



- » Socket solid state relay.
- » 8 models:
 - 4 programmable (2 DC, 2 AC).
 - 4 non-programmable (2 DC, 2 AC).
- » Input range: 5 - 28 VDC.
- » Maximum load current: 3 A (in DC), 2 A (in AC).
- » Operational ratings: 1.5 - 250 VAC and 5 - 50 VDC.
- » Frequency range: 50 - 60 Hz.
- » Maximum non-repetitive peak voltage: 450 Vp.
- » LED indicator.
- » Free programming software available online.
- » Both timing (range from 1 ms to 999 hours) and PWM functions (DC load).

Models and references

Control voltage	Rated operational voltage	Zero crossing	Polarity output	Programmable	Reference
5 - 28 VDC	1.5 - 250 VAC	Yes	-	No	RFS1SL028ACZ0
				Yes	RFS1SL028ACZP
		No	-	No	RFS1SL028AC00
				Yes	RFS1SL028AC0P
	5 - 50 VDC	-	Positive common	No	RFS1SL028DC00
				Yes	RFS1SL028DC0P
		-	Negative common	No	RFS1SL028DCN0
				Yes	RFS1SL028DCNP

Specifications

INPUT SPECIFICATIONS	
Control voltage range	5 - 28 VDC
Maximum input current	10 - 20 mA
Pick-up voltage	5 VDC
Drop-out voltage	3 VDC
Maximum reverse voltage	28 VDC
Maximum response time pick-up	1 ms
Maximum response time drop-out	2 ms

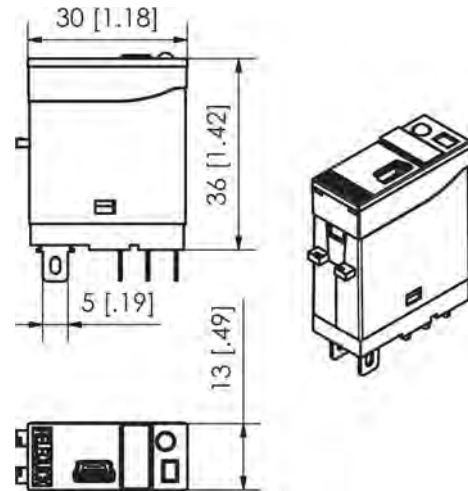
OUTPUT SPECIFICATIONS		
Maximum load current (AC51 @ Ta = 25° C)	3 A	2 A
Load voltage range	1.5 - 250 VAC	5 - 50 VDC
Frequency range	50 - 60 Hz	-
Maximum non-repetitive peak voltage	450 Vp	150 VDC
Maximum non-repetitive peak current (t = 5 ms)	20 Ap	
Maximum off state leakage current	1 mA	
Minimum off state dv / dt	5 A / 350 μ s	
Maximum on state voltage	1.5 VAC	1.5 VDC
Minimum load current	0.1 A	
I ² t (5 ms) (orientative data)	1 A ² s	

Specifications

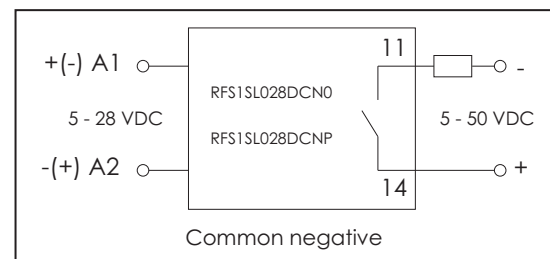
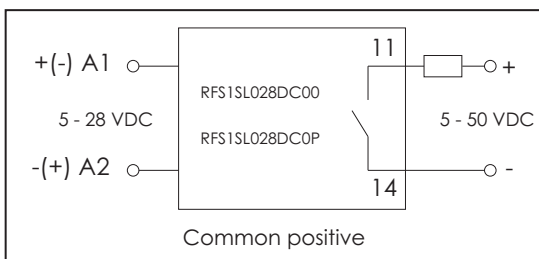
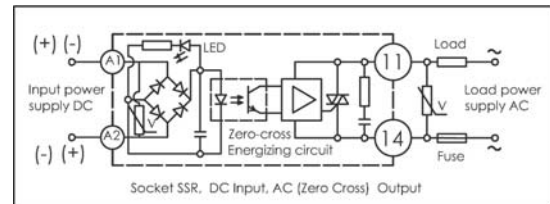
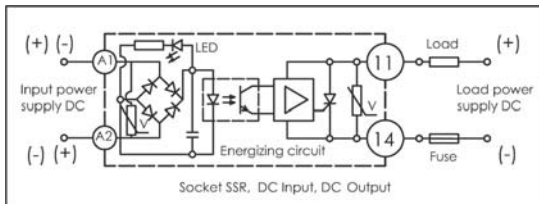
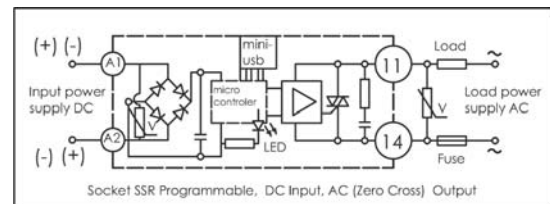
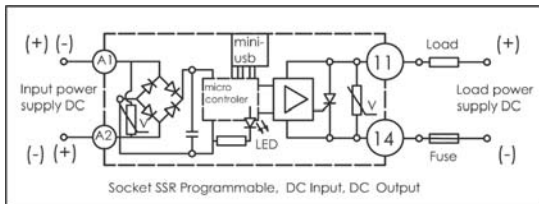
Dimensions

