

## Extension module - PLC-V8C/PT-24DC/EM - 2905137


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PLC logic extension logic module with 16 I/Os for plug-in connection to 8 PLC-INTERFACE terminal blocks for extending the basic module (a maximum of two extension modules can be connected to a basic module), push-in connection



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 919487
GTIN	4046356919487
Weight per Piece (excluding packing)	120.000 g
Custom tariff number	85389099
Country of origin	Germany

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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#### Dimensions

Width	50 mm
Height	48.5 mm
Depth	82.5 mm

#### Ambient conditions

Ambient temperature (operation)	-20 °C ... 45 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C
Max. permissible relative humidity (operation)	95 %
Degree of protection	IP20

## Extension module - PLC-V8C/PT-24DC/EM - 2905137

### Technical data

#### Power supply

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 26.4 V DC
Maximum input current at $U_N$	65 mA
Protective circuit	Reverse polarity protection
	Surge protection
Status display	Green LED

#### Input data (digital)

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
Input current "1" signal	typ. 2.5 mA
Status display	Yellow LED

#### Input data (analog)

Number of inputs	2 (IN6 and IN7 are configurable as analog)
Input voltage range	0 V ... 10 V
Input resistance	> 3.5 k $\Omega$

#### Input data (PLC-INTERFACE)

Number of inputs	$\leq 8$
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 m $\Omega$

#### Output data

Number of outputs	$\leq 8$
Nominal output voltage	24 V DC
Nominal current	9 mA

#### General

Color	gray
Mounting position	any
Assembly instructions	can be plugged onto 8 x PLC-INTERFACE terminal blocks
Operating mode	100% operating factor
Degree of protection	IP20

## Extension module - PLC-V8C/PT-24DC/EM - 2905137

### Technical data

#### Connection data

Connection name	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 solid	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> (Ferrules without plastic sleeve)
Conductor cross section AWG	26 ... 16

#### Connection data 2

Connection name	PLC logic - bus
Connection method	Insulation displacement connection
Number of connections	1
Number of positions	4

#### Standards and Regulations

Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	DIN EN 50178
Rated insulation voltage	50 V
Rated surge voltage	0.8 kV
Insulation	Basic insulation
Pollution degree	2
Overvoltage category	III
Conformance	CE-compliant

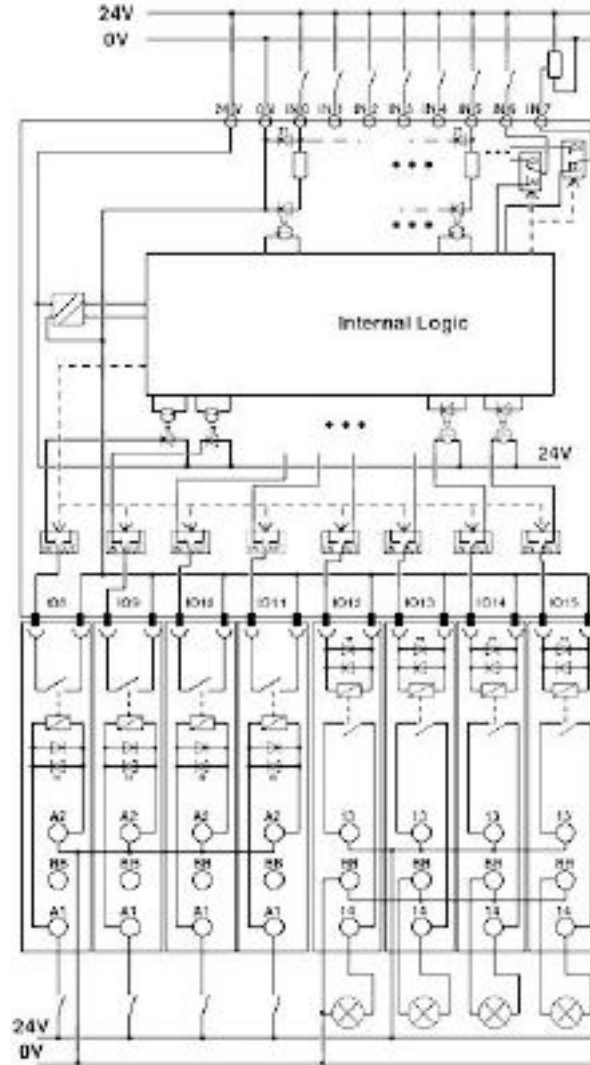
#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Drawings

