


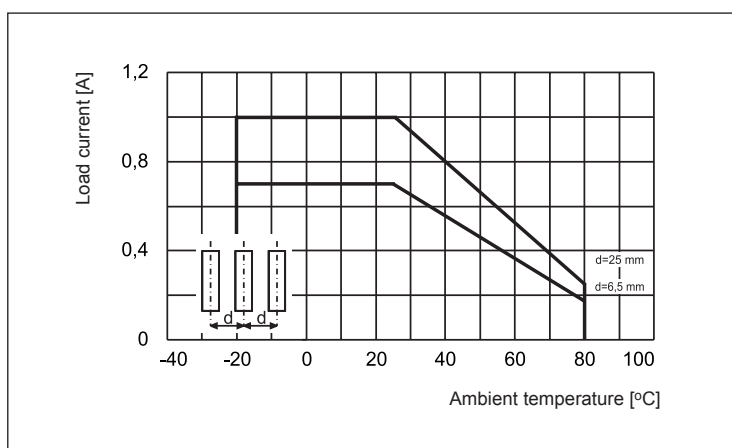


**AC Load**  
**- 1 A / 240 V**

- Optically isolated
- Ultra slim and light weight, SIL terminals type for high density mounting
- Low on-state resistance • Low input power consumption
- TTL and CMOS compatible
- RC networks (V AC)
- MOSFET output thyristor (V DC)
- Recognitions, certificates, directives: RoHS, 

Type of relay ① ②	D05-A1-24-010-1-0	D12-A1-24-010-1-0	<b>D24-A1-24-010-1-0</b>
<b>Input circuit</b>			
Nominal voltage	5 V DC	12 V DC	24 V DC
Control voltage range	3...10 V DC	7...20 V DC	18...32 V DC
Max. control current	12 mA	10 mA	7,7 mA
Release voltage	1,0 V DC	1,0 V DC	1,0 V DC
Input resistance	320 Ω	1,07 kΩ	3,0 kΩ
<b>Output circuit</b>			
Nominal load current		0,4 AAC see Fig.	
Max. load current		1 AAC see Fig.	
Nominal load voltage		rest condition: 240 V AC	
Load voltage range		24...265 V AC	
Non-repetitive peak voltage		rest condition: 600 V AC	
Non-repetitive surge current		operating state: 50 A	
Max. off-state leakage current		rest condition: 2 mA	
Max. on-state voltage drop		operating state: 1,5 V	
Min. load current		operating state: 50 mA	
<b>General data</b>			
Output circuit switching moment		<b>R ④</b>	
Max. turn-on time		1 ms ⑤	
Max. turn-off time		1/2 cycle + 1 ms ⑤	
Min. insulation resistance		between input and output: 1 000 MΩ 500 V DC	
Insulation dielectric strength		between input and output: 2 500 V AC 1 minute	
Dimensions (L x W x H)		20 x 5 x 17 mm	
Weight		3 g	
Storage temperature		-40...+100 °C	
Operating temperature		-30...+85 °C rated value: +55 °C see Fig.	
Max. solder bath temperature		220 °C 10 s	

### Load current in the function of the ambient temperature and distances between relays



### Dimensions, mounting openings raster, ordering codes - see page 17

- ① The data in bold type pertain to the standard versions of the relays.
- ② Basic technical data at 20 °C
- ④ R - instantaneous switching of the output circuit
- ⑤ At rated voltage

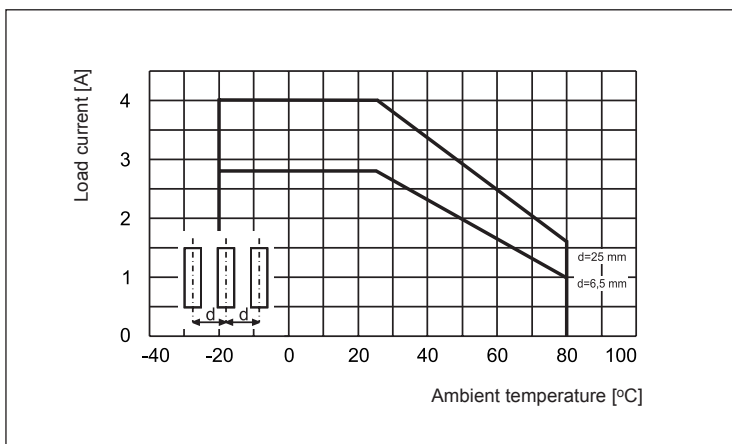


**DC Load**  
**- 4 A / 24 V**

- **Applications:** temperature control system, industrial automatic control, light system, office appliances, factory appliances
- **Mounting:** relays RSR40 are designed for direct PCB mounting, single in line package

