

# PLC-V8C/PT-24DC/BM2 - Controller



2907446

<https://www.phoenixcontact.com/us/products/2907446>

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PLC logic basic module, Generation 2, with 16 I/Os, for plug-in connection to eight digital or analog PLC-INTERFACE terminal blocks, can be extended to 48 I/Os, real-time clock, micro USB female connector, accommodates memory module and Bluetooth adapter, Push-in connection

## Commercial data

Item number	2907446
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C424
Product key	DK2611
GTIN	4055626218168
Weight per piece (including packing)	143.7 g
Weight per piece (excluding packing)	136 g
Customs tariff number	85371098
Country of origin	DE

## Technical data

### Notes

Notes on operation	For proper use, the specifications of the installation directive (see Downloads) must be observed. For applications or use with third-party products, the specifications, and the safety and warning instructions of the respective third-party manufacturer must also be met.
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### Product properties

Product type	Base unit
Product family	PLC logic
Operating mode	100% operating factor

#### Insulation characteristics: Air clearances and creepage distances

Insulation	Basic insulation
Overtoltage category	III
Pollution degree	2

### Electrical properties

#### Air clearances and creepage distances

Rated insulation voltage	50 V
Rated surge voltage	0.8 kV

#### Real-time clock

Realtime clock	yes
Buffer period	96 h (Capacitor)
Accuracy realtime clock	±2 s/d

#### Supply

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 26.4 V DC
Typical input current at $U_N$	40 mA
Maximum input current at $U_N$	160 mA
Protective circuit	Reverse polarity protection
	Surge protection

### Input data

#### Digital inputs

Number of inputs	≤ 8 (2 configurable as analog)
Description of the input	EN 61131-2, type 3
Input voltage	24 V DC
Signal level "0" signal	< 5 V
Signal level "1" signal	> 11 V
Input current "0" signal	< 1 mA

# PLC-V8C/PT-24DC/BM2 - Controller



2907446

<https://www.phoenixcontact.com/us/products/2907446>

Input current "1" signal	2.5 mA
Status display	LED (yellow)

## Analog inputs

Number of inputs	≤ 2 (IN6 and IN7 are configurable as analog)
Input voltage range	0 V ... 10 V
Input resistance	> 3.5 kΩ

## Contact to PLC-INTERFACE

Number of inputs	≤ 8
Description of the input	technical data depends on the PLC-INTERFACE terminal block used
Input voltage	19 V DC
Typical current consumption	4 mA
Input resistance	< 100 mΩ

## Output data

Number of outputs	≤ 8
Nominal output voltage	24 V DC
Nominal current	9 mA

## Connection data

### COMBICON connection

Connection method	Push-in connection
Stripping length	9 mm
Number of connections	1
Number of positions	10
Note	Device supply and 8 x inputs
Conductor cross-section rigid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
	0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> (Ferrule with plastic sleeve)
	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Ferrule without plastic sleeve)
Conductor cross-section AWG	26 ... 16

### Programming connection

Connection method	Micro USB type B
Number of connections	1

### INTERFACE system

Connection method	Spring-cage connection
Stripping length	6 mm
Number of connections	1
Number of positions	3
Conductor cross-section rigid	0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Conductor cross-section AWG	26 ... 20

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2907446

<https://www.phoenixcontact.com/us/products/2907446>

## PLC logic - bus

Connection method	Insulation displacement connection
Number of connections	1
Number of positions	4

## Memory

Connection method	S-PORT (socket)
Number of connections	1
Number of positions	12
Note	For connecting the memory module

## Signaling

Status display	LED (green)
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## Dimensions

Dimensional drawing	
Width	50 mm
Height	48.5 mm
Depth	111 mm (with relay)
	82.5 mm
	87 mm (with relay)

## Material specifications

Color	gray (RAL 7042)
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## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 50 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C
Max. permissible relative humidity (operation)	95 %

## Approvals

### CE

Certificate	CE-compliant
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### UL, USA/Canada

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2907446

<https://www.phoenixcontact.com/us/products/2907446>

Identification	Class I, Div. 2, Groups A, B, C, D T4
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UL, Canada

Identification	Class I, Zone 2, Ex ec IIC Gc T4 X
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UL, USA

Identification	Class I, Zone 2, AEx ec IIC T4
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## Standards and regulations

