

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



1487020

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

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PLC-INTERFACE Ethernet gateway extension module with 16 I/Os, for plug-in connection to 8 PLC-INTERFACE terminal blocks for extending the PLC-V8R.../BM basic module (max. 3 extension modules can be connected to 1 basic module), Push-in connection

Commercial data

Item number	1487020
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	DK62R1
GTIN	4063151929183
Weight per piece (including packing)	90.3 g
Weight per piece (excluding packing)	90.3 g
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.
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 type	Extension module
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

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Number of inputs	8 (4 configurable as analog)
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)
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Connection data

COMBICON connection

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Connection method	Push-in connection
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	5 ms
	≤ 12 ms
	15 ms
	≤ 35 ms
	28 ms
	≤ 65 ms

PLC-INTERFACE plug-in contacts

Designation	PLC-INTERFACE plug-in contacts
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Signaling

Operating voltage display	Green LED
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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

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Degree of protection (Installation location)	≥ IP54
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

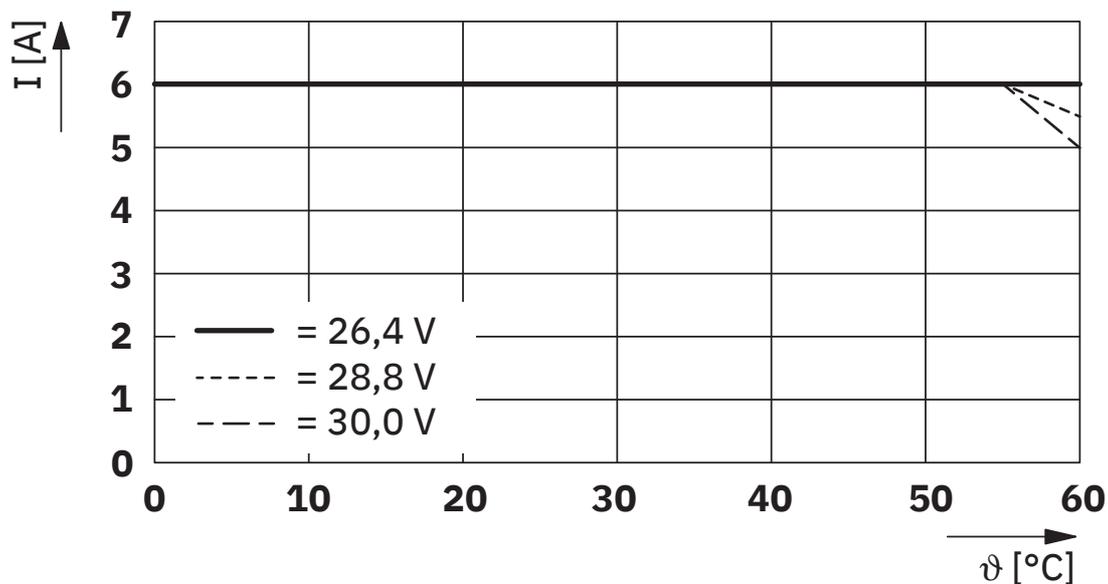
Standards/regulations	IEC/EN/UL 61010-2-201
	EN IEC 60664-1
Standards/regulations	DIN EN 61131-2

Mounting

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

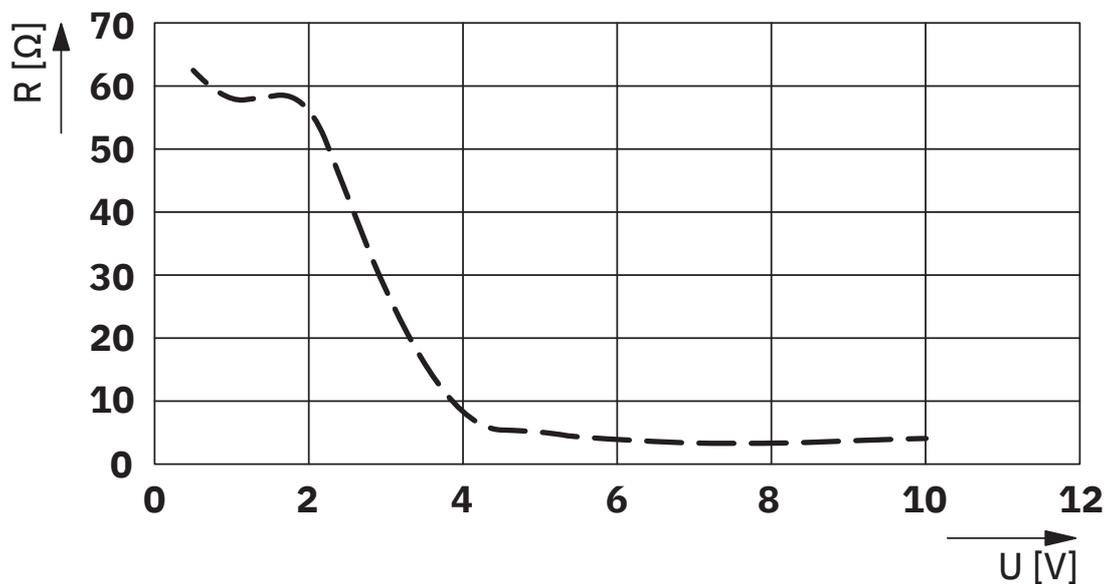
Drawings

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

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Approvals

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cULus Listed

Approval ID: E140324



IECEX

Approval ID: IECEX IBE 16.0029X



cULus Listed

Approval ID: E360692

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Classifications

ECLASS

ECLASS-13.0	27242602
ECLASS-15.0	27242602

ETIM

ETIM 9.0	EC001597
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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)
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