

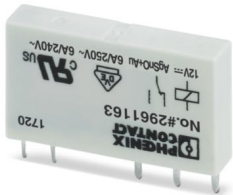
REL-MR- 12DC/21AU - Single relay



2961163

<https://www.phoenixcontact.com/gb/products/2961163>

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Plug-in miniature power relay, with multi-layer gold contact, 1 changeover contact, input voltage 12 V DC

Your advantages

- Safe isolation between coil and contact side
- High degree of protection up to RT III depending on type (wash-proof)
- Power contacts up to 6 A

Commercial data

Item number	2961163
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	CK6195
Product key	CK6195
Catalog page	Page 284 (C-5-2019)
GTIN	4017918146870
Weight per piece (including packing)	6.58 g
Weight per piece (excluding packing)	6.58 g
Customs tariff number	85364190
Country of origin	CZ

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Technical data

Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	2×10^7 cycles

Insulation characteristics

Overvoltage category	III
Pollution degree	3

Electrical properties

Maximum power dissipation for nominal condition	0.17 W
Test voltage (Winding/contact)	4 kV AC (50 Hz, 1 min., winding/contact)

Input data

Coil side

Nominal input voltage U_N	12 V DC
Input voltage range	7.2 V DC ... 33 V DC
Input voltage range in reference to U_N	see diagram
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U_N	14 mA
Typical response time	5 ms
Typical release time	2.5 ms
Coil resistance	$848 \Omega \pm 10 \%$ (at 20 °C)

Output data

Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgSnO, hard gold-plated
Maximum switching voltage	30 V AC 36 V DC
Minimum switching voltage	100 mV (at 10 mA)
Limiting continuous current	50 mA
Maximum inrush current	50 mA
Min. switching current	1 mA (at 24 V)
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)

Switching: when the gold layer is destroyed

Note	the following values are applicable if a gold layer is destroyed
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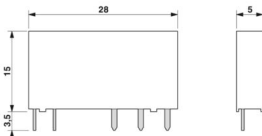
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Contact material	AgSnO
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 100 mA)
Limiting continuous current	6 A
Min. switching current	10 mA (at 12 V)
Interrupting rating (ohmic load) max.	140 W (at 24 V DC)
	20 W (at 48 V DC)
	18 W (at 60 V DC)
	23 W (at 110 V DC)
	40 W (at 220 V DC)
	1500 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.1 A (at 220 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 230 V, AC15)

Connection data

Connection method	Plug / solder connection
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Dimensions

Dimensional drawing	
Width	5 mm
Height	28 mm
Depth	15 mm

Material specifications

Color	white (RAL 9010)
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Environmental and real-life conditions

Ambient conditions

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

Approvals

Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
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	EN 60068-2-60
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Standards and regulations

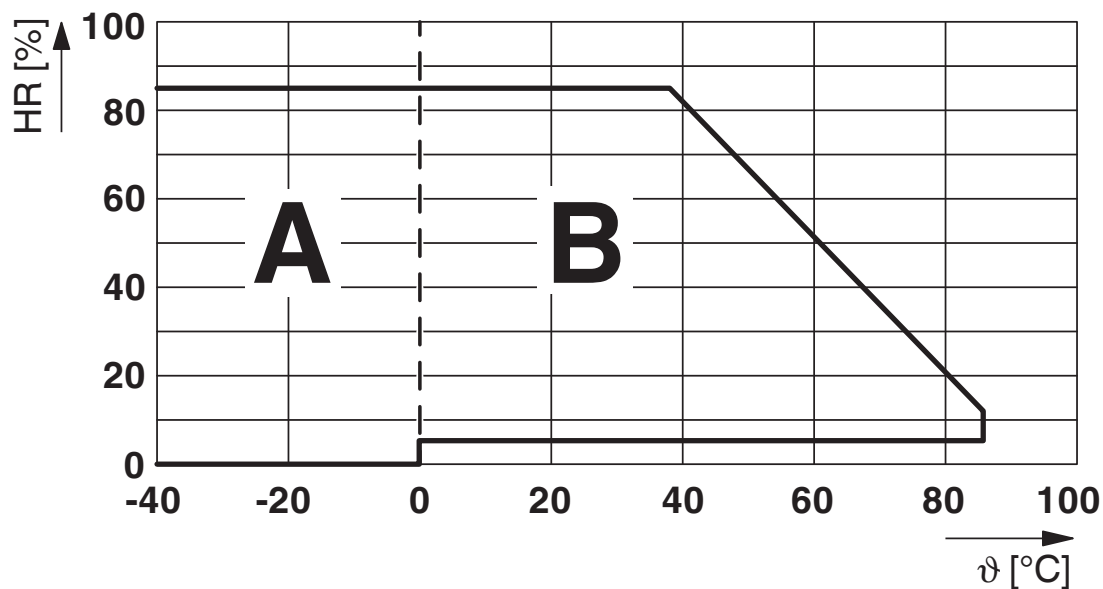
Standards/regulations	IEC 60664
	EN 50178
	EN 61810-1

