

Plug-in Analog Timers

8-Pin Version

Syr-line OU1R, OA2R, OC1R, OL1R Series

The Plug-in Analog Timers: a family of 11 timers with multifunction or monofunction, universal power supply, wide time range, with all the classic functions.



Electrical Control & Protection > Time Relays > Plug-in > 8 Pins

Highlights

- Multifunction or monofunction
- Compact body for space saving
- Wide time range (0.5 s - 10 days delay)
- Universal power supply (12-240 VAC/DC)
- 1 or 2 relay outputs (SPDT / Changeover)
- Protective cover
- LED status indicator
- 3-wire PNP sensor compatible
- 8 Pins connections

Standards



Part Numbers

OU1R10MV1



Functions: Multifunction U (A, Ac, At, B, Bw, C, D, Di, H, Ht), Ad, N
Series: OU1R

OA2R10MV1



Functions A
Series: OA2R

OC1R10MV1



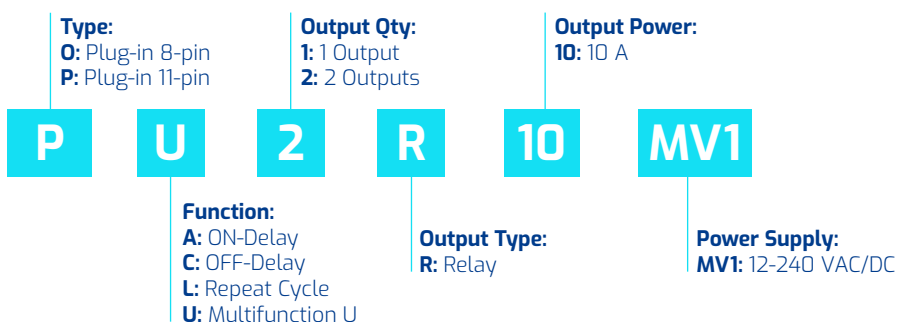
Functions C
Series: OC1R

OL1R10MV1



Functions: L, Li
Series: OL1R

Part numbering system



More info.



Specifications

Specifications	OU1R10MV1	OA2R10MV1	OC1R10MV1	OL1R10MV1
Inputs				
Supply voltage	12-240 VAC/DC			
Voltage supply tolerance	-15%, +10%			
AC supply voltage frequency	50/60 Hz ± 5%			
Galvanic isolation of supply / inputs	No			
Max power consumption at Un	Approx. 3 VA (VAC) 1.5 W (VDC)			
Immunity to power micro cuts	10 ms			
Timing				
Timing ranges	IEC 1812-1: 0.5 s - 10 s, 0.05 min - 1 min, 0.5 min - 10 min, 0.05 h - 1 h, 0.5 h -10 h, 0.05 day - 1 day, 0.5 day - 10 days			
Minimum control pulse duration	IEC 1812-1 : 40 ms / 100 ms with load			
Recovery time (after by de-energization)	IEC 1812-1: 120 ms			
Repeatability	IEC 1812-1: ≤ ± 0.5%			
Setting accuracy (full range)	IEC 1812-1: ≤ ± 10%			
Drift temperature	≤ ± 0.05% /°C			
Drift voltage	≤ ± 0.2% / V			
Outputs				
Output configuration	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 VAC / 10 A resistive / 125 VDC / 0.3 A resistive			
Switching current rate (resistive)	NO/NC: 10 A 250 VAC / 10 A 30 VDC at 40°C NO/NC: 8 A 250 VAC / 8 A 30 VDC at 60°C	NO/NC: 10 A 250 VAC / 10 A 30 VDC at 25°C NO/NC: 5 A 250 VAC / 5 A 30 VDC at 60°C	NO/NC: 10 A 250 VAC / 10 A 30 VDC at 40°C NO/NC: 8 A 250 VAC / 8 A 30 VDC at 60°C	
Maximum switching power (resistive)	2500 VA / 300 W			
Electrical life (operations)	10 ⁵ cycles min at 250 VAC / 10 A resistive (NO only)			
Minimum breaking current	10 mA / 5 VDC			
Maximum rate (at max switching power)	360 cycles / h			
Mechanical life (operations)	10x10 ⁶ cycles			
Rated impulse voltage	4 kV (1.2/50 µs)			
Dielectric strength	Between coil / contacts (IEC 60664-1): 2.5 kV / 1 min / 1 mA / 50 Hz 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 2000 m above sea level			
Rated impulse voltage	IEC 60664-1: 4 kV (1.2/50 µs)			
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 MΩ / 250 VDC / 1 min			

