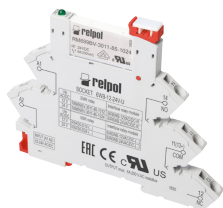


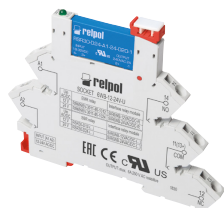
SIR6WB-...




interface relays with spring terminals

RM699BV + 6WB-...



RSR30 + 6WB-...



- Width 6,2 mm • Interface relay **SIR6WB-...** consists of: spring terminals universal socket, with electronic **6WB-...**, miniature operational relay - electromagnetic **RM699BV** or solid state **RSR30** ①
- 35 mm rail mount acc. to EN 60715 • May be linked with interconnection strip type **JB20** • Equipped in LED green
- Accessories: separators **6W-SEP**, cards of description plates **MP6-C**
- Recognitions, certifications, directives: RoHS,   

Output circuit (RM699BV) - contact data ①

Number and type of contacts (code of output)	1 CO (R) ②		
Contact material	AgSnO₂		
Max. switching voltage	400 V AC / 250 V DC		
Min. switching voltage	AC / DC	10 V	
Rated load (capacity)	AC1	6 A / 250 V AC	
	AC15	3 A / 120 V	1,5 A / 240 V (B300)
	DC1	6 A / 30 V DC	
	DC13	0,22 A / 120 V	0,1 A / 250 V (R300)
Motor load	acc. to UL 508	1/4 HP	240 V AC, contact 1 NO, single-phase motor
	AC3 acc. to IEC 60947-4-1	0,186 kW	240 V AC, contact 1 NO, single-phase motor
Min. switching current	100 mA		
Max. inrush current	10 A 20 ms		
Rated current	6 A		
Max. breaking capacity	AC1	1 500 VA	
Min. breaking capacity	1 W		
Contact resistance	≤ 100 mΩ 100 mA, 24 V		
Max. operating frequency	AC1	• at rated load	
		• no load	
		360 cycles/hour	72 000 cycles/hour

NEW

Output circuit (RSR30) - output data ①

Type of output (code of output)	Triac (T) ② max. 2 A	Transistor (C) ② max. 1 A	Transistor (O) ② max. 2 A
Number and type of outputs	1 NO	1 NO	1 NO
Rated voltage	240 V AC	48 V DC	24 V DC
Switching voltage range	12 ... 280 V AC	1,5 ... 60 V DC	1,5 ... 32 V DC
Rated continuous output current	AC1	1 A	
	DC1	1 A	2 A
Min. making capacity current	50 mA	1 mA	1 mA
Max. off-state leakage current (turn-off state)	1,5 mA	1 mA	1 mA
Max. on-state voltage drop on the connection (operating state)	1,2 V	0,4 V	0,24 V
Operating switching frequency		10 Hz	10 Hz

Input circuit

Rated voltage	③ DC	6, 12, 24 V
	AC: 50/60 Hz AC/DC	12, 24 , 48, 60, 110...125, 220...240 V
Operating range of supply voltage	DC	SIR6WB-...-R: 0,8...1,2 U _n
	AC/DC	SIR6WB-...-R: 0,8...1,1 U _n SIR6WB-...-R: 0,85...1,1 U _n 6 V DC
	AC/DC	SIR6WB-...-T/-C/-O: 0,8...1,25 U _n
Rated power consumption	see Table 1	

Insulation according to EN 60664-1

Insulation rated voltage	250 V AC	
Rated surge voltage	4 000 V	
Overvoltage category	III	
Insulation pollution degree	3	
Dielectric strength	• input - output	4 000 V AC 50/60 Hz, 1 min., type of insulation: reinforced
	• input - output	6 000 V 1,2 / 50 μs
	• mass - input, output	2 500 V AC 50/60 Hz, 1 min.
	• contact clearance	1 000 V AC 50/60 Hz, 1 min., output R, type of clearance: micro-disconnection
Input - output distance	≥ 6 mm / ≥ 8 mm	
• clearance / creepage		
Mass - output distance	≥ 3 mm / ≥ 4 mm	
• clearance / creepage		

The data in bold type relate to the standard versions of the relays. ① Characteristics of the contact capacity of relays **SIR6WB-...** with **RM699BV** - see catalog "Relays" and www.repol.com.pl; **SIR6WB-...** with **RSR30** - see www.repol.com.pl ② Type of outputs: **R** - contacts AgSnO₂; **T** - triac; **C** - transistor (1 A); **O** - transistor (2 A). ③ Note: fixed polarization of input voltage (+A1, -A2)

SIR6WB-...

