

REL-IR-BL/L-110DC/2X21 - Single relay

1109550

<https://www.phoenixcontact.com/us/products/1109550>



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Plug-in industrial relay in basic design with power contacts, 2 changeover contacts, test button, status LED, mechanical switch position indicator, polarity A1+, A2-, input voltage: 110 V DC

Commercial data

Item number	1109550
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	DKF943
GTIN	4063151021818
Weight per piece (including packing)	29.7 g
Weight per piece (excluding packing)	28 g
Customs tariff number	85364900
Country of origin	AT

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Technical data

Notes

Notes on operation	Do not connect adjacent channels to SELV/ PELV and voltages dangerous to the touch.
Notes on operation	The outputs are not suitable for switching different outer conductors.
Notes on operation	Do not use to separate SELV / PELV circuits from other circuits, because safe isolation is not guaranteed.

Product properties

Product type	Single relay
Product family	ESSENTIAL edition
Operating mode	100% operating factor
Mechanical service life	3×10^7 cycles

Insulation characteristics: Air clearances and creepage distances between coil and contact side

Insulation	Basic insulation
Ovvoltage category	III
Pollution degree	2

Data management status

Date of last data management	05.09.2025
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Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.85 W
Test voltage (Winding/contact)	2.5 kV _{rms} (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	2.5 kV _{rms} (50 Hz, 1 min., changeover contact/changeover contact)

Air clearances and creepage distances between coil and contact side

Rated insulation voltage	250 V AC
Rated surge voltage	5 kV

Input data

Coil side

Nominal input voltage U _N	110 V DC
Input voltage range	88 V DC ... 187 V DC (20 °C)
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U _N	6.9 mA
Typical response time	15 ms
Typical release time	10 ms
Coil voltage	110 V DC
Status display	LED (yellow)

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Coil resistance	16.1 kΩ ±12 %
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Output data

Switching

Contact switching type	2 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (10 mA)
Limiting continuous current	12 A
Maximum inrush current	24 A (20 ms, N/O contacts)
Min. switching current	10 mA (12 V)
Interrupting rating (ohmic load) max.	288 W (24 V DC) 130 W (48 V DC) 90 W (60 V DC) 66 W (110 V DC) 88 W (220 V DC) 3000 VA (250 V AC)
Switching power min.	120 mW

Connection data

Connection method	Plug-in connection
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Dimensions

Width	22.5 mm
Height	28 mm
Depth	35.5 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	RT II
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

Air clearances and creepage distances between coil and contact side

Standards/regulations	EN 61810-1
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Mounting

