

Timer Essential 17,5mm

→ EMER / EMAR

- Multi-function or mono-function
- Multi-range (7 range)
- Multi-voltage or mono-voltage
- LED status indicator (voltage – Relay output)
- Option of connecting an external power supply to the control input (EMER)

BOZZA



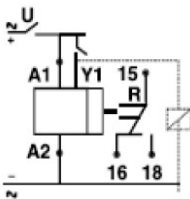
Specifications

Type	Functions	Timing	Output	Supply voltage	Code
EMER8	A-At-B-C-H-Ht-W-D-Di-Pe	0,1s...20h	1 changeover relay 5A	12 to 240Vdc – 24 to 240 Vac	88 829 198
**EMER8 Kit 60pcs					88 829 900
EMAR7	A	0,1s...20h	1 changeover relay 5A	240Vac	88 829 117
**EMAR7 Kit 60pcs					88 829 901
EMAR9	A	0,1s...20h	1 changeover relay 5A	24Vac-dc	88 829 119
**EMAR9 Kit 60pcs					88 829 902

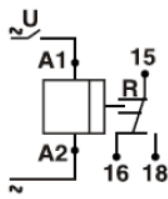
**Kit 60pcs : Box containing 60 timers without single packaging (1 pcs = 60 Timers)

Tecnical characteristics

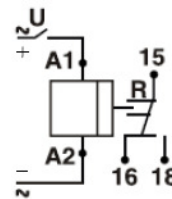
Connections



EMER8



EMAR7



EMAR9

Timing control

Timing range (7 range) IEC 1812-1	0,1s-1s,1-10s,6-60s,1-10min,6-60min,1-10h,2-20h
Repetition accuracy with constant parameters IEC 1812-1	+/- 0,5%
Drift Temperature	+/- 0,05%/°C
Drift Voltage	+/- 0,2%/V
Setting Accuracy IEC 1812-1	+/- 10%/25°C
Minimum control pulse duration IEC 1812-1	30ms
Recovery time (after de-energisation) IEC 1812-1	100 ms

Supply

Rated Voltage	EMAR7: 240Vac EMAR9: 24Vac-dc EMER8: 12 to 240Vdc – 24 to 240 Vac
Voltage supply tolerance	EMAR7: -15% +10% EMAR9: 24Vac -15% +10% 24Vdc -15% +20% EMER8: -15% +10%
AC supply voltage frequency	50/60Hz +/- 5%
Max assorbed power	EMAR7 : Approx 3,2VA 230Vac EMAR9 : Approx 1,2VA (0,6W) / 24Vac (dc) EMER8 : Approx 3,2VA (1,5W) 230Vac (dc) Approx 1,2VA (0,6W) / 24Vac (dc)
Immunity from micro power cuts :typical	>10ms

Output specification

1 changeover relay	NO: 1250VA / 150W – NC: 750VA / 90W
Switching current rate (resistive)	NO: 5A – NC:3A
Maximum switching current (resistive)	NO: 10A – NC:3A
Minimum switching current	10mA / 12Vdc
Voltage breacking capacity	250VAC/DC
Electrical life at nominal swiching current rate (resistive)	10 ⁵ cycle NO 7x10 ⁴ cycle NC
Mechanical life	5x10 ⁶ cycle

General specifications

Status indication (LED)	Green=power on / Yellow= output relay ON
Casing DIN 43 880	17,5mm
DIN rail mounting EN50022	35mm symmetrical DIN rail
Mounting position	All positions
Degree of protection IEC 60529	Housing: IP40 / Terminal block: IP20
Connecting capacity IEC 60947-1	Rigid: 1x4mm ² - 2x2,5mm ² / 1x11 AWG – 2x14 AWG Flexible with ferrules: 1x2,5mm ² - 2x1,5mm ² / 1x14 AWG – 2x16 AWG
Maximum tightening torques IEC 60947-1	0,6 ... 0,8Nm
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	10 to 55 Hz, A=0,35mm peak to peak 10 x cycles, 1octave / min
Drop to concrete floor IEC 60068-2-32	Height: 1m
Weight	60g

