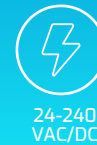


Static Output Analog Timers

DIN-Rail Mount 17.5 mm

Chronos2 MA55, MHS2, MLS2, MUS2 Series

The Chronos 2 range of industrial timers: ideal for timing, monitoring and counting functions. Available in single or multi-function versions, to meet the specific needs of each application.



Electrical Control & Protection > Timer Relays > DIN-Rail > Analog > **Static Output**

Highlights

- Mono-function (except MUS2: Multi-function)
- Multi-range
- Screw terminals
- Nominal rating 0,7 A (SSR output)

Standards



Part Numbers

88827014	88827044	88827054	88827004
			
Functions: A	Functions: H - Ht	Functions: L - Li	Functions: U (A - Ac - At - B - Bw - C - D - Di - H - Ht)
Series: MA55	Series: MHS2	Series: MLS2	Series: MUS2

Part numbering system

Product line: 88: Control	Output Type: 0: Static 1 / 2 / 3 : Relay	Power Supply: 3: 12-240 VAC/DC 4: 24-240 VAC or 24-240 VAC/DC 5: 24 VDC / 24-240 VAC or 24-240 VAC/DC 6: 230-240 / 380-440 VAC
88	827	1
	Casing: 827: 17.5 mm 865/866: 22.5 mm	0
		3
	Function: 0: Multifunction U 1: Function A 2: Function B 3: Function C 4: Function H/Ht	5: Function L/Li 6: Function K 7: Function Q 8: Multifunction X

More info.



Specifications

Specifications	88827014	88827044	88827054	88827004
Inputs				
Supply voltage	24-240 VAC/DC	24-240 VAC	24-240 VAC	24-240 VAC
Voltage supply tolerance	-15%, +10%			
Operating factor	100%			
Max power consumption at Un	0.6 W (240 VDC) 0.84 VA (240 VAC)	1.3 VA (240 VAC)	1.5 VA (240 VAC)	1.35 VA (240 VAC)
Immunity to power micro cuts	< 10 ms			
Timing				
Timing ranges	1 s - 10 s - 1 min - 10 min - 1 h - 10 h - 100 h			
Recovery time (after by de-energization)	400 ms			
Setting accuracy (full range)	IEC/EN 61812-1: ± 0.5% with constant parameters			
Drift temperature	± 0.05% /°C			
Drift voltage	± 0.2% / V			
Outputs				
Outputs configuration	1 Solid State			
Maximum switching voltage	0.7 A AC/DC			
Maximum switching power (resistive)	250 VAC/DC	250 VAC	250 VAC	250 VAC
Electrical life (operations)	10 ⁸			
Minimum breaking current	10 mA AC			
Rated power	0.7 A AC/DC 20 °C (0.5A UL)			
Leakage current	< 6 mA			
Dielectric strength	IEC/EN 60664-1: 2.5 kV / 1 min / 1 mA / 50 Hz			
Insulation				
Insulation coordination	IEC/EN 60664-1: Voltage surge category III			
Rated impulse voltage	IEC/EN 60664-1, IEC/EN 61812-1: 5 kV (1.2/50 μs)			
Clearance / creepage distances	IEC/EN 60664-1: 4 kV / 3 mm Pollution degree 2			
Insulation resistance	IEC/EN 60664-1: 100 MΩ (500 VDC)			
General characteristics				
Display	No	No	No, but status indicator. Un: while counting, green LED blinks when relay is ON and flashes when relay is OFF	No, but status indicator. Un: green LED blinks when counting and output ON, flashes when counting and output OFF, lights up continuously when output is ON and not counting
Display accuracy	IEC/EN 61812-1: ± 10% / 25°C			
Casing	17.5 mm			
Mounting	IEC/EN 60715: 35 mm symmetrical DIN-Rail			
Mounting position	Vertical			

