

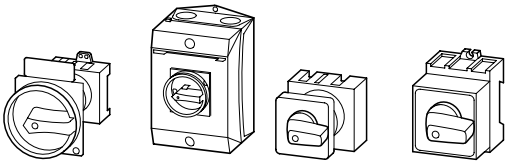
T Rotary Switches, P Switch-Disconnectors



T Rotary Switches, P Switch-Disconnectors

Overview

T rotary switches, P switch-disconnectors



TM mini rotary switches



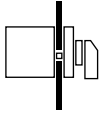
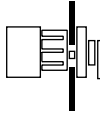
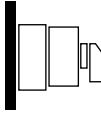
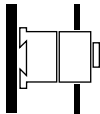
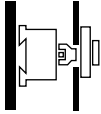
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System overview	07/006	System overview	07/072
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Safety switches	07/024		
Control switches		Control switches	
Changeover switches	07/026	Changeover switches	07/075
Reversing switches	07/032	Reversing switches	07/082
Star-delta switches	07/032	Step switches	07/077
Multi-speed switches	07/034	On-Off switches	07/081
Step switches	07/036	Hand/Auto switches	07/076
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For other standard contact sequences, see catalogue K115



T Rotary Switches, P Switch-Disconnectors

Overview of Functions

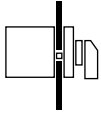
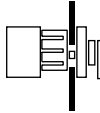
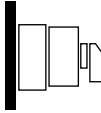
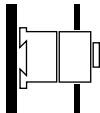
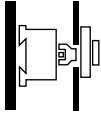
Function	Flush mounting .../E...	Centre mounting .../EZ...	Surface mounting .../I...	Distribution board mounting .../IVS...	Rear mounting .../Z...
					
On-Off switches					
Main switches Maintenance switches For use as Emergency-Stop devices ¹⁾	→ 07/012		→ 07/013		→ 07/013
Main switches Maintenance 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 → 07/074	→ 07/019 → 07/074	→ 07/019	→ 07/019	→ 07/019
On-Off switches with black thumb-grip With auxiliary contacts	→ 07/020	→ 07/021	→ 07/021	→ 07/021	→ 07/021
On-Off switches For use as Emergency-Stop devices ¹⁾	→ 07/022		→ 07/023	→ 07/023	
Control circuit isolators	→ 07/074				
Safety switches 25 – 100 A For use as Emergency-Stop devices ¹⁾			→ 07/024		
Safety switches 25 – 100 A			→ 07/025		

Notes

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

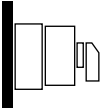

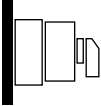

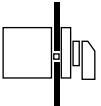
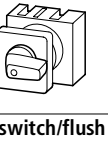
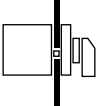
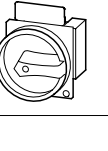
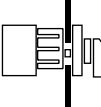

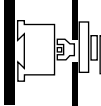

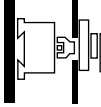
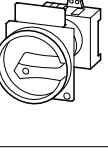
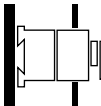
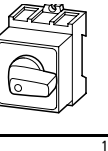
T Rotary Switches, P Switch-Disconnectors

Overview of Functions

Function	Flush mounting .../E...	Centre mounting .../EZ...	Surface mounting .../I...	Distribution board mounting .../IVS...	Rear mounting .../Z...
					
Control switches					
Changeover switches Mains transfer-, group switches	→ 07/026 → 07/075	→ 07/027 → 07/075	→ 07/027	→ 07/027	→ 07/027
Reversing switches	→ 07/032 → 07/082	→ 07/033 → 07/082	→ 07/033	→ 07/033	→ 07/033
Star-delta switches	→ 07/032	→ 07/033	→ 07/033	→ 07/033	→ 07/033
Multi-speed switches	→ 07/034	→ 07/035	→ 07/035	→ 07/035	→ 07/035
Step switches	→ 07/036 → 07/077	→ 07/036 → 07/077	→ 07/037	→ 07/037	→ 07/037
On-Off switches, changeover switches	→ 07/040 → 07/081	→ 07/040 → 07/081	→ 07/041	→ 07/041	→ 07/041
Hand/Auto switches	→ 07/042 → 07/076	→ 07/042 → 07/076	→ 07/043	→ 07/043	→ 07/043
Spring-return switches	→ 07/044 → 07/081	→ 07/044 → 07/081	→ 07/045	→ 07/045	→ 07/045
Universal control switches	→ 07/046	→ 07/046	→ 07/047	→ 07/047	→ 07/047
Coding switches	→ 07/046 → 07/082	→ 07/046 → 07/082	→ 07/047	→ 07/047	→ 07/047
Series switches	→ 07/046	→ 07/046	→ 07/047	→ 07/047	→ 07/047
Instrument selector switches (voltage)	→ 07/048	→ 07/048	→ 07/049	→ 07/049	→ 07/049
Instrument selector switches (current)	→ 07/048	→ 07/048	→ 07/049	→ 07/049	→ 07/049
Switches with locking arrangements	→ 07/050		→ 07/051		→ 07/051

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
	AC-23	220 – 240 V	kW	1.8	3.5	7.5	18.5
		380 – 440 V	kW	3	6.5	13	22
		690 V	kW	–	–	–	22
Rated operational current	AC-21	380 – 440 V 3~	A	10	20	32	63
		220 – 240 V	A	2.5	6	10	16
	AC-15	380 – 415 V	A	1.5	4	6	6
Rated uninterrupted current			A	10	20	32	63
Mounting form							
Surface mounting¹⁾							
		.../I...	IP65	–	●	●	●
		.../I 45/...		–	–	–	–
		.../I 48/...		–	–	–	–
		.../ST/...		–	●	●	●
Surface mounting main switch¹⁾							
		.../I.../SVB...	IP65	–	●	●	●
		.../ST/SVB...		–	●	●	●
Flush mounting							
		.../E...	Front IP65	●	●	●	●
Flush mounting main switch/flush mounting control circuit isolator							
		.../EA/SVB...	Front IP65	–	●	●	●
		TM.../E/SVB		●	–	–	–
Centre mounting							
		.../EZ...	Front IP65	–	●	●	–
		TM.../EZ		●	–	–	–
Rear mounting							
		.../Z...	Front IP65	–	●	●	●
Rear mounting main switches							
		.../N/SVB...	Front IP65	–	●	●	●
Service distribution board mounting							
		.../IVS...	Front IP30	●	●	–	–

Notes

¹⁾ Enclosures for metric cable glands to EN 50 262, cable glands → Page 07/070

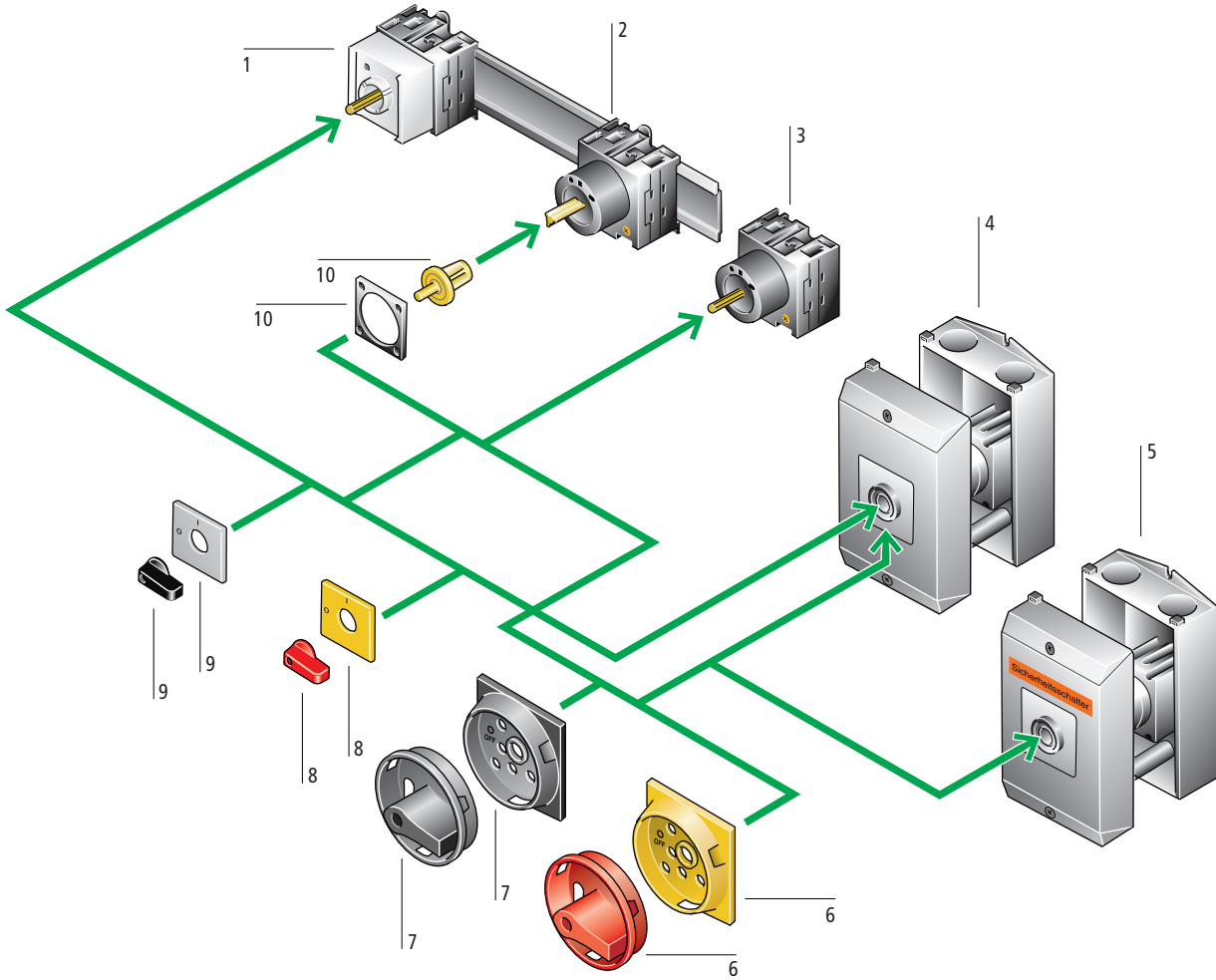
T Rotary Switches, P Switch-Disconnectors
 Technical Overview

T5	T6-2	T6-3-8212	T6-160-6	T8-3-8342	T8-3-8212	P1		P3	
18.5	22	22	22	37	37	5.5	7.5	15	22
30	37	37	45	55	55	7.5	13	30	37
30	22	22	22	37	37	7.5	15	30	37
18.5	37	37	37	75	75	7	8.5	18.5	30
30	45	45	55	132	132	13	15	37	50
30	30	30	30	37	37	11	18.5	30	75
100	125	125	160	315	315	25	32	63	100
16	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-
100	125	125	160	315	315	25	32	63	100

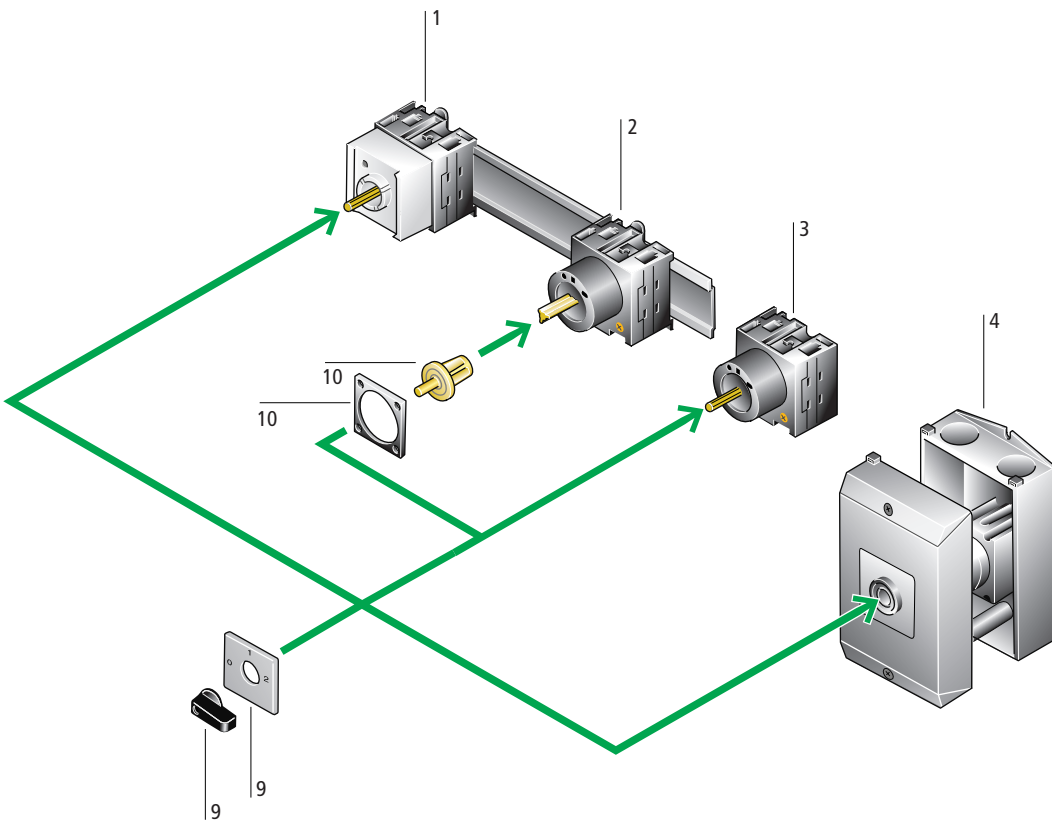
●	-	-	-	-	-	●	●
-	-	-	●	-	-	-	-
-	-	-	-	●	-	-	-
●	-	-	-	-	-	●	●
●	-	-	-	-	-	●	●
●	●	●	-	-	●	●	●
●	●	-	-	-	-	●	●
-	-	-	-	-	-	-	-
-	-	-	-	-	-	●	-
-	-	-	-	-	-	-	-
●	-	-	-	-	-	●	●
●	●	-	●	●	-	●	●
-	-	-	-	-	-	●	●

T Rotary Switches System Overview

T0, T3, T5B, T5 On-Off switches






T0, T3, T5B, T5 control switches



T Rotary Switches

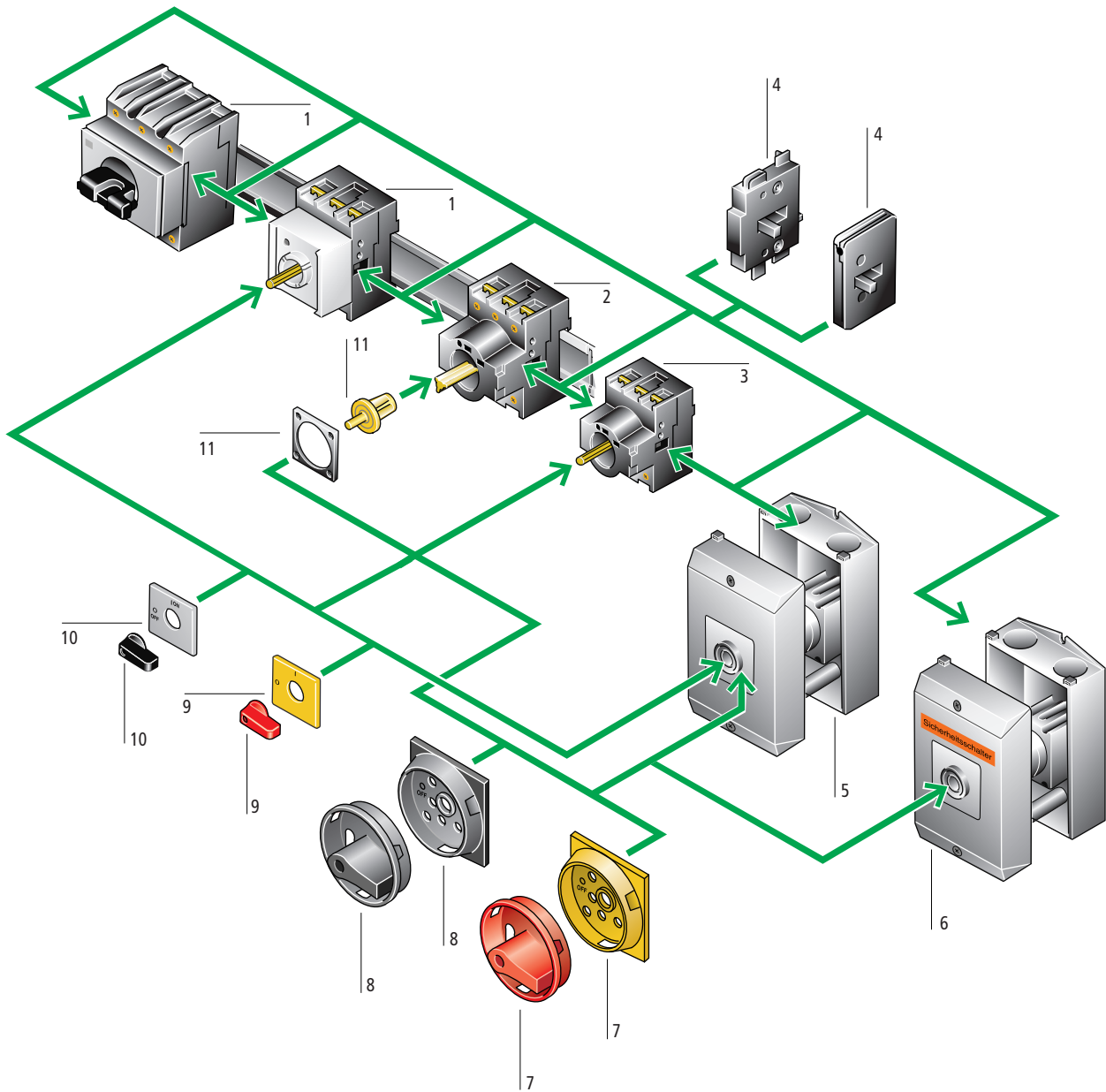
System Overview

Service distribution board mounting (.../IVS) 1 Front IP30 For snap fitting to EN 50 022 top-hat rail Flush mounting – service distribution boards: up to 3 contact units (45 mm mounting depth) – control panels: up to 11 contact units → Page 07/019	Centre mounting (.../EZ) 3 Front IP65 Mounting in \varnothing 22.3 fixing hole to IEC/EN 60 947-5-1 Centre fixing permits installation by one fitter → Page 07/019	Main switch (assembly kit) for use as Emergency-Stop device 6 To IEC/EN 60 204-1 With red rotary handle and yellow locking collar Lockable in the 0 (Off) position → Page 07/062
Rear mounting (.../Z) 2 Front IP65 Secured by screw fixing or snap fitting (T0 or T3) For snap fitting to EN 50 022 top-hat rail Coupling drive in door or cover Connection from the front → Page 07/019	Surface mounting (.../I...) 4 IP65  With PE terminal Enclosures designed for metric cable glands to EN 50 262 → Page 07/019	Main switch (assembly kit) 7 Black rotary handle and locking collar Lockable in the 0 (Off) position → Page 07/062
Rear mounting main switches (.../IV/SVB) 2 Front IP65 To IEC/EN 60 204 and IEC/EN 60 947-3, up to 8 contacts for T0..., and up to 12 contacts for T3 With door interlock in I (On) position → Page 07/013	Surface mounting main switches (.../I...) 4 IP65  To IEC/EN 60 204 and IEC/EN 60 947-3, up to 8 contacts for T0..., and up to 10 contacts for T3 0 (Off) position lockable using up to 3 padlocks Enclosures designed for metric cable glands to EN 50 262 With PE terminal → Page 07/013	Thumb-grip for use in Emergency-Stop devices 8 To IEC/EN 60 204-1 Red thumb-grip with yellow front plate → Page 07/062
Flush mounting (.../E) 3 Front IP65 Fitting and connection from the rear Terminal: Pozidriv plus-minus screw Finger and back-of-hand proof Type T8 with extension terminals as standard → Page 07/018	Safety switches (.../I...) 5 IP65  With PE terminal With cover fixing in the 0 (Off) position 0 (Off) position lockable using up to 3 padlocks Enclosures designed for metric cable glands to EN 50 262 With "Safety Switch" label Colour: orange For Switzerland: comply with the Swiss Accident Insurance Institute Directive → Page 07/024	Thumb-grip 9 Black thumb-grip with front plate → Page 07/062
Flush mounting main switches (.../EA/SVB) 3 Front IP65 To IEC/EN 60 204 and IEC/EN 60 947-3, up to 8 contacts for T0..., and up to 12 contacts for T3 N terminal and PE terminal → Page 07/012	Coupling drive 10 Includes push-fit shaft For retrofitting T0(T3)-.../XZ basic switches in the rear mounting form Spare parts 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 07/066	

P Switch-Disconnectors




System Overview

P1, P3 On-Off switches



P Switch-Disconnectors

System Overview

Service distribution board mounting (.../IVS) 1	Flush mounting main switches (.../EA/SVB) 3	Safety switches (.../I...-SI) 6
Front IP30	Front IP65	IP65 
Fitting dimensions to DIN 43 880	To IEC/EN 60 204 and IEC/EN 60 947-3	With PE terminal
For snap fitting to EN 50 022 top-hat rail	N terminal and PE terminal	With cover fixing in the 0 (Off) position
Space requirement	0 (Off) position lockable using up to 3 padlocks	0 (Off) position lockable using up to 3 padlocks
P1, 3-pole: 3 space units	2 add-on modules can be fitted (or retrofitted)	With "Safety Switch" label
P3, 3-pole: 4 space units		Colour: orange
P3-.../IVS can be locked in 0 (Off) position using the padlocking feature		Enclosures designed for metric cable glands to EN 50 262
	→ Page 07/012	For Switzerland: comply with the Swiss Accident Insurance Institute Directive
→ Page 07/019		→ Page 07/024
Rear mounting (.../Z) 2	Centre mounting (.../EZ) 3	Main switch (assembly kit) for use as Emergency-Stop device 7
Front IP65	Front IP65	To IEC/EN 60 204-1
Secured by snap fitting or screw fixing	Mounting in \varnothing 22.3 fixing hole to IEC/EN 60 947-5-1	With red rotary handle and yellow locking collar
	Centre fixing permits installation by one fitter	Lockable in the 0 (Off) position
For snap fitting to EN 50 022 top-hat rail	→ Page 07/019	→ Page 07/062
Coupling drive in door or cover	Add-on modules 4	Main switch (assembly kit) 8
Connection from the front	Switched neutral (early-make contact)	Black rotary handle and locking collar
2 add-on modules can be fitted (or retrofitted)	HI 11 auxiliary contact = 1 make contact + 1 break contact	Lockable in the 0 (Off) position
→ Page 07/019	Finger-proof	→ Page 07/062
Rear mounting main switches (.../V/SVB) 2	Auxiliary make contact: always connected as load-shedding contact (late-make, early-break)	Thumb-grip for use in Emergency-Stop devices 9
Front IP65	→ Page 07/064	To IEC/EN 60 204-1
To IEC/EN 60 204 and IEC/EN 60 947-3	Surface mounting (.../I...) 5	Red thumb-grip with yellow front plate
With door interlock in I (On) position	IP65 	→ Page 07/062
Maintenance key for commissioning or fault tracing	With PE terminal	Thumb-grip 10
0 (Off) position lockable using up to 3 padlocks	Add-on modules for retrofitting: P1: + 1, P3: + 2	Black thumb-grip with front plate
2 add-on modules can be fitted (or retrofitted)	Enclosures designed for metric cable glands to EN 50 262	→ Page 07/062
→ Page 07/013	→ Page 07/019	Coupling drive 11
Flush mounting (.../E) 3	Surface mounting main switches (.../I...) 5	Includes push-fit shaft
Front IP65	IP65 	For retrofitting T0(T3)-.../XZ basic switches in the rear mounting form Spare parts for T0(T3)/(P1)-.../Z
Fitting and connection from the rear	With PE terminal	For retrofit conversion of T5(B)-.../E flush mounting switches to rear mounting form Spare part for T5(B)-.../Z
Terminal: Pozidriv plus-minus screw	To IEC/EN 60 204 and IEC/EN 60 947-3	→ Page 07/066
Finger and back-of-hand proof	0 (Off) position lockable using up to 3 padlocks	
2 add-on modules can be fitted (or retrofitted)	Add-on modules for retrofitting: P1: + 1, P3: + 2	
→ Page 07/018	Enclosures designed for metric cable glands to EN 50 262	
	→ Page 07/013	

T Rotary Switches, P Switch-Disconnectors

Key to Type References, Modular System

Rotary switches are suitable for many different switching and control functions, e.g. as On-Off switches, main switches, main circuit/auxiliary circuit control switches, instrument selector switches.