GENERAL SPECIFICATIONS	
Dielectric insulation (between input & output)	3,750 KV
Operating temperature	-20° to 60° C
Storage temperature	-20° to 100° C
Ambient humidity (operating)	Up to 85 %
CE-marking	Yes

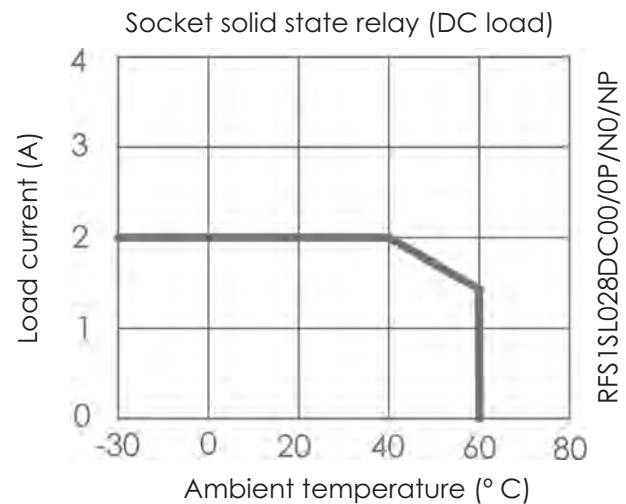
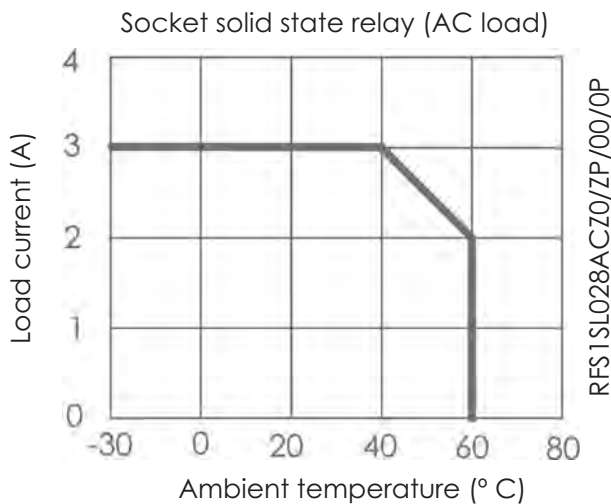
HOUSING SPECIFICATIONS	
Dimensions (L x W x H mm)	29 x 13 x 40
Weight	23 g maximum
Baseplate	Aluminum, nickel-plated



Circuit diagrams



Load current vs. ambient temperature





Programming functions

	Function name	Initial state	Diagram	Description
Simple timer	Switch-on delay			Delay timing (t time) to the connection of the relay.
	Switch-off delay			Delay timing (t time) to the disconnection of the relay.
Symmetric and asymmetric cycle timing functions	Pulse delay			The relay is switched on after a t_1 delay is over and keeps on for a t_2 lapse. The delay begins when the module is feeded.
	Symmetric timing cycle (starting closed)			Once the module is feeded a symmetric cycle begins, being the relay open for a t timelapse and closed during the next t interval. The relay starts being closed during the first interval.
	Symmetric timing cycle (starting open)			Once the module is feeded a symmetric cycle begins, being the relay closed for a t timelapse and open during the next t interval. The relay starts being open during the first interval.
	Asymmetric timing cycle (starting closed)			Once the module is feeded an asymmetric cycle begins, being the relay closed for a t_1 timelapse and open during a t_2 interval. The relay starts being closed during the first interval.
	Asymmetric timing cycle (starting open)			Once the module is feeded an asymmetric cycle begins, being the relay open for a t_1 timelapse and closed during a t_2 interval. The relay starts being open during the first interval.
DC load regulation	PWM progressive connection ramp (for DC loads)			The relay is connected slowly as the progressive connection ramp (PWM) is completed during the specified time t .
	PWM progressive disconnection ramp (for DC loads)			The relay is disconnected slowly as the progressive disconnection ramp (PWM) is completed during the specified time t .