

High Voltage Relay

RL 42

The RL 42 High Voltage Relay can switch voltages of up to 6000 VAC in combination with high currents. In addition, it is often necessary to switch very low voltages in the mV range and currents in the mA range. The requirements regarding the quality of the switching contacts are therefore extremely high. A long service life must also be ensured for industrial use.

The relays are used in particular in combined safety and functional test systems for testing electrotechnical products. Here, several thousand volts are switched for the High Voltage

test, while currents of up to 30 A occur and resistances in the mOhm range have to be measured for the Function Test, e.g. for motors. Electromechanical relays for system and control cabinet construction have proven themselves thousands of times over.

To protect the user from unintentional, dangerous contact with live conductors, SPS electronic has developed the DK 21 contact protection. This can be plugged onto existing relays and removed just as easily if required.

		RL 42
Contacts		double pole double throw
Field Coil	Coil Voltage Holding Current Inrush Current (first 100 ms)	24 VDC 0.20 A (20 °C / 68 °F) 0.34 A
Coil Resistance		115 Ω (20 °C / 68 °F)
Status Indication		LED
Connections	Switching Circuits Field Coil	flat plug (6.3 mm l 0.25 in) flat plug (4.8 mm l 0.19 in)
Switching Capacity		max. 5000 VA (ohmic load)
Test Voltage	Contact / Field Coil Contact Set 11 / Contact Set 21	12000 VDC 8000 VDC
Switching Voltage max.		6000 VAC
Switching Current		max. 10 AAC
Continuous Current		max. 30 AAC / DC
Transition Resistance		< 30 mΩ
Switching Frequency		max. 3 / s
Mechanical Switching Cycles		> 4 x 10 ⁶
B10d Value	I ≤ 10% I max	> 2 x 10 ⁶
Vibration Resistance	10 - 55 Hz/g	5
Shock Strength	g - 11ms	5
Carrier Material		PBT GF30
Protection System		IP 20
Fastening		Top rail (via Mounting Clip)
Accessories		Mounting Clip MC 22, Contact Protection DK 21
Temperature	Storage / Operating Temperature	-25 °C - 40 °C / 5 °C - 55 °C -13 °F - 104 °F / 41 °F - 131 °F
Dimensions and Weight (approx.)	Height Width Depth Weight	55 mm l 2.2 in 78 mm l 2.2 in 48 mm l 1.9 in 300 g / 0.66 lbs