

## Control equipment ETIREL

### Power relays VS116K, VS316K



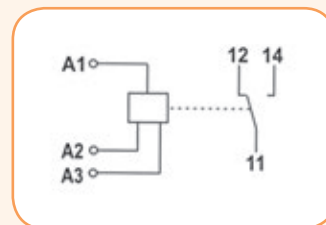
**Application:** Control signals in low-power circuits, combined with buttons, switches, for automation systems

**Advantages:**

- Voltage range AC230 or AC / DC 24V,
- 1 module, DIN rail mounting
- Changeover contact 1x16A or 3x16A,
- Output status LED indication

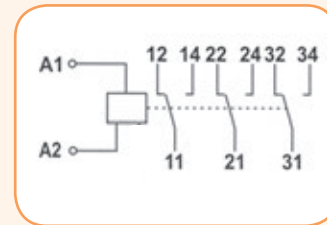
#### Power relays VS116K, VS316K

Type	Code No.	Voltage Un	Number of contacts	Weight [g]	Packaging [pcs]
VS116K	002471211	AC230V / AC/DC 24V	1P	58	1/10
VS316/230V	002471220	AC230V	3P	84	1/10
VS316/24V	002471225	AC/DC 24V	3P	84	1/10



VS116K

A1 - A2 230V AC  
A1 - A3 24V AC/DC



VS316K

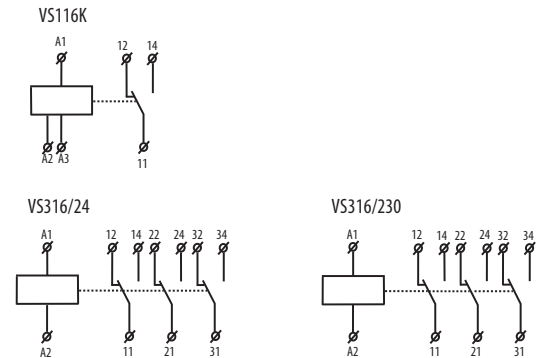
### Delay OFF without supply voltage CRM-82TO

- „True OFF“ relay - relay timing without supply voltage
- Sample of use: back-up source for Delay OFF in case of voltage failure (emergency lighting, emergency respirator, or protection of el. controlled doors - in case of fire)
- 2 time functions adjustable by rotary switch:
  - a - Delayed return after disconnecting of supply
  - e - Delayed start
- Time range (adjustable by rotary switch and fine setting by potentiometer): 0.1 s - 10 min
- Universal supply voltage AC/DC 12 - 240 V
- Output contact: 2x changeover/DPDT 8 A
- Output status indicated by LED (only in case of supply voltage connection)
- Clamp terminals
- 1-MODULE, DIN rail mounting

Power relays VS116K, VS316K

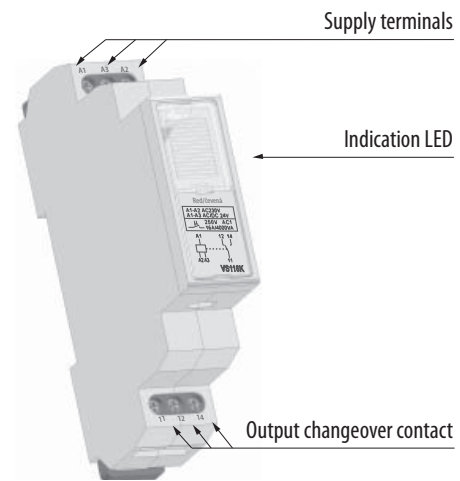
Technical data			
	VS116K	VS316/24	VS316/230
Supply terminals	A1 - A2		
Voltage range	230 V AC/50-60 Hz	24 V AC/DC/50-60 Hz	230 V AC/50-60 Hz
Burden	AC max. 7.5 VA/ 1W	1.6 VA/ 1.2 W	2.5 VA
Supply terminals	A1-A3	x	
Voltage range	24 V AC/DC (50-60 Hz)	x	
Burden	1 VA AC/ 1W DC	x	
Supply voltage tolerance	-15%; +10%		
Output			
Number of contacts	1 x changeover/ SPDT (AgSnO <sub>2</sub> )	3 x changeover/ 3PDT (AgSnO <sub>2</sub> )	
Current rating	16 A/ AC1	16A/ AC1	
Breaking capacity	4000VA/ AC1, 384W/ DC	4000VA/ AC1, 384W/ DC	
Inrush current	30 A/ <3s	30 A/ <3s	
Switching voltage	250 V AC1/ 24 V DC		
Min. breaking capacity DC	500 mW		
Output indication	high intensity of LED		
Mechanical life	3x10 <sup>7</sup>	1x10 <sup>7</sup>	
Electrical life (AC1)	0.7x10 <sup>5</sup>	1x10 <sup>5</sup>	
Time between switching	min. 2s	20 ms	50 ms
Other information			
Operating temperature	-20 °C ... +55 °C (-4 °F ... 131 °F)		
Storage temperature	-30 °C ... +70 °C (-22 °F ... 158 °F)		
Electrical strength	4 kV (supply-output)		
Operating position	any		
Mounting/DIN rail	DIN rail EN 60715		
Protection degree	IP 40 from front panel		
Overvoltage category	III.		
Pollution degree	2		
Max. cable size (mm <sup>2</sup> )	max. 1x 2.5 / 2x1.5 max. 1x2.5		
Dimensions	90 x 17.6 x 64 mm (3.5" x 0.7" x 2.5")		
Weight	54 g (1.9 oz.)	90 g (3.17 oz.)	92 g (3.25 oz.)
Standards	EN 61810-1, EN 61010-1		

