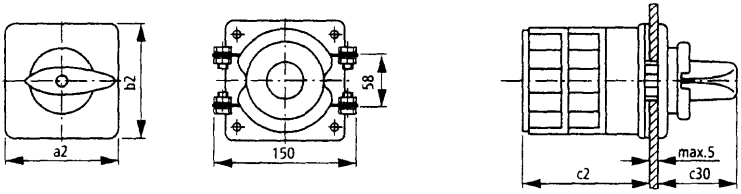
MILITARY

T6, T8 Rotary Switches Dimensions

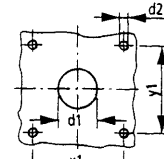
Rotary Switches
Switch-Disconnectors

Flush mounting

T6.../E
T8.../E



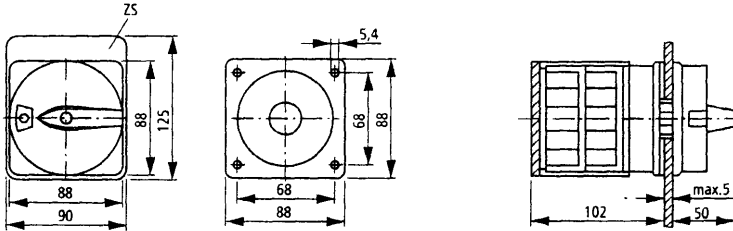
Drilling dimensions



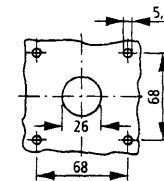
T6: 4 M5 x 20
T8: 4 M6 x 20

Flush mounting main switches

T6-2/EA/SVB

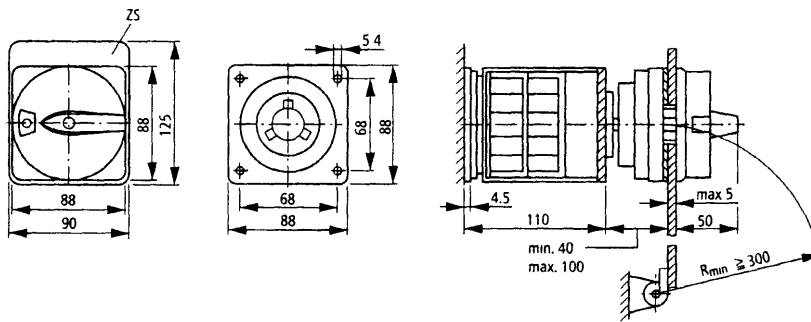


Drilling dimensions

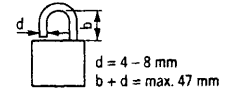


Rear mounting main switches

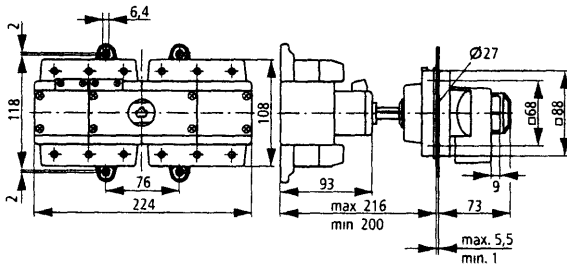
T6-2/V/SVB



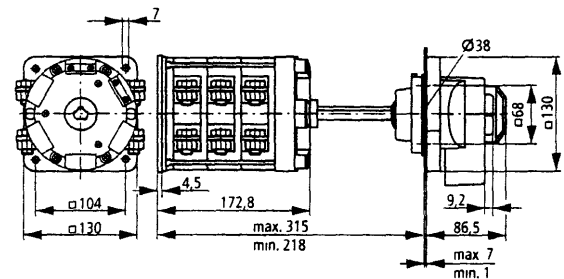
Up to 3 padlocks can be fitted



T6-160-6/V/SVB-SW/HI11

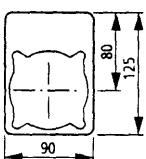


T8-3-8342/V/SVB-SW/HI11



Legend plate

ZS...-P3 for T6...

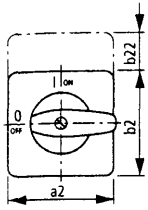


Type	a2	b2	c2	2 BE	3 BE	c30	d1	d2	x1	y1
BE = Number of contact units										
T6	88	88	102	134	40	∅ 26	∅ 5.4	68	68	
T8	130	130	-	158	58	∅ 38	∅ 7.0	104	104	

T6, T8 Rotary Switches Dimensions

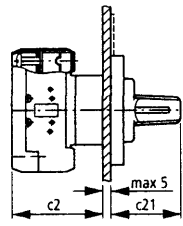
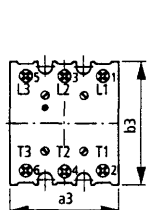
Flush mounting

