

CRM-181J, CRM-182J, CRM-183J | Singlefunction time relays



EAN code

CRM-181J/UNI ZR: 8595188180382
CRM-181J/UNI ZN: 8595188180399
CRM-181J/UNI BL: 8595188180405
CRM-181J/UNI OD: 8595188180412

CRM-182J/UNI ZR: 8595188176903
CRM-182J/UNI ZN: 8595188176910
CRM-182J/UNI BL: 8595188176927
CRM-182J/UNI OD: 8595188176934

CRM-183J/UNI ZR: 8595188180610
CRM-183J/UNI ZN: 8595188180603
CRM-183J/UNI BL: 8595188180580
CRM-183J/UNI OD: 8595188180579

Technical parameters

CRM-181J CRM-182J CRM-183J

Power supply

Supply terminals:	A1 - A2		
Voltage range:	AC/DC 12 - 240 V (AC 50-60 Hz)		
Power input (max.):	2 VA/1.5 W	2.5 VA/1.5 W	2.5 VA/1.5 W
Supply voltage tolerance:	-15 %; +10 %		
Supply indication:	green LED		

Time circuit

Time ranges:	0.1 s - 100 h		
Time setting:	rotary switch and potentiometer		
Time deviation:	5 % - mechanical setting		
Repeat accuracy:	0.2 % - set value stability		
Temperature coefficient:	0.01%/ $^{\circ}$ C, at = 20 $^{\circ}$ C (0.01%/ $^{\circ}$ F, at = 68 $^{\circ}$ F)		

Output

Output contact 1:	1x changeover/SPDT (AgNi)		
Current rating:	16 A/AC1; 1 HP/240 Vac, 1/2 HP/120 Vac; PD. B300		
Breaking capacity:	4000 VA/AC1, 384 W/DC1		
Electrical life (AC1):	100.000 ops.		
Output contact 2 (3):	x	1x chang./SPDT (AgNi)	2x chang./DPDT (AgNi)
Current rating:	x	16 A/AC1; 1 HP/240 Vac, 1/2 HP/120 Vac; PD. B300	8 A/AC1; 1/2 HP/240 Vac
Breaking capacity:	x	4000 VA/AC1, 384 W/DC1	2000 VA/AC1, 192 W/DC1
Electrical life (AC1):	x	100.000 ops.	50.000 ops.
Switching voltage:	250 V AC/24 V DC		
Max. power dissipation:	1.2 W	2.4 W	2.4 W
Mechanical life:	10.000.000 ops.		

Control

Control terminals:	A1-S		
Load between S-A2:	Yes		
Impulse length:	min. 25 ms/max. unlimited		
Reset time:	max. 150 ms		

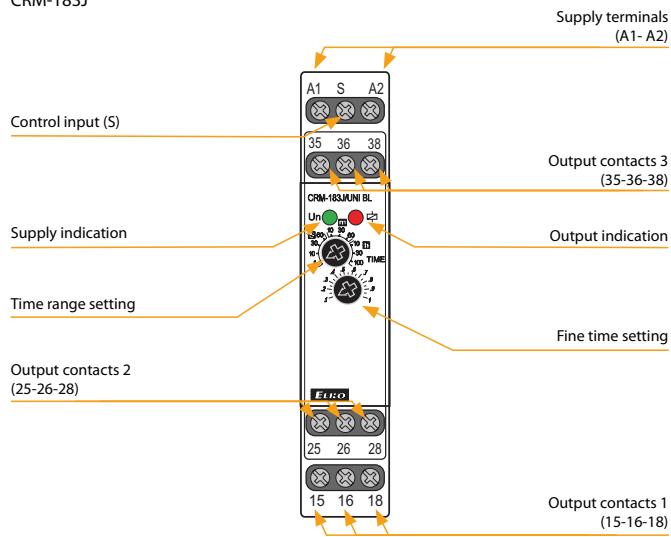
Other information

Operating temperature:	-20 .. +55 $^{\circ}$ C (-4 .. 131 $^{\circ}$ F)		
Storage temperature:	-30 .. +70 $^{\circ}$ C (-22 .. 158 $^{\circ}$ F)		
Dielectric strength:	supply - output 1		
	4 kV AC		
supply - output 2 (3)	x	4 kV AC	1 kV AC
output 1 - output 2	x	4 kV AC	1 kV AC
output 2 - output 3	x	x	1 kV AC
Operating position:	any		
Mounting:	DIN rail EN 60715		
Protection degree:	IP40 front panel/IP20 terminals		
Overtoltage category:	III.		
Pollution degree:	2		
Max. cable size (mm ²):	solid wire max. 1x 2.5 or 2x 1.5/ with sleeve max. 1x 2.5 (AWG 12)		
Dimensions:	90 x 17.6 x 64 mm (3.5" x 0.7" x 2.5")		
Weight:	61 g (2.2 oz)	84 g (3 oz)	84 g (3 oz)
Standards:	EN 61812-1		

- Single function time relays are suitable for applications where there is a clear function requirement in advance and are suitable for universal use in automation, control and regulation or in house installations.
- Choice of four types: ZR, ZN, BL, OD.
- All functions initiated by the supply voltage can use the control input to inhibit the ongoing delay (pause).
- Multifunction red LED flashes or shines depending on the operating status.