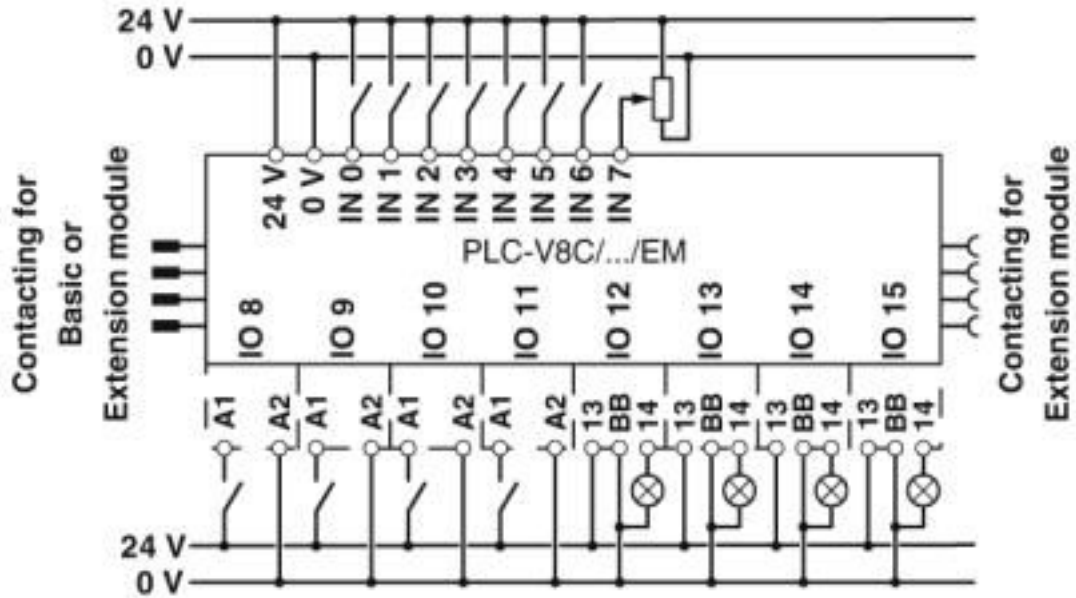
# Extension module - PLC-V8C/PT-24DC/EM - 2905137

