

# RIF-2-RSC-LV-230AC/4X21 - Relay module



2903316

<https://www.phoenixcontact.com/us/products/2903316>

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Preassembled relay module with screw connection, consisting of: relay base, power contact relay, plug-in display/interference suppression module, and retaining bracket. Contact switching type: 4 changeover contacts. Input voltage: 230 V AC

## Product description

The pluggable electromechanical and solid-state relays in the RIFLINE complete product range and the base are recognized and approved in accordance with UL 508. The relevant approvals can be called up at the individual components in question.

## Commercial data

Item number	2903316
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C465
Product key	CK651A
Catalog page	Page 343 (C-5-2019)
GTIN	4046356732185
Weight per piece (including packing)	116.4 g
Weight per piece (excluding packing)	116.4 g
Customs tariff number	85364900
Country of origin	CN

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## Set consists of

### RIF-2-BSC/4X21 - Relay base

2900932

<https://www.phoenixcontact.com/us/products/2900932>



RIF-2... relay base, for industrial relay with 2 or 4 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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### REL-IR4/L-230AC/4X21 - Single relay

2903688

<https://www.phoenixcontact.com/us/products/2903688>



Plug-in industrial relay with power contacts, 4 changeover contacts, test button, status LED, mechanical switching position indicator, input voltage: 230 V AC

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## RIF-V-120-230 UC - Plug-in module

2900948

<https://www.phoenixcontact.com/us/products/2900948>



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with varistor, input voltage: 120 V AC ... 230 V AC / DC  $\pm 20\%$

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## RIF-RH-2 - Retaining bracket

2900954

<https://www.phoenixcontact.com/us/products/2900954>



Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-2 relay base, for industrial relay

## Technical data

### Product properties

Product type	Relay Module
Product family	RIFLINE complete
Application	Universal
Operating mode	100% operating factor
Mechanical service life	approx. $2 \times 10^7$ cycles

### Data management status

Date of last data management	22.08.2024
Article revision	04

### Insulation characteristics

Insulation	Basic insulation
Overvoltage category	II
Pollution degree	2

### Electrical properties

Maximum power dissipation for nominal condition	1.5 W
Test voltage (Winding/contact)	2.5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Test voltage (Contact/contact)	2 kV <sub>rms</sub> (50 Hz, 1 min., contact/contact)
Rated insulation voltage	250 V AC
Rated surge voltage	2.5 kV

### Input data

#### Coil side

Nominal input voltage $U_N$	230 V AC
Input voltage range	184 V AC ... 276 V AC (20 °C)
Input voltage range in reference to $U_N$	see diagram
Mains frequency	50/60 Hz
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at $U_N$	6.5 mA
Typical response time	5 ms ... 15 ms
Typical release time range	5 ms ... 20 ms
Coil voltage	230 V AC
Protective circuit	Varistor
Operating voltage display	Yellow LED

### Output data

#### Switching

Contact switching type	4 changeover contacts
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Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (24 mA)
Limiting continuous current	5 A (see diagram)
Maximum inrush current	16 A (20 ms, N/O contacts)
Min. switching current	5 mA (24 V)
Interrupting rating (ohmic load) max.	120 W (24 V DC) 124 W (48 V DC) 108 W (60 V DC) 52 W (110 V DC) 48 W (220 V DC) 1250 VA (250 V AC)
Utilization category CB Scheme (IEC 60947-5-1)	AC15, 1 A/240 V (N/O contact) DC13, 2 A/24 V (N/O contact)

## Connection data

Connection method	Screw connection
Stripping length	8 mm
Conductor cross section rigid	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section rigid (2 conductors with same cross section)	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup> 0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup> (Ferrule with plastic sleeve)
Conductor cross section flexible (2 conductors with same cross section)	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (TWIN ferrule with plastic sleeve)
Conductor cross section AWG	20 ... 10 (solid) 20 ... 12 (flexible)
Tightening torque	0.5 Nm ... 0.6 Nm

## Dimensions

Width	27 mm
Height	89 mm
Depth	75 mm

## Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V2 (Housing)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Relay)	RT I (Relay)
Ambient temperature (operation)	-40 °C ... 50 °C