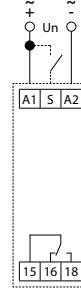
Description

CRM-183J

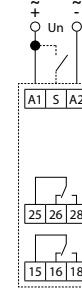


Connection

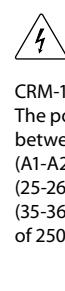
CRM-181J



CRM-182J



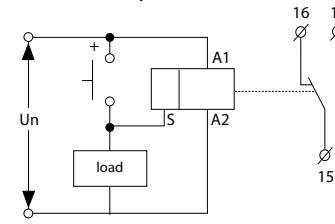
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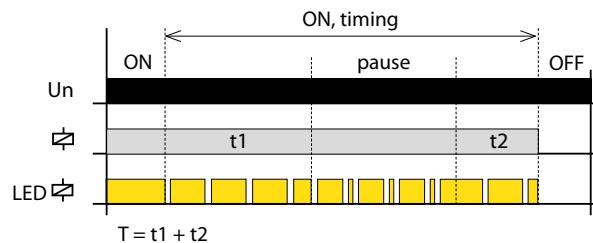
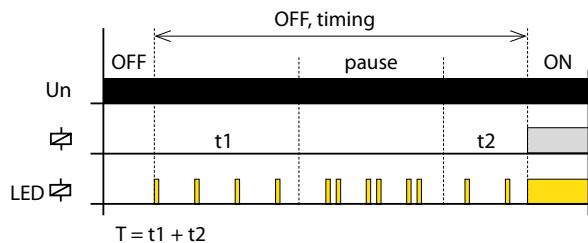
CRM-183J:
The potential difference between the supply terminals (A1-A2), output contact 2 (25-26-28) and output contact 3 (35-36-38) must be a maximum of 250 V AC rms/DC.

Possibility to connect load onto controlling input

It is possible to connect the load (e.g.: contactor) between terminals S-A2, without any interruption of correct relay function.

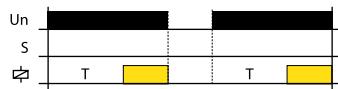


Indication of operating states



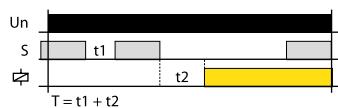
Function

ZR: ON DELAY



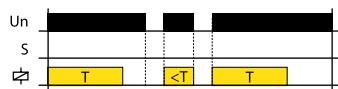
When the supply voltage is applied, the time delay T begins. When the timing is complete, the relay closes and this condition continues until the supply voltage is disconnected.

ON DELAY with Inhibit



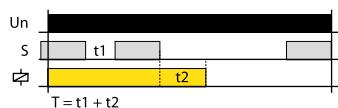
If the control contact is closed and the supply voltage is connected, the relay is opened and timing does not start until the control contact opens. When the timing is complete, the relay closes. If the control contact is closed during timing, the timing is interrupted and continues only after the control contact opens.

ZN: INTERVAL ON



After supply voltage relay closes and starts the delay time T . After the end of the timing relay opens and this state lasts until the supply voltage is disconnected.

INTERVAL ON with Inhibit

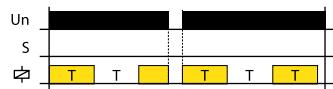


If the control contact is closed and the supply voltage is connected, the relay will close and the timing will start only after the control contact has been opened. When the timing is complete, the relay opens. If the control contact is closed during timing, the timing is interrupted and continues only after the control contact opens.

Note:

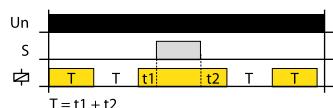
ZR, ZN and BL functions are initiated by connecting the supply voltage to the product, i.e. In the event of a failure and recovery of the supply voltage, the relay automatically performs 1 cycle.

BL: FLASHER - ON first



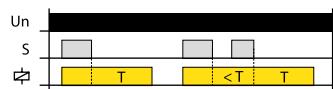
If the control contact is closed and the supply voltage is connected, the relay will close and the timing will start only after the control contact has been opened. When the timing is complete, the relay opens.

FLASHER - ON first with Inhibit



If the control contact is closed during an active timer setting, the timing is interrupted and continues only after the control contact opens again.

OD: OFF DELAY



When the supply voltage is applied, the relay is open. When the control contact is closed, the relay closes. When the control contact opens, the time delay T begins. If the control contact is closed during timing, the time is reset and the relay remains closed. When the control contact opens, the time delay T starts again and opens when the relay closes.