

Cam Switches

For Control Circuit Functions: Stepping Switches

Circuit function diagram	Front Plate No. ³⁾	No. of poles	No. of steps		Cover mounting	Center mounting 22.5 mm opening
				Basic type for ..., insert mounting form	Mounting form Article No.	Mounting form Article No.
					Price see price list	Price see price list
Stepping switches						
One contact closed per step (without overlap), with additional OFF (0) position						
	FS 418	1	2	T0-1-8240/...	E 034105	EZ 043597
	FS 420	1	3	T0-2-8241/...	E 050716	EZ 053089
	FS 422	1	4	T0-2-8242/...	E 067327	EZ 069700
	FS 424	1	5	T0-3-8243/...	E 081565	EZ 083938
	FS 426	1	6	T0-3-8244/...	E 095803	EZ 098176
	FS 418	3	2	T0-3-8280/...	E 034106	EZ 036479
	FS 420	3	3	T0-5-8281/...	E 048344	EZ 050717
	FS 422	3	4	T0-6-8282/...	E 062582	EZ 064955

Notes:

- 1) Surface mounting enclosure are IEC type, totally insulated, corrosion-resistant IP 65, NEMA rated 3R, 12.
- 2) All switches have black handle with light gray nameplate.
- 3) All front plates shown may be exchanged at the time of the order at no extra charge. The prerequisite is that switching angles, the number of positions and the location of position 0 must be identical; → pages 07/052 and 053 for ordering details.

Cam Switches

For Control Circuit Functions: Stepping Switches

UL / CSA / IEC / CE

Surface mounting ¹⁾ Enclosure <small>Totally insulated</small>		Base mounting with cover		Base mounting with cover mounted handle and coupling drive	
Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list
I2-NA 110047		IVS 027076		Z 060208	
I2-NA 110048		IVS 057835		Z 062581	
I2-NA 110049		IVS 074446		Z 076819	
I2-NA 110050		IVS 088684		Z 091057	
I2-NA 110051		IVS 012749		Z 015122	
I2-NA 110052		IVS 041225		Z 043598	
-		IVS 055463		Z 057836	
-		IVS 069701		Z 072074	

Notes:
IEC Ratings

Suitable for actuating electronic devices
 Rated uninterrupted current I_u 20 A
 Rated operational current I_e
 AC-15
 220 – 240 V 6 A
 380 – 415 V 4 A
 AC-21A 12 A
 DC-13 32 V per contact 10 A

Further technical data → page 07/072

UL/CSA Ratings:
 Heavy Pilot Duty A 600, P 600

Cam Switches,
Motor Disconnect Switches

Cam Switches

For Control Circuit Functions: Stepping Switches

Circuit function diagram	Front Plate No. ³⁾	No. of poles	No. of steps	Basic type for ..., insert mounting form	Cover mounting		Center mounting 22.5 mm opening	
					Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list
Stepping switches								
One contact closed per step (without overlap), without additional OFF position								
	FS 943	1	2	T0-1-8220/...	E 031728		EZ 095799	
	FS 404	1	3	T0-2-8230/...	E 088685		EZ 091058	
	FS 606	1	4	T0-2-8231/...	E 012750		EZ 015123	
	FS 408	1	5	T0-3-8232/...	E 026988		EZ 029361	
	FS 410	1	6	T0-3-8233/...	E 041226		EZ 043599	
	FS 943	3	2	T0-3-8222/...	E 048339		EZ 015118	
	FS 404	3	3	T0-5-8270/...	E 091059		EZ 093432	
	FS 606	3	4	T0-6-8271/...	E 015124		EZ 017497	

Notes:

- 1) Surface mounted enclosures are IEC type, totally insulated, corrosion-resistant rated IP 65, NEMA rated 3R, 12.
- 2) All switches have black handle with light gray nameplate.
- 3) All front plates shown may be exchanged at the time of the order at no extra charge. The prerequisite is that switching angles, the number of positions and the location of position 0 must be identical; → pages 07/052 and 053 for ordering details.

