

# Automotive Relay SRK



- Switching Capacity up to 45A
- SPNO and SPCO Contact Arrangement
- PC Board Terminals
- Two pin out choices
- Available as open frame or sealed relay



## Options and ordering codes

| SRK          | E | H | - | 1A | T | - | S | L | - | 6VDC               |
|--------------|---|---|---|----|---|---|---|---|---|--------------------|
| Layout       |   |   |   |    |   |   |   |   |   | Coil Voltage       |
| European     | E |   |   |    |   |   |   | L |   | RoHS Compliant     |
| USA          | U |   |   |    |   |   |   |   |   |                    |
| Sensitivity  |   |   |   |    |   |   |   |   |   |                    |
| Standard     |   |   |   |    |   |   |   |   |   |                    |
| Sensitive    |   | H |   |    |   |   |   |   |   |                    |
| Sealing      |   |   |   |    |   |   |   |   |   |                    |
| Open         |   |   |   |    |   |   |   |   |   |                    |
| Sealed       |   |   |   |    |   |   |   |   |   |                    |
| Contact Form |   |   |   |    |   |   |   |   |   |                    |
| SPNO         |   |   |   | 1A |   |   |   |   |   |                    |
| SPCO         |   |   |   | 1C |   |   |   |   |   |                    |
| Contacts     |   |   |   |    |   |   |   |   |   |                    |
| N            |   |   |   |    |   |   |   |   |   | AgNi               |
| T            |   |   |   |    |   |   |   |   |   | AgSnO <sub>2</sub> |

## Contact Data

|                            |                                              |
|----------------------------|----------------------------------------------|
| Contact Arrangement        | 1A, 1C                                       |
| Max. switching current     | Make: 100A (Lamp Inrush)<br>Break: 60A       |
| Max. switching voltage     | 75VDC                                        |
| Contact Rating             | 1A: 45A 14VDC<br>1C: 45A (NO)/30A (NC) 14VDC |
| Max. switching power       | 630W                                         |
| Contact Material           | AgNi, AgSnO <sub>2</sub>                     |
| Initial Contact Resistance | 100mΩ                                        |
| Mechanical life            | 1x10 <sup>7</sup> OPS                        |
| Electrical life            | 1x10 <sup>5</sup> OPS                        |

Note: Inrush current for lamp load

## Characteristics

|                               |                                                                                                             |
|-------------------------------|-------------------------------------------------------------------------------------------------------------|
| Initial Insulation Resistance | 500MΩ @ 500VDC                                                                                              |
| Dielectric Strength           | 500VAC                                                                                                      |
| Operate time (at nomi. Volt)  | Max. 5ms                                                                                                    |
| Release time (at nomi. Volt)  | Max. 3ms                                                                                                    |
| Vibration Resistance          | 1.27mm, 10 to 40Hz; 40 to 70Hz, 50m/s <sup>2</sup><br>0.5mm, 70 to 100Hz; 100 to 500Hz, 100m/s <sup>2</sup> |
| Shock resistance              | 200 m/s <sup>2</sup>                                                                                        |
| Storage temperature           | -40 °C to +155 °C                                                                                           |
| Operating Temperature         | -40 °C to +125 °C                                                                                           |
| Weight                        | 20g                                                                                                         |
| Termination                   | PCB                                                                                                         |
| Construction                  | Open and Sealed                                                                                             |

## Coil Data

at 23 °C

|           | Nominal voltage VDC | Pick-Up voltage VDC | Drop-out voltage VDC | Coil resistance Ω±10% | Power consumption Ω±10% | Max. allowable overdrive voltage <sup>(1)</sup> VDC |       |
|-----------|---------------------|---------------------|----------------------|-----------------------|-------------------------|-----------------------------------------------------|-------|
|           |                     |                     |                      |                       |                         | 23 °C                                               | 85 °C |
| Standard  | 6                   | 3.3                 | 0.6                  | 19                    | 1.9                     | 9.0                                                 | 6.5   |
|           | 12                  | 6.8                 | 1.2                  | 90                    | 1.6                     | 19.6                                                | 14.3  |
|           | 24                  | 13.9                | 2.4                  | 362                   | 1.6                     | 39.3                                                | 28.6  |
| Sensitive | 6                   | 4.5                 | 0.6                  | 30                    | 1.2                     | 11.0                                                | 8.0   |
|           | 12                  | 9.0                 | 1.2                  | 120                   | 1.2                     | 22.1                                                | 16.0  |
|           | 24                  | 19.2                | 2.4                  | 480                   | 1.2                     | 44.3                                                | 30.0  |

(1) Max. allowable overdrive voltage is stated with no load applied.

