



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: 8595188180597
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**Technical parameters** CRM-181J CRM-182J CRM-183J

**Power supply**

Supply terminals:	A1-A2		
Supply voltage:	AC/DC 12 – 240 V (AC 50-60 Hz)		
Consumption (max.):	2 VA/1.5 W	2.5 VA/1.5 W	2.5 VA/1.5 W
Supply voltage tolerance:	-15 %; +10 %		
Supply voltage 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 %/°C, at = 20 °C (0.01 %/°F, at = 68 °F)		

**Output**

Contact type 1:	1x changeover/SPDT (AgNi)		
Current rating:	16 A/AC1; PD. B300		
Breaking capacity:	4000 VA/AC1, 384 W/DC1		
Electrical life (AC1):	100.000 ops.		
Contact type 2 (3):	x	1x chang./SPDT (AgNi)	2x chang./DPDT (AgNi)
Current rating:	x	16 A/AC1; PD. B300	8 A/AC1; PD. B300
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		
Power dissipation (max.):	1.2 W	2.4 W	2.4 W
Mechanical life:	10.000.000 ops.		

**Control**

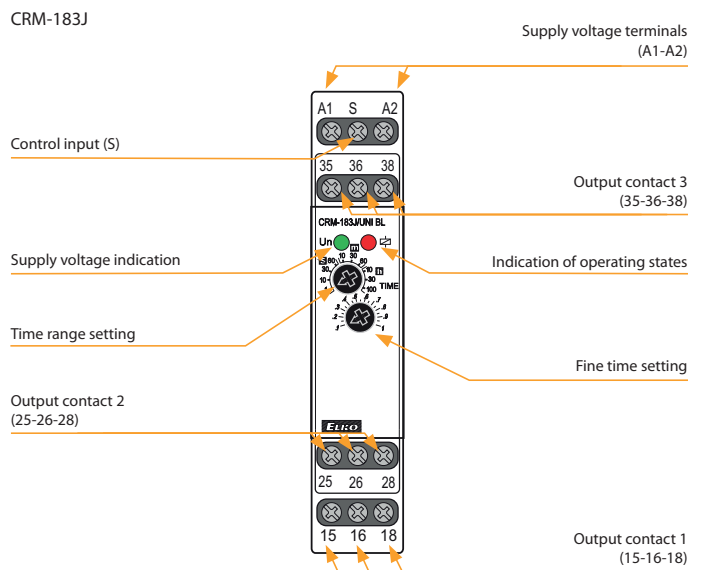
Control terminals:	A1-S		
Load between S-A2:	Yes		
Impulse length:	min. 25 ms/max. unlimited		
Reset time:	max. 150 ms		

**Other information**

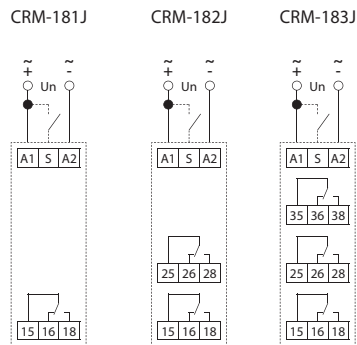
Operating temperature:	-20 .. +55 °C (-4 .. 131 °F)		
Storage temperature:	-30 .. +70 °C (-22 .. 158 °F)		
Dielectric strength:			
supply – output 1	AC 4 kV		
supply – output 2 (3)	x	AC 4 kV	AC 1 kV
output 1 – output 2	x	AC 4 kV	AC 1 kV
output 2 – output 3	x	x	AC 1 kV
Operating position:	any		
Mounting:	DIN rail EN 60715		
Protection degree:	IP40 front panel/IP20 terminals		
Overvoltage category:	III.		
Pollution degree:	2		
Cross-wire section – solid/stranded with ferrule (mm²):	max. 1x 2.5, 2x 1.5/ 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 universal use in automation, control and regulation or in house installations where there is a clear function requirement in advance.
- Choice of four types function: ZR, ZN, BL, OD
- All functions initiated by the supply voltage can use the control input to inhibit the ongoing delay (pause).
- Universal supply voltage AC/DC 12 – 240 V.
- Time scale 0.1 s - 100 h divided into 10 ranges: (0.1 - 1 s / 1 - 10 s / 3 - 30 s / 6 - 60 s / 1 - 10 min / 3 - 30 min / 6 - 60 min / 1 - 10 h / 3 - 30 h / 10 - 100 h).
- Output contact:
  - CRM-181J: 1x changeover / SPDT 16 A
  - CRM-182J: 2x changeover / SPDT 16 A
  - CRM-183J: 1x changeover / SPDT 16 A, 2x changeover / DPDT 8 A
- Multifunction red LED flashes or shines depending on the operating state.

