

Rotary switches T and switch-disconnectors P for safe and reliable switching, disconnection, control and operation

ATEX 

xCommand



The high-performance, robust and compact rotary switches T and switch-disconnectors P are used in industry, trade and building engineering applications. The IP65 degree of protection with the top mounting switches and the switch front enable use in harsh environments. Ten switch basic types and four different construction types, in a whole range of standard switches and across a wide performance range, are available. Customized circuits can also be implemented in addition to the standard configurations. The possibilities are almost unlimited. A comprehensive accessory range complements the switch range and round off the range of applications. The rotary switches T and the switch-disconnectors P are approved conform to the ATEX directive 94/9 EC for EX zone 22. The approval enables use in dust explosion hazardous areas.



Main switch with Emergency-Stop function

Process and processing machines require a power disconnecting device conform to EN 60204-1. Furthermore, standstill in an emergency must also be assured. As shown in the above textile processing machine, both of these functions are assumed by a switch-disconnector P3. Standstill in an emergency requires:

- priority function and operation in all operating modes
- the power supply, which is connected to the machine states which produce the danger, must switch off as quickly as possible.

Maintenance and manual override switches

A whole range of electric motors are required to operate the conveyor belts in conveyor systems. In conditioning plants, warehouses, airports etc., the individual conveyor belts are combined to a unit. The safety and availability of these systems demands that each individual drive can be isolated from the power supply. The isolation is performed using a T and P manual override switch. The switch can be secured against reapplication of power using three padlocks in the off state. Maintenance and repair work can be completed in safety.



Mini rotary switch TM

The mini rotary switch stands out particularly due to its small size and simple handling and mounting features. There are many construction types available for selection. The rating of the TM to AC23A is 3 kW at 400/415 V, 50-60 Hz. The rated uninterrupted current I_U is 10 A. The mini rotary switch TM is mainly used as an On-Off switch; changeover contact, step switch, control switch, coding switch and control circuit isolator. Customized circuits can be used.



Rotary switch T

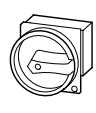


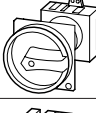






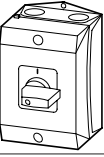

The rotary switch T represents a very flexible, compact and robust modular system. The T0, T3, T5B, T5, T6, T8 rating sizes are available in four different construction types. The rating of the T switch ranges from 6.5 kW to 132 kW with AC23A at 400/415 V, 50-60 Hz. The rated uninterrupted current I_U is between 20 A and 315 A. The rotary switch T has a widely varied range of application uses. Customized versions are available.



Switch-disconnector P

The switch-disconnectors P1 up to 32 A, P3 up to 100 A, P5 up to 315 A are compact and robust. The manual operator acts directly on the contacts. The contacts are positively opened on de-energization. In addition to their use as switch disconnectors with and without the Emergency-Stop function, switch-disconnectors P can be used as On-Off switches as well as maintenance, manual override or safety switches.

Switching and control in practice

Construction type				Construction type group																			
Appearance	Construction type	Construction type description	Degree of protection	A1	A2	A4	A5	C	D	F	G	H1	H2	I2	K4	K5	L4	L5	N	O			
	E/SVB	Flush mount control circuit isolater ¹⁾	IP65 front																				
	EA/SVB	Flush mounting main switch, for use as an Emergency-Stop device ²⁾	IP65 front	•	•	•	•	•	•														
	EA-SVB-SW	Flush mounting main switch, without Emergency-Stop function ³⁾	IP65 front	•	•	•	•	•	•														
	I1/SVB	Surface mounting main switch, for use as an Emergency-Stop device ²⁾	IP65	•																			
	I2/SVB				•																		
	I4/SVB					•																	
	I5/SVB							•															
	I45/SVB											•											
I48/SVB											•												
	I1/SVB-SW	Surface mounting main switch, without Emergency-Stop function ³⁾	IP65	•																			
	I2/SVB-SW				•																		
	I4/SVB-SW					•																	
	I5/SVB-SW							•															
	I45/SVB-SW												•										
I48/SVB-SW											•												
	V/SVB	Rear mounting main switch, for use as an Emergency-Stop device ²⁾	IP65 front	•	•	•	•	•	•	•	•												
	V/SVB-SW	Rear mounting main switch, without Emergency-Stop function ³⁾	IP65 front	•	•	•	•	•	•	•	•												
	E	Flush mounting, with thumb-grip	IP65 front									•	•	•	•	•	•	•	•	•	•		
	EZ	Centre mounting, with thumb-grip	IP65 front									•	•	•							•		
	I1	Surface mounting, with thumb-grip	IP65									•											
	I2												•	•									
	I4															•			•				
	I5																	•		•			
	IVS	Service distribution board mounting, with thumb-grip	IP30 front									•	•					•	•		•		
	Z	Rear mounting, with thumb-grip	IP65 front									•	•	•	•	•	•	•	•	•	•		
	E-RT	Flush mounting on-off switch, for use as an Emergency-Stop device ⁴⁾	IP65 front																				
	I1-RT	Surface mounting on-off switch, for use as an Emergency-Stop device ⁴⁾	IP65																				
	I2-RT																						
	I4-RT																						
	I5-RT																						
	IVS-RT	Service distribution board mounting on-off switch, for use as an Emergency-Stop device ⁴⁾	IP30 front																				

Notes: ¹⁾ can be locked in the 0 position with padlocking feature
²⁾ according to IEC/EN 60204-1, VDE0113, part 1 with red rotary handle and yellow locking collar, can be locked in 0 position
³⁾ with black rotary handle and locking collar, can be locked in 0 position
⁴⁾ according to IEC/EN 60204-1, VDE 0113 part 1, with red thumb-grip and yellow front label

Overview of the rotary switch up to 100 A and switch-disconnector up to 315 A

Basic switch type	T0	Construction type group	T3	Construction type group	T5B	Construction type group	T5	Construction type group	P1-25	Construction type group
Max. rating to AC-23A, 400/415V, 50-60 Hz	6.5 KW	Construction type group	13 KW	Construction type group	22 KW	Construction type group	30 KW	Construction type group	13 KW	Construction type group
Max. rated uninterrupted current I_u	20 A		32 A		63 A		100 A ¹⁾		25 A	
Main switch without auxiliary contacts										
1 pole	T0-1-8200/..	A1	T3-1-8200/..	A2	T5B-1-8200/..	A4	T5-1-8200/..	A5	–	
2 pole	T0-1-102/..	A1	T3-1-102/..	A2	T5B-1-102/..	A4	T5-1-102/..	A5	–	
3 pole	T0-2-1/..	A1	–		–		–		P1-25/..	A2
3 pole + N	T0-2-8900/..	A1	–		–		–		P1-25/.. / N	A2
6 pole	T0-3-8342/..	A1	T3-3-8342/..	A2	T5B-3-8342/..	A4	T5-3-8342/..	A5	–	
8 pole	T0-4-8344/..	A1	T3-4-8344/..	A2	T5B-4-8344/..	A4	T5-4-8344/..	A5	–	
Main switch without auxiliary contacts										
3 pole with auxiliary contact 1N/O / 0N/C	T0-2-15679/..	A1	–		–		–		–	
3 pole with auxiliary contact 1N/O / 1N/C	–		–		–		–		P1-25/.. / HI11	A2
6 pole with auxiliary contact 1N/O / 1N/C	T0-4-15682/..	A1	T3-4-15682/..	A2	T5B-4-15682/..	A4	T5-4-15682/..	A5	–	
3 pole with auxiliary contact 1N/O / 1N/C	T0-3-15683/..	A1	T3-3-15683/..	A2	–		–		–	
3 pole + N with auxiliary contact 1N/O / 1N/C	T0-3-15680/..	A1	T3-3-15680/..	A2	–		–		P1-25/.. / N/HI11	C
3 pole + N with overlapping auxiliary contact 1N/O / 1N/C	T0-3-8901/..	A1	T3-3-8901/..	A2	T5B-3-8901/..	A4	T5-3-8901/..	A5	–	
On-off switch without auxiliary contacts										
1 pole	T0-1-8200/..	H1	T3-1-8200/..	I2	T5B-1-8200/..	K4	T5-1-8200/..	K5	–	
2 pole	T0-1-102/..	H1	T3-1-102/..	I2	T5B-1-102/..	K4	T5-1-102/..	K5	–	
3 pole	T0-2-1/..	H1	–		–		–		P1-25/..	H2
3 pole + N	T0-2-8900/..	H1	–		–		–		P1-25/.. / N	H2
6 pole	T0-3-8342/..	H1	T3-3-8342/..	I2	T5B-3-8342/..	K4	T5-3-8342/..	K5	–	
8 pole	T0-4-8344/..	H1	T3-4-8344/..	I2	T5B-4-8344/..	K4	T5-4-8344/..	K5	–	
On-off switch with auxiliary contacts										
3 pole with auxiliary contact 1N/O / 0N/C	T0-2-15679/..	H1	–		–		–		–	
3 pole with auxiliary contact 1N/O / 1N/C	–		–		–		–		P1-25/.. / HI11	H2
6 pole with auxiliary contact 1N/O / 1N/C	T0-4-15682/..	H1	T3-4-15682/..	I2	T5B-4-15682/..	K4	T5-4-15682/..	K5	–	
3 pole with auxiliary contact 2N/O / 1N/C	T0-3-15683/..	H1	T3-3-15683/..	I2	–		–		–	
3 pole + N with overlapping auxiliary contacts 1N/O / 1N/C	T0-3-8901/..	H1	T3-3-8901/..	I2	–		–		–	
On-off switch with Emergency-Stop function										
1 pole	T0-1-8200/..	S1	T3-1-8200/..	U2	T5B-1-8200/..	U4	T5-1-8200/..	U5	–	
2 pole	T0-1-102/..	S1	T3-1-102/..	U2	T5B-1-102/..	U4	T5-1-102/..	U5	–	
3 pole	T0-2-1/..	S1	–		–		–		P1-25/..	S2
3 pole + N	T0-2-8900/..	S1	–		–		–		–	