Air clearances and creepage distances

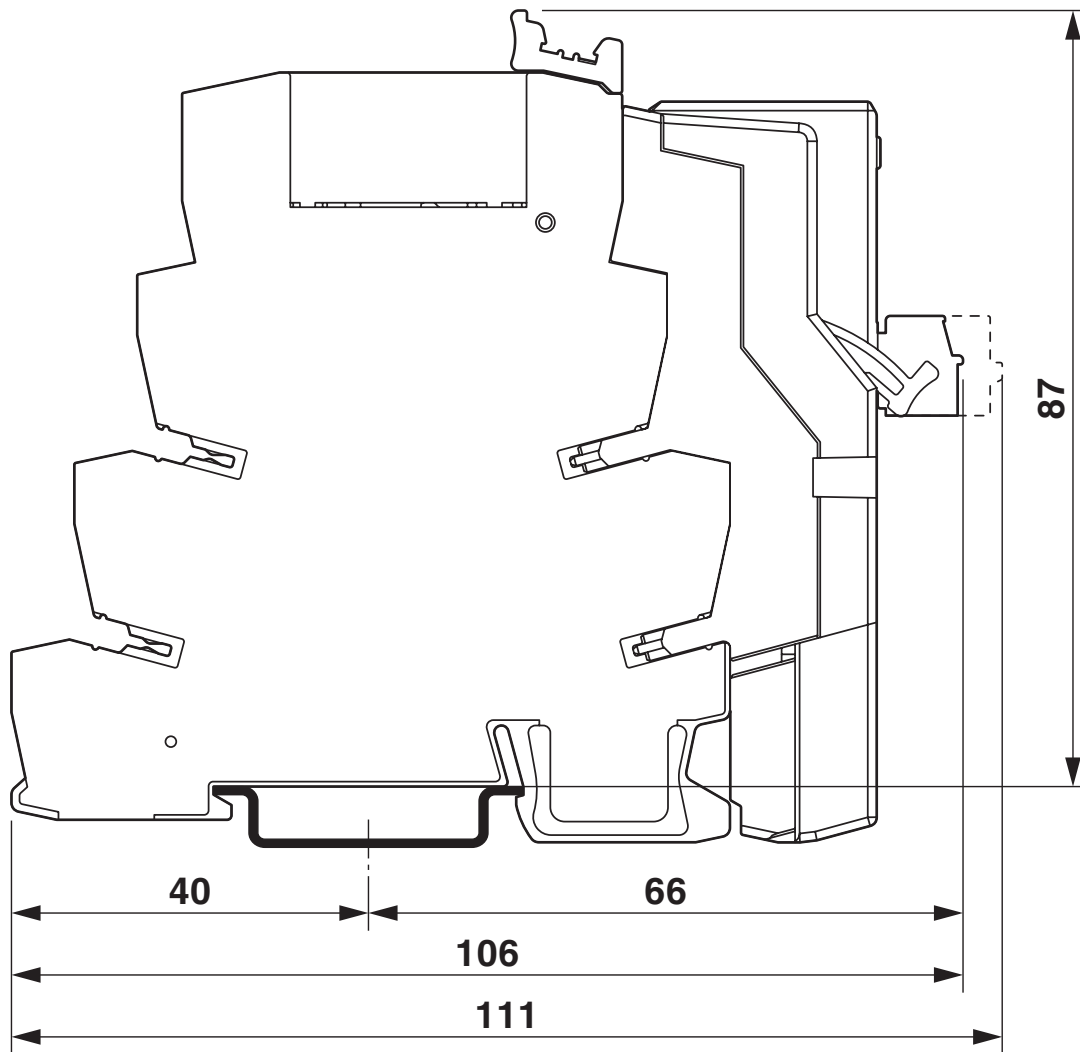
Standards/regulations	EN IEC 60664-1
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## Mounting

Mounting type	Plug-in mounting
Assembly note	can be plugged onto 8 x PLC-INTERFACE terminal blocks
Mounting position	any