P.../E



Centre mounting

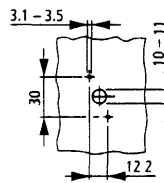
P1.../EZ



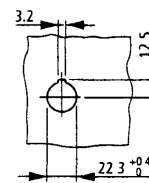
P1 /EZ = c2 + 5 mm

Drilling dimensions

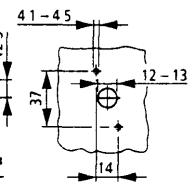
Door
P1.../E



P1.../EZ

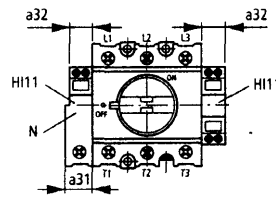
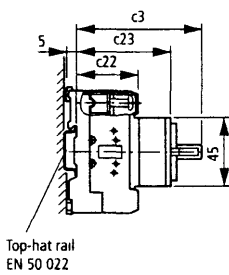
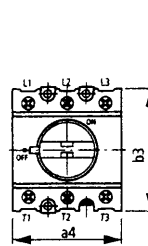


P3.../E

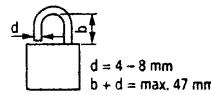


Service distribution board mounting

P.../IVS (-...)

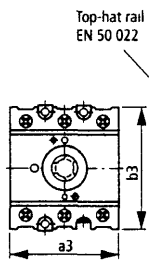
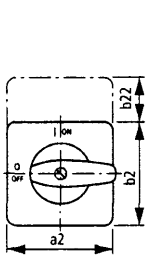


Up to 3 padlocks can be fitted

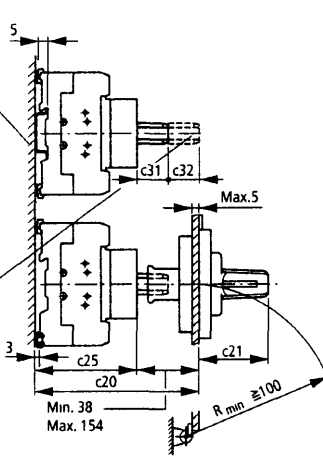


Rear mounting

P.../Z

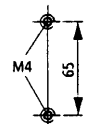


Shaft can be extended, using ZAV -
Max 4 x 25 = 100 mm



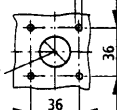
Drilling dimensions

Base
P1.../Z

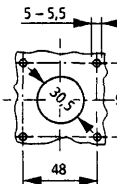
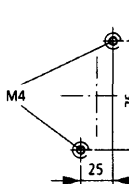


Drilling dimensions

Door



P3.../Z



Type	a2	a3	a4	a21	a22	a23	a31	a32	a33	b2	b3	b21	b22	b23	b24	b31
P1	48	49	53,5	65	48	87	15	15	83	48	70	65	17	125	32	49
P3	87	72	71,5	87	87	125	18	15	114	87	83	87	27	175	-	60

Type	c2	c3	c20 Min./Max.	c20 with up to 4 ZAV/ZVV	c21	c22	c23	c24	c25	c27	c28	c31	c32	c33
P1	59	86	96 - 112	212	35	32	65	68	58	35	77	25	25	27
P3	59	82	103 - 118	218	37	41	63	81	65	44	90	25	25	29

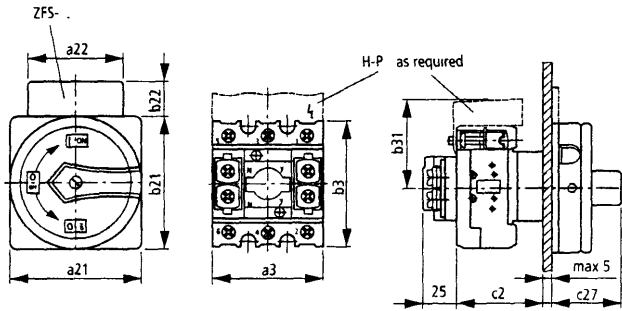


P Switch-Disconnectors

Dimensions

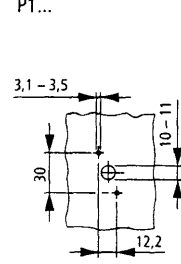
Flush mounting main switches

P.../EA/SVB

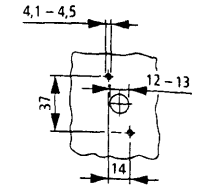


Drilling dimensions

Door

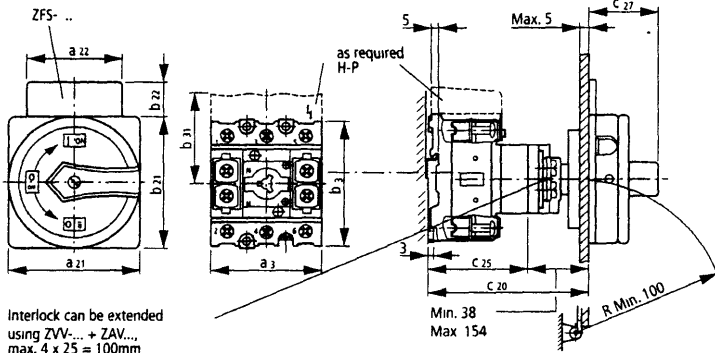


P3...



