

PLC-V8R/PT-24DC/EM - Extension module



1487020

<https://www.phoenixcontact.com/fr/products/1487020>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Extension module with 16 I/Os, for plug-in connection to 8 PLC-INTERFACE terminal blocks for extending the PLC-V8R.../BM base module (max. 3 extension modules per base module).
Approved in accordance with ATEX/IECEX (Zone 2) and Ex Zone Class I, Zone 2 (Div. 2).

Commercial data

Item number	1487020
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DK62R1
Product key	DK62R1
GTIN	4063151929183
Weight per piece (including packing)	90,3 g
Weight per piece (excluding packing)	90,3 g
Customs tariff number	85371098
Country of origin	Information on the country of origin is provided with the delivery.

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.
Notes on operation	Please note any deviating technical data, installation directives, and approvals for the PLC-INTERFACE modules, which can be found with the respective item.
Note regarding laboratory testing	Environmental tests (vibration and shock): Upright non-perforated DIN rail, DIN rail screw-fastened every 10 cm, in-line mounting including upright and screw-fastenable end brackets

Product properties

Product family	PLC-INTERFACE
Operating mode	100% operating factor

Insulation characteristics: Air clearances and creepage distances

Insulation	Functional insulation
Overvoltage category	II
Pollution degree	2

Electrical properties

Power consumption	450 mW (no other inputs and outputs active)
	≤ 850 mW (no other inputs and outputs active)
	2.5 W (IN0 ... IN7 and relay active)
	≤ 4.3 W (IN0 ... IN7 and relay active)

Air clearances and creepage distances

Rated insulation voltage	50 V
Rated surge voltage	0.5 kV

Supply

Supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC
Input current	16 mA (no other inputs and outputs active)
	≤ 22 mA (no other inputs and outputs active)
	80 mA (IN0 ... IN7 and relay active)
	≤ 130 mA (IN0 ... IN7 and relay active)
Protective circuit	Reverse polarity protection
	Surge protection

Input data

Digital inputs

Number of inputs	8 (4 configurable as analog)
------------------	------------------------------

PLC-V8R/PT-24DC/EM - Extension module



1487020

<https://www.phoenixcontact.com/fr/products/1487020>

Description of the input	EN 61131-2, type 3
Input voltage	24 V DC
Typical current consumption	2.4 mA (per channel, IN0 ... IN3)
	2.8 mA (per channel, IN4 ... IN7)
Input voltage range "0" signal	0 V DC ... 5 V DC
Input voltage range "1" signal	11 V DC ... 30 V DC
Process data update	< 1 ms (Local bus asynchronous)
Status display	LED (yellow)

Digital inputs via PLC-INTERFACE plug-in contacts

Number of inputs	≤ 8
Process data update	< 1.5 ms (Local bus asynchronous)

Analog inputs

Number of inputs	≤ 4 (IN4, IN5, IN6, and IN7 are configurable as analog)
Input voltage range	0 V DC ... 10 V DC
Temperature coefficients	± 0.01 %/K
	<± 0.06 %/K
Measuring error	1 % (From the range end value)
	<± 3 % (From the range end value)
Input impedance	see diagram
Resolution	10 bit
LSB	10 mV
Permissible voltage	0 V ... 30 V
Cable length	< 10 m
Input filter	1st order
Limit frequency (3 dB)	150 Hz (The system is designed to record static voltage signals. With dynamic voltage signals, aliasing can occur.)
Process data update	≤ 10 ms (Local bus asynchronous)

Analog inputs via PLC-INTERFACE plug-in contacts

Number of inputs	≤ 8
Process data update	< 1 s (Local bus asynchronous)

Output data

Digital outputs via PLC-INTERFACE plug-in contacts

Number of outputs	≤ 8
Process data update	< 1 ms (Local bus asynchronous)

Analog outputs via PLC-INTERFACE plug-in contacts

Process data update	< 500 ms (Local bus asynchronous)
---------------------	-----------------------------------