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

The contact chamber (contact unit) contains 1 or 2 contacts.

Our "T Rotary Switches" catalogue, K115, shows more than 800 often used standard contact sequences (available on request).

On the following Pages, you will find a selection of the standard contact sequences we offer.

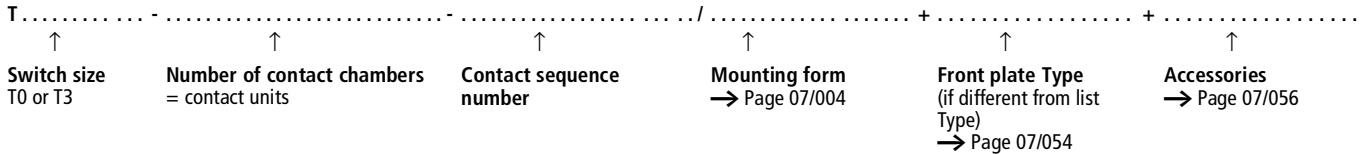
T rotary switches and P switch-disconnectors are manufactured without PCB, CFC, asbestos or silicon. The contacts are cadmium-free.

The CI-K insulated enclosures do not contain silicon

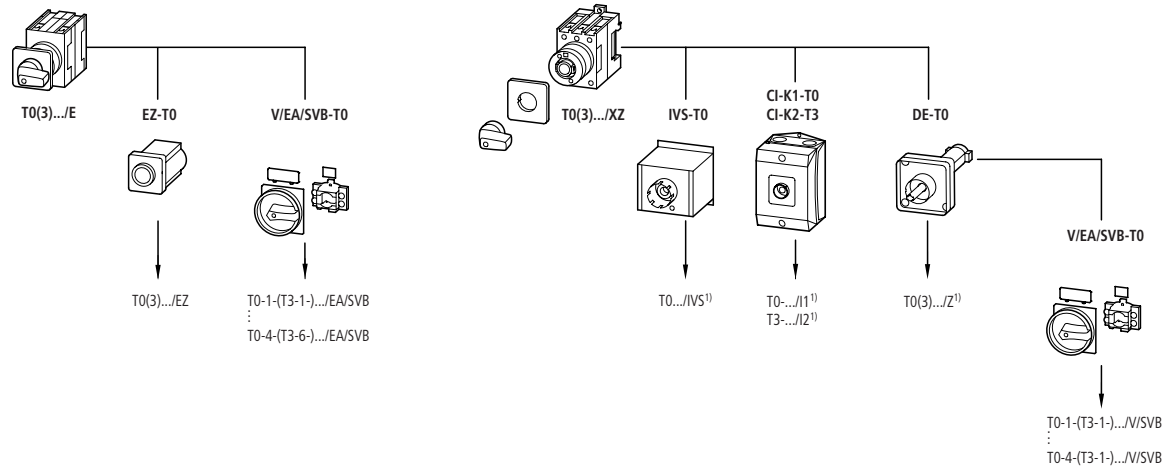
Technical Data for CI-K small enclosures: → See Installation Equipment Catalogue, HPL0212-2000GB

T0 and T3 rotary switches

Key to type references

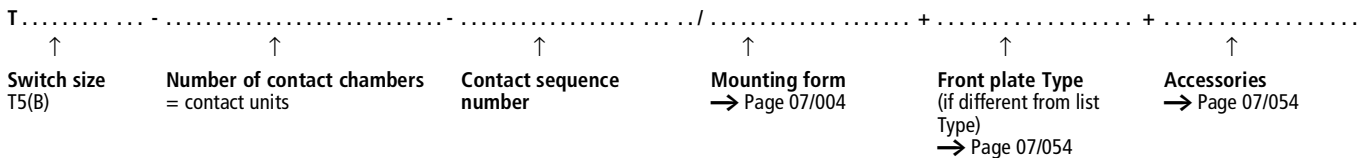


Using the modular system to convert the mounting form

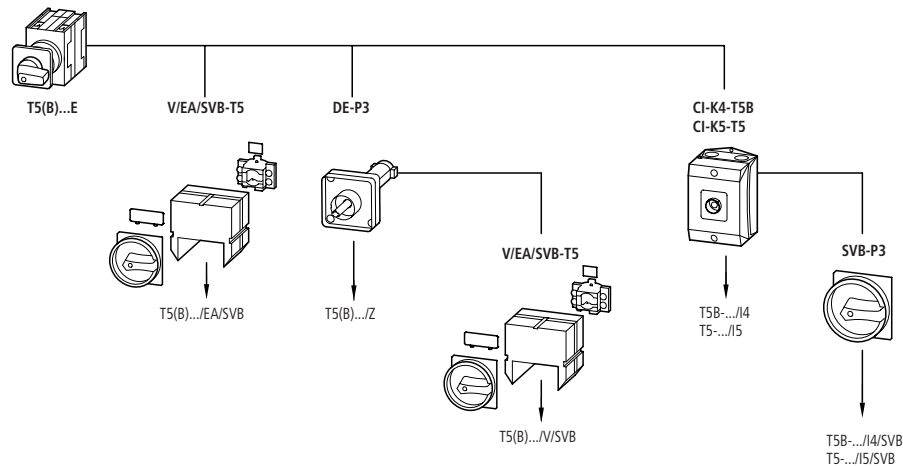


T5(B) rotary switches

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.

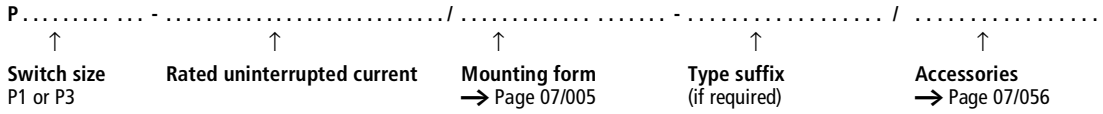
¹) Includes shaft

T Rotary Switches, P Switch-Disconnectors

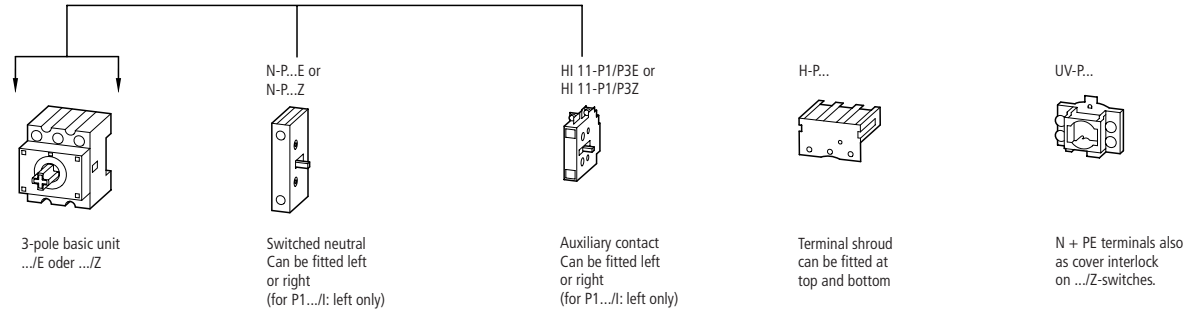
Key to Type References, Modular System

P1 and P3 switch-disconnectors

Key to type references



The modular system offers add-on functions

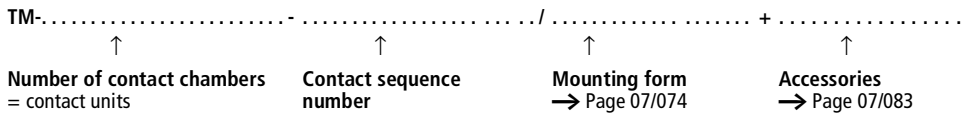


TM mini rotary switches

The TM rotary switch requires very little space due to its exceptionally small dimensions. It is particularly well suited for switching the low voltages and low currents which occur in electronic control panels, for example. The gold-plated contacts provide extra reliability and safety.

TM mini rotary switches have consecutive terminal markings, beginning with 1.

Key to type references

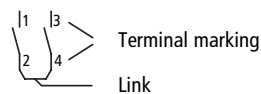


Circuit diagrams

on Pages 07/012 – 053
and 07/074 – 082

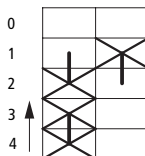
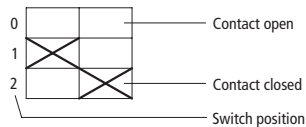
Example:

(see also Ordering Example on Page 07/111)



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

Switching from 1 to 2:
Contact 1 – 2 closes with early make,
Contact 3 – 4 opens with late break.

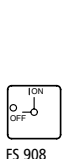
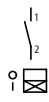
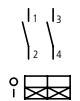
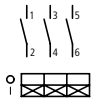
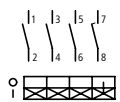
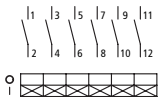
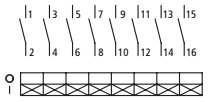


Switching from 2 to 3:
Contact 1 – 2 opens briefly.

Switching from 3 to 4:
Contact 1 – 2 remains closed,
Automatic return from 4 to 3.

T Rotary Switches, P Switch-Disconnectors

Main Switches, Maintenance Switches

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_u	Basic type For ... insert mounting form	For use as	
				AC-3 220 V 230 V 240 V	380 V 400 V 440 V	660 V 690 V			Flush mounting Front IP65	
		No. of poles							Mounting form Article no.	Price See Price List
		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 ⁴⁾	T5-4-8344/...	EA/SVB 095961	


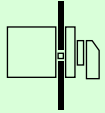
Standard pack: 1 off

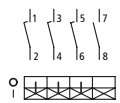
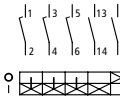
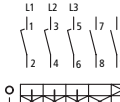
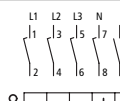
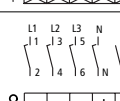
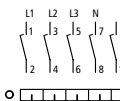
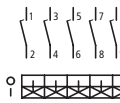
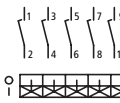
Notes

- ¹⁾ To IEC/EN 60 204-1; 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 07/070

T Rotary Switches, P Switch-Disconnectors

Main Switches with Auxiliary Contacts, Maintenance Switches

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	For use as Flush mounting Front IP65
		No. of poles		AC-3			I_u	
	FS 908			220 V	380 V	660 V		 Mounting form Article no.
		M	M B	230 V	400 V	690 V	A	
				240 V	440 V			

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	25	P1-25/...	EA/SVB/HI11 091080
				7.5	13	15	32	P1-32/...	EA/SVB/HI11 072567
				15	30	30	63	P3-63/...	EA/SVB/HI11 019891
				22	37	37	100	P3-100/...	EA/SVB/HI11 029383
	3	2	1	3	4	4	20	T0-3-15683/...	EA/SVB 015571
				6.5	12	15	32	T3-3-15683/...	EA/SVB 040478
	3+N	1	1	3	4	4	20	T0-3-15680/...	EA/SVB 038875
				6.5	12	15	32	T3-3-15680/...	EA/SVB 012002
	3+N	1	1	5.5	7.5	7.5	25	P1-25/...	EA/SVB/N/HI11 048367
				7.5	13	15	32	P1-32/...	EA/SVB/N/HI11 057859
				15	30	30	63	P3-63/...	EA/SVB/N/HI11 067351
				22	37	37	100	P3-100/...	EA/SVB/N/HI11 076843
	3+N	1	1	3	4	4	20	T0-3-15681/...	EA/SVB 086335
				6.5	12	15	32	T3-3-15681/...	EA/SVB 026240
				15	22	22	63	T5B-3-8901/...	EA/SVB 207420
				18.5	30	30	100	T5-3-8901/...	EA/SVB 207408
	6	1	1	3	4	4	20	T0-4-15682/...	EA/SVB 019892
				6.5	12	15	32	T3-4-15682/...	EA/SVB 054716
				15	22	22	63	T5B-4-15682/...	EA/SVB 207425
				18.5	30	30	100	T5-4-15682/...	EA/SVB 207413
	6	1	1	22	42	22	160	T6-160-6/...	–
				37	55	37	315 ³⁾	T8-3-8342/...	–




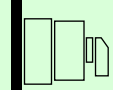

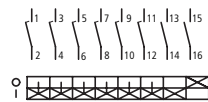
Standard pack: 1 off

Notes

- 1) To IEC/EN 60 204-1; 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 07/070
- 5) Enclosures without flanges, with K95/1N/BR

T Rotary Switches, P Switch-Disconnectors

Main Switches, Maintenance Switches in Sheet Steel Enclosures

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		For use as Emergency-Stop device ¹⁾ Surface mounting IP65
		No. of poles		AC-3			I_u		
				220 V	380 V	660 V			Basic type For ... insert mounting form
	FS 908			230 V	400 V	690 V			
		M	M B	kW	kW	kW	A		
Main switches in sheet steel enclosures									
		3	0 0	3	4	4	20	T0-2-1/...	ST/SVB 025528
				5.5	7.5	7.5	25	P1-25/...	ST/SVB 025523
				7.5	13	15	32	P1-32/...	ST/SVB 025522
				15	30	30	63	P3-63/...	ST/SVB 025521
				22	37	37	100	P3-100/...	ST/SVB 025520
Main switches with auxiliary contacts									
		6	1 1	3	4	4	20	T0-4-15682/...	ST/SVB 025527
				6.5	12	15	32	T3-4-15682/...	ST/SVB 025526
				15	22	22	63	T5B-4-15682/...	ST/SVB 215328
				18.5	30	30	100	T5-4-15682/...	ST/SVB 215330

Standard pack: 1 off

Notes

- ¹⁾ To IEC/EN 60 204-1; 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

T Rotary Switches, P Switch-Disconnectors

On-Off Switches

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	Basic type For ... insert mounting form	Flush mounting Front IP65	Price See Price List
				AC-3 220 V 230 V 240 V	380 V 400 V 440 V	660 V 690 V				
		No. of poles								
	FS 908	M	M B	kW	kW	kW	A		Mounting form Article no.	
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 ³⁾	T5-4-8344/...	E 095963	

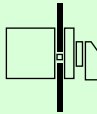

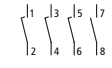
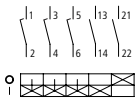
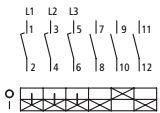
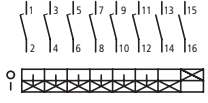
Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and grey front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

T Rotary Switches, P Switch-Disconnectors

On-Off Switches with Auxiliary Contacts

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	Basic type For ... insert mounting form	Flush mounting Front IP65 	Mounting form Article no.	Price See Price List
		No. of poles		AC-3			I_u				
	FS 908	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/HI11 045998		
				7.5	13	15	32	P1-32/...	E/HI11 062609		
				15	30	30	63	P3-63/...	E/HI11 079220		
				22	37	37	100	P3-100/...	E/HI11 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		

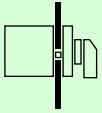

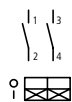
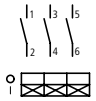
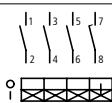
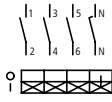
Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and grey front plate
²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

T Rotary Switches, P Switch-Disconnectors

On-Off Switches

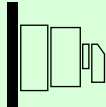


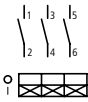
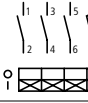
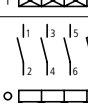
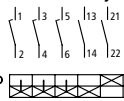
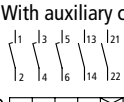
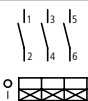
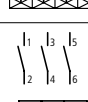
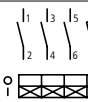
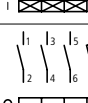
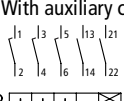
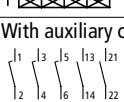
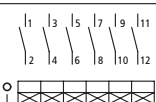
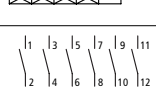
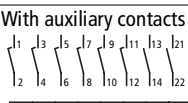
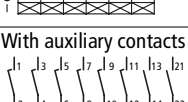
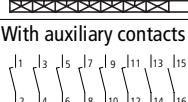
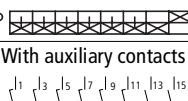
Circuit diagram	Front plate no.	Main contacts	Auxiliary contacts	Max. three-phase motor rating (per set of 3 contacts) 50–60 Hz			Rated uninterrupted current	Basic type For ... insert mounting form	Flush mounting Front IP65 	Price See Price List
		No. of poles		AC-3			I_u			
				220 V	380 V	660 V				
				230 V	400 V	690 V				
				240 V	440 V					
	FS 908 GE	M	M B	kW	kW	kW	A		Mounting form Article no.	
On-Off switches for use as Emergency-Stop devices¹⁾										
		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	30	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	30	30	63	P3-63/...	E-RT/N 007136	
				22	37	37	100	P3-100/...	E-RT/N 007280	

Standard pack: 1 off

Notes¹⁾ To IEC/EN 60 204-1; with red thumb-grip and yellow front plate²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

T Rotary Switches, P Switch-Disconnectors

Safety Switches

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_u	For use as Emergency-Stop device ¹⁾ Surface mounting totally insulated IP65		Type Article no.	Price See Price List
		No. of poles				AC-3 220 V 230 V 240 V	380 V 400 V 440 V	660 V 690 V					
 FS 908													
		M	M	B	kW	kW	kW	A					
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	
					7.5	13	15	32				P1-32/I2-SI/HI11 207331	
 		3	0	0	15	30	30	63				P3-63/I4-SI 207361	
					22	37	37	100				P3-100/I5-SI 207386	
 		3+N	0	0	15	30	30	63				P3-63/I4-SI/N 207365	
					22	37	37	100				P3-100/I5-SI/N 207390	
With auxiliary contacts  		3	1	1	15	30	30	63				P3-63/I4-SI/HI11 207363	
					22	37	37	100				P3-100/I5-SI/HI11 207388	
 		6	0	0	15	22	22	63				T5B-3-8342/I4-SI 207250	
					18.5	30	30	100				T5-3-8342/I5-SI 207447	
With auxiliary contacts  		6	1	1	15	22	22	63				T5B-4-15682/I4-SI 207254	
					18.5	30	30	100				T5-4-15682/I5-SI 207285	
With auxiliary contacts  		6	2	0	15	22	22	63				T5B-4-8903/I4-SI 207258	
					18.5	30	30	100				T5-4-8903/I5-SI 207289	



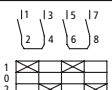

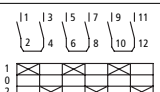

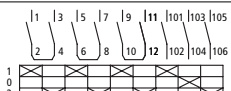

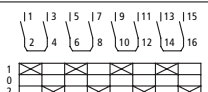

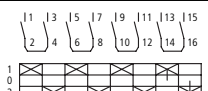

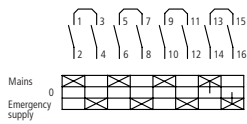

Standard pack: 1 off

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 07/070

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 current I_u	Basic type For ... insert mounting form	Flush mounting Front IP65	Mounting form Article no.	Price See Price List
			AC-3 220 V 230 V 240 V	380 V 400 V 440 V	660 V 690 V					
Changeover switches with 0 (Off) position ¹⁾										
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	
	 FS 684	3	22	37	22	125	T6-3-8212/...	E/HI12	214781	
			37	55	37	315	T8-3-8212/...	E/HI12	214782	
						63			T5B-4-8213/...	E
	 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	
	 FS 953	4	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	4	6.5	12	15	32	T3-4-8902/...	E	215222	
			15	22	22	63	T5B-4-8902/...	E	207430	
			18.5	30	22	100	T5-4-8902/...	E	207418	


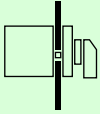


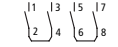
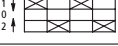
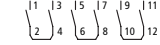

Standard pack: 1 off

Notes

- 1) With black thumb-grip and grey front plate
- 2) Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

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 uninterrupted current I_u		Flush mounting Front IP65	
	FS 4011	M	AC-3 220 V 230 V 240 V	380 V 400 V 440 V	660 V 690 V				
			kW	kW	kW	A	Basic type For ... Insert mounting form	Mounting form Article no.	Price See Price List
Changeover switches with 0 (Off) position¹⁾									
With spring-return from both directions to 0									
		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	





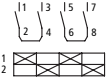

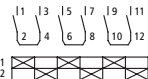

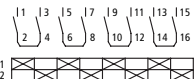

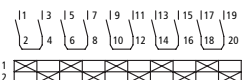
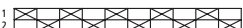
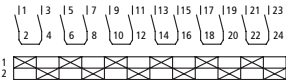

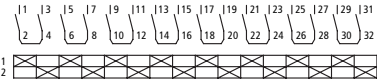

Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and grey front plate
²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

T Rotary Switches

Control Switches: Changeover Switches

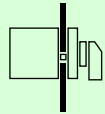
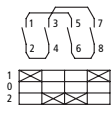

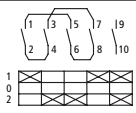

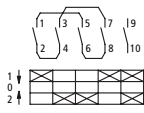

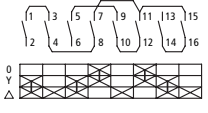

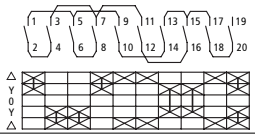

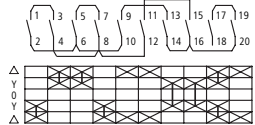

Circuit diagram	Front plate no.	Max. three-phase motor rating (per set of 3 contacts) 50–60 Hz			Rated uninterrupted current I_u		Flush mounting Front IP65
		No. of poles	AC-3				
			220 V	380 V	660 V		
			230 V	400 V	690 V		
	FS 943	M	kW	kW	kW	A	
							Basic type For ... insert mounting form
							Mounting form Article no.
							Price See Price List
Changeover switches without 0 (Off) position¹⁾							
Changeover switches							
	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

Notes¹⁾ With black thumb-grip and grey front plate²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

T Rotary Switches

Control Switches: Reversing Switches, Star-Delta Switches

Circuit diagram	Front plate no.	No. of poles	Max. three-phase motor rating (per set of 3 contacts) 50–60 Hz			Rated un-interrupted current I_u	Basic type For ... insert mounting form	Flush mounting Front IP65 	Price See Price List	
			AC-3 220 V 230 V 240 V	380 V 400 V 440 V	660 V 690 V	M				kW
Reversing switches with 0 (Off) 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⁾										
Two-way switches										
	 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-5-15876/...	E 214785		

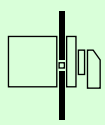
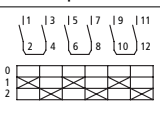

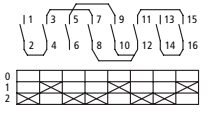

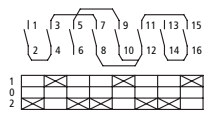

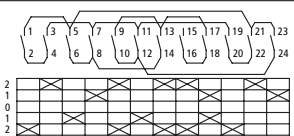


Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and grey front plate
²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