Rear mounting main switches

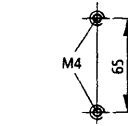
P.../V/SVB



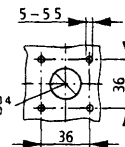
Interlock can be extended using ZVV... + ZAV... max. 4 x 25 = 100mm

Drilling dimensions Base

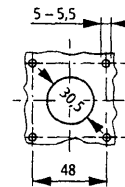
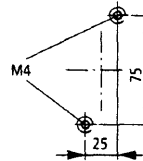
P1.../V/SVB



Drilling dimensions Door

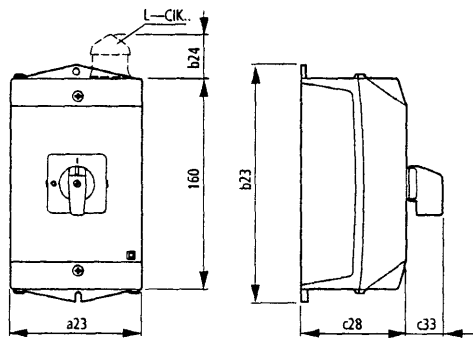


P3.../V/SVB



Surface mounting

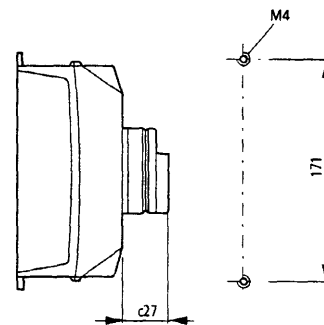
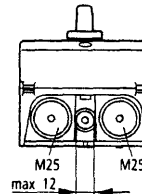
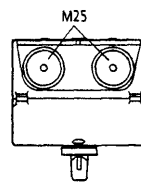
P1.../I2



Surface mounting main switches/safety switches

P1.../I2/SVB
P1.../I2/SI

Drilling dimensions



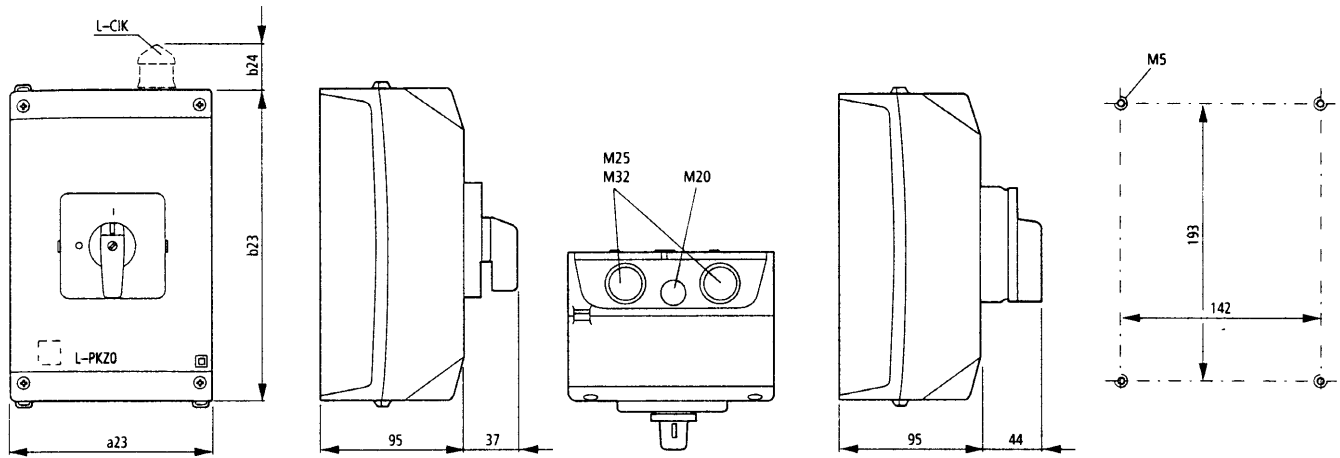
P Switch-Disconnectors

Dimensions

Surface mounting
P3-63/I4

Surface mounting main switches/safety switches
P3-63/I4/SVB
P3-63/I4/SI
T5B-.../I4/SI