Drawings

Dimensional drawing



PLC logic with relay

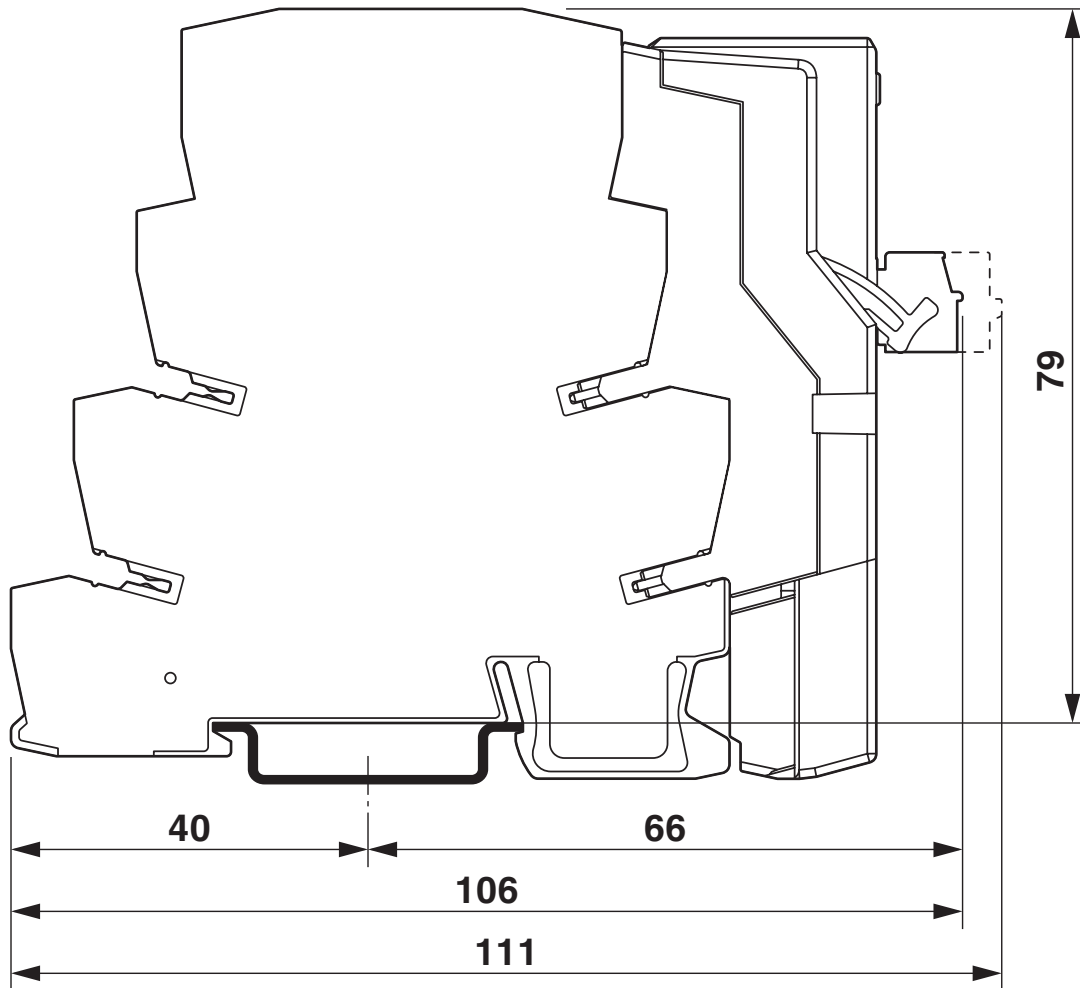
# PLC-V8C/PT-24DC/BM2 - Controller



2907446

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Dimensional drawing

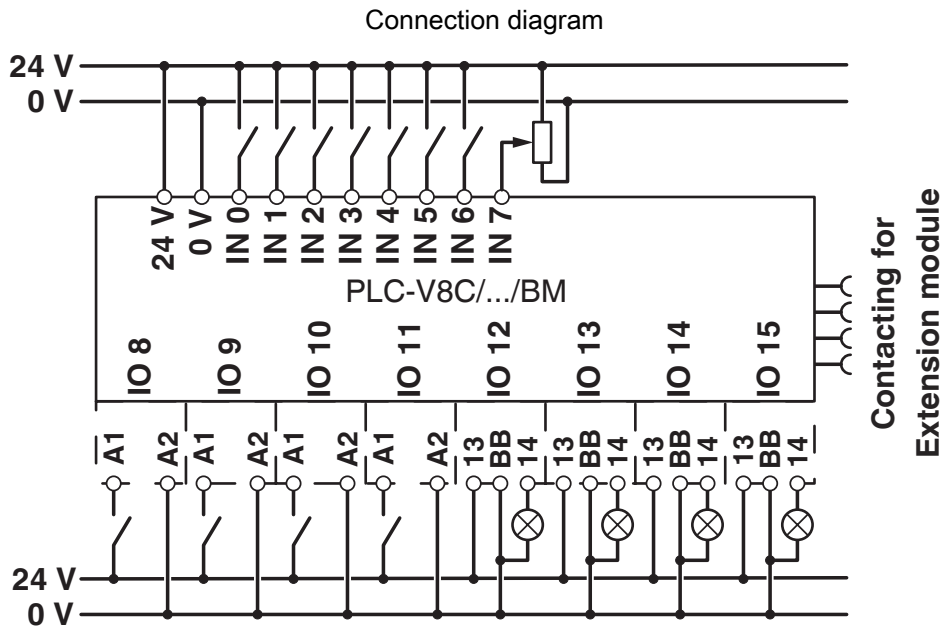


PLC logic with analogue terminals

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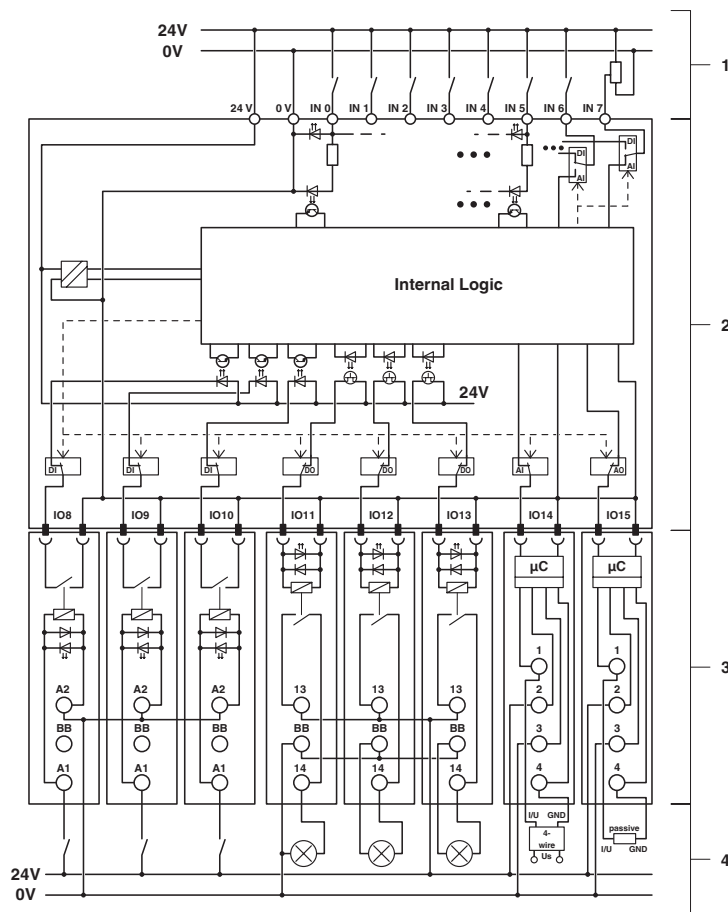
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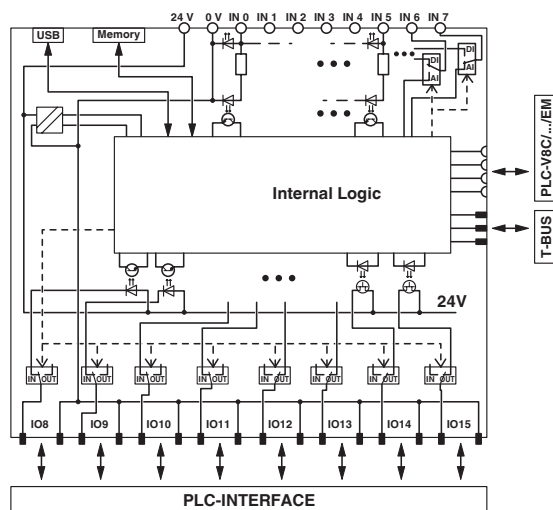
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Circuit diagram