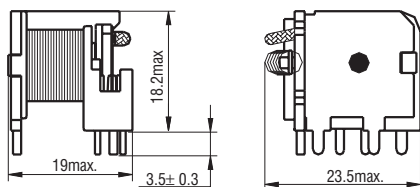
# Automotive Relay SRK



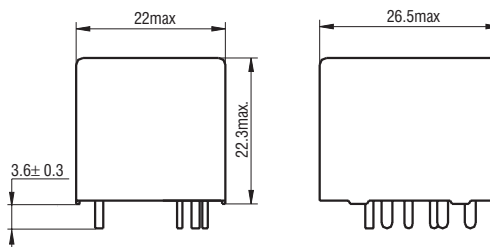
## Outline dimensions (mm)

Wiring diagram and PC Board layout

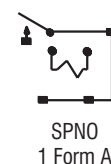
SRKU Open Model



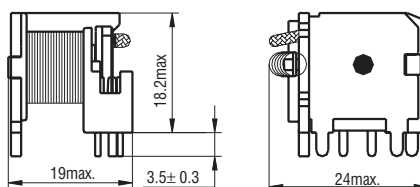
SRKU Sealed Model



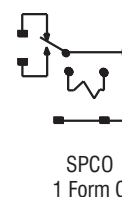
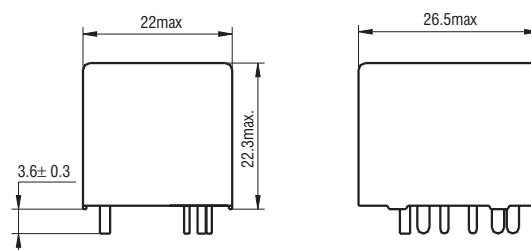
Wiring Diagram



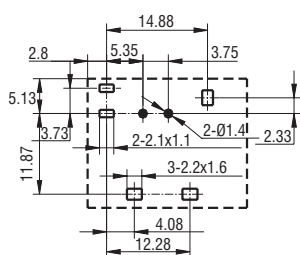
SRKE Open Model



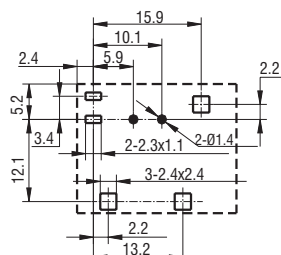
SRKE Sealed Model



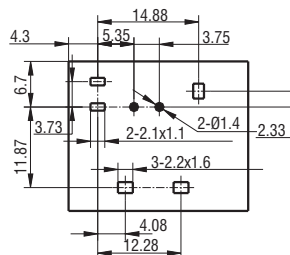
SRKU Open Model



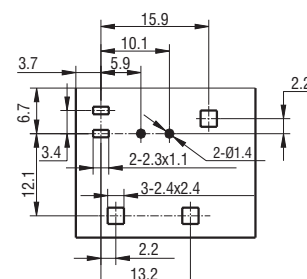
SRKE Open Model



SRKU Sealed Model

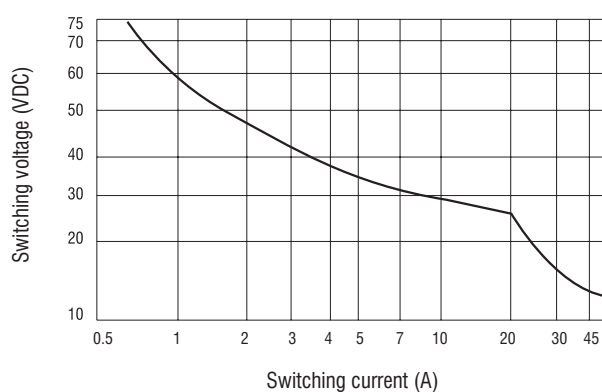


SRKE Sealed Model



## Characteristic Curve

LOAD LIMIT CURVE (at 23°C)



MAX. ALLOWABLE AMBIENT TEMPERATURE (°C)

