

## Chronos 2 timers - Plug-in - OA2R1

### Selling points of the range

- + Multi-function or mono-function
- + Multi-range
- + Multi-voltage
- + Relay output 1 or 2 : 8 A - 250 V (10 A UL)
- + LED status indicator
- + Option of connecting an external power supply to the control input
- + 3-wire sensor control option



|                             |                         |
|-----------------------------|-------------------------|
| Part number characteristics | 88 867 215              |
| Functions                   | A                       |
| Output                      | 2 changeover relays     |
| Nominal rating              | 8 A                     |
| Connections                 | 8-pin                   |
| Supply voltage              | 24 V DC / 24 → 240 V AC |
| Product available           | stocked item            |

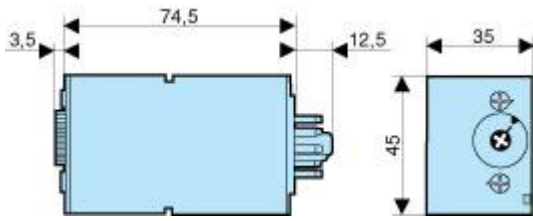
## General characteristics

### Timing

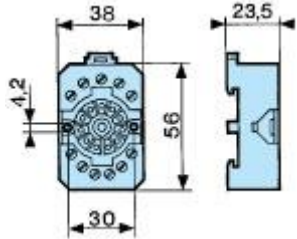
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|---|---|
| Timing ranges (7 ranges)  | 1 s - 10 s - 1 min - 10 min - 1 h - 10 h - 100 h<br>TK2R1 : 0.6s - 2.5s - 20s - 160 s |
| Repetition accuracy with constant parameters                          | ± 0.5 % (IEC 1812-1)  |
| Drift Temperature   | ± 0.05 % / °C   |
| Drift Voltage   | ± 0.2 % / V   |
| Display accuracy according to IEC 1812-1                              | ± 10 % / 25°C   |
| Minimum pulse duration typically (relay version)                      | 30 ms   |
| Minimum pulse duration typically (solid state version)                | 50 ms   |
| Minimum pulse duration typically (relay version under load)           | 100 ms  |
| Maximum reset time by de-energisation typically (relay version)       | 100 ms  |
| Maximum reset time by de-energisation typically (solid state version) | 350 ms  |
| Immunity from micro power cuts : typical                              | > 10 ms   |
| <b>Supply</b>   |   |
| Multi-voltage power supply  | Depending on version  |
| Frequency (Hz)  | 50 / 60   |
| Operating range   | 85 to 110 % Un<br>(85 to 120 % Un for 12V AC/DC)                                      |
| Operator factor   | 100 %   |
| Max. absorbed power   | 0.6 W 24 V AC/DC<br>1.5 W 230 V AC<br>32 VA 230 V AC                                  |
| <b>Output specification</b>   |   |
| 1 or 2 changeover relays, AgNi (cadmium-free)                         | 2000 VA/80 W  |
| Rated power   | 2000 VA/80 W  |
| Maximum breaking current  | 8 A AC 8A DC  |
| Minimum breaking current  | 10 mA / 5 V DC  |
| Voltage breaking capacity   | 250 V AC/ DC  |
| Electrical life (operations)  | 10 <sup>5</sup> operations 8 A 250 V resistive  |
| Mechanical life (operations)  | 5x10 <sup>6</sup>   |
| Breakdown voltage acc. to IEC 1812-1                                  | 2.5 kV / 1 min / 1 mA / 50 Hz   |

|   |   |
|---|---|
| Impulse voltage acc. to IEC 664-1, IEC 1812-1   | 5 kV, wave 1.2 / 50 $\mu$ s   |
| Solid state output  |   |
| Rated power   | 0.7 A AC/DC<br>20 °C (0.5 A UL)   |
| Derating  | 5 mA / °C   |
| Maximum admissible current  | 20 A <= 10 ms   |
| Minimum breaking current  | 10 mA   |
| Leakage current   | < 5 mA  |
| Voltage breaking capacity   | 250 V AC/ DC  |
| Maximum voltage drop at terminals   | 3 wire 4V - 2 wire 8V   |
| Electrical life (operations)  | 10 <sup>8</sup>   |
| Mechanical life (operations)  | 10 <sup>8</sup>   |
| Breakdown voltage acc. to IEC 664, IEC 255-5  | 2.5 kV to 1 mA / 1 min  |
| Input type  | Volt-free contact<br>3-wire PNP output control option residual voltage : 0.4V whatever the timer power supply |
| <b>General characteristics</b>  |   |
| Conforming to standards IEC 1812-1, EN 50081-1/2, EN 50082-1/2, LV directives (73/23/EEC + 93/68/EEC (CE marking) + EMC (89/336/EEC + IEC 669-2-3 (17.5 mm) ) | +   |
| Approvals   | +   |
| UL - CSA - cUL pending  |   |
| Temperatures limits use (°C)  | -20 → +60   |
| Temperature limits stored (°C)  | -30 → +60   |
| Installation category (acc. to IEC 664-1)   | Voltage surge category  |
| Creepage distance and clearance acc. to IEC 664-1   | 4 kV / 3  |
| Protection (IEC 529) Terminal   | IP 20   |
| Protection (IEC 529) Housing  | IP 40   |
| Degree of protection acc. to IEC 529 Front face (except TK2R1)  | IP 50   |
| Vibration resistance acc. to IEC 68-2-6   | f = 10 → 55 Hz<br>A = 0.35 mm   |
| Relative humidity no condensation acc. to IEC 68-2-3  | 93 % sans condensation  |
| Electromagnetic compatibility - Immunity to electrostatic discharges acc to IEC 1000-42   | Level III (Air 8 KV / Contact 6 KV)   |
| Immunity to electrostatic fields acc. ENV 50140/204 (IEC 1000-4-3)  | Level III 10V/m (80 MHz to 1 GHz)   |
| Immunity to rapid transient bursts acc. to IEC 1000-4-4   | Level III (direct 2kV / Capacitive coupling clamp 1 kV)   |
| Immunity to shock waves on power supply acc. to IEC 1000-4-5  | Level III (2 KV / common mode 2 KV/residual current mode 1KV)   |
| Immunity to radio frequency in common mode acc. to ENV (CEI 1000-4-6)   | Level III (10V rms : 0.15 MHz to 80 MHz)  |
| Immunity to voltage dips and breaks acc. to IEC 1000-4-11   | 30 %/10 ms<br>60 %/100 ms ><br>95 %/5 s   |
| Mains-borne and radiated emissions acc. to EN 55022 (EN 55011 Group 1)  | Class B   |
| Fixing : Symmetrical DIN rail (EN 50022)  | 35 mm   |
| Connection capacity - without ferrule   | 2 x 2.5 mm <sup>2</sup>   |
| Connection capacity - with ferrule  | 2 x 1.5 mm <sup>2</sup>   |
| Spring terminals, 2 terminals per connection point - flexible wire  | 1.5 mm <sup>2</sup>   |
| Spring terminals, 2 terminals per connection point - rigid wire   | 2.5 mm <sup>2</sup>   |
| Material housing  | Self-extinguishing  |
| Weight : casing 17.5 mm   | 60 g  |
| Weight : casing 22.5 mm   | 90 g  |
| Weight : plug-in casing   | 80 g  |

## Dimensions



Zoom  
Accessories



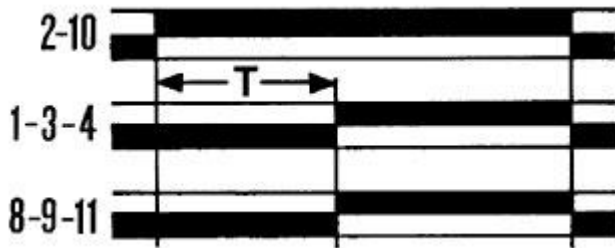
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## Accessories

| Accessories          | Code       |
|----------------------|------------|
| 8-pin connector base | 25 622 128 |

## Curves

### Function A

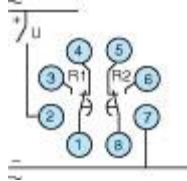


Function A  
Delay on energisation 2 timers

Zoom

## Connections

### 8-pin 2 relay outputs



Functions  
Function A

Zoom