

IOA REL 120V DO/BFI/3.0A/EX - Relay module



2910154

<https://www.phoenixcontact.com/us/products/2910154>

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Relay module for VIP I/O-Marshalling base elements. For switching 120 V AC loads up to max. 3 A. Integrated fuse and fuse failure indication. N/O contact or N/C 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 120 V AC. The switch contact is protected by an integrated replaceable 3 A fuse. If the fuse fails, this is indicated by an LED. A plug-in bridge determines whether an N/O contact or an N/C contact is used. 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
- 120 V internal marshalling option for connected field device
- Integrated keying reduces possible user error during replacement
- 1 PDT relay with user selectable NO or NC contact

Commercial data

Item number	2910154
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	C480
Product key	CK8222
Catalog page	Page 556 (C-5-2017)
GTIN	4055626447285
Weight per piece (including packing)	68.2 g
Weight per piece (excluding packing)	71.2 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	Output function
Operating mode	100% operating factor
Mechanical service life	2x 10 ⁷ cycles

Data management status

Date of last data management	21.05.2024
Article revision	08

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 changeover contact
Type of switch contact	Single contact
Contact connection type	Power contact
Contact material	AgSnO
Maximum switching voltage	120 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) 360 VA (at 120 V AC)

Connection data

Control circuits

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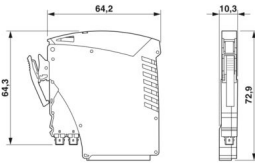
Connection method	Pin strip
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Ex data

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

UL, USA/Canada

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

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

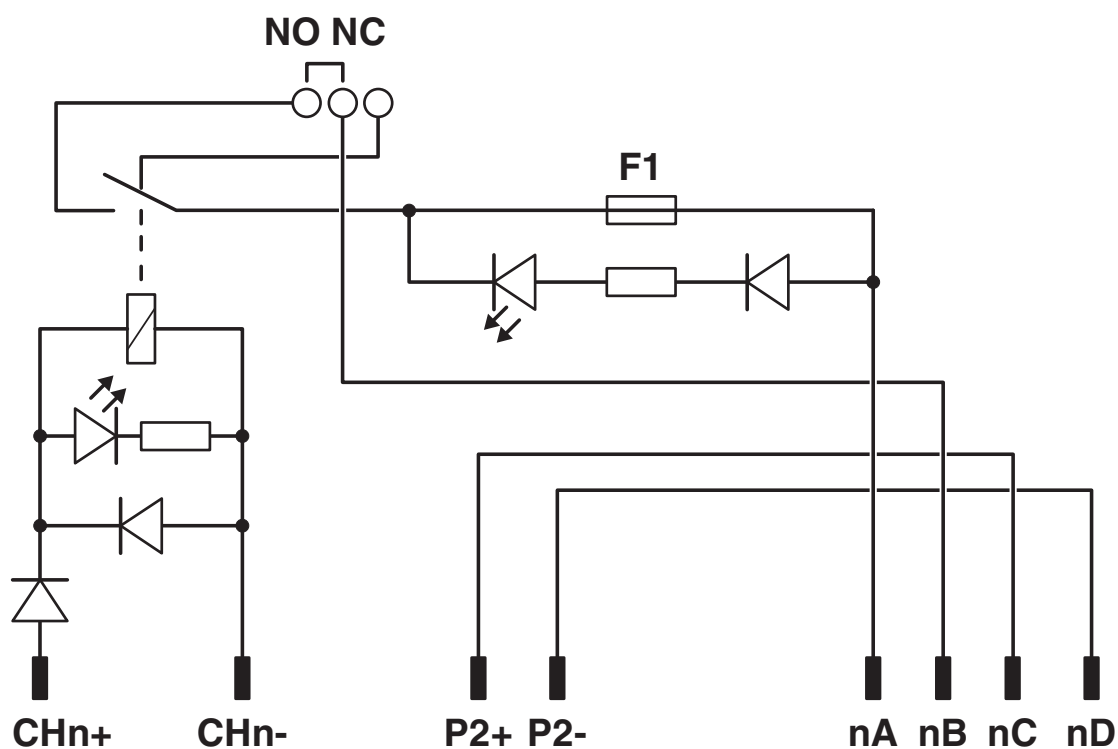
Standards/regulations	IEC 60664
	DIN EN 50178

Mounting

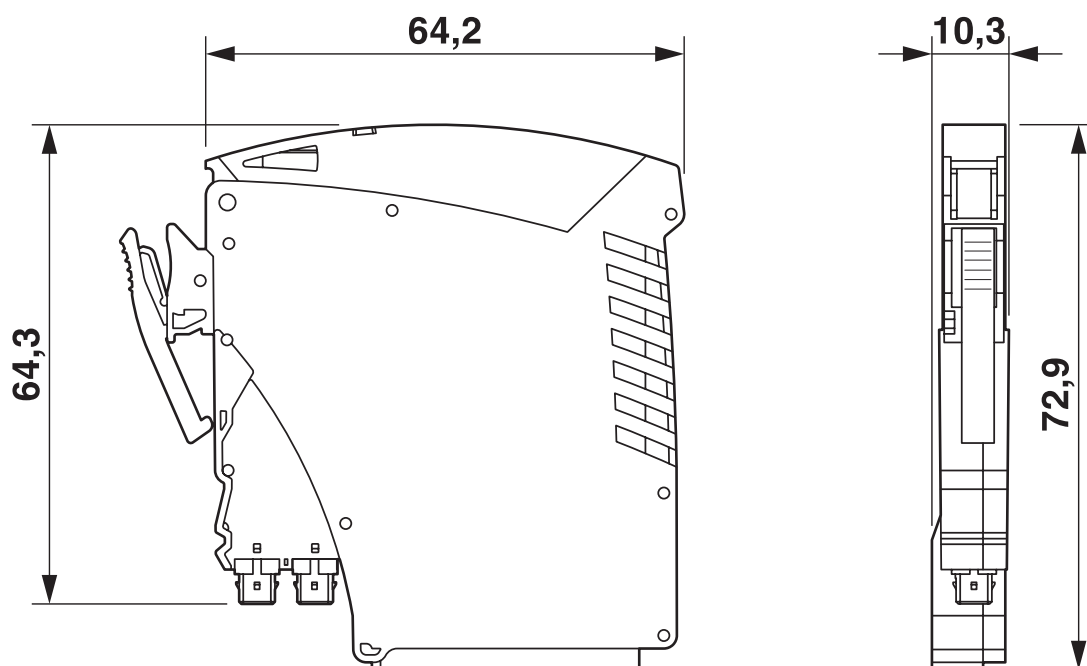
Mounting type	Plug-in mounting
Assembly note	Plugs into VIP/...BASE...
Mounting position	any

Drawings

Circuit diagram



Dimensional drawing



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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



UL Listed

Approval ID: FILE E 196811

cCSAus

cULus Listed

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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	ec7713df-c8fa-4699-9336-78a33ac4de84

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Mandatory accessories

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

2906596

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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.

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

2906630

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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.

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

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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.

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

2907187

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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.

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

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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.

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.

Accessories

UC-TM 6 - Marker for terminal blocks

0818085

<https://www.phoenixcontact.com/us/products/0818085>



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: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

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UC-TM 6 BU - Marker for terminal blocks

0818344

<https://www.phoenixcontact.com/us/products/0818344>



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: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

ZB 5,08:UNBEDRUCKT - Zack marker strip

0809793

<https://www.phoenixcontact.com/us/products/0809793>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 5.08 mm, lettering field size: 4.98 x 10.5 mm, Number of individual labels: 10

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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

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

2906442

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



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

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