VEO

TIME RELAY / MULTIFUNCTION TIME RELAY

V2ZQ10 24-240V AC/DC

Art.Nr.: 125150

V2ZQ10P 24-240V AC/DC

Art.Nr.: 125650

- 4 functions
- 10 time ranges
- Supply voltage 24-240V AC/DC
- 1 change-over contact
- Width 22,5 mm

Control elements

- Fine adjustment
- Setting of time range
- Function selector

Status indication

- LED U/t: Supply voltage
- LED R: Relay status



TECHNICAL DATA

SUPPLY CIRCUIT		
Terminals		A1-A2
Supply voltage		24 ... 240 V AC/DC
Supply voltage tolerance		-15 / +10%
Rated frequency		50 / 60 Hz or DC
Rated frequency tolerance		48 ... 63 Hz
Rated consumption	230 V AC	typ. 0,4 W / 0,75 VA
	24 V DC	typ. 0,25 W / 0,25 VA
Standby consumption	230 V AC	typ. 0,16 W / 0,3 VA
	24 V DC	typ. 0,03 W / 0,09 VA
Duty-cycle		100%
Backup power time		< 30 ms
Recovery time		> 100 ms
Drop-out voltage		≥ 15,5 V

CONTROL INPUT		
Terminals		A1-B1
Function		start of function
Type		voltage controlled
Control voltage		see supply voltage
Minimum control pulse length	AC	min. 50 ms
	DC	min. 25 ms
Loadable		yes

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TIMING CIRCUIT

Time ranges	10	0,05 ... 1 s
		0,15 ... 3 s
		0,5 ... 10 s
		1,5 ... 30 s
		3 ... 60 s
		9 ... 180 s
		0,5 ... 10 min
		3 ... 60 min
		0,5 ... 10 h
		5 ... 100 h

RANGE OF FUNCTIONS

Functions	4	E, R, Wu, Bp

STATUS INDICATION

Supply voltage / time lapse	LED U/t (green) on	supply voltage applied
	LED U/t (green) flashes	indication of lapse of time
Relay status	LED R (yellow) on	output relay energized

OUTPUT CIRCUIT

Terminals		15-16-18
Kind of output		Relay
Number of contacts	change-over contact	1
Contact material		AgNi
Rated voltage (IEC 60947-5-1)		250 V
Maximum switching voltage		400 V AC
Minimum switching voltage / switching current		12 V / 10 mA
Rated current (IEC 60947-5-1)	AC-1	8 A / 250 V
	AC-15	1,5 A / 240 V (B300)
	DC-12	8 A / 24 V
Endurance	mechanical	30 x 10^6 switching cycles
	electrical (AC-1)	100 x 10^3 switching cycles
Rated frequency of operation	with load	6/min
	without load	1200/min
Fuse rating		8 A fast acting

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ACCURACY

Base accuracy		< 1 % (of full scale)
Setting accuracy		< 5 % (of full scale)
Repeat accuracy		< 0,5 % or ±5 ms
Temperature influence		< 0,01 % / °C
Voltage influence		-
Frequency influence		-

ENVIRONMENTAL CONDITIONS

Ambient temperature	operation	-25 ... +60 °C
	storage	-40 ... +70 °C
Relative humidity		5 ... 95 %
Vibration	EN 61812-1	10 ... 60 Hz: 0,15 mm; 60 ... 150 Hz: 20 m/s^2
	EN 60947-1	2 ... 13,2 Hz: 1 mm; 13,2 ... 100 Hz: 7 m/s^2
Shock	EN 60947-1	±150 m/s^2 11 ms

GENERAL DATA

Dimensions	W × H × D	22,5 × 67 × 76 mm
Mounting		DIN rail (EN60715)
Mounting position		any
Housing material		PA 66, self-extinguishing plastic, class V-0
Degree of protection	housing	IP40
	terminals	IP20
Electrical connection	V2ZQ10	Screw terminal
Wire size	flexible with wire end ferrule	0,5 ... 2,5 mm^2 (20 AWG ... 13 AWG)
	flexible without wire end ferrule	0,5 ... 4 mm^2 (20 AWG ... 12 AWG)
	rigid	0,5 ... 4 mm^2 (20 AWG ... 12 AWG)
Stripping length		8 mm
Tightening torque		max. 1Nm
Electrical connection	V2ZQ10P	Push-in terminal
Wire size	flexible with wire end ferrule	0,25 ... 1,5 mm^2 (24 AWG ... 16 AWG)
	flexible with plastic ferrule	0,25 ... 0,75 mm^2 (24 AWG ... 19 AWG)
	flexible without wire end ferrule	0,2 ... 1,5 mm^2 (24 AWG ... 16 AWG)
	rigid	0,2 ... 1,5 mm^2 (24 AWG ... 16 AWG)
Stripping length		8 mm

