

REL-IR/LDP- 12DC/4X21/MS - Single relay



1819090

<https://www.phoenixcontact.com/au/products/1819090>

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Plug-in industrial relay with power contacts and additional hard gold plating, 4 changeover contacts, test button, status LED, freewheeling diode, mechanical switching position indicator, polarity: A1+, A2-, coil voltage: 12 V DC

Commercial data

Item number	1819090
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	DK6949
Product key	DK6949
GTIN	4067923449541
Customs tariff number	85364190
Country of origin	Information on the country of origin is provided with the delivery.

Technical data

Product properties

Product type	Single relay
Product family	RIFLINE complete
Operating mode	100% operating factor
Mechanical service life	approx. 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

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.76 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)
Rated insulation voltage	250 V AC

Input data

Coil side

Nominal input voltage U_N	12 V DC
Input voltage range	9 V DC ... 20.4 V DC
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U_N	63 mA
Typical response time	15 ms
Typical release time	18 ms
Protective circuit	Freewheeling diode
Status display	LED (yellow)

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	4x 6 A

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Maximum inrush current	12 A (20 ms, N/O contacts)
Min. switching current	10 mA (12 V)
Interrupting rating (ohmic load) max.	144 W (at 24 V DC)
	130 W (at 48 V DC)
	90 W (at 60 V DC)
	66 W (at 110 V DC)
	88 W (at 220 V DC)
	1500 VA (for 250 V AC)
Switching power min.	0.12 W

Connection data

Connection method	Plug-in connection
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Dimensions

Item dimensions

Width	22.5 mm
Height	28 mm
Depth	35 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 ... 70 °C
Altitude	≤ 2000 m

Standards and regulations

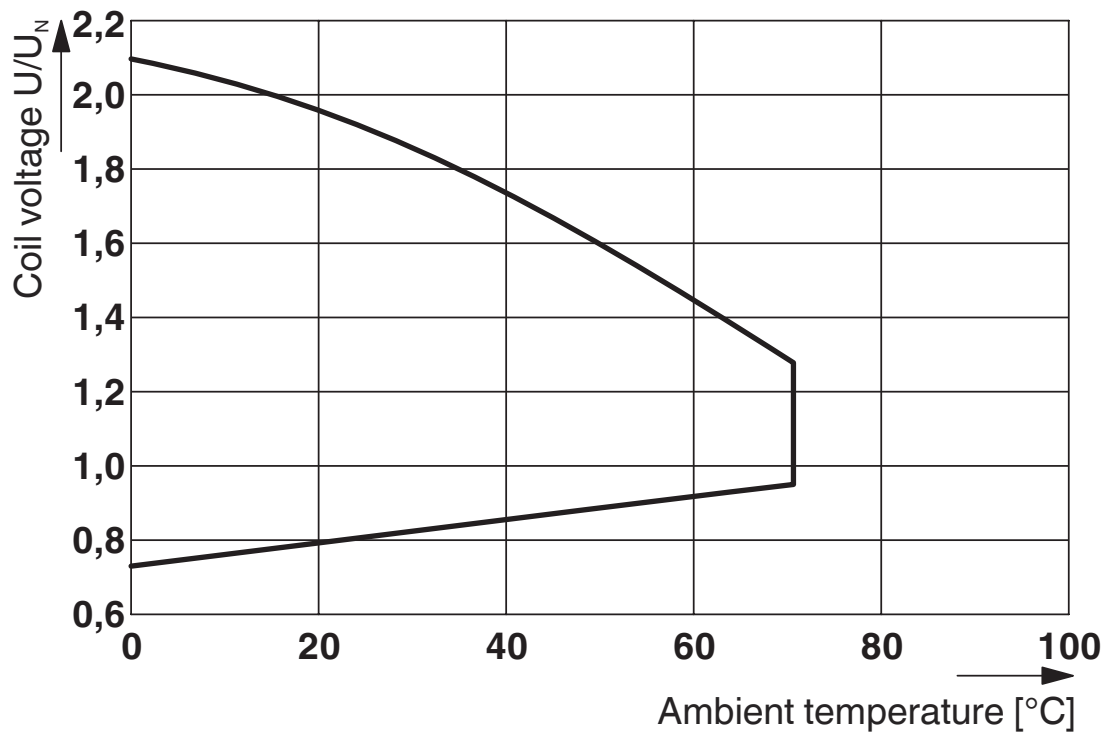
Standards/regulations	EN 61810-1
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Mounting

