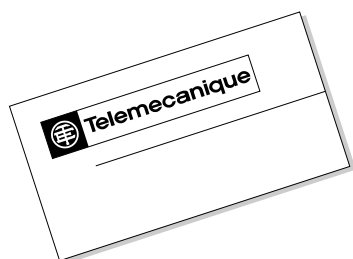


# Alternating Relays SKE

File 8501



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# Alternating Relays SKE

The mini-control relay with alternating contacts makes it possible to automatically split the operating time between 2 circuits of a redundant system (see functional diagram below).

By regularly energizing the "safety circuits," the device makes it possible to ensure that they are operating correctly.



CA2SKE20

- Width of mini-control relay 45 mm.
- Mounting on 35mm DIN 3 track or direct panel mount.
- Screw clamp terminals.
- Cannot be fitted with front mounted auxiliary contact block.
- Cannot be fitted with coil suppressor module.

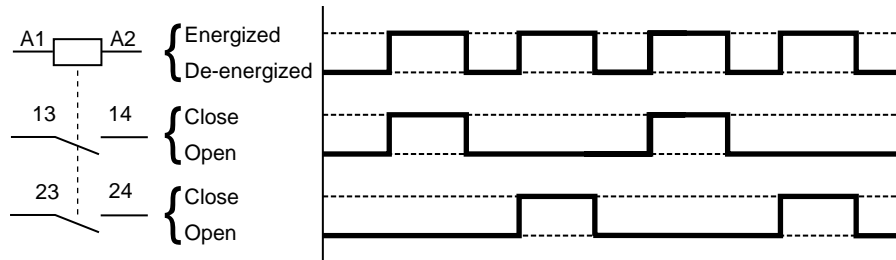
Control circuit supply	Contact arrangement 	Basic reference. Complete with code indicating control circuit voltage.
AC	2	CA2SKE20●●

### AC coil voltages 50/60 Hz

Volts	24	48	110	120	220	230	240	380	400	480
Code	B7	E7	F7	G7	M7	P7	U7	Q7	V7	T7

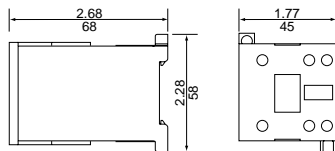
### Functional diagram

Mini-control relays with alternating contacts CA2SKE20

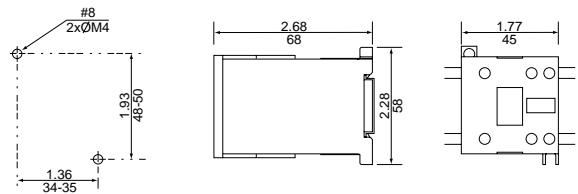


### Dimensions

CA2-SKE  
On panel

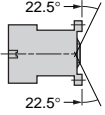
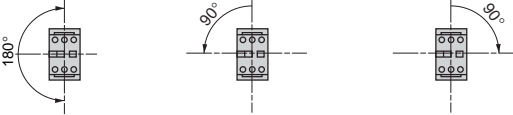


On rail AM1-DP200 or AM1-DE200  
(35 mm)



Dual Dimensions:  $\frac{\text{Inches}}{\text{Millimeters}}$

## Environment

Rated Insulation Voltage	Conforming to IEC 947, VDE 0110 gr C, BS 5424, CSA 22-2n°14, UL 508	690 V	
Conforming to Standards		IEC 947, NF C 64-110, VDE 0660, BS 5424	
Approvals		UL, CSA	
Protective treatment	Conforming to IEC 68 (DIN 50015)	"TC" (Klimafest, Climateproof)	
Degree of Protection	Conforming to VDE 0106	Protection against direct finger contact	
Ambient air temperature around the device	Storage	-50°C to +70°C (-76°F to 158°F)	
	Operation	-20°C to +50°C (14°F to 122°F)	
Maximum operating altitude	Without derating	6252 feet (2000 m)	
Operating position	<b>Vertical Axis</b>	<b>Horizontal Axis</b>	
			