**Description**



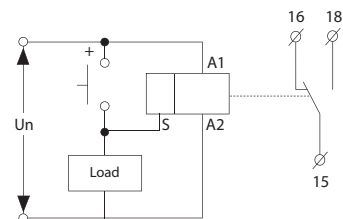
**Connection**



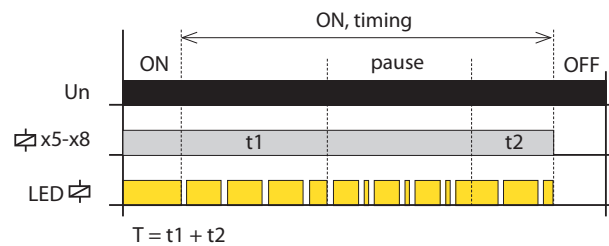
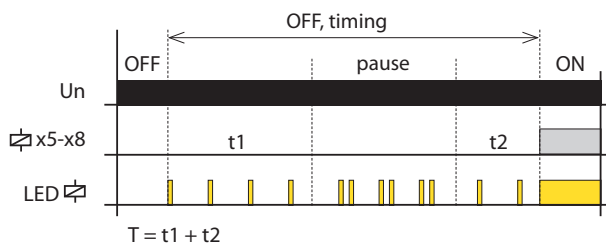
**CRM-183J:**  
The potential difference between the supply terminals (A1-A2), output contact 2 (25-26-28) and output contact 3 (35-36-38) must be a maximum of AC rms/DC 250 V.

**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



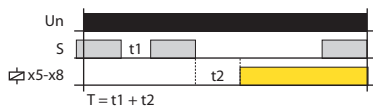
## Function

## ZR ON DELAY



When the supply voltage "Un" is applied, the time delay "T" starts. The output contact(s) "x5-x8" will close after the delay has elapsed. If the supply voltage "Un" is disconnected, the output contact(s) "x5-x8" are opened and the function is reset. Control input "S" is not used in this function.

## ON DELAY with Inhibit



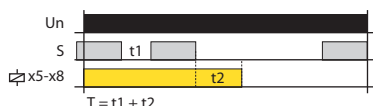
When the supply voltage "Un" is applied while the control input "S" is closed, the time delay "T" doesn't start. The delay only starts when the control input "S" is open. The output contact(s) "x5-x8" will close after the delay has elapsed. If the supply voltage "Un" is disconnected, the output contact(s) "x5-x8" are opened and the function is reset.

## ZN INTERVAL ON



When the supply voltage "Un" is applied, output contact(s) "x5-x8" closes immediately and time delay "T" starts. Output contact(s) "x5-x8" opens after the delay has elapsed. If the supply voltage "Un" is disconnected, the output contact(s) "x5-x8" are opened and the function is reset. Control input "S" is not used in this function.

## INTERVAL ON with Inhibit



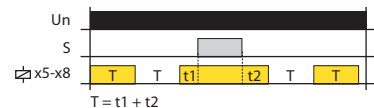
When the supply voltage "Un" is applied while the control input "S" is closed, the output contact(s) "x5-x8" are immediately closed and the time delay "T" doesn't start. The delay only starts when the control input "S" is open. The output contact(s) "x5-x8" will open after the delay has elapsed. If the supply voltage "Un" is disconnected, the output contact(s) "x5-x8" are opened and the function is reset.

## BL FLASHER - ON first



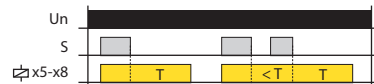
When the supply voltage "Un" is applied, output contact(s) "x5-x8" closes immediately and time delay "T" starts. Output contact(s) "x5-x8" opens after the delay has elapsed and the delay starts from the beginning. After the delay has elapsed, output contact(s) "x5-x8" closes again. This repeats as a cycle until the supply voltage "Un" is disconnected. If the supply voltage "Un" is disconnected, the output contact(s) "x5-x8" are opened and the function is reset. Control input "S" is not used in this function.

## FLASHER - ON first with Inhibit



When the supply voltage "Un" is applied while the control input "S" is closed, the output contact(s) "x5-x8" closes immediately and time delay "T" doesn't start. The delay only starts when the control input "S" is open. Output contact(s) "x5-x8" opens after the delay has elapsed and the delay starts from the beginning. After the delay has elapsed, output contact(s) "x5-x8" closes again. This repeats as a cycle until the supply voltage "Un" is disconnected. If the supply voltage "Un" is disconnected, the output contact(s) "x5-x8" are opened and the function is reset.

## OD: OFF DELAY



When the supply voltage "Un" is applied, the output contact(s) "x5-x8" are opened. If the control input "S" is closed, the output contact(s) "x5-x8" will close as well. If the control input "S" is opened, the time delay "T" starts. The output contact(s) "x5-x8" will open after the delay has elapsed. If the control input "S" is re-closed during the delay, the time delay "T" is reset and will start from beginning when the control input "S" is re-opened. If the supply voltage "Un" is disconnected, the output contact(s) "x5-x8" open and the function is reset.

**Note:** ZR, ZN and BL functions are initiated by connecting the supply voltage to the device, i.e. in the event of a failure and recovery of the supply voltage, the relay automatically performs 1 cycle.