



**RM1D: DC solid state relays**

**Switches**

# RM1D series

## DC switching solid state relays

DC solid state relays (SSRs) are used for switching loads supplied with a DC voltage. Unlike mechanical relays, SSRs have a very long life, are silent in operation, can achieve very fast switching response times and are less immune to vibration and shocks. These characteristics make DC SSRs the preferred and ideal choice for switching of DC loads.

Typical loads include heating elements, electric valves, fans and solenoids. Nowadays, battery operated applications are driving a higher demand for DC switching solutions.

With the RM1D series, Carlo Gavazzi's range of hockey puck DC SSRs now extends up to 100 ADC at 60 V, up to 50 ADC at 200 V and up to 10 ADC at 500 V.



## DC panel mount solid state relays

### Main Features

- Output ratings up to 60 VDC, 100 ADC
- Output ratings up to 200 VDC, 50 ADC
- Output ratings up to 500 VDC, 10 ADC
- Control voltage range: 4-32 VDC
- Low power dissipation output Mosfet
- High PWM switching frequency, up to 1000 Hz
- Fast response times, typically 100  $\mu$ s
- 3750 V isolation Input vs. Output vs. Backplate
- Operating temperature up to +80°C (+176°F)

### Benefits

#### Millions of switching cycles without breakdown

- A fully solid state solution; the lifetime is not limited by mechanical moving parts
- Elimination of potting compound removes mechanical stress and elongates the lifetime of the SSR

#### Fast reaction

- Response time to switch ON and OFF is very fast
- Switching losses are reduced

#### Immune to harsh environments

- Resistant to vibration and shocks
- No arcing since there are no mechanical contacts

#### Silent in operation

- Ideal for applications where switching needs to be done in a quiet environment

## Applications

- Packaging machinery



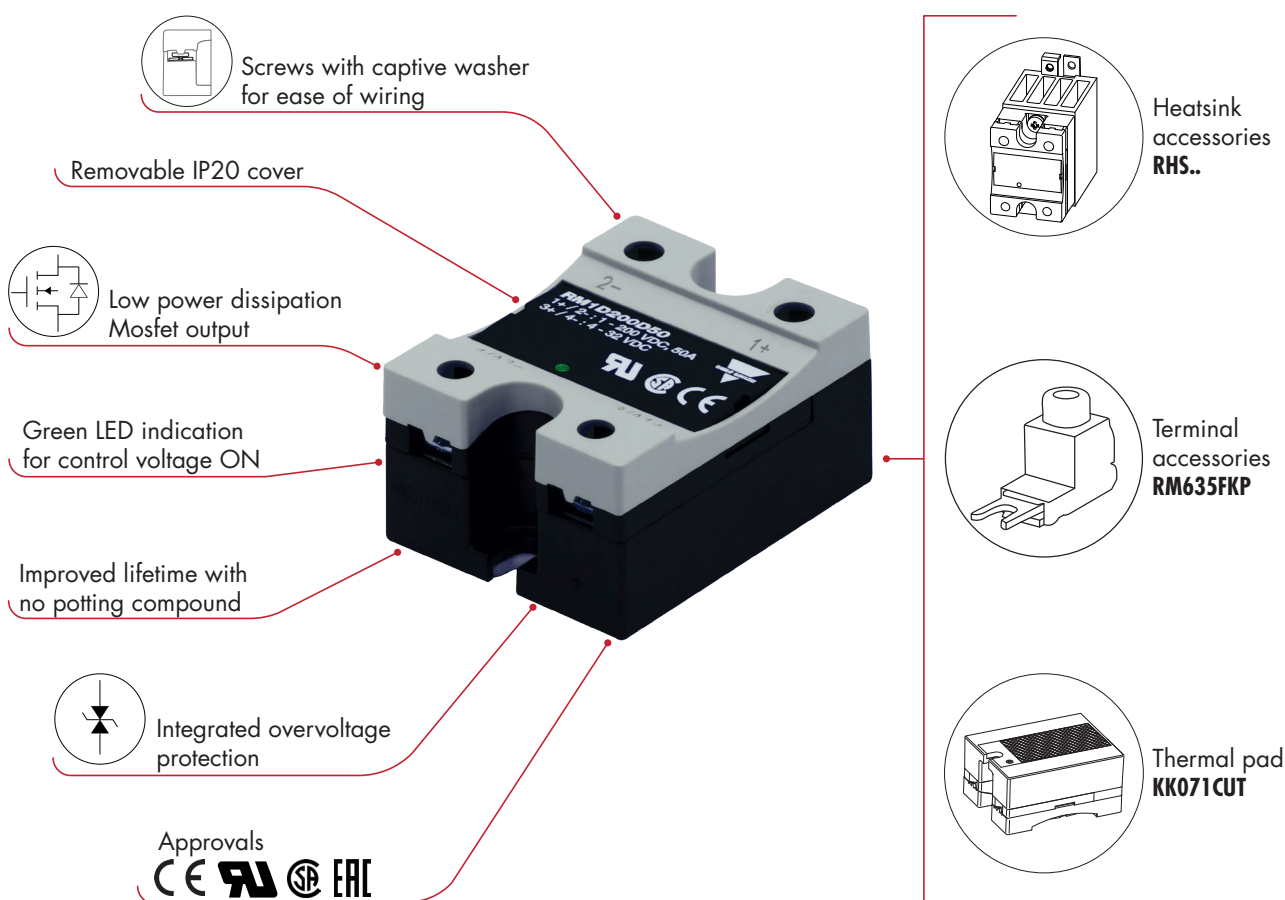
- Transportation



- Medical equipment



## Reliable performance and long life with solid state switching



## Selection guide

| Output voltage range | Control voltage range | Max. current rating |            |            |             |
|----------------------|-----------------------|---------------------|------------|------------|-------------|
|                      |                       | 10 ADC              | 20 ADC     | 50 ADC     | 100 ADC     |
| 1 - 60 VDC           | 4 - 32 VDC            | RM1D060D10          | RM1D060D20 | RM1D060D50 | RM1D060D100 |
| 1 - 200 VDC          | 4.5 - 32 VDC          | -                   | RM1D200D20 | RM1D200D50 | -           |
| 1 - 500 VDC          | 4.5 - 32 VDC          | RM1D500D10          | -          | -          | -           |

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

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