T Rotary Switches

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

Circuit diagram	Front plate no.	No. of poles	Max. three-phase motor rating (per set of 3 contacts) 50–60 Hz			Rated un-interrupted current I_u	Basic type For ... insert mounting form	Flush mounting Front IP65 	Price See Price List
			AC-3 220 V 230 V 240 V	380 V 400 V 440 V	660 V 690 V				
Multi-speed switches¹⁾									
Two-speed, non reversing For 2 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, two directions 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	
			15	22	22	63	T5B-7-15866/...	E 214788	
	 FS 441								



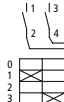

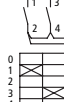

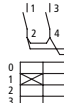

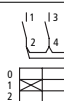

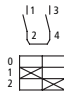

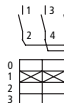
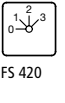
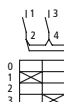
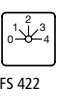
Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and grey front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

T Rotary Switches

Control Switches: Step Switches

Circuit diagram	Front plate no.	No. of poles	Steps	Basic type For ... insert mounting form	Flush mounting Front IP65		Centre mounting Front IP65	
					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) With additional 0 (Off) position								
		1	2	T0-1-8240/...	E 034105		EZ 043597	
		1	3	T0-2-8241/...	E 050716		EZ 053089	
		1	4	T0-2-8242/...	E 067327		EZ 069700	
		1	5	T0-3-8243/...	E 081565		EZ 083938	
		1	6	T0-3-8244/...	E 095803		EZ 098176	
		3	2	T0-3-8280/...	E 034106		EZ 036479	
		3	3	T0-5-8281/...	E 048344		EZ 050717	
		3	4	T0-6-8282/...	E 062582		EZ 064955	

Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and grey front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

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 IP65		Centre mounting Front IP65	
					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 (Off) position								
		1	2	T0-1-8220/...	E 031728		EZ 095799	
		1	3	T0-2-8230/...	E 088685		EZ 091058	
		1	4	T0-2-8231/...	E 012750		EZ 015123	
		1	5	T0-3-8232/...	E 026988		EZ 029361	
		1	6	T0-3-8233/...	E 041226		EZ 043599	
		3	2	T0-3-8222/...	E 048339		EZ 015118	
		3	3	T0-5-8270/...	E 091059		EZ 093432	
		3	4	T0-6-8271/...	E 015124		EZ 017497	

Standard pack: 1 off

Notes

- 1) With black thumb-grip and grey front plate
- 2) Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

T Rotary Switches

Control Switches: On-Off Switches, Changeover Switches

Circuit diagram	Front plate no.	No. of poles	Basic type For ... insert mounting form	Flush mounting Front IP65		Centre mounting Front IP65	
				Mounting form Article no.	Price See Price List	Mounting form Article no.	Price See Price List
On-Off switches¹⁾							
		1	T0-1-15401/...	E 038854		EZ 041227	
		2	T0-1-15402/...	E 053092		EZ 055465	
		3	T0-2-15403/...	E 067330		EZ 069703	
		4	T0-2-15404/...	E 081568		EZ 083941	
Changeover switches¹⁾							
		1	T0-1-15421/...	E 095806		EZ 098179	
		2	T0-2-15422/...	E 019871		EZ 022244	
		3	T0-3-15423/...	E 034109		EZ 036482	

Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and grey front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

T Rotary Switches

Control Switches: Hand/Auto Switches

Circuit diagram	Front plate no.	No. of poles	Basic type For ... insert mounting form	Flush mounting Front IP65		Centre mounting Front IP65	
				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 07/052 With 0 (Off) position							
	FS 1401	1	T0-1-15431/...	E 019872		EZ 022245	
	FS 1401	2	T0-2-15432/...	E 034110		EZ 036483	
	FS 1401	3	T0-3-15433/...	E 048348		EZ 050721	
With spring-return from HAND							
	FS 1414000	1	T0-1-15434/...	E 062586		EZ 018053	
	FS 1414000	2	T0-2-15435/...	E 003191		EZ 003192	
With spring-return from START							
	FS 1413890	1	T0-2-15907/...	E 066931		EZ 069304	
Without 0 (Off) position							
	FS 19334	1	T0-1-15451/...	E 076824		EZ 079197	
	FS 19334	2	T0-2-15452/...	E 091062		EZ 093435	
	FS 19334	3	T0-3-15453/...	E 015127		EZ 017500	

Standard pack: 1 off

Notes

1) With black thumb-grip and grey front plate

2) Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

T Rotary Switches

Control Switches: Spring-Return Switches

Circuit diagram	Front plate no.	No. of poles	Basic type For ... insert mounting form	Flush mounting Front IP65		Centre mounting Front IP65	
				Mounting form Article no.	Price See Price List	Mounting form Article no.	Price See Price List
On-switch (make contact)¹⁾ Spring-return from position 1							
		1	T0-1-15321/...	E 086317		EZ 088690	
		2	T0-1-15322/...	E 010382		EZ 012755	
		3	T0-2-15323/...	E 024620		EZ 026993	
On-Off switch¹⁾ Spring-return from positions 0 and 1							
		1	T0-1-15366/...	E 081572		EZ 083945	
On-Off switch¹⁾ Spring-return from START							
		1	T0-1-15511/...	E 019875		EZ 022248	
		2	T0-2-15512/...	E 034113		EZ 036486	
		3	T0-3-15513/...	E 048351		EZ 050724	
		See K115	T0-2-8177/...	E 015130		EZ 017503	

Standard pack: 1 off

Notes

- ¹⁾ With black thumb-grip and grey front plate
- ²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

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 IP65		Centre mounting Front IP65		
				Mounting form Article no.	Price See Price List	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 (Off) position (heater switches)								
		1	T0-1-91/...	E 072082		EZ 074455		

Standard pack: 1 off

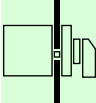
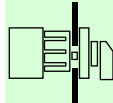
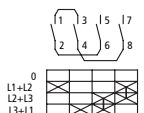

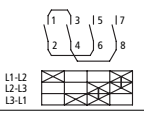

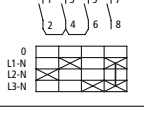

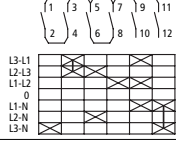

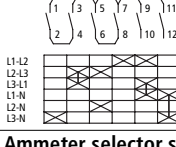

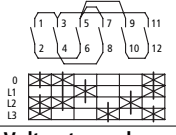

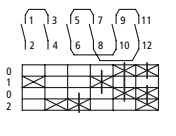

Notes

¹⁾ With black thumb-grip and grey front plate

²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

T Rotary Switches

Control Switches: Instrument Selector Switches

Circuit diagram	Front plate no.	No. of poles		Flush mounting Front IP65		Centre mounting Front IP65
						
				Basic type For ... insert mounting form	Mounting form Article no.	Price See Price List
					Mounting form Article no.	Price See Price List
Voltmeter selector switches¹⁾						
	 FS 1410755	3 × phase to phase with 0 (Off) position	T0-2-15920/...	E 038861		EZ 041234
	 FS 164854	3 × phase to phase without 0 (Off) position	T0-2-15922/...	E 053099		EZ 055472
	 FS 1410757	3 × phase to N with 0 (Off) position	T0-2-15921/...	E 067337		EZ 069710
	 FS 1410759	3 × phase to phase + 3 × phase to N with 0 (Off) position	T0-3-8007/...	E 095813		EZ 098186
	 FS 164721	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 selector switches¹⁾						
With complete rotation in both directions						
Measurement via current transformers						
	 FS 9440	With 0 (Off) position	T0-3-8048/...	E 034116		EZ 036489
Voltmeter and ammeter selector switches¹⁾						
With complete rotation in both directions						
Measurement via current transformers (For other circuits → catalogue K115)						
	 FS 928	With 0 (Off) position	T0-3-8030/...	E 013401		EZ 013402

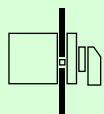
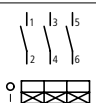

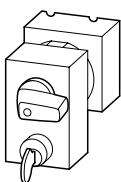
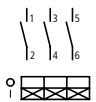

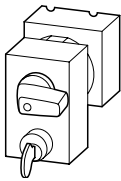
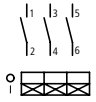

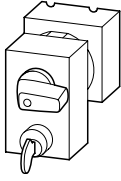
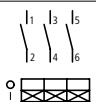

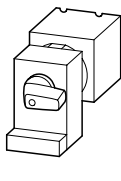
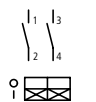


Standard pack: 1 off

Notes

¹⁾ With black thumb-grip and grey front plate²⁾ Enclosure designed for metric cable glands to EN 50 262, cable glands → Page 07/070

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 IP65	Type Article no.	Price See Price List
			AC-3 220 V 230 V 240 V	380 V 400 V 440 V	660 V 690 V	I_u A			
Switches with locking arrangements, KMS1 lock mechanism									
Panic switches without Emergency-Stop function¹⁾									
With SVA cylinder lock									
Key withdrawable 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									
	 FS 908	3	3	4	4	20		T0-2-1/E/SVA(S) 050977	
			4	5.5	7.5	25		P1-25/E/SVA(S) 050966	
			5.5	11	15	32		P1-32/E/SVA(S) 044977	
			5.5	11	15	32		T3-2-1/E/SVA(S) 050983	
On-Off switch without Emergency-Stop function¹⁾									
With SVA cylinder lock									
Key withdrawable in 0 position only (code letter A)									
	 FS 908	3	3	4	4	20		T0-2-1/E/SVA(A) 050976	
			4	5.5	7.5	25		P1-25/E/SVA(A) 050965	
			5.5	11	15	32		P1-32/E/SVA(A) 050970	
			5.5	11	15	32		T3-2-1/E/SVA(A) 050982	
Panic switches with Emergency-Stop function²⁾									
With SVA cylinder lock									
Key withdrawable 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									
	 FS 908 GE	3	3	4	4	20		T0-2-1/E/SVA(S)-RT 228971	
			4	5.5	7.5	25		P1-25/E/SVA(S)-RT 050967	
			5.5	11	15	32		P1-32/E/SVA(S)-RT 050971	
			5.5	11	15	32		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 using up to 3 padlocks.									
	 FS 908 GE	3	3	4	4	20		T0-2-1/E/SVC(S)-RT 044973	
			4	5.5	7.5	25		P1-25/E/SVC(S)-RT 044974	
			5.5	11	15	32		P1-32/E/SVC(S)-RT 044975	
			5.5	11	15	32		T3-2-1/E/SVC(S)-RT 044976	
On-Off switches without Emergency-Stop function¹⁾									
With S-T0 key operation									
Key withdrawable in position 0 only (code letter A)									
	 FS 908	2	2.2	2.2	–	20		T0-1-102/EZ/S 014933	

Notes

¹⁾ With black thumb-grip and grey front plate

²⁾ To IEC/EN 60204-1; with red thumb-grip and yellow front plate

T Rotary Switches

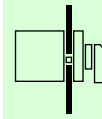
Switches with Locking Arrangements

Circuit diagram

Front plate no.

Rated uninter-rupted current

Flush mounting
Front IP65



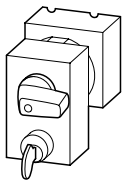
I_u
A

Type
Article no.

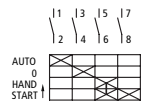
Price
See Price List

Switches with locking arrangements, KMS1 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 first removing the padlock, but not position 0 (only admissible with separate Off switch)



FS 1413890

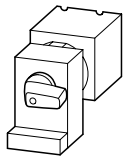
20

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

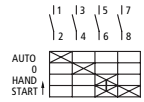
32

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 the key, but not position 0 (only admissible 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 07/070

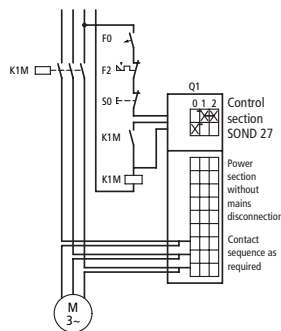
Contactor interlocking circuits

Control section for standard contactor interlocking circuits.

If a standard switch is to contain one of the contactor interlocking circuits as well, it can be ordered using another circuit number from catalogue K115, or as a non-standard switch.

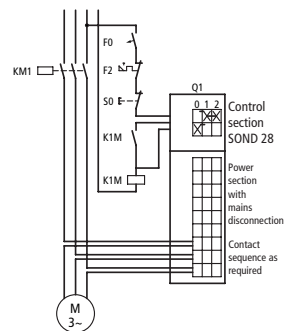
The electrical interlocking of rotary switch and contactor makes possible a wide range of control functions. For example: remote disconnection via a stop switch, overload protection via overload relays, protection against automatic restarting after a power failure or overload, and Off position interlocking, etc.

SOND 27



Mains disconnection **only** by contactor.
Restarting possible only with the rotary switch in the Off 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)

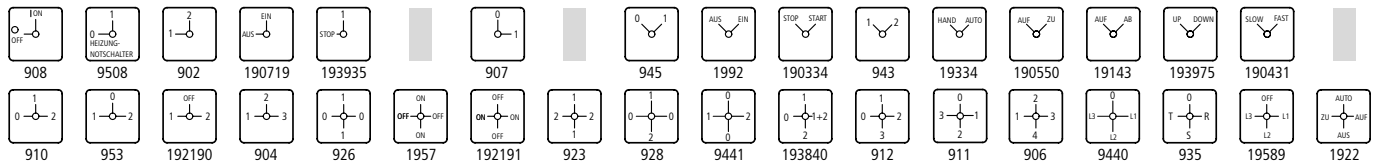
T Rotary Switches, P Switch-Disconnectors Front Plates

Switch size	Dimensions	Standard front plates			Emergency-Stop front plates Yellow		
		Type Article no. State the front plate no. required	Price See Price List	Std. pack	Type Article no.	Price See Price List	Std. pack
	mm						
Standard Front plates							
T0, T3, P1	45 × 45 (for frame size 48 × 48)	FS...-T0 903197		10 off	FS908 GE-T0 003198		5 off
P3, T5, T5B	84 × 84 (for frame size 88 × 88)	FS...-P3 995545		10 off	FS908 GE-P3 031475		5 off
TM	29 × 29 (for frame size 30 × 30)	-			-		

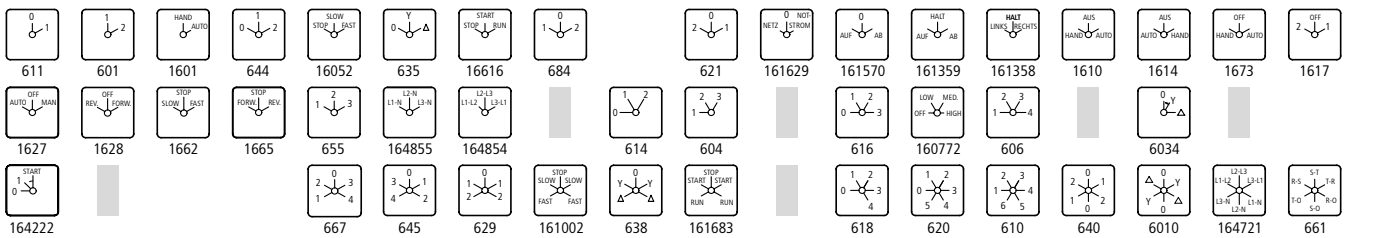
Standard front plates

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 (Off) position match.
Example: T0-1-8210/E+FS161570

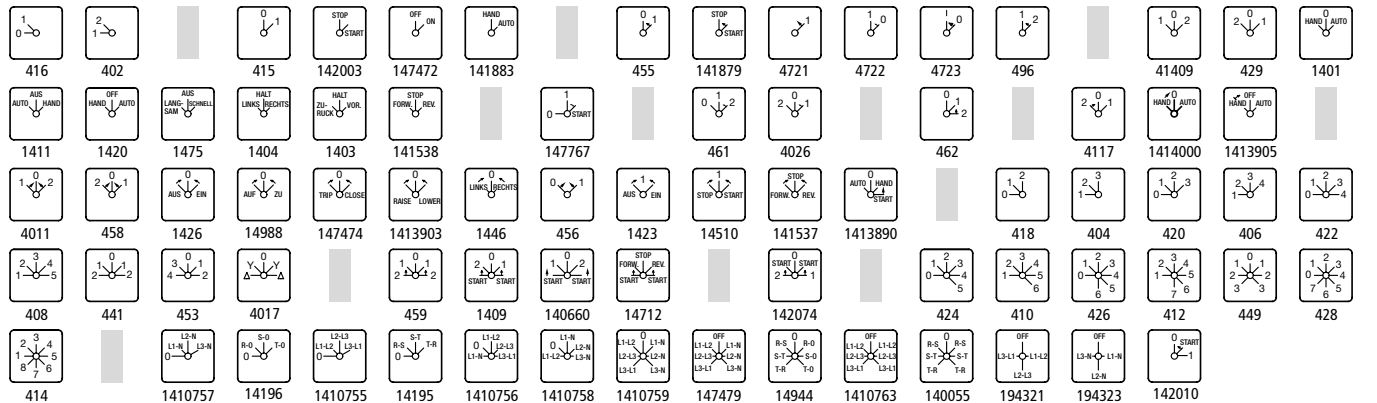
Switching angle 90°



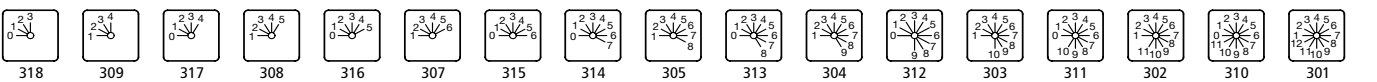
Switching angle 60°



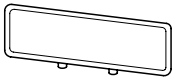

Switching angle 45°



Switching angle 30°

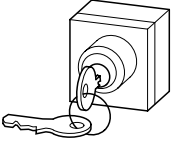
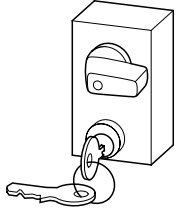


T Rotary Switches, P Switch-Disconnectors Accessories

For use with	Type suffix Article no. When ordered with basic unit	Price See Price List	Std. pack	Type Article no. When ordered separately	Price See Price List	Std. pack	
Add-on front plates, clip-on							
							
For use with front plates and for padlocking features. They comprise a black label mount and an 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	—		ZFS60-T0 019924		25 off	
With inscription: "Main switch - Open only in the Off position"	T.../E, T.../Z, P.../E, P.../Z 61/62 = German/English 63 = French 64 = Bulgarian 65 = Danish 66 = Finnish 67 = Dutch 68 = Italian 69 = Greek 70 = Norwegian 71 = Polish 72 = Portuguese 73 = Romanian 74 = Russian 75 = Swedish 76 = Serbo-Croat 77 = Spanish 78 = Czech 79 = Turkish 80 = Hungarian 81 = Afrikaans	+ZFS61/62-T0 065740 +ZFS63-T0 065741 +ZFS64-T0 205501 +ZFS65-T0 205502 +ZFS66-T0 205503 +ZFS67-T0 065744 +ZFS68-T0 065745 +ZFS69-T0 205504 +ZFS70-T0 205505 +ZFS71-T0 205506 +ZFS72-T0 205507 +ZFS73-T0 205508 +ZFS74-T0 205509 +ZFS75-T0 205510 +ZFS76-T0 205511 +ZFS77-T0 065746 +ZFS78-T0 205512 +ZFS79-T0 205513 +ZFS80-T0 205514 +ZFS81-T0 205515		1off	ZFS61/62-T0 030170 ZFS63-T0 047424 ZFS64-T0 205535 ZFS65-T0 205536 ZFS66-T0 205537 ZFS67-T0 065750 ZFS68-T0 065751 ZFS69-T0 205538 ZFS70-T0 205539 ZFS71-T0 205540 ZFS72-T0 205541 ZFS73-T0 205542 ZFS74-T0 205543 ZFS75-T0 205544 ZFS76-T0 205545 ZFS77-T0 065752 ZFS78-T0 205546 ZFS79-T0 205547 ZFS80-T0 205548 ZFS81-T0 205549		25 off
Label mounts, black							
							
	T.../I2/SVB(-SW) and P.../I2/SVB(-SW) except...I1, 2.../IVS T..., P..., except.../I1, 2, 3 .../IVS	—		ZFSX-T0 024670		25 off	

T Rotary Switches, P Switch-Disconnectors

Accessories

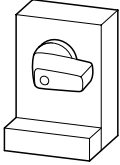
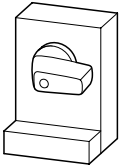



	For use with	Key withdrawal	Type suffix Article no. When ordered with basic unit	Price See Price List
S-T0 key operated lock mechanism, Front IP53				
Includes two keys				
				
KMS 1 lock mechanism Individual lock mechanism, not suitable for master key systems	T0-.../E, .../I1, .../Z Up to 6 contact units	Key withdrawal positions are programmed ex-works to match the switch	+S-T0 001753	
KMS 2-10 ¹⁾ lock mechanisms KMS 201-400 ¹⁾ lock mechanisms Individual lock mechanisms, not suitable for master key systems There is no master key for KMS...- lock mechanisms	T3-.../E, .../I2, .../Z Up to 5 contact units P1-.../E, .../I2, .../Z		+S-SOND(KMS...)-T0 903210	
(SAE) = Individual lock mechanism supplied with a security certificate			+S-SOND(SAE)-T0 003212	
(SA...) = Master key system (with master key) supplied with a security certificate. See also note below. ²⁾			+S-SOND(SA...)-T0 914737	
SVA-T3 cylinder lock, Front IP65				
Includes two keys				
				
Key withdrawable 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	
KMS 2-10 ¹⁾ lock mechanisms KMS 201-400 ¹⁾ lock mechanisms Individual lock mechanisms, not suitable for master key systems			+SVA-SOND-KMS...-T3 907739	
Key can be withdrawn in positions as specified				
KMS 1 lock mechanism Switches with FS 908 are suitable 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	Key withdrawal positions are programmed ex-works as ordered	+SVA(...)-T3 907737	
KMS 2-10 ¹⁾ lock mechanisms KMS 201-400 ¹⁾ lock mechanisms Individual lock mechanisms, not suitable for master key systems			+SVA(...)-SOND-KMS...-T3 907734	
(SAE) = Individual lock mechanism supplied with a security certificate			+SVA(...)-SOND-SAE-T3 907736	
(SA...) = Master key system (with master key) supplied with a security certificate. Order must include a lock plan (FO276) showing the full configuration of the envisaged lock system. For subsequent part orders, simply state the item number within the lock plan, e.g. (X4711, item 7). ²⁾			+SVA(...)-SOND(SA...)-T3 914735	

Notes

- ¹⁾ KMS 1: can be supplied ex-stock; KMS 2 – 10, 201 – 400 and master key systems: delivery time < 6 weeks from order receipt at the factory
- ²⁾ For subsequent orders, the keys must be ordered separately → Page 07/061


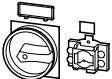



T Rotary Switches, P Switch-Disconnectors

Accessories

	For use with	Locking facility	Type suffix Article no. When ordered with basic unit	Price See Price List
SVC-T3 padlocking feature, Front IP65				
In the depressed position, the locking slide is lockable with up to 3 padlocks				
				
All positions 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 with F5908 may be used as main switches for	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 as ordered	+SVC(...)-T3 907740	
DTV-T3 push-button interlock, Front IP65				
Only after depressing the release button is it possible to switch from an unlocked position or range into a locked position or range, but not the reverse (protection against tampering). With a padlock in place when the release button is in the non-actuated position, it is not possible to switch into the locked positions.				
				
