

Interface converters - FL COMSERVER UNI 232/422/485



2313452

<https://www.phoenixcontact.com/de/produkte/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 Description

The **FL COMSERVER...232/422/485** products are used to integrate serial V.24 (RS-232)/RS-422/RS-485 interfaces into existing Ethernet networks. This provides an easy way of implementing functions such as cable replacement, network integration or a Modbus gateway.

Your advantages

- Modbus gateway between Modbus/RTU / ASCII and Modbus/TCP
- 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

Commercial Data

Item number	2313452
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	M2 - Netzwerktechnik
Product Key	DNC321
Catalog Page	Page 357 (C-6-2019)
GTIN	4046356451321
Weight per Piece (including packing)	176,4 g
Weight per Piece (excluding packing)	176,4 g
Customs tariff number	85176200
Country of origin	DE

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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
MTTF	2013 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	879 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	359 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)
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))

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 _{rms} (50 Hz, 1 min.)
Test voltage data interface/power supply	1.5 kV _{rms} (50 Hz, 1 min.)

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)
Typical current consumption	100 mA (24 V DC)

Function

Management	Web-based management, SNMP, emergency exit with Telnet and serial
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)

Connection data

Supply

Tightening torque	0.56 Nm ... 0.79 Nm
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Interfaces

Signal	Ethernet
	Modbus
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, Modbus (TCP, RTU/ASCII), PPP
Auxiliary protocols	ARP, DHCP, BOOTP, SNMP, RIP, RARP, HTTP, TFTP, ICMP
Data flow control/protocols	Modbus/TCP

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
Transmission length	15 m
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 // 3964 R compatible, Modbus RTU/ASCII

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 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

Software

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System requirements

Supported browsers	Netscape Communicator versions 4.5 and up or Internet Explorer versions 5.5 and up
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Dimensions

Width	22.5 mm
Height	99 mm
Depth	116 mm

Material specifications

Material	PA 6.6-FR (Housing)
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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)

Approval data

CE

Certificate	CE-compliant
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EAC

Identification	EAC
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ATEX

Identification	<input type="checkbox"/> 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
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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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KC approval for South Korea

Certificate	MSIP-REI-PCK-2313452
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Corrosive gas test

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

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

Mounting

Mounting type	DIN rail mounting
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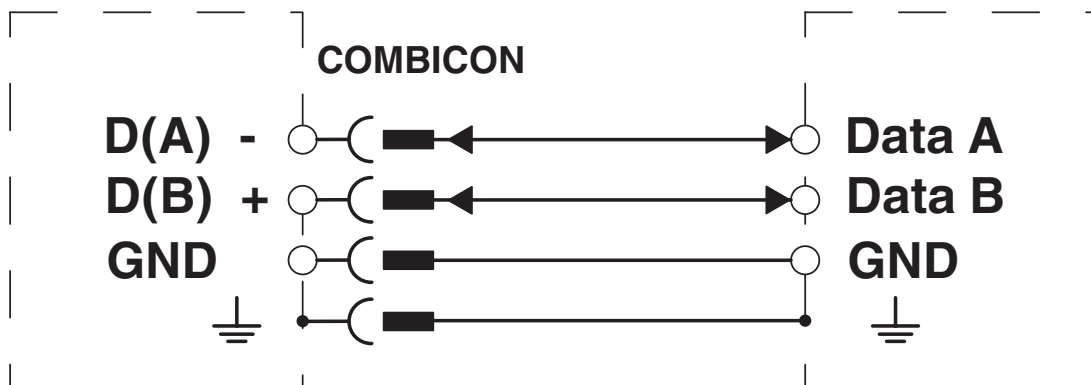
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Drawings