Specifications

Specifications	OU1R10MV1	OA2R10MV1	OC1R10MV1	OL1R10MV1
General characteristics				
Display	No but status indication (LED)			
Casing	35 mm			
Mounting	Mounting base-mounted on socket			
Housing material	UL94: enclosure plastic type V0			
Degree of protection	IEC 60529 : IP40			
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: ± 0.15 mm 10 Hz - 60 Hz / 2 g 60 Hz - 150 Hz			
Shock resistance	IEC 60068-2-27: 10 gn - 11 ms, 3x6 axis (Output non-energized) / 5 gn - 11 ms, 3x6 axis (Output energized)			
Drop to concrete floor	IEC 60068-2-32: Height: 0.75 m			
Weight	90 g (110 g with packaging)			
Standards				
EU Directives	2014/30/EU: EMC 2014/35/EU: 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: RoHS 1907/2006: Reach 2012/19/UE: WEEE			
Product standard	IEC 61812-1: Specified time relays for industrial use UL 508 (60947-4-1): Industrial Control Equipment (NRNT- Industrial Control Switches) Refer to UL840 Insulation Coordination for Electrical Equipment			
Electromagnetic compatibility	Generic standards IEC 61000-6-2 Immunity for industrial environment IEC 61000-6-3 Emission residential environment IEC 61000-6-4 Emission industrial environment			
Immunity to electrostatic discharges	IEC 61000-4-2: Level III Air ± 8 kV / Contact ± 6 kV			
Immunity to radiated, radio-frequency, electromagnetic field	IEC 61000-4-3: Level III, 10 V/m (80 MHz to 1 GHz) 80% AM (1 kHz), 3 V/m (1.4 to 2 GHz) 80% AM (1 kHz), 1 V/m (2 to 2.7 GHz) 80% AM (1 kHz)			
Immunity to rapid transient bursts	IEC 61000-4-4: Direct ± 4 kV 5/50 Tr/Th ns 5 KHz & 100 KHz 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 ± 2 kV / line-to-line ± 1 kV			
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 50 Hz / 12 cycles 60 Hz (Crit. C) 70% residual voltage / 25 cycles 50 Hz / 30 cycles 60 Hz (Crit. C) Short interruptions: 0% residual voltage / 250 cycles 50 Hz / 300 cycles 60 Hz (Crit. C)			

