

## Timer Relays Series AMPARO



ZRAE,R,AMF



ZRAE0011



ZRAR0011



ZRAMF011

### Schrack-Info

#### ZRAE0011

- Tripping delayed timer relay
- Mode: "E"
- 1 CO, 5 A
- 24-48 V DC / 24-240 V AC
- Time range 0.05 seconds - 10 hours
- Component width 17.5 mm

#### ZRAR0011

- Release delayed timer relay
- Mode: "R"
- 1 CO, 5 A
- 24-48 V DC / 24-240 V AC
- Time range 0.05 seconds - 10 hours
- Component width 17.5 mm

#### ZRAMF011

- Multi-function timer relay
- Modes: "E", "R", "Ws", "Wu", "Wa", "Bp" & "F"
- 1 CO, 5 A
- 24-48 V DC / 24-240 V AC
- Time range 0.05 seconds - 10 hours
- Component width 17.5 mm

### Overview AMPARO Timer Relays

Article	Number of contacts and type	Voltage range	Number of time ranges	Number of functions	E	R	Ws	Wu	Wa	Bp	F
ZRAE0011	1 CO	24 - 240 V AC / DC	6	1	X						
ZRAR0011	1 CO	24 - 240 V AC / DC	6	1		X					
ZRAMF011	1 CO	24 - 240 V AC / DC	6	7	X	X	X	X	X	X	X

Timer Relays Series AMPARO

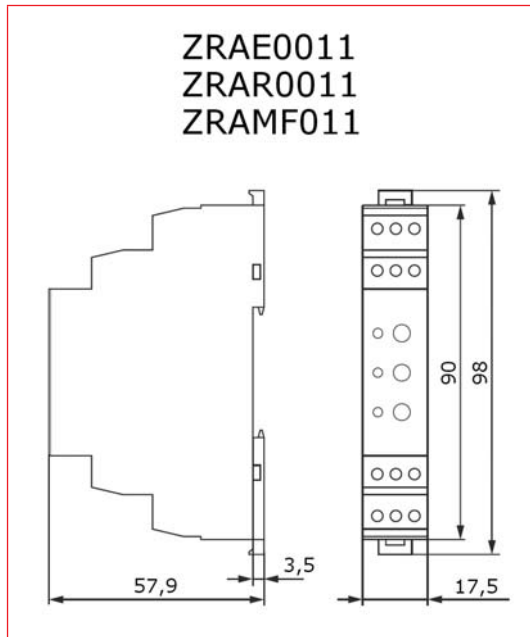
Overview Modes

Article	
ZRAE0011	Time relay ON delay
ZRAR0011	Time relay OFF delay
ZRAMF011	Multifunction time relays

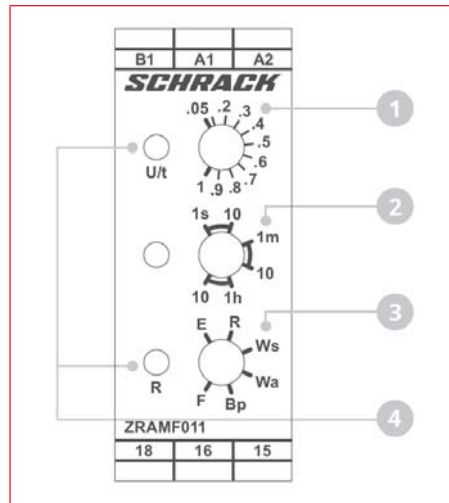
Functions

Code	Function
E	ON delay
R	OFF delay (with control contact)
Ws	Single shot leading edge (with control contact)
Wu	Single shot leading edge voltage controlled
Wa	Single shot trailing edge (with control contact)
Bp	Flasher pause first
F	T-FlipFlop (Toggle)

Dimensions (mm)



