

# IOA REL 120V DI/1.0A/EX - Relay module



2910157

<https://www.phoenixcontact.com/us/products/2910157>

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Relay module for VIP I/O-Marshalling base elements. For the electrically isolated coupling of 120 V AC field devices to digital inputs. Integrated fuse and fuse failure indication.

## Product description

Relay module for digital input signals for the electrically isolated coupling of 120 V AC field devices. The control path is protected by an integrated replaceable 1 A fuse. If the fuse fails, this is indicated by an LED. The module is installed on a corresponding VIP I/O-Marshalling base element by means of plug-in contact. Installation in zone 2, "ec" type of protection is permitted.

## Your advantages

- Active relay coil indication
- Two-stage progressive release allowing for voltage checks with field-powered devices
- Channel for marking accessories
- Replaceable TE5-style fusing
- 120 V internal marshalling option for connected field device
- Integrated keying reduces possible user error during replacement

## Commercial data

Item number	2910157
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C480
Product key	DK1153
GTIN	4055626447704
Weight per piece (including packing)	68.2 g
Weight per piece (excluding packing)	68.2 g
Customs tariff number	85364900
Country of origin	US

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## Technical data

### Product properties

Product type	Relay Module
Product family	VIP I/O-Marshalling
Application	Input function
Operating mode	100% operating factor
Mechanical service life	2x 10 <sup>7</sup> cycles

### Insulation characteristics

Overvoltage category	II
Pollution degree	2

### Data management status

Date of last data management	09.10.2025
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### Input data

#### Coil side

Nominal input voltage $U_N$	120 V AC
Input voltage range in reference to $U_N$	0.9 ... 1.1
Typical input current at $U_N$	3 mA
Typical response time	5 ms
Typical release time	4 ms
Protective circuit	Bridge rectifier
Operating voltage display	Yellow LED

### Output data

#### Switching

Contact switching type	1 N/O contact
Type of switch contact	Single contact
Contact material	AgSnO, hard gold-plated
Maximum switching voltage	24 V DC
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)

### Connection data

#### Control circuits

Connection method	Pin strip
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### Ex data

#### Safety data

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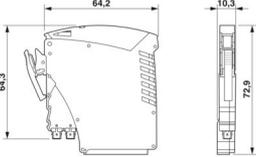


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Input voltage $U_i$	120 V AC
Input current $I_i$	3 mA

## Dimensions

Dimensional drawing	
Width	10.3 mm
Height	64.2 mm
Depth	72.9 mm

## Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	0 % ... 95 % (non-condensing)

## Approvals

### ATEX

Identification	⊕ II 3G Ex ec nC IIC T4 Gc
Certificate	Sira 17ATEX4293X

### IECEX

Identification	Ex ec nC IIC T4 Gc
Certificate	IECEX SIR 17.0078X

### UKEX

Identification	⊕ II 3G Ex ec nC IIC T4 Gc
Certificate	PxCIF23UKEX2910153X

### UL, USA/Canada

Identification	Class I, Div. 2, Groups A, B, C, D T4
	Class I, Zone 2, Group IIC T4

### CSA, USA/Canada

Identification	Class I, Div. 2, Groups A, B, C, D T4
	Class I, Zone 2, AEx ec nC IIC T4 Gc

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	Ex ec nC IIC T4 Gc
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## Standards and regulations

Standards/regulations	IEC 60664
	DIN EN 50178

## Mounting

Mounting type	Plug-in mounting
Assembly note	Plugs into VIP/...BASE...
Mounting position	any