Connection data

COMBICON connection

Connection method	Push-in connection
-------------------	--------------------

PLC-V8R/PT-24DC/EM - Extension module



1487020

<https://www.phoenixcontact.com/fr/products/1487020>

Stripping length	9 mm
Number of positions	10
Note	Device supply and 8 x inputs
Conductor cross-section rigid	0.14 mm ² ... 1.5 mm ²
Conductor cross-section flexible	0.14 mm ² ... 1.5 mm ²
	0.25 mm ² ... 1.5 mm ² (Ferrule without plastic sleeve)
	0.25 mm ² ... 0.5 mm ² (Ferrule with plastic sleeve)
Conductor cross-section AWG	26 ... 16

Interface to other extension modules

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

Interfaces

Local bus

Designation	Local bus
Cycle time (1 Erweiterungsmodul)	5 ms
	≤ 12 ms
Cycle time (2 Erweiterungsmodule)	15 ms
	≤ 35 ms
Cycle time (3 Erweiterungsmodule)	28 ms
	≤ 65 ms

PLC-INTERFACE plug-in contacts

Designation	PLC-INTERFACE plug-in contacts
-------------	--------------------------------

Signaling

Operating voltage display	Green LED
---------------------------	-----------

Dimensions

Item dimensions

Width	50 mm
Height	49 mm
Depth	83 mm
Width	50 mm
Height	111 mm
Depth	87 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection (Housing)	IP20
Degree of protection (Connection terminal blocks)	IP20
Degree of protection (Installation location)	≥ IP54

PLC-V8R/PT-24DC/EM - Extension module



1487020

<https://www.phoenixcontact.com/fr/products/1487020>

Ambient temperature (operation)	-40 °C ... 60 °C (observe derating)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Altitude	≤ 2000 m
	≤ 3000 m (≤ 52 °C)
	≤ 4000 m (≤ 46 °C)
Max. permissible relative humidity (operation)	95 % (non-condensing)
Shock (operation)	15g (11 ms, 3 axes) (EN 60068-2-27)
Vibration (operation)	5g (5 Hz ... 150 Hz, 3 axes) (EN 60068-2-6)

EMC data

Interference emission	EN 55016-2-3 (residential area)
Noise immunity (against electrostatic discharge)	EN 61000-4-2: ±6 kV (contact discharge)
	EN 61000-4-2: ±8 kV (air discharge)
Noise immunity (against electromagnetic fields)	EN 61000-4-3: 10 V/m
Noise immunity (against conducted high frequency)	EN 61000-4-6: 10 V
Noise immunity (against fast transients (bursts))	EN 61000-4-4: ±2 kV supply and signal lines
Noise immunity (against surge current loads (surges))	EN 61000-4-5: 0.5 kV symmetrical on supply line
	EN 61000-4-5: 1 kV asymmetrical on supply line
	EN 61000-4-5: 1 kV asymmetrical on signal line

Standards and regulations

Air clearances and creepage distances

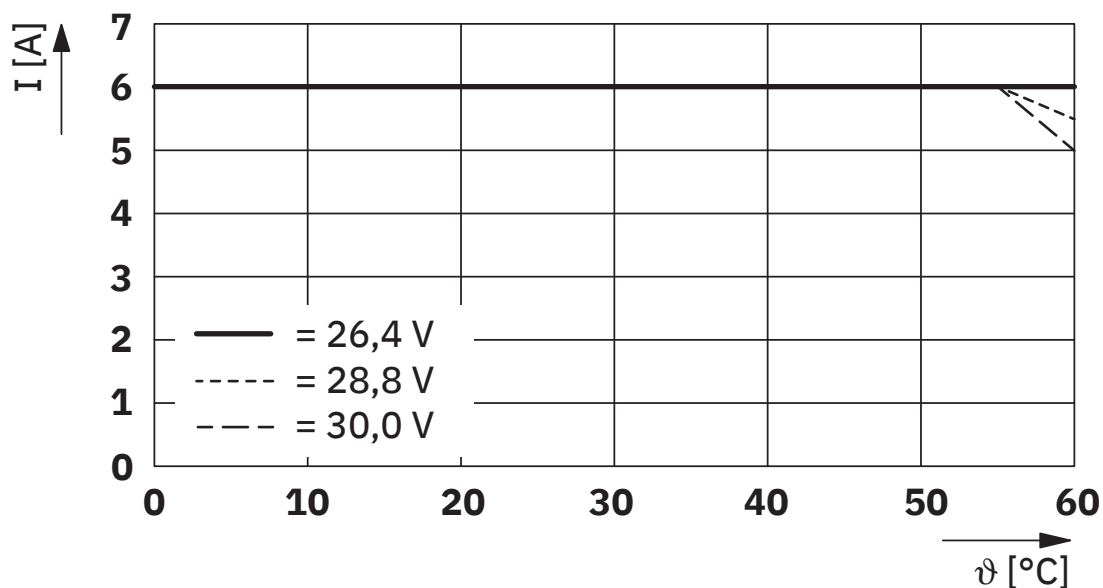
Standards/regulations	IEC/EN/UL 61010-2-201
	EN IEC 60664-1
Standards/regulations	DIN EN 61131-2