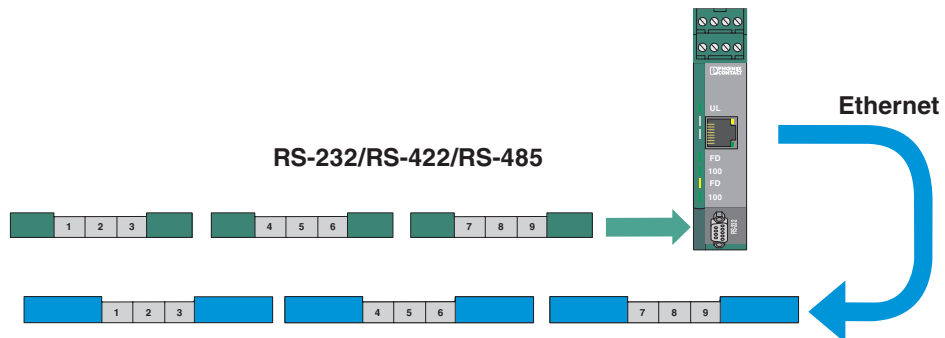
Connection diagram

FL COMSERVER RS-485



RS-485 connection

Application drawing



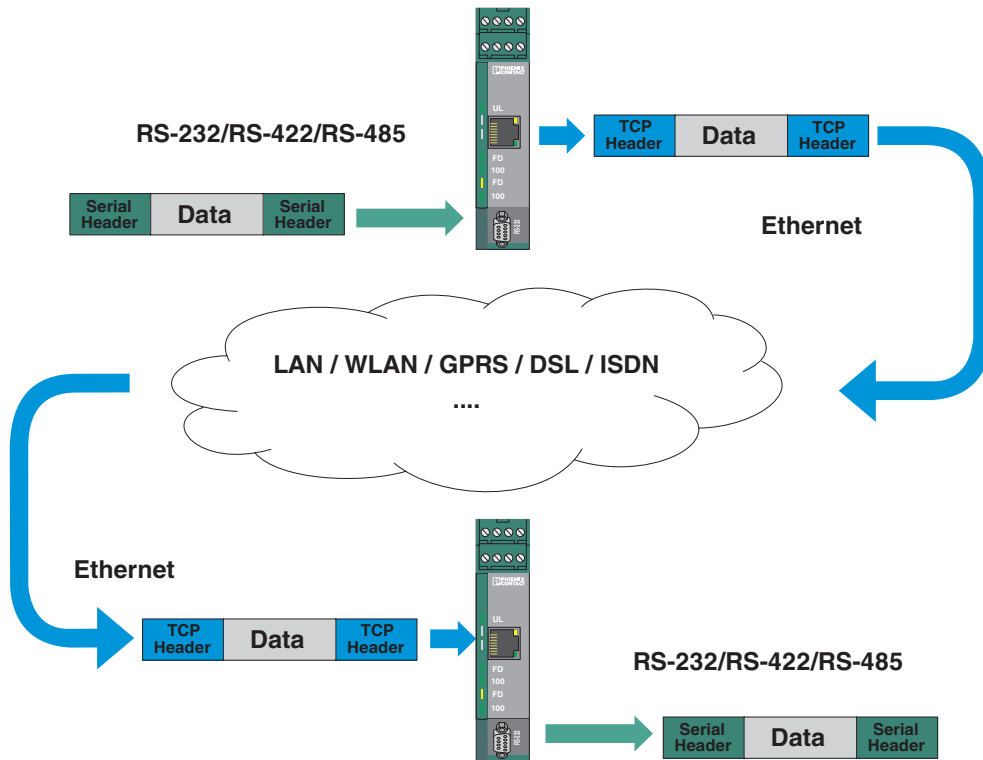
Small value: "Idle Force Timeout Characters"

