

# FL COMSERVER PRO 232/422/485 - Interface converters



2313465

<https://www.phoenixcontact.com/us/products/2313465>

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**Second generation** FL COMSERVER PRO... (PROGRAMMABLE), freely programmable in BASIC programming language, for creation of custom solutions to implement a serial RS-232/422/485 interface on the Ethernet. Incl. examples, additional software, and user documentation

## Your advantages

- Configuration via web-based management
- All connections can be plugged in using a COMBICON screw terminal block
- Free programmable in BASIC programming language
- Creation of own visualization on web server
- Software for virtual COM ports supplied as standard

## Commercial data

Item number	2313465
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	DN11
Product key	DNC321
GTIN	4046356451338
Weight per piece (including packing)	221.8 g
Weight per piece (excluding packing)	194.4 g
Customs tariff number	85176200
Country of origin	DE

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## Technical data

### Notes

#### 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	666 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
	179 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))

#### Functions

Management	Web-based management
	SNMP v1/v2
Supported browsers	Netscape Communicator versions 4.5 and up or Internet Explorer versions 5.5 and up

### System properties

#### System requirements

Supported browsers	Netscape Communicator versions 4.5 and up or Internet Explorer versions 5.5 and up
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### Electrical properties

Electrical isolation	VCC // Ethernet // Serial
Maximum power dissipation for nominal condition	2.4 W
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	19.2 V AC/DC ... 28.8 V AC/DC (via pluggable COMBICON screw terminal block)
	22.8 V DC ... 25.2 V DC (as an alternative or redundant, via backplane bus contact and system current supply)
Nominal supply voltage	24 V AC/DC ±20 % (via pluggable COMBICON screw terminal block)
	24 V DC ±5 % (as an alternative or redundant, via backplane bus contact and system current supply)
Typical current consumption	100 mA (24 V DC)

#### Function

Management	Web-based management, SNMP, serial emergency access
Status and diagnostic indicators	LEDs: UL (logic voltage), TD + RD (data activity serial), FD (full duplex), 100 (100 Mbps mode), Link (Ethernet), Activity (Ethernet), ERR (error)

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## Connection data

### Supply

Tightening torque	0.56 Nm ... 0.79 Nm
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## Interfaces

Signal	Ethernet
Web server	yes

Data: Ethernet interface, 10/100Base-T(X) in accordance with IEEE 802.3

Serial transmission speed	10/100 Mbps, auto negotiation
Connection method	RJ45 jack, shielded
No. of channels	1
Transmission length	≤ 100 m (shielded twisted pair)
Protocols supported	TCP/IP, UDP
Auxiliary protocols	ARP, DHCP, BOOTP, SNMP, RIP, RARP, HTTP, TFTP, ICMP

Data: V.24 (RS-232) interface in acc. with ITU-T V.28, EIA/TIA-232, DIN 66259-1

Serial transmission speed	0.3; 0.6; 1.2; 2.4; 4.8; 7.2; 9.6; 19.2; 38.4; 57.6; 115.2; 187.5; 230.4 kbps
Connection method	D-SUB 9 plug
Pin assignment	DTE/DCE switchover via web-based management
File format/coding	UART/NRZ: 7/8 Bit Data, 1/2 Bit Stopp, None/Even/Odd Parity
Data flow control/protocols	Software handshake, Xon/Xoff or hardware handshake RTS/CTS

Data: RS-422 interface in acc. with ITU-T V.11, EIA/TIA-422, DIN 66348-1

Serial transmission speed	0.3; 0.6; 1.2; 2.4; 4.8; 7.2; 9.6; 19.2; 38.4; 57.6; 115.2; 187.5; 230.4; 500; 1000 kbps
Connection method	Plug-in/screw connection via COMBICON
Transmission length	≤ 1200 m
Termination resistor	390 Ω (configurable) 180 Ω 390 Ω
File format/coding	UART/NRZ: 7/8 Bit Data, 1/2 Bit Stopp, None/Even/Odd Parity
Data flow control/protocols	Automatic control

Data: RS-485 interface, in acc. with EIA/TIA-485, DIN 66259-4/RS-485 2-wire

Serial transmission speed	0.3; 0.6; 1.2; 2.4; 4.8; 7.2; 9.6; 19.2; 38.4; 57.6; 115.2; 187.5; 230.4; 500; 1000 kbps
Connection method	Plug-in/screw connection via COMBICON
Termination resistor	390 Ω (configurable) 180 Ω 390 Ω (configurable)
File format/coding	UART/NRZ: 7/8 Bit Data, 1/2 Bit Stopp, None/Even/Odd Parity
Data flow control/protocols	Automatic control

## Dimensions

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Width	22.5 mm
Height	99 mm
Depth	116 mm

## Material specifications

Color (Housing)	green (RAL 6021)
Material (Housing)	PA 6.6-FR

## Mechanical tests

Free fall in accordance with IEC 60068-2-32	Free fall: 1 m
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	Vibration (operation): 5g, 10...150 Hz, 2.5 h, in XYZ direction
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	Shock (operation): 15g, 11 ms period, half-sine shock pulse
	Shock (storage/transport): 30g, 11 ms period, half-sine shock pulse

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C
	-20 °C ... 60 °C (in acc. with UL)
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Altitude	≤ 5000 m (For restrictions, see the manufacturer's declaration for altitude operation)
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

## Approvals

### CE

Certificate	CE-compliant
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### ATEX

Identification	⊕ II 3G Ex nA IIC T4 Gc X
Note	Please follow the special installation instructions in the documentation!

