

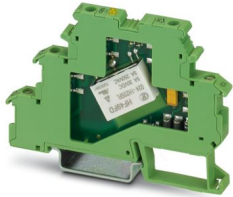
# DEK-REL- 24/1/SEN - Relay module



2964050

<https://www.phoenixcontact.com/us/products/2964050>

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Relay terminal block for sensor, with soldered-in miniature relays, contact (AgNi+Au): small to medium loads, 1 N/O contact, input voltage 24 V AC/DC, for assembly on NS 35/7.5, terminal width 6.2 mm

## Your advantages

- Reduced costs as N terminal block is no longer required
- Up to 73 % more space
- Wiring reduced to a minimum
- Integrated input circuit
- 2 kV<sub>rms</sub> electrical isolation between input and output
- 2-layer contact with hard gold plating for universal applications from 1 mA to 5 A continuous current

## Commercial data

Item number	2964050
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	DK61A2
GTIN	4017918099367
Weight per piece (including packing)	24.13 g
Weight per piece (excluding packing)	22.71 g
Customs tariff number	85364190
Country of origin	CN

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## Technical data

### Notes

Note on application	Use of EB 80-DIK... bridges in the DEK terminal blocks: Absorption of humidity from the ambient air as well as an unfavorable tolerance between a larger number of DEK terminal blocks and the EB 80-DIK... bridge may cause (minor) expansion of the DEK housing. When the EB 80-DIK... bridges are used, therefore, it is recommended that these be disconnected after about 10 to 12 DEK terminal blocks and a wire bridge to the next DEK terminal block be inserted in their place.
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### Product properties

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

### Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

### Data management status

Date of last data management	01.04.2026
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### Electrical properties

Maximum power dissipation for nominal condition	0.16 W
Test voltage (Winding/contact)	2 kV AC (50 Hz, 1 min., winding/contact)

### Input data

#### Coil side

Nominal input voltage $U_N$	24 V AC/DC
Input voltage range	19.2 V AC/DC ... 26.4 V AC/DC (20 °C)
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at $U_N$	6.5 mA
Typical response time	5 ms
Typical release time	15 ms
Protective circuit	Bridge rectifier; Bridge rectifier
Operating voltage display	Yellow LED

### Output data

#### Switching

Contact switching type	1 N/O contact
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Type of switch contact	Double contact
Contact material	AgNi, hard gold-plated
Maximum switching voltage	250 V AC 125 V DC
Minimum switching voltage	0.1 V
Limiting continuous current	3 A (5 A up to 35°C at 24 V DC)
Maximum inrush current	5 A
Min. switching current	1 mA
Interrupting rating (ohmic load) max.	72 W (at 24 V DC) 60 W (at 48 V DC) 50 W (at 60 V DC) 50 W (at 110 V DC) 750 VA (for 250 V AC) 120 W (at 24 V DC - up to 35°)

## Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 2.5 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 ... 14
Tightening torque	0.4 Nm ... 0.5 Nm

## Dimensions

### Item dimensions

Width	6.2 mm
Height	80 mm
Depth	56 mm

## Material specifications

Color	green (RAL 6021)
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## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-20 °C ... 50 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C

## Standards and regulations

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

Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing

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Mounting position	any
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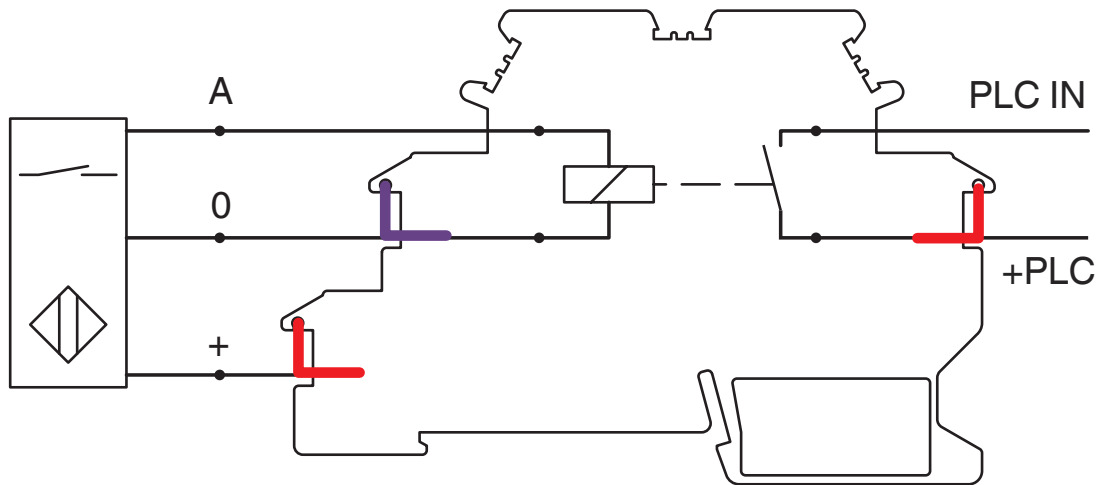
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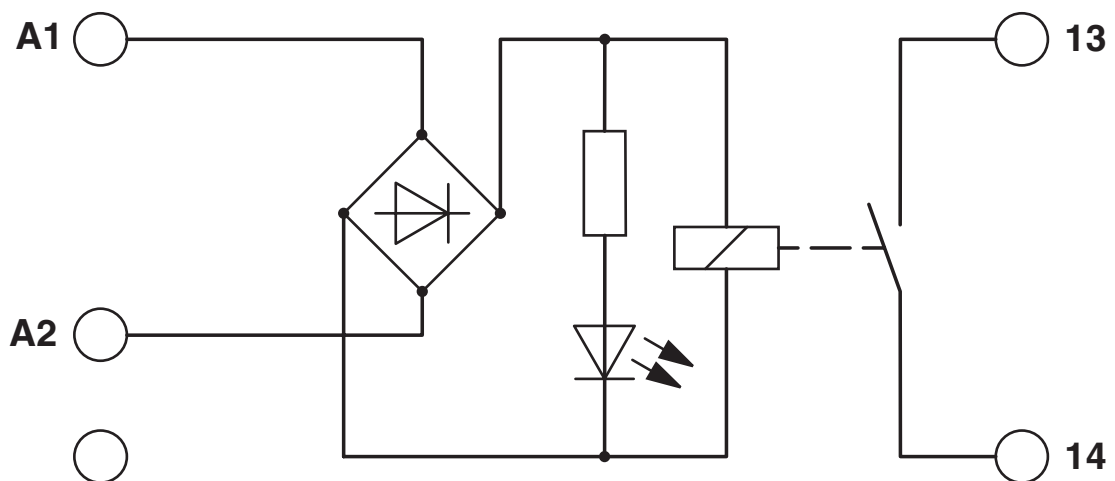
## Drawings

Schematic diagram



Pin configuration DEK-REL-...SEN

Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2964050>



**cUL Recognized**  
Approval ID: FILE E 238705



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## Classifications

### ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

### ETIM

ETIM 10.0	EC001437
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### UNSPSC

UNSPSC 21.0	39122300
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	20cdf90e-99ff-42ce-8f71-c25d4b404ecf

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