Cam Switches

UL / CSA / IEC / CE

For Control Circuit Functions: Stepping Switches

Cam Switches,
Motor Disconnect Switches

Surface mounting Enclosure <small>totally insulated</small>		Base mounting with cover		Base mounting with cover mounted handle and coupling drive	
Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list
I2-NA 109931		IVS 055459		Z 086312	
I2-NA 110054		IVS 095804		Z 098177	
I2-NA 110055		IVS 019869		Z 022242	
I2-NA 110056		IVS 034107		Z 036480	
I2-NA 110057		IVS 048345		Z 050718	
I2-NA 109989		IVS 060205		Z 088686	
-		IVS 098178		Z 010378	
-		IVS 022243		Z 024616	

Notes:

IEC Ratings:

Suitable for actuating electronic devices

Rated uninterrupted current I_u 20 A

Rated operational current I_e

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

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Further technical data → page 07/072

UL/CSA Ratings:

Heavy Pilot duty A 600, P 600

Cam Switches

For Control Circuit Functions: ON-OFF, Change-over Switches

Circuit function diagram	Front Plate No. ³⁾	No. of poles	Basic type for ..., insert mounting form	Cover mounting		Center mounting 22.5 mm opening	
				Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list
ON-OFF switches							
		1	T0-1-15401/...	E-NA 104403		EZ-NA 104404	
		2	T0-1-15402/...	E-NA 104407		EZ-NA 104408	
		3	T0-2-15403/...	E-NA 104491		EZ-NA 104492	
		4	T0-2-15404/...	E-NA 104495		EZ-NA 104496	
Change-over switches							
		1	T0-1-15421/...	E 095806		EZ 098179	
		2	T0-2-15422/...	E 019871		EZ 022244	
		3	T0-3-15423/...	E 034109		EZ 036482	


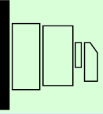
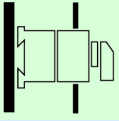
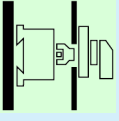
Notes:

- ¹⁾ Surface mounted enclosures are IEC type, totally insulated, corrosion-resistant rated IP 65, NEMA rated 3R, 12.
- ²⁾ All switches have black handle with light gray nameplate.
- ³⁾ All front plates shown may be exchanged at the time of the order at no extra charge. The prerequisite is that switching angles, the number of positions and the location of position 0 must be identical; → pages 07/052 and 053 for ordering details. English front plates supplied with the switches as shown in the catalog, can be exchanged for their French equivalent by adding the FS... number shown with suffix -F to the switch type (Example: T0-1-15401/E-NA+FS147472-F).

Cam Switches

For Control Circuit Functions: ON-OFF, Change-over Switches

UL / CSA / IEC / CE

Surface mounting Enclosure 		Base mounting with cover		Base mounting with cover mounted handle and coupling drive	
	Price see price list		Price see price list		Price see price list
Mounting form Article No.		Mounting form Article No.		Mounting form Article No.	
I2-NA 110058		IVS-NA 110065		Z-NA 104406	
I2-NA 110059		IVS-NA 110066		Z-NA 104410	
I2-NA 110060		IVS-NA 110067		Z-NA 104494	
I2-NA 110061		IVS-NA 110068		Z-NA 104498	
I2-NA 110062		IVS 012752		Z 015125	
I2-NA 110063		IVS 026990		Z 029363	
I2-NA 110064		IVS 041228		Z 043601	

Notes

IEC Ratings:

Suitable for actuating electronic devices

Rated uninterrupted current I_u 20 A

Rated operational current I_e

AC-15

220 – 240 V 6 A

380 – 415 V 4 A

AC-21A 12 A

DC-13 32 V per contact 10 A

Further technical data → page 07/072

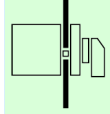
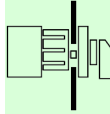
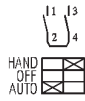