	T0-.../E, .../I1, .../Z T3-.../E, .../I2, .../Z P1-.../E, .../I2, .../Z Lockable using 2 padlocks	Lockable positions are programmed ex-works to match the switch	+DTV-T3 050961	
Specified positions locked Release mechanism can be locked in the non-actuated position with 1–2 padlocks		Lockable positions are programmed ex- works as ordered	+DTV(...)-T3 907733	
Locking cams (2 cams per set)				
For user to select indexing position in which key can be withdrawn	S-T0 for all switching angles		–	
				
For changing the locked positions/ranges	SVA-T3, SVC-T3, for all switching angles for DTV-T3: order 2 × VR-T3		–	
				
Keys				
				
For KMS 1 individual lock mechanism	S-T0, SVA-T3		–	
For KMS 2 – 10 individual lock mechanism or KMS 201 – 400	S-T0, SVA-T3		–	
For master key systems and recorded individual lock mechanisms: state lock plan no. and lock	S-T0, SVA-T3		–	

T Rotary Switches, P Switch-Disconnectors

Accessories

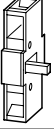
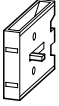
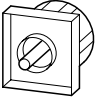

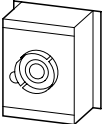
	For use with	Type suffix Article no. When ordered with basic unit	Price See Price List
Main switch assembly kits			
			
Padlocking feature, exclusively for main switches, to permit them to be used as Emergency-Stop devices ¹⁾ Admissible for T0 up to 4 contact units and for T3... up to 6 contact units	T0-.../E, .../Z, .../I1 T3-.../E, .../Z, .../I2 P1-.../E, .../Z, .../I2	+SVB-T0 026450	
	T5(B)-.../E, .../Z, .../I4 P3-63/E, .../Z, .../I4 P3-100/E, .../Z, .../I5	+SVB-P3 026364	
Padlocking feature, exclusively for main switches without Emergency-Stop function Black handle, black locking collar Admissible for T0 up to 4 contact units and for T3... up to 6 contact units	T0-.../E, .../Z, .../I1 T3-.../E, .../Z, .../I2 P1-.../E, .../Z, .../I2	+SVB-SW-T0 076917	
	T5(B)-.../E, .../Z, .../I4 P3-63/E, .../Z, .../I4 P3-100/E, .../Z, .../I5	–	
Main switch assembly kits, with PE terminal and N terminal			
			
Padlocking feature, exclusively for main switches, to permit them to be used as Emergency-Stop devices ¹⁾ Admissible for T0 up to 4 contact units and for T3... up to 6 contact units	T0-.../E, .../Z T3-.../E, .../Z	–	
	T5(B)-.../E, .../Z	–	
Padlocking feature, exclusively for main switches without Emergency-Stop function Black handle, black locking collar Admissible for T0 up to 4 contact units and for T3... up to 6 contact units	T0-.../E, .../Z T3-.../E, .../Z	–	
	T5(B)-.../E, .../Z	–	
Thumb-grips			
			
Black	T0-.../E, .../EZ, .../IVS, .../Z, .../I1 T3-.../E, .../EZ, .../IVS, .../Z, .../I2 P1-.../E, .../EZ, .../IVS, .../Z, .../I2	–	
Red	T0-.../E, .../IVS, .../Z, .../I1 T3-.../E, .../IVS, .../Z, .../I2 P1-.../E, .../IVS, .../Z, .../I2	+KNB-RT-T0 003214	
			
Black	T5(B)-.../E, .../Z, .../I4 P3-63/E, .../Z, .../I4 P3-100/E, .../Z, .../I5	–	
Red	T5(B)-.../E, .../Z, .../I4 P3-63/E, .../Z, .../I4 P3-100/E, .../Z, .../I5	+KNB-RT-P3 003215	
Maintenance keys			
For interlocked main switches	T0-.../V, T3-.../V, P1-.../V	–	
	T5(B)-.../V, P3-.../V	–	

Notes

¹⁾ To IEC/EN 60 204-1; with red rotary handle and yellow locking collar, lockable in 0 (Off) position



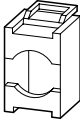

T Rotary Switches, P Switch-Disconnectors

Accessories

	For use with	Type suffix Article no. When ordered with basic unit	Price See Price List	Std. pack
Neutral poles				
Early-make, late-break				
				
Can be fitted to left and/or right of 3-pole P switch-disconnectors	P1-.../E, .../EA, .../EZ	-		
with P1-.../I2: optional N-P1Z or HI11-P1/P3Z can only be fitted to left	P1-.../Z, .../N, .../I2, .../ST, .../IVS	+N-P1Z 000416		1 off
	P3-.../E, .../EA...	-		
	P3-.../Z, .../N, .../IVS P3-63/E, .../Z, .../I4, .../ST P3-100/E, .../Z, .../I5, .../ST	+N-P3Z 009036		1 off
Auxiliary contacts				
1 make contact, 1 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		1 off
With P1-.../I2: HI11-P1/P3Z or N-P1Z can be fitted to left only	P1-.../Z, .../N, .../I2, .../ST, .../IVS P3-63/Z, .../N, .../I4, .../ST, .../IVS P3-100/Z, .../N, .../I5, .../ST, .../IVS	+HI11-P1/P3Z 064526		1 off
Centre mounting accessories				
For single-hole fitting Mounting diameter 22.3 mm				
				
With front plate	T0-.../E, T3-.../E	+EZ-T0 001750		1 off
Without front plate For engraved front plates	T0-.../E, T3-.../E	+EZ/OFS-T0 001751		1 off
Mounting diameter 22.3 mm and 30.5 mm	T0-.../E, T3-.../E, P1-.../E	+EZ-P1 026222		1 off
				
Service distribution board mounting accessories				
Includes push-fit shaft				
	T0-.../XZ	+IVS-T0 045472		1 off
				
For retrofitting T0-.../XZ basic switches as T0-.../IVS into service distribution boards				

T Rotary Switches, P Switch-Disconnectors

Accessories

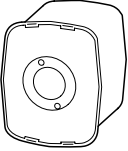
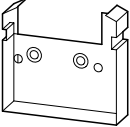
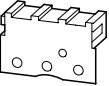
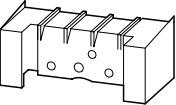
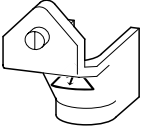
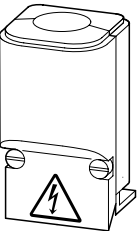
	For use with	Type suffix Article no. When ordered with basic unit	Price See Price List	Std. pack
Coupling drive				
Includes push-fit shaft				
				
For retrofitting T0(T3)-.../XZ basic switches in the rear mounting form Spare parts for T0(T3)/(P1)-.../Z				
-				
For conversion of T5 (B)-.../E flush mounting switch into a rear mounting switch Spare parts for T5(B)/(P3)-.../Z				
-				
Interlock sections				
				
With PE and N conductor connection				
T0-.../E, .../EZ T3-.../E, .../EZ P1-.../E, .../EZ		+UV-T0 038519		1 off
T5(B)-.../E P3-.../E		+UV-P3 030402		1 off
For cover or door interlock With PE and N conductor connection				
T0-.../Z T3-.../Z P1-.../Z		+UV-T0 038519		1 off
T5(B)-.../Z P3-.../Z		+UV-P3 030402		1 off
Interlock extensions¹⁾				
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-T0 024662		1 off
UV-P3		+ZVV-P3 024379		1 off
				
Shaft extensions				
Up to four off, 25 mm each, can be plugged onto switch shaft				
T0-.../Z T3-.../Z P1-.../Z		+ZAV-T0 023736		1 off
T5(B)-.../Z P3-.../Z		+ZAV-P3 026623		1 off
				

Notes

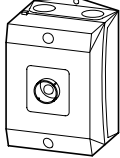
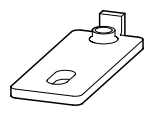
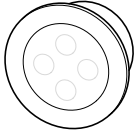
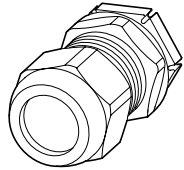
¹⁾ Use ZVV-T0 only with T0/T3-.../Z and P1-.../Z
Use ZVV-P3 only with T5(B)-.../Z and P3-.../Z

T Rotary Switches, P Switch-Disconnectors

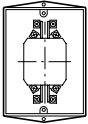

Accessories

	For use with	Type suffix Article no. When ordered with basic unit	Price See Price List
Sleeves/covers For flush-mounting switches with up to 4 contact units 	T0-.../E T3-.../E P1-.../E	-	
			
Cover for protection of terminals For up to 2 contact units	T5(B)-.../E, .../Z	-	
Extension of H1-T5 cover To protect 3 to 8 contact units	H1-T5	-	
To cover terminals on 3-pole switch-disconnectors 	P1-.../E, .../EZ, .../Z, .../EA, .../V P1-...N, ...H11, ...N...H11	-	
To cover terminals on 3-pole open switch-disconnectors with N neutral conductor and/or H11 auxiliary contact modules fitted 	P3-.../E, .../Z, .../EA, .../V P3-...N, ...H11, ...N...H11	-	
Cover assembly to protect the 6 terminals 	T6-160-6/...	-	
Cover assembly to protect the 6 terminals 	T8-3-8342/...	-	

T Rotary Switches, P Switch-Disconnectors Accessories

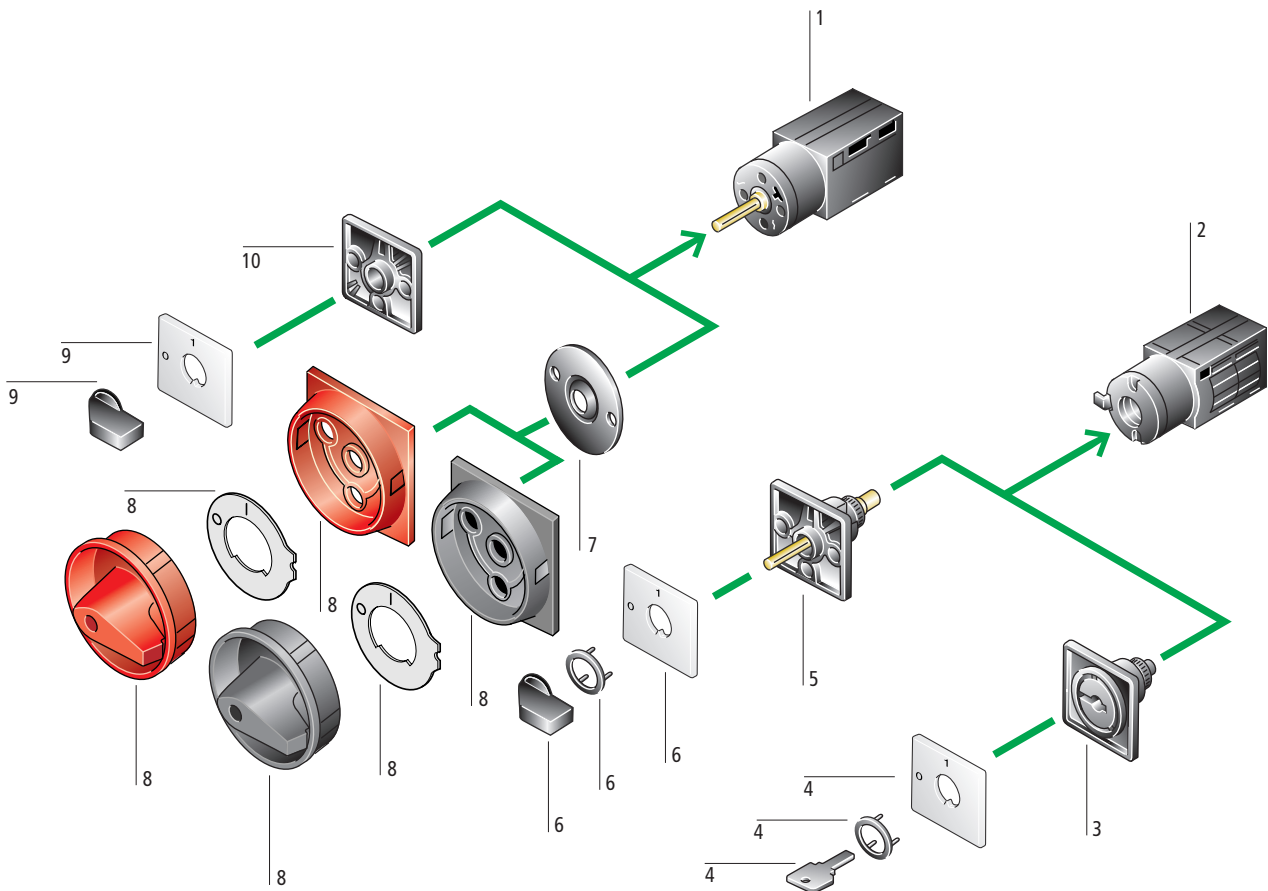
For use with		Type Article no.	Price See Price List	Std. pack																			
Insulated enclosures, IP65 <small>totally insulated</small>																							
Enclosures designed for metric cable glands to EN 50 262																							
																							
1 – 2 contact units	T0-.../XZ	CI-K1-T0-2 207435		1 off	Cable sizes which may be pushed through the diaphragm <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	CI-K2-T3-2 207437																					
3 – 4 contact units	T3-.../XZ	CI-K2-T3-4 225325																					
5 contact units	T3-.../Z	CI-K2-T3-5 207438																					
1 – 2 contact units	T5B-.../E	CI-K4-T5B-2 207439																					
3 – 4 contact units	T5B-.../Z	CI-K4-T5B-4 207440																					
1 – 2 contact units	T5-.../Z	CI-K5-T5-2 207441																					
3 – 4 contact units	T5-.../Z	CI-K5-T5-4 207442			Converts T5-.../Z into T5-.../I5 and T5B-.../E into T5B.../I4: Order AW-T5-... extension terminals in addition → Page 07/071																		
Neutral terminals																							
For connection of 5th conductor	T0-.../I1, CI-K1-T0-...	K-CI-K1/2 207451		20 off																			
	T3-.../I2, CI-K2-T3-...																						
	P1-.../I2																						
	T5B-.../I4, CI-K4-T5B-...	K-CI-K4 206916		20 off																			
	P3-.../I4																						
	T5-.../I5, CI-K5-T5-...	K-CI-K5 218488		1 off																			
	P3-.../I5																						
Set of external fixing brackets																							
	T5B-.../I4, T5-.../I5, P3-63/I4, P3-100/I5,	AB-CI-K4/5 206914		1 off	For fixing CI-K4 and CI-K5 directly to the wall One set comprises 4 brackets																		
																							
Metric diaphragm grommets																							
<ul style="list-style-type: none"> • IP65 • With integral push-through diaphragm 																							
	H03VV-F 3 × 0.75 mm ² , NYM 5 × 1.5/5 × 2.5 mm ²	KT-M20 207602		100 off	<table border="1"> <thead> <tr> <th>External cable diameter mm</th> <th>Cable entry</th> <th>Hole diameter mm</th> </tr> </thead> <tbody> <tr> <td>1 – 13</td> <td>M20</td> <td>20.5</td> </tr> <tr> <td>1 – 18</td> <td>M25</td> <td>25.5</td> </tr> <tr> <td>1 – 24</td> <td>M32</td> <td>32.5</td> </tr> </tbody> </table>	External cable diameter mm	Cable entry	Hole diameter mm	1 – 13	M20	20.5	1 – 18	M25	25.5	1 – 24	M32	32.5						
External cable diameter mm	Cable entry	Hole diameter mm																					
1 – 13	M20	20.5																					
1 – 18	M25	25.5																					
1 – 24	M32	32.5																					
	H03VV-F 3 × 0.75 mm ² , NYM 4 × 10 mm ²	KT-M25 207603																					
	H03VV-F 3 × 0.75 mm ² , NYM 4 × 16/5 × 10 mm ²	KT-M32 207604																					
																							
Metric cable glands to EN 50 262																							
<ul style="list-style-type: none"> • With lock nut and integral cable clamp • IP68 up to 5 bar, halogen free 																							
	H05VV-F 4 × 2.5/3 × 4 mm ² , NYM 5 × 1.5/5 × 2,5 mm ²	V-M20 206910		20 off	<table border="1"> <thead> <tr> <th>External cable diameter mm</th> <th>Cable entry</th> <th>Hole diameter mm</th> </tr> </thead> <tbody> <tr> <td>6 – 13</td> <td>M20</td> <td>20.5</td> </tr> <tr> <td>9 – 17</td> <td>M25</td> <td>25.5</td> </tr> <tr> <td>13 – 21</td> <td>M32</td> <td>32.5</td> </tr> <tr> <td>18 – 25</td> <td>M32</td> <td>32.5</td> </tr> <tr> <td>18 – 35</td> <td>M50</td> <td>50.5</td> </tr> </tbody> </table>	External cable diameter mm	Cable entry	Hole diameter mm	6 – 13	M20	20.5	9 – 17	M25	25.5	13 – 21	M32	32.5	18 – 25	M32	32.5	18 – 35	M50	50.5
External cable diameter mm	Cable entry	Hole diameter mm																					
6 – 13	M20	20.5																					
9 – 17	M25	25.5																					
13 – 21	M32	32.5																					
18 – 25	M32	32.5																					
18 – 35	M50	50.5																					
	H05VV-F 5 × 2.5/5 × 4 mm ² , NYM 5 × 2.5/5 × 6 mm ²	V-M25 206911		20 off																			
	NYM 5 × 10 mm ²	V-M32 206912		10 off																			
	NYM 5 × 16 mm ²	V-M32G 226156		10 off																			
	NYM 4 × 35/5 × 25 mm ²	V-M50 206913		5 off																			
																							

T Rotary Switches, P Switch-Disconnectors
Accessories

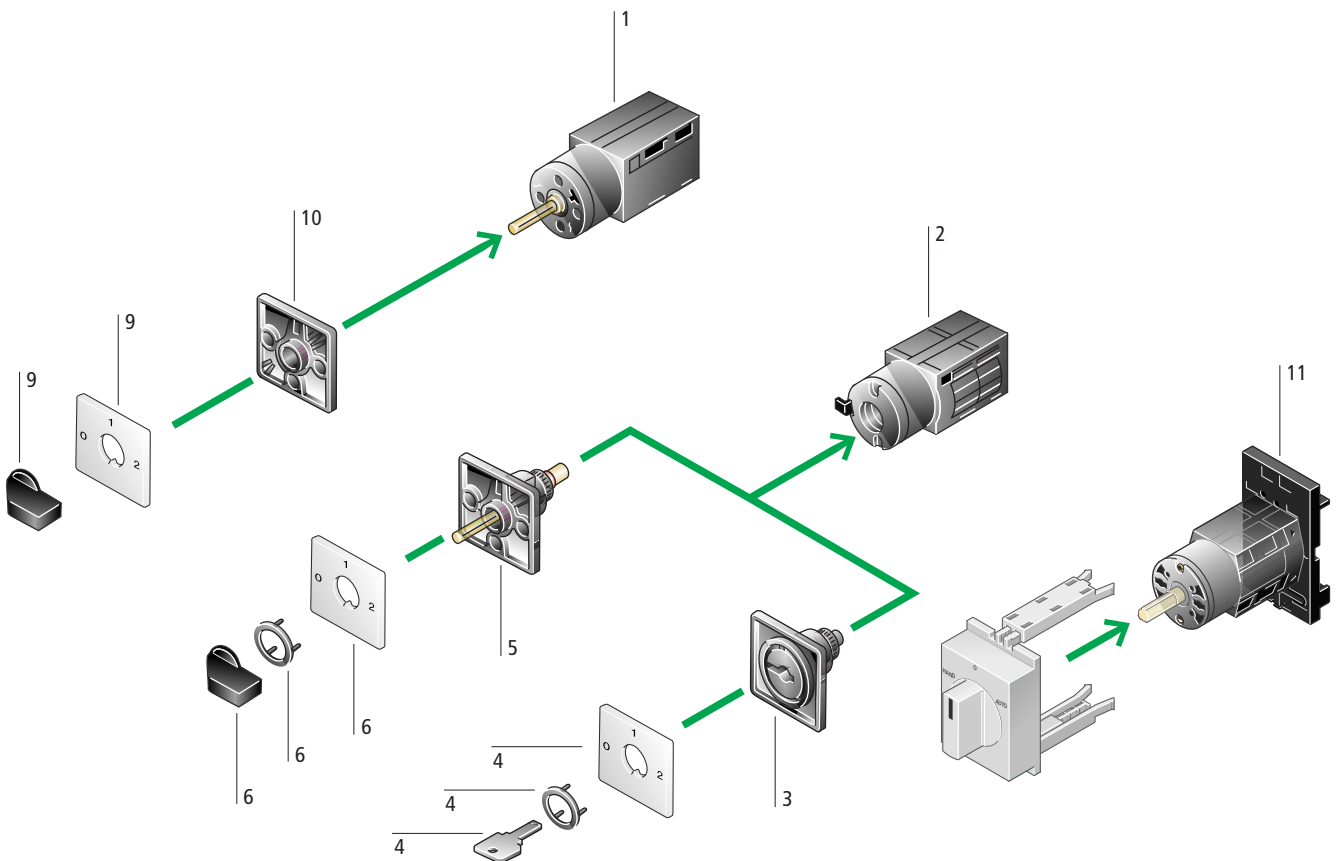
For use with	Type Article no.	Price See Price List	Std. pack	
Set of extension terminals For cable connection in the enclosure 				
For the lowest contact unit	T5B-.../I4 T5-.../I5	AW-T5-1/2 032601	1 off	Included with T5B-.../I4 and T5-.../I5 as standard Fit T5(B) with extension terminals to install 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, conical, BA9s For fitting in M20/M25 pre-mouldings in the enclosure base For filament bulbs and neon bulbs up to 2.4 W → Page 02/040 				
Colour: red	P1-.../I2, P3-.../I..., T...-.../I...	L-R 208689	5 off	
Colour: white		L-W 208692		
Colour: green		L-G 208690		
Colour: yellow		L-Y 208691		
Set of adapter rings To allow PG cable glands to be used in metric cable entries				
		M25-PG16 218923	1 set	1 set = 50 off
		M32-PG21 218924		1 set = 25 off
		M40-PG29 218925		1 set = 10 off
		M50-PG36 218926		1 set = 10 off

TM Mini Rotary Switches System Overview

TM On-Off switches



TM control switches



TM Mini Rotary Switches

System Overview

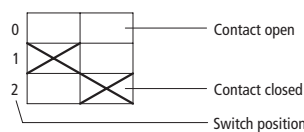
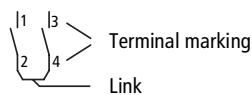
<p>Flush mounting (.../E) 1</p> <p>Front IP65</p> <p>Fitting from rear in panel sides, plates or doors</p> <p>Terminal: Pozidriv screw</p> <p>Finger-proof</p> <p>→ Page 07/074</p>	<p>Centre mounting (.../EZ) 2</p> <p>Front IP65</p> <p>Mounting in a standard 16.2 mm aperture, or in 22.3 mm to IEC/EN 60 947-5-1 following removal of supplied adapter</p> <p>M22-ST... legend plate mounts from the RMQ control circuit range can be used for marking (see Page 02/027)</p> <p>→ Page 07/074</p>	<p>Centre mounting switches, standard 5, 6</p> <p>Black thumb-grip and silver-coloured front plate</p> <p>→ Page 07/074</p>
<p>Flush mounting control circuit isolators (.../E/SVB) 1</p> <p>Front IP65</p> <p>To IEC/EN 60 947-5</p> <p>Lockable in 0 (Off) position using two padlocks, 4 mm Ø or 1 padlock, 6 mm Ø</p> <p>Can be used at up to 250 V AC per contact</p> <p>Up to 6 contacts admissible</p> <p>→ Page 07/074</p>	<p>Key operation for centre mounting 3, 4</p> <p>2 keys are supplied</p> <p>Option for key withdrawal at 90° with KABA micro cylinder lock</p> <p>Option for key withdrawal at 60° with RONIS cylinder lock</p> <p>Always state the position in which the key is to be withdrawable</p> <p>→ Page 07/083</p>	<p>Control circuit isolators 7, 8</p> <p>Red rotary handle and yellow locking collar</p> <p>Black rotary handle and black locking collar</p> <p>Lockable in the 0 (Off) position</p> <p>→ Page 07/074</p>
		<p>Flush mounting switches, standard 9, 10</p> <p>Black thumb-grip and silver-coloured front plate</p> <p>→ Page 07/074</p>
		<p>Standard switches for distribution board mounting (.../IVS) 11</p> <p>Mounting in service distribution boards</p> <p>Mounting width: 2 space units (45 mm mounting depth)</p> <p>Up to 2 contact units</p> <p>→ Page 07/074</p>

Product attributes

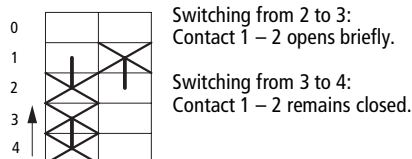
Contact chamber

- 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)

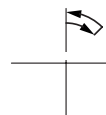
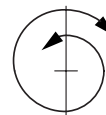


Switching from 1 to 2:
Contact 1 – 2 early-make,
Contact 3 – 4 late-break.



