

KSR-1-RSR25-B

single-phase solid state relays, interface



NEW

- Zero-crossing switching • DC control input
- SCR output (thyristors) • Load current 5 A
- Max. load voltage 530 V AC (single-phase)
- Dielectric strength 4 000 V_{rms} (opto-isolation)
- RC protection (built-in resistor, capacitor)
- LED indicator (green)
- Mounting on 35 mm rail mount acc. to EN 60715 (interface relay - set: solid state relay + plug-in socket)
- Recognitions, certifications, directives: RoHS, REACH,   

Applications

Lighting control, small motors control, vending machine control, medical device control, valve control, and etc.



Basic technical data

Load voltage: 24...530 V AC

Control input: DC

Load current: 5 A

Type		zero-crossing
Load voltage	Control voltage	Load current
		5 A
24...530 V AC	4...32 V DC	KSR-1-RSR25-48D5-24S-B

Load voltage

	KSR-1-RSR25-48...
Rated load voltage	480 V AC
Rated range of load voltage	24...530 V AC
Blocking voltage	1 200 V _{pk}
Rated frequency	47...63 Hz
Power factor	0,5

Control input

	zero-crossing
	KSR-1-RSR25-..D.-24...
Control voltage range	4...32 V DC
Must turn-on voltage	4 V DC
Must turn-off voltage	1 V DC
Zero voltage turn-on	≤ 30 V
Maximum input current	25 mA 32 V DC
Response time pick-up	≤ 1/2 cycle + 1 ms
Response time drop-out	≤ 1/2 cycle + 1 ms

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Output circuit ❶

	KSR-1-RSR25-...5...
Rated load current	5 A
Rated load range	0,1...5 A
Maximum surge current	250 A 10 ms
I ² t for fusing	312 A ² s 10 ms
Max. operational current AC-51 rating	5 A
Max. operational current AC-53 rating	3 A
Min. operational current	0,1 mA
Maximum off-state leakage current (at rated load voltage)	5 mA
Maximum on-state voltage drop (at rated current)	1,5 Vrms
Minimum off-state dV/dt (at max. rated voltage)	500 V/μs

General data ❷

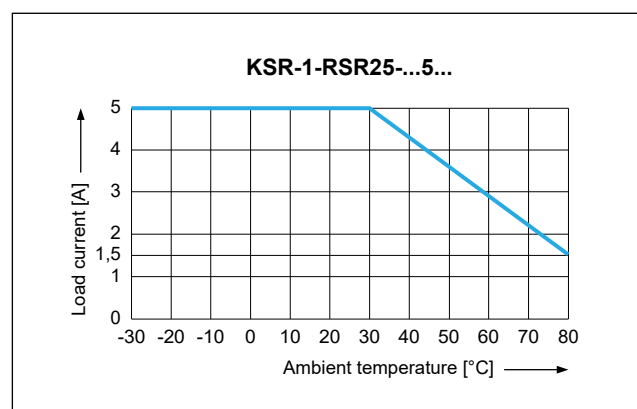
	KSR-1-RSR25-...
Dielectric strength	input - output: 4 000 Vrms 50/60 Hz
Minimum insulation resistance	input - output: 1 000 MΩ 500 V DC
Ambient temperature (non-condensation and/or icing)	storage: -30...+100 °C operating: -30...+80 °C

Mechanical data

	KSR-1-RSR25-...
Dimensions (L x W x H)	96 x 17 x 62 mm
Weight (typical)	41 g
Protection category EN 60529	IP 20
Mounting on 35 mm rail mount	direct

❶ Data given for ambient temperature ≤ 25 °C. Above 25 °C the maximum current decreases
- see "Thermal derating curve", page 2.