	Without derating	Without derating      With derating      With derating	
Cabling, screw clamp terminals	Solid conductor	Minimum	Maximum
		#16 AWG 1 x 1.5 mm <sup>2</sup> or 2 x 1.5 mm <sup>2</sup>	#16 AWG 1 x 6 mm <sup>2</sup> or 2 x 4 mm <sup>2</sup>
		#20 AWG 1 x 0.5 mm <sup>2</sup> or 2 x 0.35 mm <sup>2</sup>	#22 AWG 1 x 6 mm <sup>2</sup> or 2 x 2.5 mm <sup>2</sup>
	Flexible cable with cable end	#22 AWG 1 x 0.35 mm <sup>2</sup> or 2 x 0.35 mm <sup>2</sup>	#16 AWG 1 x 6 mm <sup>2</sup> or 2 x 1.5 mm <sup>2</sup>
Tightening Torque	Pozidriv n° 1 head	7.08 lbf-in (0.8 Nm)	

## Control Circuit Characteristics

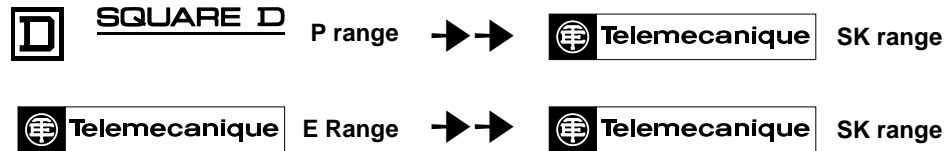
Type		CA2SKE
Related control circuit voltage (Uc)		24-400 V
Control voltage limits ≤ 122 °F (50°C) single voltage coil	For operation	0.85-1.1Uc
	For drop-out	≥0.20Uc
Average coil consumption at 68 °F (20 °C) and at Uc	Inrush	23 VA
	Sealed	4.9 VA
Heat Dissipation		1.5 W
Operating time at 20 °C and at Uc	Between coil energization and: - closing of the N/O contacts	8-16 ms
	Between coil de-energization and: - opening of the N/O contacts	8-10 ms
Maximum operating rate	In operating cycles per hour	1200
Mechanical durability at Uc In millions of operating cycles	50/60 Hz coil	10



Operational power of contacts conforming to IEC 947	AC supply, category AC-15 Electrical durability (valid up to 3600 operating cycles per hour) on an inductive load such as the coil of an electro-magnet: making current (cos φ 0.7) = 10 times the breaking current (cos φ 0.4).						
	V	24	48	110/127	220/230	380/400	440
1 million operating cycles	VA	48	96	240	440	800	880
3 million operating cycles	VA	17	34	86	158	288	317
10 million operating cycles	VA	7	14	36	66	120	132
Occasional making capacity	VA	1000	2050	5000	10000	14000	13000





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## Conversion Table



 <b>SQUARE D</b> P range	Composition	 <b>Telemecanique</b> SK range
<b>Mini-contactors</b>		
PC110E	3 P + N/O aux.	LC1SK0600.. + LA1SK10
PC101E	3 P + N/C aux.	LC1SK0600.. + LA1SK01
<b>Mini-contactors for modular panels</b>		
PC310EN	3 P + N/O aux.	LC1SKGC310..
PC301EN	3 P + N/C aux.	LC1SKGC301..
PCS100EN	2 P	LC1SKGC200..
<b>Mini-control relays</b>		
PR120E	2 N/O	CA2SK20..
PR111E	1 N/O + 1 N/C	CA2SK11..
PRD120E	2 N/O	CA3SK20..
PRD111E	1 N/O + 1 N/C	CA3SK11..
<b>Mini-control relay with alternating contacts</b>		
PHA	2 N/O	CA2SKE20..
<b>Instantaneous auxiliary contact blocks</b>		
PV11	1 N/O + 1 N/C	LA1SK11
PV20	2 N/O	LA1SK20
PV02	2 N/C	LA1SK02
<b>Suppressor module</b>		
PZV48	24-48 VAC/DC	LA4SK1E
PZV250	110-250 VAC/DC	LA4SK1U
PZD	24-250 VDC	LA4SK1U

 <b>Telemecanique</b> E range	Composition	 <b>Telemecanique</b> SK range
<b>Mini-contactors</b>		
LC1EC03.. and LC1EE03..	3 P + N/O aux.	LC1SKGC310..
LC1EC09.. and LC1EE09..	3 P + N/C aux.	LC1SKGC301..
	4 P	LC1SKGC400..
LC1EC08.. and LC1EE08..	2 P + 2 N/C main pole	