



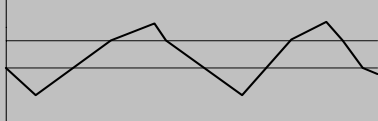
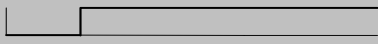
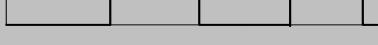
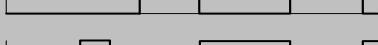
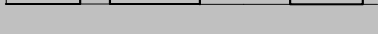
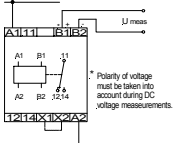
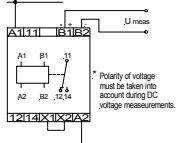
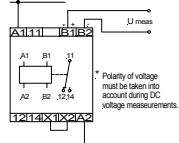
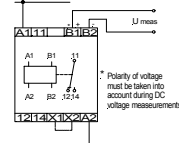


Voltage relay

				
Type	RS-190-4	RS-191-4	RS-192-4	RS-193-4
Function/ output contact	Voltage relay 1 change-over contact	Voltage relay 1 change-over contact	Voltage relay 1 change-over contact	Voltage relay 1 change-over contact
Basic wiring diagram/ pulse schedule	 <p style="text-align: center;">Voltage level Hysteresis</p>  <p style="text-align: center;">Voltage supply Voltage on</p>  <p style="text-align: center;">Output with jumper X1-X2 Contact closed</p>  <p style="text-align: center;">Output with energization suppression Contact closed</p>  <p style="text-align: center;">Output without jumper X1-X2 Contact closed</p>			
Wiring diagram				
LED		2 LED	2 LED	2 LED
Voltage supply	24 V AC/DC * 24 V AC 42-48 V AC 110-127 V AC 230 V AC * without electrical isolation	24 V AC/DC * 24 V AC 42-48 V AC 110-127 V AC 230 V AC * without electrical isolation	24 V AC/DC * 24 V AC 42-48 V AC 110-127 V AC 230 V AC * without electrical isolation	24 V AC/DC * 24 V AC 42-48 V AC 110-127 V AC 230 V AC * without electrical isolation
other attributes	Energization suppression: yes (approx. 8 s) Adjustable hysteresis: yes (5-50%)	Energization suppression: yes (approx. 8 s) Adjustable hysteresis: no, hysteresis fixed (10%)	Energization suppression: no Adjustable hysteresis: yes (5-50%)	Energization suppression: no Adjustable hysteresis: no, hysteresis fixed (10%)
Method of operation	<p>These devices are voltage relays for monitoring AC or DC voltages. They can be used for various control and monitoring tasks in electrical systems, e.g. overvoltage or undervoltage protection for electric drives, valves, welding equipment, emergency power supplies as well as other electrical loads and generators. These voltage relays can also be used as motor standstill controllers. The inverse voltage is measured when the motor is switched off. The device signals shutdown when the inverse voltage generated drops to the set value, depending on the setting of jumper X1-X2.</p> <p>The devices are ready for operation upon applying an exciting voltage to terminals A1 and A2. The input voltage circuit is connected to terminals B1 and B2. The polarity must be taken into account in the case of DC voltage monitoring [(+) at B1, (-) at B2]. The industrial relay function can be programmed via a jumper X1-X2. When a jumper is fitted, the output relay is in the off position, i.e. the relay attracts in the case of an excess voltage. Without a jumper the function is reversed.</p> <p>The value to be set at the voltage relay is related to:</p> <ul style="list-style-type: none"> • the DC voltage applied to B1/B2 in the case of DC voltage measurements, • the effective value of the sine-wave AC voltage applied to B1/B2 for AC voltages. <p>The types RS-190-4 and RS-191-4 have an additional energization suppression. The energization voltages are suppressed following an interruption in the power supply or upon switching on the device. They do not lead to a malfunction for a period of 8 s.</p> <p>With types RS-190-4 and RS-192-4, the switching point hysteresis can be varied between 5 and 50% of the set value of the current.</p> <p>With types RS-191-4 and RS-193-4, with non-adjustable hystereses, this is approx. 10%.</p> <p>The on and off delay is approx. 0,1 s. Devices with 24V AC/DC exciting voltage have no electrical isolation in the device between exciting voltage connection and test voltage. Therefore, the test-voltage source must be electrically isolated from the supply voltage source.</p>			
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