Circuit diagram



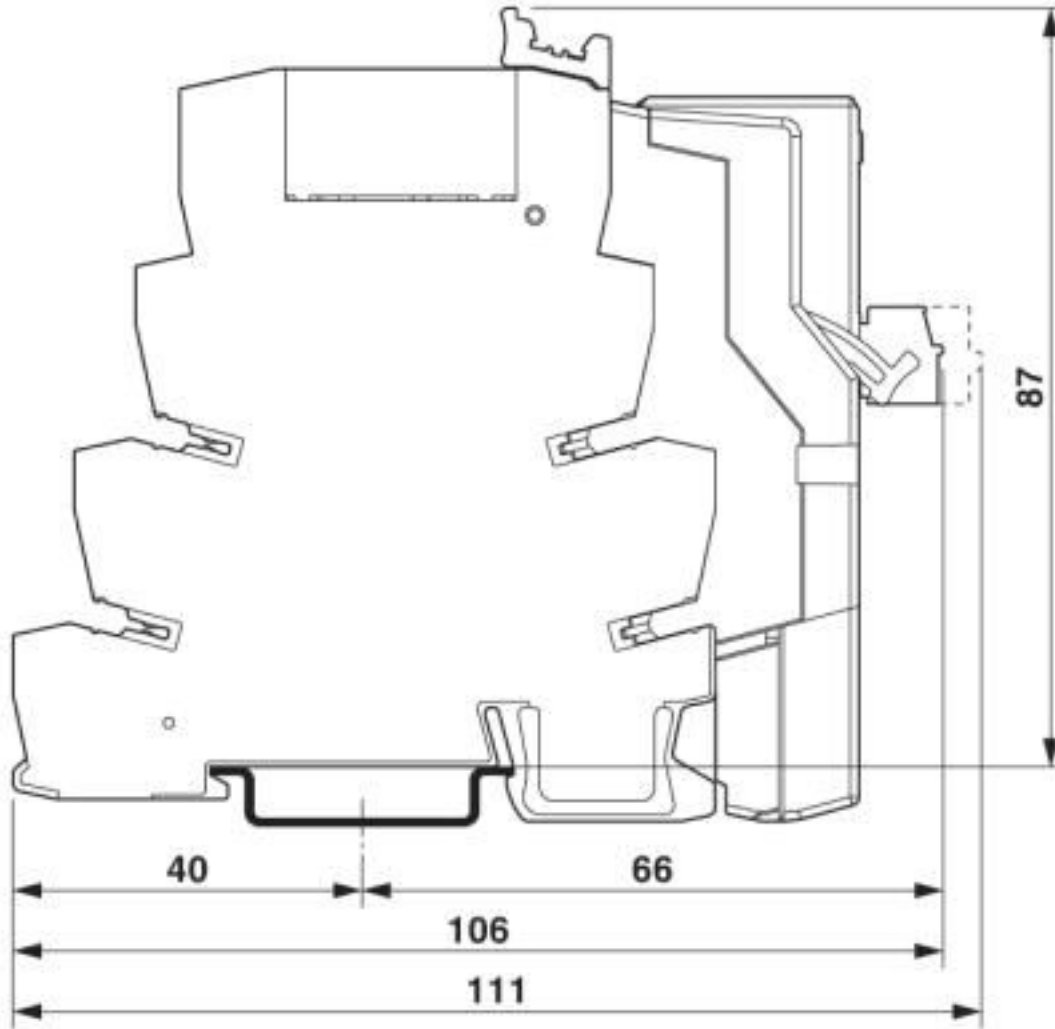
# Extension module - PLC-V8C/PT-24DC/EM - 2905137

Connection diagram



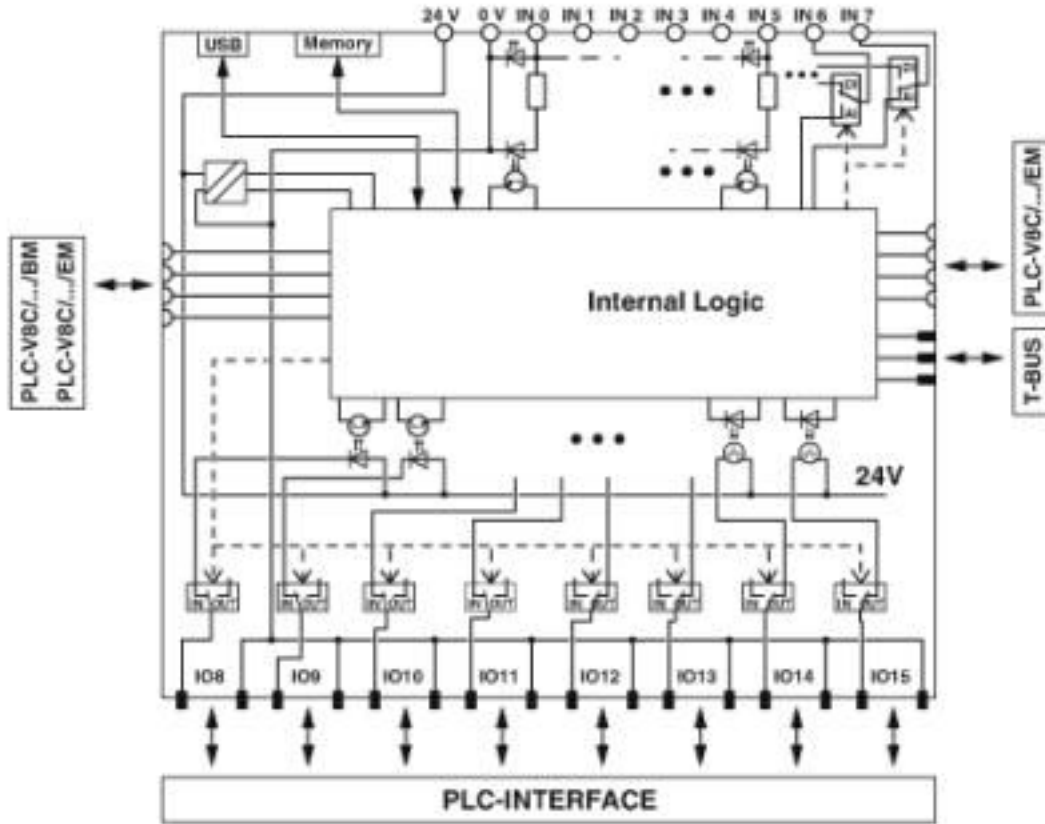
# Extension module - PLC-V8C/PT-24DC/EM - 2905137

