

Auxiliary Contact Blocks

Side Mounting



CAL18-11

1SFC101072F0201



CAL18-11RT

1SFC101073F0201



CEL18-..

1SFC101074F0201

Application

The auxiliary contact blocks are used for the operation of auxiliary circuits and control circuits for contactors A/AF95...AF1650

Description

Type of side mounted auxiliary contact blocks available:

- **CAL18** instantaneous 2-pole auxiliary contact blocks with N.O. + N.C. contacts.
 - Equipped with screw type connecting terminals delivered open.
 - Protected against accidental direct contact, IP20
 - Marked in accordance with relevant standards.
- **CAL18-RT** for ring tongue connection available (mainly for traction applications).
- **CEL18** instantaneous 1-pole auxiliary contact block with N.O. or N.C. contact.
 - Equipped with built-in microswitch for low current and low voltage levels (mainly for PLC outputs)
 - Equipped with screw type connecting terminals delivered open.
 - Protected against accidental direct contact, IP20
 - Marked in accordance with relevant standards.

Mirror contacts

The **CAL18-11**, **CAL18-11B** and **CAL18-11RT** auxiliary contact blocks are designed to meet the requirements for mirror contacts in IEC 60947-4-1.

In short this means: The normally closed auxiliary contact can not be in closed position simultaneously with the normally open main contact. (AF1350/1650: Use two N.C. auxiliary contacts in series for mirror contact function, one auxiliary contact block on each side of the contactor).

Fitting Details

Clipped onto the right or lefthand side of the contactor.

The **CAL18-...B** is a second auxiliary contact block for mounting in addition to a first **CAL18** block, right or lefthand side of the A145 ... A300 and AF145 ... AF1650 contactors.

Ordering Details

For contactors	Max. number of blocks	Contacts		Type	Order code pieces	Pack ^{ing}	Weight kg
		N.O.	N.C.				1piece
2-pole auxiliary contacts							
A95 ... A300	2 blocks	} 1	1	CAL18-11	1SFN010720R1011	2	0.050
AF95 ... AF1650	2 blocks						
UA95 ... UA110	2 blocks						
A145 ... A300	2 blocks ⁽¹⁾	} 1	1	CAL18-11B	1SFN010720R3311	2	0.050
AF145 ... AF1650	2 blocks ⁽¹⁾						
2-pole auxiliary contacts for Ring Tongue connection							
A95 ... A300	2 blocks	} 1	1	CAL18-11-RT	1SFN010729R1011	2	0.050
AF95 ... AF1650	2 blocks						
UA95 ... UA110	2 blocks						
1-pole auxiliary contacts for low current and voltage levels							
A95 ... A300	2 blocks	} 0	1	CEL18-01	1SFN010716R1001	1	0.050
AF95 ... AF1650	2 blocks						
UA95 ... UA110	2 blocks						
A145 ... A300	2 blocks	} 1	0	CEL18-10	1SFN010716R1010	1	0.050
AF145 ... AF1650	2 blocks						
UA95 ... UA110	2 blocks						

⁽¹⁾ 2 blocks CAL 18-11 + 2 blocks CAL 18-11B

Auxiliary device including an insertion contact and a varistor.





To be used only with AE 95/110 and TAE 95/110.

AE95, AE110	}	CCL18-01	1SFN014328R1001	1	0,040
TAE95, TAE110					

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Technical Data

Types	CAL18-...	CEL18-...
Compliance with standards	IEC 60947-5-1, EN 60947-5-1	
Certification and approvals	CE, UL, CSA, CCC	CE, UL
Rated insulation voltage U_i according to IEC 60947-5-1	V 690	250
according to UL/CSA	V 690	250
Rated operational voltage U_e	V a.c. 24 to 690	125
Conventional free air thermal current I_{th}	A 16	0.1
Rated operational current I_e acc. to IEC 60947-5-1	AC-15	AC-14
24-127 V a.c.	A 6	0.1
220-240 V a.c.	A 4	–
380-440 V a.c.	A 3	–
500-690 V a.c.	A 2	–
	DC-13	DC-12
24 V d.c.	A 6	0.1
48 V d.c.	A 2.8	0.1
72 V d.c.	A 1	0.1
110 V d.c.	A 0.55	0.1
125 V d.c.	A 0.55	–
250 V d.c.	A 0.3	–
Short-circuit protection -	A 10 gG type fuses	0.1 FF fuses ¹⁾
Rated making capacity	10 x I_e AC-15	6 x I_e AC-14
Rated breaking capacity	10 x I_e AC-15	6 x I_e AC-14
Rated short-time withstand current I_{cw} 1 s	A 100	–
$\theta = 40\text{ °C}$ 0.1 s	A 140	–
Power loss per pole at 6 A	W 0.15	–
Min. switching capacity	V / mA 24 / 50 (0.5 million operating cycles)	3/1
Mechanical durability – millions of operating cycles	5 (A/AF95 ... A/AF185), 3 (A/AF210 ... AF750), 0.5 (AF1350/AF1650)	1
– max. mechanical switching frequency	cycles / h 3600	1200
Electrical durability – millions of operating cycles	see diagram below	0.7
– max. electrical switching frequency	cycles / h 1200	1200
Connecting terminals (Delivered in open position. Terminal screws not used should be tightened.)	M3.5 (+,-) pozidriv 2 screw with cable clamp (no cable clamp for -RT version)	
Tightening torque – recommended	Nm 1.00	
– max.	Nm 1.20	
Connecting capacity (min. ... max.)		
Rigid solid 	1 or 2 x mm²	1 ... 4
Flexible with cable en 	1 or 2 x mm²	0.75 ... 2.5
Lugs 	L mm ≤ l mm >	8 3.7
Ring Tongue connector 	L mm ≤ l mm >	8 (only for -RT version) 3.7 (only for -RT version)
Degree of protection according to IEC 60529, IEC 60144	IP 20	

1) HRC fuses for very fast action (size 6.3 x 32 mm)

CAL18 Electrical Durability for AC-15 Utilization Category

AC-15 utilization category according to IEC 60947-5-1 / EN 60947-5-1:

- making current: 10 x I_e with $\cos \varphi = 0.7$ and U_e
- breaking current: I_e with $\cos \varphi = 0.4$ and U_e

These curves represent the electrical durability of the add-on auxiliary contacts in relation to the breaking current.