Notes: ¹⁾ 95A max at T5-4-8344/I5...

P1-32	Construction type group	P3-63	Construction type group	P3-100	Construction type group	P5-125	Construction type group	P5-160	Construction type group	P5-250	Construction type group	P5-315	Construction type group
15 KW		37 KW		50 KW		45 KW		55 KW		90 KW		110 KW	
32 A		63 A		100 A		125 A		160 A		250 A		315 A	
-		-		-		-		-		-		-	
-		-		-		-		-		-		-	
P1-32/..	A2	P3-63/..	A4	P3-100/..	A5	P5-125/..	C	P5-160/..	C	P5-250/..	C	P5-315/..	C
P1-32/../ N	A2	P3-63/../ N	A4	P3-100/../ N	A5	P5-125/../ N	C	P5-160/../ N	C	P5-250/../ N	C	P5-315/../ N	C
-		-		-		-		-		-		-	
-		-		-		-		-		-		-	
-		-		-		P5-125/.../ HI10	C	P5-160/.../ HI10	C	P5-250/.../ HI10	C	P5-315/.../ HI10	C
P1-32/.../ HI11	A2	P3-63/.../ HI11	A4	P3-100/.../ HI11	A5	-		-		-		-	
-		-		-		-		-		-		-	
-		-		-		-		-		-		-	
P1-32/.../ N/HI11	C	P3-63/.../ N/HI11	A4	P3-100/.../ N/HI11	A5	-		-		-		-	
-		-		-		-		-		-		-	
-		-		-		-		-		-		-	
-		-		-		-		-		-		-	
P1-32/..	H2	P3-63/..	L4	P3-100/..	L5	P5-125/..	N	P5-160/..	N	P5-250/..	N	P5-315/..	N
P1-32/.../ N	H2	P3-63/.../ N	L4	P3-100/.../ N	L5	-		-		-		-	
-		-		-		-		-		-		-	
-		-		-		-		-		-		-	
-		-		-		-		-		-		-	
-		-		-		-		-		-		-	
P1-32/.../ HI11	H2	P3-63/.../ HI11	L4	P3-100/.../ HI11	L5	-		-		-		-	
-		-		-		-		-		-		-	
-		-		-		-		-		-		-	
-		-		-		-		-		-		-	
-		-		-		-		-		-		-	
P1-32/..	S2	P3-63/..	S4	P3-100/..	S5	-		-		-		-	
-		-		-		-		-		-		-	