Dimensional drawing



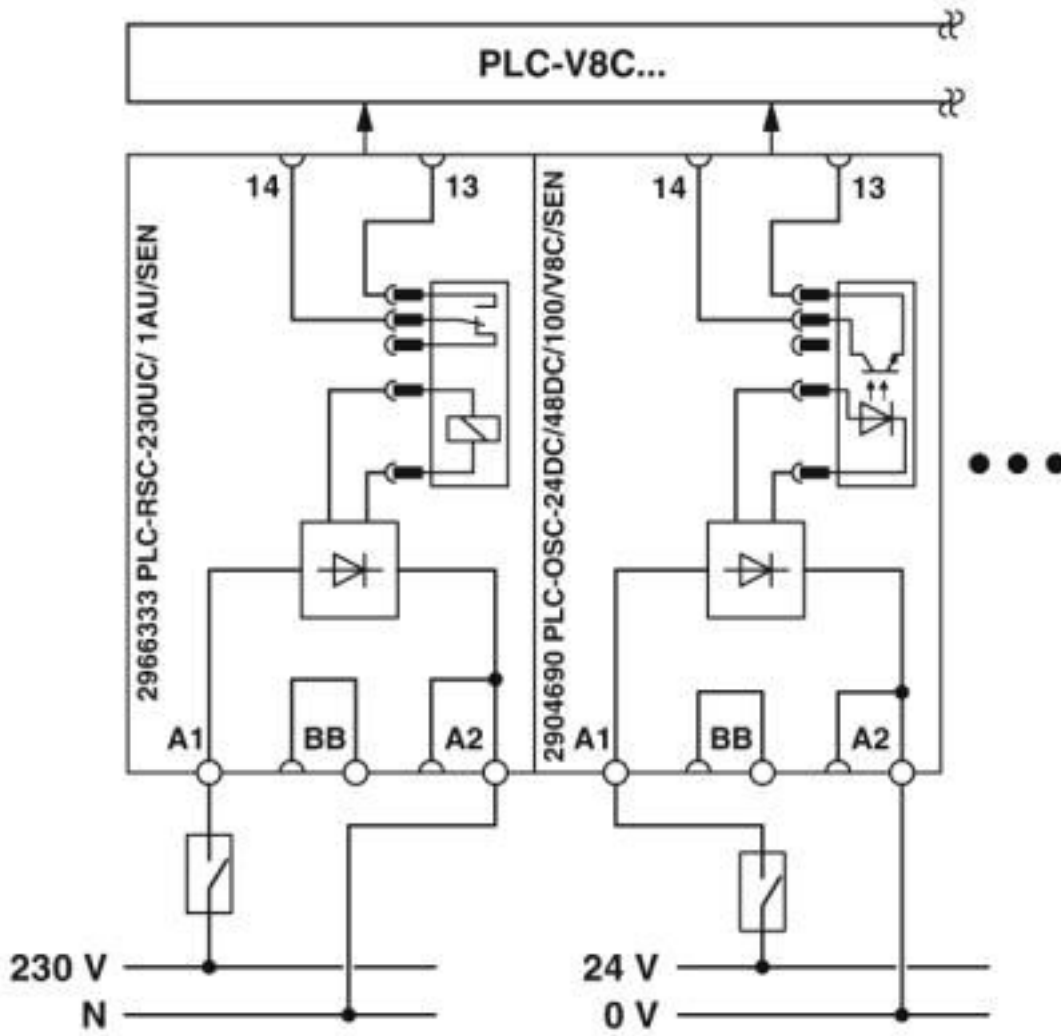
# Extension module - PLC-V8C/PT-24DC/EM - 2905137