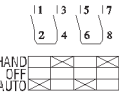
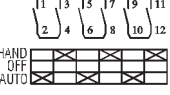
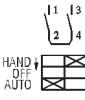

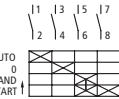

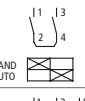

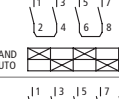
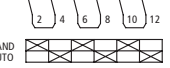
UL/CSA Ratings:

Heavy Pilot Duty A 600, P 600

Cam Switches,
Motor Disconnect Switches

Cam Switches

For Control Circuit Functions: Hand/Auto Switches

Circuit function diagram	Front Plate No. ³⁾	No. of poles		Cover mounting	Center mounting 22.5 mm opening
			Basic type for ..., insert mounting form	 Mounting form Article No. Price see price list	 Mounting form Article No. Price see price list
Hand/Auto switches with OFF position					
	 FS 1420	1	T0-1-15431/...	E-NA 104415	EZ-NA 104416
		2	T0-2-15432/...	E-NA 104503	EZ-NA 104504
		3	T0-3-15433/...	E-NA 104597	EZ-NA 104598
with spring-return function for HAND					
	 1413905	1	T0-1-15434/...	E-NA 104419	EZ-NA 104420
with spring-return function for START					
	 FS 1413890	1	T0-2-15907/...	E 066931	EZ 069304
without OFF position					
	 FS 19334	1	T0-1-15451/...	E 076824	EZ 079197
		2	T0-2-15452/...	E 091062	EZ 093435
		3	T0-3-15453/...	E 015127	EZ 017500

Notes:

- ¹⁾ Surface mounted enclosures are IEC type, totally insulated, corrosion-resistant rated IP 65, NEMA rated 3R, 12.
- ²⁾ All switches have black handle with light gray nameplate.
- ³⁾ All front plates shown may be exchanged at the time of the order at no extra charge. The prerequisite is that switching angles, the number of positions and the location of position 0 must be identical; → pages 07/052 and 053 for ordering details. English front plates supplied with the switches as shown in the catalog, can be exchanged for their French equivalent by adding the FS... number shown with suffix -F to the switch type (Example: T0-1-15431/E-NA+FS1420-F).

Cam Switches

UL / CSA / IEC / CE

For Control Circuit Functions: Hand/Auto Switches

Surface mounting Enclosure ¹⁾ 		Base mounting with cover		Base mounting with cover mounted handle and coupling drive	
	Price see price list		Price see price list		Price see price list
Mounting form Article No.		Mounting form Article No.		Mounting form Article No.	
I2-NA 110071		IVS-NA 110079		Z-NA 104418	
I2-NA 110072		IVS-NA 110080		Z-NA 104506	
I2-NA 110073		IVS-NA 110081		Z-NA 104600	
I2-NA 110074		IVS-NA 110082		Z-NA 104422	
I2-NA 110075		IVS 076423		Z 078796	
I2-NA 110076		IVS 083943		Z 086316	
I2-NA 110077		IVS 098181		Z 010381	
I2-NA 110078		IVS 022246		Z 024619	

Notes:

IEC Ratings

Suitable for actuating electronic devices

Rated uninterrupted current I_u 20 A

Rated operational current I_e

AC-15 6 A

220 – 240 V 4 A

380 – 415 V 12 A

AC-21A 10 A

DC-13 32 V per contact

Further technical data → page 07/072

UL/CSA Ratings:

Heavy Pilot Duty A 600, P 600

Cam Switches,
Motor Disconnect Switches

Cam Switches

For Control Circuit Functions: Spring-return Application Switches

Circuit function diagram	Front Plate No. ³⁾	No. of poles	Basic type for ..., insert mounting form	Cover mounting		Center mounting 22.5 mm opening	
				Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list
ON switches (make contacts)							
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 switches							
Spring-return from position "0" and "1"							
		To control: 1 contactor	T0-1-15366/...	E 081572		EZ 083945	
ON-OFF switches							
Spring-return from the START position							
		1	T0-1-15511/...	E 019875		EZ 022248	
		2	T0-2-15512/...	E 034113		EZ 036486	
		3	T0-3-15513/...	E 048351		EZ 050724	
		To control: 1 reversing contactor	T0-2-8177/...	E-NA 104539		EZ-NA 104540	

