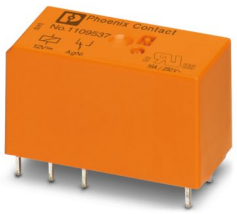
REL-MR-BL- 12DC/21HC - Single relay

1109537

https://www.phoenixcontact.com/us/products/1109537

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Pluggable miniature power relay in basic design, with power contact for high continuous currents, 1 changeover contact, input voltage 12 V DC

Commercial data

Item number	1109537
Packing unit	20 pc
Minimum order quantity	20 pc
Sales key	C460
Product key	CKF921
GTIN	4063151020798
Weight per piece (including packing)	12.46 g
Weight per piece (excluding packing)	12.46 g
Customs tariff number	85364900
Country of origin	AT

Technical data

Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	1x 10^7 cycles

Insulation characteristics

Insulation	Basic insulation

Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	3

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.4 W
Test voltage (Winding/contact)	5 kV AC (50 Hz, 1 min., winding/contact)
Rated insulation voltage	250 V AC
Rated surge voltage	4 kV

Input data

Coil side

Nominal input voltage U_N	12 V DC
Input voltage range	8.4 V DC ... 27 V DC
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U_N	33.3 mA
Typical response time	8 ms
Typical release time	6 ms
Coil voltage	12 V DC
Coil resistance	360 Ω ±10 %

Output data

Switching

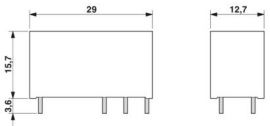
Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (At 24 mA)
Limiting continuous current	16 A
Maximum inrush current	30 A (300 ms)

Min. switching current	10 mA (at 12 V)
Interrupting rating (ohmic load) max.	384 W (at 24 V DC)
	58 W (at 48 V DC)
	48 W (at 60 V DC)
	50 W (at 110 V DC)
	80 W (at 220 V DC)
	4000 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	1.5 A (at 230 V, AC15)

Connection data

Connection method	Plug / solder connection

Dimensions

Dimensional drawing	
Width	12.7 mm
Height	29 mm
Depth	15.7 mm

Material specifications

Color	orange (RAL 2003)

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

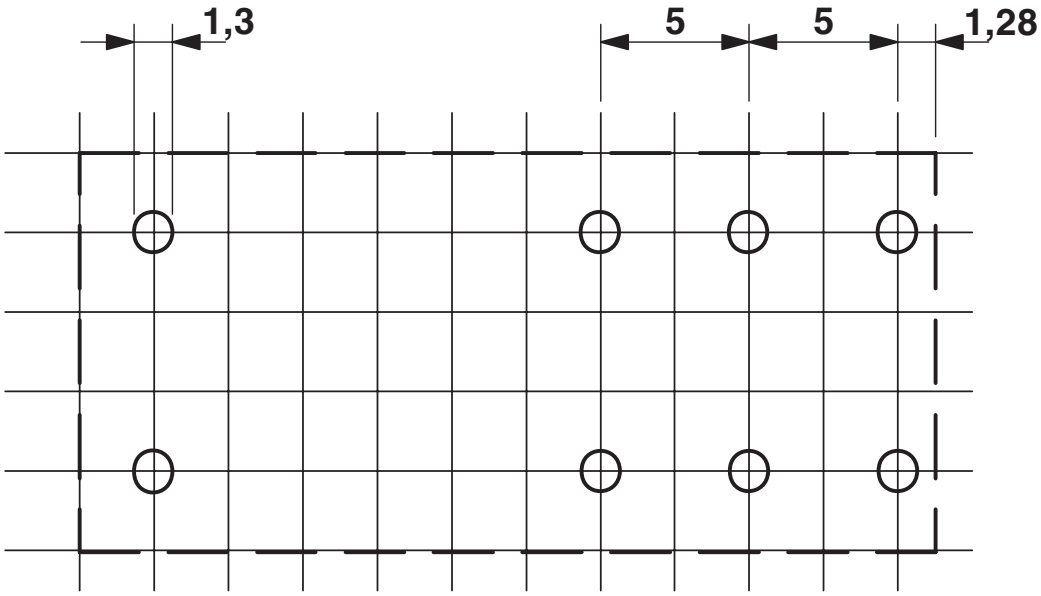
Standards/regulations	IEC 60664
	EN 61810-1

