

2903328

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Preassembled relay module with Push-in connection, consisting of: relay base, multi-layer contact relay, plug-in display/interference suppression module, and retaining bracket. Contact switching type: 2 changeover contacts. Input voltage: 120 V AC

## Product description

The pluggable electromechanical and solid-state relays in the RIFLINE complete product range and the base are recognized and approved in accordance with UL 508. The relevant approvals can be called up at the individual components in question.

#### Commercial data

Item number	2903328
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C465
Product key	CK652G
Catalog page	Page 327 (C-5-2019)
GTIN	4046356732321
Weight per piece (including packing)	68.1 g
Weight per piece (excluding packing)	68.1 g
Customs tariff number	85364900
Country of origin	DE



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#### Set consists of

RIF-1-BPT/2X21 - Relay base

2900931

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Relay base RIF-1..., for miniature power relay with 1 or 2 changeover contacts or solid-state relays of the same design, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

## REL-MR-120AC/21-21AU - Single relay

2961477

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Plug-in miniature power relay, with multi-layer gold contact, 2 changeover contacts, input voltage 120 V AC



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### RIF-LV-120-230 AC/110 DC - Plug-in module

2900944

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Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with varistor and yellow LED, input voltage: 120 V AC... 230 V AC / 110 V DC  $\pm20~\%$ 

#### RIF-RH-1 - Retaining bracket

2900953

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Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-1 relay base, for 16 mm tall miniature power relay and solid-state relay



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## Technical data

#### Notes

General	FBS 2-6 plug-in bridge for the input side (A2) and FBS-2-8
	plug-in bridge for the output side (11/21)

### Product properties

Product type	Relay Module
Product family	RIFLINE complete
Application	Universal
Operating mode	100% operating factor
Mechanical service life	approx. 10 <sup>7</sup> cycles

#### Insulation characteristics

Insulation	Safe isolation between input and output
	Basic insulation between the changeover contacts

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Insulation	Safe isolation between input and output
	Basic insulation between the changeover contacts
Overvoltage category	III
Pollution degree	2

## Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.96 W
Test voltage (Winding/contact)	2.5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	$2.5~\mathrm{kV_{rms}}$ (50 Hz, 1 min., changeover contact/changeover contact)
Rated surge voltage	6 kV (Input/output)
	4 kV (between the changeover contacts)

## Input data

#### Coil side

Nominal input voltage U <sub>N</sub>	120 V AC
Input voltage range	96 V AC 138 V AC (20 °C)
Input voltage range in reference to $U_N$	see diagram
Mains frequency	50/60 Hz
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U <sub>N</sub>	8 mA
Typical response time	3 ms 12 ms
Typical release time range	3 ms 20 ms
Coil voltage	120 V AC



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Protective circuit	Varistor
Operating voltage display	Yellow LED

## Output data

#### Switching

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Contact switching type	2 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi, hard gold-plated
Maximum switching voltage	30 V AC
	36 V DC
Minimum switching voltage	100 mV (10 mA)
Limiting continuous current	50 mA
Maximum inrush current	50 mA
Min. switching current	1 mA (24 V)
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)
Utilization category CB Scheme (IEC 60947-5-1)	AC15, 1.5 A/240 V (N/O contact)
	AC15, 2 A/250 V (N/C contact)
	DC13, 2 A/24 V (N/C contact)
	DC13, 0.2 A/250 V (N/O contact)

### Switching: when the gold layer is destroyed

Note	the following values are applicable if a gold layer is destroyed
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 10 mA)
Maximum inrush current	12 A (20 ms, N/O contacts)
Min. switching current	10 mA (At 5 V)
Interrupting rating (ohmic load) max.	192 W (at 24 V DC)
	96 W (at 48 V DC)
	60 W (at 60 V DC)
	44 W (at 110 V DC)
	57 W (at 220 V DC)
	2000 VA (for 250□V□AC)
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.2 A (at 250 V, DC13)
	2 A (at 24 V, AC15)
	2 A (at 120 V, AC15)
	2 A (at 250 V, AC15)

## Connection data

Connection method	Push-in connection
Stripping length	8 mm



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Conductor cross section rigid	0.14 mm² 1.5 mm²
Conductor cross section flexible	0.14 mm² 1.5 mm²
	0.14 mm <sup>2</sup> 1.5 mm <sup>2</sup> (Ferrule with plastic sleeve)
	0.14 mm <sup>2</sup> 1 mm <sup>2</sup> (Ferrule with plastic sleeve, two conductors on double terminal block)
Conductor cross section AWG	26 16 (solid)
	26 16 (flexible)

#### **Dimensions**

#### Drill hole

Diameter	3.2 mm
Width	16 mm
Height	96 mm
Depth	75 mm

## Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V2 (Housing)

### Environmental and real-life conditions

#### Ambient conditions

Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Relay)	RT III (Relay)
Ambient temperature (operation)	-40 °C 50 °C
Ambient temperature (storage/transport)	-40 °C 85 °C

## Approvals

#### Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

## Standards and regulations

Standards/regulations	IEC 60947-5-1
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## Mounting

Mounting type	DIN rail mounting
Assembly instructions	in rows with zero spacing
Mounting position	any



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## Classifications

### **ECLASS**

	ECLASS-11.0	27371601
	ECLASS-12.0	27371601
	ECLASS-13.0	27371601
ETIM		
	ETIM 9.0	EC001437
UNSPSC		
	UNSPSC 21.0	39122300



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## Environmental product compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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