Drilling dimensions

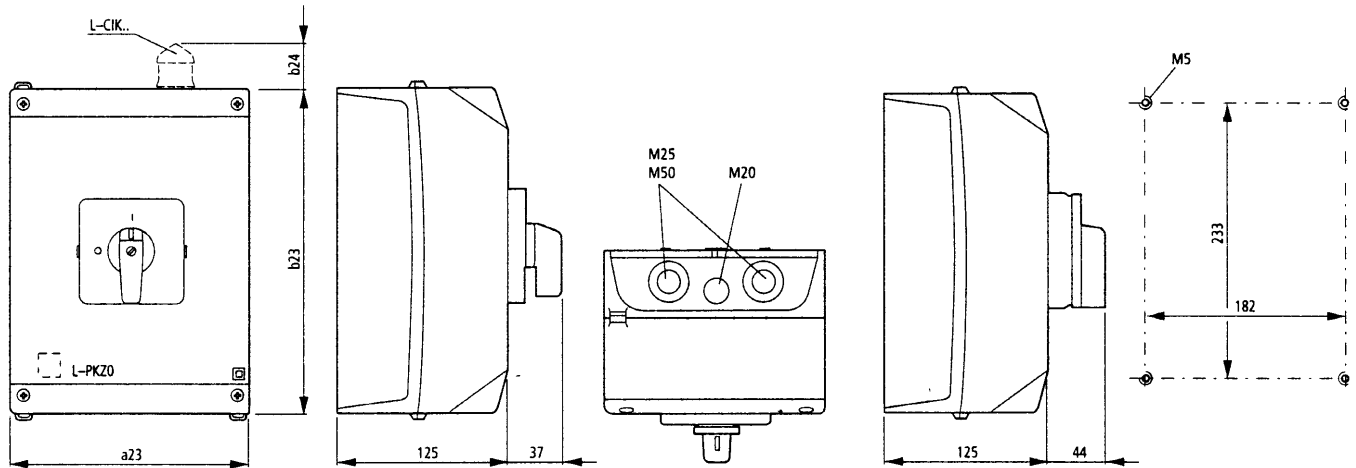


Surface mounting

P3-100/I5

Surface mounting main switches/safety switches
P3-100/I5/SVB
P3-100/I5/SI
T5-.../I5/SI

Drilling dimensions



Type	a2	a3	a4	a21	a22	a23	a31	a32	a33	b2	b3	b21	b22	b23	b24	b31
P1.../I2	48	49	53.5	65	48	100	15	15	83	48	70	65	17	180	35.5	49
P3-63/I4	87	72	71.5	87	87	160	18	15	114	87	83	87	27	240	35.5	60
P3-100/I5	87	72	71.5	87	87	200	18	15	114	87	83	87	27	280	35.5	60

Type	c2	c3	c20 min./max.	c20 with up to 4 ZAV/ZVV	c21	c22	c23	c24	c25	c27	c28	c31	c32	c33
P1.../I2	59	86	96 - 112	212	35	32	65	68	58	35	80	25	25	27
P3-63/I5	59	82	103 - 118	218	37	41	63	81	65	44	125	25	25	37
P3-100/I5	59	82	103 - 118	218	37	41	63	81	65	44	125	25	25	37

Rotary Switches
Switch-Disconnectors

P Switch-Disconnectors, Accessories

Dimensions

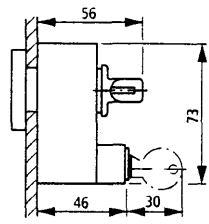
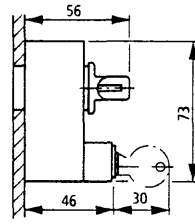
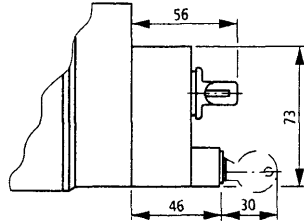
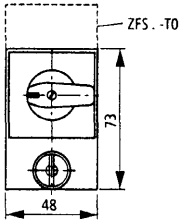
Cylinder lock

SVA-T3

P1.../I2/SVA

P1.../E/SVA

P1.../Z/SVA



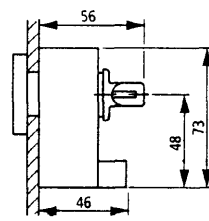
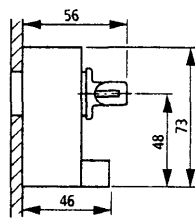
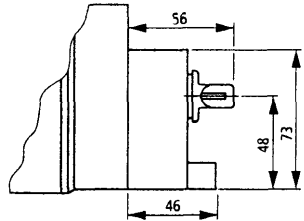
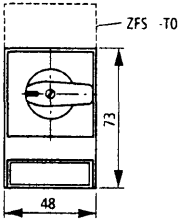
Padlocking feature

SVC-T3

P1.../I2/SVC

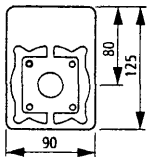
P1.../E/SVC

P1.../Z/SVC



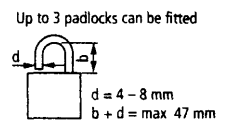
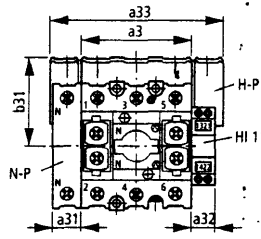
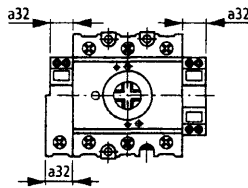
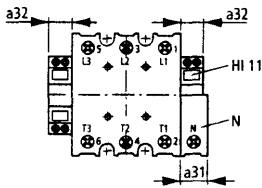
Legend plate

ZS...P3



Modules

Switched neutral
Auxiliary contacts HI 11-P1/P3



T Rotary Switches

Fitting Rotary Switches with Coupling (T.../Z or T.../V/SVB) into Enclosures

Notes

CI-K... insulated enclosures are enclosures specifically designed for the installation of rotary switches, such as T0, T5B and T5 with up to 4 contact units = 8 contacts, T3 with up to 5 contact units = 10 contacts. They have a high degree of protection and up to 5 cable entries. If more than 5 cables or large cross-section cables are to be connected, then we recommend the use of insulated enclosures from the CI System.

- 1) Select required switch and determine cables to be connected.
- 2) Select an enclosure (from Section 14) according to the minimum mounting depth of the switch. This depth dimension has to be less than or equal to the internal mounting depth of the enclosure. In addition, the number and size of the cable entries must be taken into account.