Mounting

Mounting type	Plug-in mounting
Mounting position	any

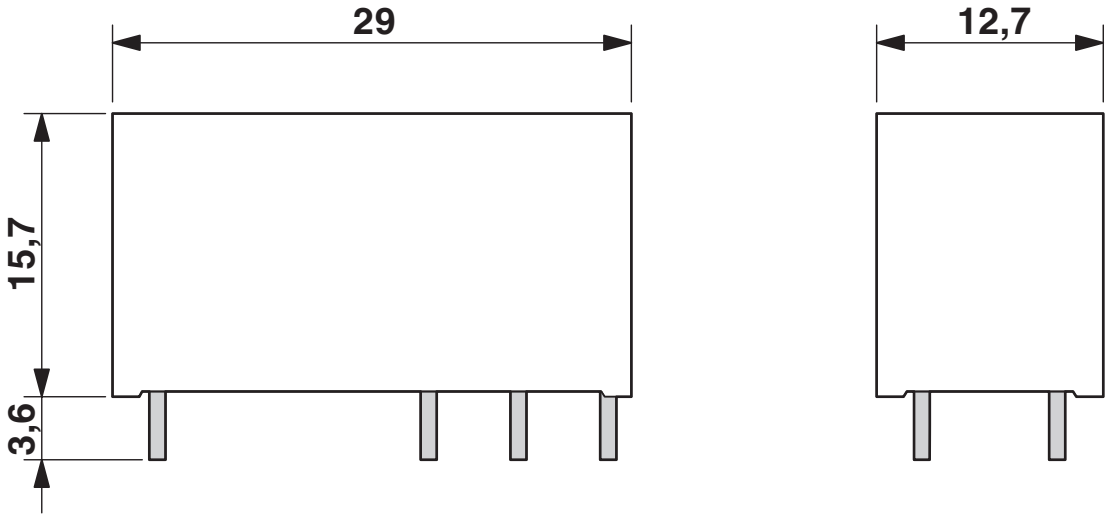
Drawings

Drilling plan/solder pad geometry

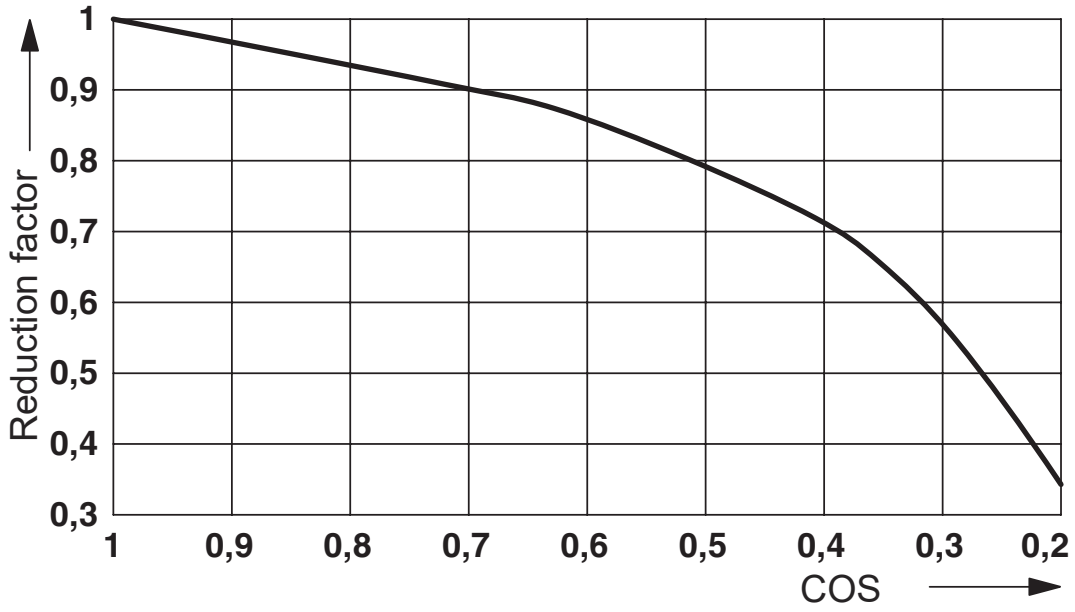


Basic pitch 2.5 mm

Dimensional drawing

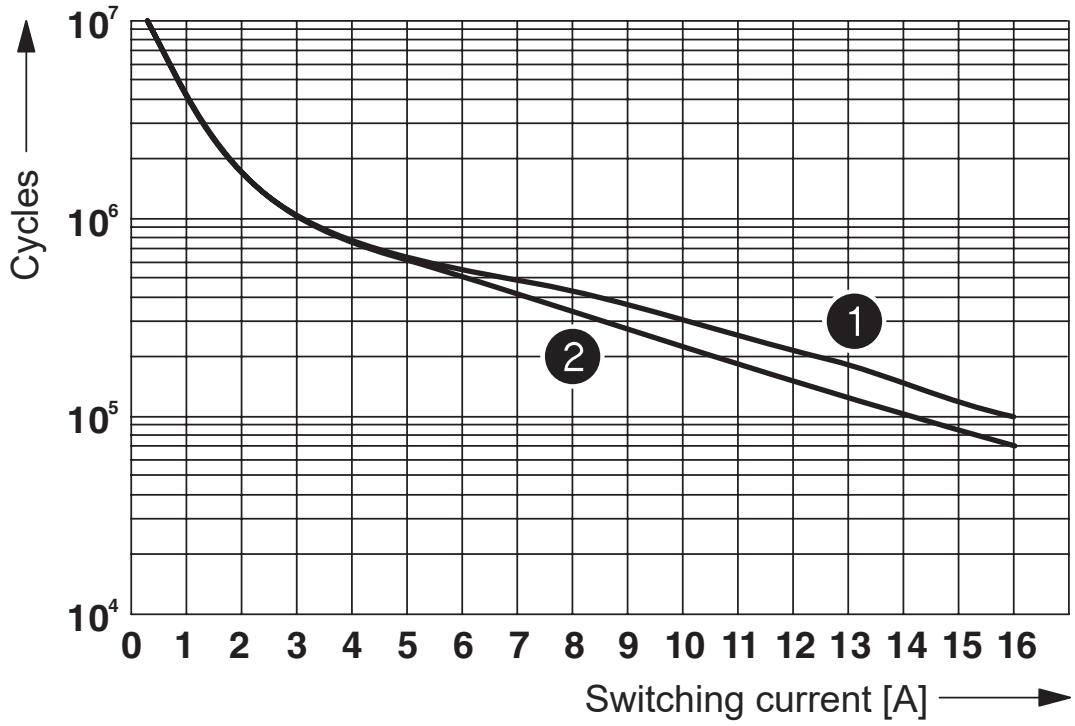


Diagram



Service life reduction factor with various cos phi

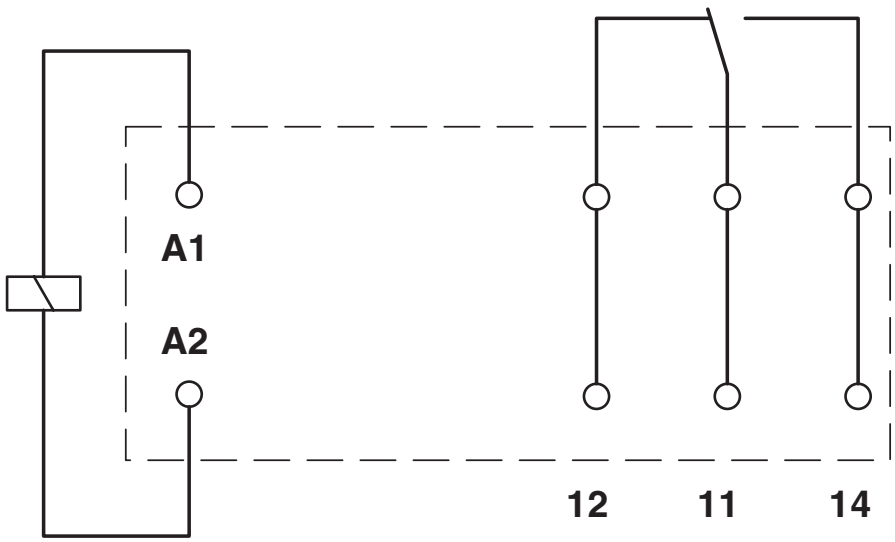
Diagram