Symbol



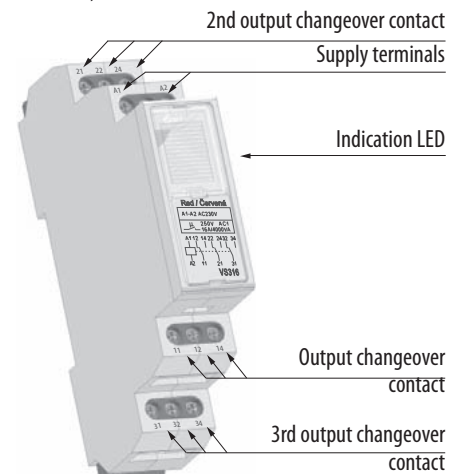
Description

VS116K



terminal A3 only for VS116K

VS316/24, VS316/230



Notes

Max. time of changeover of contact is 10ms.  
VS316/24 and VS316/230 enable switching of different phases or 3 phase voltage.

# Delay OFF without supply voltage CRM-82TO

**Technical data**

CRM-82TO	
Number of functions	a - On Delay (Power On)/ e - Off Delay (S Break)
Supply terminals	A1 - A2
Voltage range	12 - 240 V AC/DC (AC 50 - 60 Hz)
Burden	0.7 - 3 VA AC/ 0.5 - 1.7 W DC
Supply voltage tolerance	-15 %; +10 %
Supply indication	green LED
Time ranges	0.1 s - 10 min
Time setting	potentiometer
Time deviation	5 % - mechanical setting
Repeat accuracy	0.2 % - set value stability
Temperature coefficient	0.01 % / °C, at = 20 °C ( 0.01 % / °F, at = 68 °F)

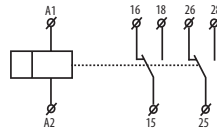
**Output**

Number of contacts	2x changeover/SPDT (AgNi/ Silver Alloy)
Current rating	8 A / AC1
Breaking capacity	2000 VA / AC1, 192 W / DC
Inrush current	10 A / <3 s
Switching voltage	250 V AC1 / 24 V DC
Min. breaking capacity DC	500 mW
Output indication	red LED
Mechanical life	3x10 <sup>7</sup>
Electrical life (AC1)	0.7x10 <sup>5</sup>

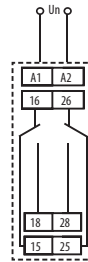
**Other information**

Operating temperature	-20 °C ... +55 °C (-4 °F ... 131 °F)
Storage temperature	-30 °C ... +70 °C (-22 °F ... 158 °F)
Electrical strength	4 kV (supply-output)
Mounting/DIN rail	DIN rail EN 60715
Protection degree	IP 40 from front panel / IP 10 terminals
Operating position	any
Overvoltage category	III.
Pollution degree	2
Max. cable size(mm <sup>2</sup> )	solid wire max. 2x2.5 or 1x4 ( AWG 12) with sleeve max. 2x1.5 or 1x2.5 ( AWG 12)
Dimensions	90 x 17.6 x 64 mm (3.5" x 0.7" x 2.5")
Weight	93 g (3.3 oz.)
Standards	EN 61812-1, EN 61010-1

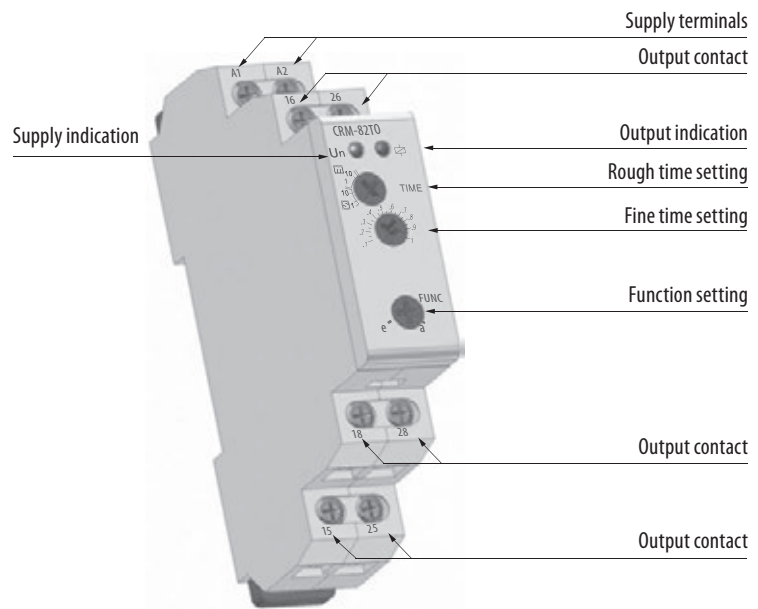
**Symbol**



**Connection**



**Description**



**Function**

a - Delay OFF (S break) the power supply is switched off (min. time is 0.5 s)



e - ON Delay

