

## Main Accessories

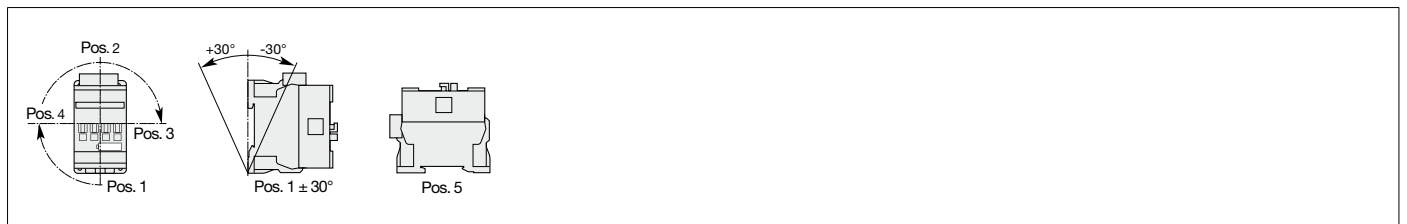


### Accessory fitting details for a NF contactor relay

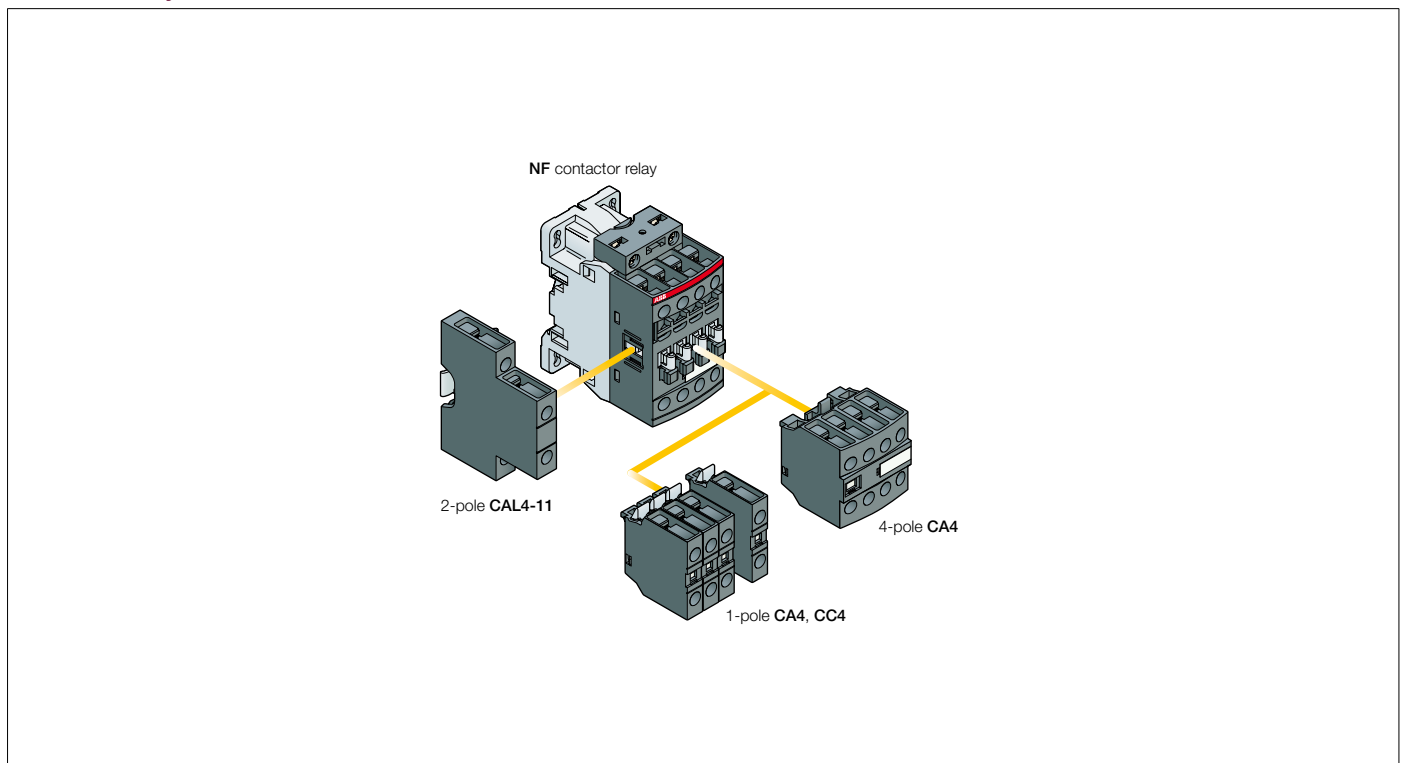
Many configurations of accessories are possible depending on whether these are front-mounted or side-mounted.