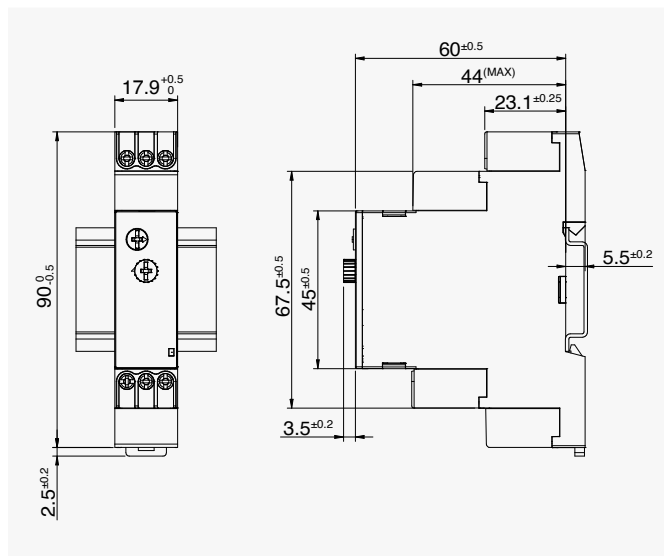
Specifications

Specifications		88827014	88827044	88827054	88827004
General characteristics					
Housing material	Self-extinguishing Incandescent wire test				
Degree of protection	According to IEC/EN 60529: Terminal block: IP20 Housing: IP40 Front face: IP50				
Terminal capacity	Single-wire without ferrule: 1 x 0.5 - 3.3 mm² (AWG20 - AWG12) 2 x 0.5 - 2.5 mm² (AWG20 - AWG14) Multi-wire with ferrule: 1 x 0.5 - 2.5mm² (AWG20 - AWG14) 2 x 0.5 - 1.5mm² (AWG20 - AWG16)				
Maximum tightening torques	IEC 60947-1: 0.5 - 0.6 N.m				
Operating temperature	-20 °C to +60 °C				
Storage temperature	-30 °C to +60 °C				
Humidity	IEC/EN 60068-2-30: 93% non-condensing				
Vibration resistance	IEC/EN 60068-2-6: 20 m/s² / 10 Hz - 150 Hz				
Shock resistance	IEC/EN 60068-2-27: 15 g - 11 ms				
Short interruption on power line	IEC/EN 61000-4-11: 0% residual voltage, 250/300 cycles				
MTBF (according to IEC/TR 62380:2004)	179.63 years	194.07 years	126.47 years	126.47 years	
Weight	60 g				
Packaging	Compact carton recycled and recyclable No plastic				
Standards					
Approvals / marking	CE, cULus Listed Industrial Control Equipment, CCC*				
Conformity with environmental directives	2015/863/UE: RoHS 1907/2006: Reach				
Immunity to electrostatic discharges	IEC/EN 61000-4-2: Level III (Air 8 kV / Contact 6 kV)				
Immunity to radiated, radio-frequency, electromagnetic field	IEC/EN 61000-4-3: Level I (1 V/m: 2.0 GHz - 2.7 GHz) Level II (3 V/m: 1.4 GHz - 2.0 GHz) Level III (10 V/m: 80 MHz - 1 GHz)				
Immunity to rapid transient bursts	IEC/EN 61000-4-4: Level III (direct 2 kV / Capacitive coupling clamp 1 kV)				
Immunity to shock waves on power supply	IEC/EN 61000-4-5: Level III (2 kV / common mode 2 kV / residual current mode 1 kV)				
Immunity to radiofrequency in common mode	IEC/EN 61000-4-6: Level III (10 Vrms: 0.15 MHz - 80 MHz)				
Immunity to voltage dips and breaks	IEC/EN 61000-4-11: 0% residual voltage, 1 cycle 70% residual voltage, 25/30 cycles 0% residual voltage, 250/300 cycles				
Mains-borne and radiated emissions	EN55032 (CISPR22): Class B EN55011 (CISPR11): Class B				