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Application drawing



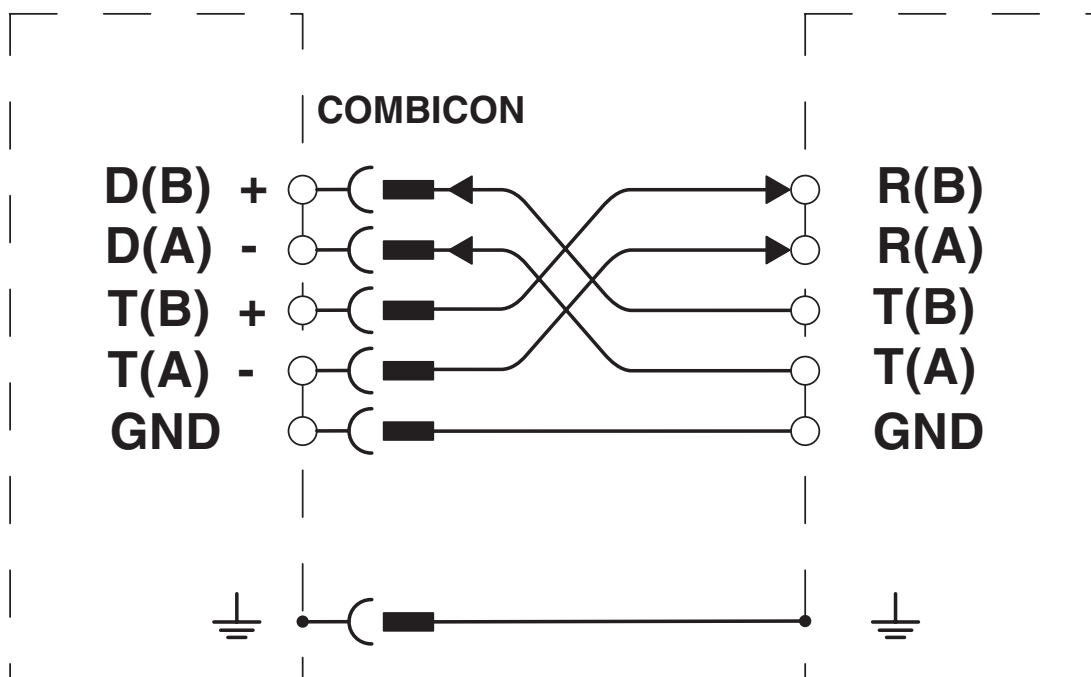
Serial data transmission via Ethernet

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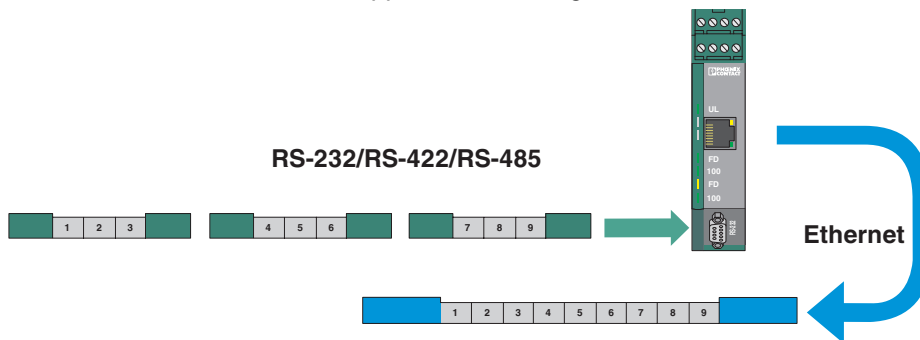
Connection diagram

FL COMSERVER RS-422



RS-422 connection

Application drawing



Large value: "Idle Force Timeout Characters"

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Approvals



EAC

Approval ID: RU D-DE.GB09.B.00312



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705



KC

Approval ID: MSIP-REI-PCK-2313452



ATEX

Approval ID: PxCIF11ATEX2313478X



cUL Listed

Approval ID: FILE E 199827



UL Listed

Approval ID: FILE E 199827

cULus Listed

cULus Listed

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Classifications

ECLASS

ECLASS-9.0	19179290
ECLASS-10.0.1	19179290
ECLASS-11.0	19179090

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/de/produkte/2799474>

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



Power supply unit

Power supply unit - QUINT4-SYS-PS/1AC/24DC/2.5/SC - 2904614

<https://www.phoenixcontact.com/de/produkte/2904614>

Primary-switched power supply unit, QUINT POWER, Screw connection, DIN rail mounting, input: 1-phase, output: 24 V DC / 2.5 A



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DIN rail bus connectors

DIN rail bus connectors - ME 22,5 TBUS 1,5/ 5-ST-3,81 GN - 2707437

<https://www.phoenixcontact.com/de/produkte/2707437>



DIN rail connector, color: green, nominal current: 8 A (parallel contacts), rated voltage (III/2): 125 V, number of positions: 5, pitch: 3.81 mm, mounting: DIN rail mounting, locking: without, mounting: without, type of packaging: packed in cardboard, Item with gold-plated contacts, bus connectors for connecting with electronics housings, 5 parallel contacts

Data cable

Data cable - FL CAT5 HEAVY - 2744814

<https://www.phoenixcontact.com/de/produkte/2744814>



CAT5-SF/UTP cable (J-02YS(ST)C HP 2 x 2 x 24 AWG), heavy-duty installation cable, 2 x 2 x 0.22 mm², solid conductor, shielded, outer sheath: 7.8 mm diameter, inner sheath: 5.75 mm ± 0.15 mm diameter

