

# REL-FO/L-24DC/1X21 - Single relay



1308188

<https://www.phoenixcontact.com/sg/products/1308188>

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Plug-in miniature relay, FASTON connection, 1 changeover contact, status display: LED (yellow), Input voltage: 24 V DC



## Commercial data

Item number	1308188
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	*****
Product key	DKF931
GTIN	4063151557072
Weight per piece (including packing)	25.43 g
Weight per piece (excluding packing)	25.43 g
Customs tariff number	85364190
Country of origin	CN

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## Technical data

### Notes

Notes on operation	Do not use to separate SELV/PELV circuits from other circuits, because safe isolation is not guaranteed. (applies to the optocoupler variants)
Notes on operation	The system installer must ensure the touch protection of the product (at voltages > 25 V AC/60 V DC). The product is a built-in device without protection against direct contact.

### Product properties

Product family	ESSENTIAL edition
Operating mode	100% operating factor
Mechanical service life	approx. $5 \times 10^7$ cycles
Relay type	Electromechanical relay

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

Insulation	Basic insulation
Oversupply category	II
Pollution degree	3

### Data management status

Date of last data management	05.09.2025
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### Electrical properties

Maximum power dissipation for nominal condition	0.58 W
Test voltage (Winding/contact)	5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Test voltage (open contact)	1 kV <sub>rms</sub> (50 Hz, 1 min., open contact)

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

Rated insulation voltage	250 V AC
Rated surge voltage	2.5 kV

### Input data

Coil side	
Nominal input voltage U <sub>N</sub>	24 V DC
Input voltage range	16.8 V DC ... 26.4 V DC
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U <sub>N</sub>	24 mA
Input power dissipation for U <sub>N</sub>	0.58 W
Typical response time	2 ms ... 10 ms
Typical release time range	5 ms ... 20 ms
Status display	LED (yellow)
Coil resistance	1080 Ω ±10 %

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## Output data

### Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgSnO
Maximum switching voltage	250 V AC
	30 V DC
Minimum switching voltage	5 V (100 mA)
Limiting continuous current	12 A
Maximum inrush current	24 A (20 ms, N/O contacts)
Inrush current, minimum	100 mA (5 V)
Interrupting rating (ohmic load) max.	288 W (24 V DC)
	360 W (30 V DC)
	3000 VA (250 V AC)

## Connection data

Connection method	FASTON connection
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## Dimensions

Width	13 mm
Height	31.1 mm
Depth	30 mm

## Environmental and real-life conditions

### Ambient conditions

Degree of protection (Relay)	RT II (Relay)
Degree of protection (Installation location)	IP54 (Installation location)
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Altitude	≤ 2000 m

## Standards and regulations

Standards/regulations	IEC 61810-1
	IEC 60664-1

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

Standards/regulations	IEC 60664-1
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## Mounting

Mounting position	any
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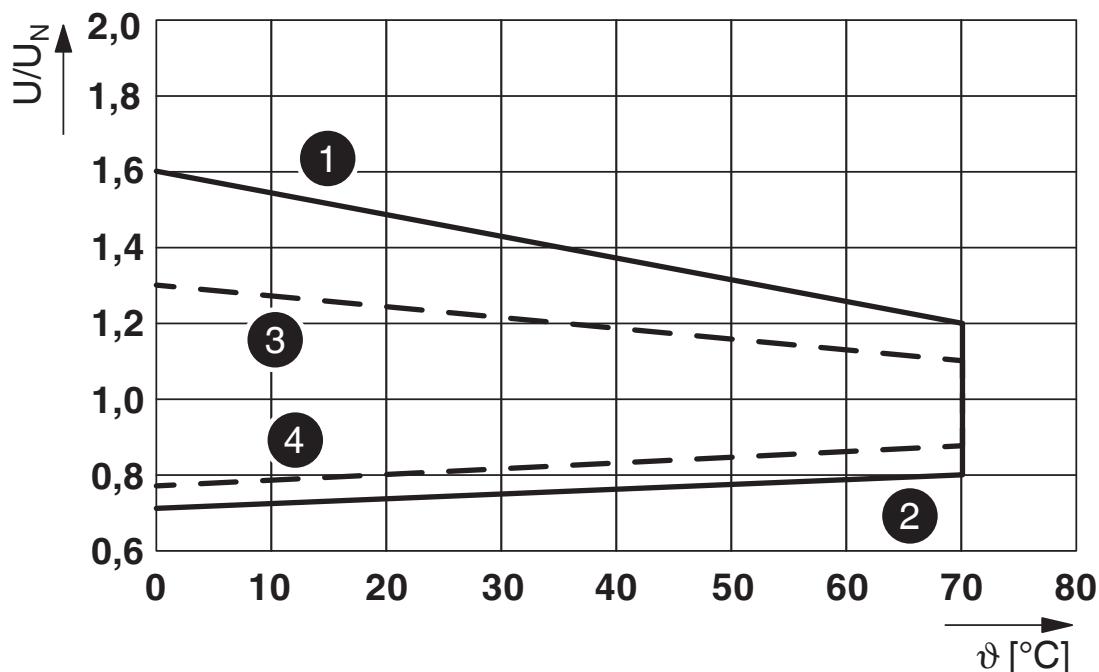