Specifications

OU1R10MV1

OA2R10MV1

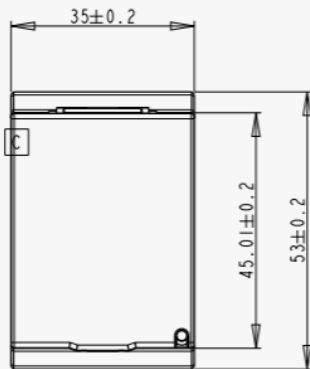
OC1R10MV1

OL1R10MV1

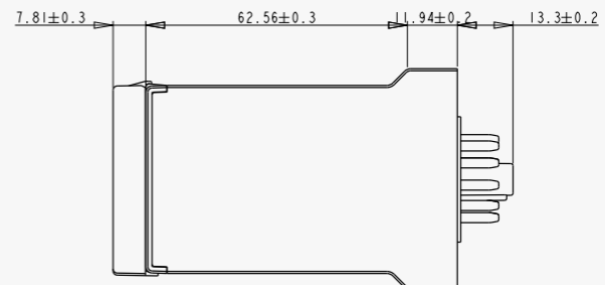
Standards	
AC/DC main port emissions	IEC 61000-6-3 IEC 61000-6-4: CISPR 16-2-1 (7.4.1), CISPR 16-1-2 (4.3) 0.15 MHz – 0.5 MHz, 66 dB (μV) – 56 dB (μV) quasi-peak, 56 dB (μV) – 46 dB (μV) average 0.5 MHz – 5 MHz, 56 dB (μV) quasi-peak, 46 dB (μV) average 5 MHz – 30 MHz, 60 dB (μV) quasi-peak, 50 dB (μV) 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

Dimensions (mm)

Front View



Side View



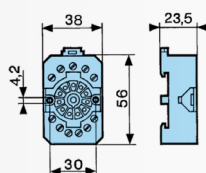
Accessories



Socket for DIN Rail or Panel Mount

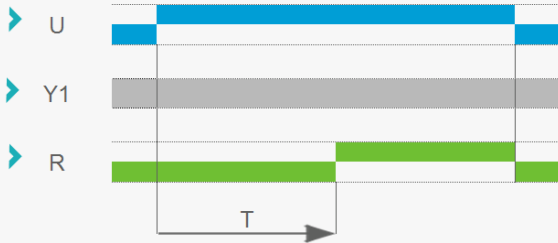
Plug-In 8 Pins

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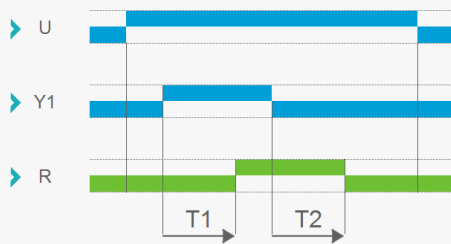


Function diagrams

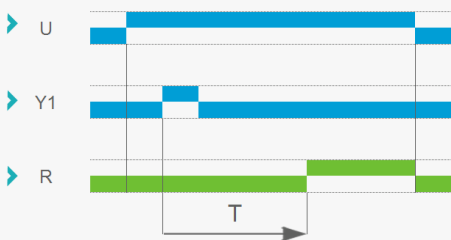
Function A: On-Delay (Delay on make)



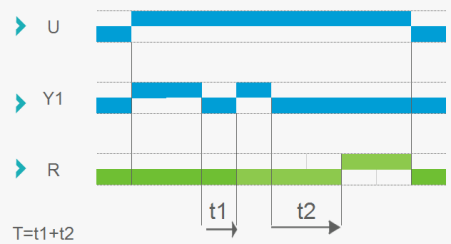
Function Ac: On/Off Delay (Delay on make/break)



