



## **RL: The Lite slimline solid state relay series**

# **Switches**

# RL series

## Lite slimline solid state relays

The **RL** series builds on the popular RG platform by adopting the slim 17.8 mm footprint. The RL series is a lite version that has been designed specifically for resistive loads. Thanks to this slim footprint, the RL series occupies little panel space which makes it the ideal solution when multiple solid state relays need to fit in a constrained space.

Two versions are available in the series. The **RLC** has an integrated heatsink and the maximum rating is 30 AAC. The product width ranges from 17.8 mm to 22.5 mm for the 30 AAC rating. The RLC output consists of a TRIAC.

The 17.8 mm wide **RLS** has a maximum rating of 50 AAC and is intended for chassis mounting or for mounting on an external heatsink. The RLS output consists of a TRIAC whilst the output of the RLS..H consists of back to back thyristors.



## 1-pole solid state relays for resistive loads

### Main features

- 1-pole, zero cross switching AC solid state relays
- Ideal for resistive loads
- **RLS** (without heatsink) output ratings up to:  
530 VAC, 25 AAC, 50 AAC  
660 VAC, 50 AAC (RLS..H)
- **RLC** (with integrated heatsink) output ratings up to:  
530 VAC, 15 AAC, 22 AAC, 30 AAC at  $T_A$  40°C
- Integrated output overvoltage protection
- TRIAC output (back to back thyristors only for RLS..H)
- DC or AC control voltage
- 4 kV isolation Input vs. Output vs. Case
- E-type layout



RLC is cULus listed, RLS is cURus

### Benefits

#### Trouble free operation

- The RL is a fully solid state solution that utilizes wire bonding technology to minimize stresses on power chips and guarantee millions of trouble free switching cycles.

#### Low machine downtime

- Integrated overvoltage protection prevents the SSR output from damages in case of uncontrolled transients.

#### Panel space savings

- Only 17.8 mm product width (except for the RLC rated 30 AAC) vs. the 22.5 mm wide footprint more commonly available on the market or the traditional 45 mm pucks.

#### Fast installation

- The plug-in spring connector for the input control signal quickens installation and replacements. The RLC is a ready to use solution with integrated heatsink for easy mounting on DIN rail.

## Applications

### Plastic injection machines



### Reflow ovens



### Electrical baking ovens



## Millions of trouble free operational cycles with solid state switching

Easy wiring via screws with captivated washer

Green LED indication for control voltage ON

Spring pluggable connector for the input

Long lifetime through wire bonding technology

Direct Copper Bonding for optimal thermal performance

Integrated heatsink (only with the RLC variants)

Removable IP20 cover for connection of ring lugs

TRIAC output (SCR output for RLS..H)

Integrated overvoltage protection\*

\*Transil used on RL..A., varistor used on RL..D..

## Selection guide

Rated voltage	Control voltage	RLC (with integrated heatsink)			RLS (without heatsink)		
		15 AAC (225 A <sup>2</sup> s) 17.8 mm	22 AAC (1250 A <sup>2</sup> s) 17.8 mm	30 AAC (1250 A <sup>2</sup> s) 22.5 mm	25 AAC (225 A <sup>2</sup> s) 17.8 mm	50 AAC (1250 A <sup>2</sup> s) 17.8 mm	50 AAC (1800 A <sup>2</sup> s) 17.8 mm
400 VAC	4-32 VDC	RLC1A40D15	RLC1A40D22	RLC1A40D30	RLS1A40D25	RLS1A40D50	-
480 VAC	4-32 VDC	RLC1A48D15	RLC1A48D22	RLC1A48D30	RLS1A48D25	RLS1A48D50	-
	80-250 VAC	RLC1A48A15	RLC1A48A22	RLC1A48A30	RLS1A48A25	RLS1A48A50	-
600 VAC	4-32 VDC	-	-	-	-	-	RLS1A60D50H

Further details are available on online datasheets at [www.gavazziautomation.com](http://www.gavazziautomation.com)

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