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

### Corrosive gas test

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

## Standards and regulations

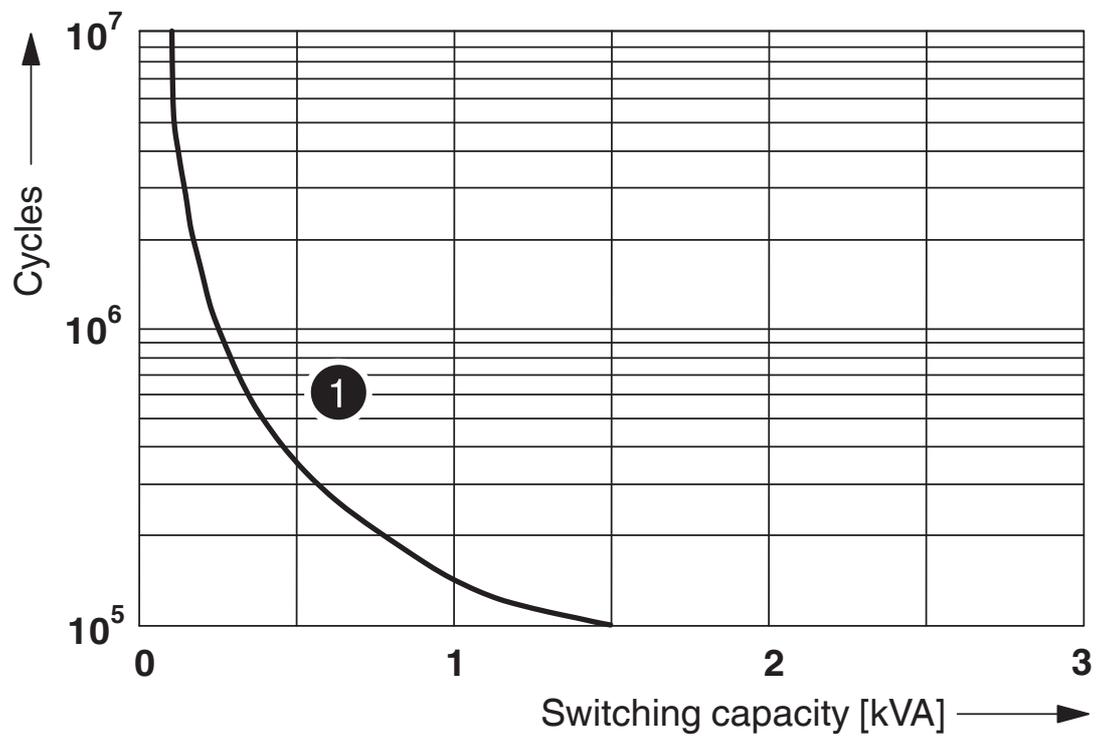
Standards/regulations	IEC 60947-5-1
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## Mounting

Mounting type	DIN rail mounting
Thread type	()
Assembly note	in rows with zero spacing
Mounting position	any

## Drawings

Diagram



① 250 V AC, Ohmic load

Electrical service life

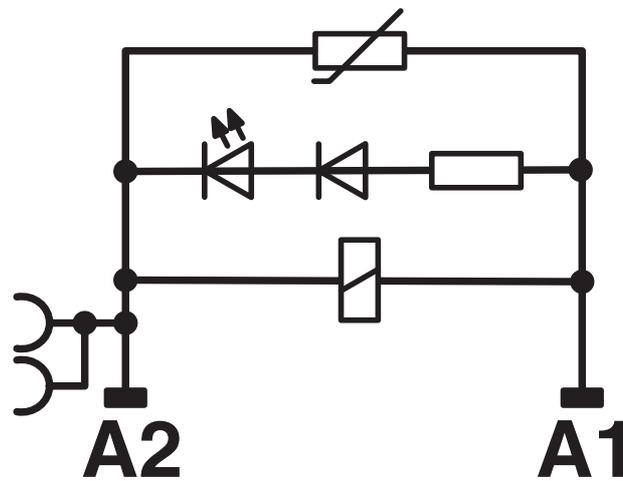
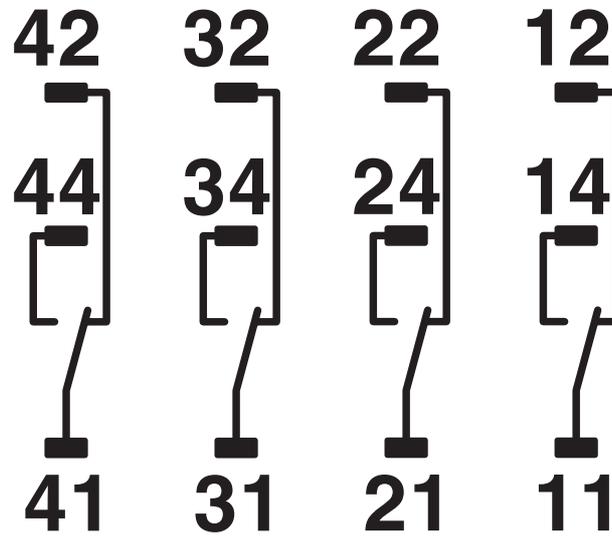
# RIF-2-RSC-LV-230AC/4X21 - Relay module



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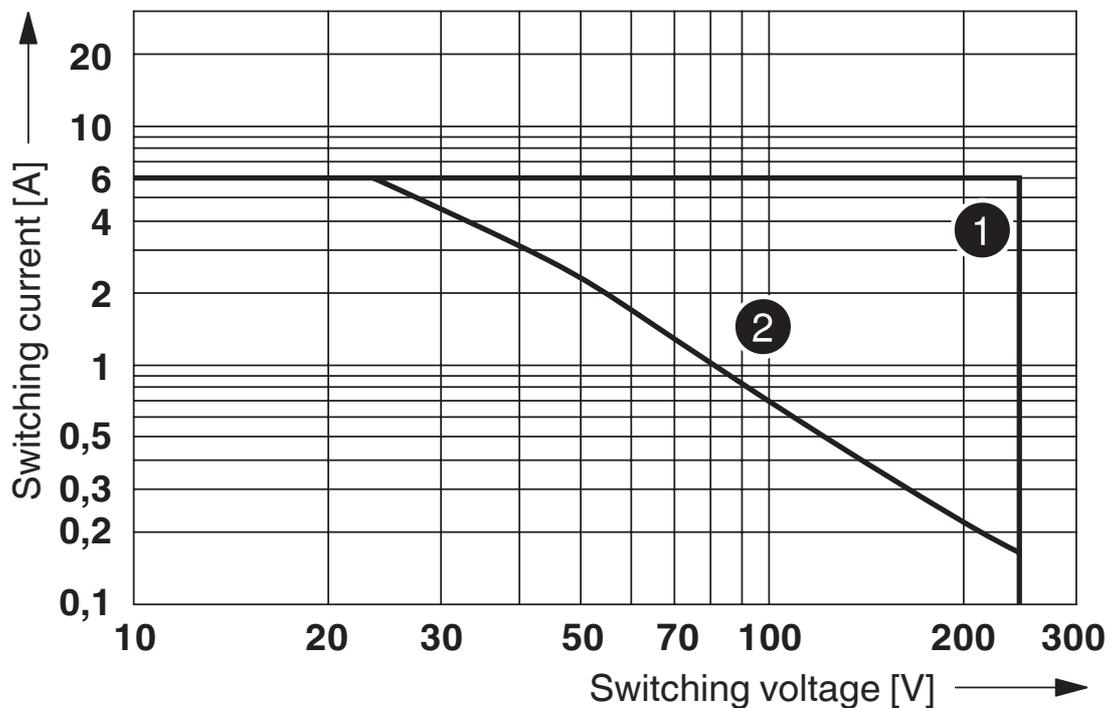
Circuit diagram



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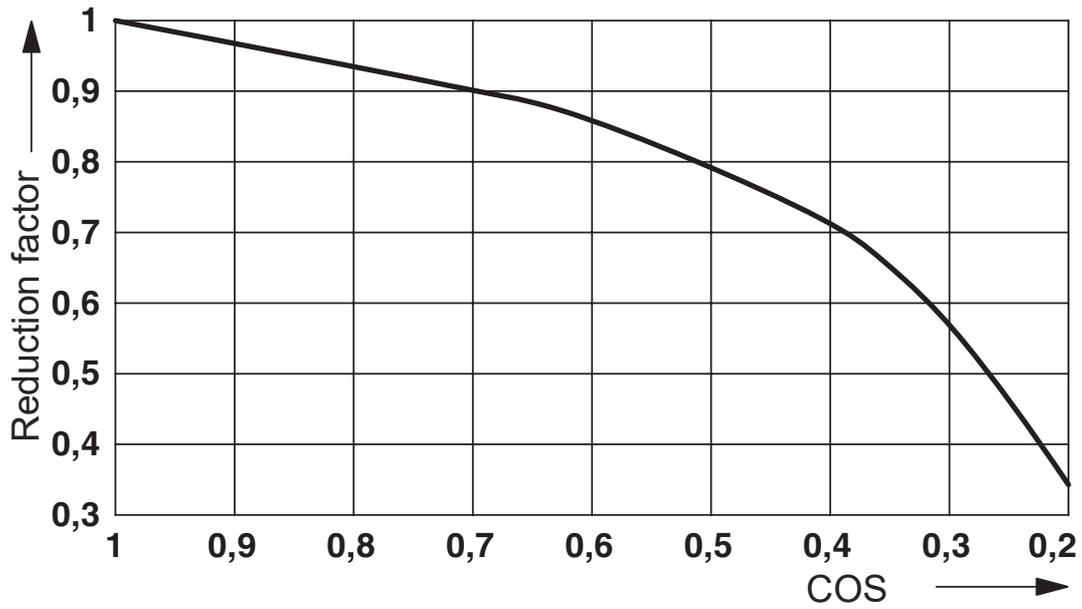
Diagram



