

# Interface converters - GW MODBUS TCP/RTU 1E/2DB9



2702765

<https://www.phoenixcontact.com/pc/products/2702765>

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The GW MODBUS TCP/RTU... gateway converts serial based Modbus RTU (or ASCII) to Modbus TCP. Supports serial client or server devices. Includes one RJ45 port and two D-SUB 9 ports.

## Commercial Data

Item number	2702765
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	DNC323
Catalog Page	Page 355 (C-6-2019)
GTIN	4055626339320
Weight per Piece (including packing)	183 g
Weight per Piece (excluding packing)	179.4 g
Customs tariff number	85176200
Country of origin	US

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## Technical Data

### Notes

#### 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	69.4 Years (Telcordia standard, 25°C temperature, 50% stress, Environmental Factor = 1.0)
	46.3 Years (Telcordia standard, 40°C temperature, 50% stress, environmental factor = 1.0)

### Electrical properties

Electrical isolation	IEC UL 61010-1 (VCC // Ethernet)
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.)
Test voltage data interface/power supply	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	76 mA (24 V DC)
Max. current consumption	85 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>
Tightening torque	0.5 Nm ... 0.6 Nm

### Interfaces

Signal	Ethernet
	Modbus
Web server	yes

#### Data: Modbus/TCP

Serial transmission speed	10/100 Mbps, auto negotiation
Connection method	RJ45 jack, shielded

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No. of channels	1
Transmission length	≤ 100 m (shielded twisted pair)
Protocols supported	Modbus RTU, Modbus ASCII, Modbus TCP
Auxiliary protocols	ARP, DHCP (Client), PING

## Data: Modbus RTU / ASCII

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: Modbus RTU / ASCII

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: Modbus RTU / ASCII

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	22.5 mm
Height	99 mm
Depth	115 mm

## Material specifications

Color	gray
Housing material	PA 6.6

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
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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)

## Approval data

### 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 emission	EN 61000-6-4
Noise immunity	EN 61000-6-2:2005

## Standards and regulations

Standards/regulations	EN 55022, EN 55024
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## Mounting

Mounting type	DIN rail mounting
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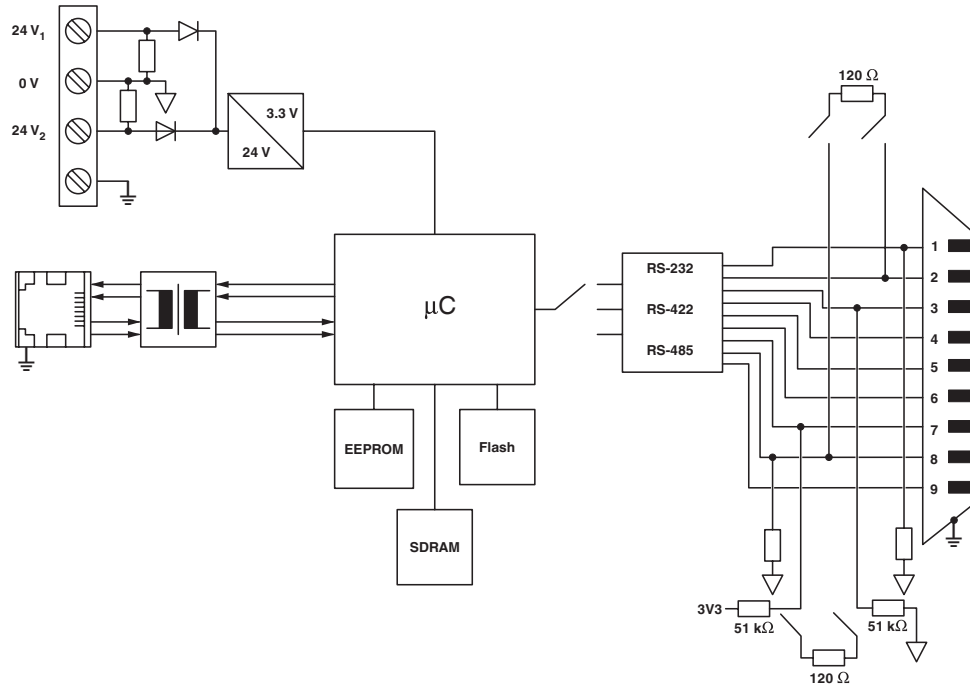


