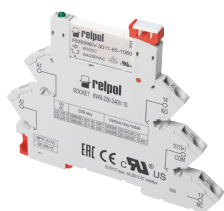
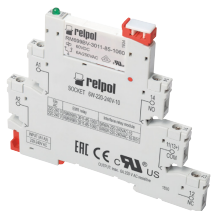


SIR6W-...-10, SIR6WB-...-10





interface relays with filter

RM699BV + 6W-...-10

RM699BV + 6WB-...-10



- **Version for long control lines** - with integrated anti-interference filter, resistant to occurrence of induced voltages in long distances of control wires; leakage current is filtered to prevent it from being stuck in the "open" state when the relay is turned off

- Width 6,2 mm • Interface relay **SIR6W-...-10** consists of: universal socket with electronic to choose - with screw terminals **6W-...-10** or spring **6WB-...-10**, miniature operational relay - electromagnetic **RM699BV** ①
- 35 mm rail mount acc. to EN 60715 • May be linked with 20-pole 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 | 1 CO | |
| Contact material | AgSnO₂ | AgSnO ₂ /Au hard gold plating ② |
| Max. switching voltage | 400 V AC / 250 V DC | 30 V AC / 36 V DC ② |
| Min. switching voltage | AC / DC 10 V | 5 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; 0,15 A / 250 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 ③ |
| | AC3 acc. to IEC 60947-4-1 | 0,186 kW 240 V AC ③ |
| Min. switching current | 100 mA | 10 mA |
| | – | 1 mA 24 V |
| Max. make current | 10 A 20 ms | 0,1 A 20 ms ② |
| Rated current | 6 A | 0,05 A ② |
| Max. breaking capacity | AC1 | 1 500 VA |
| Min. breaking capacity | | 1 W |
| Contact resistance | | ≤ 100 mΩ 100 mA, 24 V |
| Max. operating frequency | • at rated load AC1 | 360 cycles/hour |
| | • no load | 72 000 cycles/hour |

Input circuit

| | | |
|--|-------------|--------------------------|
| Rated voltage | 50/60 Hz AC | 220...240 V |
| Operating range of supply voltage | AC | 0,8...1,2 U _n |
| Guaranteed min. supply voltage for operation | | 185...190 V AC |
| Guaranteed max. return voltage | | 145...155 V AC |
| 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., type of clearance: micro-disconnection |
| Input - output distance | clearance / creepage: ≥ 6 mm / ≥ 8 mm | |
| Mass - output distance | clearance / creepage: ≥ 3 mm / ≥ 3,6 mm | |

General data

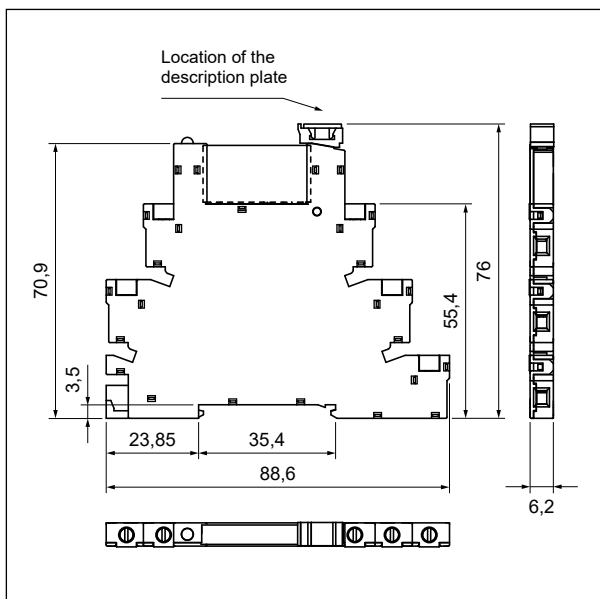
| | | |
|---|--|--------------|
| Operating / release time (typical values) | 20 ms / 18 ms | |
| Electrical life | • resistive AC1 > 0,5 x 10 ⁵ 6 A, 250 V AC | |
| Mechanical life (cycles) | > 10 ⁷ | |
| Dimensions (L x W x H) | SIR6W-...: 88,6 x 6,2 x 76 mm SIR6WB-...: 95 x 6,2 x 76,6 mm | |
| Weight | 30 g | |
| Ambient temperature | • storage | -25...+70 °C |
| | (non-condensation and/or icing) • operating | -25...+50 °C |
| Cover protection category | IP 20 EN 60529 | |
| Environmental protection | RTI EN 61810-7 | |
| Shock / vibration resistance | 10 g / 5 g 10...50 0 Hz | |

