

# Interface converters - FL COMSERVER UNI 232/422/485 - 2313452

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Second generation FL COMSERVER UNI..., serial device server for converting a serial 232/422/485 interface to Ethernet, supports TCP, UDP, Modbus gateway, and PPP applications, incl. COM port redirector software and user documentation

## Product Features

- Modbus gateway between ModbusRTU/ASCII and ModbusTCP
- All connections can be plugged in using a COMBICON screw terminal block
- Configuration via web-based management
- Software for virtual COM ports supplied as standard



## Key commercial data

package_quantity	1
GTIN	4046356451321

## Technical data

Note:

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

Width	22.5 mm
Height	99 mm
Depth	116 mm

## Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (operation)	-20 °C ... 60 °C (With UL approval)
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Permissible humidity (operation)	10 % ... 95 % (no condensation)
Permissible humidity (storage/transport)	5 % ... 95 % (no condensation)
Altitude	5000 m (For restrictions see manufacturer's declaration)
Degree of protection	IP20
Noise immunity	EN 61000-6-2:2005

# Interface converters - FL COMSERVER UNI 232/422/485 - 2313452

## Technical data

### Serial interface

<b>Interface 1</b>	Ethernet interface, 10/100BASE-T(X) in acc. with IEEE 802.3u
<b>Interface</b>	Ethernet
<b>Connection method</b>	RJ45 socket, shielded
<b>Transmission length</b>	≤ 100 m (shielded twisted pair)
<b>Protocols supported</b>	TCP/IP, UDP, Modbus (TCP, RTU/ASCII), PPP
<b>Auxiliary protocols</b>	ARP, DHCP, BOOTP, SNMP, RIP, RARP, HTTP, TFTP
<b>Data flow control/protocols</b>	Modbus TCP
<b>Serial transmission speed</b>	10/100 Mbps, autonegotiation
<b>Interface 2</b>	V.24 (RS-232) interface in acc. with ITU-T V.28, EIA/TIA-232, DIN 66259-1
<b>Interface</b>	V.24 (RS-232)
<b>Connection method</b>	D-SUB-9 male connector
<b>File format/coding</b>	UART/NRZ: 7/8 bit data, 1/2 bit stop, 1 bit parity
<b>Transmission length</b>	15 m
<b>Pin assignment</b>	DTE/DCE switchover via web-based management
<b>Data flow control/protocols</b>	Software handshake, Xon/Xoff, or hardware handshake RTS/CTS // 3964 R compatible, Modbus RTU/ASCII
<b>Serial transmission speed</b>	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
<b>Interface 3</b>	RS-422 interface in acc. with ITU-T V.11, EIA/TIA-422, DIN 66348-1
<b>Interface</b>	RS-422
<b>Connection method</b>	Plug-in/screw connection via COMBICON
<b>File format/coding</b>	Serial asynchronous UART/NRZ, 7/8 data, 1/2 stop, 1 parity, 10/11-bit character length
<b>Transmission length</b>	≤ 1200 m
<b>Termination resistor</b>	390 Ω (configurable)
<b>Termination resistor</b>	180 Ω
<b>Termination resistor</b>	390 Ω
<b>Data flow control/protocols</b>	Automatic control
<b>Serial transmission speed</b>	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
<b>Interface 4</b>	RS-485 interface, in acc. with EIA/TIA-485, DIN 66259-4/RS-485 2-wire
<b>Interface</b>	RS-485
<b>Connection method</b>	Plug-in/screw connection via COMBICON
<b>File format/coding</b>	Serial asynchronous UART/NRZ, 7/8 data, 1/2 stop, 1 parity, 10/11-bit character length
<b>Termination resistor</b>	390 Ω
<b>Termination resistor</b>	180 Ω
<b>Termination resistor</b>	390 Ω (configurable)
<b>Data flow control/protocols</b>	Automatic control

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## Technical data

### Serial interface

<b>Serial transmission speed</b>	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
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### Power supply

<b>Nominal supply voltage</b>	24 V AC/DC $\pm 20\%$ (via pluggable COMBICON screw terminal block)
<b>Nominal supply voltage</b>	24 V DC $\pm 5\%$ (as an alternative or redundant, via backplane bus contact and system current supply)
<b>Typical current consumption</b>	100 mA (24 V DC)

### General

<b>Electrical isolation</b>	DIN EN 50178 (VCC // Ethernet // Serial)
<b>Test voltage data interface/data interface</b>	1.5 kV <sub>rms</sub> (50 Hz, 1 min.)
<b>Test voltage data interface/power supply</b>	1.5 kV <sub>rms</sub>
<b>Test voltage data interface/power supply</b>	1.5 kV <sub>rms</sub> (50 Hz, 1 min.)
<b>Standards/regulations</b>	EN 50121-4
<b>Electromagnetic compatibility</b>	Conformance with EMC Directive 2004/108/EC
<b>Noise emission</b>	EN 61000-6-4
<b>Net weight</b>	130 g
<b>Housing material</b>	PA 6.6-FR
<b>Color</b>	green
<b>MTBF</b>	666 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))
<b>MTBF</b>	179 Years (Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day))
<b>MTTF</b>	2013 Years (SN 29500 standard, temperature 25°C, operating cycle 21% (5 days a week, 8 hours a day))
<b>MTTF</b>	879 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25% (5 days a week, 12 hours a day))
<b>MTTF</b>	359 Years (SN 29500 standard, temperature 40°C, operating cycle 100% (7 days a week, 24 hours a day))
<b>ATEX</b>	# II 3 G Ex nA IIC T4 Gc X
<b>UL, USA</b>	Class I, Zone 2, AEx nA IIC T5
<b>UL, USA / Canada</b>	508 listed
<b>UL, USA / Canada</b>	Class I, Div. 2, Groups A, B, C, D
<b>UL, Canada</b>	Class I, zone 2, Ex nA IIC T5 Gc X