Mounting

Assembly instructions	in rows with zero spacing
Mounting position	any

Drawings

Diagram



Permissible humidity for operation and storage.

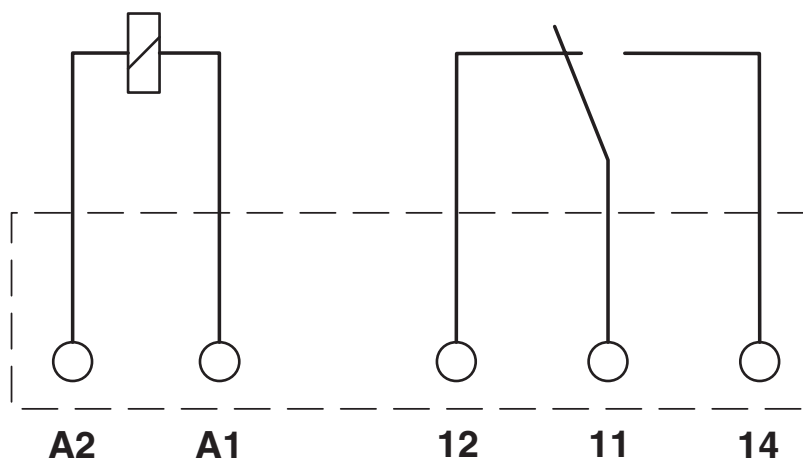
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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