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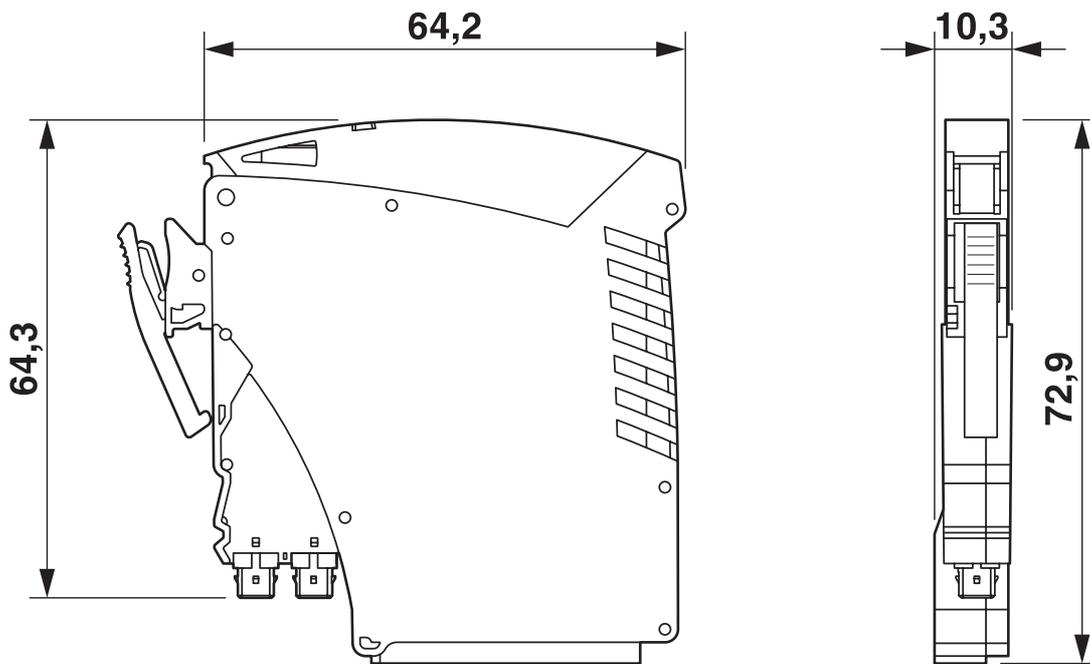


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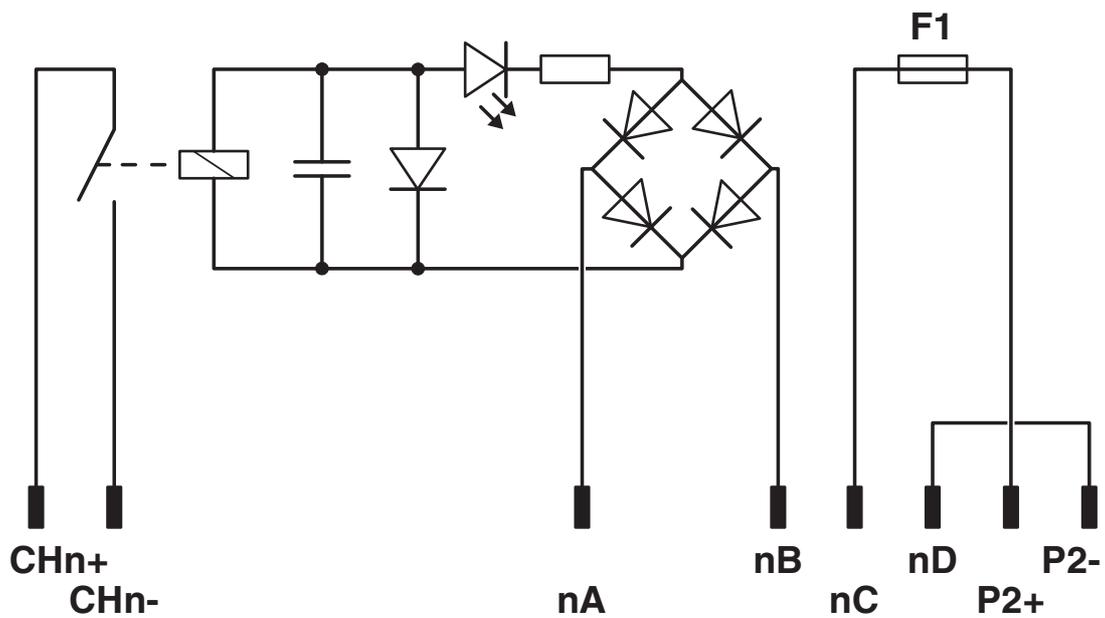
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## Drawings

Dimensional drawing



Circuit diagram



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## Approvals

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**IECEx**

Approval ID: IECEx SIR 17.0078X



**ATEX**

Approval ID: SIRA 17ATEX4293X



**CSA**

Approval ID: 70134758



**CSAus**

Approval ID: 70134758



**cUL Listed**

Approval ID: FILE E 196811



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## Classifications

### ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	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
Exemption	6(c), 7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	5040228c-7d17-4db3-8ddd-b0709142f05c

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