Overview of the rotary switch and switch-disconnector up to 100 A

Basic switch type	TM	T0		T3		T5B	
Max. rating to AC-23A, 400/415V, 50-60 Hz	3.0 KW	6.5 KW	Construction type group	13 KW	Construction type group	22 KW	Construction type group
Max. rated uninterrupted current I_u	10 A	20 A		32 A		63 A	
Safety switch in surface mounting enclosure, with red handle and yellow locking collar, IP65							
3 pole	-	-		-		-	
6 pole	-	-		-		T5B-3-8342/I4-SI	- ¹⁾
3 pole + N	-	-		-		-	
3 pole with auxiliary contact 1N/O / 0N/C	-	-		-		-	
6 pole with auxiliary contact 1N/O / 1N/C	-	-		-		T5B-4-15682/I4-SI	- ¹⁾
6 pole with auxiliary contact 2N/O / 0N/C	-	-		-		T5B-4-8903/I4-SI	- ¹⁾
Safety switch in surface mounting enclosure, with black handle and locking collar, IP65							
3 pole	-	-		-		-	
6 pole	-	-		-		T5B-3-8342/I4-SI-SW	- ¹⁾
3 pole + N	-	-		-		-	
3 pole with auxiliary contact 1N/O / 0N/C	-	-		-		-	
6 pole with auxiliary contact 1N/O / 1N/C	-	-		-		T5B-4-15682/I4-SI-SW	- ¹⁾
6 pole with auxiliary contact 2N/O / 0N/C	-	-		-		T5B-4-8903/I4-SI-SW	- ¹⁾
Changeover contact with 0 position							
1 pole 1-0-2	-	T0-1-8210/..	H1	T3-1-8210/..	I2	T5B-1-8210/..	K4
2 pole 1-0-2	-	T0-2-8211/..	H1	T3-2-8211/..	I2	T5B-2-8211/..	K4
3 pole 1-0-2	-	T0-3-8212/..	H1	T3-3-8212/..	I2	T5B-3-8212/..	K4
3 pole 1-0-2, with an auxiliary contact per switch position	-	-		-		-	
4 pole 1-0-2	-	T0-4-8213/..	H1	T3-4-8213/..	I2	T5B-4-8213/..	K4
4 pole (one early make pole) 1-0-2	-	T0-4-8294/..	H1	T3-4-8294/..	I2	T5B-4-8294/..	K4
4 pole (one early make pole) MAINS-0-EMERGENCY CURRENT	-	-		T3-4-8902/..	I2	T5B-4-8902/..	K4
Changeover contact without 0 position							
1 pole 1-2	-	T0-1-8220/..	H1	T3-1-8200/..	I2	T5B-1-8200/..	K4
2 pole 1-2	-	T0-2-8221/..	H1	T3-2-8221/..	I2	T5B-2-8221/..	K4
3 pole 1-2	-	T0-3-8222/..	H1	T3-3-8222/..	I2	T5B-3-8222/..	K4
4 pole 1-2	-	T0-4-8223/..	H1	T3-4-8223/..	I2	T5B-4-8223/..	K4
5 pole 1-2	-	T0-5-8369/..	O	T3-5-8369/..	I2	T5B-5-8369/..	W
6 pole 1-2	-	T0-6-8370/..	O	T3-6-8370/..	P	T5B-6-8370/..	W
8 pole 1-2	-	T0-8-8372/..	O	T3-8-8372/..	P	T5B-8-8372/..	W
Reversing switch							
2 pole 1-0-2	-	T0-2-8400/..	H1	T3-2-8400/..	I2	T5B-2-8400/..	K4
3 pole 1-0-2	-	T0-2-8401/..	H1	T3-2-8401/..	I2	T5B-2-8401/..	K4
Star-delta switch							
3 pole 0-Y-	-	T0-4-8410/..	H1	T3-4-8410/..	I2	T5B-4-8410/..	K4
Reversing-star-delta switch							
3 pole -Y-0-Y-	-	T0-5-15876/..	O	T3-5-15876/..	I2	T5B-5-15876/..	N
multispeed switch, 3 poles, 2 speeds,							
2 separate windings 0-1-2	-	T0-3-8451/..	H1	T3-3-8451/..	I2	T5B-3-8451/..	K4
Pole changing 0-1-2	-	T0-4-8440/..	H1	T3-4-8440/..	I2	T5B-4-8440/..	K4
Pole changing 1-0-2	-	T0-4-8441/..	H1	T3-4-8441/..	I2	T5B-4-8441/..	K4
Reversing-pole changing, 3 poles, 2 speeds, 2 directions,							
Pole changing 2-1-0-1-2	-	T0-6-15866/..	O	T3-6-15866/..	P	T5B-6-15866/..	N
Surface mounting switch according to ATEX directive 94/9 EC							
For use in ex-zone 22	-	• ²⁾		• ²⁾		• ²⁾	
Customized special switch	•	•		•		•	

