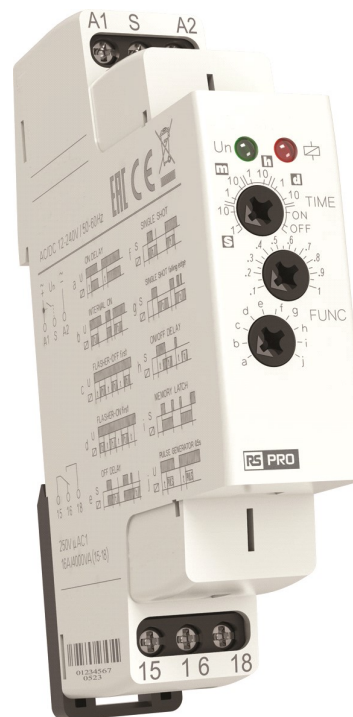


## Features

- Multifunction time relay for universal use in automation, control and regulation or in house installations.
- Comfortable and well-arranged function and time-range setting by rotary switches.
- Multifunction red LED flashes or shines depending on the operating status.

## RS PRO Timer Relays

0360676



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

## Product Description

- Multifunction time relay for universal use in automation, control and regulation or in house installations.
- Comfortable and well-arranged function and time-range setting by rotary switches.
- Multifunction red LED flashes or shines depending on the operating status.

## General Specifications

|                            |                                |
|----------------------------|--------------------------------|
| Supply terminals:          | A1-A2                          |
| Supply voltage:            | AC/DC 12 – 240 V (AC 50-60 Hz) |
| Consumption (max.):        | 2 VA/1.5 W                     |
| Supply voltage:            | AC 230 V (50-60 Hz)            |
| Consumption (max.):        | 3 VA/1.4 W                     |
| Supply voltage tolerance:  | -15 %; +10 %                   |
| Supply voltage indication: | green LED                      |

## Output

|                           |                           |
|---------------------------|---------------------------|
| Contact type 1:           | 1× changeover/SPDT (AgNi) |
| Current rating:           | 16 A/AC1; PD. B300        |
| Breaking capacity:        | 4000 VA/AC1, 384 W/DC1    |
| Electrical life (AC1):    | 100.000 ops.              |
| Switching voltage:        | 250 V AC/24 V DC          |
| Power dissipation (max.): | 1.2 W                     |
| Mechanical life:          | 10.000.000 ops.           |

## Mechanical Specifications

|           |                      |
|-----------|----------------------|
| Mounting: | DIN rail EN 60715    |
| Dimension | 90mm x 17.6mm x 64mm |
| Length    | 90mm                 |
| Height    | 17.6mm               |
| Depth     | 64mm                 |
| Life      | 10.000.000 ops.      |

## Operation Environment Specifications

|                               |               |
|-------------------------------|---------------|
| Operating Temperature Range   | -20°C to 55°C |
| Maximum Operating Temperature | 55°C          |
| Minimum Operating Temperature | -20°C         |
| Storage Temperature           | -30°C to 70°C |

## Time circuit

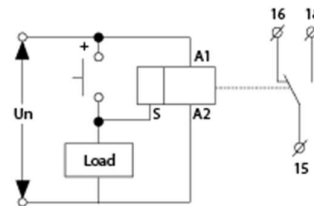
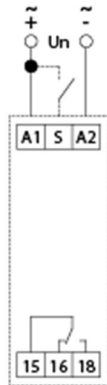
|                          |                                 |
|--------------------------|---------------------------------|
| Number of functions:     | 10                              |
| Time ranges:             | 0.1 s – 10 days                 |
| Time setting:            | rotary switch and potentiometer |
| Time deviation:          | 5 % – mechanical setting        |
| Repeat accuracy:         | 0.2 % – set value stability     |
| Temperature coefficient: | 0.01 %/°C, at = 20 °C           |