Circuit diagram



# Extension module - PLC-V8C/PT-24DC/EM - 2905137

Circuit diagram

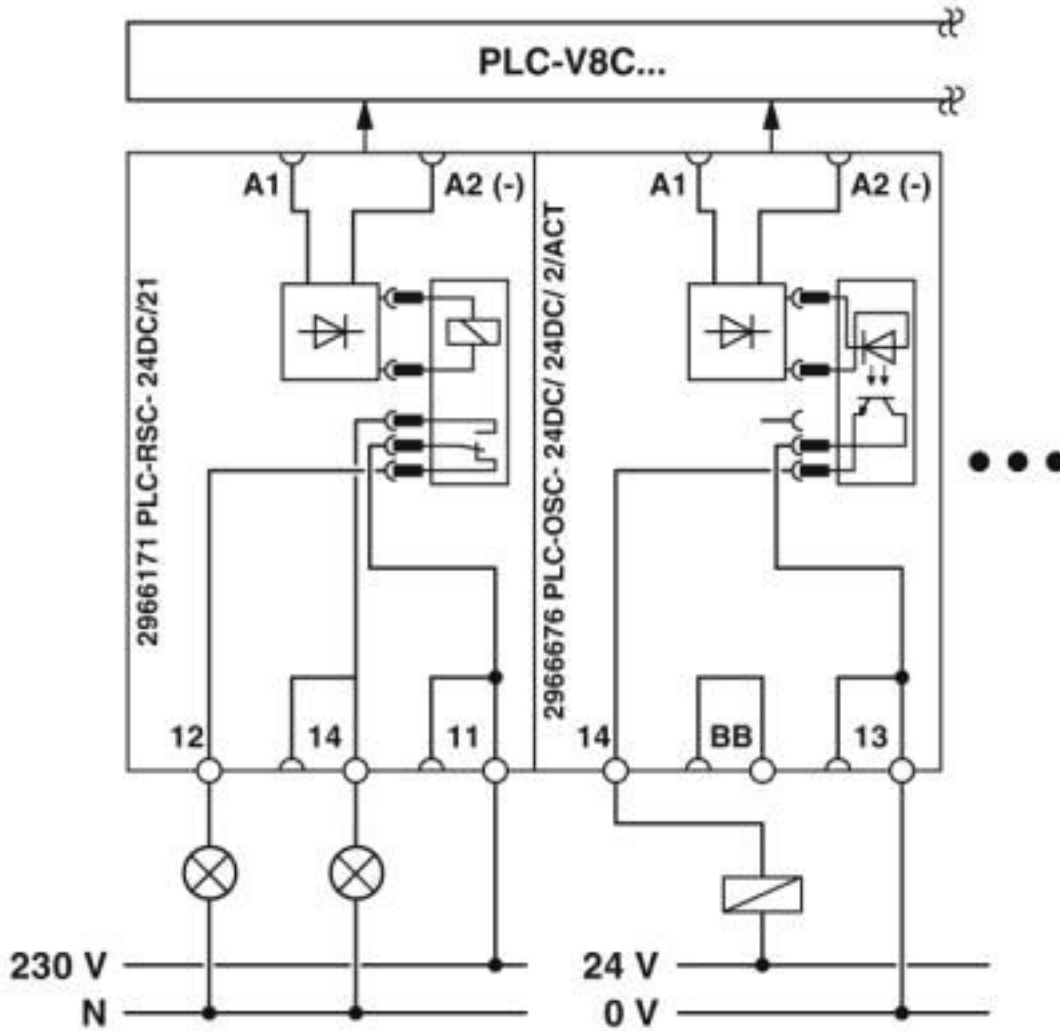


Basic circuit diagram: inputs via PLC-INTERFACE with the example of one input terminal block with relay (230 V AC) and one input terminal block with solid-state relay (24 V DC).