Mounting type	Plug-in mounting
Assembly note	in rows with zero spacing

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Mounting position

any

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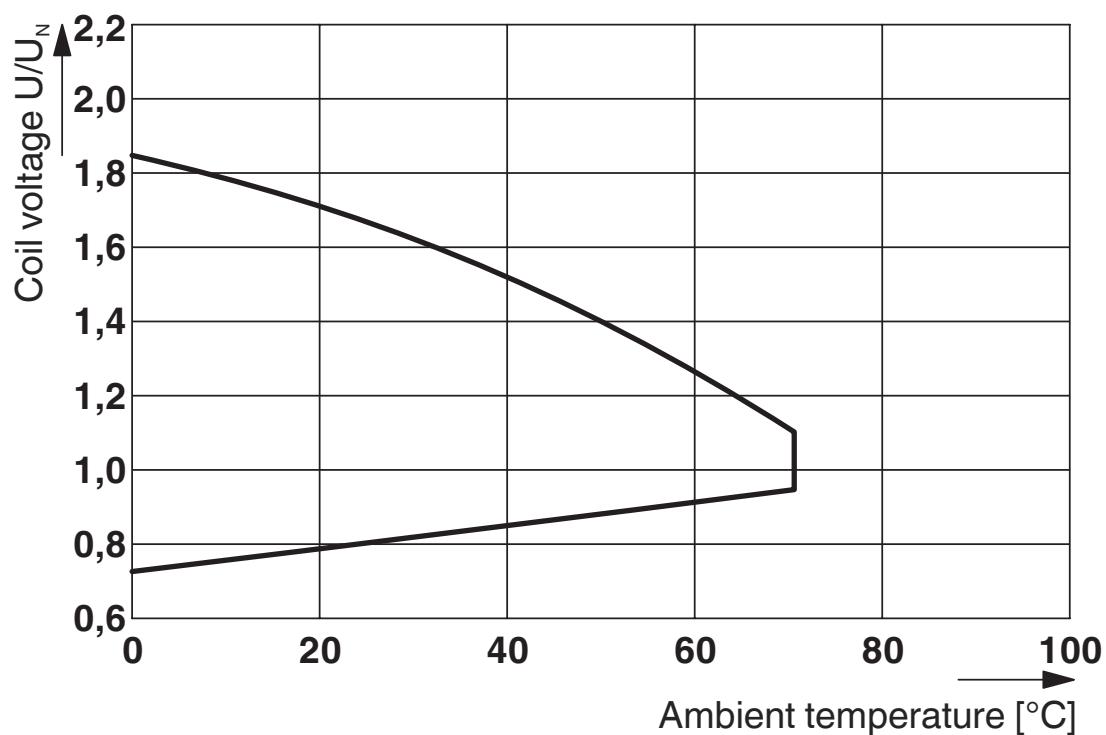


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Drawings

Diagram



Operating voltage range

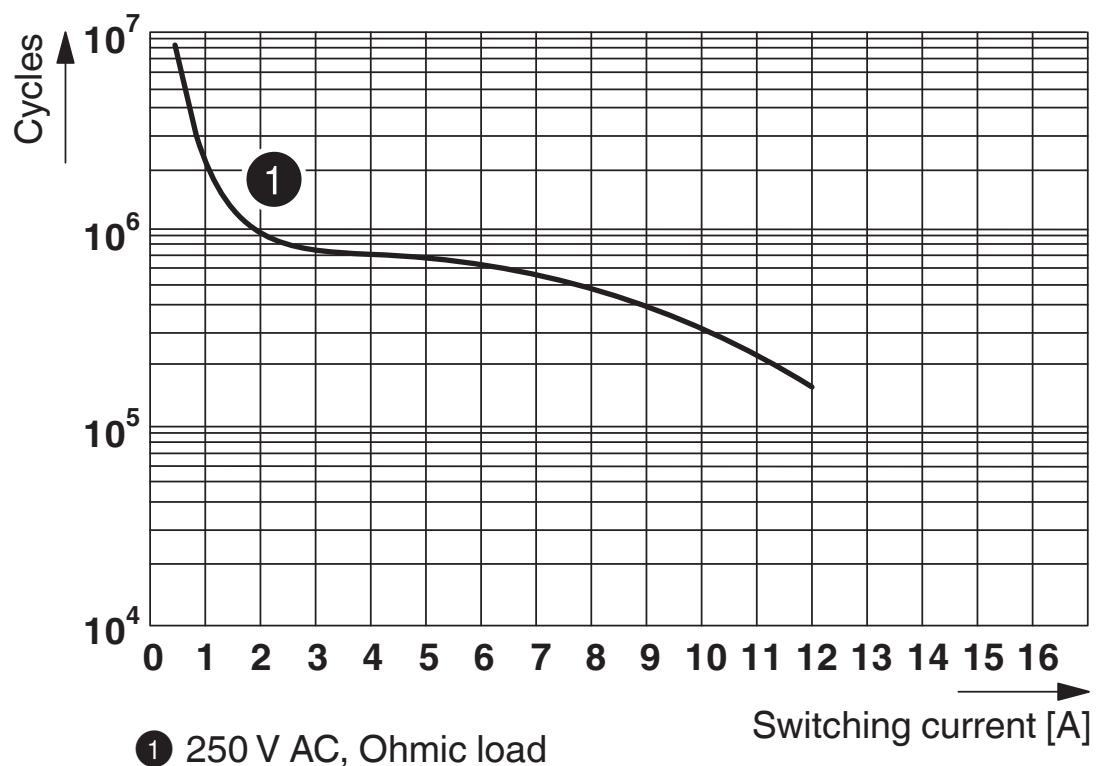
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Diagram