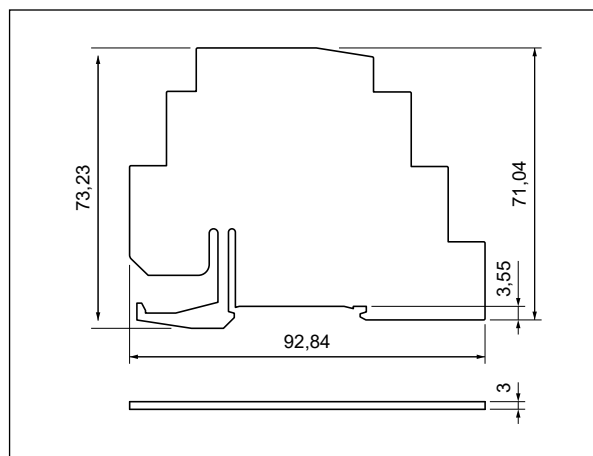
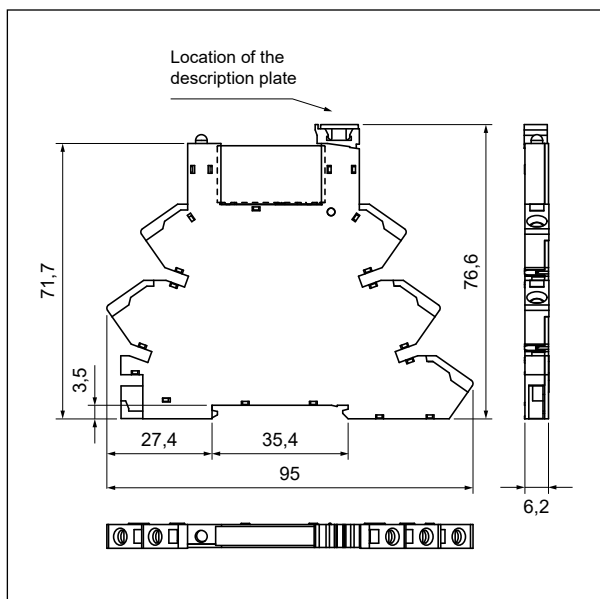
interface relays with spring terminals

General data

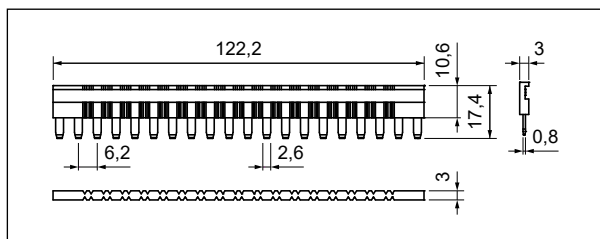
Operating time (typical value)	SIR6WB-...-R: version DC: 8 ms SIR6WB-...-T: version AC/DC: 10 ms SIR6WB-...-C/-O: version AC/DC: 10 ms	version AC/DC: 20 ms version AC/DC: 10 ms version AC/DC: 10 ms
Release time (typical value)	SIR6WB-...-R: version DC: 10 ms SIR6WB-...-T: version AC/DC: 30 ms SIR6WB-...-C/-O: version AC/DC: 20 ms	version AC/DC: 25 ms version AC/DC: 30 ms version AC/DC: 20 ms
Electrical life • resistive AC1	SIR6WB-...-R: $> 0,5 \times 10^5$ 6 A, 250 V AC	
Mechanical life (cycles)	SIR6WB-...-R: $> 10^7$	
Dimensions (L x W x H)	95 x 6,2 x 76,6 mm	
Weight	SIR6WB-...-R: 30 g ...-T/-C/-O: 28 g	
Ambient temperature • storage (non-condensation and/or icing) • operating	SIR6WB-...-R/-T: -40...+70 °C SIR6WB-...-R: -40...+70 °C SIR6WB-110-125VAC/DC-R: -40...+55 °C ④ SIR6WB-220-240VAC/DC-R: -40...+55 °C ④	...-C/-O: -25...+70 °C ...-T/-C/-O: -20...+55 °C
Cover protection category	IP 20	EN 60529
Environmental protection	RT1	EN 61810-7
Shock resistance	10 g	
Vibration resistance	5 g	10...500 Hz

④ For versions 110...125 V AC/DC and 220...240 V AC/DC: a distance of 5 mm must be maintained between relays operating at an ambient temperature of max. +55 °C, when they are supplied permanently or with a duty cycle > 50% (for groups of relays mounted without ventilation distances, the maximum operating temperature is max. +30 °C).

