

RSR88

solid state relays, miniature



- DC switching • DC control input
- MOSFET or Transistor output • Load current 3...16 A
- Load voltage 100...400 V DC
- Dielectric strength 2 500 Vrms (photoelectric-isolation)
- TVS protection
- LED indicator (red)
- Flat insert connectors - faston 187 (4,8 x 0,5 mm)
- For plug-in sockets: on 35 mm rail mount acc. to EN 60715; on panel mounting
- Recognitions, certifications, directives **1**: RoHS, REACH, **CE** **cULus**

Applications

Suitable for the isolation and control of weak current to strong current, convenient for all kinds of computers and digital interfaces, widely used in various DC motors, DC power sources and various electromagnetic devices in the field of industrial automation.



Basic technical data

Load voltage: 100 V DC, 200 V DC, 400 V DC

Control input: DC

Load current: 3 A, 5 A, 10 A, 16 A

Type		DC switching			
Load voltage	Control voltage	Load current			
		3 A	5 A	10 A 1	16 A 1
100 V DC	4...32 V DC		RSR88-10D5-T	RSR88-10D10-T	RSR88-10D16-T
200 V DC			RSR88-20D5-T		
400 V DC		RSR88-40D3-T			

Load voltage

	RSR88-10.5..	RSR88-10.10..	RSR88-10.16..
Rated load voltage	100 V DC	100 V DC	100 V DC
Rated range of load voltage	0...75 V DC	0...55 V DC	0...55 V DC
TVS protection voltage	105...116 V DC	64,6...71,6 V DC	64,6...71,6 V DC
Blocking voltage	150 Vpk	100 Vpk	100 Vpk

Load voltage

	RSR88-20...	RSR88-40...
Rated load voltage	200 V DC	400 V DC
Rated range of load voltage	0...132 V DC	0...300 V DC
TVS protection voltage	190...210 V DC	418...462 V DC
Blocking voltage	250 Vpk	600 Vpk

1 The cULus certificate includes only versions RSR88-10D10-T, RSR88-10D16-T.

Control input

DC switching

	RSR88-...D...
Control voltage range	4...32 V DC
Must turn-on voltage	4 V DC
Must turn-off voltage	1 V DC
Maximum input current	18 mA 32 V DC

Output circuit ②

	RSR88-...3...	RSR88-...5...
Rated load current	3 A	5 A
Rated load range	0,002...3 A	0,002...5 A
Maximum surge current	15 A 10 ms	25 A 10 ms
Maximum off-state leakage current (at rated load voltage)	0,1 mA	0,1 mA
Maximum on-state voltage drop (at rated current)	1,3 V DC	
Maximum on-state resistance drop (at rated current)		60 mΩ
Maximum turn-on time	0,3 ms	0,3 ms
Maximum turn-off time	0,3 ms	0,3 ms

Output circuit ②

	RSR88-...10...	RSR88-...16...
Rated load current	10 A	16 A
Rated load range	0,002...10 A	0,002...16 A
Maximum surge current	50 A 10 ms	80 A 10 ms
Maximum off-state leakage current (at rated load voltage)	0,1 mA	0,1 mA
Maximum on-state resistance drop (at rated current)	10 mΩ	3 mΩ
Maximum turn-on time	0,3 ms	0,3 ms
Maximum turn-off time	0,3 ms	0,3 ms

General data ②

	RSR88-...
Dielectric strength	input - output: 2 500 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

② Data given for ambient temperature ≤ 25 °C. Above 25 °C the maximum current decreases - see "Thermal derating curves", page 4.

