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# **CRM-100** | Digital multifunction time relay

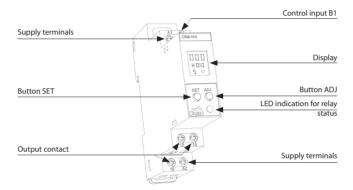
### NEW



Technical parameters	CRM-100
Number of functions:	17
Supply terminals:	A1 - A2
Voltage range:	AC/DC 24-240 V (50-60 Hz)
Consumption (apparent / loss):	AC 1-4 VA / DC 1-3 W
Supply voltage tolerance:	-15 %; +10 %
Time ranges:	0.1 s - 999 hrs.
Time setting:	Buttons SET / ADJ
Repeat accuracy:	± 0.5 % - of selected range
Variation in timing due to	
voltage change:	± 2%
Variation in timing due to	
temperature change:	± 5%
Output	
Number of contacts:	1x C/O / SPDT (AgNi)
Current rating:	8 A/ AC1
Breaking capacity:	2000 VA / AC1, 192 W / DC
Inrush current:	10 A / <3s
Switching voltage:	250 V AC1/ 24 V DC
Output indication:	multifunction red LED
Mechanical life:	2 x 10 <sup>7</sup>
Electrical life (AC1):	1 x 10⁵
Controlling	
Control. terminals:	A1-B1
Other information	
Operating temperature:	14 131 °F (-10 +55 °C )
Storage temperature:	-22 158 °F (-30 +70 °C )
Isolation (Between Input and	
Output):	2.5 kV
Operating position:	any
Mounting:	DIN rail EN 60715
Protection degree:	IP30 from front panel / IP20 terminals
Overvoltage cathegory:	III.
Pollution degree:	2
Max. cable size (mm²):	solid wire max. 1x 2.5 or 2x 1.5 /
	with sleeve max. 1x 2.5 (AWG 12)
Dimensions:	85 x 18.2 x 76 mm (3.3" x 0.7" x 2.99")
Weight:	85 g (2.99 oz.)

- Digital multifunction relay can be used for controlling lights, heating, motors, pumps, machines and appliances where you need set time functions.
- 17 most used functions.
- Thanks to digital display and settings you exact set reguired time (without any mechanical tolerance).
- Time range 0.1 s 999 hours
- Universal power supply 24-240 V AC/DC brings you variability of powering.
- 1x 8 A changeover contact.
- Visible time function for non-autoratized.
- 1-MODULE, DIN rail mounting.

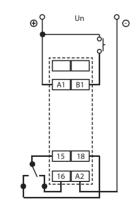
#### Description



### Description of displayed elements on the screen



### Connection



#### Symbol



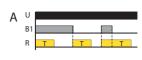
# **CRM-100** | Digital multifunction time relay

### Function

### 0 U R

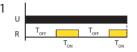
#### ON delay [0]

Timing commences when supply is present. R energizes at the end of the timing period.



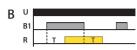
#### Impulse ON/OFF [8]

Permanent supply is required. R energizes for the timing period when B1 is opened or closed. When timing commences, changing state of B1 does not affect R but resets timer.



## Cyclic OFF/ON {OFF Start, (Sym, Asym)} [/]

T-ON and T-OFF can be same or different. The relay (R) keeps on changing its status till power



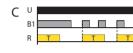
### Signal OFF/ON [8]

When switch B1 is closed or opened for preset time, T, the relay changes its state after time duration T.



#### Cyclic ON/OFF{On Start,(Sym,Asym)} [2]

This function is quite similar to the function '1' but initially the relay(R) is ON for period T-ON after the power is applied.



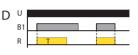
#### Leading edge impulse1 [£]

A permanent supply is needed. When B1 is closed, output relay energizes until timing irrespective of any further action of B1.



### Impulse ON energizing [3]

After power ON, R energizes and timing starts. R de-energizes after timing is over.



#### Leading edge impulse2 [D]

Permanent supply is required. when switch B1 is closed, and remains closed output relay energizes until timing is over. If B1 is opened during timing, R resets.



### Accumulative delay ON signal [५]

Time commences as supply is present and switch B1 is open. Closing switch B1 pauses timing. Timing resumes when switch B1 is opened again. R energizes at the end of timing.



### Trailing edge impulse1 [E]

Permanent supply required. when B1 is opened, R energizes and de-energizes when timing is over. If B1 is closed during timing R resets.



### Accumulative delay ON inverted signal [5]

Time commences as supply is present and switch B1 is closed. Opening switch B1 pauses timing. Timing resumes when switch B1 is closed again. R energizes at end of timing.



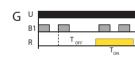
### Trailing edge impulse2 [F]

Permanent supply is required. When switch B1 is opened, R energizes and will de-energize when timing is over. If B1 is pulsed during timing period it will have no effect on R.



### Accumulative impulse ON signal $[\delta]$

When supply is ON, R energizes. When switch B1 is closed timing is suspended and remains suspended till switch B1 is opened again. Interrupting supply resets timer.



### Delayed impulse $[\mathcal{G}]$

When switch B1 is closed,  $T_{\rm OFF}$  starts. Relay energizes at the end of  $T_{\rm OFF}$  period. Then,  $T_{\rm OFF}$  starts irrespective of signal level and relay de-energizes at the end of  $T_{\rm ON}$  period.



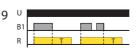
# Signal ON delay [7]

Permanent supply required. Timing starts when switch B1 is closed. R energizes at end of timing period and de-energizes when B1 is opened.



# Inverted signal ON delay [8]

Timing will commence when supply is present and switch B1 is open. R energizes after timing. If B1 is closed during timing period, timing resets to the beginning of cycle.



### Signal OFF delay [9]

Permanent supply is required. R energizes when switch B1 is closed. Timing commences after S is opened and then the relay de-energizes.