

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	DK1154
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

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

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Data management status

Date of last data management	01.04.2026
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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

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

Item dimensions

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
	Ex ec nC IIC T4 Gc

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2910154

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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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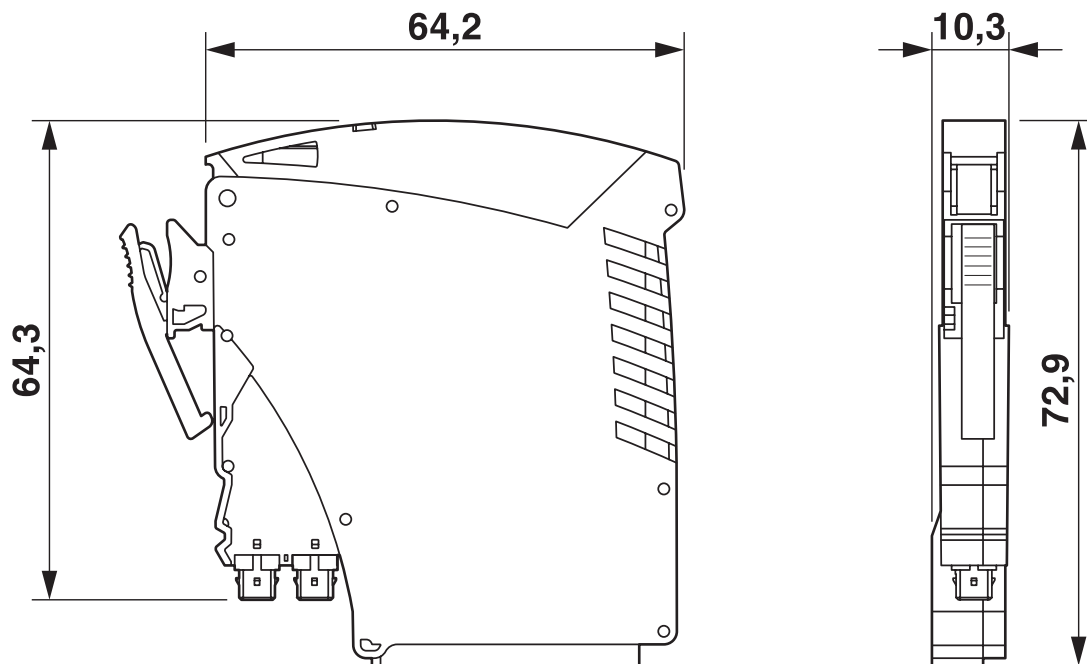


2910154

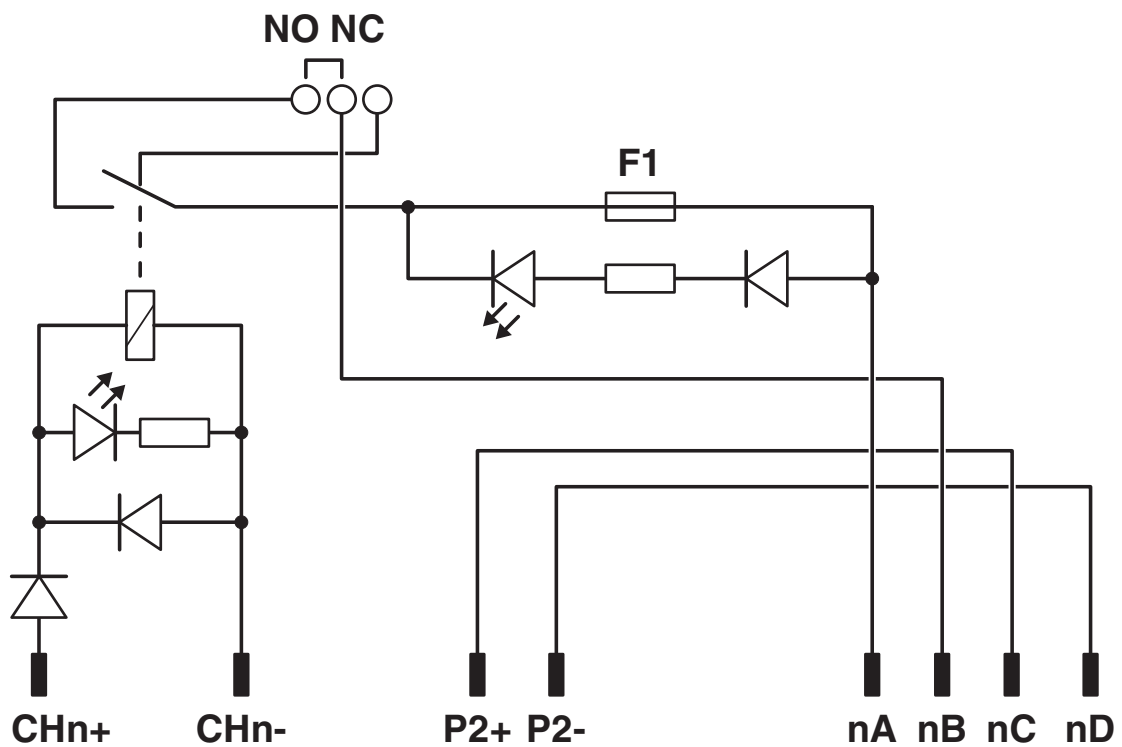
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Drawings

Dimensional drawing



Circuit diagram



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2910154

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Approvals

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Functional Safety

Approval ID: 1435.IM.131623/19



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 10.0	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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