Notes:

¹⁾ The listed switch designations without construction type designation (A-Z) are completed types

²⁾ The basic types are available for ATEX application in dependence on the number of units or the switch type

³⁾ 95 A max at T5-4-8344/I5...

T5	Construction type group	P1-25	Construction type group	P1-32	Construction type group	P3-63	Construction type group	P3-100	Construction type group
30 KW		13 KW		15 KW		37 KW		50 KW	
100 A ³⁾		25 A		32 A		63 A		100 A	
–		P1-25/I2-SI	– ¹⁾	P1-32/I2-SI	– ¹⁾	P3-63/I4-SI	– ¹⁾	P3-100/I5-SI	– ¹⁾
T5-3-8342/I5-SI	– ¹⁾								
–		P1-25/I2-SI/N	– ¹⁾	P1-32/I2-SI/N	– ¹⁾	P3-63/I4-SI/N-	– ¹⁾	P3-100/I5-SI/N	– ¹⁾
–		P1-25/I2-SI/HI11	– ¹⁾	P1-32/I2-SI/HI11	– ¹⁾	P3-63/I4-SI/HI11	– ¹⁾	P3-100/I5-SI/HI11	– ¹⁾
T5-4-15682/I5-SI	– ¹⁾	–		–		–		–	
T5-4-8903/I5-SI	– ¹⁾	–		–		–		–	
–		P1-25/I2-SI-SW	– ¹⁾	P1-32/I2-SI-SW	– ¹⁾	P3-63/I4-SI-SW	– ¹⁾	P3-100/I5-SI-SW	– ¹⁾
T5-3-8342/I5-SI-SW	– ¹⁾								
–		P1-25/I2-SI/N-SW	– ¹⁾	P1-32/I2-SI/N-SW	– ¹⁾	P3-63/I4-SI/N--SW	– ¹⁾	P3-100/I5-SI/N-SW	– ¹⁾
–		P1-25/I2-SI/HI11-SW	– ¹⁾	P1-32/I2-SI/HI11-SW	– ¹⁾	P3-63/I4-SI/HI11-SW	– ¹⁾	P3-100/I5-SI/HI11-SW	– ¹⁾
T5-4-15682/I5-SI-SW	– ¹⁾	–		–		–		–	
T5-4-8903/I5-SI-SW	– ¹⁾	–		–		–		–	
T5-1-8210/..	K5	–		–		–		–	
T5-2-8211/..	K5	–		–		–		–	
T5-3-8212/..	K5	–		–		–		–	
–		–		–		–		–	
T5-4-8213/..	K5	–		–		–		–	
T5-4-8294/..	K5	–		–		–		–	
T5-4-8902/..	K5	–		–		–		–	
T5-1-8200/..	K5	–		–		–		–	
T5-2-8221/..	K5	–		–		–		–	
T5-3-8222/..	K5	–		–		–		–	
T5-4-8223/..	K5	–		–		–		–	
T5-5-8369/..	W	–		–		–		–	
T5-6-8370/..	W	–		–		–		–	
T5-8-8372/..	W	–		–		–		–	
–		–		–		–		–	
–		–		–		–		–	
–		–		–		–		–	
–		–		–		–		–	
T5-3-8451/..	N	–		–		–		–	
T5-4-8440/..	N	–		–		–		–	
T5-4-8441/..	N	–		–		–		–	
–		–		–		–		–	
● ²⁾		● ²⁾		● ²⁾		● ²⁾		● ²⁾	
•		–		–		–		–	