Switch position

- Reliable switching due to indexing mechanism
- Switching angles 30°, 45°, 60°, 90°
- Automatic return with up to 6 contacts
- Complete rotation
- Switching angle of 360° allows complete rotation in both directions



TM Mini Rotary Switches

Control Circuit Isolators, On-Off Switches

Circuit diagram	Front plate no.	No. of poles	Flush mounting Front IP65		Centre mounting Front IP65		Service distribution board mounting Front IP30	
			Type Article no.	Price See Price List	Type Article no.	Price See Price List	Type Article no.	Price See Price List
Control circuit isolators, 90°								
With padlocking facility, lockable in the Off position Up to 250 V AC per contact								
		1	TM-1-8290/E/SVB 045477		–		–	
			TM-1-8290/E/SVB-SW 215351		–		–	
		2	TM-1-8291/E/SVB 045478		–		–	
			TM-1-8291/E/SVB-SW 215352		–		–	
		3	TM-2-8292/E/SVB 045484		–		–	
			TM-2-8292/E/SVB-SW 210955		–		–	
		3+N	TM-2-8293/E/SVB 045485		–		–	
			TM-2-8293/E/SVB-SW 215353		–		–	
		6	TM-3-8326/E/SVB 045498		–		–	
			TM-3-8326/E/SVB-SW 215354		–		–	
On-Off switches, 90°								
	 F 056	1	TM-1-8290/E 070131		TM-1-8290/EZ 000693		TM-1-8290/IVS 225334	
	 F 056	2	TM-1-8291/E 072504		TM-1-8291/EZ 015073		TM-1-8291/IVS 225335	
	 F 056	3	TM-2-8292/E 074877		TM-2-8292/EZ 015096		TM-2-8292/IVS 225336	
	 F 056	3+N	TM-2-8293/E 077250		TM-2-8293/EZ 045486		TM-2-8293/IVS 225337	
	 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 IP65		Centre mounting Front IP65		Service distribution board mounting Front IP30	
			Type Article no.	Price See Price List	Type Article no.	Price See Price List	Type Article no.	Price See Price List
Changeover switches without 0 (Off) position, 60°								
		1	TM-1-8220/E 081996		TM-1-8220/EZ 000692		TM-1-8220/IVS 225338	
	F 072							
		2	TM-2-8221/E 084369		TM-2-8221/EZ 015197		TM-2-8221/IVS 225339	
	F 072							
		3	TM-3-8222/E 086742		TM-3-8222/EZ 045493		-	
	F 072							
		4	TM-4-8223/E 089115		TM-4-8223/EZ 046119		-	
	F 072							
		5	TM-5-8369/E 091488		TM-5-8369/EZ 046126		-	
	F 072							
		6	TM-6-8370/E 093861		TM-6-8370/EZ 046130		-	
	F 072							
Changeover switches with 0 (Off) position, 60°								
		1	TM-1-8210/E 096234		TM-1-8210/EZ 015137		TM-1-8210/IVS 225340	
	F 071							
		2	TM-2-8211/E 098607		TM-2-8211/EZ 015166		TM-2-8211/IVS 225341	
	F 071							
		3	TM-3-8212/E 010807		TM-3-8212/EZ 045491		-	
	F 249							
		4	TM-4-8213/E 013180		TM-4-8213/EZ 045847		-	
	F 249							

Standard pack: 1 off

TM Mini Rotary Switches

Control Switches: Changeover Switches, Hand/Auto Switches

Circuit diagram	Front plate no.	No. of poles	Flush mounting Front IP65		Centre mounting Front IP65		Service distribution board mounting Front IP30	
			Type Article no.	Price See Price List	Type Article no.	Price See Price List	Type Article no.	Price See Price List
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/IVS 225342	
			TM-1-15431/E 025045		TM-1-15431/EZ 000691			
	 F 085	2					TM-2-15432/IVS 225343	
			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		-	

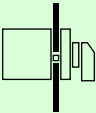
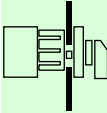
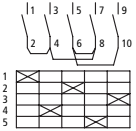

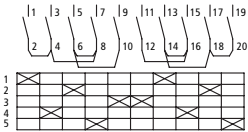

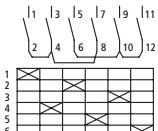

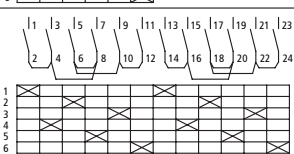

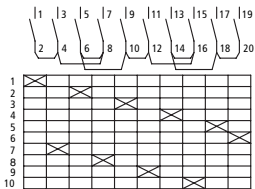

Standard pack: 1 off

TM Mini Rotary Switches
Control Switches: Step Switches

Circuit diagram	Front plate no.	No. of poles	Flush mounting Front IP65		Centre mounting Front IP65		Service distribution board mounting Front IP30	
			Type Article no.	Price See Price List	Type Article no.	Price See Price List	Type Article no.	Price See Price List
Step switches without 0 (Off) position, 60°								
3 steps								
		1	TM-2-8230/E 039283		TM-2-8230/EZ 000701		TM-2-8230/IVS 225344	
		3	TM-5-8270/E 041656		TM-5-8270/EZ 046124			
4 steps								
		1	TM-2-8231/E 044029		TM-2-8231/EZ 000700		TM-2-8231/IVS 225345	
		3	TM-6-8271/E 046402		TM-6-8271/EZ 046128			

Standard pack: 1 off

TM Mini Rotary Switches
Control Switches: Step Switches

Circuit diagram	Front plate no.	No. of poles	Flush mounting Front IP65	Centre mounting Front IP65
				
			Type Article no.	Type Article no.
			Price See Price List	Price See Price List
Step switches without 0 (Off) 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-5-8252/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 IP65		Centre mounting Front IP65	
			Type Article no.	Price See Price List	Type Article no.	Price See Price List
Step switches with additional 0 (Off) 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

TM Mini Rotary Switches

Control Switches: Step Switches, Group Switches

Circuit diagram	Front plate no.	No. of poles	Flush mounting Front IP65		Centre mounting Front IP65	
			Type Article no.	Price See Price List	Type Article no.	Price See Price List
Step switches with additional 0 (Off) 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

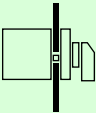
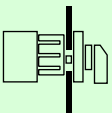
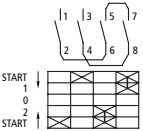

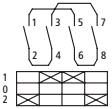

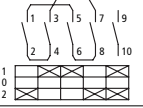

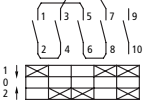

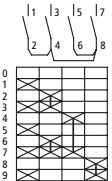

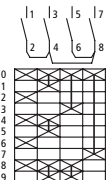

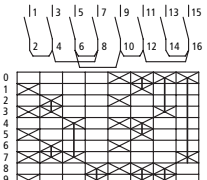

TM Mini Rotary Switches

Control Switches: On/Off Switches, Spring-Return

Circuit diagram	Front plate no.	No. of poles	Flush mounting Front IP65		Centre mounting Front IP65	
			Type Article no.	Price See Price List	Type Article no.	Price See Price List
On/Off switches with spring-return, 30°						
Off switches, spring-return						
		1	TM-1-8174/E 089116		TM-1-8174/EZ 016646	
On switches, spring-return						
		1	TM-1-8175/E 091489		TM-1-8175/EZ 015690	
On-Off switches, spring-return						
		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

TM Mini Rotary Switches
Control Switches: Reversing Switches, Coding Switches

Circuit diagram	Front plate no.	No. of poles	Flush mounting Front IP65	Centre mounting Front IP65
				
			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

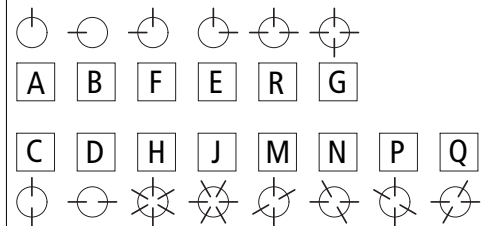
Standard pack: 1 off

TM Mini Rotary Switches
Accessories

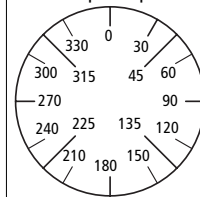
	Type	Price
	Article no.	See Price List
Key operation¹⁾		
Includes two keys		
KABA lock for 90° switching angle¹⁾		
Degree of protection IP65		
Key withdrawable at:	0°	+EZ/S-A 045458
	270°	+EZ/S-B 045459
	270 + 0°	+EZ/S-F 045463
	0 + 90°	+EZ/S-E 045462
	270 + 0 + 90°	+EZ/S-R 045471
	270 + 0 + 90 + 180°	+EZ/S-G 045464
RONIS lock for 60° switching angle¹⁾		
Degree of protection IP55		
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

The key can be withdrawn only in specified positions, see diagrams 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 270°.
The key is not withdrawable in positions which exceed the total switching angle of the switch.

Options for key withdrawal



For example of position marking see → Page 07/111



Standard pack: 1 off

¹⁾ For mounting forms E and EZ

T Rotary Switches

T0 Non-Standard Switches

	Type	Price See Price List	Type	Price See Price List	Price See Price List	Std. pack
T0 rotary switches	T0-1-SOND.../E		T0-5-SOND.../E			1 off
	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.../IV/SVB		T0-6-SOND.../EZ/OFS			
	T0-1-SOND.../IV/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.../IV/SVB		T0-8-SOND.../EZ/OFS			
	T0-2-SOND.../IV/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.../IV/SVB		T0-10-SOND.../EZ/OFS			
	T0-3-SOND.../IV/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.../IV/SVB					
	T0-4-SOND.../IV/SVB-SW					
	T0-4-SOND.../XZ					
	T0-4-SOND.../Z					

Notes

These Pages show T rotary switches with non-standard contact sequences (-SOND...) which are priced accordingly (See Price List). Use the Initial Order form on → Page 07/112 for ordering any T rotary switch combination.

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

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

T Rotary Switches
T3 Non-Standard Switches

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

T Rotary Switches

T5B Non-Standard Switches

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

Notes

These Pages show T rotary switches with non-standard contact sequences (-SOND...) which are priced accordingly (See Price List). Use the Initial Order form on → Page 07/112 for ordering any T rotary switch combination.

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

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

T Rotary Switches
T5 Non-Standard Switches

	Type	Price See Price List	Type	Price See Price List	Std. pack
T5 rotary switches	T5-1-SOND.../E		T5-5-SOND.../E		1 off
	T5-1-SOND.../EA/SVB		T5-5-SOND.../EA/SVB		
	T5-1-SOND.../EA/SVB-SW		T5-5-SOND.../EA/SVB-SW		
	T5-1-SOND.../I5		T5-5-SOND.../I5/SVB		
	T5-1-SOND.../I5/SVB		T5-5-SOND.../I5/SVB-SW		
	T5-1-SOND.../I5/SVB-SW		T5-5-SOND.../X		
	T5-1-SOND.../V/SVB		T5-5-SOND.../Z		
	T5-1-SOND.../V/SVB-SW				
	T5-1-SOND.../X		T5-6-SOND.../E		
	T5-1-SOND.../Z		T5-6-SOND.../EA/SVB		
			T5-6-SOND.../EA/SVB-SW		
	T5-2-SOND.../E		T5-6-SOND.../V/SVB		
	T5-2-SOND.../EA/SVB		T5-6-SOND.../V/SVB-SW		
	T5-2-SOND.../EA/SVB-SW		T5-6-SOND.../X		
	T5-2-SOND.../I5		T5-6-SOND.../Z		
	T5-2-SOND.../I5/SVB				
	T5-2-SOND.../I5/SVB-SW		T5-7-SOND.../E		
	T5-2-SOND.../V/SVB		T5-7-SOND.../EA/SVB		
	T5-2-SOND.../V/SVB-SW		T5-7-SOND.../EA/SVB-SW		
	T5-2-SOND.../X		T5-7-SOND.../V/SVB		
	T5-2-SOND.../Z		T5-7-SOND.../V/SVB-SW		
			T5-7-SOND.../X		
	T5-3-SOND.../E		T5-7-SOND.../Z		
	T5-3-SOND.../EA/SVB				
	T5-3-SOND.../EA/SVB-SW		T5-8-SOND.../E		
	T5-3-SOND.../I5		T5-8-SOND.../EA/SVB		
	T5-3-SOND.../I5/SVB		T5-8-SOND.../EA/SVB-SW		
	T5-1-SOND.../I5/SVB-SW		T5-8-SOND.../V/SVB		
	T5-3-SOND.../V/SVB		T5-8-SOND.../V/SVB-SW		
	T5-3-SOND.../V/SVB-SW		T5-8-SOND.../X		
	T5-3-SOND.../X		T5-8-SOND.../Z		
	T5-3-SOND.../Z				
			T5-9-SOND.../E		
	T5-4-SOND.../E		T5-9-SOND.../X		
	T5-4-SOND.../EA/SVB		T5-9-SOND.../Z		
	T5-4-SOND.../EA/SVB-SW				
	T5-4-SOND.../I5		T5-10-SOND.../E		
	T5-4-SOND.../I5/SVB		T5-10-SOND.../X		
	T5-4-SOND.../I5/SVB-SW		T5-10-SOND.../Z		
	T5-4-SOND.../V/SVB				
	T5-4-SOND.../V/SVB-SW				
	T5-4-SOND.../X				
	T5-4-SOND.../Z				

T Rotary Switches

TM Non-Standard Switches, Bulk Packaged Switches

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

Notes

- 1) For subsequent orders, for which the design number is known. Form FO2 is **not** required for these.
- 2) For initial orders. Form FO2 has to be completed and submitted for these.

	Type Article no.	Price See Price List	Std. pack
Bulk packaged switches	T0-2-1/EA/SVB-GVP50 217168		50 off
	P1-25/EA/SVB-GVP50 217370		50 off
	P1-32/EA/SVB-GVP50 217169		50 off
	P3-63/EA/SVB-GVP25 218130		25 off
	P3-100/EA/SVB-GVP25 218132		25 off

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 the required switch and determine the cables to be connected.
- 2) Select an enclosure (→ HPL0214-2001) 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 quantity 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 quantity of ZVV-... interlock extensions.

Example:


Switch:
T3-6-.../V/SVB
Minimum 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 Number Switch type	T0-... mounting depths						T3-... mounting depths						T5(B)-... mounting depths					
	Without/		With ZAV-T0				Without/		With ZAV-T0				Without/		With ZAV-P3			
	From	To	+1 To	+2 To	+3 To	+4 To	From	To	+1 To	+2 To	+3 To	+4 To	From	To	+1 To	+2 To	+3 To	+4 To
T...-1-.../Z(V/SVB)	86	102	127	152	177	202	89	105	130	155	180	205	92	107	132	157	182	207
T...-2-.../Z(V/SVB)	96	112	137	162	187	212	101	116	141	166	191	216	109	124	149	174	199	224
T...-3-.../Z(V/SVB)	105	121	146	171	196	221	112	128	153	178	203	228	125	140	165	190	215	240
T...-4-.../Z(V/SVB)	115	131	156	181	206	231	124	139	164	189	214	239	142	157	182	207	232	257
T...-5-.../Z(V/SVB)	124	140	165	190	215	240	135	151	176	201	226	251	158	173	198	223	248	273
T...-6-.../Z(V/SVB)	134	150	175	200	225	250	147	162	187	212	237	262	175	190	215	240	265	290
T...-7-.../Z(V/SVB)	143	159	184	209	234	259	158	174	199	224	249	274	191	206	231	256	281	306
T...-8-.../Z(V/SVB)	153	169	194	219	244	269	170	185	210	235	260	285	208	223	248	273	298	323
T...-9-.../Z(V/SVB)	162	178	203	228	253	278	181	197	222	247	272	297	224	239	264	289	314	339
T...-10-.../Z(V/SVB)	172	188	213	238	263	288	193	208	233	258	283	308	241	256	281	306	331	356
T...-11-.../Z(V/SVB)	181	197	222	247	272	297	204	220	245	270	295	320						

T Rotary Switches

Technical Data

		T0-...	T3-...	T5B-...	T5-...	T6-... (T6-160-6)	T8-...	
General technical data								
Standards		IEC/EN 60 947, IEC/EN 60 204, CSA, UL Switch-disconnector to IEC/EN 60 947-3 Load-break switch to IEC/EN 60 947-3 Shipping classifications → SK0200-1043						
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, cyclical, 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 07/096		→ Page 07/101		→ Page 07/103		
Weight		→ Page 15/023						
Mechanical shock resistance (shock duration 20 ms)		g	> 15	> 15 ⁴⁾	> 15	> 15	> 15	
Contacts								
Rated operational voltage U_e	V AC	690	690	690	690	690	690	
Rated impulse withstand voltage U_{imp}	V	6000	6000	6000	6000	6000 (8000) ²⁾	8000	
Overvoltage category/pollution degree		III/3	III/3	III/3	III/3	III/3	III/3	
Rated uninterrupted current I_u with max. cable connected		A	20	32	63	100 ⁵⁾	125 (160) ²⁾	
Load-carrying capacity in intermittent operation, Class 12, AB 60/40/25		% DF	1.3/1.6/2 × I_e					
Short-circuit rating	maximum fuse	A gG/gL	20	25	80	100	200 (160) ²⁾	
Rated short-time withstand current (1 s current) I_{cw}		A_{rms}	320	650	1300	1850	2000 (3000) ²⁾	
Safe isolation to IEC 536 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 with 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 conductor connection		mm ²	–	–	–	–	1 busbar 25 × 5 ³⁾ 2 busbars 20 × 3 ³⁾	
Terminal screw			M3.5	M4	M6	M6 (counter-sunk M5) ²⁾	M12	
Max. tightening torque		Nm	1	1.5	4	5.6 (14) ²⁾	25	
			T0-1-... to T0-4-...	T3-1- to T3-6-	T5B-...	T5-...	T6-... (T6-160-6)	T8-3-8342
Switch-disconnector (Main switches) 								
Switching angles			90°	90°	90°	90°	90°	
Max. number of switch positions			2	2	2	2	2	
Max. number of contacts for isolating characteristics to IEC/EN 60 947			8	12	20	20	3 (6) ²⁾	
Isolating characteristics to IEC/EN 60 947		Up to V AC	500	500	690	690	690	

Notes

- 1) T0(3), (6), (8)...: Max. 2 cross-section sizes difference admissible between 2 conductors
T5(B)-...: Max. 1 cross-section size difference admissible between 2 conductors
- 2) For T6-160-6/...
- 3) For T8-3-8342/...
- 4) T3-.../I... > 12 g
- 5) T5-4-8344/I5: max. 95 A
- 6) Enclosed version: max. 275 A


T Rotary Switches

Technical Data

				T0-...	T3-...	T5B-...	T5-...	T6-... (T6-160-6)	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
		Rated operational current I_e 380 – 440 V, 3~	A	20	32	63	100	125 (160)	315
AC-21A	Load-break switches								
AC-3	Motor load switches, for operational switching Star-delta values Y Δ : for star-delta switches without automatic spring-return	220 – 240 V, 3~	kW	3	6.5	15	18.5	22	37
		220 – 240 V, Y Δ	kW	4	11	22	30	22	37
		380 – 440 V, 3~	kW	4	12	22	30	37 (45)	55
		380 – 440 V, Y Δ	kW	5.5	18.5	37	45	37 (45)	55
		500 V, 3~	kW	5.5	15	22	37	37	37
		500 V, Y Δ	kW	7.5	22	37	55	37	37
		660/690 V, 3~	kW	4	15	22	30	22	37
		660/690 V, Y Δ	kW	5.5	22	37	45	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	–	–	–	–
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 at 24 V DC, 10 mA		Fault probability	H _F	< 10 ⁻⁵ , < 1 fault in 100000 operations					
				T6-160-6/... T8-3-8342/...					
Auxiliary contacts									
Standards				Control circuit isolator to IEC/EN 60 947-5 \rightarrow					
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 with 220 – 240/380 – 415/500 V			A	6/4/3					
Short-circuit rating without welding, Max. fuse			A gG/gL	10					
Terminal capacity			Min. solid or flexible	mm ²	0.75/0.5				
			Max. solid or flexible	mm ²	2.5/1.5				
Max. tightening torque			Nm	0.35					
Control circuit reliability at 24 V DC, 10 mA		Fault probability	H _F	< 10 ⁻⁵ , < 1 fault in 100 000 operations					

P Switch-Disconnectors

Technical Data

		P1-25	P1-32	P3-63	P3-100		
General technical data							
Standards		IEC/EN 60 947, VDE 0660, IEC/EN 60 204, CSA, UL Switch-disconnector 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, cyclical, 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 07/104					
Weight		→ Page 15/023					
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 gG/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	690	690	690	690		
Safe isolation to IEC 536 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.	3(+N)	3(+N)	3(+N)	3(+N)		
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 with 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		
Max. tightening torque	Nm	1.6	1.6	4	4		

Notes

Main switch characteristics to IEC/EN 60 204;
positive opening of contacts, operator element positively located on shaft

¹⁾ P1-...:
Max. 2 cross-section sizes difference admissible
when using 2 conductors
P3-...:
Max. 1 cross-section size difference admissible when
using 2 conductors