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## Drawings

Block diagram



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## Approvals



**UL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 238705



**IECEX**

Approval ID: IECEX UL 18.0023X



**cUL Listed**

Approval ID: FILE E 196811



**UL Listed**

Approval ID: FILE E 196811



**ATEX**

Approval ID: DEMKO 18 ATEX 2026X

**cULus Listed**

**cULus Listed**

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## Classifications

### ECLASS

ECLASS-9.0	19179290
ECLASS-10.0.1	19179290
ECLASS-11.0	27242208

### ETIM

ETIM 8.0	EC000310
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### UNSPSC

UNSPSC 21.0	43222600
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## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"



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## Accessories

### Data cable

Data cable - PSM-KA9SUB9/BB/2METER - 2799474

<https://www.phoenixcontact.com/pc/products/2799474>

RS-232 cable, 9-pos. D-SUB socket on 9-pos. D-SUB socket, 9-wire, 1:1



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### D-SUB bus connector

D-SUB bus connector - SUBCON 9/F-SH - 2761499

<https://www.phoenixcontact.com/pc/products/2761499>

D-SUB plug, 9-pos. female connector, one 35° cable entry, universal type for all systems, pin assignment: 1, 2, 3, 4, 5, 6, 7, 8, 9 to screw connection terminal block



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## D-SUB bus connector

D-SUB bus connector - SUBCON-PLUS-F/AX 9 - 2311797

<https://www.phoenixcontact.com/pc/products/2311797>



D-SUB connector, 9-pos. female connector, axial version with two cable entries, universal type for all systems, pin assignment: 1, 2, 3, 4, 5, 6, 7, 8, 9 to screw connection terminal block

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## Adapter

Adapter - PSM-AD-D9-NULLMODEM - 2708753

<https://www.phoenixcontact.com/pc/products/2708753>

V.24 (RS-232) zero modem connector



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## Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263

<https://www.phoenixcontact.com/pc/products/2832263>

Patch cable, CAT5, assembled, 0.5 m



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## Patch cable

Patch cable - FL CAT5 PATCH 5,0 - 2832580

<https://www.phoenixcontact.com/pc/products/2832580>

Patch cable, CAT5, assembled, 5 m



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## Industrial Ethernet Switch

Industrial Ethernet Switch - FL SWITCH SFN 5TX - 2891152

<https://www.phoenixcontact.com/pc/products/2891152>



Ethernet switch, 5 TP RJ45 ports, automatic detection of data transmission speed of 10 or 100 Mbps (RJ45), autocrossing function

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## Surge protection device

Surge protection device - DT-LAN-CAT.6+ - 2881007

<https://www.phoenixcontact.com/pc/products/2881007>



Surge protection in accordance with Class E<sub>A</sub> (CAT6<sub>A</sub>), for Gigabit Ethernet (up to 10 Gbps), token ring, FDDI/CDDI, ISDN, and DS1. Suitable for Power over Ethernet (PoE++ / 4PPoE) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.

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<https://www.phoenixcontact.com/pc/products/2702765>

## D-SUB bus connector

D-SUB bus connector - SUBCON-PLUS 9/F - 2744241

<https://www.phoenixcontact.com/pc/products/2744241>



D-SUB connector, 9-pos. female connector, two 35° cable entries, universal type for all systems, pin assignment: 1, 2, 3, 4, 5, 6, 7, 8, 9 to one screw connection terminal block

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## D-SUB bus connector

D-SUB bus connector - SUBCON-PLUS F2 - 2799490

<https://www.phoenixcontact.com/pc/products/2799490>



D-SUB connector, 9-pos. female connector, two 35° cable entries, bus system: CAN, SUCONET K1, K2 (MOELLER), S-BUS (Saia), J-BUS (Merlin Gerin), pin assignment: 2, 3, 4, 5, 7, 9 to two screw connection terminal blocks

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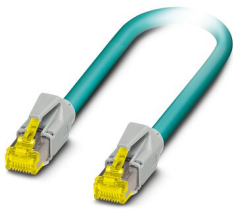
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<https://www.phoenixcontact.com/pc/products/2702765>

## Patch cable

Patch cable - NBC-R4AC-R4AC-IE8A/.../... - 1411854

<https://www.phoenixcontact.com/pc/products/1411854>



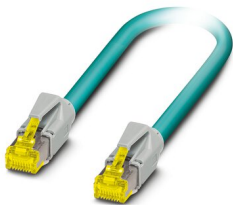
Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6<sub>A</sub>, cable outlet: straight, Ethernet