Notes:

- 1) Surface mounting enclosures are IEC type, totally insulated, corrosion-resistant rated IP 65, NEMA rated 3R, 12.
- 2) All switches have black handle with light gray nameplate.
- 3) All front plates shown may be exchanged at the time of the order at no extra charge. The prerequisite is that switching angles, the number of positions and the location of position 0 must be identical; → pages 07/052 and 053 for ordering details. English front plates supplied with the switches as shown in the catalog, can be exchanged for their French equivalent by adding the FS... number shown with suffix -F to the switch type (Example: T0-2-8177/E-NA+FS140660-F).

Cam Switches

For Control Circuit Functions: Spring-return Application Switches

UL / CSA / IEC / CE

Surface mounting Enclosure ¹⁾ <small>(totally insulated)</small>		Base mounting with cover		Base mounting with cover mounted handle and coupling drive	
Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list
I2-NA 110083		IVS 093436		Z 095809	
I2-NA 110084		IVS 017501		Z 019874	
I2-NA 110085		IVS 031739		Z 034112	
I2-NA 110086		IVS 088691		Z 091064	
I2-NA 110087		IVS 026994		Z 029367	
I2-NA 110088		IVS 041232		Z 043605	
I2-NA 110089		IVS 055470		Z 057843	
I2-NA 110090		IVS-NA 110091		Z-NA 104542	

Notes:

IEC Ratings:

Suitable for actuating electronic devices
 Rated uninterrupted current I_u 20 A
 Rated operational current I_e
 AC-15 220 – 240 V 6 A
 380 – 415 V 4 A
 AC-21A 12 A
 DC-13 32 V per contact 10 A

Further technical data → page 07/072

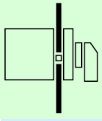
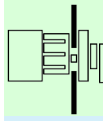




UL/CSA Ratings:

Heavy Pilot duty: A 600, P 600

Cam Switches,
Motor Disconnect Switches

Cam Switches and Motor Controllers

Control Switches, Coding Switches, Series Switches

Circuit function diagram	Front Plate No. ³⁾	No. of poles		Cover mounting	Center mounting 22.5 mm opening		
							
			Basic type for ..., insert mounting form	Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list
Multi-purpose control switches							
Maintained, 3-position switches 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							
	 FS 429	—	T0-3-15391/...	E 029365		EZ 031738	
same as above, but with spring-return for positions 1 and 2							
	 FS 458	—	T0-3-15394/...	E 072079		EZ 074452	
Coding switches							
with complete rotation in both directions							
	 FS 312	Dual BCD- CODE	T0-4-15602/...	E 029368		EZ 031741	
Series switches							
with OFF position (heater switches))							
	 FS 614	1	T0-1-91/...	E 072082		EZ 074455	

Notes:

- 1) Surface mounting enclosures are IEC type, totally insulated, corrosion-resistant rated IP 65, NEMA rated 3R, 12.
- 2) All switches have black handle with light gray nameplate.
- 3) All front plates shown may be exchanged at the time of the order at no extra charge. The prerequisite is that switching angles, the number of positions and the location of position 0 must be identical; → pages 07/052 and 053 for ordering details.