Function Ad: Delay on Start



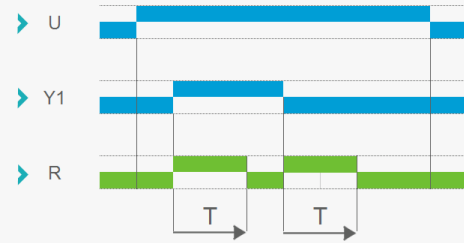
Function At: Summation Time Relay



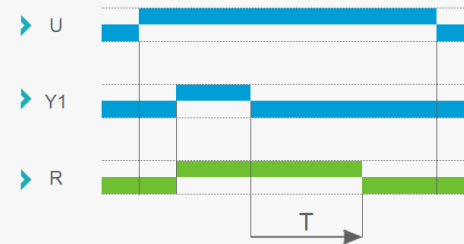
Function B: One-Shot



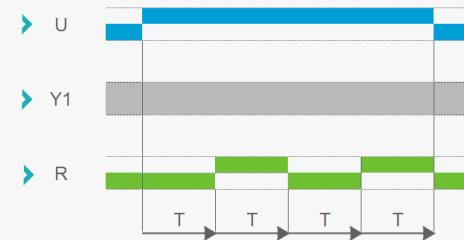
Function Bw: Pulse Output



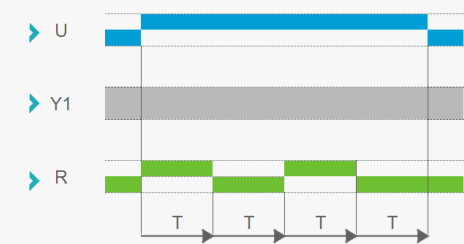
Function C: Off-Delay (Delay on brake)



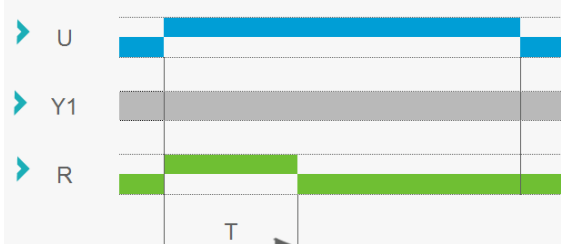
Function D: Flasher (Symmetrical) - OFF Start



Function Di: Flasher (Symmetrical) - ON Start

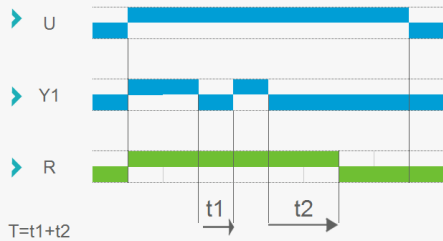


Function H: Interval

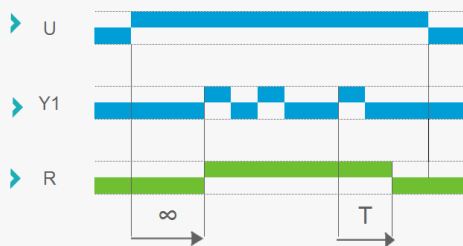


Function diagrams

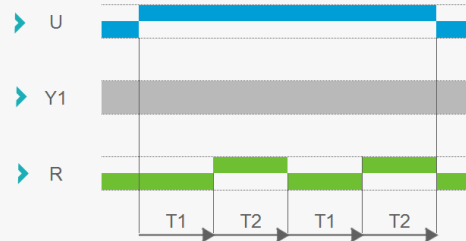
Function Ht: Interval summation time relay



Function N: Watchdog

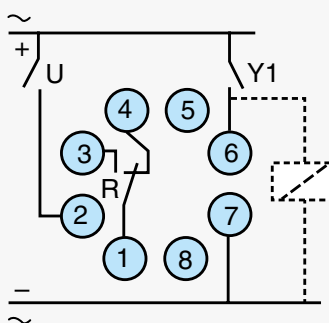


Function L: Recycler (OFF Start)

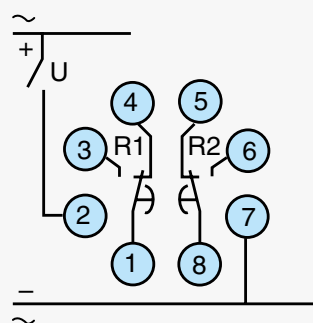


Wiring diagrams

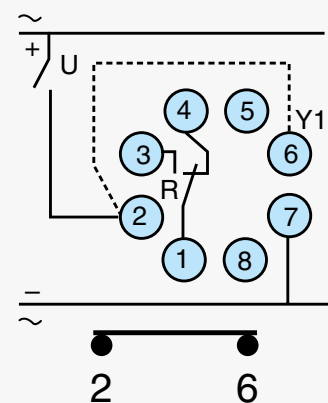
OU1R10MV1 / OC1R10MV1



OA2R10MV1



OL1R10MV1



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