P Switch-Disconnectors

Technical Data

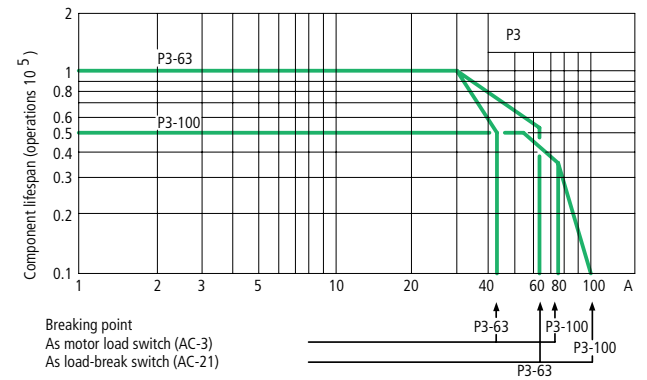
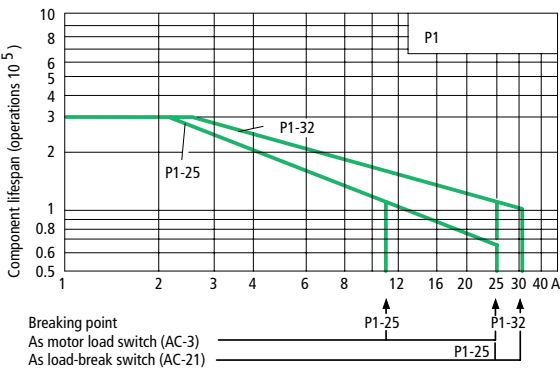
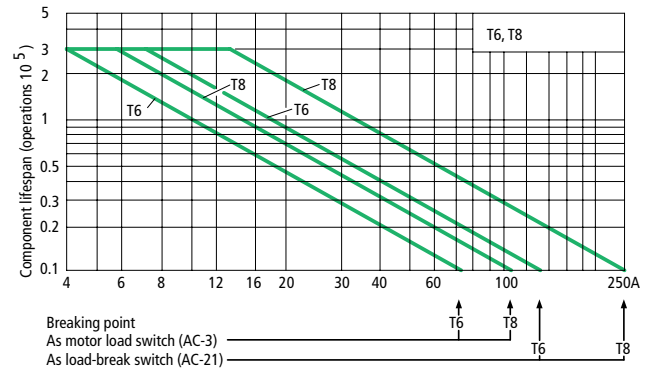
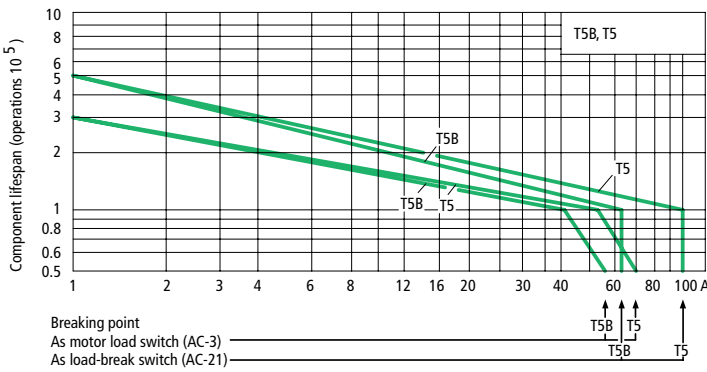
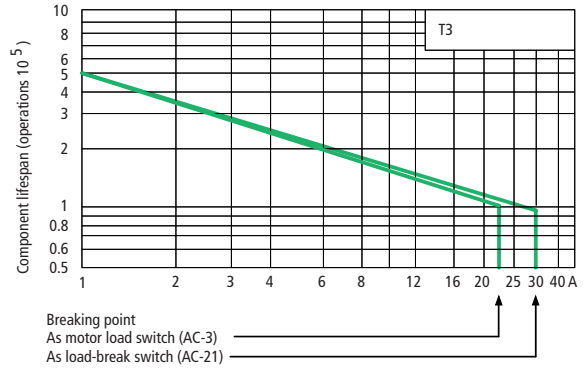
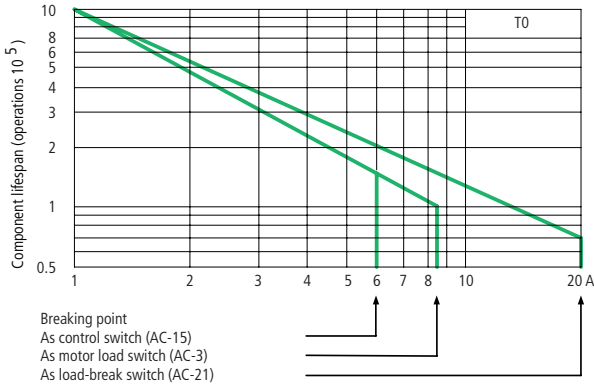
					P1-25	P1-32	P3-63	P3-100
Switching capacity								
AC								
	Rated making capacity	$\cos \varphi = 0.35$	A		240	320	800	950
	Rated breaking capacity	230 V AC, $\cos \varphi = 0.35$	A		190	260	640	760
	Motor load switches	400 V AC, $\cos \varphi = 0.35$	A		150	300	600	740
		500 V AC, $\cos \varphi = 0.35$	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 isolator to IEC/EN 60 947-5 \rightarrow			
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		220 – 240/380 – 415/500 V	A		6/4/3			
DC-13		250 V DC	A		0.55			
		125 V DC	A		1.1			
Short-circuit rating without welding, Max. fuse			A gG/gL		10			
Terminal capacity		Min. solid or flexible	mm ²		0.75/0.5			
		Max. solid or flexible	mm ²		2.5/1.5			
Max. tightening torque			Nm		0.6			
Control circuit reliability at 24 V DC, 10 mA		Fault probability	H _F		< 10 ⁻⁵ , < 1 fault in 100 000 operations			

T Rotary Switches, P Switch-Disconnectors

Tripping Characteristics

Component lifespan in relation to breaking current and utilization category ¹⁾

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.



Notes

¹⁾ AC-3 and AC-21 at 400 V, AC-15 at 230 V

TM Mini Rotary Switches

Technical Data

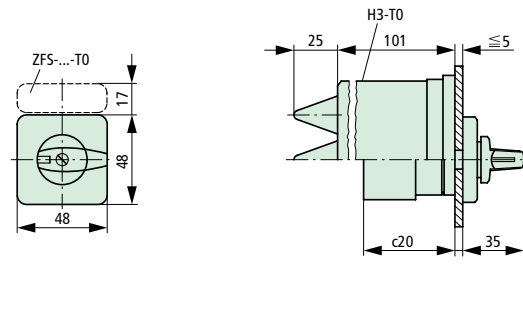
General technical data					
Standards				IEC/EN 60 947, UL, CSA Control switches to IEC/EN 60 947-5-1 Control circuit isolators to IEC/EN 60 947-5-1 \rightarrow	
Control circuit isolators (IEC/EN 60 947-5-1)				Maximum 6 contacts; switching angle 90°	
Lifespan, mechanical		Operations	Ops.	$> 1 \times 10^6$	
Max. operating frequency			Ops./h	3000	
Climatic proofing				Damp heat, constant, to IEC 60 068 Part 2-3 Damp heat, cyclical, to IEC 60 068 Part 2-30	
Ambient temperature	Open	Min./Max.	°C	-25/+50	
	Enclosed	Min./Max.	°C	-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	
		2 conductors	Max.	mm ²	
	Flexible	1 conductor	Min.	mm ²	0.75 (AWG 18)
		2 conductors	Max.	mm ²	0.75
Terminal screw				M2.5	
Max. tightening torque			Nm	0.35	
Dimensions				\rightarrow Page 07/108	
Contacts					
Mechanical values					
Contacts			Max.	16	
Contact units			Max.	8	
Switching angles				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 systems with earthed neutral point			kV	4	
Overvoltage category/pollution degree				III/3	
Rated insulation voltage U_i			V AC	500 (UL/CSA 300 V AC)	
Rated uninterrupted current I_u 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	
	220 – 240 V, 1~		kW	0.75	
	380 – 440 V, 1~		kW	1.1	
AC-15 Control switches	220 – 240 V, 1~		A	2.5	
	380 – 415 V, 1~		A	1.5	
	440 V, 1~		A	1	
DC-1 Load-break switches	1 – 24 V DC		A	10	
	110 – 240 V DC		A	0.7 – 0.3	
DC-13 Control switches	L/R = 50 ms Max. 32 V DC per contact		A	3	
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 gG/gL	10	
Control circuit reliability					
24 V DC, 10 mA		Fault probability	H_F	$< 10^{-5}$, < 1 fault in 100 000 operations	

T0, T3 Rotary Switches

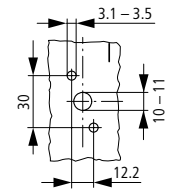
Dimensions

Flush mounting

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

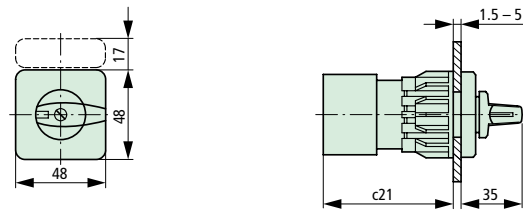


Drilling dimensions

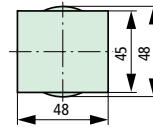


Centre mounting

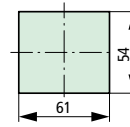
T0.../EZ (/OFS)
T3.../EZ (/OFS)



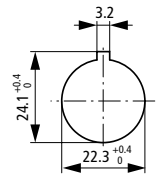
T0



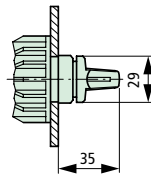
T3



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

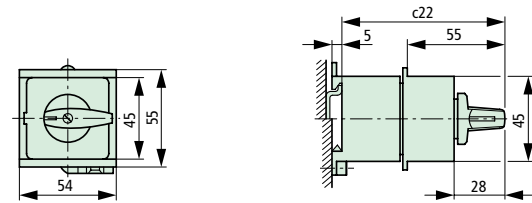
Depth of one contact unit: 11.5 mm

T0, T3 Rotary Switches

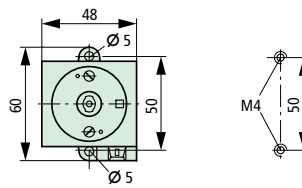
Dimensions

Service distribution board mounting

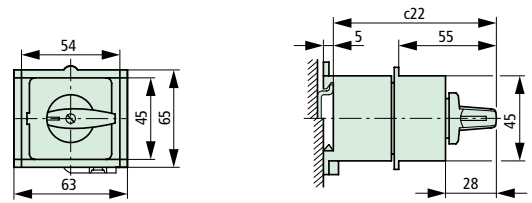
T0.../VS



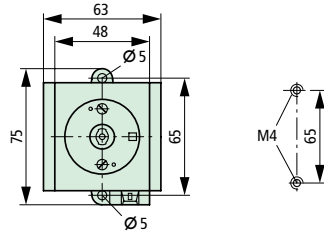
Drilling dimensions
Base



T3.../XZ + IVS-T0

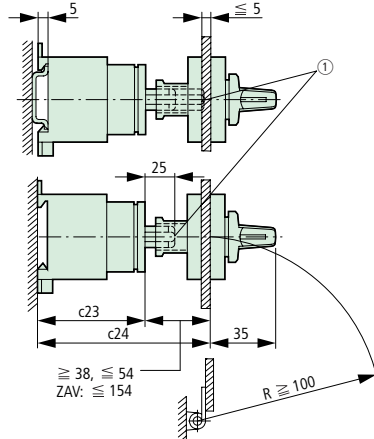
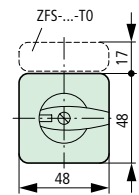


Drilling dimensions
Base

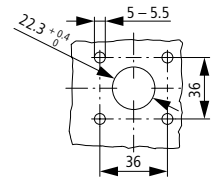
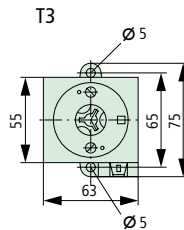
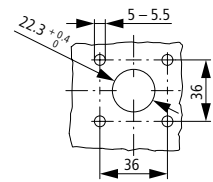
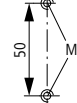
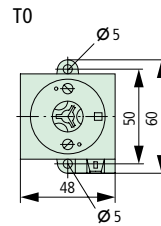


Rear mounting

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



Drilling dimensions
Base Drilling dimensions
Door



① Can be extended using ZVV-T0, ≧ 4 × 25 = 100 mm

Type	c20	c21	c22	c23	c24 ≧/≧	c24 with ≧ 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

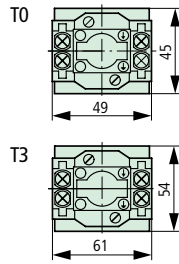
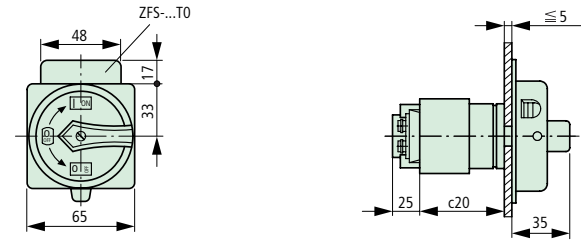
Type	c20	c21	c22	c23	c24 ≧/≧	c24 with ≧ 4 ZAV	c25
T3-1...	44	64	80	51	86 – 105	205	79
T3-2...	56	76	92	63	101 – 115	216	79
T3-3...	67	87	103	74	112 – 128	228	101
T3-4...	79	99	115	86	124 – 139	239	101
T3-5...	90	110	126	97	135 – 151	251	–
T3-6...	102	122	138	109	147 – 162	262	–
T3-7...	113	133	149	120	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

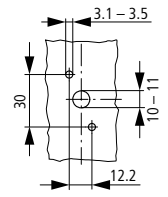
T0, T3 Rotary Switches Dimensions

Flush mounting main switches

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

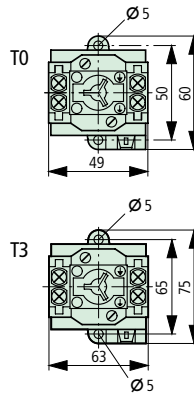
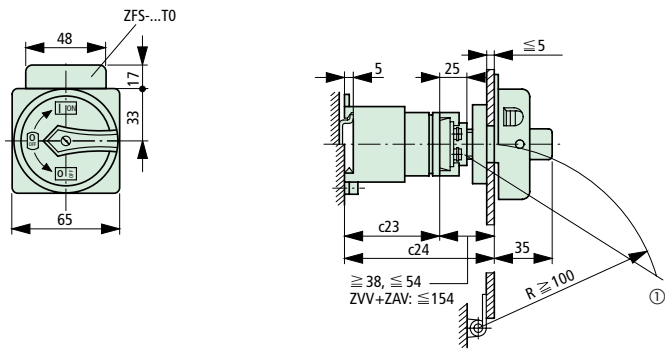


Drilling dimensions
Door



Rear mounting main switches

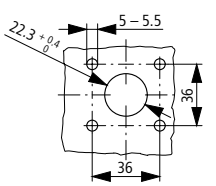
T0.../V/SVB
T3.../V/SVB



Drilling dimensions
Base



Drilling dimensions
Door

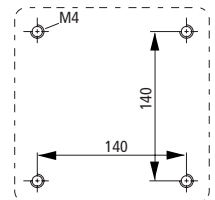
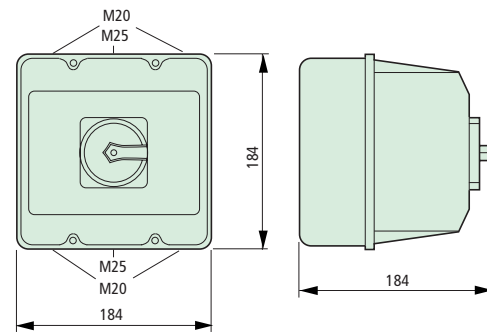
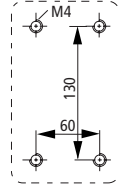
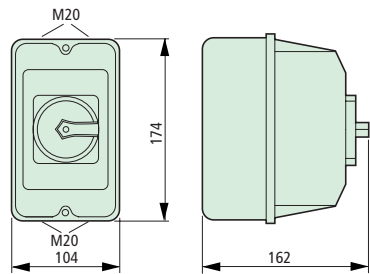


① Interlock can be extended using ZVV-T0 + ZAV-T0, $\cong 4 \times 25 = 100$ mm

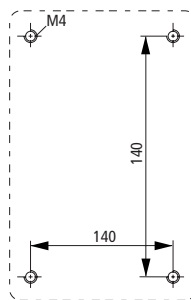
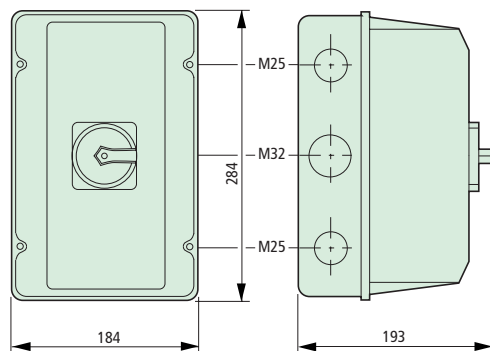
Sheet steel enclosures

T0.../ST, P1.../ST

P3.../ST



T3.../ST, T5(B).../ST

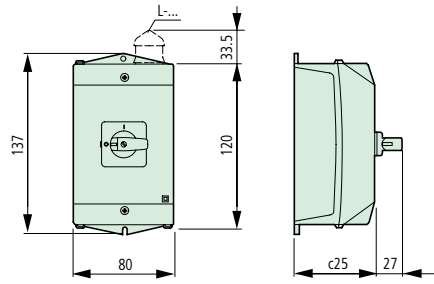


T0, T3 Rotary Switches

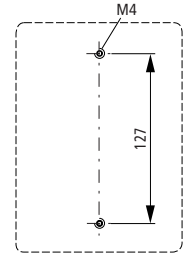
Dimensions

Surface mounting

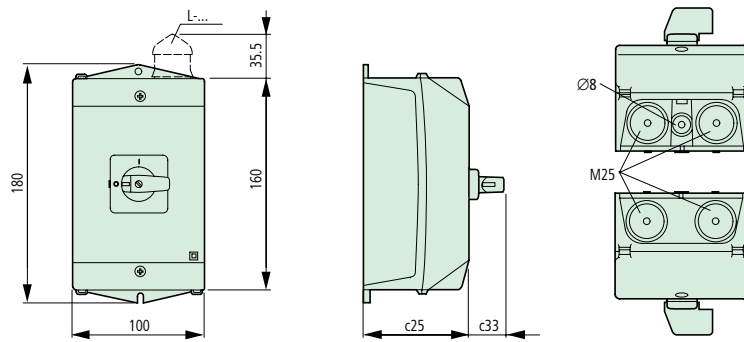
T0.../I1



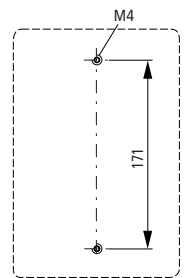
Drilling dimensions
Base



T3.../I2

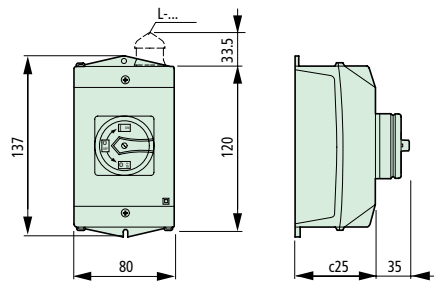


Drilling dimensions
Base

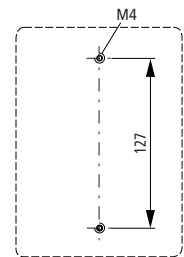


Surface mounting main switches

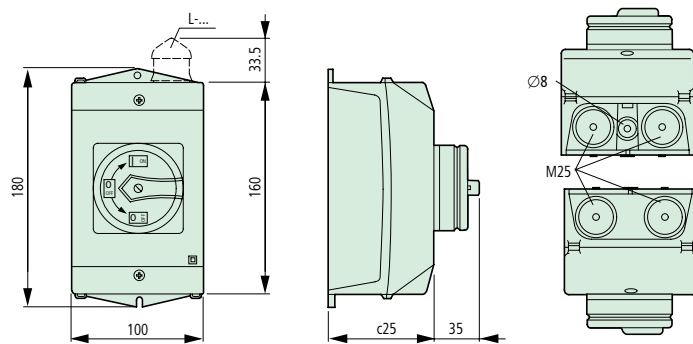
T0.../I1/SVB



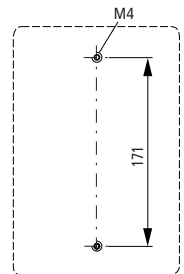
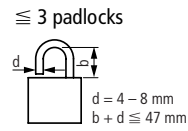
Drilling dimensions
Base



T3.../I2/SVB



Drilling dimensions
Base



Type	c25
T0-1...	75
T0-2...	75
T0-3...	95
T0-4...	95

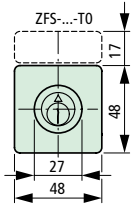
Type	c25	c33
T3-1...	80	27
T3-2...	80	27
T3-3...	100	35
T3-4...	100	35
T3-5...	145	35

T0, T3 Rotary Switches, Accessories

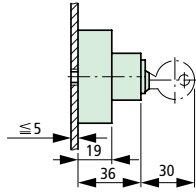
Dimensions

Key operation

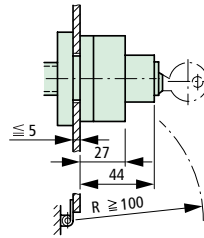
S-T0
S-SOND...-T0



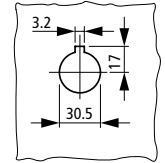
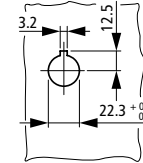
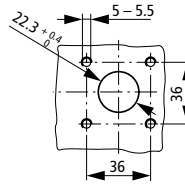
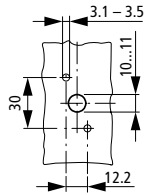
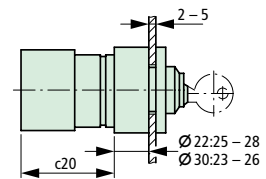
T0.../E(I1) + S-(SOND-)T0
T3.../E(I2) + S-(SOND-)T0



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

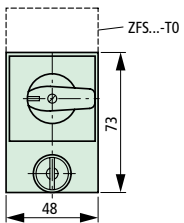


T0.../EZ △ T0.../E + EZ-T0 + S-(SOND-)T0
T3.../EZ △ T3.../E + EZ-T0 + S-(SOND-)T0

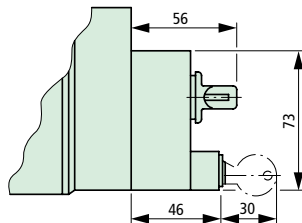


Cylinder lock

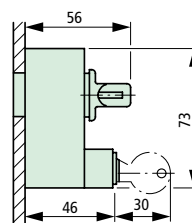
SVA-T3



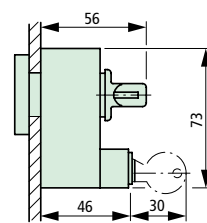
T0.../I1/SVA
T3.../I2/SVA



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



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

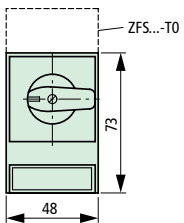


Push-button interlock

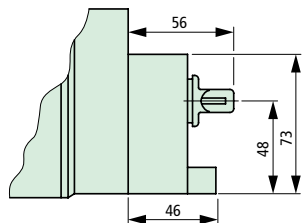
Padlocking feature

Dimensions as DTV-T3

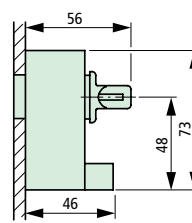
DTV-T3
SVC-T3



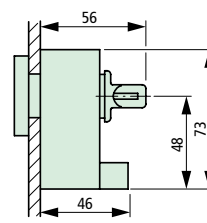
T0.../I1/DTV
T3.../I2/DTV
T0.../I1/SVC
T3.../I2/SVC



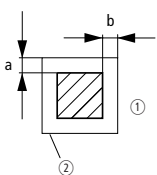
T0.../E/DTV...
T3.../E/DTV...
T0.../E/SVC...
T3.../E/SVC...



