

Multifunction time relay CRM-91H, CRM-93H, CRM-9S



1M



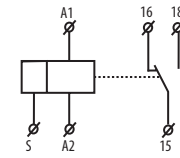
- ! multifunction time relay to be used for electrical appliances, control of lights, heating, motors, pumps, fans, due to its complexity (10 functions, 10 time ranges, multivoltage, 16Amps or 3x8Amps contacts)
- ! fulfils all requirements for timer relays
- ! 10 functions:
 - 5 time functions controlled by supply voltage
 - 4 time functions controlled by control input
 - 1 function of latching relay
- ! comfortable and well-arranged function and time-range setting by rotary switches
- ! time scale 0.1 s - 10 days divided into 10 ranges: (0.1 s - 1 s / 1 s - 10 s / 0.1 min - 1 min / 1 min - 10 min / 0.1 hrs - 1 hrs / 1 hrs - 10 hrs / 0.1 day - 1 day / 1 day - 10 days / only ON / only OFF)
- ! CRM-91H, CRM-93H: Universal supply voltage AC/DC 12 - 240 V or AC 230 V,
Output contact: CRM-91H: 1x changeover 16 A; CRM-93H: 3 x changeover 8 A
- ! CRM-9S: Universal supply voltage AC 12 - 240 V AC 12 - 240 V, absolutely noise-less switching
1x static contactless output (triac) 01.7 A (60A/<10 ms), switches potential A1
- ! output indication: multifunction red LED, which flashes or shines in dependance on output status
- ! 1-MODULE, DIN rail mounting



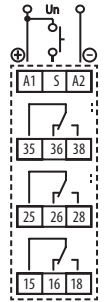
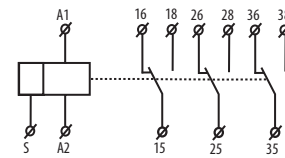
Technical parameters	CRM-91H	CRM-93H	CRM-9S
Number of functions:	10		
Supply terminals:	A1 - A2		
Supply voltage:	UNI	AC/DC 12 - 240 V (AC 50 - 60 Hz)	AC 12-240V (50-60Hz)
Consumption:	UNI	AC 0.7 - 3 VA / DC 0.5 - 1.7 W	AC max. 0.35VA
Supply voltage:	230	AC 230 V / 50 - 60 Hz	x
Consumption (apparent/loss):	230	AC max. 12VA / 1.3W	AC max. 12VA / 1.9W
Supply voltage tolerance:	-15 %; +10 %		
Supply indication:	green LED		
Time ranges:	0.1 s - 10 days		
Time setting:	rotaty switch		
Time deviation:	5 % - mechanical setting		
Repeat accuracy:	0.2 % - set value stability		
Temperature coefficient:	0.01 % / °C, at = 20 °C		
Output			
Number of contacts:	1x changeover (AgNi)	3x changeover (AgNi)	1x static output (triac)
Rated current:	16A / AC1	8A / AC1	0.7A
Breaking capacity:	4000VA / AC1, 384W / DC	2000VA / AC1, 192W / DC	x
Inrush current:	30A / <3s	10A / <3s	60A / <10ms
Switching voltage:	250V AC1 / 24V DC		
Min. breaking capacity DC:	500mA		
Voltage drop on switch:	x		max. 0.9 V at I max.
Load on B1 terminal:	x		Yes / I max. 0.7 A
Output indication:	multifunction red LED		
Mechanical life:	3x10 ⁷		> 10 ⁸
Electrical life (AC1):	0.7x10 ⁵		> 10 ⁸
Controlling			
Power on control input:	AC 0.025 - 0.2 VA / DC 0.1 - 0.7 W (UNI), AC 0.53 VA (AC 230 V), AC 0.025 - 0.2 VA (AC 12 - 240 V)		
Load between S-A2:	YES		
Control. terminals:	A1-S		
Max. capacity of cable control:			
-without connected glow-lamps	12 nF		
- with connected glow-lamps	(UNI) - glow lamps cannot connected/NO 9 nF (AC 230 V), max.20pcs(1pc-1mA)		glow lamps cannot connected/NO
Impulse length:	min. 25 ms / max. neomezená		
Reset time:	max. 150 ms		max. 250 ms
Other information			
Operating temperature:	-20...+55°C		
Storage temperature:	-30...+70°C		
Electrical strength:	4kV(supply-output)		x
Operating position:	any		
Mounting/DIN rail:	DIN rail EN 60715		
Protection degree:	IP 40 from front panel		
Overvoltage cathogory:	III.		
Pollution degree:	2		
Max. cable size (mm ²):	solid wire max.1x 2.5 or 2x1.5/ with sleeve max. 1x2.5		
Dimensions:	90 x 17.6 x 64 mm		
Weight:	(UNI) - 64 g; (230) - 62 g	(UNI) - 89 g; (230) - 87 g	51 g
Standarts:	EN 61812-1, EN 61010-1		

Symbol Connection

CRM-91H

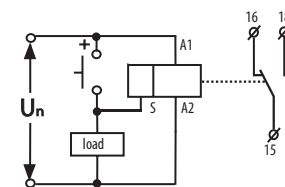


CRM-93H

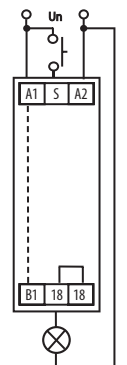
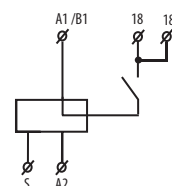


Load with control input possible

Load between S-A2 possible to connect in parallel way, without disturbing of proper operation of the relay. Load is energized for a period of time when a button is switched.



