

Relay Switching Unit KRE-4146-ESMIL

MTS-No.: 30057

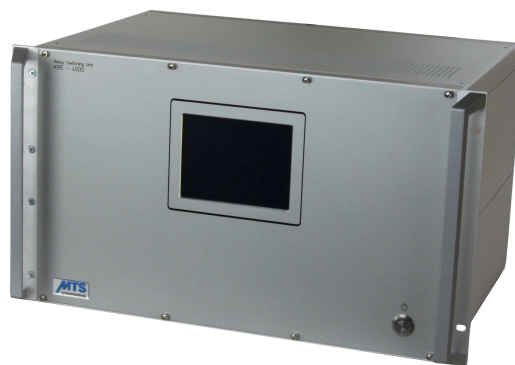
Application

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

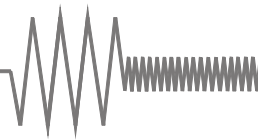
Description

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

- | | |
|--|---|
| <ul style="list-style-type: none"> ▶ Configuration: <ul style="list-style-type: none"> 1x matrix with 2 inputs and 3 outputs internally made of SPDT relay (R570.413.000 Radiall) and SP3T relay (R573.403.310 Radiall) 2x matrix with 3 inputs and 3 outputs internally made of two SP3T relays each (R573.403.310 Radiall) 1x SP3T relay internally made of two DPDT relays (BN 512690C0002, Spinner) | <ul style="list-style-type: none"> ▶ Integrated power supply 100 V - 240 V AC ▶ Manual control (colour display with touchpanel) ▶ Remote control by USB, LAN and IEEE-488 (other interfaces or web control on request) ▶ 19" rack mount case with 6 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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 2x matrix with 3 inputs and 3 outputs internally made of two SP3T relays each (R573.403.310, Radiall)
 1x SP3T relay internally made of two DPDT relays (BN 512690C0002, Spinner)

Technical data:

1 RF-specifications relays:

1.1 Relay type (relays 1 - 3)	1x matrix 2 to 3 2x matrix 3 to 3
1.2 Impedance	50 Ω
1.3 RF-power max. (throughput power)	200 W CW @ 1.0 GHz (*) 80 W CW @ 8.0 GHz (*)
1.4 Frequency range	DC – 8.0 GHz
1.5 RF-connections	N female
1.6 Switching time max.	15 ms
1.7 Operating life min.	5 000 000 cycles
1.8 VSWR max.	DC – 1.0 GHz 1.10 : 1 DC – 8.0 GHz 1.70 : 1
1.9 Isolation min.	DC – 1.0 GHz 90 dB DC – 8.0 GHz 80 dB
1.10 Insertion loss max.	DC – 1.0 GHz 0.70 dB DC – 8.0 GHz 1.70 dB
1.11 Relay type (relay 4)	SP3T relay (2x BN 512690C0002, Spinner)
1.12 Impedance	50 Ω
1.13 RF-power max. (throughput power)	920 W CW @ 4.0 GHz (*) 750 W CW @ 6.0 GHz (*)
1.14 Frequency range	DC – 6.0 GHz
1.15 RF-connections	7/16 female
1.16 Switching time max.	200 ms (30 ops / minute)
1.17 Operating life min.	500 000 cycles
1.18 VSWR max.	DC – 4.0 GHz 1.25 : 1 DC – 6.0 GHz 1.90 : 1
1.19 Isolation min.	DC – 4.0 GHz 60 dB DC – 6.0 GHz 40 dB
1.20 Insertion loss max.	DC – 4.0 GHz 0.30 dB DC – 6.0 GHz 0.60 dB

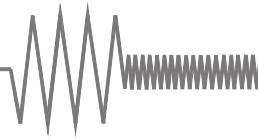
2 Connections:

2.1 Front side	Power switch with integrated control lamp Colour display with touchpanel
2.2 Rear side	RF-connections Control card with control interfaces Appliance plug with the integrated fuses F1 and F2 Ground connector

3 General specifications:

3.1 Power supply	100 V - 240 V 50 Hz / 60 Hz
3.2 Internal voltage	+5 V DC, +24 V DC, +28 V DC
3.3 Control displays	Colour display with touchpanel Control lamp in the power switch
3.4 Control interfaces	USB LAN IEEE-488
3.5 Power consumption primarily	150 mA max. @ 230 V (no relay switched) 300 mA max. @ 230 V (all relays switched) 500 mA max. @ 230 V (relays 1 - 3 switched while relays 4 is switching)
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 6 HU x 310 mm (dimensions without handles and connections)
3.10 Colour	Front side colourless anodized Rear side colourless anodized
3.11 Weight	15.8 kg

(*) 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:

4 Delivered parts:

KRE-4146-ESMIL
 Power cable
 CD with operating manual

5 Comments:

Warranty 12 months
 RoHS-compliant Yes

6 Recommended accessories:

RF-cables
 Terminations
 Attenuators

Views:

