

› Plug-In Timer 8 pins

- › Multifunction or monofunction
- › Compact body for space saving
- › Wide time range (from 0.5 seconds to 10 days delay)
- › Universal power supply (12-240 V \sim)
- › 1 or 2 relay outputs (SPDT / Changeover)
- › Protective cover
- › LED status indicator
- › 3-wire PNP sensor compatible
- › 8-pins connections



OU1R10MV1
Multifunction U -
Monofunction Ad - N



OA2R10MV1
Monofunction A



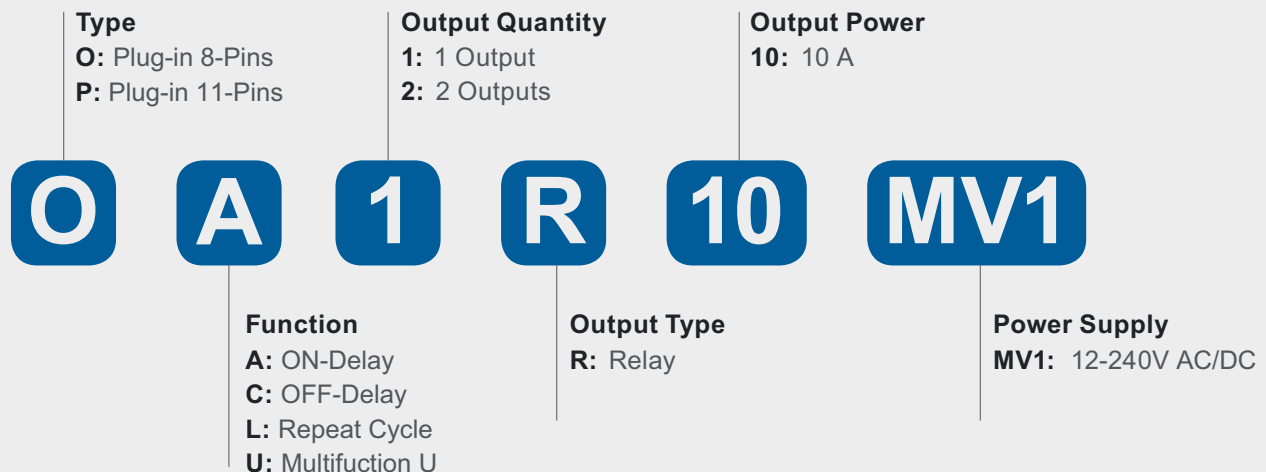
OC1R10MV1
Monofunction C



OL1R10MV1
Monofunction L - Li

| Product selection | | | |
|---|----------|--------------------|------------------|
| Function | Output | Supply Voltage | Part Number |
| Multifunction U: (A, At, B, C, H, Ht, D, Di, Ac, Bw) Ad - N | 1 relay | 12 to 240 V \sim | OU1R10MV1 |
| A | 2 relays | 12 to 240 V \sim | OA2R10MV1 |
| C | 1 relay | 12 to 240 V \sim | OC1R10MV1 |
| L - Li | 1 relay | 12 to 240 V \sim | OL1R10MV1 |

PART NUMBERING SYSTEM



You have a project? Contact us on www.crouzet.com

Description:

Syr-line, the new specialized range at Crouzet, aimed to satisfy the most unique requirements of your applications by innovating in design, engineering and development.

The Plug in Analog Timers, a new family of 8 timers with multifunction or monofunction, universal power supply, wide time range, with all the classic functions.

For more information about Crouzet's Syr-line range, please visit www.crouzet.com.