Mechanical data

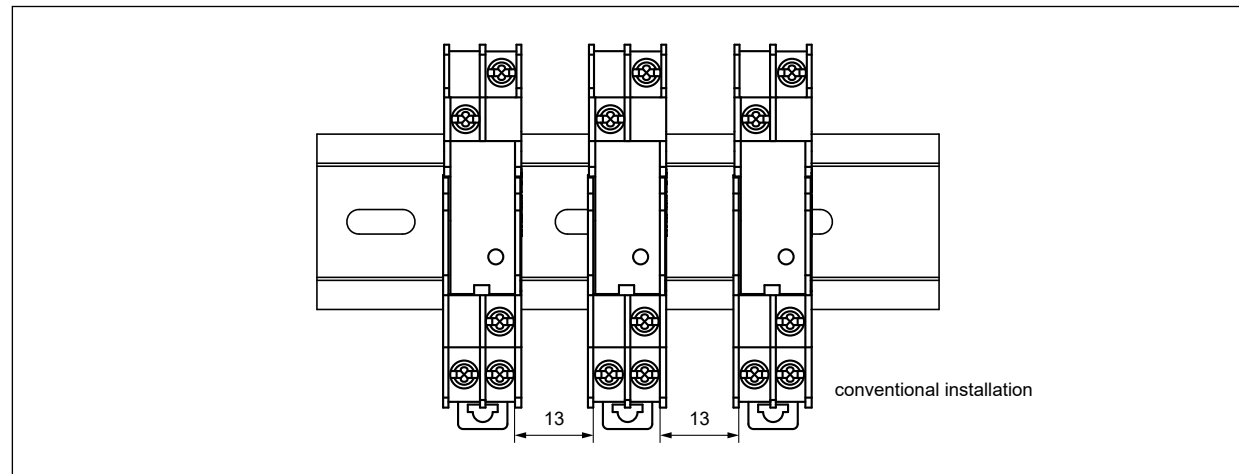
	RSR88-...	RSR88-... with socket GZMA
Dimensions (L x W x H)	32 x 13 x 43 mm	77 x 16 x 64 mm
Weight (typical)	20 g	50 g
Protection category EN 60529	IP 00	IP 20
Mounting on 35 mm rail mount	with socket GZMA	direct

Mounting

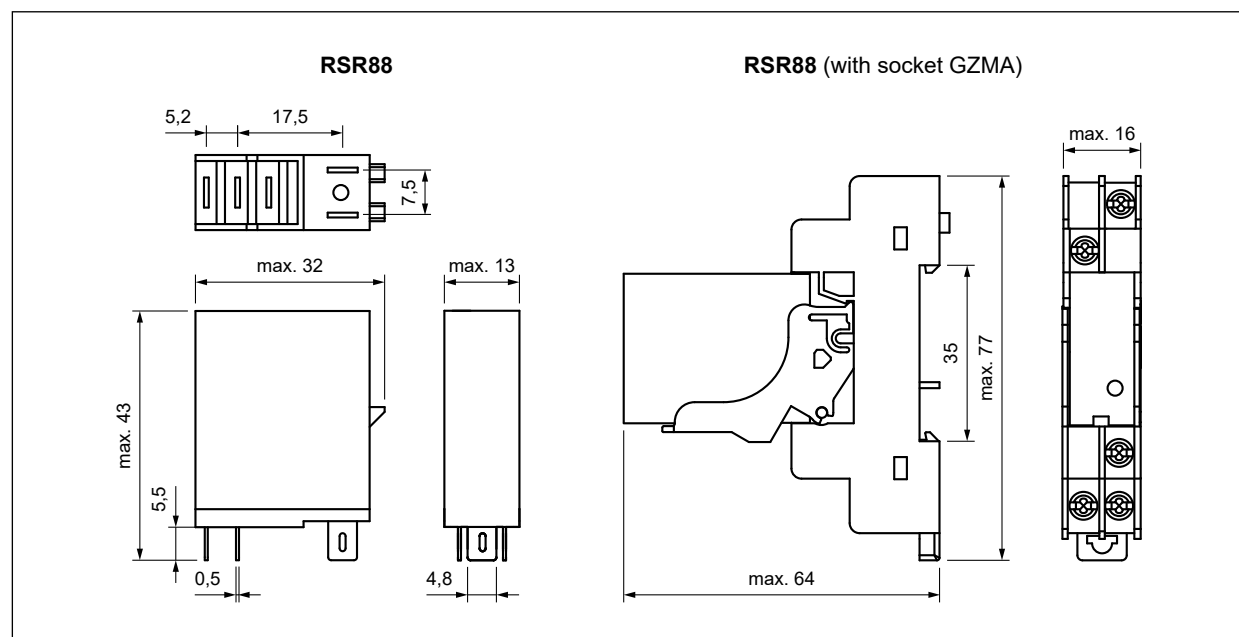
Relays **RSR88** are designed for mounting in plug-in sockets **GZMA**.
For conventional installation, the recommended minimum distance is 13 mm.