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## Patch cable

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/3,0 - 1408365

<https://www.phoenixcontact.com/pc/products/1408365>



Patch cable, CAT6<sub>A</sub>, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m

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## RJ45 connector

RJ45 connector - VS-08-RJ45-5-Q/IP20 - 1656725

<https://www.phoenixcontact.com/pc/products/1656725>



RJ45 connector, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5 (IEC 11801:2002), material: PA, connection method: IDC fast connection, connection cross section: AWG 26- 23, cable outlet: straight, color: traffic grey A RAL 7042, Ethernet

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## RJ45 connector

RJ45 connector - VS-08-RJ45-10G/Q - 1419001

<https://www.phoenixcontact.com/pc/products/1419001>



RJ45 connector, IP20, CAT6<sub>A</sub>, 8-pos., with QUICKON fast connection technology, for 26 ... 24 AWG 1-wire and 7-wire conductors, color: black

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<https://www.phoenixcontact.com/pc/products/2702765>

## Contact insert

Contact insert - VS-09-BU-DSUB-EG - 1688803

<https://www.phoenixcontact.com/pc/products/1688803>



D-SUB contact insert, shell size 1, with nine signal contacts, type of contact socket, with solder cup, straight, fixing with a 3 mm hole, for panel mounting frame and sleeve housing VS-09-...

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## Contact insert

Contact insert - VS-09-ST-DSUB-EG - 1688793

<https://www.phoenixcontact.com/pc/products/1688793>



D-SUB contact insert, shell size 1, with nine signal contacts, type of contact pin, with solder cup, straight, fixing with a 3 mm hole, for panel mounting frame and sleeve housing VS-09-...



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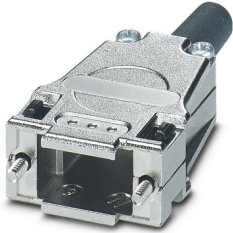
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## D-SUB sleeve housings

D-SUB sleeve housings - CUC-DST-GZNI-S/DSSC9 - 1419722

<https://www.phoenixcontact.com/pc/products/1419722>



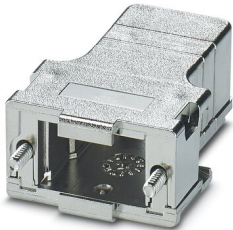
D-SUB sleeve housings, degree of protection: IP20, material: Zinc die-cast, cable outlet: straight, housing size: 1, color: Bare metallic

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## D-SUB sleeve housings

D-SUB sleeve housings - CUC-DST-GPME-S/DSSC9 - 1419705

<https://www.phoenixcontact.com/pc/products/1419705>



D-SUB sleeve housings, degree of protection: IP20, material: ABS, metal-plated, cable outlet: straight, housing size: 1, color: Bare metallic

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## Interface converter

Interface converter - PSM-ME-RS232/RS232-P - 2744461

<https://www.phoenixcontact.com/pc/products/2744461>



Interface converter, for the isolation of RS-232 (V.24) interfaces, 4 channels, rail-mountable

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## Repeater

Repeater - PSM-ME-RS485/RS485-P - 2744429

<https://www.phoenixcontact.com/pc/products/2744429>



Repeater, for potential separation and range increase in RS-485 2-wire bus systems, 3-way isolation, rail-mountable

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## Surge protection device

Surge protection device - TTC-6P-3-HF-F-M-24DC-PT-I - 2906797

<https://www.phoenixcontact.com/pc/products/2906797>



Surge protection, consisting of protective plug and base element, with integrated status indicator and knife disconnection for three signal wires with common reference potential. For HF applications and telecommunications interfaces without supply voltage. Indirect grounding via gas discharge tube, Ex e approval for zone 2.

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## Surge protection device

Surge protection device - TTC-6P-3-HF-F-M-12DC-UT-I - 2906786

<https://www.phoenixcontact.com/pc/products/2906786>



Surge protection, consisting of protective plug and base element, with integrated status indicator and knife disconnection for three signal wires with common reference potential. For HF applications and telecommunications interfaces without supply voltage. Indirect grounding via gas discharge tube, Ex e approval for zone 2.

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## Mounting plate

Mounting plate - FL DIN-RAIL ADAPTER 22.5 - 1085485

<https://www.phoenixcontact.com/pc/products/1085485>



The FL DIN-RAIL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a standard 35 mm DIN rail, in any orientation.

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