CRM-9S

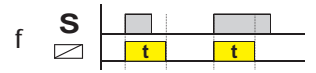


Function

Delay ON after energization



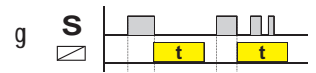
Delay OFF after break of control contact with instant output



Delay OFF after energization



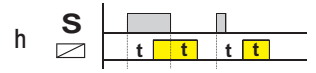
Delay OFF after make and break of control contact



Cycler beginning with impulse after energization



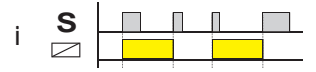
Delay OFF after closing and braking of control contact



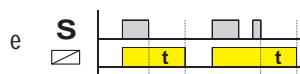
Delay OFF after de-energization, instant make of output



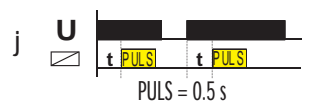
Latching relay



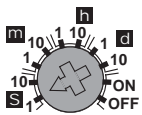
Delay OFF responding to make of control contact regardless its length



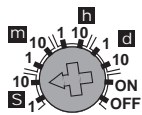
Pulse generator



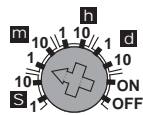
Time ranges



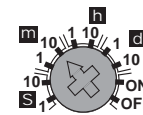
0.1 - 1s



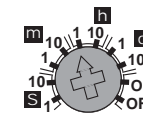
1 - 10s



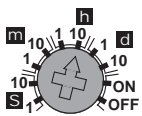
0.1 - 1 min



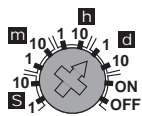
1 - 10 min



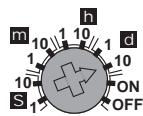
0.1 - 1 h



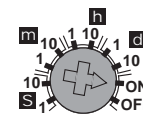
1 - 10 hrs



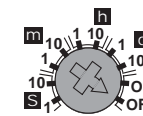
0.1 - 1 day



1 - 10 days

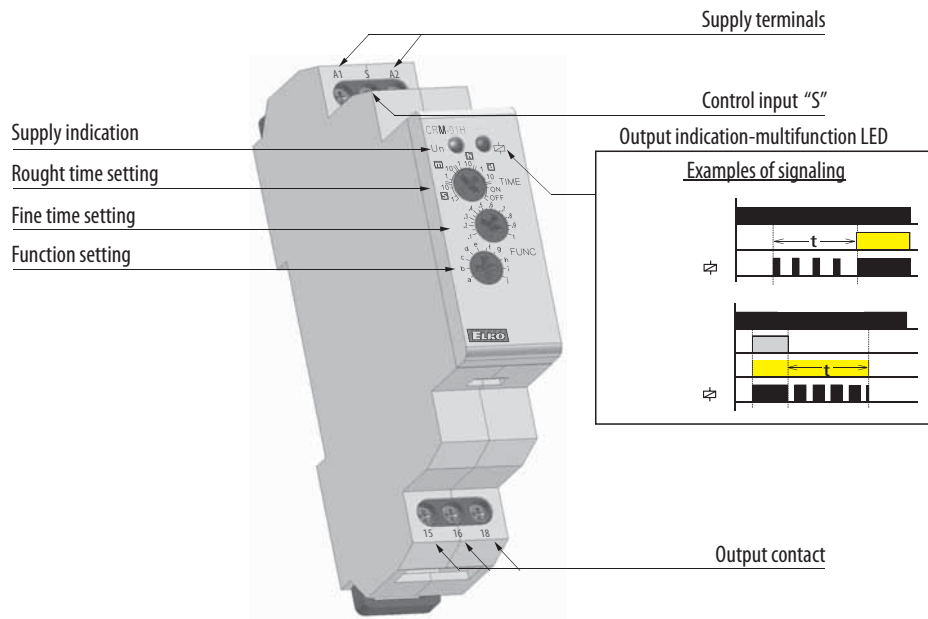


only ON



only OFF

Description



Notes

- 1) CRM-93H doesn't allow switching of different phases or 3-phase voltages.
- 2) When mounting into steal-plated switchboards, it is necessary keep safety distance of min. 3 mm from terminal's screws 35-36-38 and 25-26-28 towards the shutter of a switchboard.