Sockets for RSR88	Accessories
	Retainer / retractor clips
Screw terminals sockets, 35 mm rail mount (acc. to EN 60715) or on panel mounting (one M3 screw)	
GZMA	Ⓔ

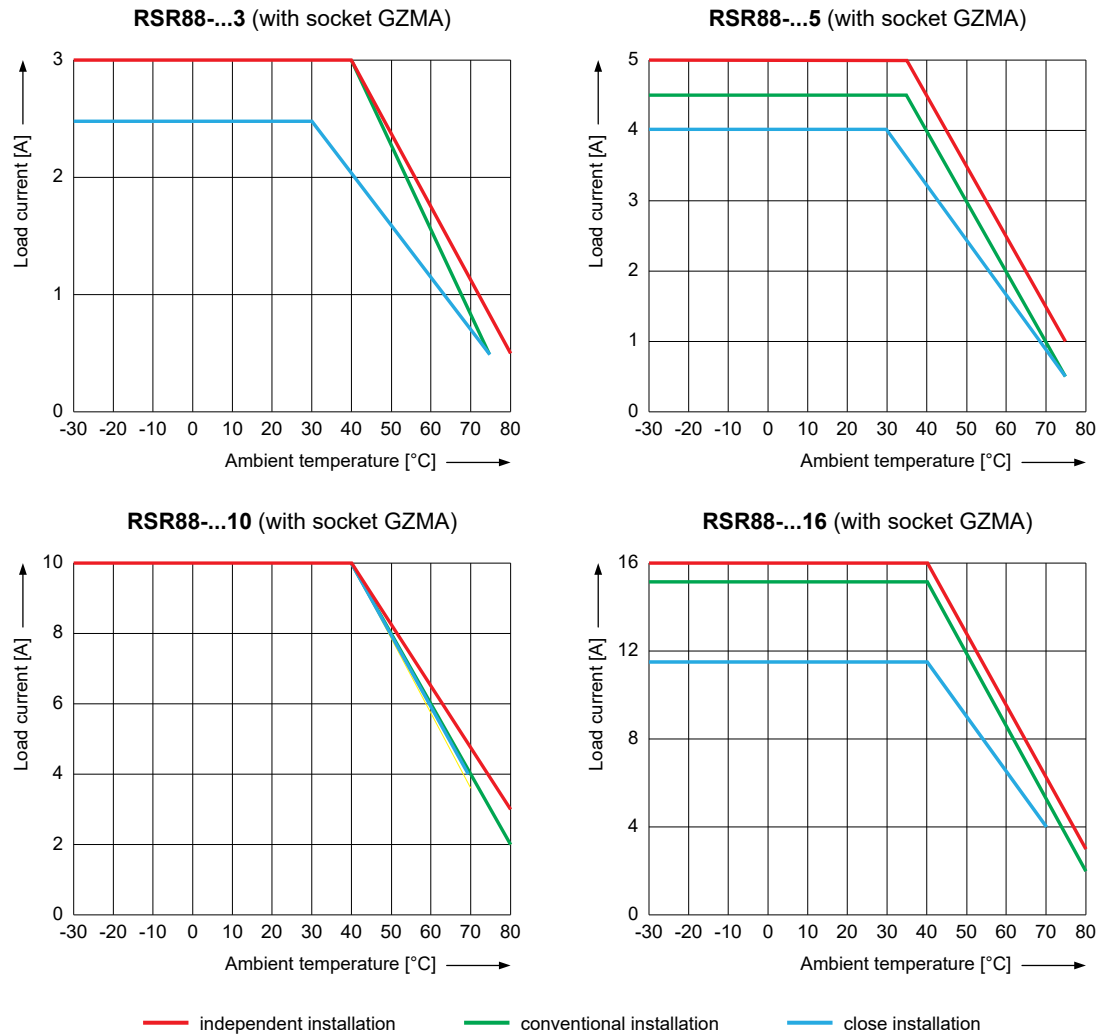
Ⓔ Retainer / retractor clips should be ordered separately.