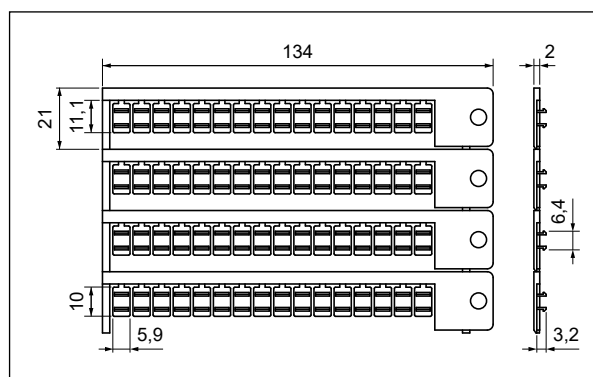
Dimensions



Separator **6W-SEP**



Interconnection strip type **JB20**

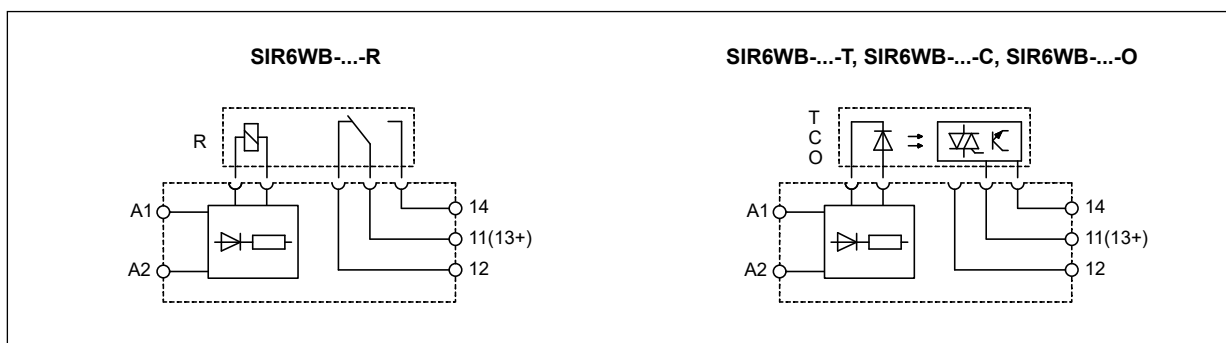


Card of description plates **MP6-C**

SIR6WB-...

interface relays with spring terminals

Connection diagrams



Mounting

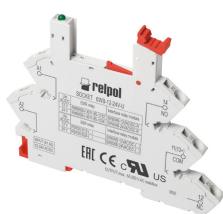
Relays **SIR6WB-...** are designed for direct mounting on 35 mm rail mount acc. to EN 60715. **Connections:** max. cross section of the cables: 1 x 2,5 mm² (1 x 14 AWG), stripping length: 7 mm.

Interface relay **SIR6WB-...** consists of: spring terminals universal socket, with electronic **6WB-...**, miniature operational relay - electromagnetic **RM699BV** or solid state **RSR30** Ⓣ.

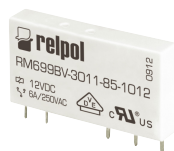
SIR6WB-... may be linked with interconnection strip type **JB20**. Strip **JB20** bridges common input or output signals, maximum permissible current is 36 A / 250 V AC. Colours of strips: **JB20-1** red, **JB20-2** black, **JB20-3** blue.

For **SIR6WB-...** relays we offer **6W-SEP** separators that provide: optical division of groups of interface relays, separation of group of interface relays with different supply voltages (according to VDE 0106-101), insulation for cut **JB20** interconnection strips, additional insulation from other devices in metal housings or from metal end clamps on 35 mm rails. In the set with the **SIR6WB-...** interface relay, a single description plate is supplied, snap into tall marker groove, compatible with the standard for DIN rail terminal blocks. **MP6-C** cards for automatic printing, containing 64 description plates should be ordered separately.

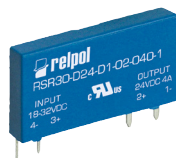
Ⓣ Type of outputs: **R** - contacts AgSnO₂; **T** - triac; **C** - transistor (1 A); **O** - transistor (2 A).



6WB-...



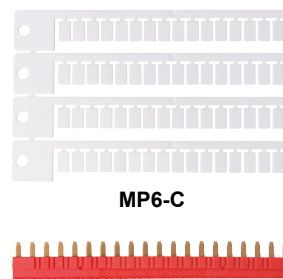
RM699BV



RSR30



6W-SEP

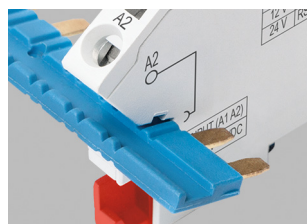


MP6-C

JB20



Green LED: signalling the operation status of the relay.



Interconnection strip JB20: bridging of common input or output signals.



Movable ejector: protection and easy replacement of the operational relay.

SIR6WB-...

interface relays with spring terminals

Wire connection

The drawings present the sequence of operations in course of inserting wires to the spring terminal, and the recommended screwdriver to be used for opening of case springs, comply with the DIN 5264 FORM "A".

