



- ENYA series
- 5 functions
- 7 time ranges
- Wide input voltage range
- 1 change over contact
- Width 17.5 mm (0.69 in)
- Installation design



Technical data

1. Functions

The function can be selected at anytime if connected to the supply voltage.

E	ON delay
R	OFF delay
L1	Manual OFF
LA	Load Alternator (Pump Changer)
L2	Manual ON

2. Time ranges

Time range	Adjustment range	
1 s	50 ms	1 s
10 s	500 ms	10 s
1 min	3 s	1 min
10 min	30 s	10 min
1 h	3 min	1 h
10 h	30 min	10 h
100 h	5 h	100 h

3. Indicators

Green LED U/t ON:	indication of supply voltage
Green LED U/t flashes:	indication of time period
Yellow LED R ON/OFF:	indication of relay output

4. Mechanical design

Self-extinguishing plastic housing, rated IP40.
 Mounted on DIN-rail TS 35 according to EN 60715
 Mounting position: any
 Shockproof terminal connection according to VBG 4 (PZ1 required).
 Terminals are rated IP20
 Tightening torque: max. 1 Nm (0.74 ft lbs)
 Terminal capacity:
 1 x 0.5 to 2.5 mm² (1 x 20 to 14 AWG)
 with/without multicore cable end
 1 x 4 mm² (1 x 12 AWG)
 without multicore cable end
 2 x 0.5 to 1.5 mm² (2 x 20 to 16 AWG)
 with/without multicore cable end
 2 x 2.5 mm² (2 x 14 AWG)
 flexible without multicore cable end

5. Input circuit

Supply voltage:	24 to 240V a.c./d.c.
Terminals:	A1(+)-A2
Tolerance:	24V -15% to 240V +10%
Rated consumption:	4VA (1.5W)
Rated frequency:	a.c. 48 to 63 Hz
Duty cycle:	100 %
Reset time:	100 ms
Residual ripple for d.c.:	10 %
Drop-out voltage:	>30 % of minimum rated supply voltage
Oversvoltage category:	III (in accordance with IEC 60664-1)
Rated surge voltage:	4kV

6. Output circuit

1 isolated change over contact (1 CO)	
Contact material:	AgNi
Rated voltage:	250V a.c.
Switching capacity:	2000VA (8A / 250V a.c.)
Fusing:	8A fast acting
Mechanical life:	20 x 10 ⁶ operations
Electrical life:	1 x 10 ⁵ operations at 1000VA resistive load
Switching frequency:	max. 6/min at 1000VA resistive load (in accordance with IEC 60947-5-1)
Oversvoltage category:	III (in accordance with IEC 60664-1)
Rated surge voltage:	4kV

7. Control input

Input not potential free:	terminals A1-B1
Loadable:	yes
Max. line length:	10 m
Trigger level (sensitivity):	automatic adaption to supply voltage
Min. control pulse length:	d.c. 50 ms / a.c. 100 ms

8. General data

Degree of protection:	Basic insulation
Insulation test voltage:	Supply circuit - Output circuit: 1680V
Interference immunity:	Class A
Prospective current value:	1000A / 8A

8. Accuracy

Base accuracy:	±1 % of maximum scale value
Adjustment accuracy:	<5 % of maximum scale value
Repetition accuracy:	<0.5 % or ±5 ms
Voltage influence:	-
Temperature influence:	≤0.01 % / °C

9. Ambient conditions

Ambient temperature:	-25 to +55 °C (-13 to +131 °F)
Storage temperature:	-25 to +70 °C (-13 to +158 °F)
Transport temperature:	-25 to +70 °C (-13 to +158 °F)
Relative humidity:	15 % to 85 % (in accordance with IEC 60721-3-3 class 3K3)
Pollution degree:	2 (in accordance with IEC 60664-1)

10. Weight

Single packing:	80 g (2.82 oz)
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Functions

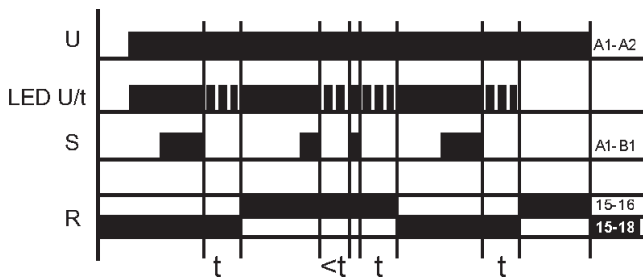
Load Alternator - Pump Changer (LA)

In this mode, every falling edge toggles the output relay R (flip-flop) from L1 to L2 or L2 to L1 whatever position is defined by the previous status. On Power-Up the relay R stays in off condition until the first falling edge is detected on S Terminal B1.

To ensure a safe and optimal function, please turn both timing controllers on the front to the most left position (CCW), which equals 50 msec.

In this operation mode, a minimum delay/de-bump time of 50 msec is applied from the falling edge of the control input until relay R is changing its state.

If a longer delay time as 50 msec is set, a short pulse on the „S“ input resets the times. The timer is restarted with the next falling edge signal on „S“ input again. If you wish to apply longer delay times, set the according time selectors to the required values or contact your application engineer.