- 1 Field connection via COMBICON connector
- 2 PLC -V8C/...
- 3 PLC-INTERFACE terminal blocks
- 4 Field connection via PLC-INTERFACE terminal blocks

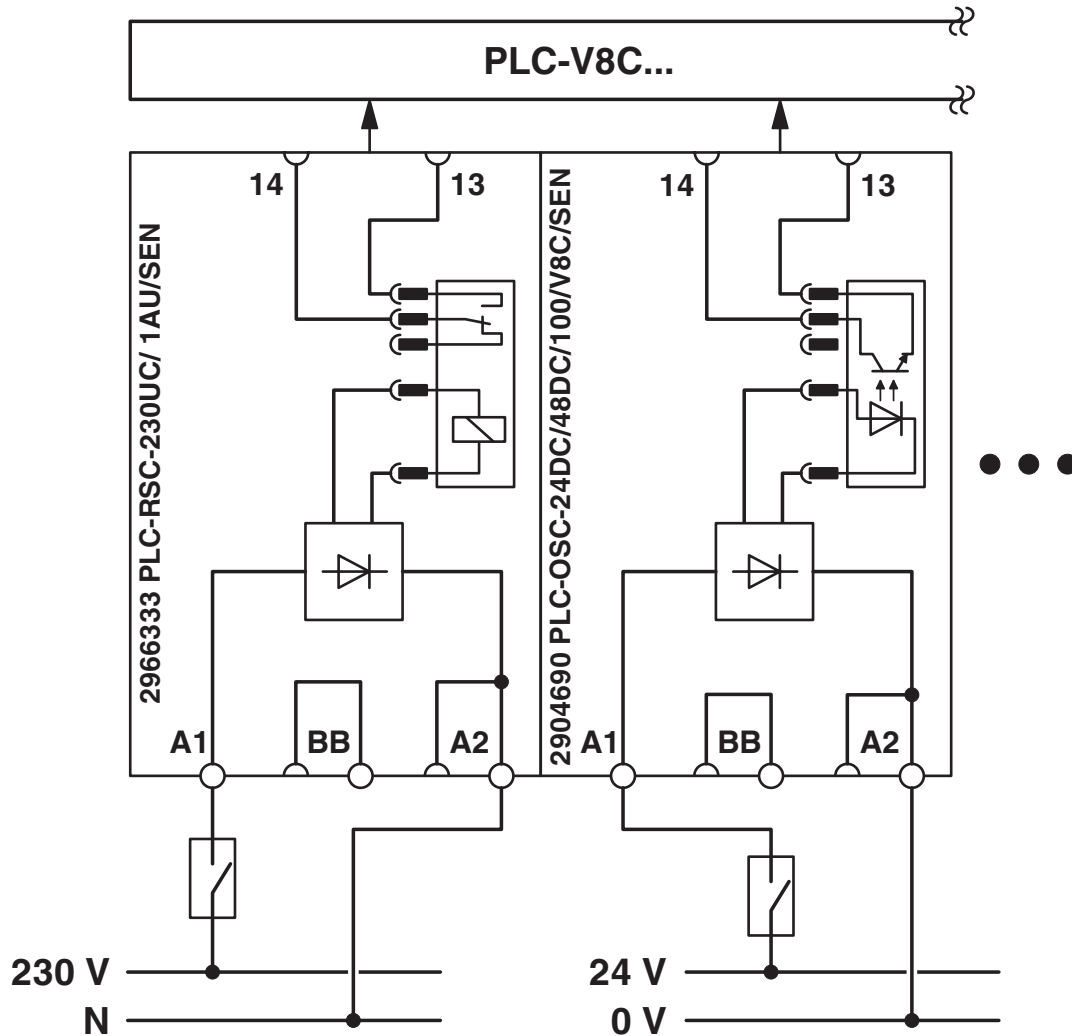
Circuit diagram



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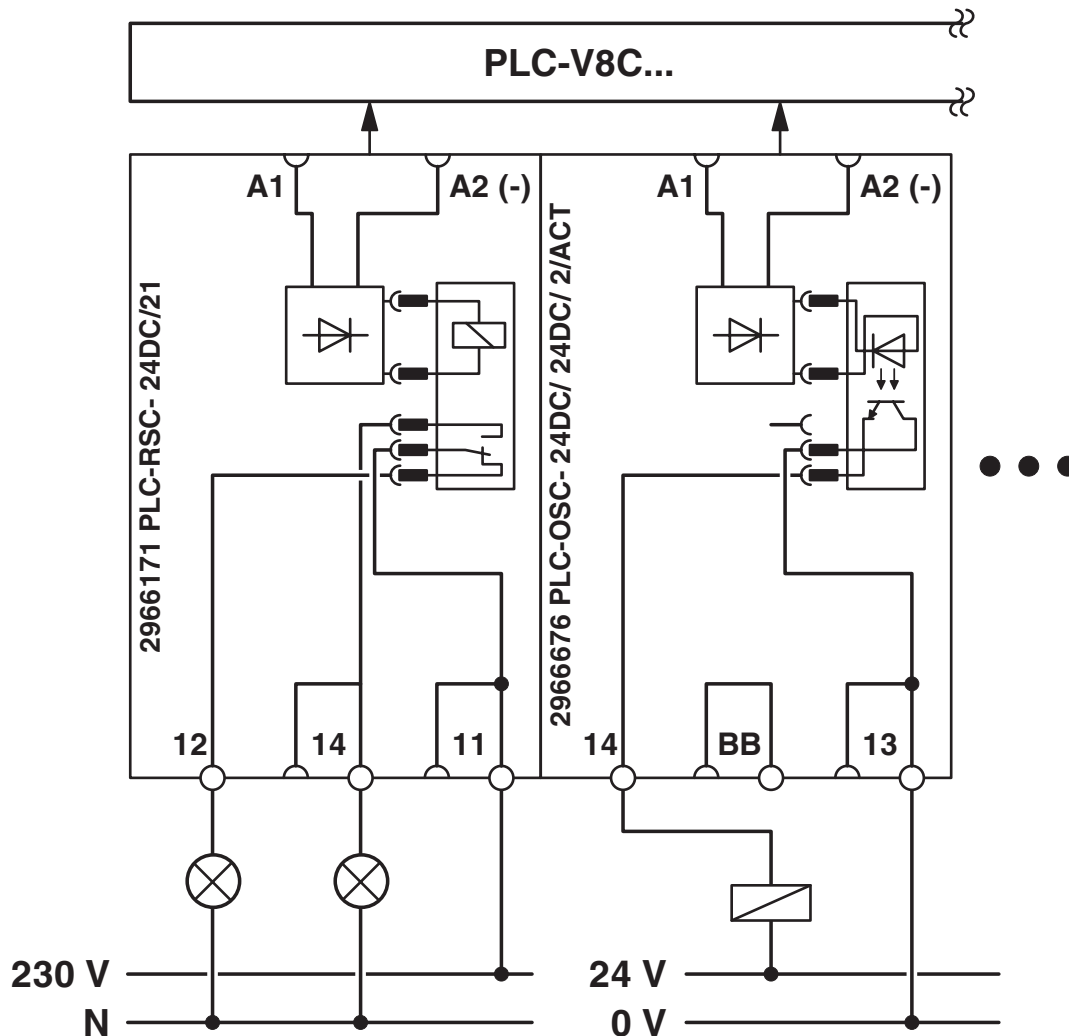
<https://www.phoenixcontact.com/us/products/2907446>

Circuit diagram



Basic circuit diagram: inputs via PLC-INTERFACE with the example of one input terminal block with relay (230 V AC) and one input terminal block with solid-state relay (24 V DC).

Circuit diagram



Basic circuit diagram: outputs via PLC-INTERFACE with the example of an output terminal block with relay, 1 changeover contact, and an output terminal block with solid-state relay.

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2907446>



**EAC**

Approval ID: RU\*DE.\*08.B.01517/19



**UL Listed**

Approval ID: FILE E 172140



**cUL Listed**

Approval ID: FILE E 172140



**cUL Listed**

Approval ID: E199827



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Approval ID: E199827

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## Classifications

### ECLASS

ECLASS-13.0	27242216
ECLASS-15.0	27242216

### ETIM

ETIM 10.0	EC001417
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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	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	e3dd21b2-ae91-4c2c-ac2c-ed9029b5dbf3

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