## Control

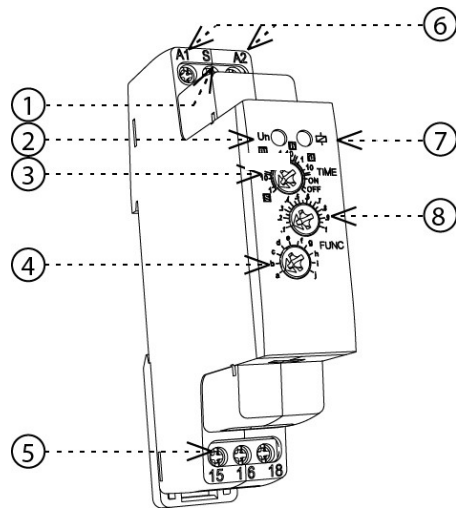
|                    |                           |
|--------------------|---------------------------|
| Control terminals: | A1-S                      |
| Load between S-A2: | Yes                       |
| Impulse length:    | min. 25 ms/max. unlimited |
| Reset time:        | max. 150 ms           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

## Connection and symbol

CRM-91H



## Description

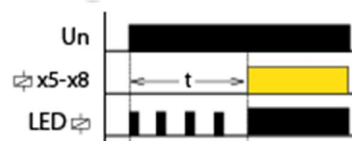


1. Control input (S)
2. Supply voltage indication
3. Time range setting
4. Function setting
5. Output contact 1 (15-16-18)
6. Supply voltage terminals (A1-A2)
7. Indication of operating states
8. Fine time setting

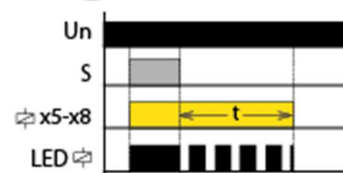
## Indication

Signaling examples:

Function **a**



Function **e**



## Funktionen



### ON DELAY

When the input voltage  $U$  is applied, timing delay  $t$  begins. Relay contacts  $R$  change state after time delay is complete. Contacts  $R$  return to their shelf state when input voltage  $U$  is removed. Trigger switch is not used in this function.



### INTERVAL ON

When input voltage  $U$  is applied, relay contacts  $R$  change state immediately and timing cycle begins. When time delay is complete, contacts return to shelf state. When input voltage  $U$  is removed, contacts will also return to their shelf state. Trigger switch is not used in this function.



### FLASHER - OFF first

When input voltage  $U$  is applied, time delay  $t$  begins. When time delay  $t$  is complete, relay contacts  $R$  change state for time delay  $t$ . This cycle will repeat until input voltage  $U$  is removed. Trigger switch is not used in this function.



### FLASHER - ON first

When input voltage  $U$  is applied, relay contacts  $R$  change state immediately and time delay  $t$  begins. When time delay  $t$  is complete, contacts return to their shelf state for time delay  $t$ . This cycle will repeat until input voltage  $U$  is removed. Trigger switch is not used in this function.



### OFF DELAY

Input voltage  $U$  must be applied continuously. When trigger switch  $S$  is closed, relay contacts  $R$  change state. When trigger switch  $S$  is opened, delay  $t$  begins. When delay  $t$  is complete, contacts  $R$  return to their shelf state. If trigger switch  $S$  is closed before time delay  $t$  is complete, then time is reset. When trigger switch  $S$  is opened, the delay begins again, and relay contacts  $R$  remain in their energized state. If input voltage  $U$  is removed, relay contacts  $R$  return to their shelf state.



## SINGLE SHOT

Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. During time-out, the trigger signal S is ignored. The relay resets by applying the trigger switch S when the relay is not energized.



## SINGLE SHOT falling edge

Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. At the end of the preset time t, the relay contacts R return to their normal condition unless the trigger switch S is opened and closed prior to time out t (before preset time elapses). Continuous cycling of the trigger switch S at a rate faster than the preset time will cause the relay contacts R to remain closed. If input voltage U is



## ON/OFF DELAY

Input voltage U must be applied continuously. When trigger switch S is closed, time delay t begins. When time delay t is complete, relay contacts R change state and remain transferred until trigger switch S is opened. If input voltage U is removed, relay contacts R return to their shelf state.



## MEMORY LATCH

Input voltage U must be applied continuously. Output changes state with every trigger switch S closure. If input voltage U is removed, relay contacts R return to their shelf state.



## PULSE GENERATOR

Upon application of input voltage U, a single output pulse of 0.5 seconds is delivered to relay after time delay t. Power must be removed and reapplied to repeat pulse. Trigger switch is not used in this function.