The data in bold type relate to the standard versions of the relays. ① Characteristics of the capacity of relays **SIR6W-...-10 with RM699BV** - see www.repol.com.pl ② For gold-plated contacts - when the maximum values given have been exceeded, the gold layer is destroyed. Then, the advantages of gold-plating disappear and the values are as for AgSnO₂ contacts (see beside), and electrical life of these contacts may be shorter than of normal contacts. ③ Contact 1 NO, single-phase motor.

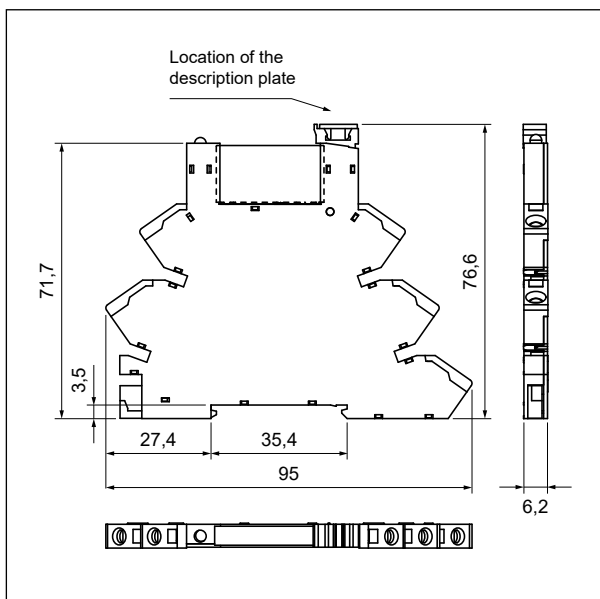
SIR6W-...-10, SIR6WB-...-10

interface relays with filter

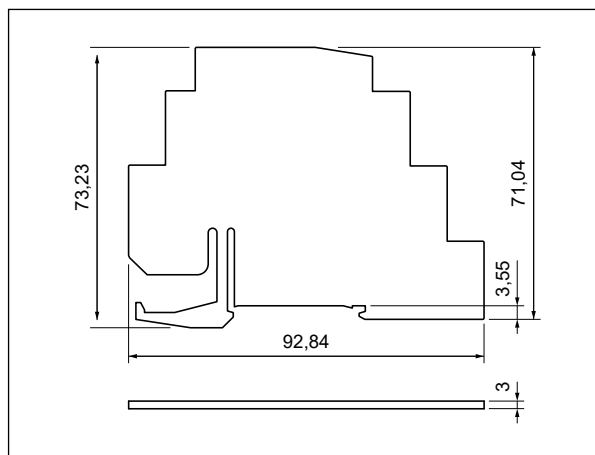
Dimensions



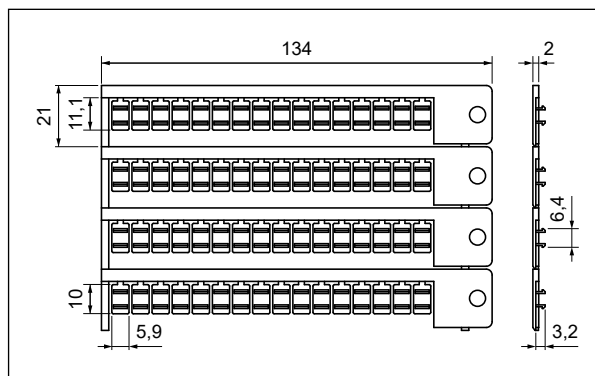
Relay **SIR6W-...-10**



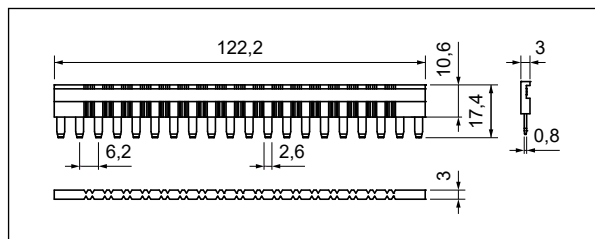
Relay **SIR6WB-...-10**



Separator **6W-SEP**

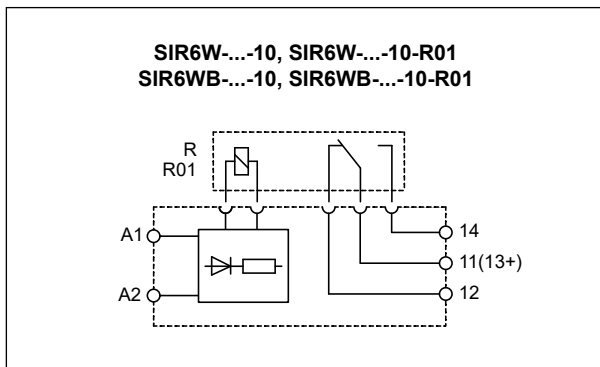


Card of description plates **MP6-C**



20-pole interconnection strip type **JB20**

Connection diagram



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.

SIR6W-...-10, SIR6WB-...-10

interface relays with filter

Mounting

Relays **SIR6W-...-10** 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 / 2 x 1,5 mm² (1 x 14 / 2 x 16 AWG), stripping length: 7 mm, max. tightening moment for the terminal: 0,5 Nm.

Relays **SIR6WB-...-10** 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 **SIR6W-...-10** consists of: universal socket with electronic to choose - with screw terminals **6W-...-10** or spring **6WB-...-10**, miniature operational relay - electromagnetic **RM699BV**.