| | OU1R10MV1 | OA2R10MV1 | OC1R10MV1 | OL1R10MV1 |
|---|--|--|--|-----------|
| Power Supply | | | | |
| Rated supply voltage Un | 12 to 240 V \sim | | | |
| Voltage supply tolerance | -15 %, +10 % | | | |
| AC supply voltage frequency | 50 / 60 Hz \pm 5% | | | |
| Galvanic isolation of supply / inputs | No | | | |
| Power consumption @ Un | Approx. 3 VA (VAC) 1.5 W (VDC) | | | |
| Immunity to power micro cuts | 10 ms | | | |
| Timing Control | | | | |
| Specified time ranges (7) (IEC 1812-1) | 0.5..10 s, 0.05..1 min, 0.5..10 min, 0.05.. 1h, 0.5..10 h, 0.05..1 day, 0.5..10 days | | | |
| Minimum control pulse duration (IEC 1812-1) | 40 ms 100 ms with load | | | |
| Recovery time (after by de-energisation) (IEC 1812-1) | 120 ms | | | |
| Repeatability (IEC 1812-1) | $\leq \pm 0.5$ % | | | |
| Setting Accuracy (IEC 1812-1) | $\leq \pm 10$ % | | | |
| Temperature drift | $\leq \pm 0.05$ % / $^{\circ}$ C | | | |
| Voltage drift | $\leq \pm 0.2$ % / V | | | |
| Relay output | | | | |
| Contact arrangement | 1 CO (SPDT) (ChangeOver -Single Pole Double Throw-) | 2 CO (SPDT) (ChangeOver -Single Pole Double Throw-) | 1 CO (SPDT) (ChangeOver -Single Pole Double Throw-) | |
| Maximum switching voltage | 250 V \sim / 10 A resistive / 125 V --- / 0.3 A resistive | | | |
| Switching current rate (resistive) | NO / NC: 10 A 250 V \sim / 10 A 30 V --- @ 40 $^{\circ}$ C NO / NC: 8 A 250 V \sim / 8 A 30 V --- @ 60 $^{\circ}$ C | NO / NC: 10 A 250 V \sim / 10 A 30 V --- @ 25 $^{\circ}$ C NO / NC: 5 A 250 V \sim / 5 A 30 V --- @ 60 $^{\circ}$ C | NO / NC: 10 A 250 V \sim / 10 A 30 V --- @ 40 $^{\circ}$ C NO / NC: 8 A 250 V \sim / 8 A 30 V --- @ 60 $^{\circ}$ C | |
| Minimum switching contact | 10 mA / 5 V --- | | | |
| Maximum switching power (resistive) | 2500 VA / 300 W | | | |
| Electrical life | 10 ⁵ cycles min at 250 V \sim / 10 A resistive(NO only) | | | |
| Maximum rate (at max switching power) | 360 cycles /hour | | | |
| Mechanical life | 10 x 10 ⁶ cycles | | | |
| Rated impulse voltage | 4 kV (1.2/50 μ s) | | | |
| Dielectric strength between coil / contacts (IEC 60664-1) | 2.5 kV / 1 min / 1 mA / 50 Hz | | | |
| Dielectric strength between open contacts | 1 kV / 1 min / 1 mA / 50 Hz | | | |
| Insulation | | | | |
| Rated Insulation voltage (IEC 60664-1) | 250 V | | | |
| Insulation coordination (IEC 60664-1) | Overvoltage category III; pollution degree 2; up to 2 000 m above sea level | | | |
| Rated impulse voltage (IEC 60664-1) | 4 kV (1.2/50 μ s) | | | |
| Clearance / Creepage distances (IEC 60664-1) | 3 mm / 3.2 mm | | | |
| Dielectric strength (EN-61812-1) | 2.5 kV / 1 min / 1 mA / 50 Hz | | | |
| Insulation Resistance (NFC 93 050) | > 500 MOhms / 250 V --- / 1 min | | | |
| General specifications | | | | |
| Status indication (LED) | Un: green LED blinks when count, flash when waiting Y1, continuous ON when supplied R: yellow LED blink when only R2 is ON (instantaneous), continuous ON when the 2 relays are ON. | | | |
| Casing | 35 mm | | | |
| Mounting | Mounting base-mounted on socket | | | |
| Housing material (UL94) | Enclosure plastic type V0 | | | |
| Degree of protection (IEC 60529) | IP40 | | | |

| | OU1R10MV1 | OA2R10MV1 | OC1R10MV1 | OL1R10MV1 |
|---|--|-----------|-----------|-----------|
| Operating temperature (IEC 60068-2) | -20 °C to +60 °C | | | |
| Storage temperature (IEC 60068-2) | -40 °C to +70 °C | | | |
| Humidity (IEC 60068-2-30) | 93 % without condensation | | | |
| Vibration resistance (IEC 60068-2-6) | ± 0.15mm from 10 Hz...60 Hz 2g from 60 Hz..150 Hz | | | |
| Shock resistance (IEC60068-2-27) | 10 gn - 11ms ; 3 x 6 axis (Output non-energized) 5 gn - 1 ms ; 3 x 6 axis (Output energized) | | | |
| Drop to concrete floor (IEC 60068-2-32) | High: 0.75 m | | | |
| Weight | 90 g 110 g with packaging | | | |