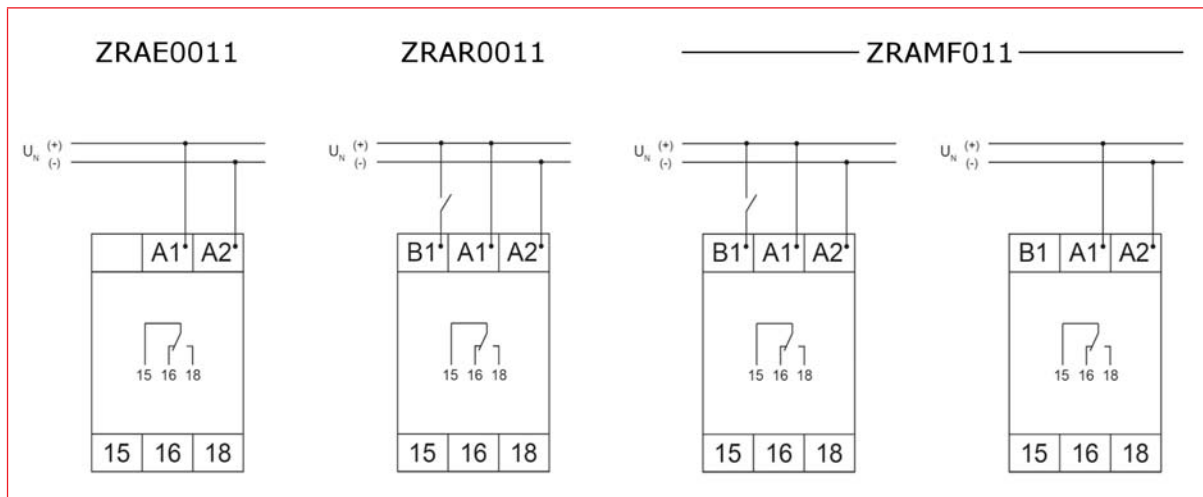
Configuration & Settings



Configuration & Functionalities

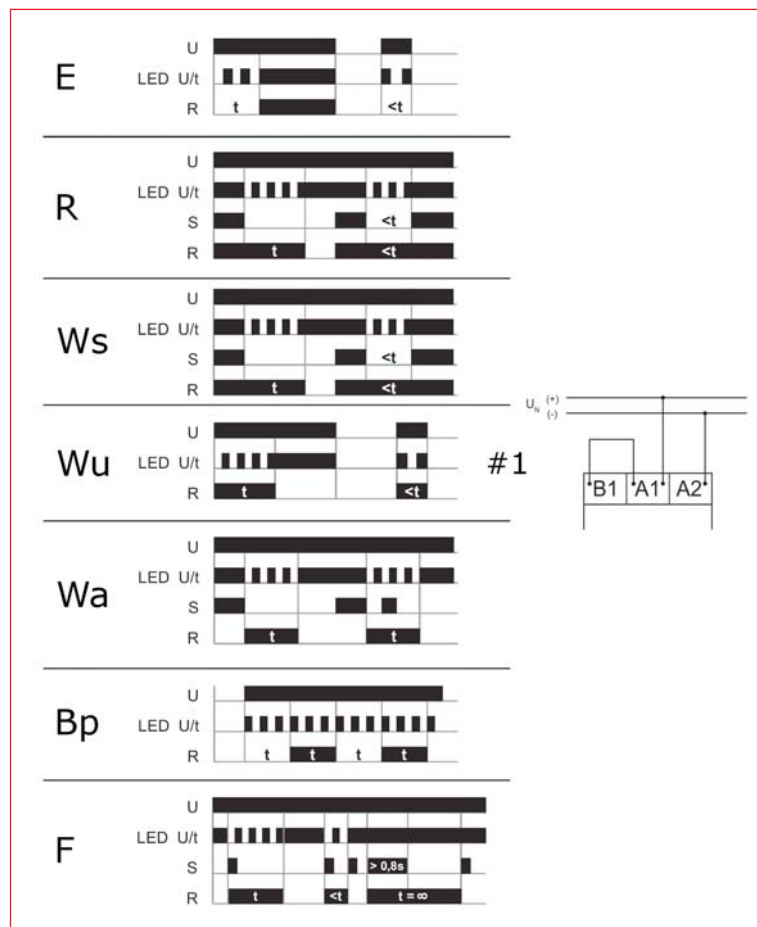
1	Fine adjustment
2	Setting of time range
3	Selection of the desired function
4	Status indication
	<b>U/t:</b> LED green...Supply voltage applied
	<b>R:</b> LED yellow...Relay is active

