High Voltage Relay
RL 42

The RL 42 High Voltage Relay is designed to reliably switch voltages of up to 6,000 VAC while handling high load currents. At the same time, it is capable of switching very low voltages in the millivolt range and currents in the milliampere range, placing extremely high demands on contact quality and stability.
Engineered for industrial applications, the relay ensures long service life and dependable performance. It is primarily used in combined safety and functional test systems for electrotechnical products, where several kilovolts are switched during high-voltage testing and currents of up to 30 A occur during functional testing. Precise resistance measurements in the milliohm range, for example in motor testing, are also supported.
Proven electromechanical relay technology makes the RL 42 a robust and reliable solution for system integration and control cabinet applications.

		High Voltage Relay 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 I 0.25 in) flat plug (4.8 mm I 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/DC
Switching Current	AC	max. 10 AAC
	DC	max. 40 mADC @ 1000 V max. 15 mADC @ 3000 V max. 8 mADC @ 6000 V
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 I 2.2 in 79 mm I 3.1 in 48 mm I 1.9 in 300 g / 0.66 lbs