### Function

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

# Interface converters - FL COMSERVER UNI 232/422/485 - 2313452

## classifications

### eCl@ss

eCl@ss 4.0	27250504
eCl@ss 4.1	27250504
eCl@ss 5.0	27250504
eCl@ss 5.1	27250504
eCl@ss 6.0	27250504
eCl@ss 7.0	27250504
eCl@ss 8.0	19170125

### ETIM

ETIM 2.0	EC000310
ETIM 3.0	EC000310
ETIM 4.0	EC000310
ETIM 5.0	EC000310

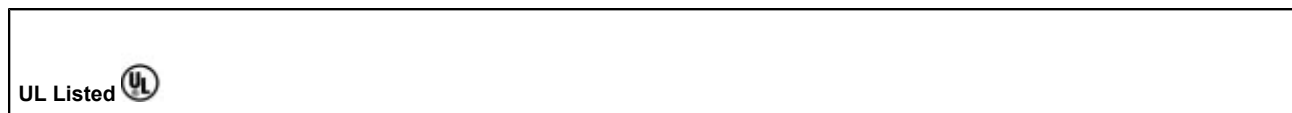
### UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

## approvals

ATEX / UL Listed / cUL Listed / cULus Listed / UL Listed / cUL Listed / cULus Listed /

### Approval details



## Interface converters - FL COMSERVER UNI 232/422/485 - 2313452

approvals



accessories

### Adapter cable

PSM-KA9SUB9/BB/2METER - 2799474



PSM-KAD-IL RS232/9SUB/B/0,8M - 2319200



### Power supply

MINI-SYS-PS-100-240AC/24DC/1.5 - 2866983



### DIN rail connector

## Interface converters - FL COMSERVER UNI 232/422/485 - 2313452

accessories

ME 22,5 TBUS 1,5/ 5-ST-3,81 GN - 2707437



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### Interface converter

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### Data cable by the meter

FL CAT5 HEAVY - 2744814



FL CAT5 FLEX - 2744830



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### Data plug

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



## Interface converters - FL COMSERVER UNI 232/422/485 - 2313452

### accessories

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SUBCON 9/F-SH - 2761499



### Switch

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FL SWITCH SFNT 5TX - 2891003



### Media converter

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FL MC EF 1300 MM SC - 2902853



### Passive isolators

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FL ISOLATOR 100-RJ/RJ - 2313931



### Patch panel

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## Interface converters - FL COMSERVER UNI 232/422/485 - 2313452

### accessories

FL-PP-RJ45-SCC - 2901642



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### Modem

PSI-MODEM-SHDSL/ETH - 2313643



PSI-MODEM-SHDSL/SERIAL - 2313669



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### Patch cable

FL CAT5 PATCH 0,5 - 2832263



FL CAT5 PATCH 5,0 - 2832580





## Interface converters - FL COMSERVER UNI 232/422/485 - 2313452

accessories

### Screwdriver tools

SZF 1-0,6X3,5 - 1204517



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### Safety locking

FL PATCH SAFE CLIP - 2891246



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### Arrester test system

CM-KBL-RS232/USB - 2881078



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### Mounting material

ME-SAS - 2853899



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### Extension module

# Interface converters - FL COMSERVER UNI 232/422/485 - 2313452

accessories

PSI-MODEM-SPLITTER - 2708766



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## Surge protection for information technology

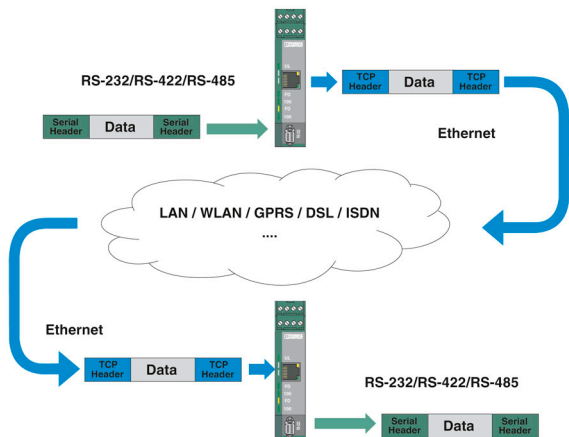
DT-LAN-CAT.6+ - 2881007



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## Drawings

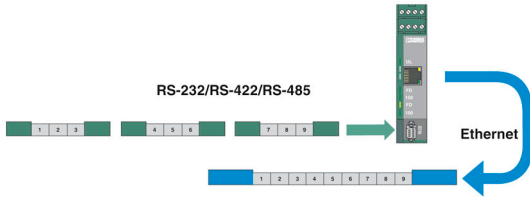
Application drawing



Serial data transmission via Ethernet

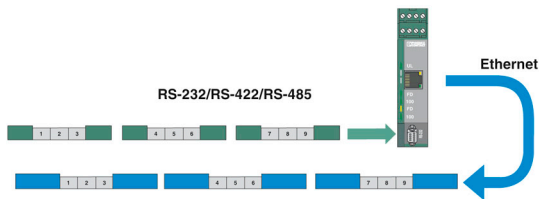
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Application drawing



Large value: "Idle Force Timeout Characters"

Application drawing



Small value: "Idle Force Timeout Characters"

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