Contactor relay types	Main poles	Front-mounted accessories		Side-mounted accessories	
		Auxiliary contact blocks		Auxiliary contact blocks	
		1-pole CA4 1-pole CC4	4-pole CA4	Left side 2-pole CAL4-11	Right side
Max. add-on N.C. auxiliary contacts: 3 N.C. max. on positions 1, 2, 3, 4 and 2 N.C. max. on positions 1 ±30°, 5					
NF..	2 2 E	4 max.	or 1	+ 1	-
NF..	3 1 E	2 max.	-	+ 1	+ 1
Max. add-on N.C. auxiliary contacts: 4 N.C. max. on positions 1, 2, 3, 4 and 3 N.C. max. on positions 1 ±30°, 5					
NF..	4 0 E	4 max.	or 1	+ 1	-
		2 max.	-	+ 1	+ 1
NF..	4 4 E				
NF..	5 3 E				
NF..	6 2 E	-	-	1	-
NF..	7 1 E				
NF..	8 0 E				

### Mounting positions



### Contactor relays and main accessories (other accessories available)



# Auxiliary Contact Blocks

## Accessories for NF Contactor Relays



CA4-10



CA4-22N



CAL4-11

### Application

The auxiliary contact blocks are used for the operation of auxiliary circuits and control circuits.

### Description

Types of auxiliary contact blocks for standard industrial environments:

- **CA4** 1 or 4-pole block, front-mounted, instantaneous with N.O., N.C. contacts.
- **CC4** 1-pole block, front-mounted, with N.O. leading contact or N.C. lagging contact.
- **CAL4** 2-pole block instantaneous N.O. + N.C. contacts clipped onto the right and/or left side of the contactors.

The auxiliary contact blocks are equipped with screw type connecting terminals delivered open, protected against accidental direct contact and bear the corresponding function marking.

Fitting Details - For each contactor relay type, refer to "Accessory Fitting Details" table.

### Ordering Details

For contactor relays	Auxiliary contacts	Type	Order code	Pack <sup>(ing)</sup> pieces	Weight kg (1 pce)
	 				

#### Front-mounted instantaneous auxiliary contact blocks

4-pole NF	1 0 - -	CA4-10	1SBN 010 110 R1010	1	0.014
	1 0 - -	CA4-10-T	1SBN 010 110 T1010	10	0.014
	0 1 - -	CA4-01	1SBN 010 110 R1001	1	0.014
	0 1 - -	CA4-01-T	1SBN 010 110 T1001	10	0.014
	4 0 - -	CA4-40N	1SBN 010 140 R1240	1	0.055
	3 1 - -	CA4-31N	1SBN 010 140 R1231	1	0.055
	2 2 - -	CA4-22N	1SBN 010 140 R1222	1	0.055
	1 3 - -	CA4-13N	1SBN 010 140 R1213	1	0.055
NF..40E	0 4 - -	CA4-04N	1SBN 010 140 R1204	1	0.055

#### Front-mounted auxiliary contact blocks with N.O. leading contact and N.C. lagging contact

4-pole NF	- - 1 0	CC4-10	1SBN 010 111 R1010	1	0.014
	- - 0 1	CC4-01	1SBN 010 111 R1001	1	0.014