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



Mounting clearance



- ① Mounting clearances a and b: 4 mm
- ② Exposed conductive part (metal)

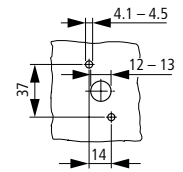
T5B, T5 Rotary Switches
Dimensions

Flush mounting

T5(B).../E

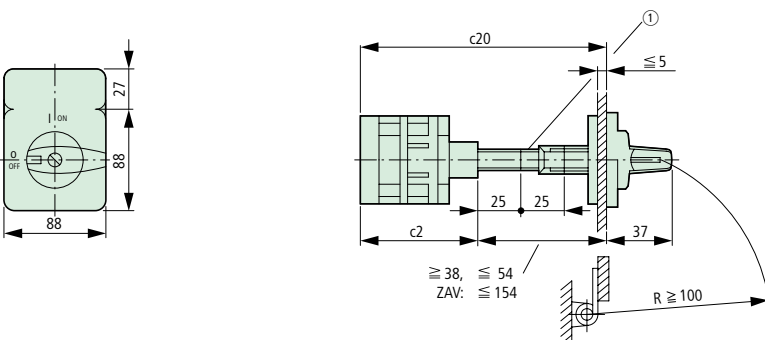


Drilling dimensions
Door

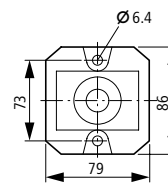


Rear mounting

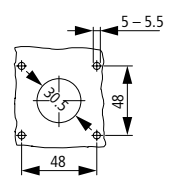
T5(B).../Z



Drilling dimensions
Base



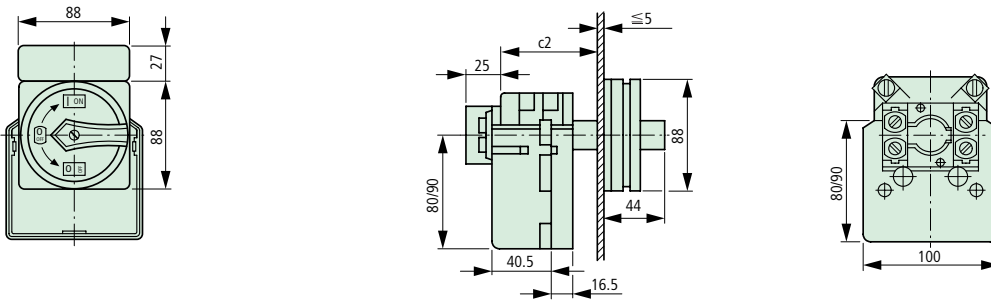
Drilling dimensions
Door



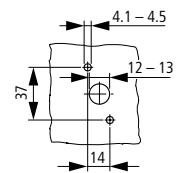
① Shaft can be extended using ZAV-P3, $\cong 4 \times 25 = 100$ mm

Flush mounting main switches

T5(B).../EA/SVB

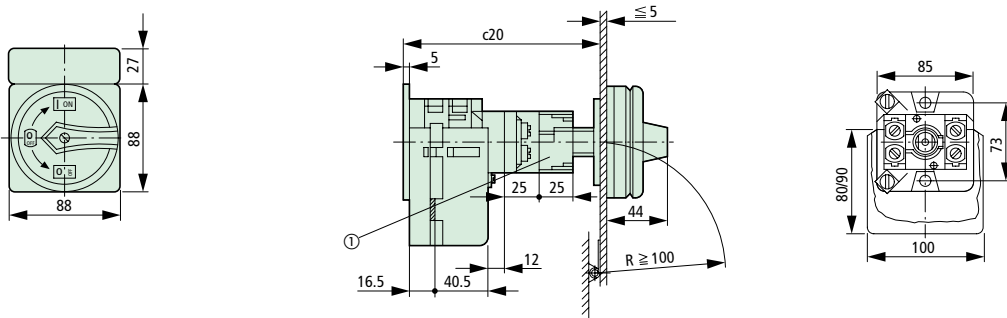


Drilling dimensions
Door

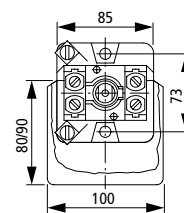


Rear mounting main switches

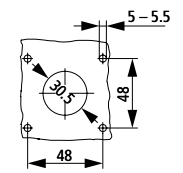
T5(B).../V/SVB



Drilling dimensions
Base



Drilling dimensions
Door

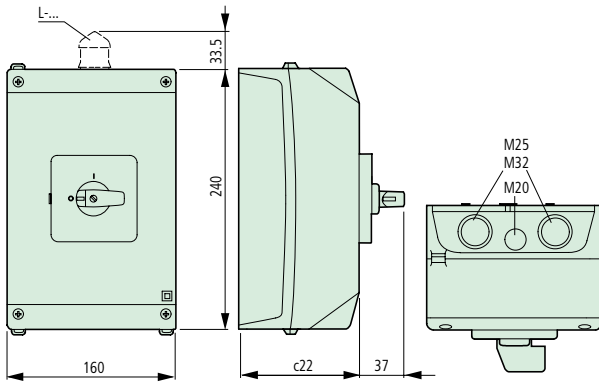


① Can be extended using ZVV-P3, $\cong 4 \times 25 = 100$ mm

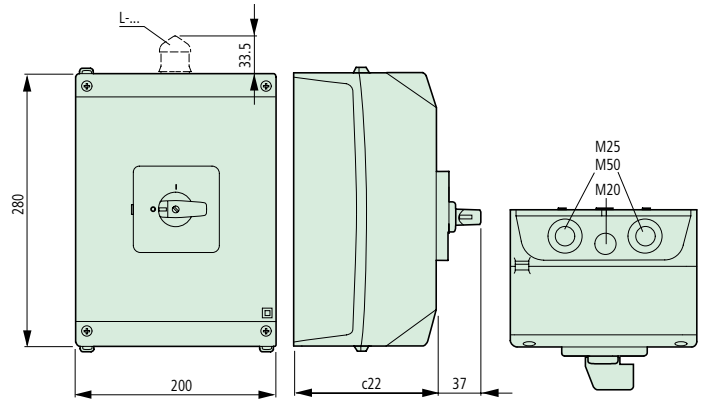
T5B, T5 Rotary Switches Dimensions

Surface mounting

T5(B).../I4

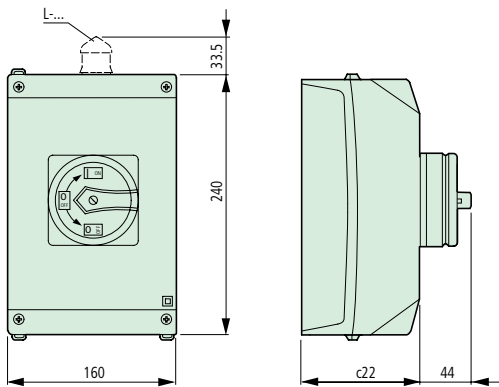


T5.../I5

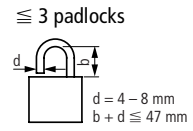


Surface mounting main switches

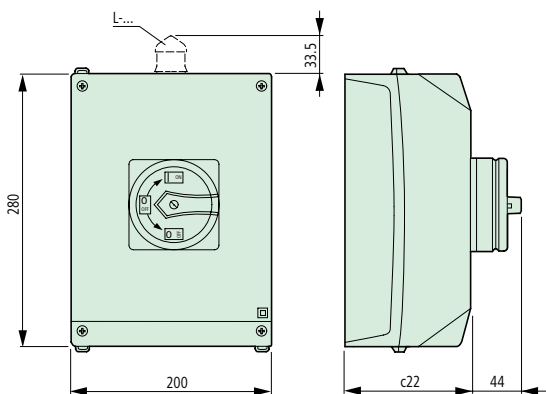
T5(B).../I4/SVB



Drilling dimensions

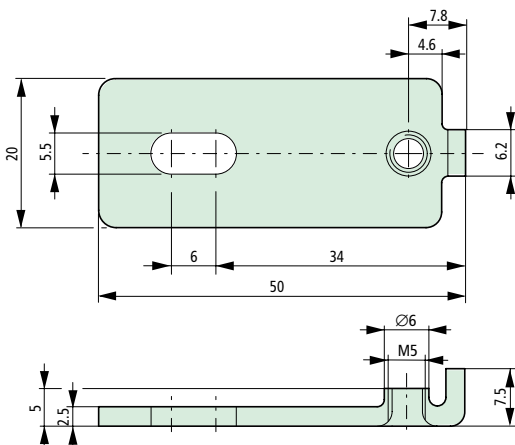


T5.../I5/SVB



Drilling dimensions

External fixing bracket



Type	c2	c20 ≧/≦	c24 with ≧ 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

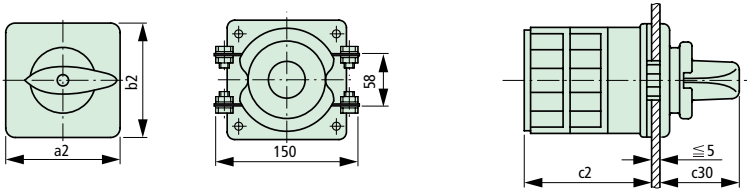
The rotary switches T5B and T5 are of identical design but differ in their contacts

T6, T8 Rotary Switches

Dimensions

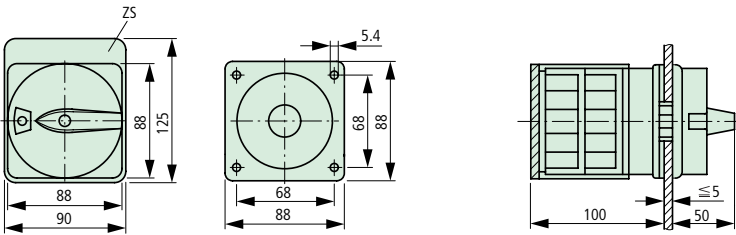
Flush mounting

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



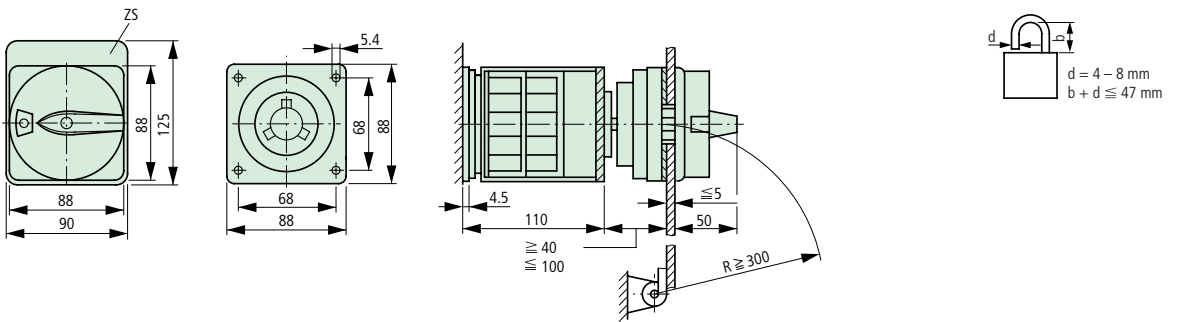
Flush mounting main switches

T6-2/EA/SVB

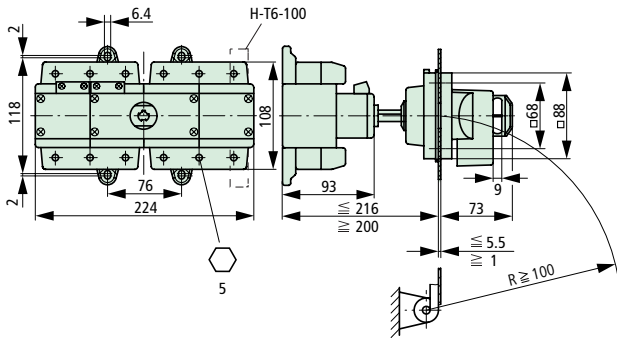


Rear mounting main switches

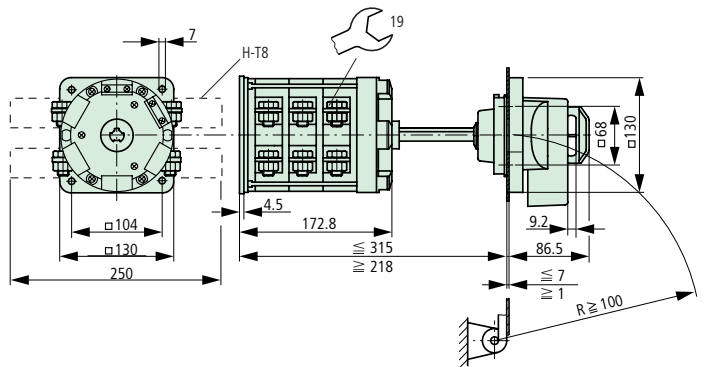
T6-2/V/SVB



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

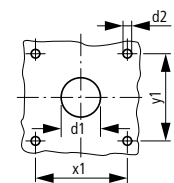


T8-3-8342/V/SVB-SW/HI11



Type	a2	b2	c2	2 BE	3 BE	c30	d1	d2	x1	y1
T6...	88	88		100	152	44	∅ 26-30	∅ 6.0	68	68
T8.../E	130	130		-	173	62	∅ 22-25	∅ 7.0	104	104
T8.../SVB	-	-		-	-	-	∅ 38-42	∅ 7.0	68	68

Drilling dimensions



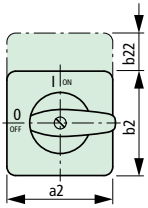
T6: 4 M5 × 20
T8: 4 M6 × 20

P Switch-Disconnectors

Dimensions

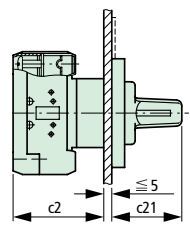
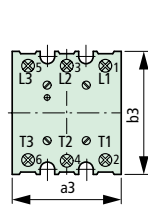
Rotary Switch-Disconnectors

Flush mounting P.../E



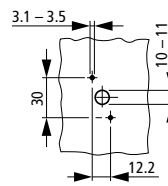
Centre mounting P1.../EZ

P1.../EZ

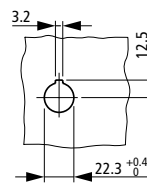


$P1.../EZ = c2 + 5 \text{ mm}$

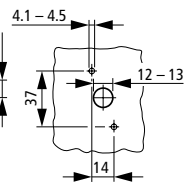
Drilling dimensions Door P1.../E



P1.../EZ

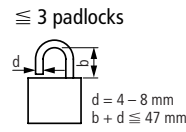
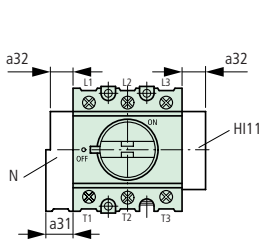
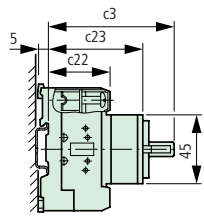
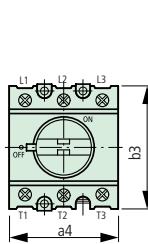


P3.../E

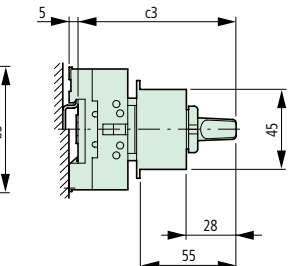
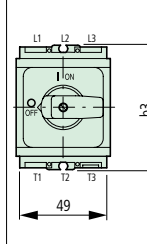


Service distribution board mounting

P3.../IVS

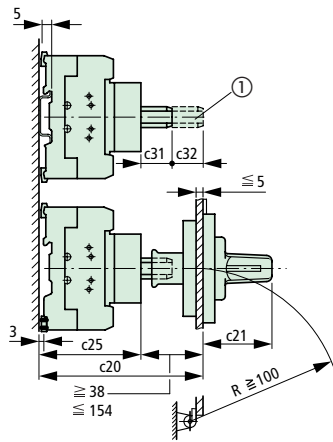
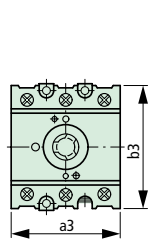
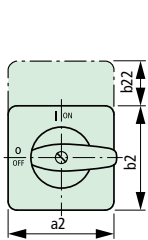


P1.../IVS

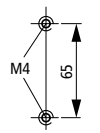


Rear mounting

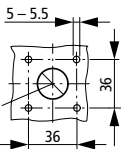
P.../Z



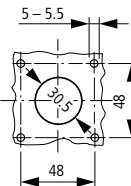
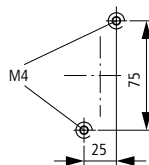
Drilling dimensions Base P1.../Z



Drilling dimensions Door



P3.../Z



① Shaft can be extended using ZAV..., $\cong 4 \times 25 = 100 \text{ mm}$

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

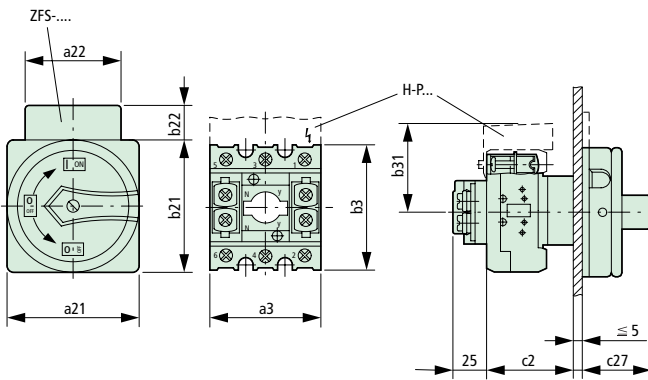
Type	c2	c3	c20 ≅/≅	c20 with ≅4 ZAV/ZVV	c21	c22	c23	c24	c25	c27	c28	c31	c32	c33
P1	59	86	96 - 112	212	35	32	65	68	58	35	77	25	25	27
P3	59	82	103 - 118	218	37	41	63	81	65	44	90	25	25	29

P Switch-Disconnectors

Dimensions

Flush mounting main switches

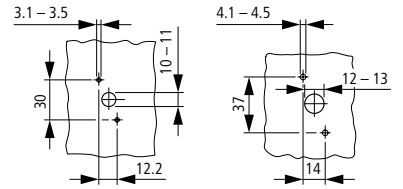
P.../EA/SVB



Drilling dimensions
Door

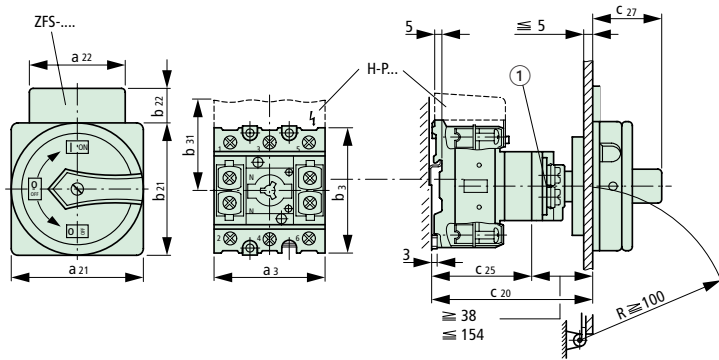
P1...

P3...



Rear mounting main switches

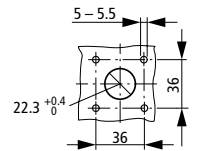
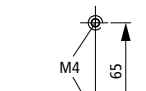
P.../V/SVB



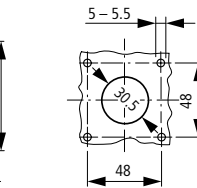
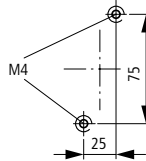
Drilling dimensions
Base

Drilling dimensions
Door

P1.../V/SVB



P3.../V/SVB

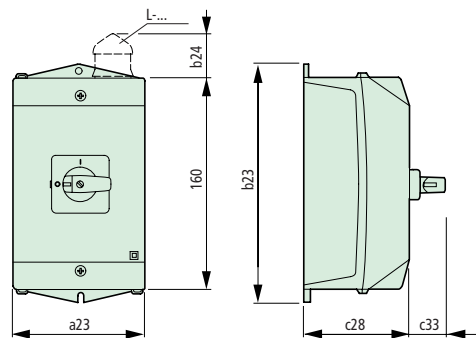


① Interlock can be extended using ZVV-T0 + ZAV-T0, ≅ 4 × 25 = 100 mm

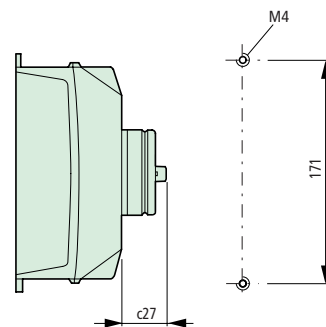
Surface mounting

P1.../I2

Surface mounting main switches / safety switches
P1.../I2/SVB
P1.../I2/SI



Drilling dimensions



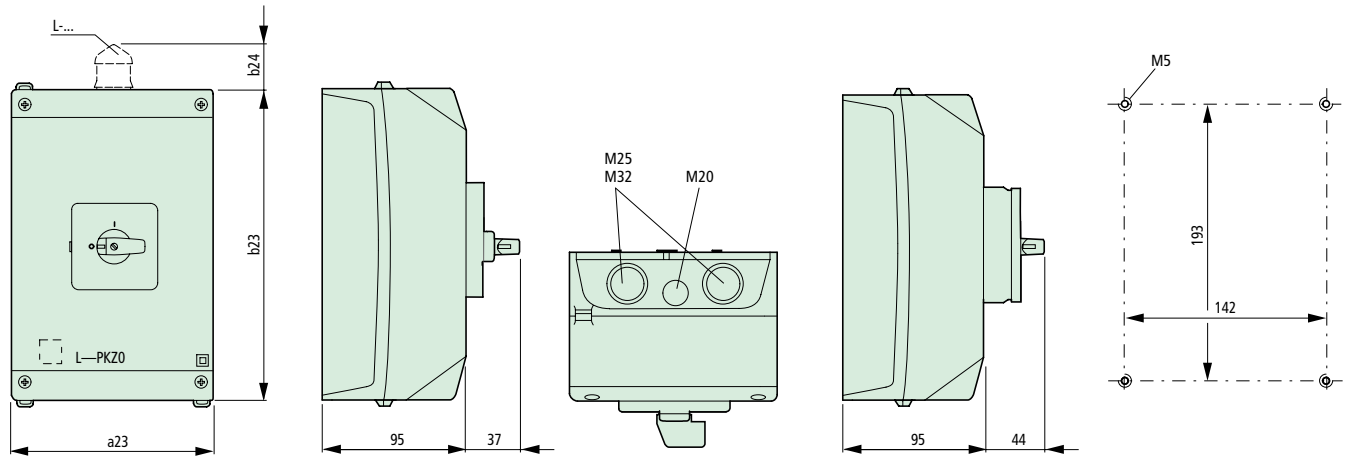
P Switch-Disconnectors

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

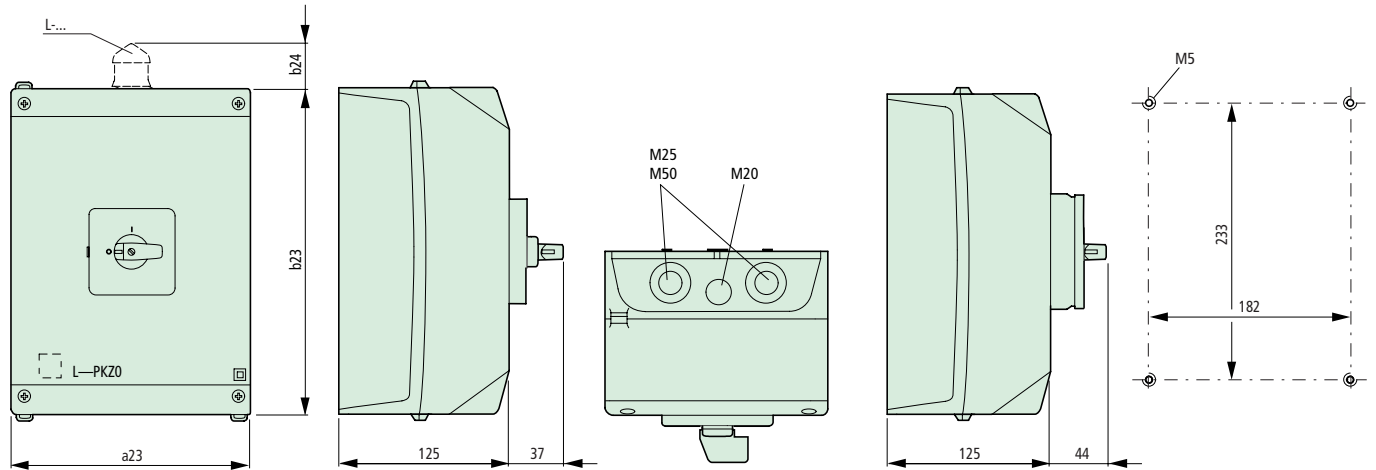


Surface mounting

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 ≧/≦	c20 with ≧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	80	25	25	27
P3-63	59	82	103 – 118	218	37	41	63	81	65	44	125	25	25	37
P3-100	59	82	103 – 118	218	37	41	63	81	65	44	125	25	25	37