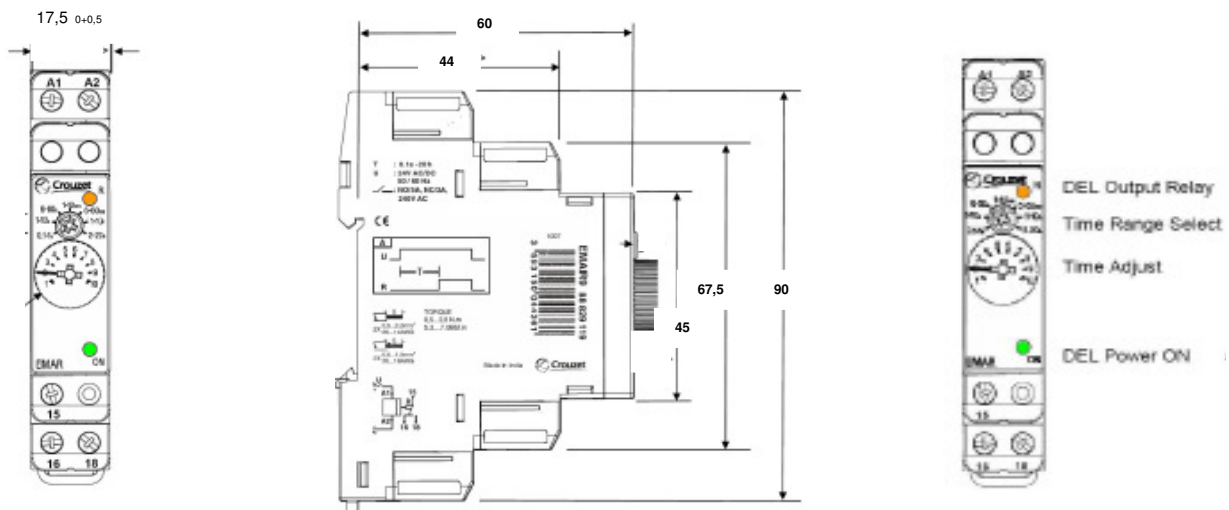
Standards






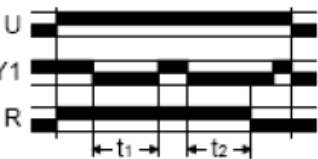



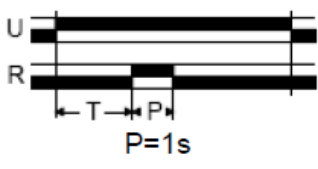
Approval	CE – cUL (in progress)
Conformity with environmental directives	2002/95/CE : RoHS 1907/2006 : Reach
Product standard IEC 61812-1 / UL508 / CSA C22.2N°14	Specified time relays for industrial use Industrial control equipment
Electromagnetic compatibility IEC 61000-6-2 IEC 61000-6-3 IEC 61000-6-4	Immunity for industrial environment Emission residential environment Emission industrial environment
Immunity to electrostatic discharges IEC 61000-4-2	Level III Air +/- 8KV / contact +/- 4KV
Immunity to radiated, radio-frequency, electromagnetic field IEC61000-4-3	Level III 10V/m (80MHz to 1GHz) 80% AM (1KHz) 3V/m (1,4 to 2 GHz) 80% AM (1KHz) 1V/m (2 to 2,7 GHz) 80% AM (1KHz)
Immunity to rapid transient bursts IEC 61000-4-4	Level III Direct +/- 2KV (power supply) / capacitive coupling clamp +/- 1KV (command input and output)
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 10V (0.15 to 80MHz) 80% AM (1KHz)
Immunity to magnetical field IEC 61000-4-8	50,60Hz 30A/m, 1min
Immunity to voltage dips and breaks IEC 61000-4-11	Dips: 0% residual voltage / 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) Breaks: 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) CISPR 14-1
Radiated emissions IEC 61000-6-3 IEC 61000-6-4	CISPR 16-2-3

Insulation

Rated insulation voltage IEC 60664-1	250V
Insulation coordination IEC 60664-1	Overvoltage category III ; pollution degree 3 ; up to 2000m above sea level
Rated impulse voltage IEC 60664-1	2,5KV (1,2/50µs)
Dielectric strength EN-61812-1	2KV/1min / 1mA / 50Hz
Insulation Resistance NFC 93050	>500MOhms / 250Vdc / 1min

Dimensions



<p>A Function: Delay on Energisation</p> 	<p>At Function: Timing on Energisation with memory</p> <p>$T = t_1 + t_2$</p> 
<p>B Function: Single Shot (timing on impulse one short)</p> 	<p>C Function: Timing after impulse delay OFF</p> 
<p>H Function: Timing on energisation 1 relay</p> 	<p>Ht Function: Delay on energisation with memory 1 relay</p> <p>$T = t_1 + t_2$</p> 
<p>W Function: Timing after pulse on control contact</p> 	<p>D Function: Repeat cycle equal_OFF first</p> 
<p>Di Function: Repeat cycle equal_ON first</p> 	<p>Pe Function: Delayed fixed length pulse</p> <p>$P = 1s$</p> 

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