# Extension module - PLC-V8C/PT-24DC/EM - 2905137

Circuit diagram



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

## Classifications

eCl@ss

eCl@ss 10.0.1	27242216
eCl@ss 4.0	27242216
eCl@ss 4.1	27242216
eCl@ss 5.0	27242700
eCl@ss 5.1	27242700

# Extension module - PLC-V8C/PT-24DC/EM - 2905137

## Classifications

### eCl@ss

eCl@ss 6.0	27242200
eCl@ss 7.0	27242216
eCl@ss 8.0	27242216
eCl@ss 9.0	27242216

### ETIM

ETIM 2.0	EC001417
ETIM 3.0	EC001417
ETIM 4.0	EC001417
ETIM 5.0	EC001417
ETIM 6.0	EC001417
ETIM 7.0	EC001417

### UNSPSC

UNSPSC 13.2	39122329
UNSPSC 18.0	39122329
UNSPSC 19.0	39122329
UNSPSC 20.0	39122329
UNSPSC 21.0	39122329

## Approvals

### Approvals

#### Approvals

UL Listed / cUL Listed / EAC / cULus Listed

#### Ex Approvals

UL Listed / cUL Listed / cULus Listed

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 172140
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## Extension module - PLC-V8C/PT-24DC/EM - 2905137

### Approvals

cUL Listed		<a href="http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm</a>	FILE E 172140
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EAC			RU*DE.*08.B.01517/19
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cULus Listed			
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### Accessories

#### Accessories

##### Labeled terminal marker

Zack Marker strip, flat - ZBF 19,7 CUS - 0825021



Zack Marker strip, flat, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 19.7 mm, lettering field size: 5.15 x 19.7 mm, Number of individual labels: 5

### Relay Module

Relay Module - PLC-RPT- 24DC/21 - 2900299



PLC-INTERFACE, consisting of PLC-BPT.../21 basic terminal block with push-in technology and plug-in miniature relay with power contact, for mounting on NS 35/7,5 DIN rails, 1 PDT, input voltage: 24 V DC

Relay Module - PLC-RPT- 24DC/21AU - 2900306



PLC-INTERFACE, consisting of PLC-BPT.../21 basic terminal block with push-in connection and plug-in miniature relay with multi-layer gold contact, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V DC

## Extension module - PLC-V8C/PT-24DC/EM - 2905137

### Accessories

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#### Relay Module - PLC-RPT- 24DC/ 1/ACT - 2900312



PLC-INTERFACE for output functions, consisting of PLC-BPT.../ACT basic terminal block with push-in connection and plug-in miniature relay with power contact, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input voltage 24 V DC

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#### Switch - PLC-RPT- 24UC/ 1/S/H - 2900328



PLC-INTERFACE with switch (operation by hand) and integrated power contact relay for the "Manual, Zero and Automatic" functions, with push-in connection, for mounting on DIN rail NS 35/7.5, one N/O contact, input voltage 24 V AC/DC

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#### Relay Module - PLC-RSC- 24DC/21 - 2966171



PLC relay, consisting of base terminal block PLC-BSC.../21 with screw connection and pluggable miniature relay with power contact, for assembly on DIN rail NS 35/7.5, 1 PDT, input voltage 24 V DC

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#### Relay Module - PLC-RSC- 24DC/21AU - 2966265



PLC-INTERFACE, consisting of PLC-BSC.../21 basic terminal block with screw connection and plug-in miniature relay with multi-layer gold contact, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V DC

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#### Switch - PLC-RSC- 24UC/ 1/S/H - 2982236



PLC-INTERFACE with switch (operation by hand) for the "Manual, Zero, and Automatic" functions, with screw connection and integrated power contact relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input voltage 24 V AC/DC

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## Extension module - PLC-V8C/PT-24DC/EM - 2905137

### Accessories

#### Relay Module - PLC-RPT- 24DC/ 1AU/SEN - 2900313



PLC-INTERFACE for input functions, consisting of PLC-BPT.../SEN basic terminal block with push-in connection and plug-in miniature relay with multi-layer gold contact, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input voltage 24 V DC

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#### Relay Module - PLC-RPT-120UC/ 1AU/SEN - 2900314



PLC-INTERFACE for input functions, consisting of PLC-BPT.../SEN basic terminal block with push-in connection and plug-in miniature relay with multi-layer gold contact, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input voltage 120 V AC/110 V DC

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#### Relay Module - PLC-RPT-230UC/ 1AU/SEN - 2900315



PLC-INTERFACE for input functions, consisting of PLC-BPT.../SEN basic terminal block with push-in connection and plug-in miniature relay with multi-layer gold contact, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input voltage 230 V AC/220 V DC