P Switch-Disconnectors, Accessories
Dimensions

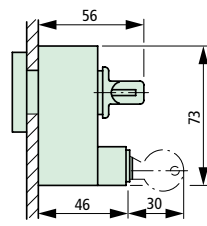
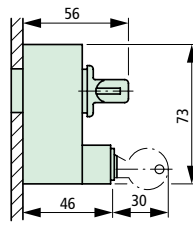
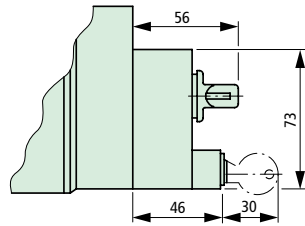
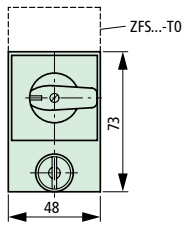
Cylinder lock

SVA-T3

P1.../I2/SVA

P1.../E/SVA

P1.../Z/SVA



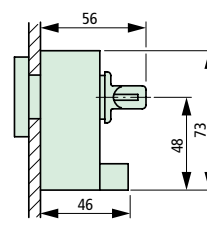
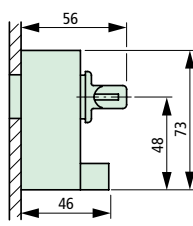
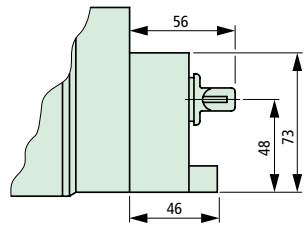
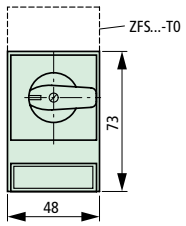
Padlocking feature

SVC-T3

P1.../I2/SVC

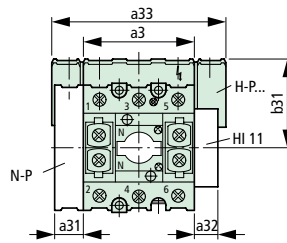
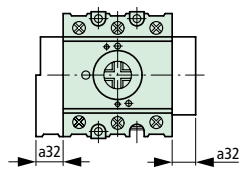
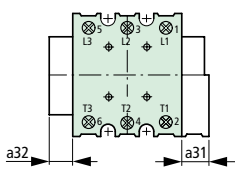
P1.../E/SVC

P1.../Z/SVC

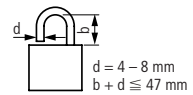


Modules

Switched neutral N-P...
HI 11-P1/P3 auxiliary contacts



≡ 3 padlocks



Type	a3	a31	a32	a33	b31
P1-...	49	15	15	83	49
P3-..	72	18	15	114	60

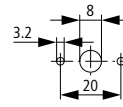
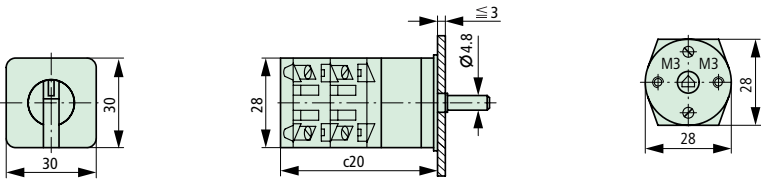
TM Mini Rotary Switches

Dimensions

Flush mounting

TM.../E

Drilling dimensions

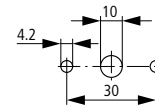
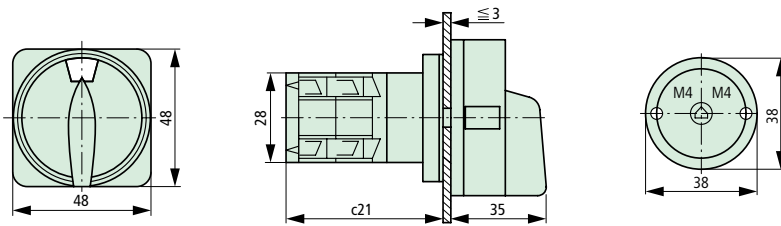


Control circuit isolators

Lockable using 2 padlocks \varnothing 4 mm or 1 padlock \varnothing 6 mm

TM-.../E/SVB(-SW)

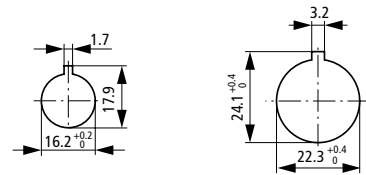
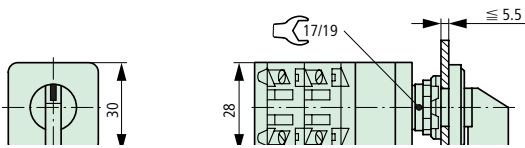
Drilling dimensions



Centre mounting

TM-.../EZ

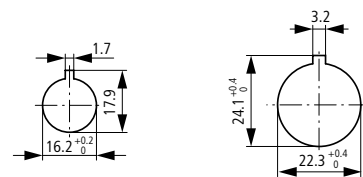
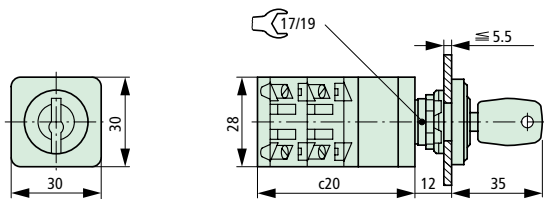
Drilling dimensions¹⁾



Centre mounting with key operation

TM-...+EZ/S-..

Drilling dimensions¹⁾

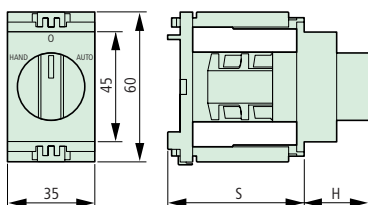


Type	c20	c21
TM-1...	39	42
TM-2...	51	54
TM-3...	63	66
TM-4...	75	
TM-5...	87	
TM-6...	99	
TM-7...	111	
TM-8...	123	

Depth of one contact unit: 12 mm

Service distribution board mounting

TM-.../IVS



Type	S	H
TM-1...	44	21
TM-2...	46	26.5

Depth of one contact unit: 12 mm

Notes

¹⁾ Drilling dimension options: 16.2 mm = use without adapter \triangle RMQ16; 22.3 mm = adapter required \triangle RMQ-Titan

P..., T5..., P7 Safety Switches

Engineering Notes

Maintenance and safety switches have the same electrical function. They are designed to isolate electrical installations (loads) safely from the mains while maintenance work or repairs are being carried out, thereby ensuring that no hazard arises to personnel, machinery or product. The safety switch is an additional, enclosed main switch = isolator for an individual electrical load, and can be fitted directly next to the motor or the electrical load, ensuring that work on them can be carried out safely provided the 5 safety rules to VDE 0105 are observed. This is of special importance if there is any possibility whatsoever of the main switch being wrongly identified.

Application

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

Maintenance switches are merely additional, enclosed main switches with a padlocking facility. Such switches can be found on Pages 07/012–015 or 07/024–025 of this catalogue.

Features

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

Switches to be used for Emergency-Stop switching have a special red handle and a yellow locking collar in accordance with STOP category 0 to IEC/EN 60204.

If the switch is not admissible for use as an Emergency-Stop switch, both parts are grey for P7 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

Switches must be selected according to the following criteria:

- 1) The motor switching capacity, where the switch is fitted in such a way that the operator may use it for operational On and Off switching.
- 2) The motor rating applies for 3 poles as standard. Where the motor rating is divided between 6 poles, such as for a motor with star-delta starting, the 1.73 fold rating can be controlled with a 6-pole switch.
- 3) The uninterrupted current, where the switch has a load-shedding contact (LA). The load-shedding contact is an auxiliary contact, which is closed in the On position and opens early when switching Off, so that a contactor in the circuit takes over the switching capacity, and the maintenance/safety switch operates at zero load. When switching On, the LA closes later than or at the same time as the main contacts. With T and P switches, this is achieved by the auxiliary make contact, with P... switches, it is achieved by series connection of the early-make auxiliary contact (VHI) and a standard auxiliary contact (NHI).

- 4) The uninterrupted current, provided that the switch is safely prevented from switching under load.
- 5) This can be achieved for example by padlocking the handle (which may need to be changed accordingly) in the On position. This is not admissible for switches with a red/yellow handle.

Old Type/New Type

Old Type	New Type
P3-63/I-SI(-SW)(+HI..)	P3-63/I4-SI(-SW)(+HI..)
P3-63/I-SI(-SW)+N-P3	P3-63/I4-SI(-SW)+N-P3
P3-63/I-SI(-SW)+N+HI11	P3-63/I4-SI(-SW)+N+HI11
T5B-3-8342/I-SI(-SW)	T5B-3-8342/I4-SI(-SW)
T5B-4-.../I-SI(-SW)	T5B-4-.../I4-SI(-SW)
P3-63/I-SI(-SW)(+HI..)	P3-63/I4-SI(-SW)(+HI..)
P3-63/I-SI(-SW)+N-P3	P3-63/I4-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 07/092

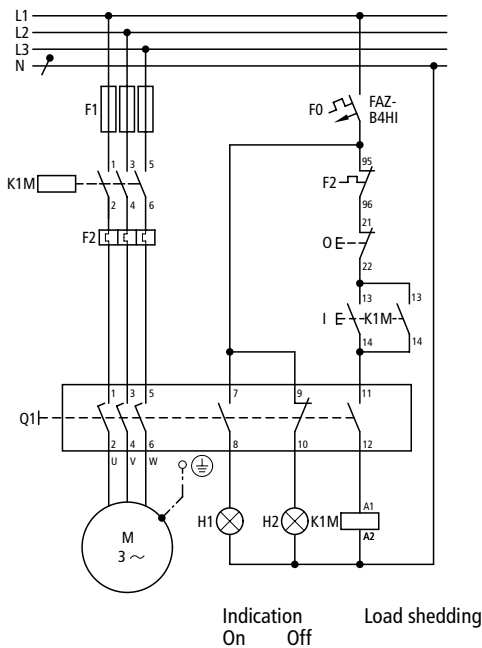
Technical data for T5(B) switch-disconnectors → Page 07/090

Dimensions for P → Page 07/104

Dimensions for T5(B) → Page 07/101

P7 Safety Switches 63 A – 250 A → Page 10/016

Safety switch with load shedding and indication



T Rotary Switches, TM Mini Rotary Switches

Ordering of Non-Standard Contact Sequences

Key to type references

T.....-...../.....+

Switch size	Number of contact units (2 contacts per contact unit)		Contact sequence number	Mounting form	Accessories
	Max. units	Max. contacts	With manufacturing country identifier. For initial order enclose completed form (see next Page). Contact sequence number is issued by factory. For subsequent orders, Type suffix is sufficient.	<ul style="list-style-type: none"> • 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 switches .../EA/SVB²⁾ • Surface mounting main switches /I.../SVB • Rear mounting main switches /V/SVB²⁾ • Mounting forms for TM: /E, /EZ or /IVS 	<ul style="list-style-type: none"> → Page 07/056 – 071 State in full with every order! For TM.../EZ only +EZ/S... is possible → Page 07/083
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 (see next Page) makes it easy to determine the contact sequence.
Master copy → Page 07/112

Switching angles

30, 45, 60, 90°

Preferred angle: 60°

For On/Off switches: 90°

For main switches: 90° as FS 908 Page → 07/054

Interruption of contact between 2 switch positions (On-Off-On) not admissible on T0; or on T3 and TM at switching angles of 30°, 45°; or on T5(T5B) at a switching angle of 30°

Terminal markings

TM switches have consecutive terminal markings, beginning with 1.

Spring-return

The 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 of the rotary switch 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

Number of contacts = Round up to nearest whole
2

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

On T5(B) one cam operates both contacts.

Consequently:

Where the total switching angle is **less than 180°**, the contacts can be operated **independently** of one another. At switching angles of 180° and 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, 072

Notes	Page
Technical data	07/090
Dimensions	07/096

Available mounting forms

T0	07/084
T3	07/085
T5B	07/086
T5	07/087
TM	07/088

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 terminals whose numbers differ by 4 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) cannot be provided ex-factory, and must be supplied by the user.

¹⁾ T0-.../11 up to 4 contact units

T3-.../12 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

Rotary Switches
Switch-Disconnectors



Erstbestellung für 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: Item: 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 :	Type: Type: Référence :	Anzahl Kontakte: No. of contacts: Nombre de contacts :		Bauform: Mounting form: Modèle :																																				
	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	<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 checked="" 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 checked="" 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 checked="" type="checkbox"/> + S-T0 <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																																			
Die Anzahl der möglichen Kontakte sowie die Kombinationsmöglichkeiten mit den Bauformen entnehmen Sie bitte dem Hauptkatalog. The number of possible contacts as well as possible combinations 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.		Max. characters per switching angle on FS plate Degrees																																								
		<table border="1" style="font-size: small;"> <tr><th>TM-E</th><th>TM-EZ</th><th>TM-IVS</th><th>T0(3)</th><th>T5(B)</th></tr> <tr><td>0.180</td><td>5</td><td>5</td><td>6</td><td>13</td></tr> <tr><td>30, 210, 330</td><td>8</td><td>7</td><td>4</td><td>8</td></tr> <tr><td>45, 135, 225, 315</td><td>6</td><td>5</td><td>4</td><td>6</td></tr> <tr><td>60, 120, 240, 300</td><td>5</td><td>5</td><td>3</td><td>5</td></tr> <tr><td>90, 270</td><td>5</td><td>4</td><td>1</td><td>4</td></tr> <tr><td>150</td><td>4</td><td>4</td><td>4</td><td>8</td></tr> </table>		TM-E	TM-EZ	TM-IVS	T0(3)	T5(B)	0.180	5	5	6	13	30, 210, 330	8	7	4	8	45, 135, 225, 315	6	5	4	6	60, 120, 240, 300	5	5	3	5	90, 270	5	4	1	4	150	4	4	4	8				
TM-E	TM-EZ	TM-IVS	T0(3)	T5(B)																																						
0.180	5	5	6	13																																						
30, 210, 330	8	7	4	8																																						
45, 135, 225, 315	6	5	4	6																																						
60, 120, 240, 300	5	5	3	5																																						
90, 270	5	4	1	4																																						
150	4	4	4	8																																						

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																						
	1	2	3	4	5	6	7	8	9	10	11												
Grad Degrees/Degrés	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	
270	1	X	X	X	X	X																	
300																							
315	2	X		X																			
330																							
0	3	X																					
30																							
45	4																						
60																							
90																							
120																							
135																							
150																							
180																							
210																							
225																							
240																							
<input checked="" type="checkbox"/> Schlüssel abziehbar Key withdrawable Retrait de la clé												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)											
												T _____											

Es ist möglich, dass sich aus technischen Gründen die Reihenfolge der Kontakte ändert.
The sequence of contacts may be changed for technical reasons.
L'ordre des contacts peut être modifié pour des raisons techniques.

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:
 } With SVA-T3, it is possible to switch between Pos. 1 and 2 even after the key has been withdrawn.

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

Rotary Switches
Switch-Disconnectors

Es ist möglich, dass sich aus technischen Gründen die Reihenfolge der Kontakte ändert. The sequence of contacts may be changed for technical reasons. L'ordre des contacts peut être modifié pour des raisons techniques.



Erstbestellung für Nockenschalter T Kombinationen
Initial order for a T rotary switch combination
Première commande de combinaisons de Commutateur T à cames

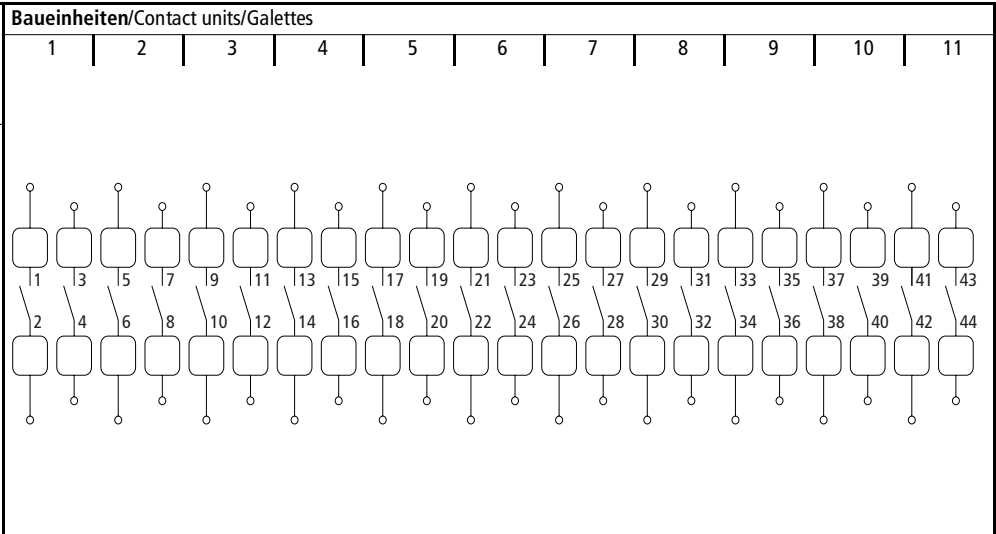
Auftrags-Nr.: Order number: N° de commande :		Position: Item: Poste :		Büro: Office: Bureau :		Bearbeiter: Name: Employé :				
Kunde: Customer: Client:				Kundenspez.-Nr.: Customer number: N° client :			Datum: Date: Date :			
Hinweis: Note: Note : Die Anzahl der möglichen Kontakte sowie die Kombinationsmöglichkeiten mit den Bauformen entnehmen Sie bitte dem Hauptkatalog. The number of possible contacts as well as possible combinations 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 : DM/Stück: DM/each: Prix unitaire :	Schaltwinkel: Switching angle: Angle de rotation :		Type: Type: Référence :		Anzahl Kontakte: No. of contacts: Nombre de contacts :		Bauform: Mounting form: Modèle :		
		<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"/> 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 type="checkbox"/> 9 <input type="checkbox"/> 20 <input type="checkbox"/> 10 <input type="checkbox"/> 21 <input type="checkbox"/> 11 <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"/> + _____		
		Max. characters per switching angle on FS plate Degrees TM-E TM-EZ TM-IVS T0(3) T5(B) 0.180 5 5 6 13 13 30, 210, 330 8 7 4 8 8 45, 135, 225, 315 6 5 4 6 7 60, 120, 240, 300 5 5 3 5 7 90, 270 5 4 1 4 7 150 4 4 4 8 8								

Frontschild Nr.
Front Plate No.
Plastron N°
FS

Rundschtaltung
 Complete rotation
Rotation totale

autom. Rückzug
 Spring-return
Retour autom.

Beschriftung
Marking/Repérage



Grad Degrees/Degrés	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
270																						
300																						
315																						
330																						
0																						
30																						
45																						
60																						
90																						
120																						
135																						
150																						
180																						
210																						
225																						
240																						


Schlüssel abziehbar
Key withdrawable
Retrait de la clé

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)

T _____

T Rotary Switches, TM Mini Rotary Switches
 Ordering of Non-Standard Front Plates

Rotary Switches
Switch-Disconnectors

 Erstbestellung von Sonderfrontschildern Initial ordering of non-standard front plates Première commande de plastrons spéciaux		
Auftrags-Nr.: Order number: N° de commande :	Position: Item: Poste :	
Büro: Office: Bureau :	Bearbeiter: Name: Employé :	
Kunde: Customer: Client:	Kundenspez.-Nr.: Customer number: N° client :	
Stückzahl: Quantity: Quantité :	DM/Stück: DM/each: Prix unitaire :	Datum: Date: Date :

Non-standard front plates

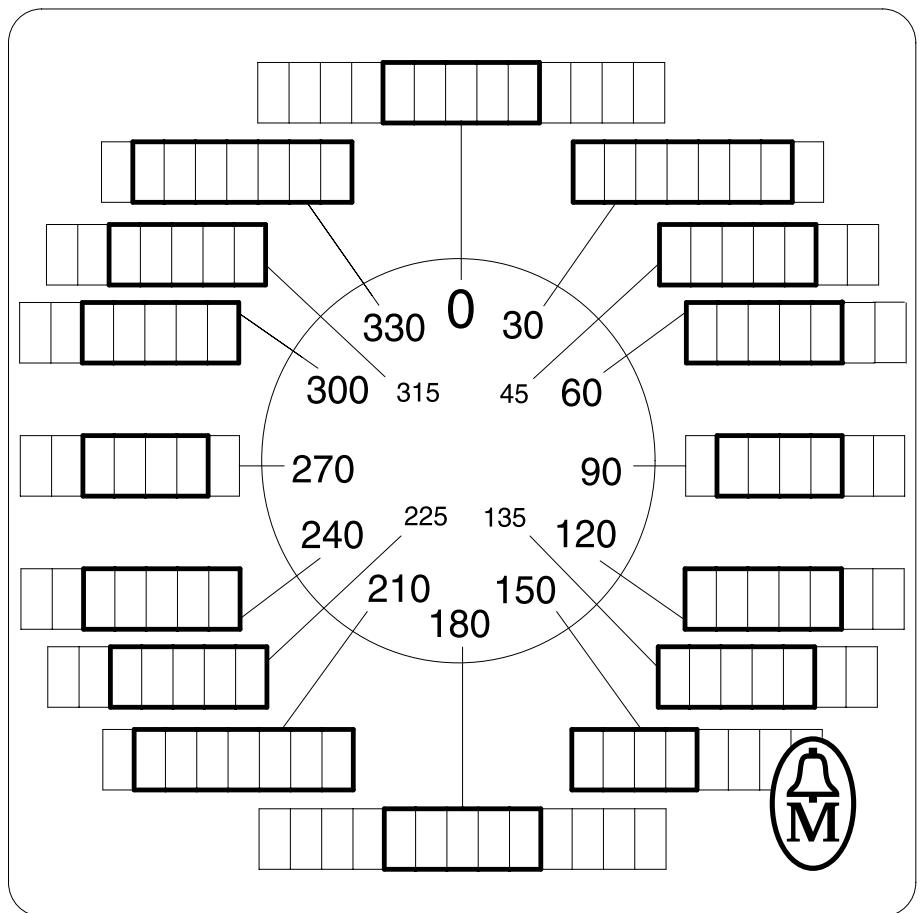
Marking:
 Front plate with black lettering

Insert text

Note the maximum number of characters allowed outside the marked areas!

Type

- FS-SOND-T0 (T3, P1)**
 Height of letters
 ≦ 2 characters 4 mm
 ≧ 2 characters 3 mm
- FS-SOND-P3 (T5B, T5)**
 Height of letters
 ≦ 2 characters 8 mm
 ≧ 2 characters 5 mm
- FS-SOND-TM-E**
 FS-SOND-TM-EZ
 Height of letters
 ≦ 2 characters approx. 3.5 mm
 ≧ 2 characters 3 mm



For P1 and P3 complete only the 270° and 0° positions

Max. number of characters possible

Item	TM-E	TM-EZ	T0/P1	T5/P3
0, 180	5	5	13	13
30, 210, 330	8	7	8	8
45, 135, 225, 315	6	5	6	7
60, 120, 240, 300	5	5	5	7
90, 270	5	4	4	7
150	4	4	8	8

Dimensions

Type	Size of front plate
TM-.../E	29 × 29 mm (for frame sizes 30 × 30)
TM-.../EZ(-...)	29 × 29 mm (for frame sizes 30 × 30)
T0, T3, P1	45 × 45 mm (for frame sizes 48 × 48)
P3, T5, T5B	84 × 84 mm (for frame sizes 88 × 88)

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)

FS

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