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## Drawings

Diagram



- 1) DC coil: maximum continuous voltage at limiting continuous current
- 2) DC coil: minimum operate voltage for pre-excitation with  $U_{\text{N}}$  and limiting continuous current
- 3) AC coil: maximum continuous voltage at limiting continuous current
- 4) AC coil: minimum operate voltage for pre-excitation with  $U_{\text{N}}$  and limiting continuous current

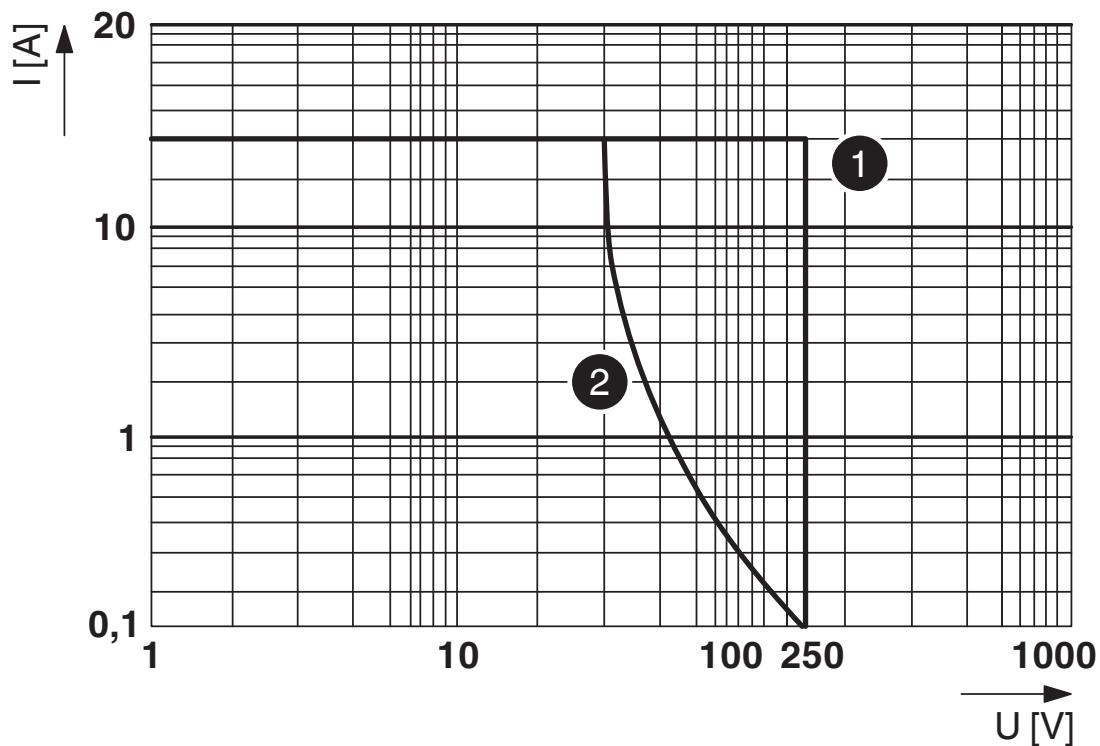
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Diagram