#### Side-mounted instantaneous auxiliary contact blocks

NF	1 1 - -	CAL4-11	1SBN 010 120 R1011	1	0.040
	1 1 - -	CAL4-11-T	1SBN 010 120 T1011	10	0.040

# Auxiliary Contact Blocks

## Accessories for NF Contactor Relays



### Technical Data

<b>Types</b>	1-pole CA4, 1-pole CC4, 4-pole CA4, 2-pole CAL4	
<b>Contact Utilization Characteristics according to IEC</b>		
<b>Standards</b>	IEC 60947-5-1 and EN 60947-5-1	
<b>Rated insulation voltage <math>U_i</math></b> acc. to IEC 60947-5-1	690 V	
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	6 kV	
<b>Rated operational voltage <math>U_o</math> max.</b>	24 ... 690 V	
<b>Conventional thermal current <math>I_{th}</math> - <math>\theta \leq 40</math> °C</b>	16 A	
<b>Rated frequency limits</b>	25 ... 400 Hz	
<b>Rated operational current <math>I_o</math> / AC-15</b>	24-127 V 50/60 Hz	6 A
acc. to IEC 60947-5-1	220-240 V 50/60 Hz	4 A
	400-440 V 50/60 Hz	3 A
	500 V 50/60 Hz	2 A
	690 V 50/60 Hz	2 A
<b>Making capacity</b> acc. to IEC 60947-5-1	10 x $I_o$ AC-15 acc. to IEC 60947-5-1	
<b>Breaking capacity</b> acc. to IEC 60947-5-1	10 x $I_o$ AC-15 acc. to IEC 60947-5-1	
<b>Rated operational current <math>I_o</math> / DC-13</b>	24 V DC	6 A / 144 W
acc. to IEC 60947-5-1	48 V DC	2.8 A / 134 W
	72 V DC	1 A / 72 W
	110 V DC	0.55 A / 60 W
	125 V DC	0.55 A / 69 W
	220 V DC	0.27 A / 60 W
	250 V DC	0.27 A / 68 W
	400 V DC	0.15 A / 60 W
	500 V DC	0.13 A / 65 W
	600 V DC	0.1 A / 60 W
<b>Short-circuit protection gG type fuse</b>	10 A	
<b>Rated short-time withstand current <math>I_{cw}</math></b>	for 1.0 s	100 A
$\theta = 40$ °C	for 0.1 s	140 A
<b>Minimum switching capacity</b>	12 V / 3 mA	
with failure rate acc. to IEC 60947-5-4	$10^{-7}$	
<b>Heat dissipation per pole at 6 A</b>	0.1 W	
<b>Mechanical durability</b>	Number of operating cycles	10 millions operating cycles
	Max. switching frequency	3600 cycles/h
<b>Max. electrical switching frequency</b>	for AC-15	1200 cycles/h
	for DC-13	900 cycles/h

### Contact Utilization Characteristics according to UL/CSA

<b>Standards</b>	UL 508, CSA C22.2 N°14
<b>Rated insulation voltage <math>U_i</math></b>	600 V
<b>Max. rated voltage</b>	600 V AC, 600 V DC
<b>Pilot duty</b>	A600, Q600
AC thermal rated current	10 A
AC maximum volt-ampere making	7200 VA
AC maximum volt-ampere breaking	720 VA
DC thermal rated current	2.5 A
DC maximum volt-ampere making-breaking	69 VA

### Connecting Characteristics

<b>Screw terminals</b>	(delivered in open position, screws of unused terminals must be tightened)	
All terminals	M3.5	
<b>Connecting capacity (min. ... max.)</b>		
Rigid solid	1 x	1 ... 2.5 mm <sup>2</sup>
Rigid solid	2 x	1 ... 2.5 mm <sup>2</sup>
Flexible with non insulated ferrule	1 x	0.75 ... 2.5 mm <sup>2</sup>
Flexible with non insulated ferrule	2 x	0.75 ... 2.5 mm <sup>2</sup>
Flexible with insulated ferrule	1 x	0.75 ... 2.5 mm <sup>2</sup>
Flexible with insulated ferrule	2 x	0.75 ... 1.5 mm <sup>2</sup>
Bars or lugs	L <	8 mm
Capacity acc. to UL/CSA	1 or 2 x	AWG 18 ... 14
Stripping length	10 mm	
<b>Degree of protection</b>	IP20	
acc. to IEC 60947-1 / EN 60947-1 and IEC 60529 / EN 60529		
<b>Screwdriver type</b>	Flat Ø5.5 / Pozidriv 2	
<b>Tightening torque</b>	1.2 Nm / 11 lb.in	