REL-IR-BL/L-110DC/4X21 - Single relay

1109560

https://www.phoenixcontact.com/us/products/1109560

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Plug-in industrial relay in basic design with power contacts, 4 changeover contacts, test button, status LED, mechanical switch position indicator, polarity A1+, A2-, input voltage: 110 V DC

Commercial data

Item number	1109560
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	DKF947
GTIN	4063151021825
Weight per piece (including packing)	31.028 g
Weight per piece (excluding packing)	29.9 g
Customs tariff number	85364900
Country of origin	AT

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	3x 10^7 cycles

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

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	02.06.2025

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 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 ... 214.5 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)

Coil resistance	16.1 kΩ ±12 %

Output data

Switching

Contact switching type	4 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	6 A
Maximum inrush current	12 A (20 ms, N/O contacts)
Min. switching current	10 mA (12 V)
Interrupting rating (ohmic load) max.	144 W (24 V DC)
	130 W (48 V DC)
	90 W (60 V DC)
	66 W (110 V DC)
	88 W (220 V DC)
	1500 VA (250 V AC)
Switching capacity min.	120 mW

Connection data

Connection method	Plug-in connection

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

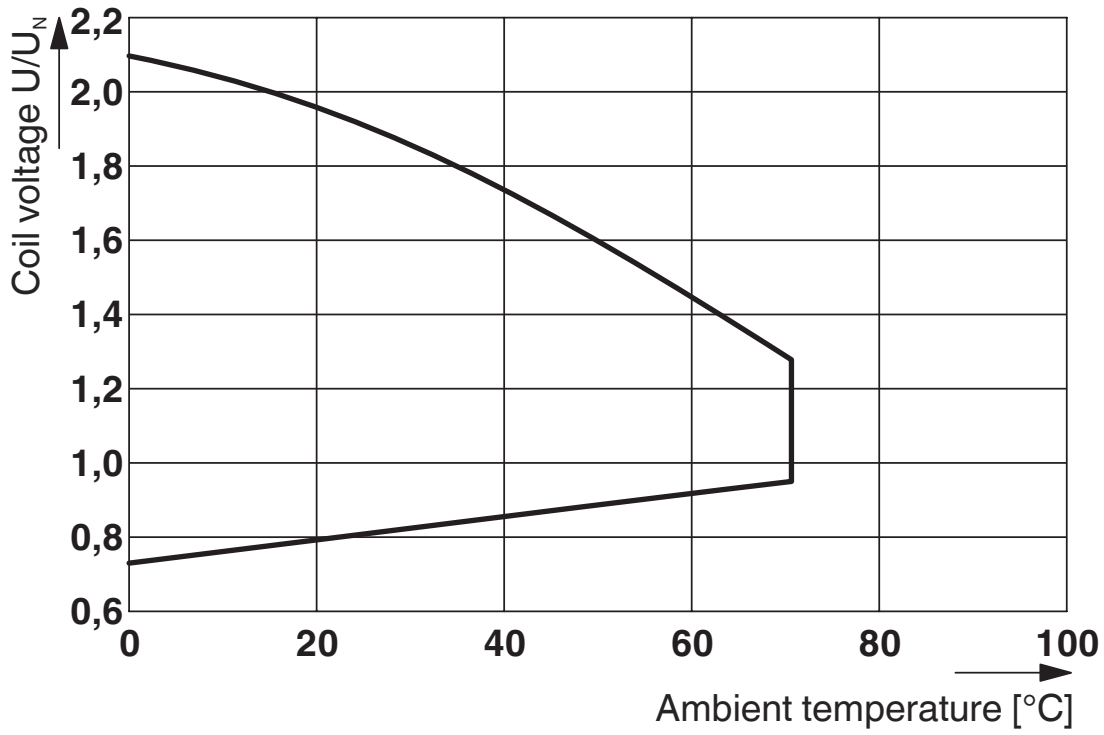
Mounting

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

Mounting position	any

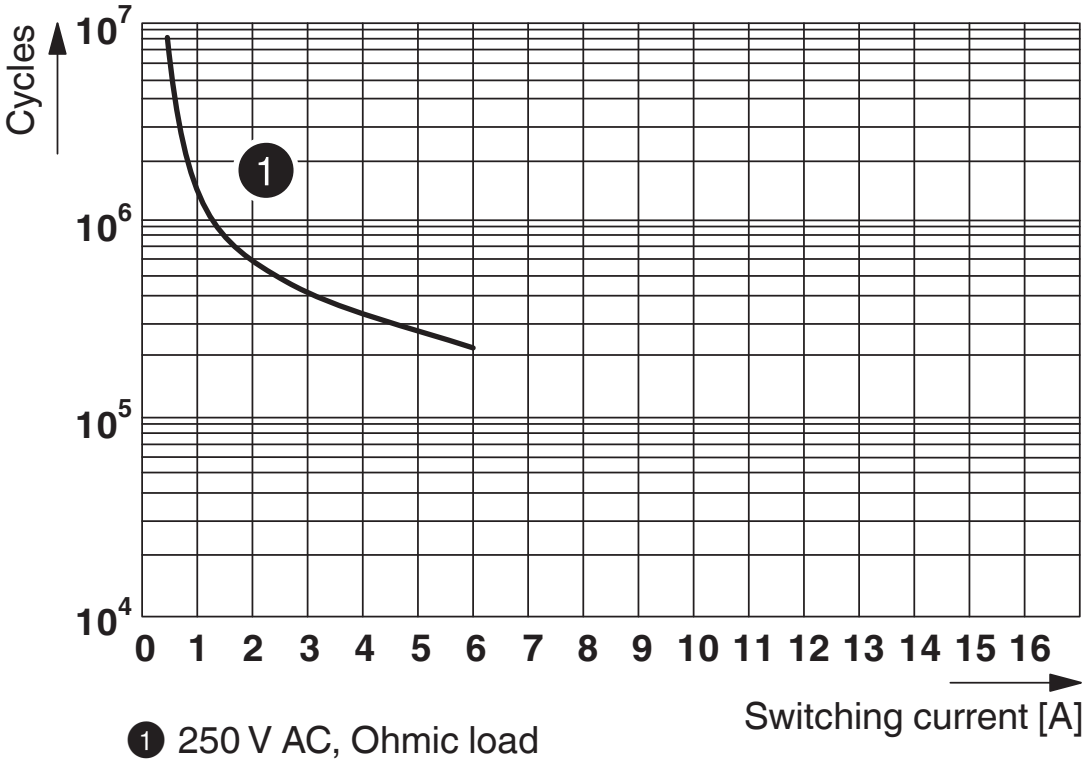
Drawings

Diagram



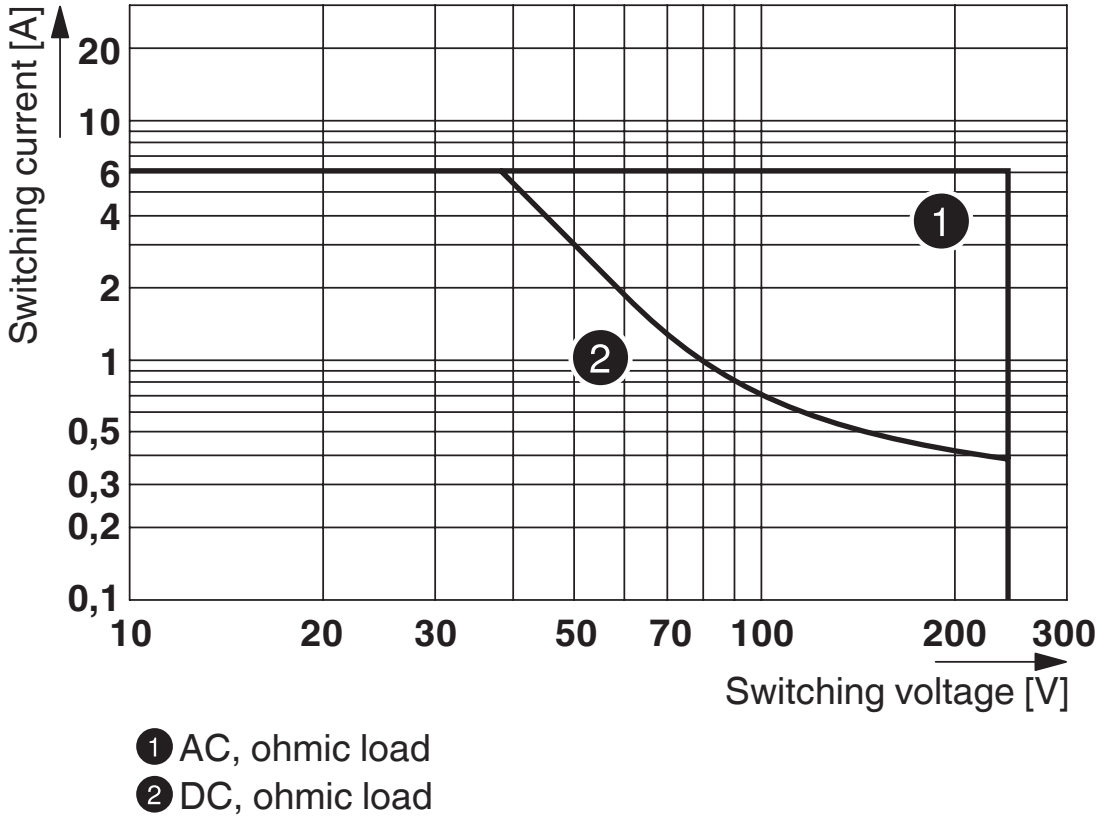
Operating voltage range

Diagram



Electrical service life

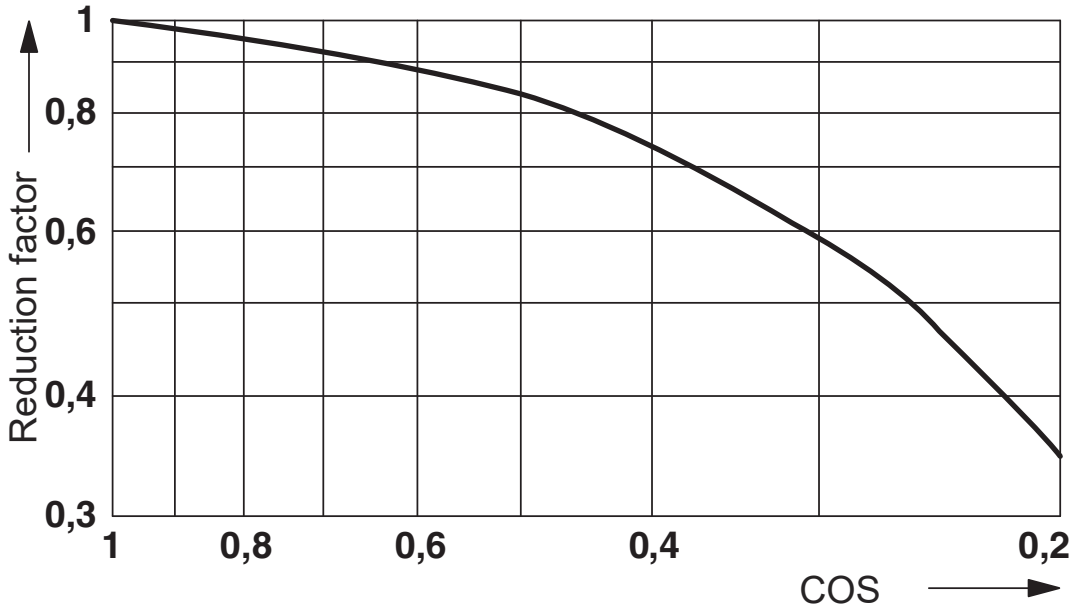
Diagram



1 AC, ohmic load
2 DC, ohmic load

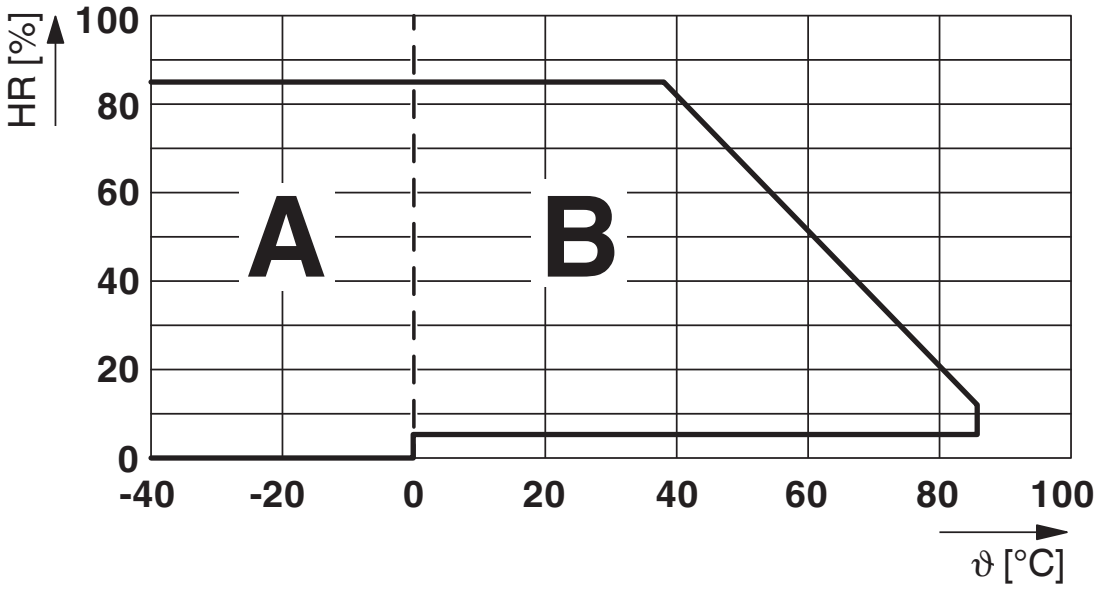
Interrupting rating

Diagram



Service life reduction factor

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 ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°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 ≤ 25°C.

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1109560

cUL Recognized
Approval ID: FILE E 228652

UL Recognized
Approval ID: FILE E 228652

VDE approval of drawings
Approval ID: 40058034

Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

ETIM

ETIM 9.0	EC001437

UNSPSC

UNSPSC 21.0	39122300

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

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%

Mandatory accessories

ECOR-2-BSC2-RT/4X21 - Relay base

2908214

https://www.phoenixcontact.com/us/products/2908214



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

ECOR-2-BSC3/4X21 - Relay base

2907521

https://www.phoenixcontact.com/us/products/2907521



ECOR-2 relay base, for industrial relay with 2 or 4 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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ECOR-2-BSC2/4X21 - Relay base

1089994

https://www.phoenixcontact.com/us/products/1089994



ECOR-2 relay base, for industrial relay with 2 or 4 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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