Interrupting rating  
1) AC, ohmic load  
2) DC, ohmic load

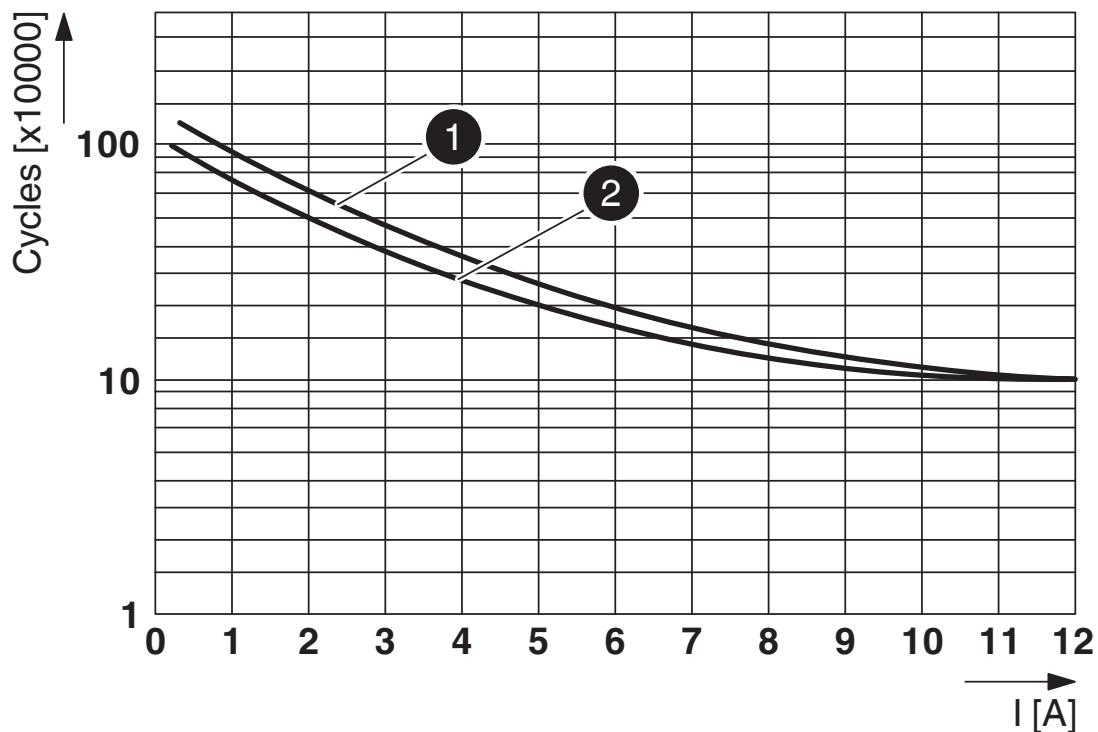
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Diagram