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#### Relay Module - PLC-RSC- 24DC/ 1AU/SEN - 2966317



PLC-INTERFACE for input functions, consisting of PLC-BSC.../SEN basic terminal block with screw connection and plug-in miniature relay with multi-layer gold contact, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input voltage 24 V DC

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#### Relay Module - PLC-RSC-120UC/ 1AU/SEN - 2966320



PLC-INTERFACE for input functions, consisting of PLC-BSC.../SEN basic terminal block with screw connection and plug-in miniature relay with multi-layer gold contact, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input voltage 120 V AC/110 V DC

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## Extension module - PLC-V8C/PT-24DC/EM - 2905137

### Accessories

#### Relay Module - PLC-RSC-230UC/ 1AU/SEN - 2966333



PLC-INTERFACE for input functions, consisting of PLC-BSC.../SEN basic terminal block with screw connection and plug-in miniature relay with multi-layer gold contact, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input voltage 230 V AC/220 V DC

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#### Relay socket

#### Relay base - PLC-BSC- 5DC/ 1/SEN - 2980267



6.2 mm PLC basic terminal block for output functions with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with load return line connection (BB), 1 N/O contact, input voltage 5 V DC

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#### Relay base - PLC-BPT- 24DC/21 - 2900445



6.2 mm PLC basic terminal block with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V DC

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#### Relay base - PLC-BPT- 24DC/ 1/SEN - 2900262



6.2 mm PLC basic terminal block for input functions with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with sensor supply voltage distribution (BB), 1 N/O contact, input voltage 24 V DC

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#### Relay base - PLC-BSC- 24DC/21 - 2966016



6.2 mm PLC basic terminal block with screw connection, without relays or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V DC

## Extension module - PLC-V8C/PT-24DC/EM - 2905137

### Accessories

Relay base - PLC-BSC- 24DC/ 1/SEN - 2966061



6.2 mm PLC basic terminal block for input functions with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with sensor supply voltage distribution (BB), 1 N/O contact, input voltage 24 V DC

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### Screwdriver tools

Screwdriver - SZS 0,4X2,5 VDE - 1205037



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

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### Solid-state relay module

Solid-state relay module - PLC-OPT- 24DC/ 48DC/100 - 2900352



PLC-INTERFACE, consisting of PLC-BPT.../21 basic terminal block with push-in connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 - 48 V DC/100 mA

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Solid-state relay module - PLC-OPT- 24DC/ 24DC/2 - 2900364



PLC-INTERFACE, consisting of PLC-BPT.../21 basic terminal block with push-in connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 - 33 V DC/3 A

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Solid-state relay module - PLC-OPT- 24DC/230AC/1 - 2900369



PLC-INTERFACE, consisting of PLC-BPT.../21 basic terminal block with push-in connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 24 - 253 V AC/0.75 A

## Extension module - PLC-V8C/PT-24DC/EM - 2905137

### Accessories

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#### Solid-state relay module - PLC-OPT- 24DC/ 24DC/2/ACT - 2900376



PLC-INTERFACE for output functions, consisting of PLC-BPT.../ACT basic terminal block with push-in connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 - 33 V DC/3 A

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#### Solid-state relay module - PLC-OPT- 24DC/300DC/1 - 2900383



PLC-INTERFACE, integrated solid-state relay, with push-in connection, for mounting on NS 35/7,5 DIN rails, input: 24 V DC, output: 12 - 300 V DC/1 A

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#### Solid-state relay module - PLC-OPT- 24DC/ 24DC/10/R - 2900398



PLC-INTERFACE with confirmation contact, consisting of basic terminal block with push-in connection and integrated miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 - 33 V DC/10 A

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#### Solid-state relay module - PLC-OPT- 24DC/ 48DC/500/W - 2900378



PLC-INTERFACE with electronic PDT contact, consisting of PLC-BPT.../21 basic terminal block with push-in connection and integrated miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input: 24 V DC, output: 3 - 48 V DC/500 mA

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#### Solid-state relay module - PLC-OPT- 24DC/TTL - 2900363



PLC-INTERFACE for TTL signal, consisting of PLC-O.../TTL basic terminal block with push-in connection and integrated solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: TTL (5 V DC)

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## Extension module - PLC-V8C/PT-24DC/EM - 2905137

### Accessories

#### Solid-state relay module - PLC-OSC- 24DC/ 48DC/100 - 2966728



PLC-INTERFACE, consisting of PLC-BSC.../21 basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 - 48 V DC/100 mA

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#### Solid-state relay module - PLC-OSC- 24DC/ 24DC/ 2 - 2966634



PLC-INTERFACE, consisting of PLC-BSC.../21 basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 - 33 V DC/3 A

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#### Solid-state relay module - PLC-OSC- 24DC/230AC/ 1 - 2967840



PLC-INTERFACE, consisting of PLC-BSC.../21 basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 24 - 253 V AC/0.75 A

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#### Solid-state relay module - PLC-OSC- 24DC/ 24DC/ 2/ACT - 2966676



PLC-INTERFACE for output functions, consisting of PLC-BSC.../ACT basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 - 33 V DC/3 A

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#### Solid-state relay module - PLC-OSC- 24DC/230AC/ 1/ACT - 2967947



PLC-INTERFACE for output functions, consisting of PLC-BSC.../ACT basic terminal block with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 24 ... 253 V AC/0.75 A

## Extension module - PLC-V8C/PT-24DC/EM - 2905137

### Accessories

Solid-state relay module - PLC-OSC- 24DC/300DC/ 1 - 2980678



PLC-INTERFACE, integrated solid-state relay, with screw connection, for mounting on NS 35/7,5 DIN rails, input: 24 V DC, output: 12 - 300 V DC/1 A

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Solid-state relay module - PLC-OSC- 24DC/ 24DC/ 10/R - 2982702



PLC-INTERFACE with checkback contact, consisting of basic terminal block with screw connection and integrated miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 ... 33 V DC/10 A

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Solid-state relay module - PLC-OSC- 24DC/ 48DC/500/W - 2980636



PLC electronic PDT, integrated optocoupler, with screw connection, for mounting on DIN rail NS 35/7.5, input: 24 V DC, output: 3 - 48 V DC/500 mA

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Solid-state relay module - PLC-OSC- 24DC/TTL - 2982728



PLC solid-state relay with screw connection, for mounting on DIN rail NS 35/7.5, input: 24 V DC, output: TTL (5 V DC)

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Solid-state relay module - PLC-OPT-24DC/48DC/100/V8C/SEN - 2904693



PLC-INTERFACE for input functions with PLC logic, with push-in connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 - 48 V DC/100 mA

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## Extension module - PLC-V8C/PT-24DC/EM - 2905137

### Accessories

Solid-state relay module - PLC-OPT-120UC/48DC/100/V8C/SEN - 2904694



PLC-INTERFACE for input functions with PLC logic, with push-in connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 120 V AC/110 V DC, output: 3 - 48 V DC/100 mA

Solid-state relay module - PLC-OPT-230UC/48DC/100/V8C/SEN - 2904695



PLC-INTERFACE for input functions with PLC logic, with push-in connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 230 V AC/220 V DC, output: 3 - 48 V DC/100 mA

Solid-state relay module - PLC-OSC- 24DC/48DC/100/V8C/SEN - 2904690



PLC-INTERFACE for input functions with PLC logic, with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 24 V DC, output: 3 - 48 V DC/100 mA

Solid-state relay module - PLC-OSC-120UC/48DC/100/V8C/SEN - 2904691



PLC-INTERFACE for input functions with PLC logic, with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 120 V AC/110 V DC, output: 3 - 48 V DC/100 mA

Solid-state relay module - PLC-OSC-230UC/48DC/100/V8C/SEN - 2904692



PLC-INTERFACE for input functions with PLC logic, with screw connection and plug-in miniature solid-state relay, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input: 230 V AC/220 V DC, output: 3 - 48 V DC/100 mA

### Terminal marking

## Extension module - PLC-V8C/PT-24DC/EM - 2905137

### Accessories

Zack marker strips off the roll, flat - ZBF 19,7:UNBEDRUCKT - 0810627



Zack marker strips off the roll, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 19.7 mm, lettering field size: 19.7 x 5.2 mm, Number of individual labels: 5