Use the tables below to determine whether, and if so how many, ZAV-... shaft extensions are required and, for .../SVB switches, the identical number of ZVV-... interlock extensions.

Example:

Switch:
T3-6-.../V/SVB
Min. mounting depth:
T...-6/Z = 147 mm
Extensions:

No extension is required for an enclosure having a mounting depth of 150 mm. Two ZAV-T0 shaft extensions and two ZVV-T0 interlock extensions are required for an enclosure having a mounting depth of 200 mm.

Dimensions in mm

With extension

Quantity

Switch type

- T...-1-.../Z (V/SVB)
- T...-2-.../Z (V/SVB)
- T...-3-.../Z (V/SVB)
- T...-4-.../Z (V/SVB)
- T...-5-.../Z (V/SVB)
- T...-6-.../Z (V/SVB)
- T...-7-.../Z (V/SVB)
- T...-8-.../Z (V/SVB)
- T...-9-.../Z (V/SVB)
- T...-10-.../Z (V/SVB)
- T...-11-.../Z (V/SVB)

T0-... Mounting depths		Without/					With ZAV-T0						
				+1	+2	+3	+4			+1	+2	+3	+4
from	to	to	to	to	to	to	to	from	to	to	to	to	to
86	102	127	152	177	202								
96	112	137	162	187	212								
105	121	146	171	196	221								
115	131	156	181	206	231								
124	140	165	190	215	240								
134	150	175	200	225	250								
143	159	184	209	234	259								
153	169	194	219	244	269								
162	178	203	228	253	278								
172	188	213	238	263	288								
181	197	222	247	272	297								

T3-... Mounting depths		Without/					With ZAV-T0						
				+1	+2	+3	+4			+1	+2	+3	+4
from	to	to	to	to	to	to	to	from	to	to	to	to	to
89	105	130	155	180	205								
101	116	141	166	191	216								
112	128	153	178	203	228								
124	139	164	189	214	239								
135	151	176	201	226	251								
147	162	187	212	237	262								
158	174	199	224	249	274								
170	185	210	235	260	285								
181	197	222	247	272	297								
193	208	233	258	283	308								
204	220	245	270	295	320								

T5(B)-... Mounting depths		Without/					With ZAV-P3						
				+1	+2	+3	+4			+1	+2	+3	+4
from	to	to	to	to	to	to	to	from	to	to	to	to	to
92	107	132	157	182	207								
109	124	149	174	199	224								
125	140	165	190	215	240								
142	157	182	207	232	257								
158	173	198	223	248	273								
175	190	215	240	265	290								
191	206	231	256	281	306								
208	223	248	273	298	323								
224	239	264	289	314	339								
241	256	281	306	331	356								



T Rotary Switches, TM Mini Rotary Switches Ordering of Non-Standard Contact Sequences

Key to type references

Switch size	Number of contact units (2 contacts per unit)		Contact sequence number With manufacturing country identifier. For initial order specify SOND-FO2 and enclose completed form (see next page). Contact sequence number is issued by factory. For subsequent orders, type suffix is sufficient.	Mounting form • Mounting form /E • Centre mounting /EZ (for T0, T3) • Surface mounting /I... ¹⁾ • Service distribution board mounting / IVS (for T0) • Rear mounting /Z • Flush mounting main switch /EA/SVB ²⁾ • Surface mounting main switch /I.../SVB • Rear mounting main switch /V/SVB ²⁾ • Mounting forms for TM: /E or /EZ	Accessories → Pages 07/054 – 069 State in full with every order. For TM.../EZ only +EZ/S... is possible → Page 07/081
	Max. units	Max. contacts			
T0	11	22			
T3	11	22			
T5B	10	20			
T5	10	20			
TM	8	16			

Design notes for non-standard contact sequences

Contact sequence

The form FO 2 makes it easy to determine the contact sequence. Form FO 2 can be sent by telefax.
Master copy → Page 07/110

Switching angles

30, 45, 60, 90°

Preferred angle: 60°

For On-Off switches: 90°

For main switches: 90° as FS 908 Page (07/052)

Interruption of contact between two switch positions (On-Off-On) not admissible on T0; or T3 and TM at switching angles of 30°, 45°, or T5(T5B) at a switching angle of 30°.

Spring-return

Switching movement is limited by a stop. The switch returns under spring pressure to the last indexed position. Where a switch has spring-return from both directions, a maximum of three positions can be traversed.

The return angle is < 1/2 switching angle. A maximum of 6 contacts can be returned at the same time.

Fleeting contacts

Duration of contact depends primarily on the speed of actuation. If a contactor is to be actuated by means of fleeting contact, the switching angle must not be less than 60°, or the switching pulse may be too short. Fleeting contacts always act in **both** directions.

Complete rotation

Possible only with a total switching angle of 360°. Unrestricted rotation in either direction. The number of switch positions multiplied by the switching angle must equal 360°. TM with 12 positions every 30° is possible only with complete rotation, not with stop.

Number of contact units

$\frac{\text{Number of contacts}}{2} = \text{Round up to nearest whole}$
2

Each contact chamber = contact unit has 1 or 2 contacts, each operated by a cam.