Type of relay ① ②	D05-D1-02 -040-1-P	D12-D1-02 -040-1-P	<b>D24-D1-02</b> <b>-040-1-P</b>	D05-D1-02 -40-1-N	D12-D1-02 -40-1-N	<b>D24-D1-02</b> <b>-40-1-N</b>
<b>Input circuit</b>						
Nominal voltage	5 V DC	12 V DC	24 V DC	5 V DC	12 V DC	24 V DC
Control voltage range	3...10 V DC	7...20 V DC	18..32 V DC	3...10 V DC	7...20 V DC	18..32 V DC
Max. control current	12 mA	10 mA	7,7 mA	12 mA	10 mA	7,7 mA
Release voltage	1,0 V DC	1,0 V DC	1,0 V DC	1,0 V DC	1,0 V DC	1,0 V DC
Input resistance	320 Ω	1,07 kΩ	3,0 kΩ	320 Ω	1,07 kΩ	3,0 kΩ
<b>Output circuit</b>						
Nominal load current	2 A DC see Fig.					
Max. load current	4 A DC see Fig.					
Nominal load voltage	rest condition: 24 V DC					
Load voltage range	0...30 V DC					
Non-repetitive surge current	operating state: 7 A 10 ms					
Max. off-state leakage current	rest condition: 1 mA					
Max. on-state voltage drop	operating state: 0,24 V					
Min. load current	operating state: 1 mA					
Operation resistance	operating state: 120 mΩ					
Operating switching frequency	10 Hz					
Output polarisation	P - 1(+)/ 2(-)			N - 1(-)/ 2(+)		
<b>General data</b>						
Output circuit switching moment	<b>R ④</b>					
Max. turn-on time	1 ms ⑤					
Max. turn-off time	0,1 ms ⑤					
Min. insulation resistance	between input and output: 1 000 MΩ 500 V DC					
Insulation dielectric strength	between input and output: 3 750 V AC 1 minute					
Dimensions (L x W x H)	20 x 5 x 17 mm					
Weight	3 g					
Storage temperature	-25...+80 °C					
Operating temperature	-20...+80 °C rated value: +50 °C see Fig.					
Max. solder bath temperature	220 °C 10 s					

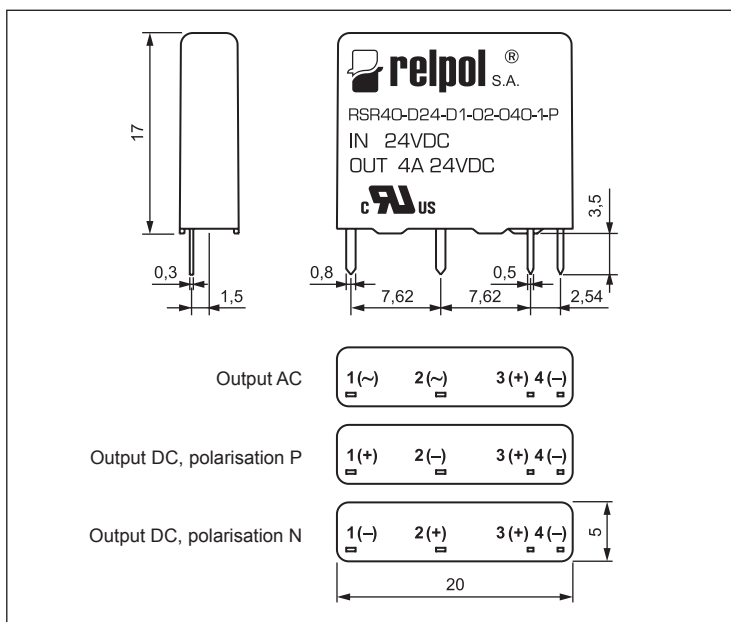
### Load current in the function of the ambient temperature and distances between relays



