

# REL-MR-BL-24DC/21HC/MS - Single relay



2908180

<https://www.phoenixcontact.com/us/products/2908180>

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Plug-in miniature relay, with power contact, 1 changeover contact, test button, mechanical switch position indicator, polarity: bipolar, input voltage: 24 V DC

## Commercial data

Item number	2908180
Packing unit	1 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	CK6195
Catalog page	Page 294 (C-5-2019)
GTIN	4055626277899
Weight per piece (including packing)	19.652 g
Weight per piece (excluding packing)	18 g
Customs tariff number	85364190
Country of origin	CN

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## Technical data

### Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	5x 10 <sup>6</sup> cycles

### Insulation characteristics

Overvoltage category	III
Pollution degree	2

### Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.41 W
Test voltage (Winding/contact)	5 kV AC (50 Hz, 1 min., winding/contact)
Rated insulation voltage	250 V AC

### Input data

#### Coil side

Nominal input voltage $U_N$	24 V DC
Input voltage range	19.2 V DC ... 52.8 V DC
Input voltage range in reference to $U_N$	0.8 ... 2.2 (see diagram)
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at $U_N$	17 mA
Typical response time	9 ms
Typical release time	6 ms

### Output data

#### Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (at 10 mA)
Limiting continuous current	16 A
Maximum inrush current	32 A (20 ms)
Min. switching current	10 mA (at 12 V)
Interrupting rating (ohmic load) max.	384 W (at 24 V DC) 62 W (at 48 V DC) 48 W (at 60 V DC) 53 W (at 110 V DC) 66 W (at 220 V DC)

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## Connection data

Connection method	Plug / solder connection
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## Dimensions

Width	13 mm
Height	29 mm
Depth	25.5 mm

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	RT II
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

## Standards and regulations

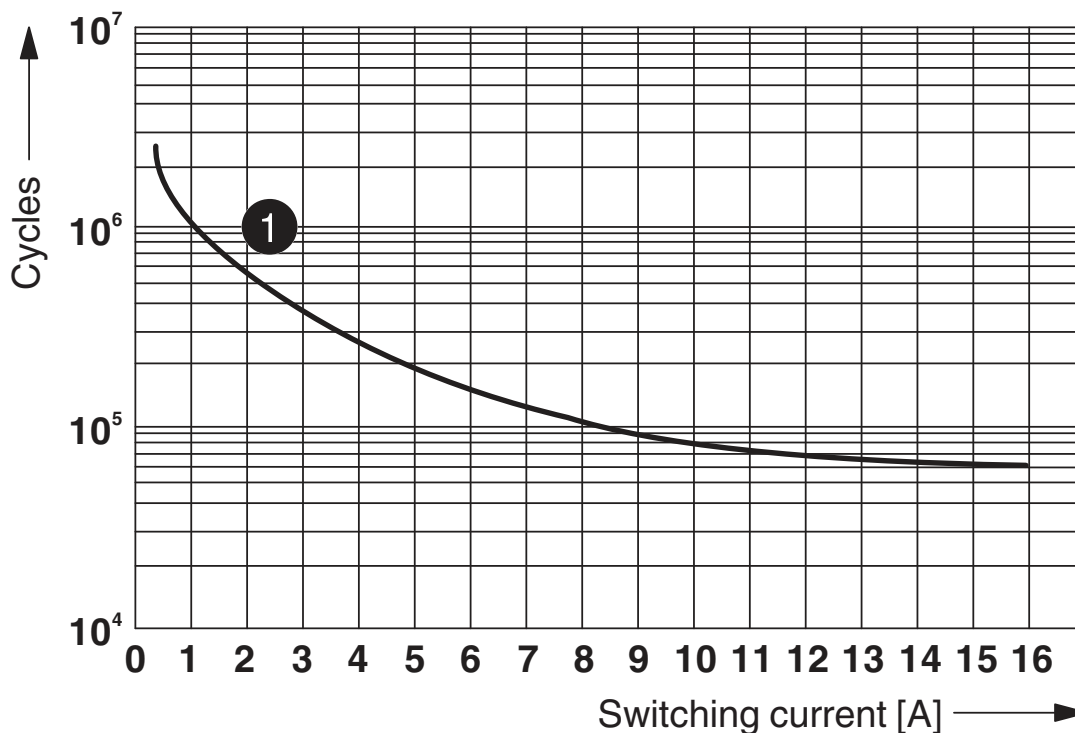
Standards/regulations	IEC 61810
	IEC 60664