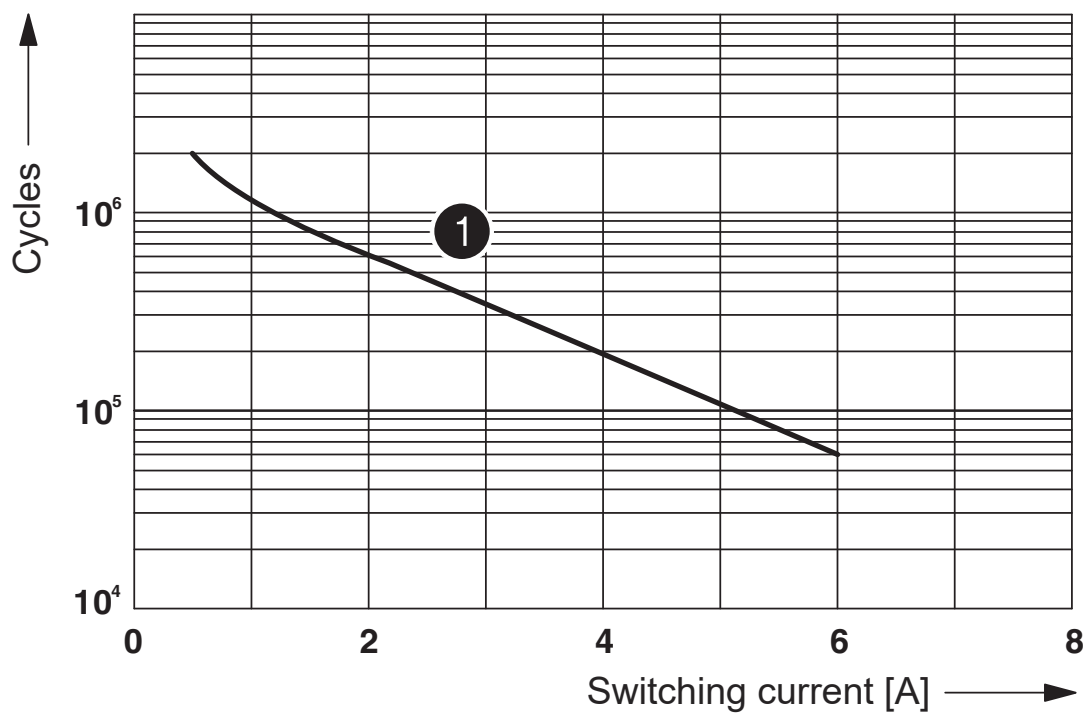
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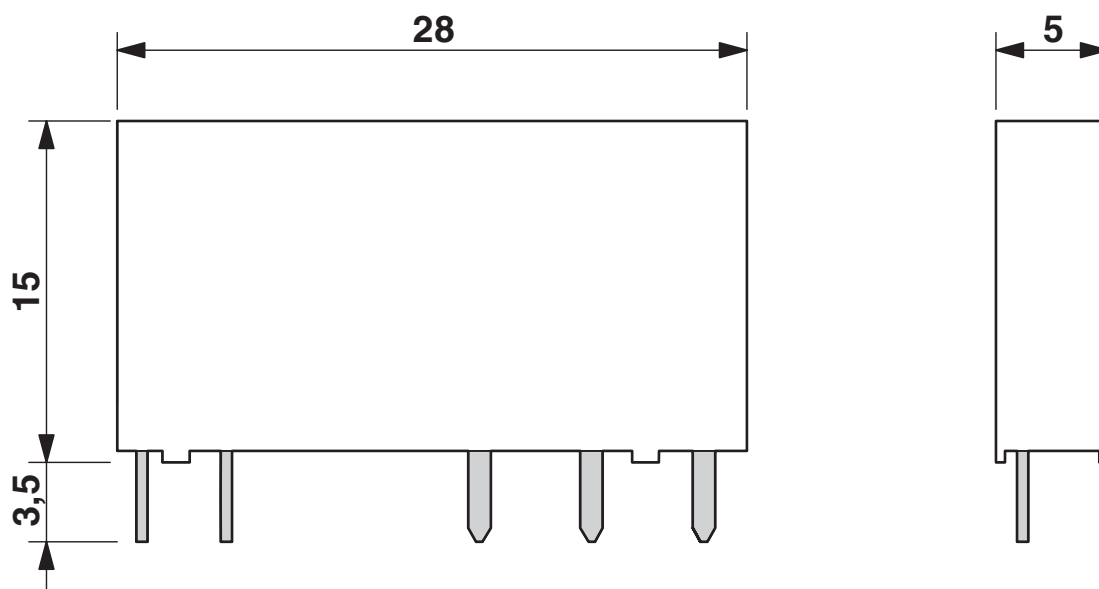
Diagram