SIR6W-...-10 may be linked with 20-pole 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 **SIR6W-...-10** 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 **SIR6W-...-10** interface relay, a single description plate is supplied, snap into tall marker groove, compatible with the standard for DIN rail terminal blocks. Cards **MP6-C** for automatic printing, containing 64 description plates, should be ordered separately.



Wire connection - relays SIR6WB-...-10

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

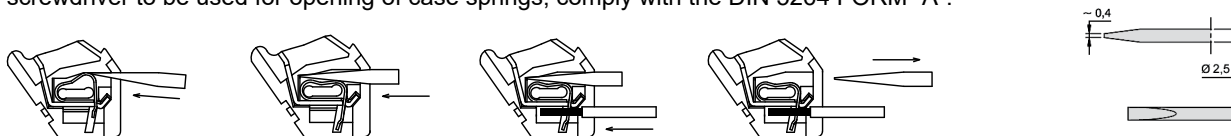


Table of codes

Table 1

| Interface relay code | Rated input voltage U_n ⚡ | Power of input circuit at voltage U_n | Socket code for the set | Operational relay code | Rated voltage of operational relay U_s ⚡ |
|--------------------------|-----------------------------|---|-------------------------|------------------------|--|
| SIR6W-220-240VAC-10 | 220...240 V AC | ≤ 0,9 VA | 6W-220-240V-10 | RM699BV-3011-85-1060 | 60 V DC |
| SIR6W-220-240VAC-10-R01 | 220...240 V AC | ≤ 0,9 VA | 6W-220-240V-10 | RM699BV-3211-85-1060 | 60 V DC |
| SIR6WB-220-240VAC-10 | 220...240 V AC | ≤ 0,9 VA | 6WB-220-240V-10 | RM699BV-3011-85-1060 | 60 V DC |
| SIR6WB-220-240VAC-10-R01 | 220...240 V AC | ≤ 0,9 VA | 6WB-220-240V-10 | RM699BV-3211-85-1060 | 60 V DC |

⚡ 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 **SIR6W-...-10** are specified in Table 1, "Interface relay code" column.