

# EMG 17-REL/KSR- 48/21-21-LC AU - Relay Module



2941332  
<https://www.phoenixcontact.com/us/products/2941332>

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Relay module, with soldered-in miniature switching relay, contact (AgNi+Au): small to large loads, 2 changeover contacts, input voltage 48 V AC/DC

## Your advantages

- Safe isolation according to DIN EN 50178 between coil and contact
- Integrated input circuit and interference suppression circuit

## Commercial data

Item number	2941332
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	C460
Product key	CK6146
Catalog page	Page 135 (IF-2011)
GTIN	4017918080372
Weight per piece (including packing)	56.64 g
Weight per piece (excluding packing)	56.64 g
Customs tariff number	85364190
Country of origin	DE

## Technical data

### Notes

#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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### Product properties

Product type	Relay Module
Product family	EMG
Application	Universal
Operating mode	100% operating factor
Mechanical service life	approx. $2 \times 10^7$ cycles

#### Insulation characteristics

Insulation	Basic insulation
	Safe isolation, reinforced insulation, and 6 kV between input circuit and output contact current paths

#### Insulation characteristics: Air clearances and creepage distances between the power circuits

Insulation	Basic insulation
	Safe isolation, reinforced insulation, and 6 kV between input circuit and output contact current paths
Overvoltage category	II
Pollution degree	2

#### Insulation characteristics: Air clearances and creepage distances between input and contact circuit (or output contact current path)

Insulation	Safe isolation, reinforced insulation
Overvoltage category	III
Pollution degree	2

### Electrical properties

Maximum power dissipation for nominal condition	0.48 W
Test voltage (Winding/contact)	4 kV AC (50 Hz, 1 min., winding/contact)
Test voltage (Contact/contact)	1 kV AC (50 Hz, 1 min., changeover contact/changeover contact)

#### Air clearances and creepage distances between the power circuits

Rated insulation voltage	260 V AC
Rated surge voltage	2.3 kV

#### Air clearances and creepage distances between input and contact circuit (or output contact current path)

Rated insulation voltage	260 V AC
Rated surge voltage	6 kV

### Input data

#### Coil side

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Nominal input voltage $U_N$	48 V AC/DC
Input voltage range	38.4 V AC/DC ... 52.8 V AC/DC (20 °C)
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at $U_N$	10 mA
Typical response time	8 ms
Typical release time	10 ms
Protective circuit	Bridge rectifier; Bridge rectifier
Operating voltage display	Yellow LED

## Output data

### Switching

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
Limiting continuous current	50 mA
Maximum inrush current	0.2 A
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)

Switching: when the gold layer is destroyed

Note	the following values are applicable if a gold layer is destroyed
Maximum switching voltage	250 V AC/DC
Limiting continuous current	5 A
Maximum inrush current	6 A
Interrupting rating (ohmic load) max.	120 W (at 24 V DC) 95 W (at 48 V DC) 60 W (at 60 V DC) 40 W (at 110 V DC) 55 W (at 220 V DC) 1250 VA (for 250 V AC)

## Connection data

### Coil side

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 12

### Contact side

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Connection method	Screw connection
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Conductor cross section AWG	24 ... 12

## Dimensions

Width	17.5 mm
Height	75 mm
Depth	62.5 mm

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-20 °C ... 40 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C

## Standards and regulations

### Air clearances and creepage distances between the power circuits

Standards/regulations	EN 50178
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### Air clearances and creepage distances between input and contact circuit (or output contact current path)

Standards/regulations	EN 50178
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### Standards/regulations

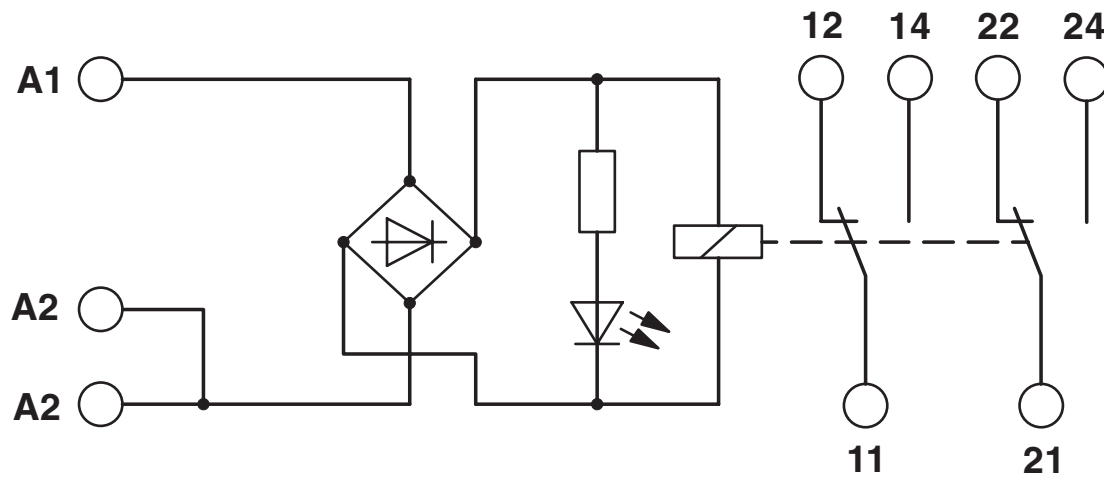
Standards/regulations	EN 61810-1
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## Mounting

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

## Drawings

Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2941332>



**cUL Recognized**

Approval ID: FILE E 238705



**UL Recognized**

Approval ID: FILE E 238705



**EAC**

Approval ID: TR\_TS\_D\_00573\_c



**EAC**

Approval ID: RU\*C-DE.\*08.B.00010

**cULus Recognized**

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## Classifications

### ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

### ETIM

ETIM 8.0	EC001437
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### 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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## Accessories

### EMG-GKS 12 - Marking material

2947035

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Device marking label, width: 12 mm, area: 12 x 8 mm, e.g. for EML(10x7) R adhesive marking material

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