On T5(B) switches one cam operates both contacts, consequently:

Where the total switching angle is **less than 180°**, each contact can be operated **independently**. At switching angles of 180° or above, two contacts per chamber are possible only if their switching sequences are the same, but offset by 180° (e.g. T5B -4-8235 step switch).

Standard features

As for rotary switches with standard contact sequences → Page 07/006, 070

Notes	Page
Technical data	07/088
Dimensions	07/094

Notes

The sequence of the contacts may be changed if technical reasons so dictate. For non-standard switches, it is preferable to arrange the links so that the terminals which have a difference of four are linked with one another, e.g. terminals 1-5-9; 2-6-10; 3-7-11- or 4-8-12-. Such links can be removed (also applies for standard switches),

whereas links 1-3, 2-4, 5-7, 6-8 cannot be removed because they are situated within the switch. Links between an even number and an odd number (e.g. 2-3) must be supplied by the user.

- ¹⁾ T0-.../I1: up to 4 contact units
T3-.../I2 up to 5 contact units
- ²⁾ T0 up to 8 contacts = 4 contact units
T3 up to 12 contacts = 6 contact units


T Rotary Switches, TM Mini Rotary Switches

Ordering of Non-Standard Contact Sequences



Erstbestellung für beliebige Nockenschalter T Kombinationen
 Initial order for a T Rotary Switch combination
 Première commande de combinaisons de Commutateur T à cames

Auftrags-Nr. Order number: N° de commande :	Position: Position: Poste :	Büro: Office: Bureau :	Bearbeiter: Name: Employé :
Kunde Customer: Client	Kundenspez.-Nr.: Customer number: N° client :		Datum: Date: Date :
Hinweis: Note: Note : Die Anzahl der möglichen Kontakte sowie die Kombinationsmöglichkeiten mit den Bauformen entnehmen Sie bitte dem Hauptkatalog. The number of possible contacts as well as the combination options with mounting forms are shown in the Main Catalogue. Reportez-vous au Catalogue Général pour connaître le nombre maximal de contacts et les possibilités de combinaison selon les modèles.	Stückzahl: Quantity: Quantité :	Schaltwinkel: Switching angle: Angle de rotation :	Typ: Type: Référence :
	DM/Stück: DM/each: Prix unitaire :	<input type="checkbox"/> 30 <input checked="" type="checkbox"/> 45 <input type="checkbox"/> 60 <input type="checkbox"/> 90	<input type="checkbox"/> TM <input checked="" type="checkbox"/> T0 <input type="checkbox"/> T3 <input type="checkbox"/> T5B <input type="checkbox"/> T5
		Anzahl Kontakte: No. of contacts: Nombre de contacts :	Bauform: Mounting form: Modèle :
		<input type="checkbox"/> 1 <input type="checkbox"/> 12 <input type="checkbox"/> 2 <input type="checkbox"/> 13 <input type="checkbox"/> 3 <input type="checkbox"/> 14 <input type="checkbox"/> 4 <input type="checkbox"/> 15 <input type="checkbox"/> 5 <input type="checkbox"/> 16 <input type="checkbox"/> 6 <input type="checkbox"/> 17 <input type="checkbox"/> 7 <input type="checkbox"/> 18 <input type="checkbox"/> 8 <input type="checkbox"/> 19 <input checked="" type="checkbox"/> 9 <input type="checkbox"/> 20 <input type="checkbox"/> 10 <input type="checkbox"/> 21 <input type="checkbox"/> 11 <input type="checkbox"/> 22	<input checked="" type="checkbox"/> E <input type="checkbox"/> EA/SVB <input type="checkbox"/> EA/SVB-SW <input type="checkbox"/> EZ <input type="checkbox"/> EZ/OFS <input type="checkbox"/> I... <input type="checkbox"/> I.../SVB <input type="checkbox"/> I.../SVB-SW <input type="checkbox"/> IVS <input type="checkbox"/> V/SVB <input type="checkbox"/> V/SVB-SW <input type="checkbox"/> X <input type="checkbox"/> XZ <input type="checkbox"/> Z <input type="checkbox"/> + S-T0 <input type="checkbox"/> + _____

Frontschild Nr. Front Plate No. Plastron N° FS <input type="radio"/> Rundschtaltung Complete rotation Rotation totale <input checked="" type="radio"/> autom. Rückzug Spring-return Retour autom.  Beschriftung Marking/Repérage	Baueinheiten/Contact units/Galettes <table border="1" style="width:100%; text-align: center;"> <tr> <td></td> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td> </tr> <tr> <td></td> <td>1</td><td>3</td><td>5</td><td>7</td><td>9</td><td>11</td><td>13</td><td>15</td><td>17</td><td>19</td><td>21</td><td>23</td><td>25</td><td>27</td><td>29</td><td>31</td><td>33</td><td>35</td><td>37</td><td>39</td><td>41</td><td>43</td> </tr> <tr> <td></td> <td>2</td><td>4</td><td>6</td><td>8</td><td>10</td><td>12</td><td>14</td><td>16</td><td>18</td><td>20</td><td>22</td><td>24</td><td>26</td><td>28</td><td>30</td><td>32</td><td>34</td><td>36</td><td>38</td><td>40</td><td>42</td><td>44</td> </tr> </table>		1	2	3	4	5	6	7	8	9	10	11		1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43		2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44
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	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43																																					
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44																																					
Grad Degrees/Degrés	1 2	3 4	5 6	7 8	9 10	11 12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	39 40	41 42	43 44																																					
270	X	X	X	X	X	X	X																																																				
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Contact closed only in position 1 Switching with interruption of contact Switching without interruption of contact Contact closed in positions 1+2 Contact closed from position 1 to 3 Fleeting contact (only at 60° or 90°) Late-break contact Early-make contact Contact with automatic spring-return	Key withdrawability with ..S-T0 or SVA-T3: Pos. 1: Key withdrawable Pos. 2: Key withdrawable Pos. 3: Key withdrawable Pos. 4: Key not withdrawable																																																										
Schlüssel abziehbar Key withdrawable Retrait de la clé	X	Typ für Nachbestellungen (vom Werk auszufüllen) Type for re-ordering (to be filled in by Factory) Référence pour commandes ultérieures (à compléter par l'usine)																																																									