## Mounting

Mounting position	any
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## Drawings

Diagram

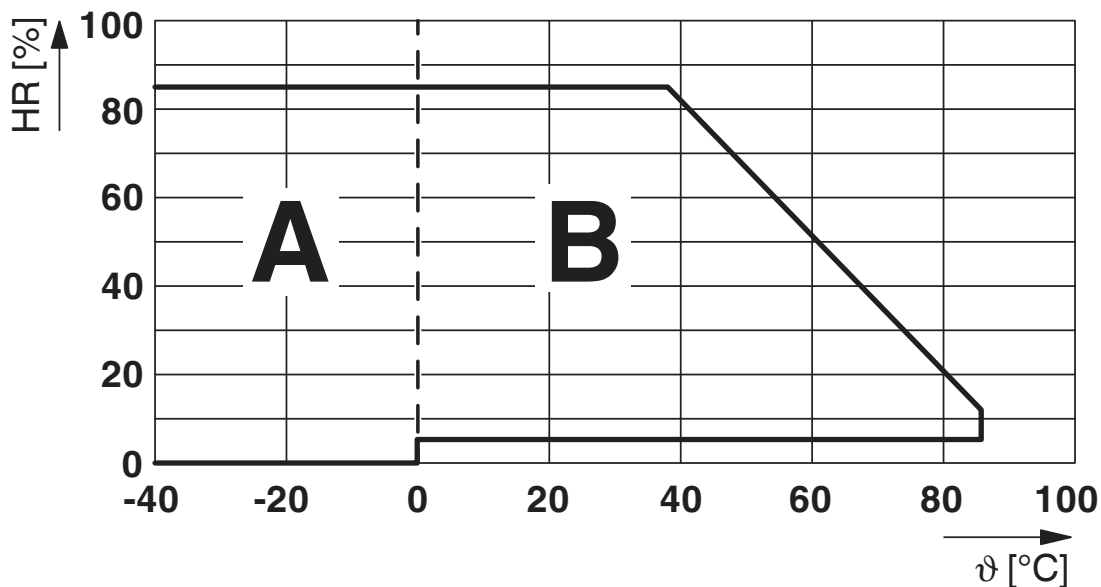


① 250 V AC, ohmic load

Electrical service life

- 1) 30 V DC, ohmic load
- 2) 250 V AC, ohmic load

Diagram



Permissible humidity for operation and storage.

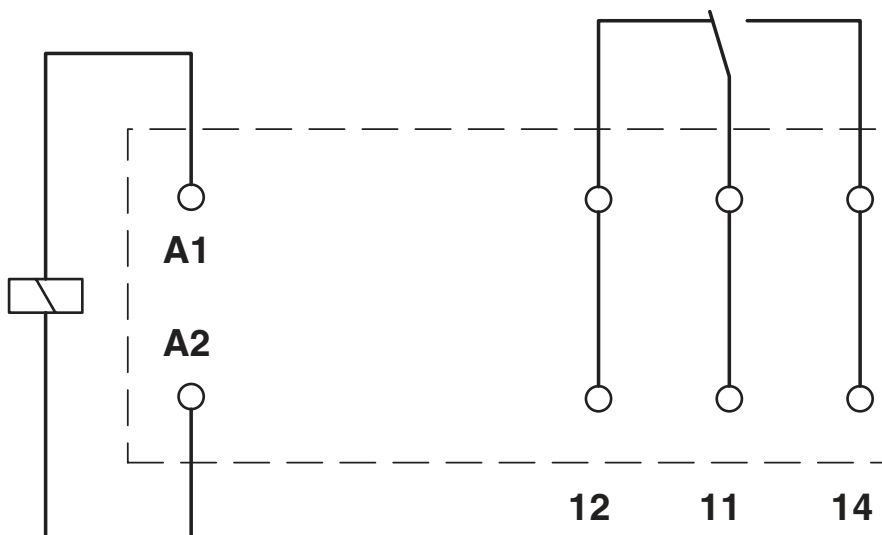
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^{\circ}\text{C}$  must be prevented

