

# IOA REL 230V DO/BFI/NO/3.0A/EX - Relay Module



2910421

<https://www.phoenixcontact.com/us/products/2910421>

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Relay module for VIP I/O-Marshalling base elements. For switching 230 V AC loads up to max. 3 A. Integrated fuse and fuse failure indication. N/O contact can be used.

## Product description

Relay module for digital output signals for switching loads with max. 3 A nominal current and a maximum voltage of 230 V AC. The switch contact is protected by an integrated replaceable 3 A fuse. If the fuse fails, this is indicated by an LED. One N/O contact is available on the field side. 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

- Output blown fuse indication
- Active relay coil indication
- Two-stage progressive release allowing for voltage checks with field-powered devices
- Channel for marking accessories
- Replaceable TE5-style fusing
- 230 V internal marshalling option for connected field device
- Integrated keying reduces possible user error during replacement
- Relay with NO contact

## Commercial data

Item number	2910421
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	C480
Product key	CK8222
GTIN	4055626495989
Weight per piece (including packing)	67.3 g
Weight per piece (excluding packing)	67.3 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	Output function
Operating mode	100% operating factor
Mechanical service life	2x 10 <sup>7</sup> cycles

### Insulation characteristics

Overvoltage category	II
Pollution degree	2

### Input data

#### Coil side

Nominal input voltage $U_N$	24 V DC
Input voltage range in reference to $U_N$	0.9 ... 1.1
Typical input current at $U_N$	13.5 mA
Typical response time	5 ms
Typical release time	8 ms
Protective circuit	Reverse polarity protection; Polarity protection diode Freewheeling diode; Freewheeling diode
Operating voltage display	Yellow LED

### Output data

#### Switching

Contact switching type	1 N/O contact
Type of switch contact	Single contact
Contact connection type	Power contact
Contact material	AgSnO
Maximum switching voltage	230 V AC
Limiting continuous current	3 A (fuse limited)
Maximum inrush current	on request
Min. switching current	10 mA (at 12 V)
Interrupting rating (ohmic load) max.	23 W (at 110 V DC) 690 VA (230 V AC)

### Connection data

#### Control circuits

Connection method	Pin strip
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### Ex data

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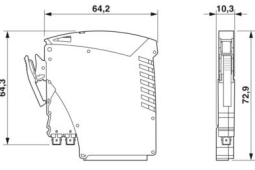
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## Safety data

Input voltage $U_i$	24 V DC
Input current $I_i$	13.5 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

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

## 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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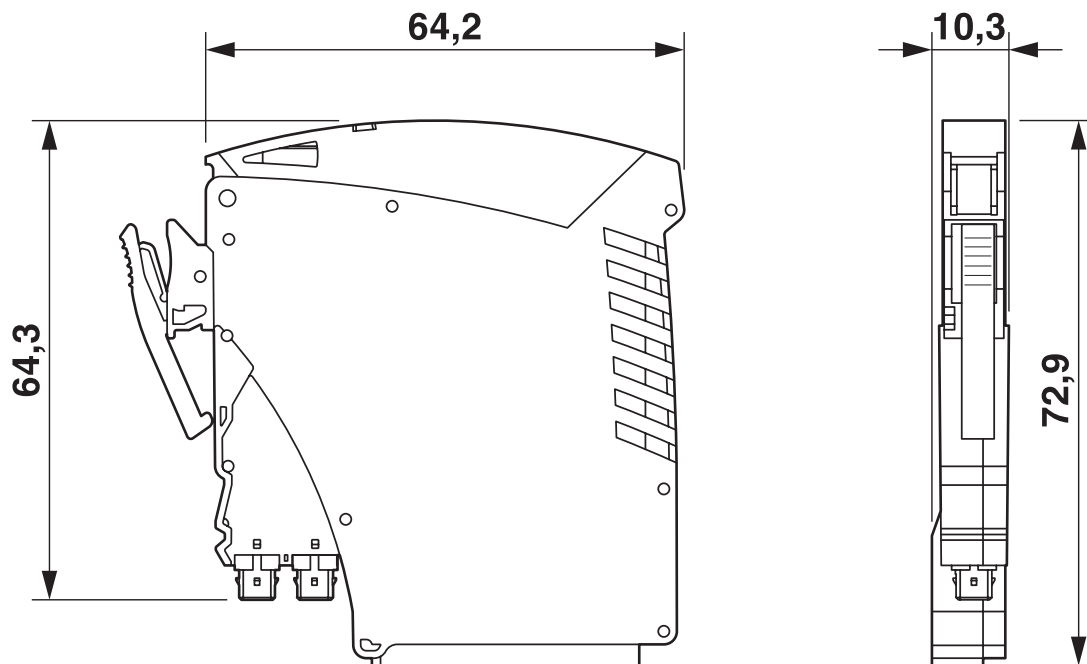