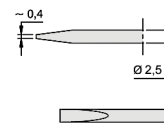
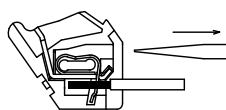
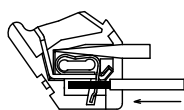
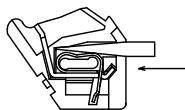
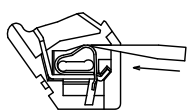


Table of codes

Table 1

Interface relay code	Rated input voltage U_n ⑥	Power of input circuit at voltage U_n	Socket code for the set	Operational relay code	Rated voltage of operational relay U_s ⑥
SIR6WB-6VDC-R ④	6 V DC	0,2 W	6WB-6-24VDC	RM699BV-3011-85-1005	5 V DC
SIR6WB-12VDC-R ④	12 V DC	0,2 W	6WB-6-24VDC	RM699BV-3011-85-1012	12 V DC
SIR6WB-24VDC-R ④	24 V DC	0,4 W	6WB-6-24VDC	RM699BV-3011-85-1024	24 V DC
SIR6WB-12VAC/DC-R	12 V AC/DC	0,2 VA / 0,2 W	6WB-12-24V-U	RM699BV-3011-85-1012	12 V DC
SIR6WB-24VAC/DC-R	24 V AC/DC	0,4 VA / 0,4 W	6WB-12-24V-U	RM699BV-3011-85-1024	24 V DC
SIR6WB-48VAC/DC-R	48 V AC/DC	0,4 VA / 0,4 W	6WB-48-60V-U	RM699BV-3011-85-1048	48 V DC
SIR6WB-60VAC/DC-R	60 V AC/DC	0,5 VA / 0,5 W	6WB-48-60V-U	RM699BV-3011-85-1060	60 V DC
SIR6WB-110-125VAC/DC-R ④	110...125 V AC/DC	0,7 VA / 0,7 W ⑤	6WB-110-125V-U	RM699BV-3011-85-1060	60 V DC
SIR6WB-220-240VAC/DC-R ④	220...240 V AC/DC	0,9 VA / 0,86 W ⑤	6WB-220-240V-U	RM699BV-3011-85-1060	60 V DC
SIR6WB-12VAC/DC-T	12 V AC/DC	0,15 VA / 0,15 W	6WB-12-24V-U	RSR30-D12-A1-24-020-1	12 V DC
SIR6WB-24VAC/DC-T	24 V AC/DC	0,3 VA / 0,3 W	6WB-12-24V-U	RSR30-D24-A1-24-020-1	24 V DC
SIR6WB-12VAC/DC-C	12 V AC/DC	0,15 VA / 0,15 W	6WB-12-24V-U	RSR30-D12-D1-04-025-1	12 V DC
SIR6WB-24VAC/DC-C	24 V AC/DC	0,3 VA / 0,3 W	6WB-12-24V-U	RSR30-D24-D1-04-025-1	24 V DC
SIR6WB-48VAC/DC-C	48 V AC/DC	0,4 VA / 0,4 W	6WB-48-60V-U	RSR30-D48-D1-04-025-1	48 V DC
SIR6WB-12VAC/DC-O	12 V AC/DC	0,15 VA / 0,15 W	6WB-12-24V-U	RSR30-D12-D1-02-040-1	12 V DC
SIR6WB-24VAC/DC-O	24 V AC/DC	0,3 VA / 0,3 W	6WB-12-24V-U	RSR30-D24-D1-02-040-1	24 V DC
SIR6WB-48VAC/DC-O	48 V AC/DC	0,4 VA / 0,4 W	6WB-48-60V-U	RSR30-D48-D1-02-040-1	48 V DC

The data in bold type relate to the standard versions of the relays. ④ Note: fixed polarization of input voltage (+A1, -A2) ④ For versions 110...125 V AC/DC and 220...240 V AC/DC: see recommendations regarding ambient temperature during operation. ⑤ Power consumption at $U_n=125$ V and $U_n=240$ V ⑥ It shall be remarked that rated input voltage of the operational relay U_s not always complies with the rated input voltage U_n (which is important on ordering operational relays for sockets).

Ordering codes

Ordering codes **SIR6WB-...** are specified in Table 1, "Interface relay code" column.

Interface relay SIR6WB-...

set: relay
RM699BV (RSR30)
+ socket 6WB-...

PRECAUTIONS:

1. Ensure that the parameters of the product described in its specification provide a safety margin for the appropriate operation of the device or system and never use the product in circumstances which exceed the parameters of the product.
2. Never touch any live parts of the device.
3. Ensure that the product has been connected correctly. An incorrect connection may cause malfunction, excessive heating or risk of fire.
4. In case of any risk of any serious material loss or death or injuries of humans or animals, the devices or systems shall be designed so to equip them with double safety system to guarantee their reliable operation.

