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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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## 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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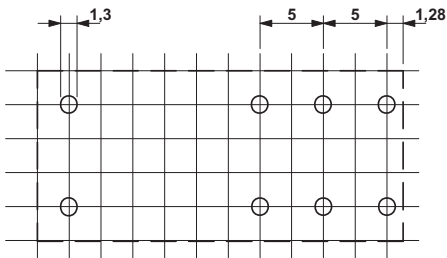
## Technical data

### Standards and Regulations

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

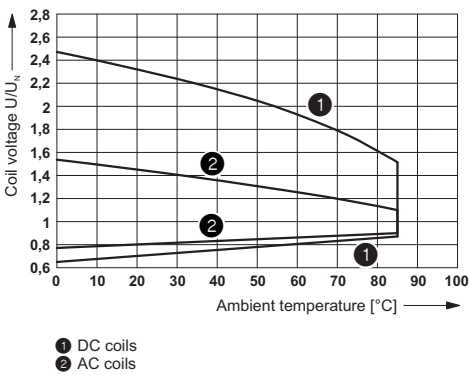
## Drawings

Drilling diagram



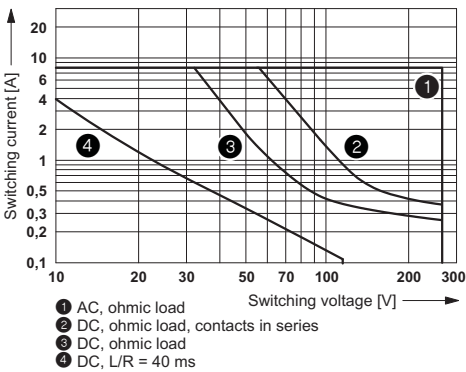
a = pitch division 2.5 mm

Diagram



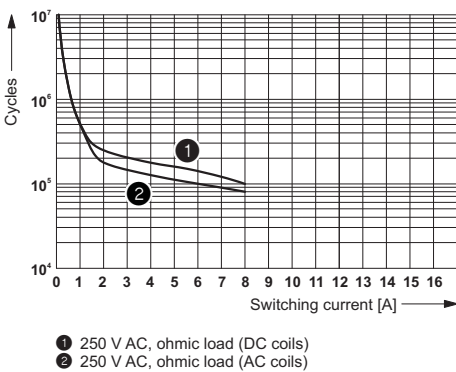
Operating voltage range

Diagram



Interrupting rating

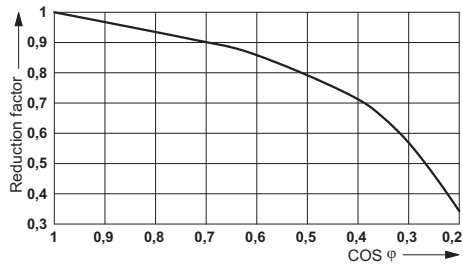
Diagram



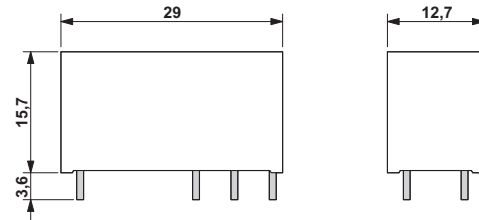
Electrical service life

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

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

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

### 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>