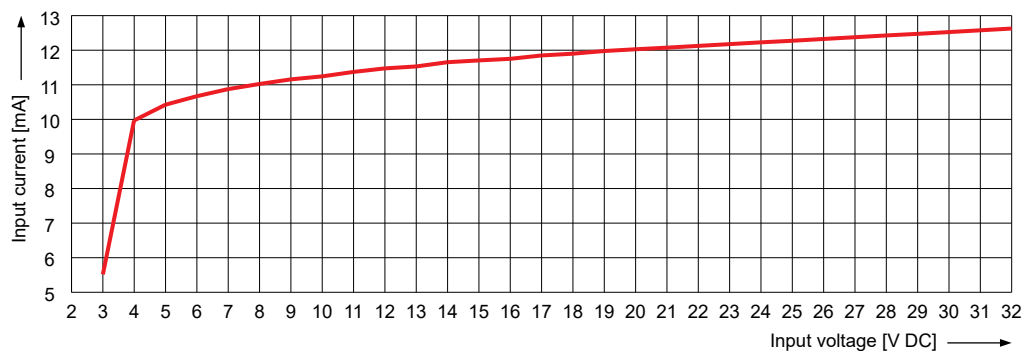
Dimensions



Thermal derating curves



Input characteristic ④

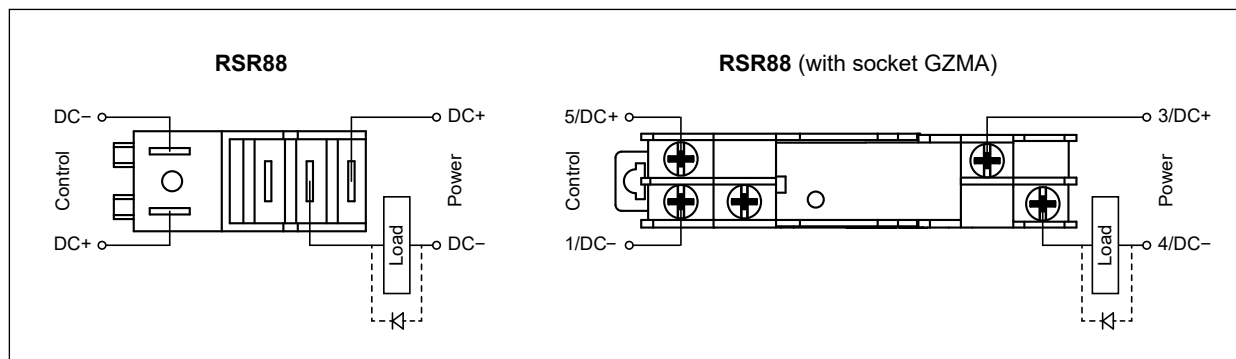


④ The input curve is measured at ambient temperature 25 °C.

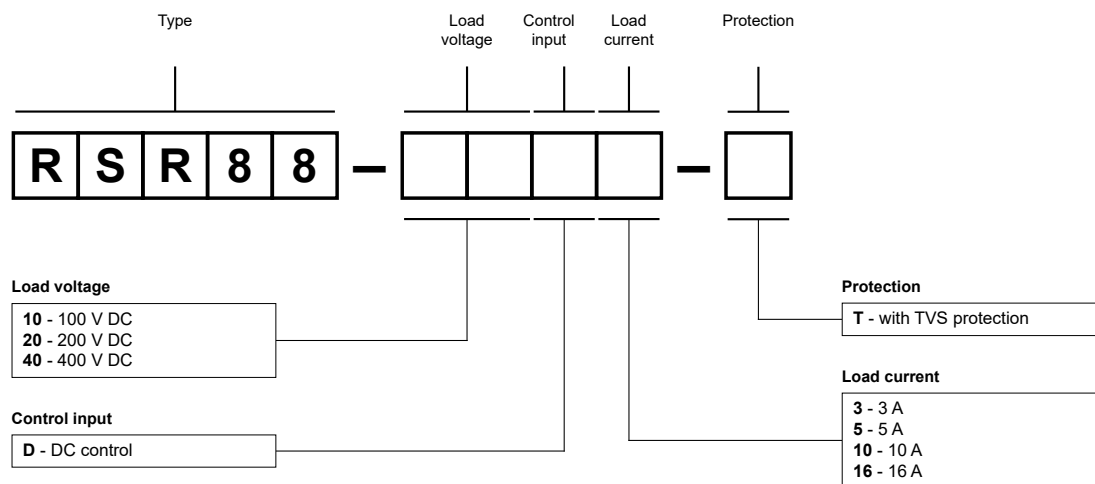
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Connection diagrams



Ordering codes



Examples of ordering codes ⑤:

- RSR88-10D16-T** relay **RSR88**, miniature for plug-in sockets, with TVS protection, DC control, load voltage 100 V DC, load current 16 A
- RSR88-40D3-T** relay **RSR88**, miniature for plug-in sockets, with TVS protection, DC control, load voltage 400 V DC, load current 3 A

⑤ Ordering codes **RSR88** are specified in table "Type" on page 1.

GZMA

Screw terminals
plug-in sockets
for RSR88, RSR89

NEW