Overview Circuit Diagrams



## Timer Relays Series AMPARO

### Modes



### Overview Modes

Article	E	R	Ws	Wu	Wa	Bp	F
ZRAE0011	X						
ZRAR0011		X					
ZRAMF011	X	X	X	X	X	X	X




### Description of Modes

<b>E</b>	ON delay
<b>R</b>	OFF delay with control contact
<b>Ws</b>	Single shot leading edge with control contact
<b>Wu</b>	Single shot leading edge voltage controlled (function selector must be set on <b>Ws</b> and fixed jumper A1 - B1)
#1	Function <b>Ws</b> with fixed jumper A1 - B1
<b>Wa</b>	Single shot trailing edge with control contact
<b>Bp</b>	Flasher pause first
<b>F</b>	T-FlipFlop (Toggle)

Timer Relays Series AMPARO

Technical Data

		ZRAE0011	ZRAR0011	ZRAMF011
<b>INDICATORS</b>	Green LED U/t ON	Indication of supply voltage		
	Green LED U/t flashes	Indication of time period		
	Yellow LED R ON/OFF	Relay is energized		
<b>INPUT CIRCUIT</b>	Terminals	A1 - A2		
	Supply voltage	24 - 48 V DC / 24 - 240 V~		
	Duty cycle	100 %		
	Bridging time	< 30 ms		
	Reset time	100 ms		
	Drop-out voltage	> 30 %		
	Power loss	1 W		
	<b>OUTPUT CIRCUIT</b>	Number of contacts and type	1 CO	
Terminals		15 - 16 - 18		
Type		Relay		
Contact material		AgNi		
Rated voltage		250 V		
Max. switching voltage		250 V		
Max. switching current		5 A		
Rated current		5 A / 250 V		
Service life		Mechanical	1 x 10 <sup>5</sup> operations	
		Electrical	1 x 10 <sup>5</sup> operations	
Switching frequency		With load	6 / min	
	Without load	1200 / min		
Fusing	5 A fast acting			
<b>DATAS OF INSULATION</b>	Pollution degree (IEC 61812-1)	2		
	Overvoltage category (IEC 61812-1)	II		
	Rated insulation voltage (IEC 61812-1)	Input circuit/ output circuit	300 V	
	Rated surge voltage (IEC 61812-1)	Input circuit/ output circuit	2500 V	
	Insulation-test-voltage (IEC 61812-1)	Input circuit/ output circuit	1600 V	
<b>ELECTRICAL CONNECTION</b>	Insulation	Input circuit/ output circuit	Basic insulation	
	Terminal	Screw-terminal		
	Terminal capacity	Rated terminal capacity	2.5 mm <sup>2</sup>	
	Max. terminal capacity	Flexible with /without ferrule	1 x 0.25...2.5 mm <sup>2</sup> (23 AWG...14AWG)	
		Flexible without sleeve	2 x 0.25...1.5 mm <sup>2</sup> (23 AWG...14AWG)	
		Flexible with twin-sleeve	2 x 0.25...1.5 mm <sup>2</sup> (23 AWG...14AWG)	
		Stranded without sleeve	1 x 0.25...2.5 mm <sup>2</sup> (23 AWG...14AWG)	
Length without insulation	7 mm			
Tightening torque	Max. 0.5 Nm			
<b>GENERAL DATA</b>	Ambient temperature	Operation	-25...+50 °C	
	Dimensions (DIN 43880)	LxHxD	17.5 x 97 x 57.9 mm	
	Mounting	(EN 60715)	DIN-rail	
	Mounting position	Any		
	IP rating	Housing	IP40	
Terminals		IP20		

DESCRIPTION	AVAILABLE	ORDER NO.
<b>Tripping and Release Delay</b>		
Timer single function ON-delay AMPARO, 24V AC/DC or 230V AC, 1 CO, 5A/230V		<b>ZRAE0011</b>
Timer single function OFF-delay AMPARO, 24V AC/DC or 230V AC, 1 CO, 5A/230V		<b>ZRAR0011</b>
<b>Multi-function Relays</b>		
Timer multifunction AMPARO, 24V AC/DC or 230V AC, 1 CO, 5A/230V		<b>ZRAMF011</b>



Order no. blue: on stock, usually ready for delivery on the day of order