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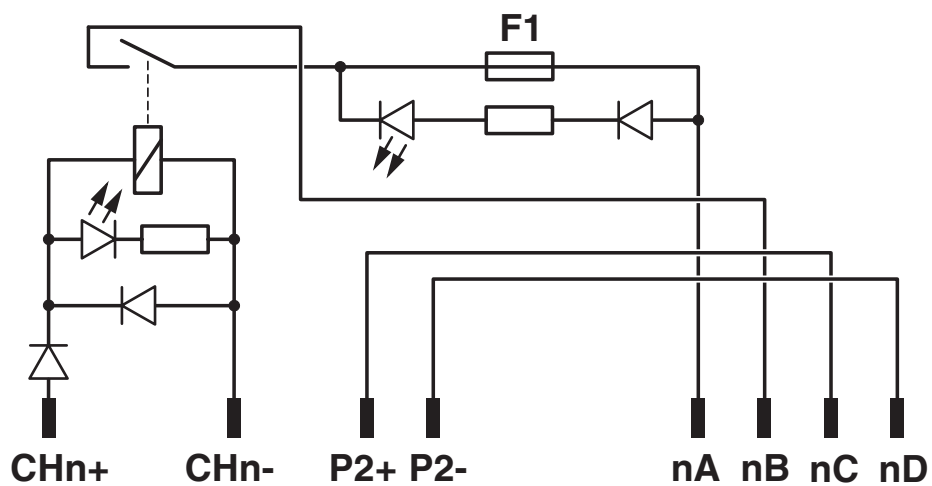
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## Drawings

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



**cUL Listed**

Approval ID: FILE E 196811



**UL Listed**

Approval ID: FILE E 196811



**CSAus**

Approval ID: 70134758

**cULus Listed**

**cCSAus**

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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
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	8e10970a-ccb7-421c-b37d-e7fa6f6e8dc8



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## Mandatory accessories

### VIP/S/MC/BASE 1-8/L/EX - Base module

2906596

<https://www.phoenixcontact.com/us/products/2906596>



8-channel VIP I/O marshalling base element for universal use. All connections as screw connection technology. With the COMBICON connector, compatible with the Honeywell C300 and RUSIO series. Marking for channels 1–8.

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### VIP/S/MC/BASE 9-16/L/EX - Base module

2906630

<https://www.phoenixcontact.com/us/products/2906630>



8-channel VIP I/O marshalling base element for universal use. All connections as screw connection technology. With the COMBICON connector, compatible with the Honeywell C300 and RUSIO series. Marking for channels 9–16.

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## VIP/S/MC/BASE 17-24/L/EX - Base module

2907024

<https://www.phoenixcontact.com/us/products/2907024>



8-channel VIP I/O marshalling base element for universal use. All connections as screw connection technology. With the COMBICON connector, compatible with the Honeywell C300 and RUSIO series. Marking for channels 17–24.

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## VIP/S/MC/BASE 25-32/L/EX - Base module

2907025

<https://www.phoenixcontact.com/us/products/2907025>



8-channel VIP I/O marshalling base element for universal use. All connections as screw connection technology. With the COMBICON connector, compatible with the Honeywell C300 and RUSIO series. Marking for channels 25–32.