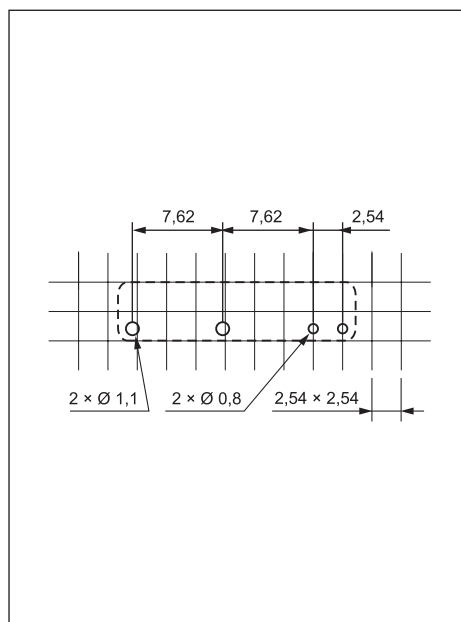
### Dimensions, mounting openings raster, ordering codes - see page 17

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- ② Basic technical data at 20 °C
- ④ R - instantaneous switching of the output circuit
- ⑤ At rated voltage

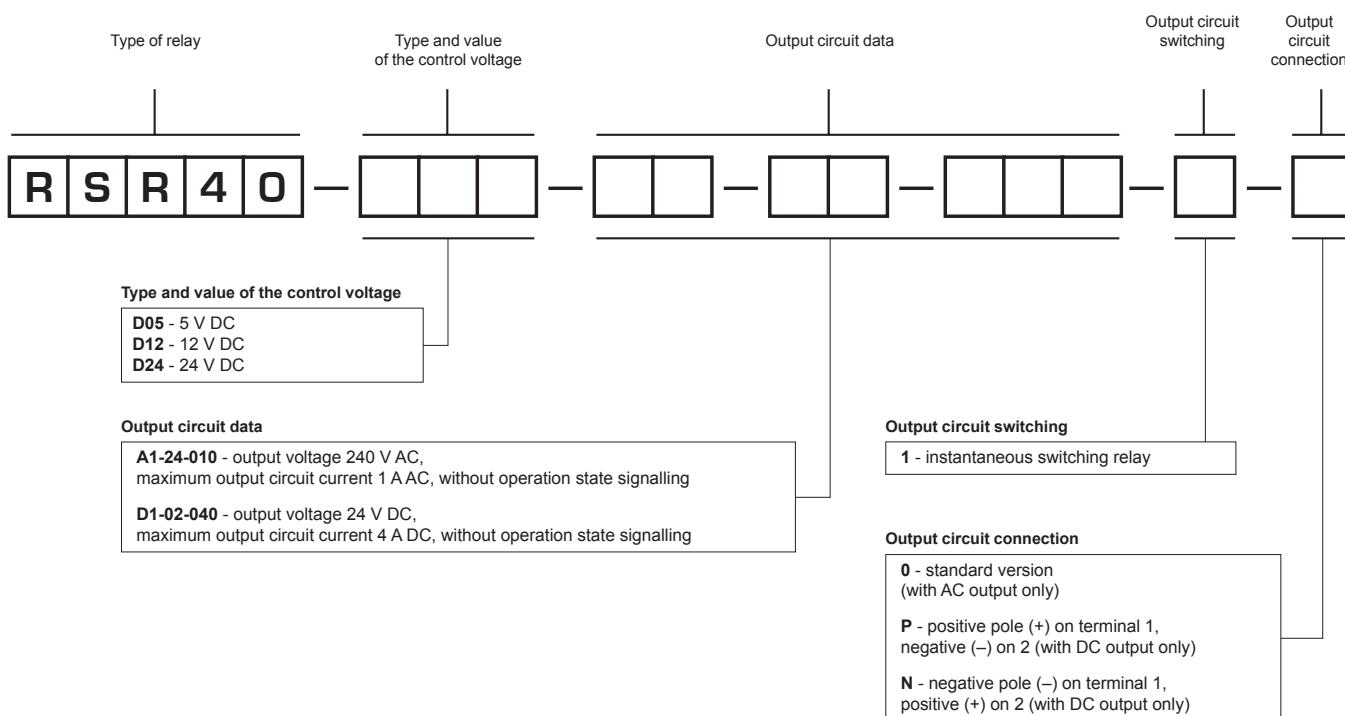
## Dimensions



## Mounting openings raster



## Ordering codes



Example of ordering code:

**RSR40-D24-D1-02-040-1-P** solid state relay **RSR40**, rated control voltage 24 V DC, rated voltage of output circuit - load 24 V DC, maximum output circuit current 4 A DC, without operation state signalling, instantaneous switching, output polarisation P - 1(+) / 2(-)