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GENERAL DATA		
MTTF		-
Weight		85 g

ISOLATION DATA		
Pollution degree (IEC 61812-1)		2
Overvoltage category (IEC 61812-1)		III
Rated insulation voltage (IEC 61812-1)	supply circuit / output cicuit	300 V
Rated impulse withstanding voltage (IEC 61812-1)	supply circuit / output cicuit	6 kV
Insulation test voltage (IEC 61812-1)	supply circuit / output cicuit	3200 V
Degree of protection	supply circuit / output cicuit	protective seperation

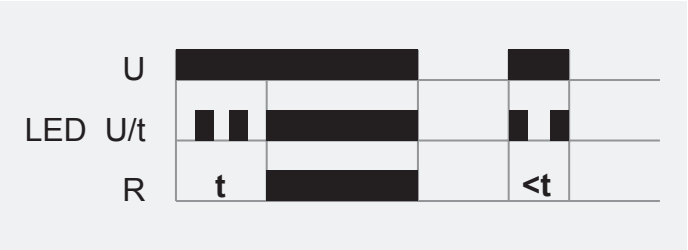
STANDARDS		
Product standard		IEC 61812-1
Interference immunity	IEC 61812-1	class A
Interference emission	IEC 61812-1	class A
Approvals		

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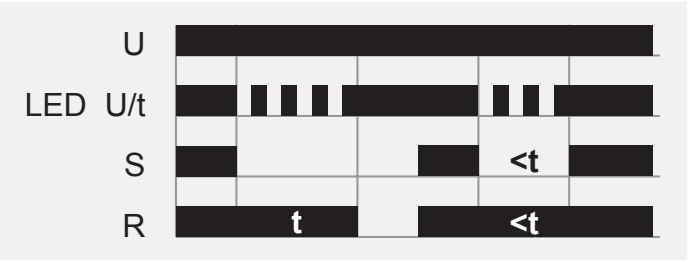
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FUNKTIONEN

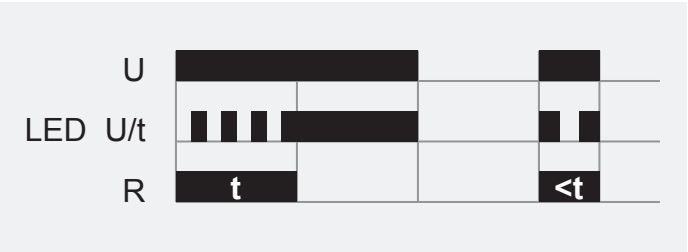
ON delay (E)
When the supply voltage U is applied, the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated) the output relay R switches into on-position (yellow LED illuminated). This status remains until the supply voltage is interrupted. If the 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.



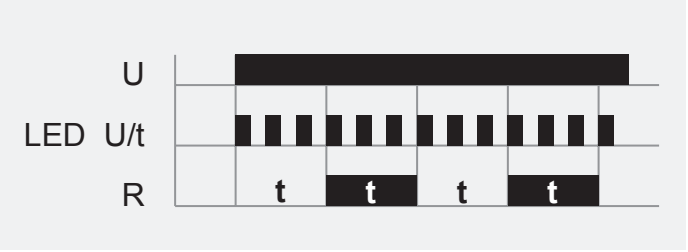
OFF delay with control input (R)
The supply voltage U must be constantly applied to the device (green LED U/t illuminated). When the control contact S is closed, the output relay R switches into on-position (yellow LED illuminated). If the control contact is opened, the set interval t begins (green LED U/t 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.



Single shot leading edge voltage controlled (Wu)
When the supply voltage U is applied, the output relay R switches into on-position (yellow LED illuminated) and the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated) the output relay switches into off-position (yellow LED not illuminated). This status remains until the supply voltage is interrupted. If the supply voltage is interruted before the interval t has expired, the output relay switches into off-position. The interval already is erased and is restarted when the supply voltage is next applied.



Flasher pause first (Bp)
When the supply voltage U is applied, the set interval t begins (green LED U/t flashes). After the interval t has expired, the output relay R switches into on-position (yellow LED illuminated) and the set interval t begins again. After the interval t has expired, the output relay switches into off-position (yellow LED not illuminated). The output relay is triggered at a ratio of 1:1 until the supply voltage is interrupted.

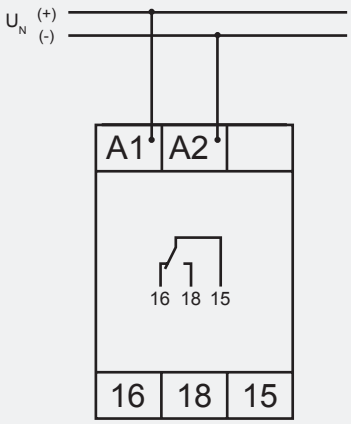


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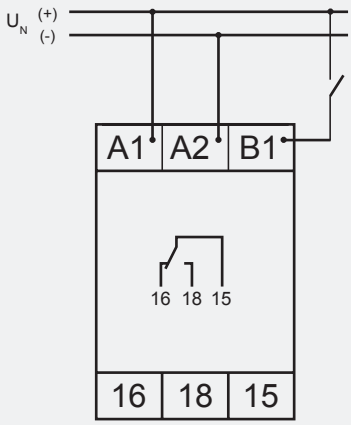
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CONNECTIONS

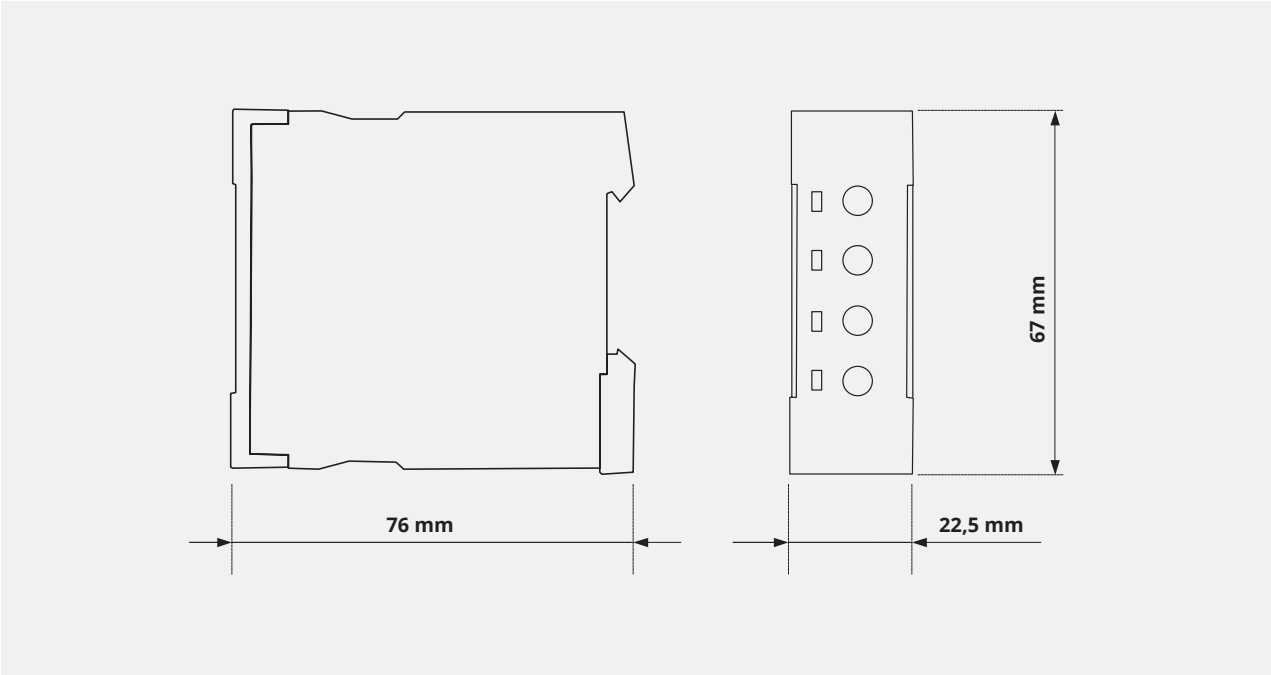
without control input



with control input



DIMENSIONS



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