

TMR 48 Analog Timers



- 8 & 11 pin standard configuration
- Multi-function or mono-function
- Multi-range from 0.02 s to 300 h
- Multi-voltage 12 to 240 VDC / 24 to 240 VAC
- Time setting displayed on dial
- 2 changeover relays 5 A / 250 VAC
- Display of power and output states by 2 LEDs
- Housing 48 x 48 mm
- Up to 7 functions in one product!
- 14 available timing ranges
- Choice of front panel cover
- AA stock item



Specifications

Type	Functions	Relay outputs	Max. breaking Current	Supply voltage +/- 10% DC, -15+10% AC	Connection	Part Number	\$ Each
TMR 48 U	A, B, C, W, G, Ac, Bw	2 timed changeover	5 A / 250 VAC	12 → 240 VDC 24 → 240 VAC	Plug-in 11 pin	88 886 016	\$41
TMR 48 A	A	2 timed changeover	5 A / 250 VAC	12 → 240 VDC 24 → 240 VAC	Plug-in 8 pin	88 886 106	\$41
TMR 48 X	A1, A2, H1, H2, Q1, Q2, D-Di	2 changeover or 1 timed and 1 instantaneous	5 A / 250 VAC	12 → 240 VDC 24 → 240 VAC	Plug-in 8 pin	88 886 116	\$48
TMR 48L	L L, Li, G, Gi	2 timed changeover	5 A / 250 VAC	12 → 240 VDC	Plug-in 11 pin	88 886 516	\$41

Timing ranges (14 available options)

0,02 → 1,2 s	0,05 → 3 s	0,2 → 12 s	0,5 → 30 s	2 → 120 s	5 → 300 s
0,2 → 12 min.	0,5 → 30 min.	2 → 120 min.	5 → 300 min.		
0,2 → 12 h	0,5 → 30 h	2 → 120 h	5 → 300 h		

Electrical life at I max. 250 V AC resistive (number of operations)	10 ⁶
Mechanical life (operations)	30 x 10 ⁶
Operating temperature range (°C)	-20 → +55
Storage temperature range (°C)	-40 → +70
Display of output state by 2 LEDs	Green : power ON, flashing during timing Yellow : ON output ON, OFF output OFF
Protection class (IEC 60529) - Panel-mounted	IP 50
Protection class (IEC 60529) - Casing	IP 40

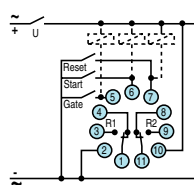
Accessories

11-pin connector base
8-pin connector base

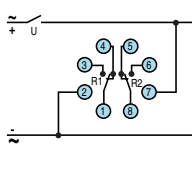
Part Number	\$ each
OC-PF113A-E	\$7.34
OC-PF083A-E	\$5.12

Connections & Dimensions

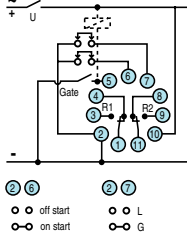
TMR 48 U



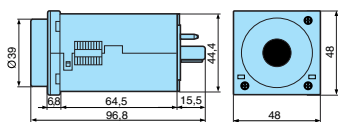
TMR 48 A/X



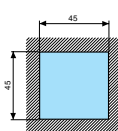
TMR 48 L



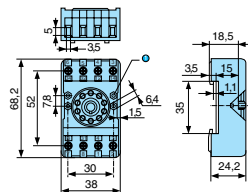
TMR 48 U / A / X / L



Panel cut-out



35 mm DIN rail base with clips 79 237 739



Timing Functions

- A: Delay on Make
- A¹: Delay on Make
- A²: Delay on Make
- Ac: Delay on Make/Delay on Combo
- B: Single Shot
- Bw: Pulse Output (adjustable)
- C: Delay on Break
- D-D: Symetric Reader
- G: Percentage Time
- G/G¹: Asymmetrical Recycler
- H¹: Interval
- H²: Interval
- Q: Star-Delta
- Q: Star-Delta₂
- W: Timing after Impulse on Control Contact

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Chronos 2 On-Delay Timer - Plug-in 8-pin (35 mm)



