

# GW PN/MODBUS 2E/2DB9 - Interface converters



1105709

<https://www.phoenixcontact.com/us/products/1105709>

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The GW PN/MODBUS... enables two-way communication between PROFINET and Modbus protocols. Includes two RJ45 port and two D-SUB 9 ports.

## Commercial data

Item number	1105709
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN09
Product key	DNC323
GTIN	4055626989372
Weight per piece (including packing)	217.4 g
Weight per piece (excluding packing)	159 g
Customs tariff number	85176200
Country of origin	US

## Technical data

### Notes

#### Note on application

Note on application	Only for industrial use
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#### Utilization restriction

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

CCCEX note	Use in potentially explosive areas is not permitted in China.
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### Product properties

Product type	Interface converter
MTBF	68.1 Years (Telcordia standard, 25°C temperature, 50% stress, Environmental Factor = 1.0)
	45.4 Years (Telcordia standard, 40°C temperature, 50% stress, Environmental Factor = 1.5)

### System properties

#### Modbus/TCP-Client

Number of Modbus/TCP clients	96
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### Electrical properties

Electrical isolation	IEC UL 61010-1 (VCC // Ethernet)
Maximum power dissipation for nominal condition	2.4 W (at 24 V DC)
Test voltage data interface/data interface	1.5 kV <sub>rms</sub> (50 Hz, 1 min.)
Test voltage data interface/power supply	1.5 kV <sub>rms</sub> (50 Hz, 1 min.)
	1.5 kV <sub>rms</sub>

#### Supply

Supply voltage range	10.8 V DC ... 30 V DC (via pluggable COMBICON screw terminal block)
Typical current consumption	88 mA (24 V DC)
Max. current consumption	100 mA (24 V DC)

#### Function

Management	Web-based management
Status and diagnostic indicators	LEDs: Status, ACT/LNK (Ethernet data traffic)

### Connection data

#### Supply

Conductor cross-section, flexible	0.20 mm <sup>2</sup> ... 2.50 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 12

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Tightening torque	0.5 Nm ... 0.6 Nm
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## Interfaces

Signal	Ethernet
	PROFINET
	Modbus
Web server	yes

### Data: PROFINET, MODBUS TCP

Serial transmission speed	10/100 Mbps, auto negotiation
Connection method	RJ45 jack, shielded
Transmission length	≤ 100 m (shielded twisted pair)
Protocols supported	PROFINET, Modbus ASCII/RTU/TCP
Auxiliary protocols	ARP, DHCP (Client), PING

### Data: RS-232

Serial transmission speed	0.3; 0.6; 1.2; 2.4; 4.8; 9.6; 19.2; 38.4; 57.6; 115.2; 230.4 Kbps
Number of connections	2
Connection method	D-SUB 9 plug
Pin assignment	DTE
Transmission length	15 m
File format/coding	5/6/7/8 Data bits, 1/2 Stop bits, None/Even/Odd/Mark/Space Parity
Data flow control/protocols	Software handshake, Xon/Xoff or hardware handshake RTS/CTS

### Data: RS-422

Serial transmission speed	0.3; 0.6; 1.2; 2.4; 4.8; 9.6; 19.2; 38.4; 57.6; 115.2; 230.4 Kbps
Number of connections	2
Connection method	D-SUB 9 plug
Pin assignment	2, 3, 5, 7, 8
Transmission length	≤ 1200 m
Termination resistor	120 Ω (configurable)
File format/coding	5/6/7/8 Data bits, 1/2 Stop bits, None/Even/Odd/Mark/Space Parity

### Data: RS-485

Serial transmission speed	0.3; 0.6; 1.2; 2.4; 4.8; 9.6; 19.2; 38.4; 57.6; 115.2; 230.4 Kbps
Number of connections	2
Connection method	D-SUB 9 plug
Pin assignment	3, 5, 7
Termination resistor	120 Ω (configurable)
File format/coding	5/6/7/8 Data bits, 1/2 Stop bits, None/Even/Odd/Mark/Space Parity

## Dimensions

Width	45 mm
Height	99 mm

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Depth	115 mm
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## Material specifications

Color (Housing)	light gray (RAL 7035)
Housing material	PA 6.6

## Mechanical tests

Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	:
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	:

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	< 2000 m
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

## Approvals

### Conformity/Approvals

Conformance	CE-compliant
UL, USA	UL 61010-1
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D T4A
Noxious gas test	ISA-S71.04-1985 G3 Harsh Group A

### Ex data

ATEX	DEMKO 18ATEX 2026X: II 3 G Ex ec IIC T4 Gc
IECEX	IECEX UL 18.0023X Ex ec IIC T4 Gc

## EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise immunity	EN 61000-6-2:2005

### Noise emission

Standards/regulations	EN 61000-6-4
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## Standards and regulations

Standards/regulations	EN 55022, EN 55024
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## Mounting

Mounting type	DIN rail mounting
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## Drawings

Block diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1105709>


 **UL Listed**  
Approval ID: E238705


 **cUL Listed**  
Approval ID: E238705

 **KC**  
Approval ID: R-R-PCK-2702761

 **IECEx**  
Approval ID: IECEx UL 18.0023X

 **cUL Listed**  
Approval ID: E196811

 **UL Listed**  
Approval ID: E196811

 **ATEX**  
Approval ID: DEMKO 18 ATEX 2026X

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## Classifications

### ECLASS

ECLASS-13.0	27242208
ECLASS-15.0	27242208

### UNSPSC

UNSPSC 21.0	43222600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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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)