Standards

| | |
|---|---|
| CEE Directive (2014/30/EU 2014/35/EU) | EMC Low voltage |
| Approvals / Marking | CE cULus Listed Industrial Control Equipment |
| Security standard (IEC 60664-1) | Insulation coordination for equipment within low-voltage systems |
| Conformity with environmental directives (2015/863/UE 1907/2006 2012/19/UE) | RoHS Reach WEEE |
| Product standard (IEC 61812-1 UL 60947-4-1) | Specified time relays for industrial use Industrial Control Equipment (NRNT- Industrial Control Switches) Refer to UL840 InsulationCoordinationfor Electrical Equipment |
| Electromagnetic compatibility (IEC 61000-6-2 IEC 61000-6-3 IEC 61000-6-4) | Generic standards Immunity for industrial environment Emission residential environment Emission industrial environment |
| Immunity to electrostatic discharges (IEC61000-4-2) | Level III Air ± 8 KV / Contact ± 6 KV |
| Immunity to radiated, radio-frequency, electromagnetic field (IEC61000-4-3) | Level III 10V/m (80 MHz to 1 GHz) 80% AM (1 kHz) 3 V/m (1.4 to 2 GHz) 80% AM (1KHz) 1 V/m (2 to 2.7 GHz) 80% AM (1KHz) |
| Immunity to rapid transient bursts (IEC 61000-4-4) | direct ±4kV 5/50 Tr/Th ns 5 KHz & 100KHz Capacitive coupling clamp ± 2 KV 5/50 Tr/Th ns 5 KHz & 100 KHz |
| Immunity to shock waves on power supply (IEC 61000-4-5) | Level III: line-to-earth ±2kV / line-to-line ±1kV |
| Immunity to radiofrequency in common mode (IEC 61000-4-6) | Level III: 10 Vrms (0.15 to 80 MHz) 80 % AM (1 kHz) |
| Immunity to voltage dips and breaks (IEC 61000-4-11) | 0 % residual voltage during 1 cycle (Crit. B) 40 % residual voltage / 10 cycles 50Hz / 12 cycles 60Hz (Crit. C) 70 % residual voltage / 25 cycles 50Hz / 30 cycles 60Hz (Crit. C) Short interruptions: 0 % residual voltage / 250 cycles 50Hz / 300 cycles 60Hz (Crit. C) |
| AC/DC main port emissions (IEC 61000-6-3 IEC 61000-6-4) | CISPR 16-2-1 (7.4.1), CISPR 16-1-2 (4.3) 0.15 MHz – 0.5 MHz, 66 dB(µV) – 56 dB(µV) quasi-peak, 56 dB(µV) – 46 dB(µV) average 0.5 MHz – 5 MHz, 56 dB(µV) quasi-peak, 46 dB(µV) average 5 MHz – 30 MHz, 60 dB(µV) quasi-peak, 50 dB(µV) average CISPR 14-1 0.15 MHz – 30 MHz CISPR 16-2-1 (7.4.1), CISPR 16-1-2 (4.3) 0.15 MHz – 0.5 MHz, 79 dB(µV) quasi-peak, 66 dB(µV) average 0.5 MHz – 30 MHz, 73 dB(µV) quasi-peak, 60 dB(µV) average |
| Radiated emissions (IEC 61000-6-3 IEC 61000-6-4) | CISPR 16-2-3 30 MHz – 230 MHz, 30 dB(µV/m) Quasi-peak at 10 m 230 MHz – 1 000 MHz, 37 dB(µV/m) Quasi-peak at 10 m Or: 30 MHz – 230 MHz, 40 dB(µV/m) Quasi-peak at 3 m in a semi-anechoic chamber 230 MHz – 1 000 MHz, 47 dB(µV/m) Quasi-peak at 3 m in a semi-anechoic chamber |

OU1R10MV1

OA2R10MV1

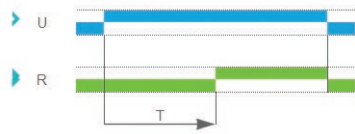
OC1R10MV1

OL1R10MV1

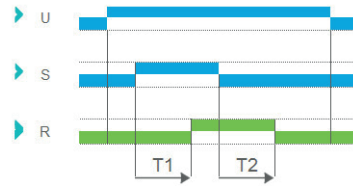
Function Diagrams

Basic Time Chart

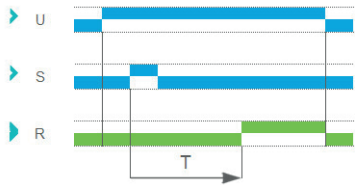
Function A - On-Delay (Delay on make)



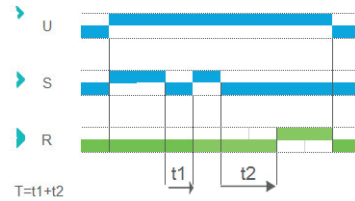
Function Ac - On/Off Delay (Delay on make/break)