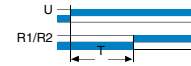
- **Delay on Make / On-Delay Timer**
- Multi-voltage, 7 timing ranges
- DPDT relay output 10A - 250V
- Plug-in
- 1 LED status indicator
- Option of connecting a small cord to the control input
- 3-wire sensor control option
- Timing Range 0.1s E 100h
- AA stock item



OA2R1 Timer

Function A

Delay on Make / On Delay
2 relays 0.1s • 100h

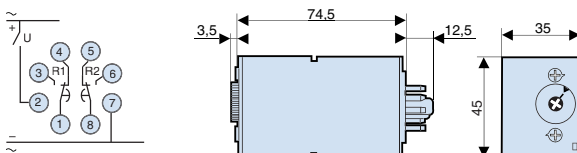


only \$26 each!

Technical specifications

Timing	
Repetition accuracy (with constant parameters)	± 0.5 % (CEI 1812-1)
Drift	
- Temperature	± 0.05 % / °C
- Voltage	± 0.2 % / V
Display precision according to IEC 1812-1	
Minimum pulse duration	±10 % / 25 °C
- Typically	30 ms
- Typically under load	100 ms
Maximum reset time by de-energisation	
- Typically	100 ms
Immunity to breaks in supply voltage: typically	
	>10 ms
Power supply	
Multi-voltage power supply	24V ~ / 24 • 240V ~
Frequency	
Operating range	50/60 Hz 85 to 110 % Un (85 to 120 % Un for 12V AC/DC)
Load factor	
Maximum power consumption	100 % 0.6 W 24V AC/DC 1.5 W 230V AC 32 VA 230V AC
Output elements relay output	
2 changeover relays, AgNi (cadmium-free)	2000 VA / 80 W
Rated power	2000 V A / 80W
Maximum breaking current	10 A AC 10 A DC
Minimum breaking current	10 mA / 5 VDC
Voltage breaking capacity	250V AC/VDC
Electrical life	
	10 ⁵ operations 8 A 250V resistive 5 x 10 ⁶ operations
Mechanical life	
Breakdown voltage acc. to IEC 1812-1	2.5 kV / 1min / 1 mA /50Hz
Impulse voltage acc. to IEC 664-1 IEC 1812-1	5 kV, wave 1.2 / 50 μs
Display	
State displayed by 1 LED	
- Flashing green when on	
Green LED operation indicator	
■■■■■ Pulsing:	
- timer on, no timing in progress (except functions Di-D and Li-L)	
■■■■■ Flashing:	
- timing in progress	
■■■■■ Permanently lit:	
- Relay waiting, no timing in progress	
Input type	
- Volt-free contact	
- 3-wire PNP output control option maximum residual voltage: 0.4 V whatever the timer power supply	0.4 V

Wiring and Dimensions



Part & Order Number

OA2R1 **88 867 215** **\$26.00 ea**

Voltage range

24V ~ / 24 • 240V ~

Functions

Delay on Make (A)

Nominal current

10 A

Timing ranges (7 ranges)

0.1s - 1s - 10s - 1 min - 10 min - 1 h - 10 h - 100 h

General specifications

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 cUL listed CSA recognized	
Temperature limits	
- use	-20 °C + 60 °C
- stored	-30 °C + 60 °C
Installation category (acc. to IEC 664-1)	
Creepage distance and clearance acc. to IEC 664-1	
Degree of protection acc. to IEC 529	
- terminal block	IP 20
- casing	IP 40
- front face (except Tk2R1)	IP 50
Vibration resistance acc. to IEC 68-2-6	
	f = 10 • 55 Hz A = 0.35 mm
Relative humidity acc. to IEC 68-2-3 without condensation	
93 %	
Electromagnetic compatibility	
- Immunity to electrostatic discharges acc. to IEC 1000-4-2	
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 (common mode 2 kV / residual current mode 1kV)	
- Immunity to radiofrequency in common mode acc. to ENV	
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 60 % / 100 ms > 95 % / 5 s	
- Mains-borne and radiated emissions acc. to EN 55022 (EN 55011 Group 1)	
Class B	
Fixing: plug-in bases	
8-pin	
Casing material	
Self-extinguishing	
Weight: plug-in casing	
80 g	

Accessories

Omron 8-pin Din-rail /panel mount base	OC-PF083A-E \$5.12 ea
Output	2 relays (DPDT)

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