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Installation cable

Installation cable - FL CAT5 FLEX - 2744830

<https://www.phoenixcontact.com/de/produkte/2744830>



By the meter, Installation cable, Ethernet CAT5 (100 Mbps), shielded, PUR halogen-free, water blue RAL 5021, 4-wire (2x2xAWG26/7; SF/UTP), color single wire: white/orange-orange, white/green-green, cable length: Free entry (1.0 ... 1000.0 m)

RJ45 connector

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

<https://www.phoenixcontact.com/de/produkte/1656725>



RJ45 connector, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5 (IEC 11801:2002), material: Plastic, 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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Industrial Ethernet Switch

Industrial Ethernet Switch - FL SWITCH SFNT 5TX - 2891003

<https://www.phoenixcontact.com/de/produkte/2891003>



Wide-temperature Ethernet switch, 5 TP RJ45 ports, automatic detection of data transmission speed of 10/100 Mbps (RJ45), autocrossing function, reads QoS priority messages, accepts security frames

FO converters

FO converters - FL MC EF 1300 MM SC - 2902853

<https://www.phoenixcontact.com/de/produkte/2902853>



FO converter with SC duplex fiber optic connection (1300 nm), for converting 10/100Base-T(X) to multi-mode fiberglass (50/125 µm). Auto negotiation and auto MDI(X) function. Comprehensive link diagnostics. DIN-rail mountable, 18 ... 30 V DC supply.

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<https://www.phoenixcontact.com/de/produkte/2313452>

Network isolator

Network isolator - FL ISOLATOR 100-RJ/RJ - 2313931

<https://www.phoenixcontact.com/de/produkte/2313931>



Passive network isolator for electrical isolation in Ethernet networks. This protects Ethernet devices from potential differences of up to 4 kV. Can be used for transmission speeds of up to 100 Mbps. Possible to connect two RJ45 plugs.

Patch panels

Patch panels - PP-RJ-SCC - 2703018

<https://www.phoenixcontact.com/de/produkte/2703018>



Patch panel, RJ45 jack on Push-in terminal blocks, 10/100/1000 Mbps, DIN rail adapter, IP20, shield contacting with strain relief

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Ethernet extenders

Ethernet extenders - TC EXTENDER 2001 ETH-2S - 2702409

<https://www.phoenixcontact.com/de/produkte/2702409>



Second generation: Unmanaged Ethernet extender for point-to-point connections, line and ring structures, data rates up to 30 Mbps, distances of up to 20 km on in-house copper cables, diagnostics via USB and LEDs, 2 SHDSL ports, 1 LAN port

Modem

Modem - PSI-MODEM-SHDSL/SERIAL - 2313669

<https://www.phoenixcontact.com/de/produkte/2313669>



Industrial SHDSL extender for serial RS-232/422/485 interfaces, point-to-point and line structures, serial data transmission up to 2000 kbps on in-house cables, diagnostics via USB and LEDs, two configurable alarm outputs

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Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263

<https://www.phoenixcontact.com/de/produkte/2832263>

Patch cable, CAT5, assembled, 0.5 m



Patch cable

Patch cable - FL CAT5 PATCH 5,0 - 2832580

<https://www.phoenixcontact.com/de/produkte/2832580>

Patch cable, CAT5, assembled, 5 m



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Screwdriver

Screwdriver - SZF 1-0,6X3,5 - 1204517

<https://www.phoenixcontact.com/de/produkte/1204517>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

Port Guard Security Element

Port Guard Security Element - FL PATCH SAFE CLIP - 2891246

<https://www.phoenixcontact.com/de/produkte/2891246>



Security element for FL patch cable

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<https://www.phoenixcontact.com/de/produkte/2313452>

D-SUB bus connector

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

<https://www.phoenixcontact.com/de/produkte/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

Cable

Cable - CM-KBL-RS232/USB - 2881078

<https://www.phoenixcontact.com/de/produkte/2881078>

Connecting cable D-9-SUB to USB, with adapter D-9-SUB to D-25-SUB.



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Shield connection clamp

Shield connection clamp - ME-SAS - 2853899

<https://www.phoenixcontact.com/de/produkte/2853899>

Shield connection clamp for terminal points starting from 2.5 mm²



Surge protection device

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

<https://www.phoenixcontact.com/de/produkte/2881007>



Surge protection in accordance with Class E_A (CAT6_A), 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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