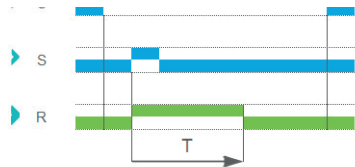
Function Ad - Delay on Start



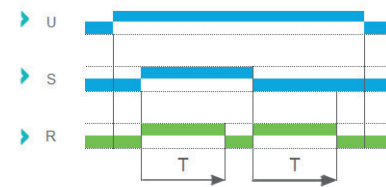
Function At - Summation time relay



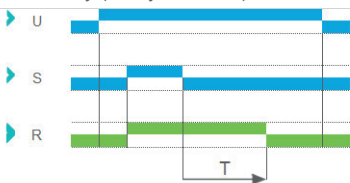
Function B - One-Shot



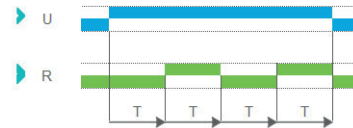
Function Bw



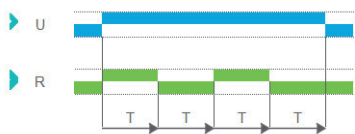
Function C - Off-Delay (Delay on break)



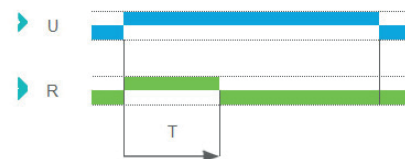
Function D - Symmetrical flashing (OFF Start)



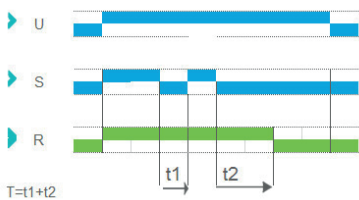
Function Di - Symmetrical flashing (ON Start)



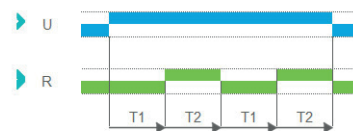
Function H - Interval



Function Ht - Interval summation time relay



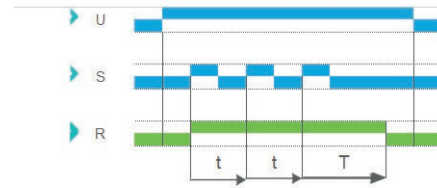
Function L - Recycler (OFF Start)



Function Li - Recycler (ON Start)



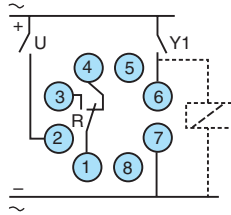
Function N - Watchdog



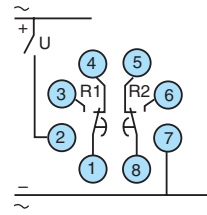
| | | | |
|-----------|-----------|-----------|-----------|
| OU1R10MV1 | OA2R10MV1 | OC1R10MV1 | OL1R10MV1 |
|-----------|-----------|-----------|-----------|

Connections

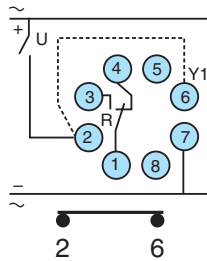
OU1R10MV1 - OC1R10MV1



OA2R10MV1

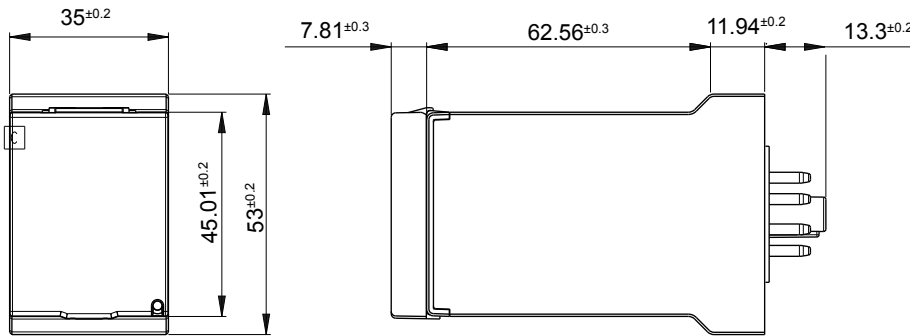


OL1R10MV1



| | | | |
|-----------|-----------|-----------|-----------|
| OU1R10MV1 | OA2R10MV1 | OC1R10MV1 | OL1R10MV1 |
|-----------|-----------|-----------|-----------|

Outline dimensions (mm)



| | | | |
|-----------|-----------|-----------|-----------|
| OU1R10MV1 | OA2R10MV1 | OC1R10MV1 | OL1R10MV1 |
|-----------|-----------|-----------|-----------|

Socket

RECOMENDED SOCKET

8 Pins for DIN Rail or Panel Mount (P/N: 25 622 130)



Warning:

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- Поставка более 17-ти миллионов наименований электронных компонентов;
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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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