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

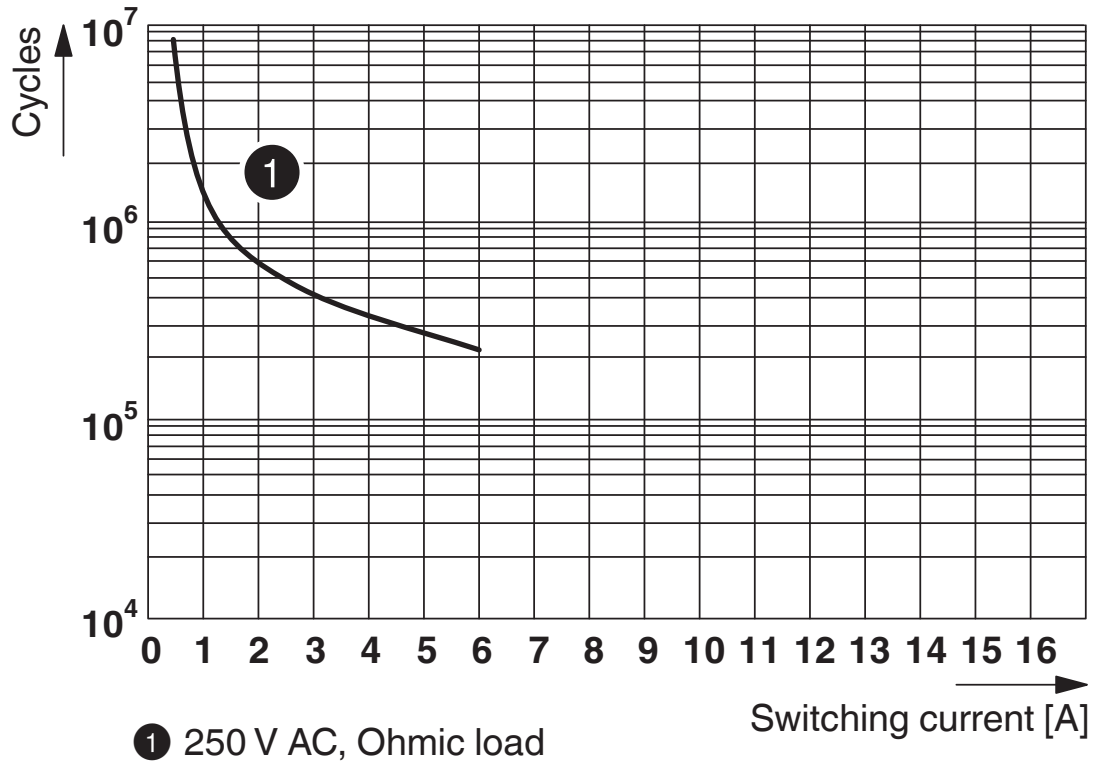
Drawings

Diagram



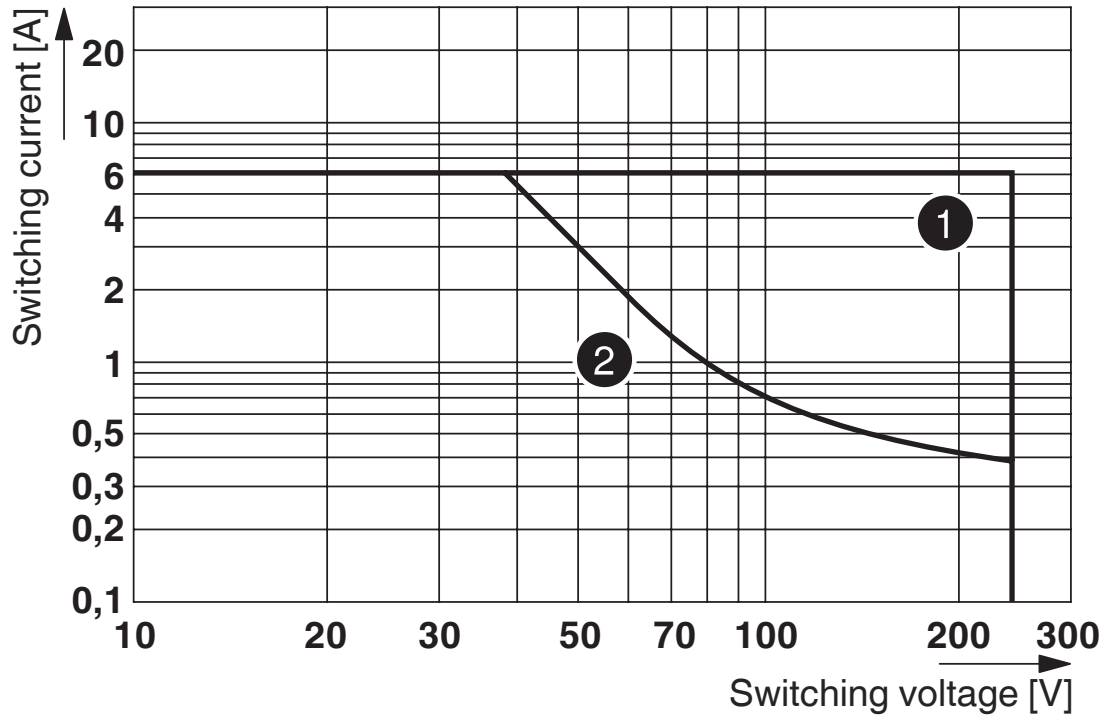
Operating voltage range

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.

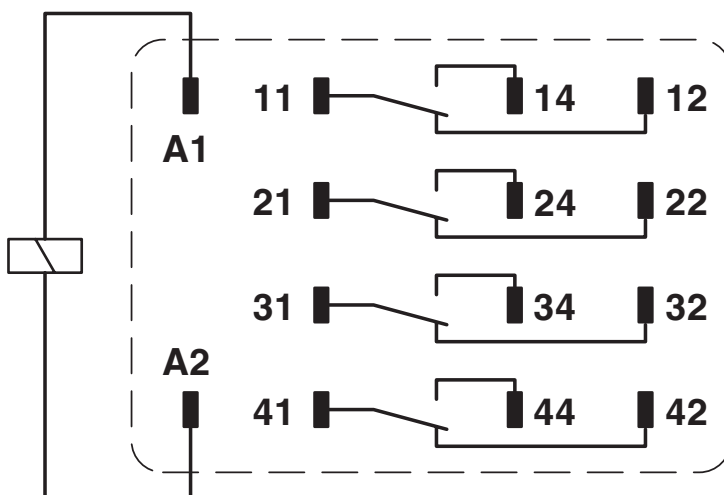
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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



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Approvals

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cULus Recognized

Approval ID: E522914

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Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

ETIM

ETIM 10.0	EC001437
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	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.)	No substance above 0.1 wt%
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