Es ist möglich, daß sich aus technischen Gründen die Reihenfolge der Kontakte ändert.
 The sequence of contacts may be changed for technical reasons.
 Il est possible que les contacts puissent être modifiés pour des raisons techniques.

Rotary Switches
 Switch-Disconnectors

T Rotary Switches, TM Mini Rotary Switches

Ordering of Non-Standard Contact Sequences



Erstbestellung für beliebige Nockenschalter T Kombinationen
Initial order for a T Rotary Switch combination
Première commande de combinaisons de Commutateur T à cames

Auftrags-Nr.: Order number: N° de commande :		Position: Position: Poste :		Büro: Office: Bureau :		Bearbeiter: Name: Employé :	
Kunde: Customer: Client				Kundenspez.-Nr.: Customer number: N° client :		Datum: Date: Date :	
Hinweis: Note: Note :		Stückzahl: Quantity: Quantité :		Schaltwinkel: Switching angle: Angle de rotation :		Typ: Type: Référence :	
Die Anzahl der möglichen Kontakte sowie die Kombinationsmöglichkeiten mit den Bauformen entnehmen Sie bitte dem Hauptkatalog. The number of possible contacts as well as the combination options with mounting forms are shown in the Main Catalogue. Reportez-vous au Catalogue Général pour connaître le nombre maximal de contacts et les possibilités de combinaison selon les modèles.		DM/Stück: DM/piece: Prix unitaire :		<input type="checkbox"/> 30 <input type="checkbox"/> 45 <input type="checkbox"/> 60 <input type="checkbox"/> 90		<input type="checkbox"/> TM <input type="checkbox"/> T0 <input type="checkbox"/> T3 <input type="checkbox"/> T5B <input type="checkbox"/> T5	
				<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11		<input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18 <input type="checkbox"/> 19 <input type="checkbox"/> 20 <input type="checkbox"/> 21 <input type="checkbox"/> 22	
				<input type="checkbox"/> E <input type="checkbox"/> EA/SVB <input type="checkbox"/> EZ <input type="checkbox"/> I... <input type="checkbox"/> I.../SVB <input type="checkbox"/> IVS <input type="checkbox"/> V/SVB <input type="checkbox"/> X <input type="checkbox"/> Z <input type="checkbox"/> + _____ <input type="checkbox"/> + _____		<input type="checkbox"/> EA/SVB-SW <input type="checkbox"/> EZ/OFS <input type="checkbox"/> I.../SVB-SW <input type="checkbox"/> V/SVB-SW <input type="checkbox"/> XZ	

Frontschild Nr. Front Plate No. Plastron N° FS <input type="radio"/> Rundschaltung Complete rotation Rotation totale <input type="radio"/> autom. Rückzug Spring-return Retour autom. 	Baueinheiten/Contact units/Galettes																					
	1	2	3	4	5	6	7	8	9	10	11											
Beschriftung Marking/Repérage	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43
Grad Degree/Degrés	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44
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Schlüssel abziehbar Key withdrawable Retrait de la clé	<input checked="" type="checkbox"/> Typ für Nachbestellungen (vom Werk auszufüllen) Type for re-ordering (to be filled in by Factory) Référence pour commandes ultérieures (à compléter par l'usine)																					

L'ordre des contacts peut être modifié pour des raisons techniques.

T

P..., T5..., N Safety Switches Design Information

Maintenance switches and safety switches have the same electrical function, which is to safely isolate an electrical installation (load) from the mains while maintenance work or repairs are being carried out, thereby ensuring that no danger is caused to personnel, machinery or product.

The safety switch is an additional enclosed main switch = isolator for an individual electrical load, which can be fitted directly next to the motor or the electrical load, ensuring that work can be carried out safely on those items provided the safety rules are observed. This is of special importance if there is any possibility whatsoever of confusion regarding the main switch.

Application

The fitter/electrician can protect himself against the possibility of any other person switching on the machine without authority by securing the switch in the Off position with his own padlock (up to three can be fitted).

Maintenance switches are merely additional, enclosed main switches with a padlocking facility. Such switches can be found on pages 07/012-015 or 07/022-023 of this catalogue.