Manual OFF (L1)

If the function selector indicates function L1, the output relay R remains in the off-position. If you switch from LA to L1 the relay switches into off-position independent of the status of the control input.

Manual ON (L2)

If the function selector indicates function L2, the output relay R remains in on-position as long as the supply voltage is available. If you switch from LA to L2 the relay switches into on-position independent of the status of the control input.

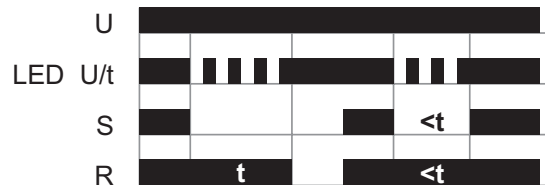
ON delay (E)

When the supply voltage U is applied, the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated) the output relay R switches into on-position (yellow LED illuminated). This status remains until the supply voltage is interrupted. If the supply voltage is interrupted before the expiry of the interval t, the interval already expired is erased and is restarted when the supply voltage is next applied.



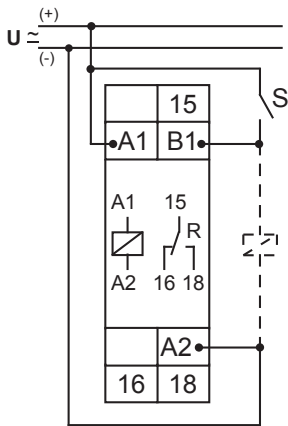
OFF delay (R)

The supply voltage U must be constantly applied to the device (green LED U/t illuminated). When the control contact S is closed, the output relay R switches into on-position (yellow LED illuminated). If the control contact is opened, the set interval t begins (green LED flashes). After the interval t has expired (green LED U/t illuminated) the output relay switches into off-position (yellow LED not illuminated). If the control contact is closed again before the interval t has expired, the interval already expired is erased and is restarted.

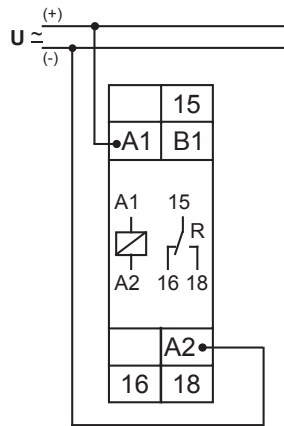


Connections

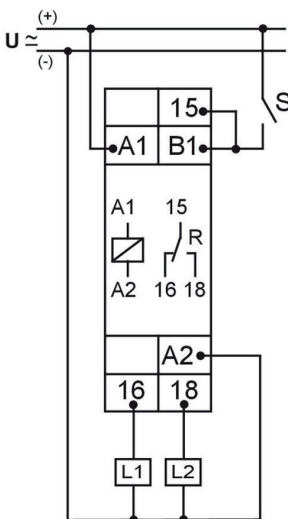
with control input
OFF Delay (R)



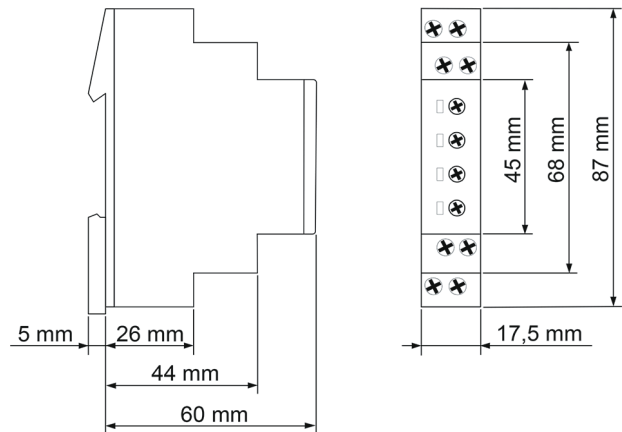
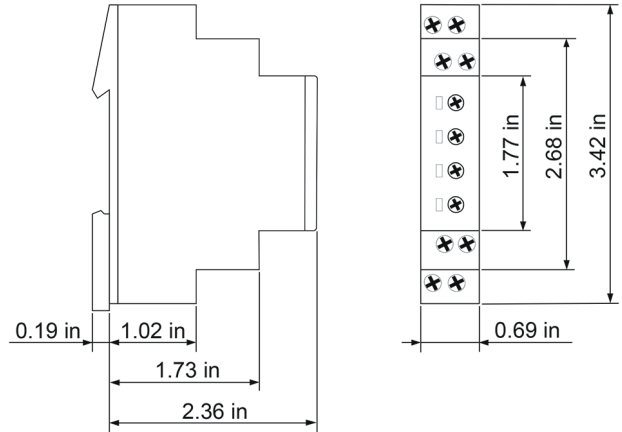
without control input
ON Delay (E)



Load Alternator - Pump Changer (LA)



Dimensions



Ordering information

Type	Functions	Supply voltage	Art. No.
E1ZMLA10 24-240V AC/DC	E, R, LA, L1, L2	24-240V a.c. / d.c.	110218