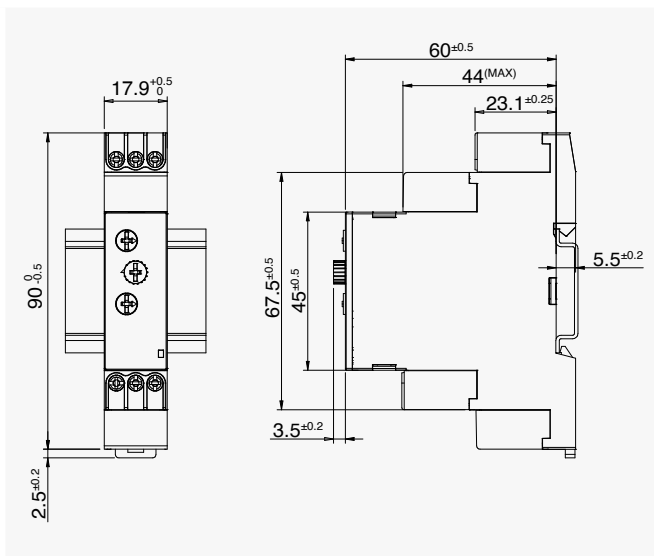
*Under process

Dimensions (mm)

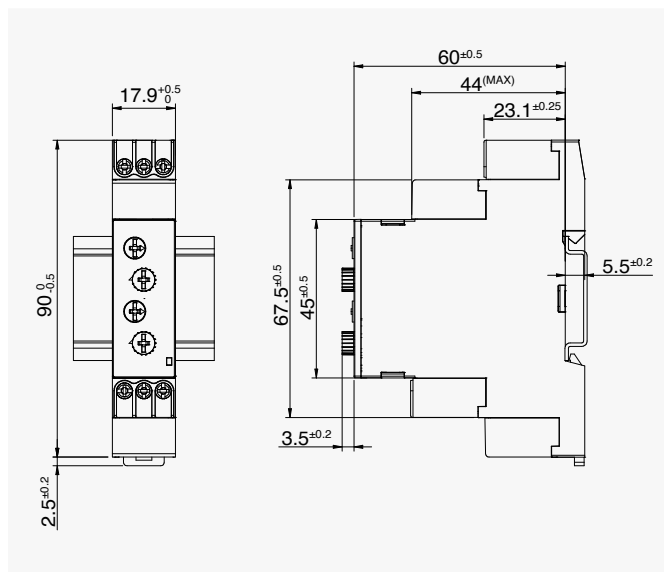
88827014 / 88827044



88827004

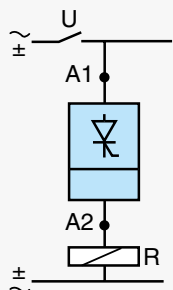


88827054

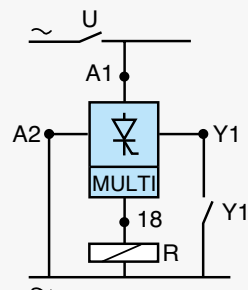


Wiring diagrams

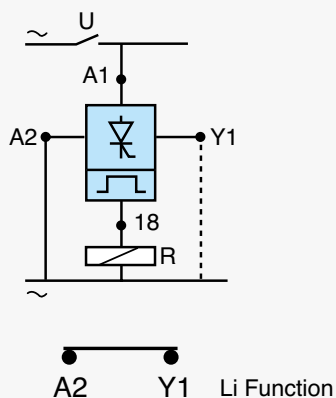
88827014 / 88827044



88827004

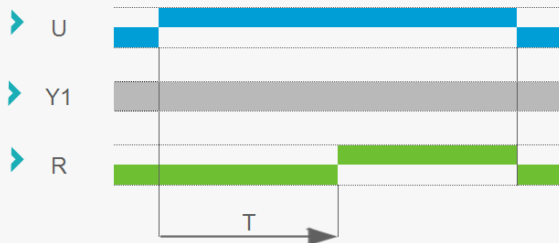


88827054

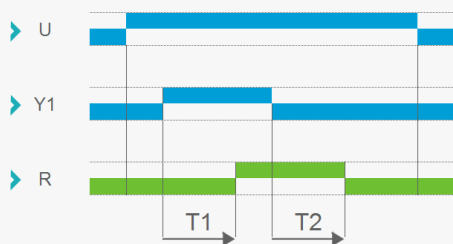


Function diagrams

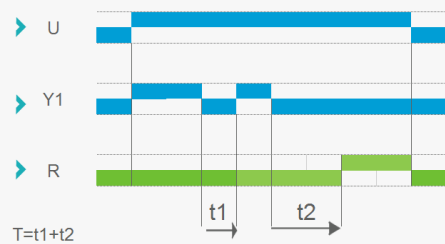
Function A: On-Delay (Delay on make)



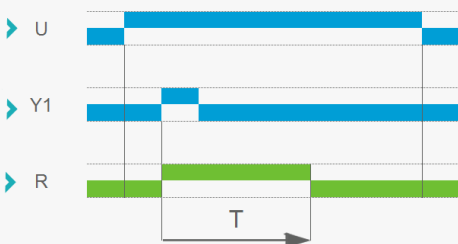
Function Ac: On/Off Delay (Delay on make/break)



Function At: Summation Time Relay