Mounting

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

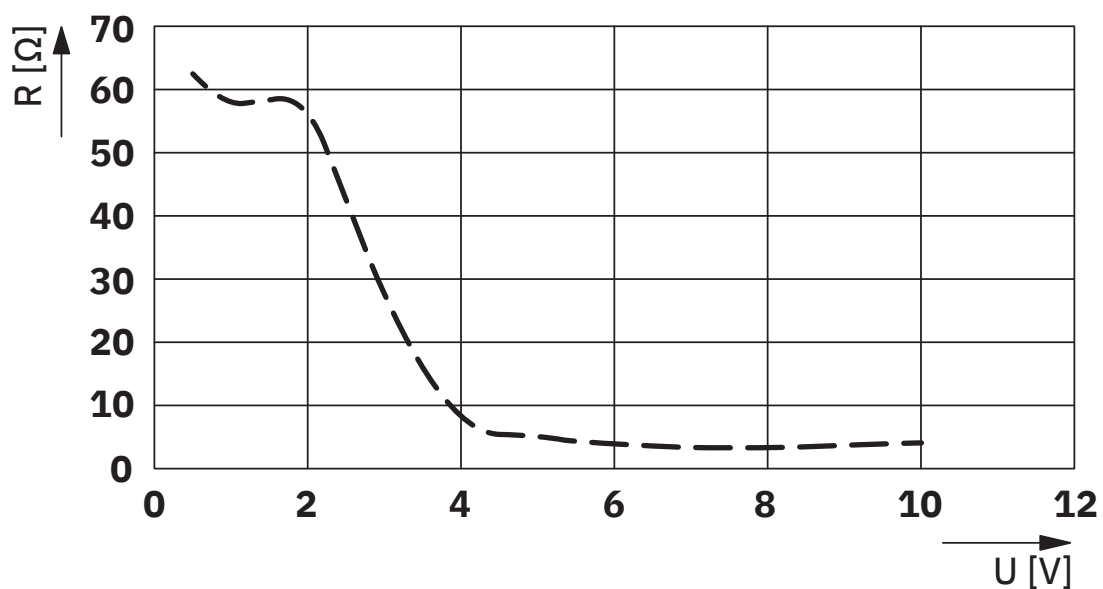
Drawings

Diagram



Max. switching current of the PLC-R...24DC/21 and PLC-R...24DC/21EX modules in combination with PLC-V8R...

Diagram



Typical input resistance of IN4 ... IN7 (analog) depending on the analog voltage at 25°C

PLC-V8R/PT-24DC/EM - Extension module



1487020

<https://www.phoenixcontact.com/fr/products/1487020>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/fr/products/1487020>



cULus Listed

Approval ID: E140324



IECEx

Approval ID: IECEx IBE 16.0029X



cULus Listed

Approval ID: E360692

PLC-V8R/PT-24DC/EM - Extension module



1487020

<https://www.phoenixcontact.com/fr/products/1487020>

Classifications

ECLASS

ECLASS-13.0	27242602
ECLASS-15.0	27242602

ETIM

ETIM 10.0	EC001597
-----------	----------

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)
-------------------------------------	----------------------

EF3.1 Climate Change

CO2e kg	8,897 kg CO2e
---------	---------------