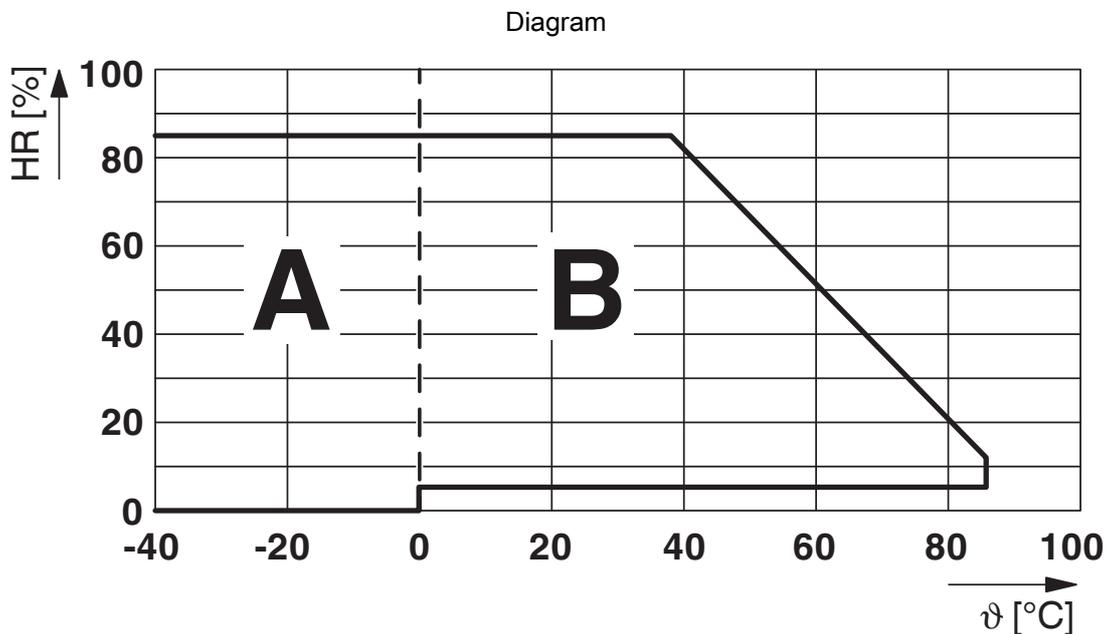
- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating

Diagram



Service life reduction factor



Permissible humidity for operation and storage.

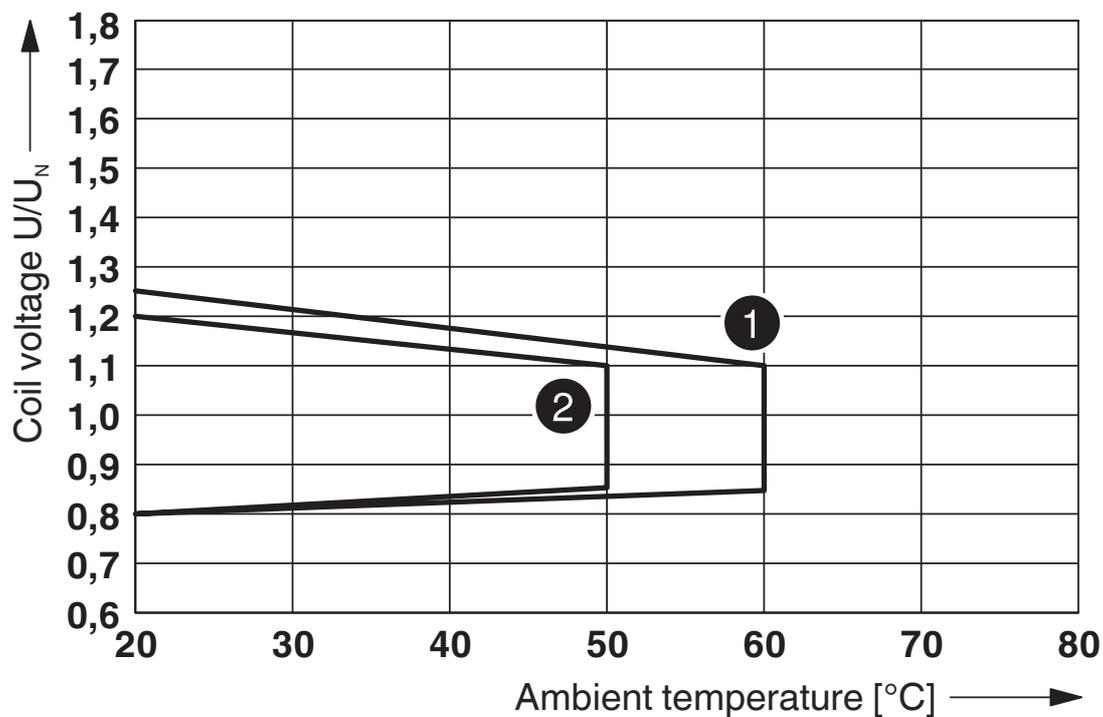
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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  $\leq 25^\circ\text{C}$ .