Features

Safety switches are housed in insulated enclosures as standard and have the inscription "Safety switch" on a bright orange label. Labels in other languages are available.

If the switch is to be used as an Emergency-Stop switch, it has a special red handle and a yellow locking collar. In accordance with STOP category O to IEC/EN 60204.

If the switch can not be used as an Emergency-Stop switch, both parts are grey for N switch-disconnectors (type suffix "-GR") or black for T and P switches (type suffix "-SW"). The cover and handle are interlocked when a padlock is in place.

Selection

Selection of the switches is to be made according to the following rating data:

- 1) According to the motor rating (switching capacity), if the switch is fitted in such a way that the operator is able to switch On and Off under operational conditions.
- 2) The motor rating given is always for three-phase applications. Where 6 current paths are involved, such as a motor with star-delta starting, a 6-pole switch can switch 1.73 times the rated value.
- 3) A switch can be selected according to the uninterrupted current provided that the switch has a load-shedding and indicating contact (LA). The load-shedding and indicating contact is an auxiliary contact which is closed in the On position and breaks early when switching Off, so that a contactor accepts the switching capacity in the circuit and the maintenance/safety switch operates as a no-load switch. When switching On, the LA closes later than or simultaneously with the main contacts. This is the auxiliary make contact in the case of T and P switches, and in the case of N switches it is the series connection of an early-make auxiliary contact (VHI) and a standard auxiliary contact (NHI).

- 4) A switch can also be selected according to the uninterrupted current, provided it is ensured that the switch is only operated without a load. For example, the switch can be adapted to padlocking in the On position.

This is not possible for switches with a red/yellow handle.

Replacement of earlier types:

Old type	New type
P3-63/1-SI(-SW)(+HI..)	P3-63/14-SI(-SW)(+HI..)
P3-63/1-SI(-SW)+N-P3	P3-63/14-SI(-SW)+N-P3
P3-63/1-SI(-SW)+N+HI11	P3-63/14-SI(-SW)+N+HI11
T5B-3-8342/1-SI(-SW)	T5B-3-8342/14-SI(-SW)
T5B-4.../14-SI(-SW)	T5B-4.../14-SI(-SW)
P3-63/1-SI(-SW)(+HI..)	P3-63/14-SI(-SW)(+HI..)
P3-63/1-SI(-SW)+N-P3	P3-63/14-SI(-SW)+N-P3
T5.../CI19/SIH	T5.../I5-SI
T5-3-8342/CI19/SIH	T5-3-8342/I5-SI
T5.../CI19/SIH	T5.../I5-SI

Technical data for P switch-disconnectors → Page 07/090

Technical data for T5(B) switch-disconnectors → Page 07/088

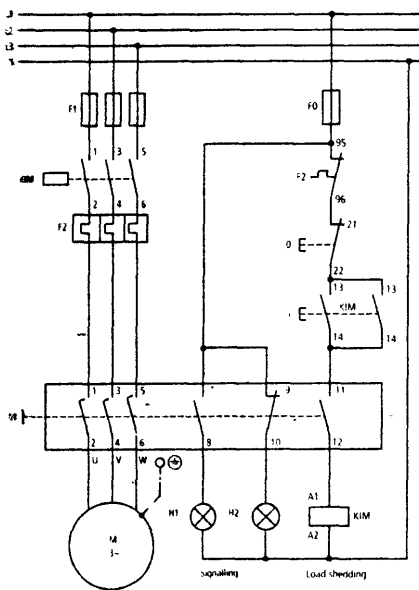
Technical data for N switch-disconnectors → Page 10/166

Dimensions for P → Page 07/103

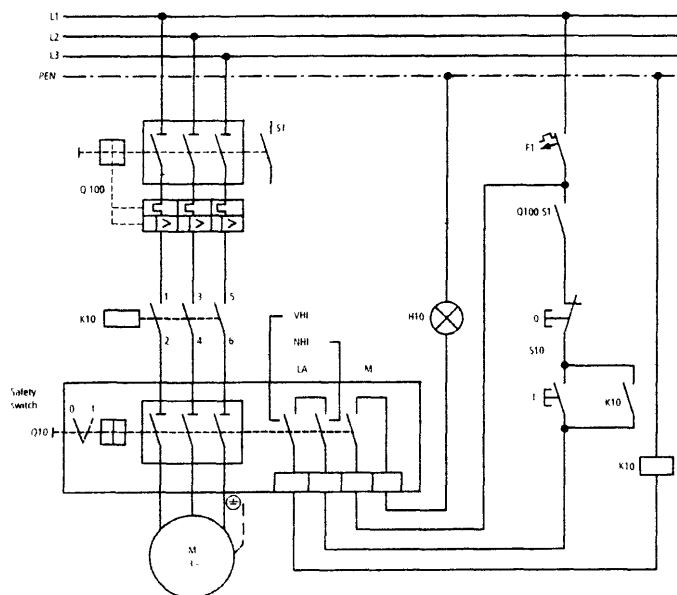
Dimensions for T5(B) → Page 07/100

Dimensions for N → Page 10/176

Safety switch with load shedding and signalling T5(B) rotary switch or P switch-disconnector (example)



Safety switch with load shedding and signalling N switch-disconnector (example)



Rotary Switches
Switch-Disconnectors