① 250 V AC, ohmic load

Electrical service life

Dimensional drawing



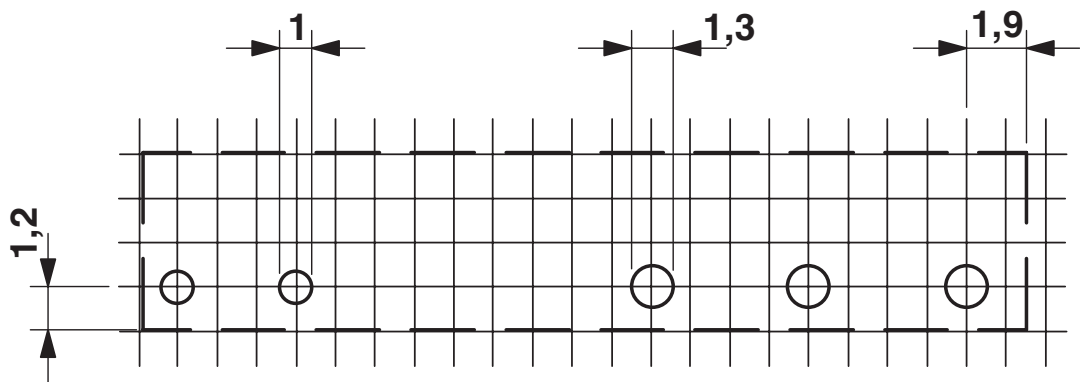
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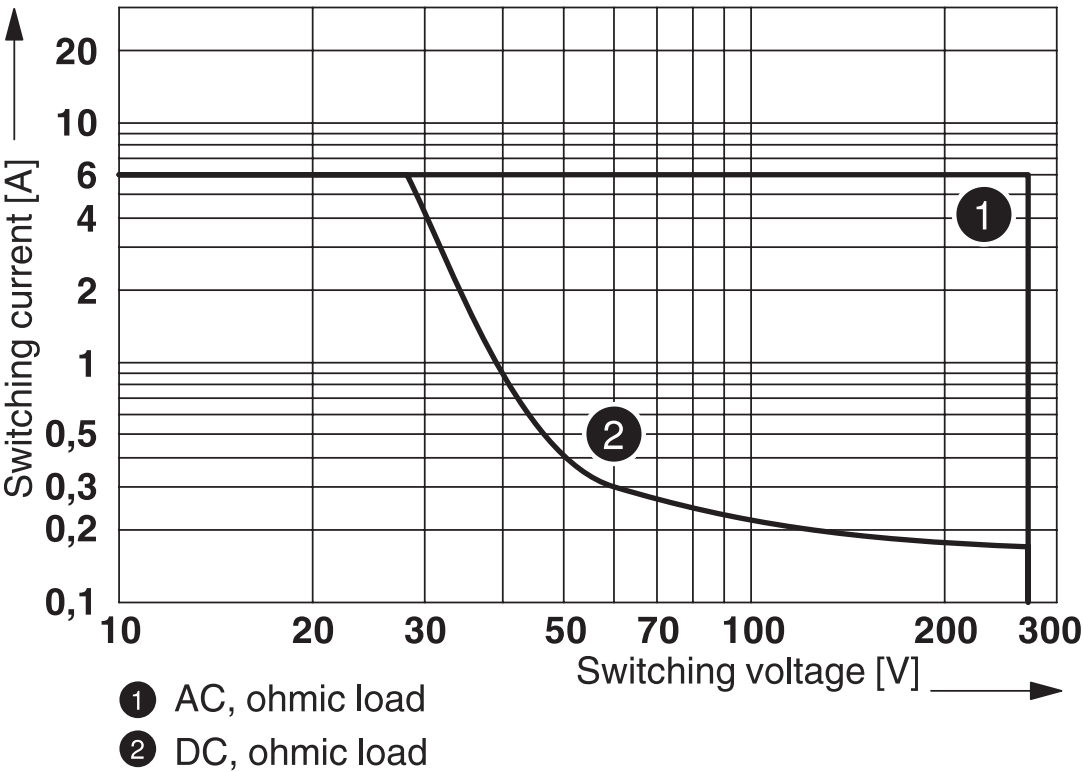
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Drilling plan/solder pad geometry



a = pitch division 1.25 mm and 1.27 mm

Diagram



Interrupting rating

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2961163>



cUL Recognized
Approval ID: FILE E 172140



UL Recognized
Approval ID: FILE E 172140



EAC
Approval ID: TR_TS_D_00573_c



UL Recognized
Approval ID: FILE E 172140



EAC
Approval ID: RU*C-DE.*08.B.00010



VDE Zeichengenehmigung
Approval ID: 40010212



VDE Zeichengenehmigung
Approval ID: 40032864



cUL Recognized
Approval ID: FILE E 172140



VDE Zeichengenehmigung
Approval ID: 40054426



cUL Recognized
Approval ID: FILE E 172140



UL Recognized
Approval ID: FILE E 172140

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Classifications

ECLASS

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

ETIM

ETIM 9.0	EC001437
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Mandatory accessories

RIF-0-BPT/21 - Relay base

2900958

<https://www.phoenixcontact.com/gb/products/2900958>



Relay base RIF-0..., for miniature power relay with 1 changeover contact or solid-state relays of the same design, Push-in connection, for mounting on NS 35/7,5

RIF-0-BSC/21 - Relay base

2900957

<https://www.phoenixcontact.com/gb/products/2900957>



RIF-0... relay base, for miniature power relay with 1 changeover contact or identical solid-state relays, screw connection, for mounting on NS 35/7,5

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