Electrical service life

1) 30 V DC resistance load

2) 250 V AC resistance load

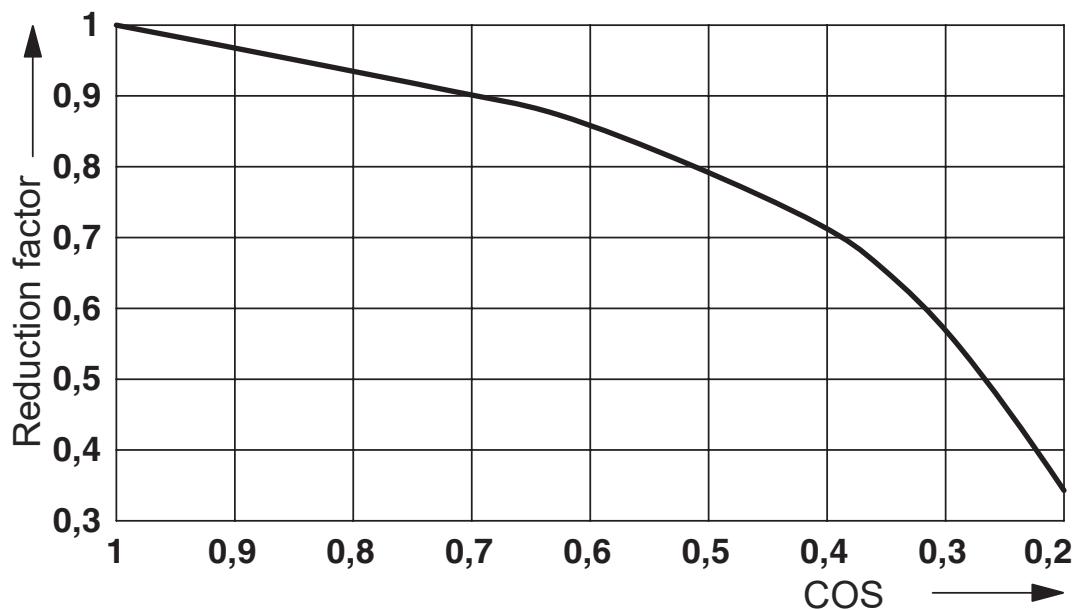
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Diagram



Service life reduction factor with various cos phi

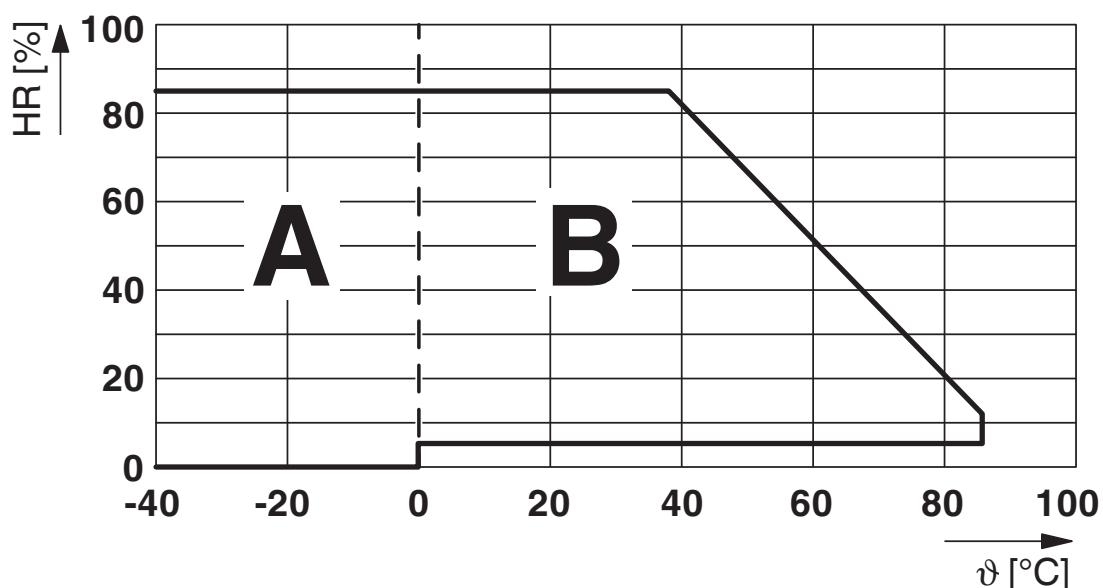
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Diagram



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  $\leq 25^\circ\text{C}$ .

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## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sg/products/1308188>



**cUL Recognized**

Approval ID: FILE E 172140



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## Classifications

### ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

### ETIM

ETIM 9.0	EC001437
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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## Mandatory accessories

ECOR-1-BSC2/FO/1X21 - Relay base

1308331

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ECOR-1 relay base, for FASTON relay, Fork-type cable lug, 1 changeover contact, Input voltage 230 V AC



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PHOENIX CONTACT SEA Pte. Ltd.  
105 Eunos Avenue 3, #04-00  
Singapore 409836  
+65 6228 4900  
[marketing@phoenixcontact.com.sg](mailto:marketing@phoenixcontact.com.sg)