Electrical service life

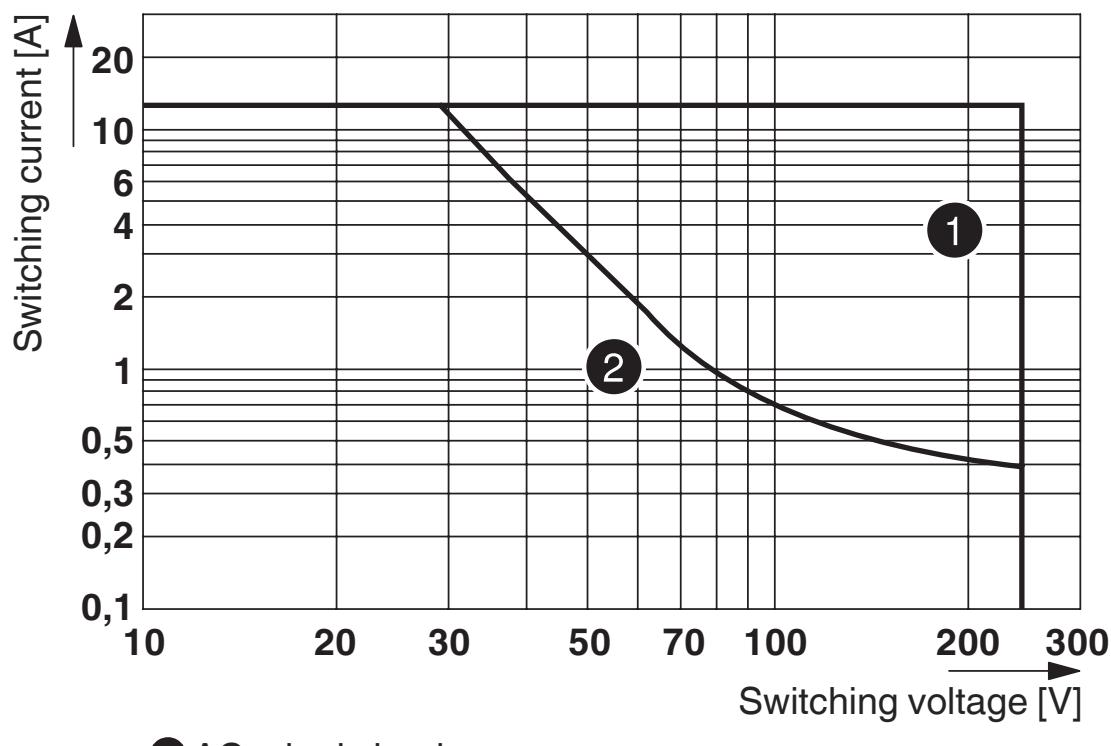
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Diagram



- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating

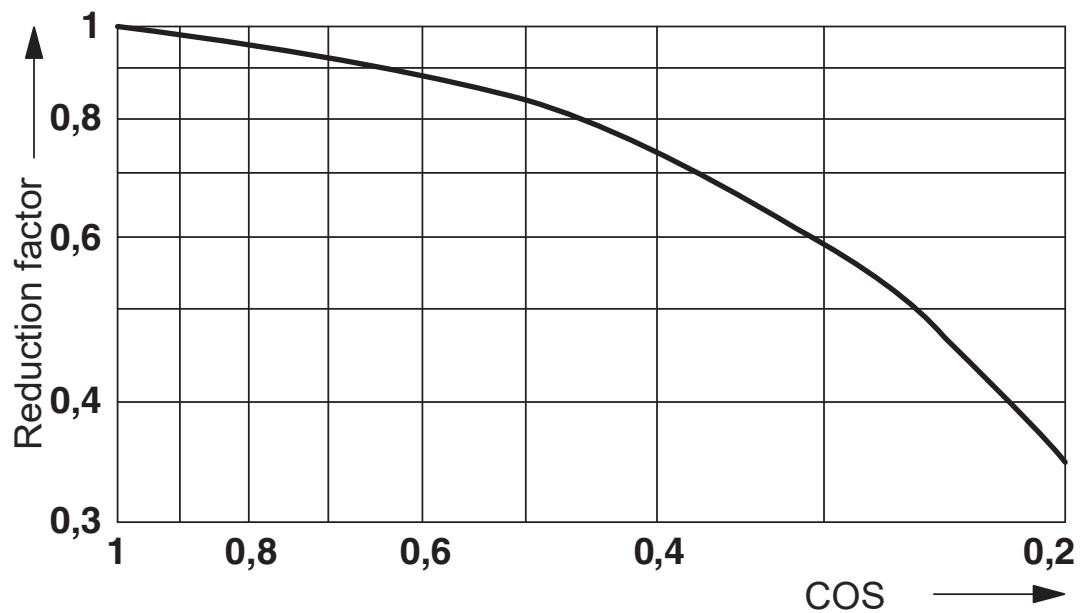
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Diagram



Service life reduction factor

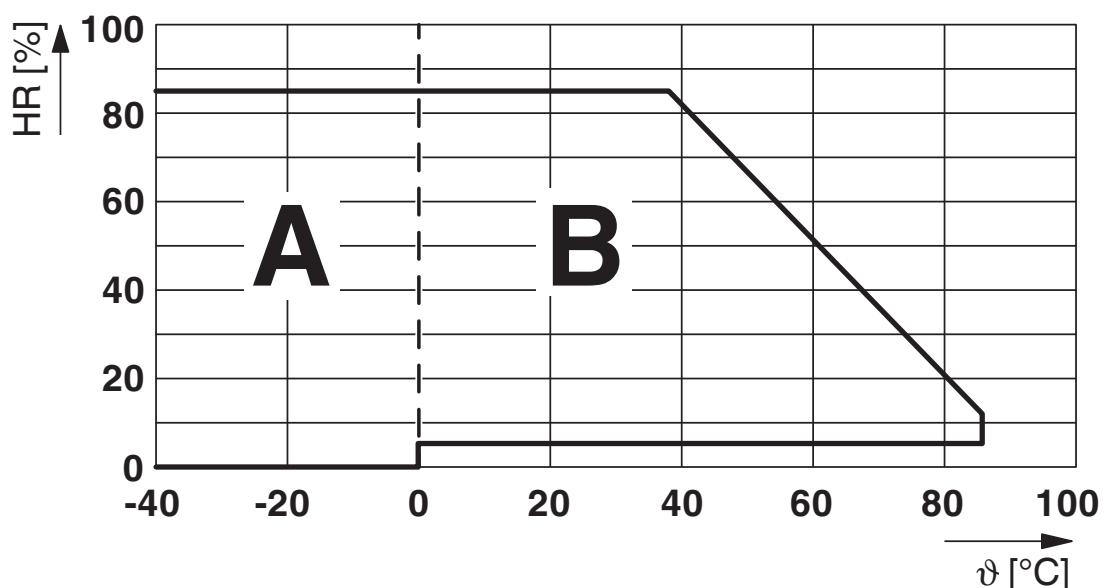
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Diagram



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/us/products/1109550>



cUL Recognized

Approval ID: FILE E 228652



UL Recognized

Approval ID: FILE E 228652



VDE approval of drawings

Approval ID: 40058034

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Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

ETIM

ETIM 9.0	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, 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-2-BSC2-RT/2X21 - Relay base

2908341

<https://www.phoenixcontact.com/us/products/2908341>

ECOR-2 relay base, for industrial relays with two changeover contacts, bolt connection, for mounting on NS 35/7,5



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