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	CK8221
Catalog page	Page 556 (C-5-2017)
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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2910157

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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	$2x\ 10^7$ cycles

Data management status

Date of last data management	21.05.2024
Article revision	07

Insulation characteristics

Overvoltage category	II
Pollution degree	2

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

Ex data

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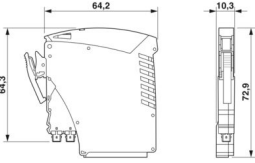
https://www.phoenixcontact.com/us/products/2910157

Safety data

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	⟨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
	Class I, Zone 2, Group IIC T4

CSA, USA/Canada

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

2910157

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

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

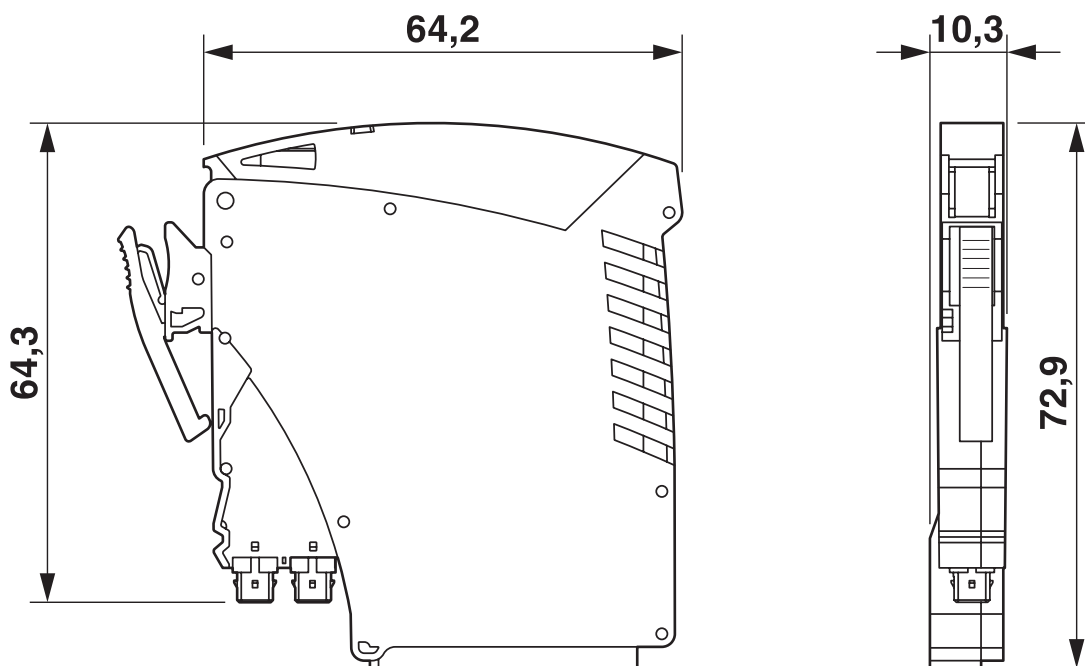| Mounting type	Plug-in mounting
Thread type	()
Assembly note	Plugs into VIP/...BASE...
Mounting position	any

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

2910157

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Drawings

Circuit diagram

CHn+
CHn-   **nA**   **nB**   **nC**   **nD**   **P2+**   **P2-**

F1

Dimensional drawing

64,2

64,3

10,3

72,9

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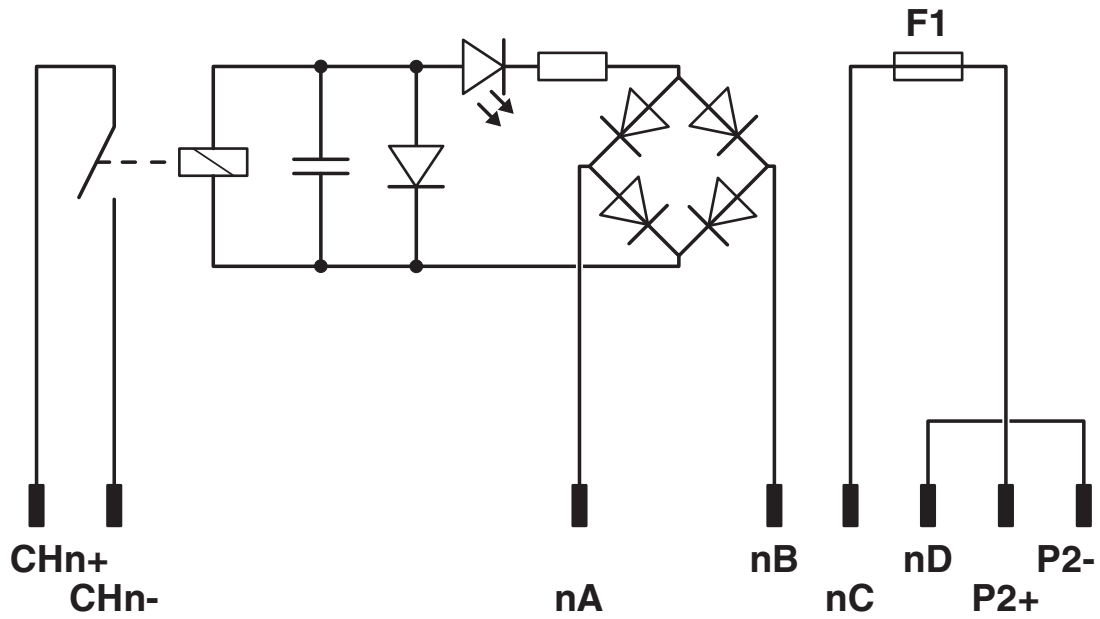
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Approvals

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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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2910157

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Classifications

ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

ETIM

ETIM 9.0	EC001437

UNSPSC

UNSPSC 21.0	39122300

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

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

2910157

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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.

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

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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 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

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.

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.

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.

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: latching, 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: latching, 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: latching, 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/TE5/1A/F-10PCS - Fuse set

2905277

https://www.phoenixcontact.com/us/products/2905277

Plug-in fuse (TE5®); nominal current: 1 A; tripping behavior: fast-blow (F)

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