Cam Switches and Motor Controllers

Control Switches, Coding Switches, Series Switches

UL / CSA / IEC / CE

Surface mounting Enclosure <small>totally insulated</small>		Base mounting with cover		Base mounting with cover mounted handle and coupling drive	
Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list
I2-NA 110092		IVS 036484		Z 038857	
I2-NA 110093		IVS 079198		Z 081571	
I2-NA 110094		IVS 036487		Z 038860	
I2-NA 110095		IVS 079201		Z 081574	

Notes:

IEC Ratings:

Suitable for actuating electronic devices
 Rated uninterrupted current I_u 20 A
 Rated operational current I_e
 AC-15 220 – 240 V 6 A
 380 – 415 V 4 A
 AC-21A 12 A
 DC-13 32 V per contact 10 A
 Further technical data → page 07/072
 UL/CSA Ratings
 Heavy Pilot Duty A 600, P 600

Cam Switches,
Motor Disconnect Switches

Cam Switches

Control Switches, Instrument Selector Switches

Circuit function diagram	Front Plate No. ³⁾	No. of poles	Basic type for ..., insert mounting form	Cover mounting		Center mounting 22.5 mm opening	
				Mounting form Article No.	Price see price list	Mounting form Article No.	Price see price list
Instrumentation selector switches							
Voltmeter							
		3 × Phase-Phase with OFF position	T0-2-15176/...	E-NA 104485		EZ-NA 104486	
		3 × Phase-Phase without OFF position	T0-2-15922/...	E 053099		EZ 055472	
		3 × Phase to neutral with OFF position	T0-2-15177/...	E-NA 104488		EZ-NA 104489	
		3 × Phase-Phase + 3 × Phase to neutral with OFF position	T0-3-8007/...	E-NA 104608		EZ-NA 104609	
		3 × Phase-Phase + 3 × Phase to neutral without OFF position, with complete rotation in both directions	T0-3-15924/...	E 019878		EZ 022251	
Ammeter							
with complete rotation in both directions Measurement via current transformers							
		with OFF position	T0-3-8048/...	E-NA 104611		EZ-NA 104612	
Voltmeter and ammeter							
with complete rotation in both directions Measurement via transformers							
		with OFF position	T0-3-8030/...	E 013401		EZ 013402	


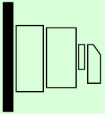
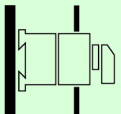
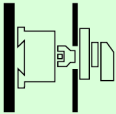
Notes:

- 1) Surface mounting enclosures are IEC type, totally insulated, corrosion-resistant rated IP 65, NEMA rated 3R, 12.
- 2) All switches have black handle with light gray nameplate.
- 3) All front plates shown may be exchanged at the time of the order at no extra charge. The prerequisite is that switching angles, the number of positions and the location of position 0 must be identical; → pages 07/052 and 053 for ordering details. English front plates supplied with the switches as shown in the catalog, can be exchanged for their French equivalent by adding the FS... number shown with suffix -F to the switch type (Example: T0-2-15176/E-NA+FS194321-F).

Cam Switches

Control Switches, Instrument Selector Switches

UL / CSA / IEC / CE

Surface mounting Enclosure ¹⁾ 		Base mouting with cover		Base mounting with cover mounted handle and coupling drive	
	Price see price list		Price see price list		Price see price list
Mounting form Article No.		Mounting form Article No.		Mounting form Article No.	
I2-NA 110096		IVS-NA 110103		Z-NA 104487	
I2-NA 110097		IVS 060218		Z 062591	
I2-NA 110098		IVS-NA 110104		Z-NA 104490	
I2-NA 110099		IVS-NA 110105		Z-NA 104610	
I2-NA 110100		IVS 026997		Z 029370	
I2-NA 110101		IVS-NA 110106		Z-NA 104613	
I2-NA 110102		IVS 013404		Z 013406	

Notes:

IEC Ratings

Suitable for actuating electronic devices
 Rated uninterrupted current I_u 20 A
 Rated operational current I_e
 AC-15 220 – 240 V 6 A
 380 – 415 V 4 A
 AC-21A 12 A
 DC-13 32 V per contact 10 A

Further technical data → page 07/072

UL/CSA Ratings:

Heavy Pilot duty: A 600, P 600

Cam Switches,
Motor Disconnect Switches