

## High Voltage Relay **RL 21**

The RL 21 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 21 a robust and reliable solution for system integration and control cabinet applications.



|                                        |                                 | High Voltage Relay RL 21                                               |
|----------------------------------------|---------------------------------|------------------------------------------------------------------------|
| <b>Contacts</b>                        |                                 | single pole double throw                                               |
| <b>Field Coil</b>                      | Coil Voltage                    | 24 VDC                                                                 |
|                                        | Holding Current                 | 0,20 A (20 °C / 68 °F)                                                 |
|                                        | Inrush Current (first 100 ms)   | 0,34 A                                                                 |
| <b>Switching Voltage max.</b>          |                                 | 6000 VAC/DC                                                            |
| <b>Switching Current</b>               | AC                              | max. 10 AAC                                                            |
|                                        | DC                              | max. 40 mADC @ 1000 V<br>max. 15 mADC @ 3000 V<br>max. 8 mADC @ 6000 V |
| <b>Continuous Current</b>              |                                 | max. 30 AAC / DC                                                       |
| <b>Transition Resistance</b>           |                                 | < 30 mΩ                                                                |
| <b>Switching Frequency</b>             |                                 | max. 3 / s                                                             |
| <b>Coil Resistance</b>                 |                                 | 115 Ω (20 °C / 68 °F)                                                  |
| <b>Status Indication</b>               |                                 | -                                                                      |
| <b>Connections</b>                     | Switching Circuits              | flat plug (6,3 mm l 0.25 in)                                           |
|                                        | Field Coil                      | flat plug (4,8 mm l 0.19 in)                                           |
| <b>Switching Capacity</b>              |                                 | max. 5000 VA (ohmic load)                                              |
| <b>Test Voltage</b>                    | Contact / Field Coil            | 12000 VDC                                                              |
| <b>Mechanical Switching Cycles</b>     |                                 | 4 x 10 <sup>6</sup>                                                    |
| <b>B10d Value</b>                      | I ≤ 10% I max.                  | 2 x 10 <sup>6</sup>                                                    |
| <b>Vibration Resistance</b>            | 10 - 55 Hz/g                    | 5                                                                      |
| <b>Shock Strength</b>                  | g - 11ms                        | 5                                                                      |
| <b>Carrier Material</b>                |                                 | PBT GF30                                                               |
| <b>Protection System</b>               |                                 | IP 10                                                                  |
| <b>Fastening</b>                       |                                 | Top-hat rail (via mounting clip MC22)                                  |
| <b>Accessories</b>                     |                                 | Mounting Clip MC 22, Contact Protection DK 21                          |
| <b>Temperature</b>                     | Storage / Operating Temperature | -25 °C - 40 °C / 5 °C - 55 °C                                          |
|                                        |                                 | -13 °F - 104 °F / 41 °F - 131 °F                                       |
| <b>Dimensions and Weight (approx.)</b> | Height                          | 55 mm l 2.2 in                                                         |
|                                        | Width                           | 78 mm l 3.0 in                                                         |
|                                        | Depth                           | 40 mm l 1.6 in                                                         |
|                                        | Weight                          | 300 g / 0.66 lbs                                                       |