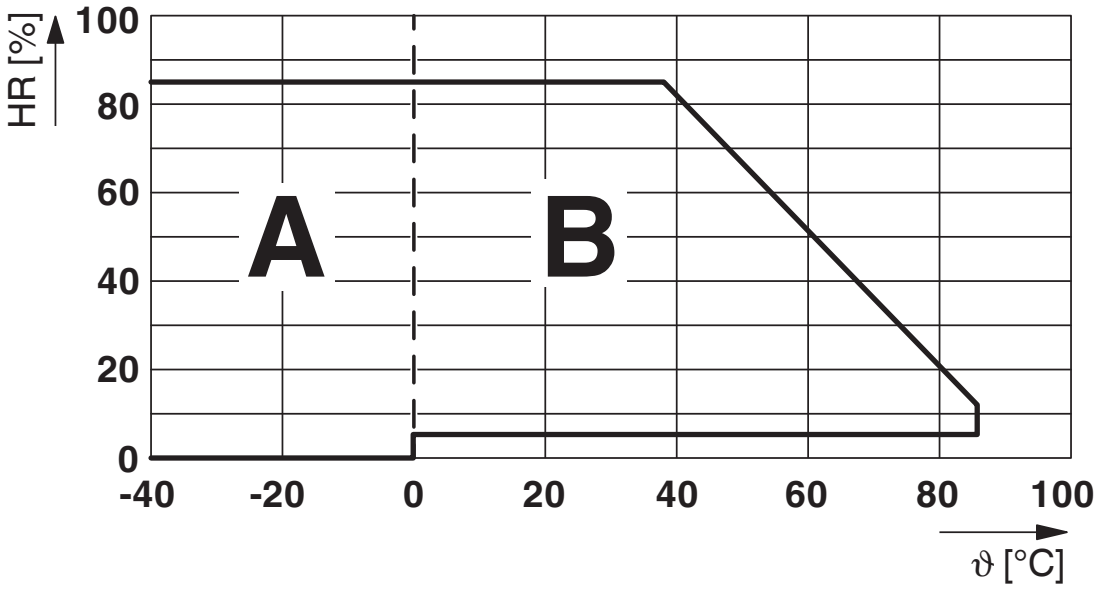
1 250 V AC, ohmic load (DC coils)
2 250 V AC, ohmic load (AC coils)

Electrical service life

Circuit diagram



Diagram

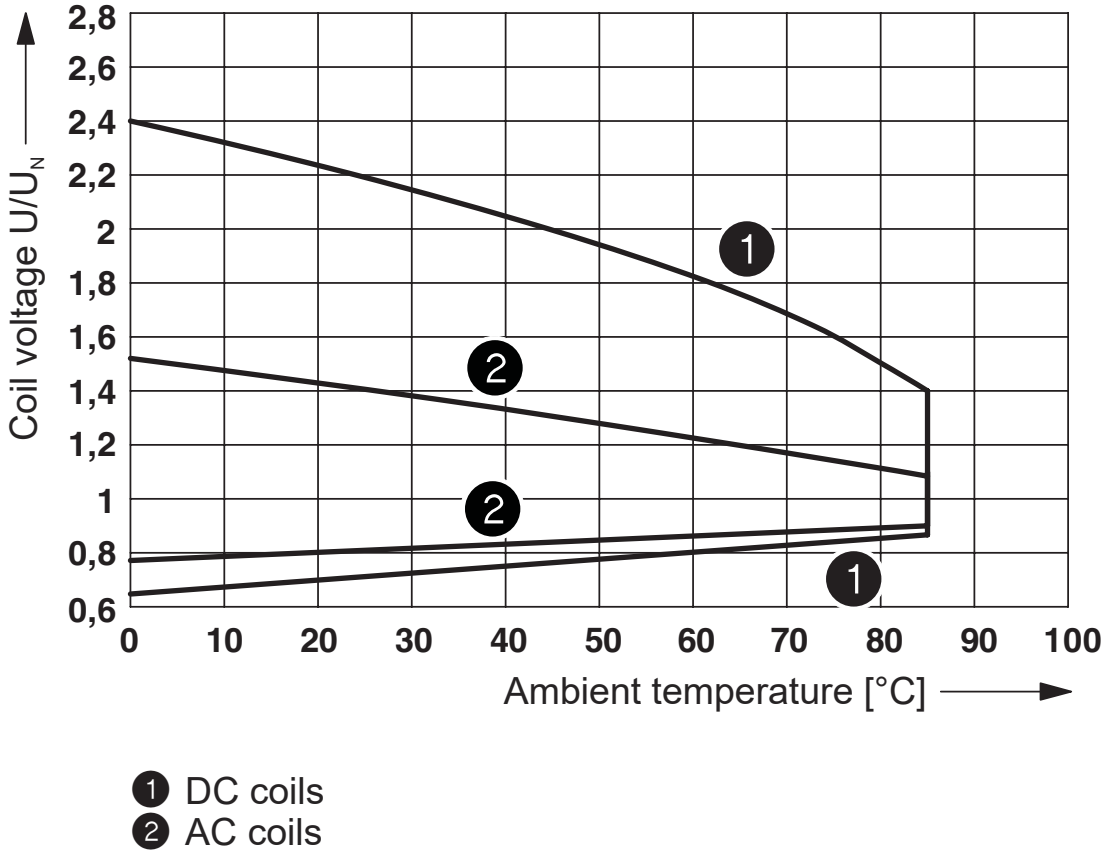


Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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.

Diagram



1 DC coils
2 AC coils

Operating voltage range

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1109537

cUL Recognized
Approval ID: FILE E 228652

UL Recognized
Approval ID: FILE E 228652

cULus Recognized

Classifications

ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

ETIM

ETIM 8.0	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-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.

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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