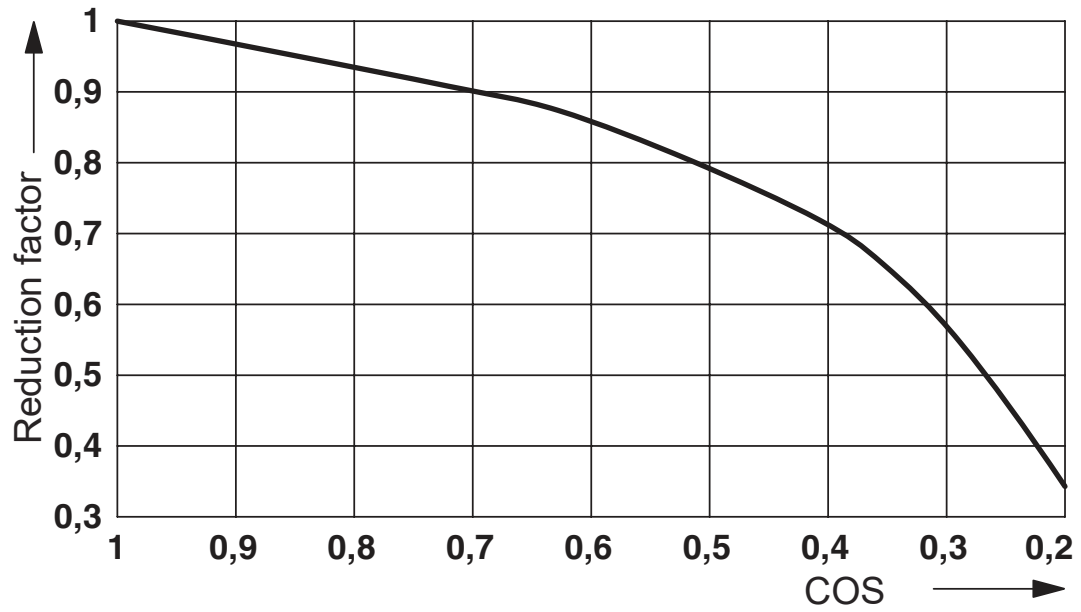
Area B: Condensation at ambient temperatures  $> 0^{\circ}\text{C}$  must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature  $\leq 25^{\circ}\text{C}$ .