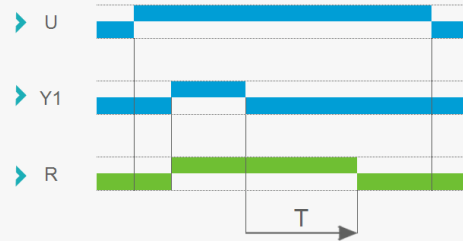
Function B: One-Shot



Function Bw: Pulse output



Function C: Off-Delay (Delay on brake)



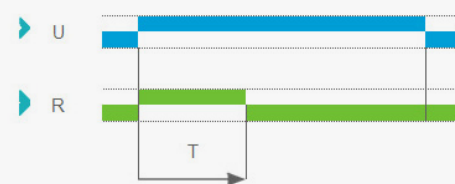
Function D: Flasher (Symmetrical) - OFF Start



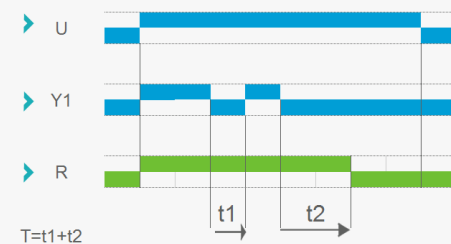
Function Di: Flasher (Symmetrical) - ON Start



Function H: Interval

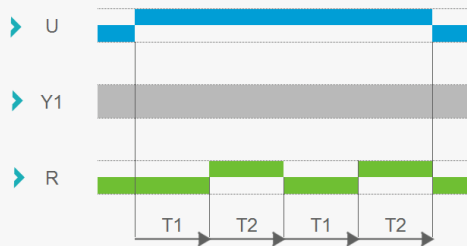


Function Ht: Interval with Memory

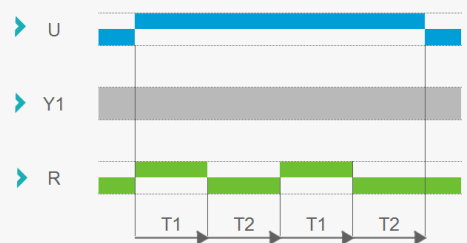


Function diagrams

Function L: Repeat Cycle (Asymmetrical) - OFF Start



Function Li: Repeat Cycle (Asymmetrical) - ON Start



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