### UL, USA/Canada

Identification	508 Listed
	Class I, Div. 2, Groups A, B, C, D

### UL, USA

Identification	Class I, Zone 2, AEx nA IIC T5
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### UL, Canada

Identification	Class I, Zone 2, Ex nA IIC T5 Gc X
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### Corrosive gas test

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Identification	ISA-S71.04-1985 G3 Harsh Group A
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## 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

Free from substances that could impair the application of coating	in accordance with VW-AUDI-Seat central standard P-VW 3.10.7 57 65 0
Standards/regulations	EN 50121-4
Standard designation	Railway applications

## Mounting

Mounting type	DIN rail mounting
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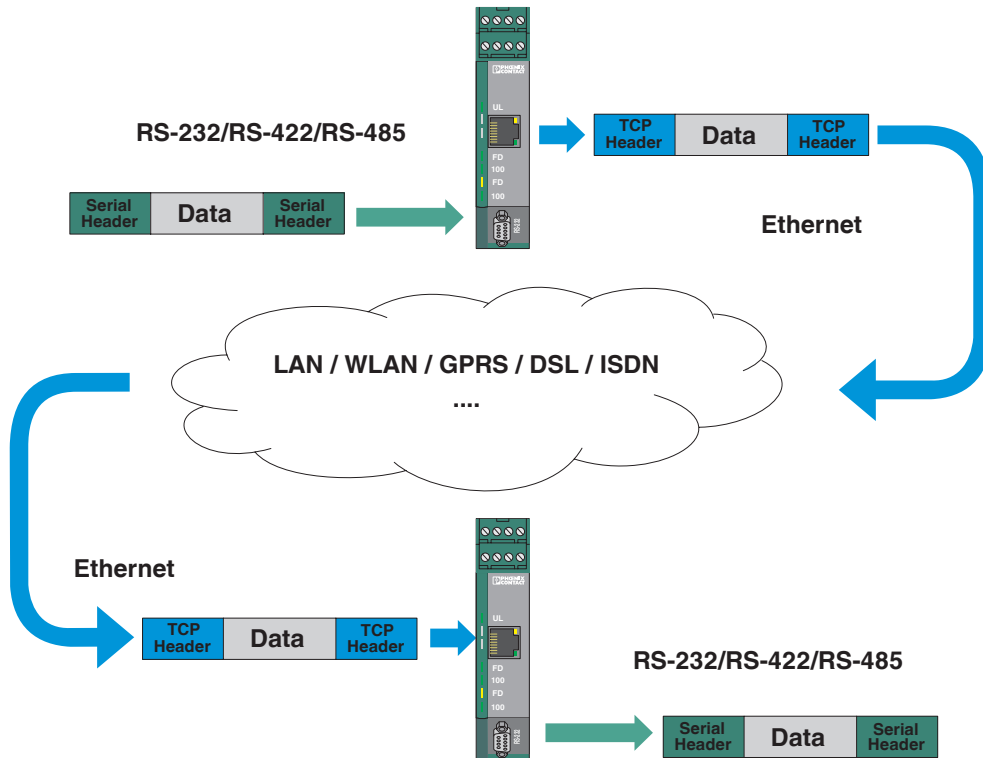
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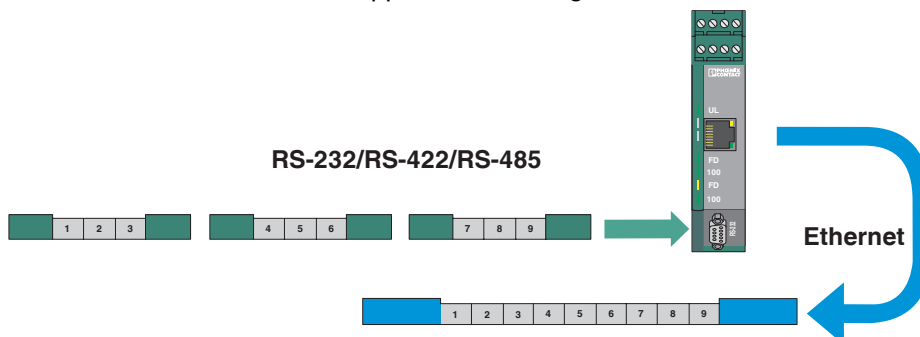
## Drawings

Application drawing



Serial data transmission via Ethernet

Application drawing



Large value: "Idle Force Timeout Characters"

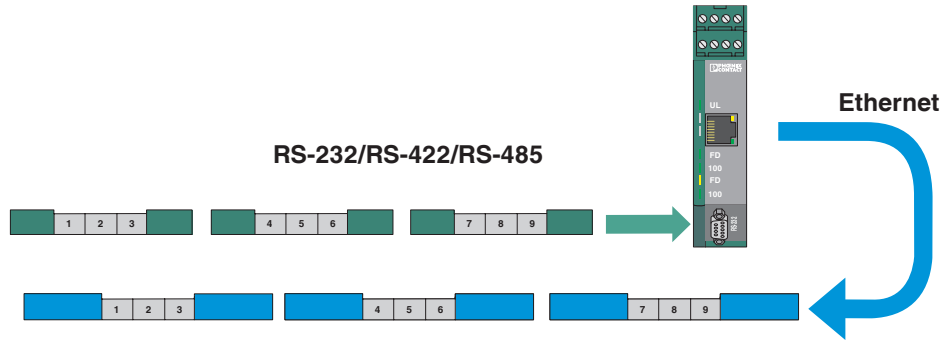
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Application drawing



Small value: "Idle Force Timeout Characters"

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## Classifications

### UNSPSC

UNSPSC 21.0	43222600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 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.)	No substance above 0.1 wt%
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