Diagram



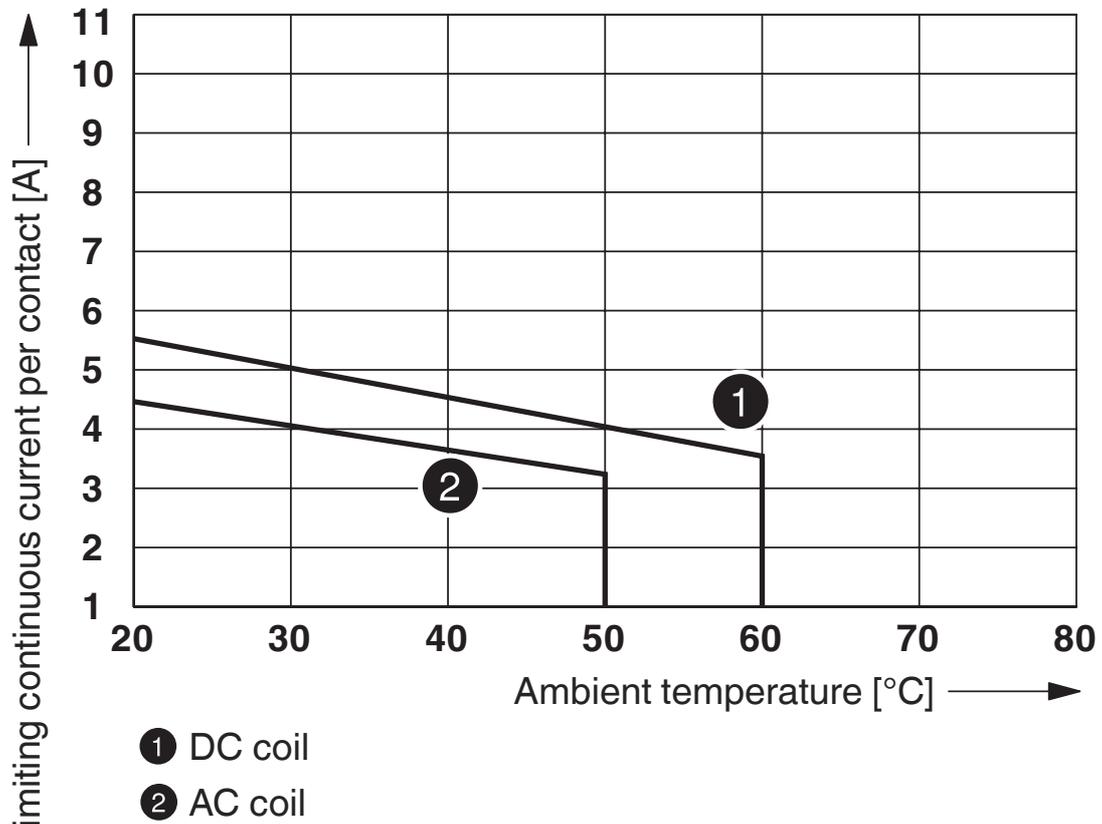
- ① DC coil (observe contact derating)
- ② AC coil (observe contact derating)

Operating voltage range

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Diagram



Contact derating

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2903316>



**CSA**

Approval ID: 76787



**EAC**

Approval ID: TR\_TS\_D\_00573\_c



**DNV GL**

Approval ID: TAA000018V



**EAC**

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

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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

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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%
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