

# IOA AI/AO/BFI/DS/0.5A/EX - Input/output module



2906599

<https://www.phoenixcontact.com/us/products/2906599>

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Fuse module for VIP I/O marshalling base elements with replaceable 0.5 A fuses in the field device supply path and in the signal path. Integrated test points and a disconnect knife allow uninterrupted signal measurement. HART transparent.

## Product description

Fuse module with replaceable 0.5 A fuse in the supply path and in the signal path. This enables field devices to be supplied with voltage directly from the base element. In addition, the I/O board is protected against short circuits in the signal lines. If a fuse fails, this is indicated by an LED. Test points and a disconnect knife are available in the signal path for uninterrupted signal measurement. 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

- Signal line blown fuse indication
- Two-stage progressive release allowing for voltage checks with field-powered devices
- Channel for marking accessories
- Replaceable TE5-style fusing
- Signal disconnect with test points
- Integrated keying reduces possible user error during replacement
- 24 V internal marshalling option for connected field device with blown fuse indication

## Commercial data

Item number	2906599
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	C480
Product key	DK115Z
GTIN	4055626295251
Weight per piece (including packing)	73.5 g
Weight per piece (excluding packing)	73 g
Customs tariff number	85371098
Country of origin	US

## Technical data

### Product properties

Product type	Interface module
Product family	VIP I/O-Marshalling
No. of channels	1
Operating mode	100% operating factor

### Insulation characteristics

Overvoltage category	II
Pollution degree	2

### Electrical properties

Max. operating voltage $U_{max}$	30 V
Max. permissible current	500 mA (fuse limited)
Nominal voltage $U_N$	24 V DC
Max. current carrying capacity per branch	500 mA (fuse limited)

### Output data

Nominal supply voltage	24 V DC
Continuous load current	500 mA

### Connection data

#### Control circuits

Connection method	Pin strip
Number of connections	1
Number of positions	13

### Ex data

#### Safety data

Input voltage $U_i$	30 V
Input current $I_i$	500 mA
Inductance $L_i$	0 mH
Capacitance $C_i$	0 $\mu$ F
Max. output voltage $U_o$	$U_i$
Max. output current $I_o$	$I_i$
Max. output power $P_o$	$P_i$

### Interfaces

#### Data communication (bypass)

HART function	HART transparency
Protocols supported	HART

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## Signaling

Status display	no
Status display present	yes, if the fuse fails

## 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 ... 75 °C
Ambient temperature (storage/transport)	-40 °C ... 75 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	0 % ... 95 % (non-condensing)

## Approvals

### ATEX

Identification	Ⓜ II 3G Ex ec IIC T4 Gc
Certificate	JSHP 24ATEX0049X

### IECEX

Identification	Ex ec IIC T4 Gc
Certificate	IECEX JSH 24.0011X

### UKEX

Identification	Ⓜ II 3G Ex ec IIC T4 Gc
Certificate	PxCIF23UKEX2906598X

### UL, USA/Canada

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

### CSA, USA/Canada

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

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## Standards and regulations

Standards/regulations	IEC 60664
	DIN EN 50178

## Mounting

Mounting position	any
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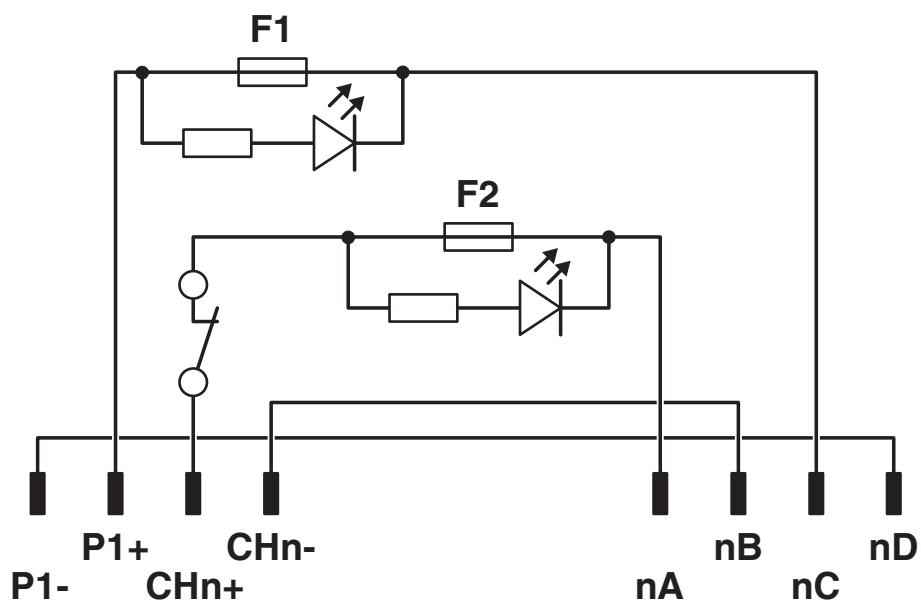
<https://www.phoenixcontact.com/us/products/2906599>

## Drawings

Dimensional drawing



Circuit diagram



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## Approvals

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### Functional Safety

Approval ID: PHO 16-09-035



### IECEX

Approval ID: IECEX JSP 24.0011X



### CSA

Approval ID: 80071103



### CSAus

Approval ID: 80071103



### cULus Listed

Approval ID: E196811-201707007

### ATEX

Approval ID: JSHP 24 ATEX 0049X

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## Classifications

### ECLASS

ECLASS-13.0	27141152
ECLASS-15.0	27141152

### ETIM

ETIM 10.0	EC002780
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 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	69f4afb9-412f-42d2-9c9a-f950abaec28

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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)