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## VIP/S/MC/BASE 1-8/L/C/EX - Base module

2907186

<https://www.phoenixcontact.com/us/products/2907186>



8-channel VIP I/O marshalling base element for universal use. All connections as screw connection technology. With the COMBICON connector, compatible with the Honeywell C300 and RUSIO series. Marking for channels 1–8 and painting.

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## VIP/S/MC/BASE 9-16/L/C/EX - Base module

2907187

<https://www.phoenixcontact.com/us/products/2907187>



8-channel VIP I/O marshalling base element for universal use. All connections as screw connection technology. With the COMBICON connector, compatible with the Honeywell C300 and RUSIO series. Marking for channels 9–16 and painting.

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## VIP/S/MC/BASE 17-24/L/C/EX - Base module

2907209

<https://www.phoenixcontact.com/us/products/2907209>



8-channel VIP I/O marshalling base element for universal use. All connections as screw connection technology. With the COMBICON connector, compatible with the Honeywell C300 and RUSIO series. Marking for channels 17–24 and painting.

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## VIP/S/MC/BASE 25-32/L/C/EX - Base module

2907210

<https://www.phoenixcontact.com/us/products/2907210>



8-channel VIP I/O marshalling base element for universal use. All connections as screw connection technology. With the COMBICON connector, compatible with the Honeywell C300 and RUSIO series. Marking for channels 25–32 and painting.

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## VIP/S/D25M/BASE 1-8/L/C/EX - Base module

2906595

<https://www.phoenixcontact.com/us/products/2906595>



8-channel VIP I/O marshalling base element for universal use. All connections as screw connection technology. This module with the D-SUB 25 connector is pin compatible with the Foxboro I/A series DCS.

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## VIP/MSTB/D50M/BASE/16CH/CX/EX - Base module

2908788

<https://www.phoenixcontact.com/us/products/2908788>



16-channel VIP I/O marshalling base element for universal use. Plug-in field and supply terminals available as accessories. Either with screw or Push-in connection technology. Compatible with the Tricon CX DCS series (D-SUB 50).

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## BASE-MSTB/D37M/16CH/EX - Base module

1065476

<https://www.phoenixcontact.com/us/products/1065476>



16-channel VIP I/O marshalling base element with 37-pos. D-SUB connector for universal use. Plug-in field and supply terminals available as accessories. Either with screw or Push-in connection technology.

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## Accessories

### VIP/S/BASE 3L DIVIDER - Partition plate

2907715

<https://www.phoenixcontact.com/us/products/2907715>



VIP I/O marshalling partition plate for safe isolation between non-Ex i and Ex i plug-in modules on a base module in VIP design. The partition plate is mounted directly on the base module between the plug-in IOAs.

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## VIP/U/RAIL 3L DIVIDER - Partition plate

2908555

<https://www.phoenixcontact.com/us/products/2908555>



VIP I/O marshalling partition plate for safe isolation between non-Ex i and Ex i assembled base modules for Honeywell systems. The partition plate is mounted directly on the DIN rail at the end of the base module.

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## UC-TM 10 - Marker for terminal blocks

0818069

<https://www.phoenixcontact.com/us/products/0818069>



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 10.2 mm, lettering field size: 9.6 x 10.5 mm, Number of individual labels: 48

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## UC-TM 10 BU - Marker for terminal blocks

0818441

<https://www.phoenixcontact.com/us/products/0818441>



Marker for terminal blocks, Sheet, blue, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 10.2 mm, lettering field size: 9.6 x 10.5 mm, Number of individual labels: 48

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## B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/us/products/1051993>



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm



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## FUSE/TE5/3.15A/T-10PCS - Fuse set

1053563

<https://www.phoenixcontact.com/us/products/1053563>



Fuse set, number: 10 Pcs., nominal current: 3.15 A, tripping characteristic: slow-blow (T)

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## FUSE/TE5/3.15A/F-10PCS - Fuse set

2906442

<https://www.phoenixcontact.com/us/products/2906442>



Plug-in fuse (TE5<sup>®</sup>); nominal current: 3.15 A; tripping behavior: fast-blow (F)

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