Thermal derating curve



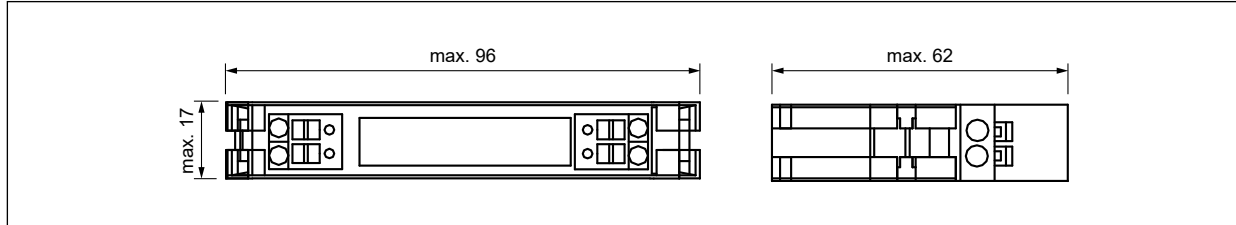
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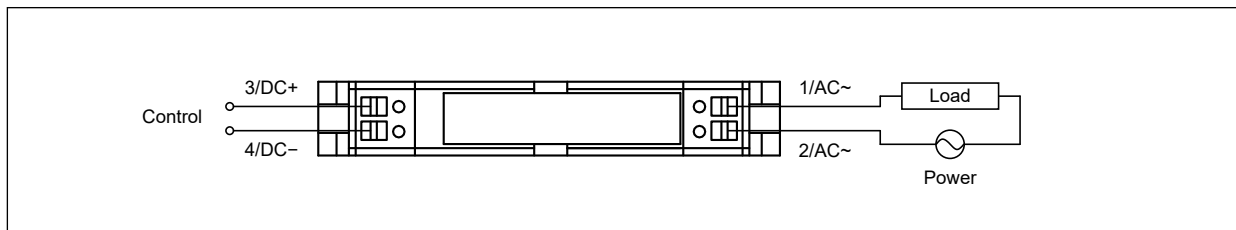
Mounting

Relays **KSR-1-RSR25-B** are designed for direct mounting on 35 mm rail mount acc. to EN 60715.

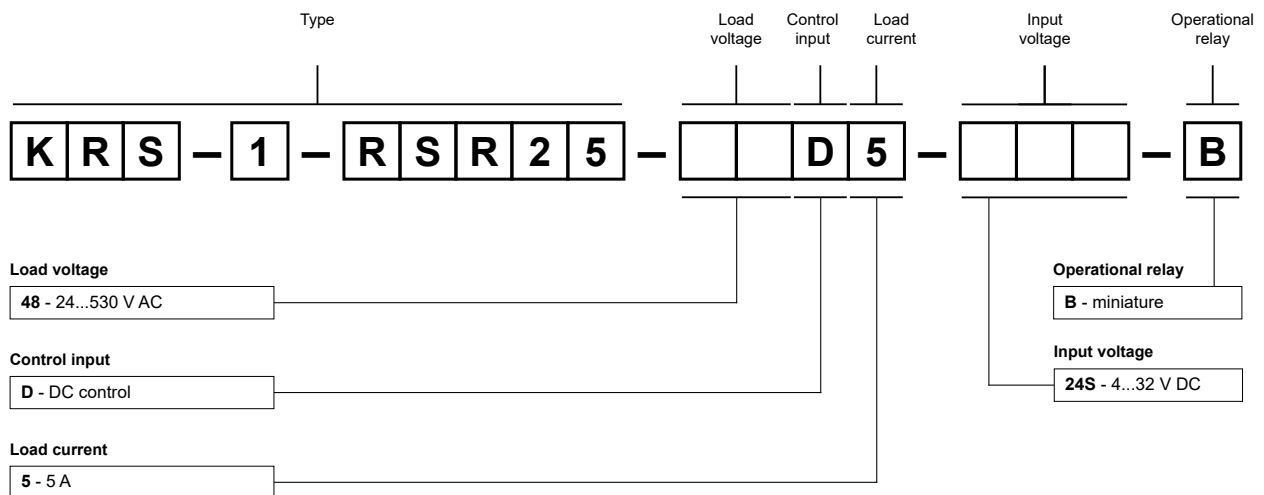
Dimensions



Connection diagram



Ordering codes



Example of ordering codes:

KSR-1-RSR25-48D5-24S-B

relay **KSR-1-RSR25-B**, interface relay (set: solid state relay **RSR25-...-B** + plug-in socket **KSR-1**), zero-crossing switching, DC control, input voltage 4...32 V DC, load voltage 24...530 V AC (single-phase), load current 5 A