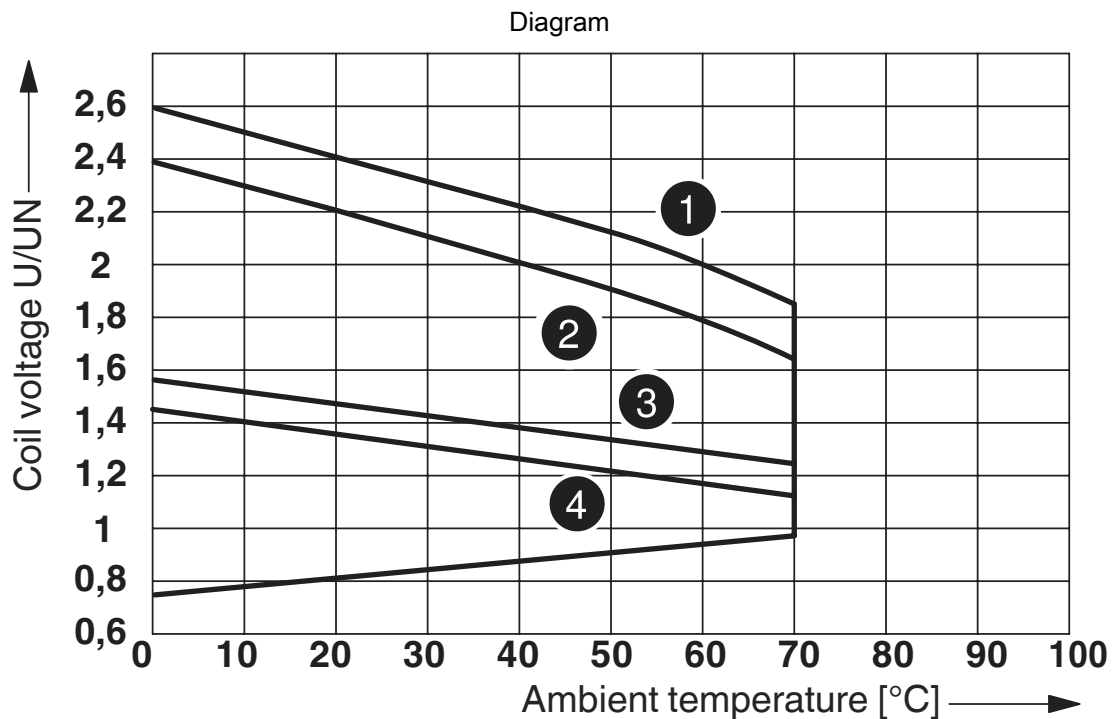
Circuit diagram



Diagram



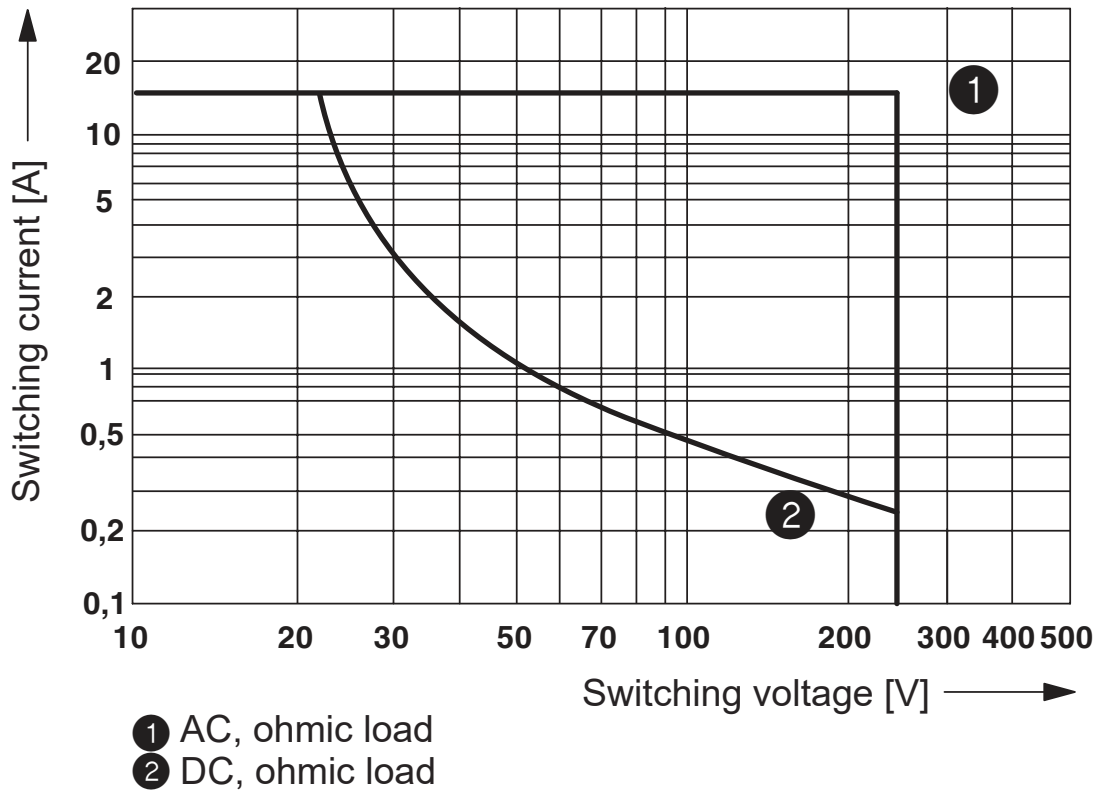
Service life reduction factor with various cos phi



- ① DC coils, 0 A contact current
- ② DC coils, 16 A contact current
- ③ AC coils, 0 A contact current
- ④ AC coils, 16 A contact current

Operating voltage range

Diagram



Interrupting rating



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2908180>



**cUL Recognized**

Approval ID: FILE E 195083



**UL Recognized**

Approval ID: FILE E 195083



**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

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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## Accessories

### ECOR-1-BSC2-RT/2X21 - Relay base

1027546

<https://www.phoenixcontact.com/us/products/1027546>

ECOR-1... relay base, for miniature power relays or miniature switching relays with 1 or 2 changeover contacts, bolt connection, for mounting on NS 35/7,5.



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### ECOR-1-BSC3/2X21 - Relay base

2907518

<https://www.phoenixcontact.com/us/products/2907518>

ECOR-1... relay base, for miniature power relay or miniature switching relay with 1 or 2 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5



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## RIF-1-BPT/2X21 - Relay base

2900931

<https://www.phoenixcontact.com/us/products/2900931>



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

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## RIF-1-BSC/2X21 - Relay base

2900930

<https://www.phoenixcontact.com/us/products/2900930>



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

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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)