

## Single relay - REL-MR-12DC/21-21/C1D2 - 2906988

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Plug-in miniature power relay, with power contact, 2 PDTs, 24 V DC input voltage, UL/cUL: approved for use in Ex Zone Class 1 Div 2

RoHS

### Key Commercial Data

Packing unit	1 STK
Weight per Piece (excluding packing)	16.000 g
Custom tariff number	85364190
Country of origin	Austria

### Technical data

#### Dimensions

Width	12.7 mm
Height	29 mm
Depth	15.7 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

#### Coil side

Nominal input voltage $U_N$	12 V DC
Input voltage range in reference to $U_N$	see diagram
Typical input current at $U_N$	33 mA
Typical response time	7 ms
Typical release time	3 ms
Coil resistance	360 $\Omega$ $\pm$ 10 % (at 20 °C)
Power dissipation for nominal condition	0.4 W

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## Technical data

### Contact side

Contact type	2 PDT
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 10 mA)
Min. switching current	10 mA (At 5 V)
Maximum inrush current	25 A (20 ms)
Limiting continuous current	8 A
Interrupting rating (ohmic load) max.	190 W (at 24 V DC)
	85 W (at 48 V DC)
	60 W (at 60 V DC)
	44 W (at 110 V DC)
	60 W (at 220 V DC)
	2000 VA (for 250 V AC)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, DC13)
	0.2 A (at 250 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 250 V, AC15)

### General

Test voltage relay winding/relay contact	5 kV AC (50 Hz, 1 min.)
Test voltage relay contact/relay contact	2.5 kV AC (50 Hz, 1 min.)
Operating mode	100% operating factor
Degree of protection	RT III
Mechanical service life	3 x 10 <sup>7</sup> cycles
Standards/regulations	IEC 60664
	EN 50178
	IEC 62103
Rated surge voltage/insulation	Basic insulation
Degree of pollution	3
Overvoltage category	III
Mounting position	any
Assembly instructions	Can be aligned without spacing (> 70 °C ≥ 2.5 mm)

### Standards and Regulations

Standards/regulations	IEC 60664
	EN 50178

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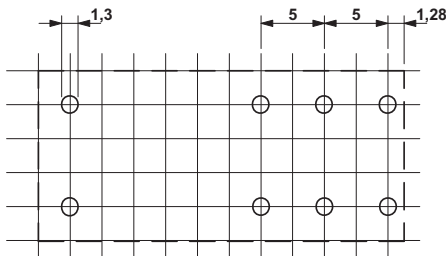
## Technical data

### Standards and Regulations

	IEC 62103
Rated surge voltage/insulation	Basic insulation
Degree of pollution	3
Overvoltage category	III

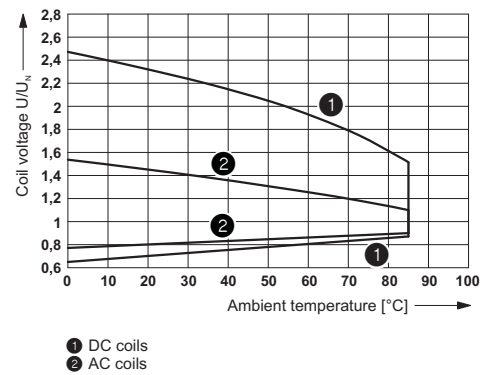
## Drawings

Drilling diagram



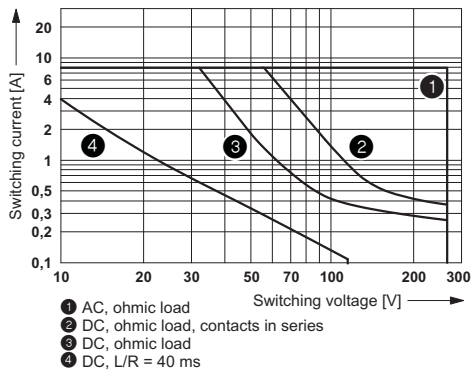
a = pitch division 2.5 mm

Diagram



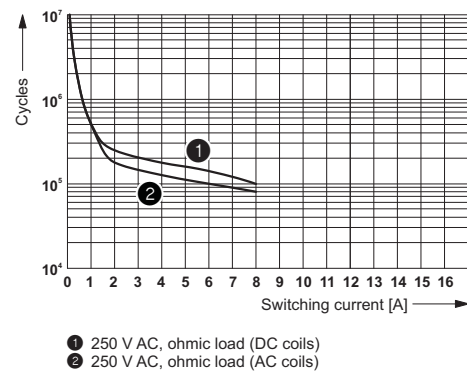
Operating voltage range

Diagram



Interrupting rating

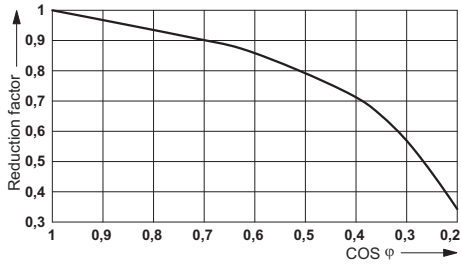
Diagram



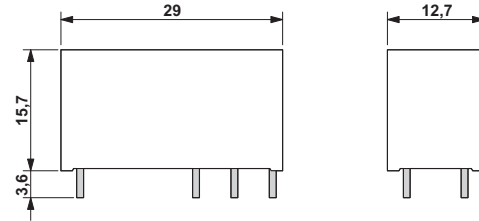
Electrical service life

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Diagram



Dimensional drawing



Service life reduction factor with various cos phi

## Classifications

### eCl@ss

eCl@ss 4.0	27371104
eCl@ss 4.1	27371104
eCl@ss 5.0	27371601
eCl@ss 5.1	27371601
eCl@ss 6.0	27371601
eCl@ss 7.0	27371601
eCl@ss 8.0	27371601
eCl@ss 9.0	27371601

### ETIM

ETIM 2.0	EC001437
ETIM 3.0	EC001437
ETIM 4.0	EC001437
ETIM 5.0	EC001437

### UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121515
UNSPSC 11	39121515
UNSPSC 12.01	39121515
UNSPSC 13.2	39121515

## Approvals

Approvals

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## Approvals

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### Approvals

UL Recognized / cUL Recognized / cULus Recognized

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### Ex Approvals

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## Approval details

UL Recognized  <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> FILE E 228652

cUL Recognized  <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> FILE E 228652

cULus Recognized  <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

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