

Relay Switching Unit KRE-4149-ESUIL

MTS-No.: 30132

Application

The Relay Switching Unit series KRE-4000 can be used for several applications, f.e.:

- Switching Unit for RF-generators, amplifiers and antennas at EMC test laboratories
- RF matrix
- Filter, diplexer attenuator etc. selection unit
- Any automated routing of measurement equipment at test benches

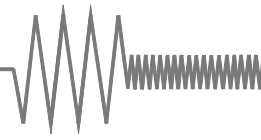
Description

The Relay Switching Unit series KRE-4000 is for the switching of almost every kind of signals. Due to the modular design, the electrical characteristics of the switches can be adapted to versatile demands. In combination with attenuators, splitters and other modules the usability can be extended.



Characteristics

- ▶ Configuration:
 - 1x SP6T relays (R573.103.610 Radiall)
 - 2x SP6T relays (R573.403.610 Radiall)
 - 2x SPDT relays (R570.113.000 Radiall)
- ▶ Integrated power supply 100 V - 240 V AC
- ▶ Remote control by USB, LAN and IEEE-488 (other interfaces, colour display with touchpanel or web control on request)
- ▶ 19" rack mount case with 3 HU
- ▶ Windows control programs can be offered
- ▶ High quality materials and components for extended durability
- ▶ On request user blocking of separate components (with name / name and keyword available)
- ▶ On request switching cycles of every relay position can be requested
- ▶ Relay Switching Units can be designed according to customer's individual requirements



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Configuration:

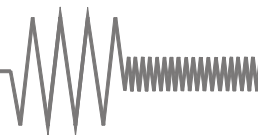
1x SP6T relay (R573.103.610 Radiall), 2x SP6T relay (R573.403.610 Radiall) and 2x SPDT relay (R570.113.000 Radiall)

Technical data:

1 RF-specifications relays:

1.1 Relay type (relay 1)	SP6T relay (R573.103.610 Radiall)	1.21 Relay type (relay 4, 5)	SPDT relay (R570.113.000 Radiall)
1.2 Impedance	50 Ω	1.22 Impedance	50 Ω
1.3 RF-power max. (throughput power)	400 W CW @ 3.0 GHz (*) 250 W CW @ 8.0 GHz (*) 200 W CW @ 12.4 GHz (*)	1.23 RF-power max. (throughput power)	400 W CW @ 3.0 GHz (*) 250 W CW @ 8.0 GHz (*) 200 W CW @ 12.4 GHz (*)
1.4 Frequency range	DC – 12.4 GHz	1.24 Frequency range	DC – 12.4 GHz
1.5 RF-connections	N female	1.25 RF-connections	N female
1.6 Switching time max.	15 ms	1.26 Switching time max.	15 ms
1.7 Operating life min.	2 000 000 cycles	1.27 Operating life min.	2 500 000 cycles
1.8 VSWR max.	DC – 3.0 GHz 1.20 : 1 DC – 8.0 GHz 1.35 : 1 DC – 12.4 GHz 1.50 : 1	1.28 VSWR max.	DC – 3.0 GHz 1.25 : 1 DC – 8.0 GHz 1.35 : 1 DC – 12.4 GHz 1.50 : 1
1.9 Isolation min.	DC – 3.0 GHz 80 dB DC – 8.0 GHz 70 dB DC – 12.4 GHz 60 dB	1.29 Isolation min.	DC – 3.0 GHz 75 dB DC – 8.0 GHz 70 dB DC – 12.4 GHz 60 dB
1.10 Insertion loss max.	DC – 3.0 GHz 0.20 dB DC – 8.0 GHz 0.35 dB DC – 12.4 GHz 0.50 dB	1.30 Insertion loss max.	DC – 3.0 GHz 0.25 dB DC – 8.0 GHz 0.35 dB DC – 12.4 GHz 0.50 dB
1.11 Relay type (relay 2, 3)	SP6T relay (R573.403.610 Radiall)	2 Connections:	
1.12 Impedance	50 Ω	2.1 Front side	Power switch with integrated control lamp
1.13 RF-power max. (throughput power)	240 W CW @ 3.0 GHz (*) 150 W CW @ 8.0 GHz (*) 100 W CW @ 18.0 GHz (*)	2.2 Rear side	RF-connections Control card with control interfaces Appliance plug with the integrated fuses F1 and F2 Ground connector
1.14 Frequency range	DC – 18.0 GHz	3 General specifications:	
1.15 RF-connections	SMA female	3.1 Power supply	100 V - 240 V 50 Hz / 60 Hz
1.16 Switching time max.	15 ms	3.2 Internal voltage	+5 V DC, +28 V DC
1.17 Operating life min.	5 000 000 cycles	3.3 Control displays	Control lamp in the power switch
1.18 VSWR max.	DC – 3.0 GHz 1.20 : 1 DC – 8.0 GHz 1.30 : 1 DC – 18.0 GHz 1.50 : 1	3.4 Control interfaces	USB LAN IEEE-488
1.19 Isolation min.	DC – 3.0 GHz 80 dB DC – 8.0 GHz 70 dB DC – 18.0 GHz 60 dB		
1.20 Insertion loss max.	DC – 3.0 GHz 0.20 dB DC – 8.0 GHz 0.30 dB DC – 18.0 GHz 0.50 dB		

(*) Non-switching. The maximum RF-power is shortened depending on present standing waves. Please consult derating factors of the relay manufacturer and consult the specification of used RF connectors.



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Technical data:

3 General specifications:

- | | |
|--|--|
| 3.5 Power consumption primarily | 150 mA max. @ 230 V (no relay switched)
200 mA max. @ 230 V (all relays switched) |
| 3.6 Voltage supply | Standard rubber connector |
| 3.7 Operating temperature | 0 °C - +50 °C |
| 3.8 Reference temperature for specifications | +25 °C |
| 3.9 Dimensions | 19"-unit x 3 HU x 310 mm (dimensions without handles and connections) |
| 3.10 Colour | Front side colourless anodized
Rear side colourless anodized |
| 3.11 Weight | 7.0 kg |

4 Delivered parts:

- KRE-4149-ESUIL
- Power cable
- CD with operating manual

5 Comments:

- | | |
|----------------|-----------|
| Warranty | 12 months |
| RoHS-compliant | Yes |

6 Recommended accessories:

- RF-cables
- Terminations
- Attenuators

Views:

