

Modem - TC EXTENDER 6004 ETH-2S - 2702255

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




Managed Ethernet extender, point-to-point, line and ring structures, data rates up to 30 Mbps, distances of up to 20 km on in-house copper cables, replaceable surge protection, 2 SHDSL ports, 4-port switch, diagnostics via display and Ethernet

Your advantages

- ✓ Distances up to 20 km
- ✓ Up to 15.3 Mbps in 2-wire operation
- ✓ Up to 30 Mbps in 4-wire operation
- ✓ Robust modulation method (SHDSL)
- ✓ Automatic SHDSL data rate detection
- ✓ Transparent transmission of all standard Ethernet protocols, including EtherNet/IP™, Modbus/TCP, PROFINET, PROFI-safe, EtherCAT®, KNX, BACnet/IP
- ✓ Network transparent (no IP configuration required)
- ✓ Automatic detection of network cable type (auto MDI(X))
- ✓ Easy startup, plug and play
- ✓ Two digital outputs for alerting external controllers
- ✓ Remote diagnostics via IP and automatic event messages via SNMP



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 055541
GTIN	4055626055541
Weight per Piece (excluding packing)	766.000 g
Weight per piece (including packing)	804.500 g
Custom tariff number	85176200
Country of origin	Germany
Sales Key	M2 - Network Engineering

Technical data

Note

Modem - TC EXTENDER 6004 ETH-2S - 2702255

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
	Use in potentially explosive areas is not permitted in China.

Dimensions

Width	60 mm
Height	130 mm
Depth	160 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
	-25 °C ... 0 °C (Display inactivity can occur, image changes may take several seconds)
	55 °C ... 60 °C (Display contrast can deteriorate)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 95 % (non-condensing)
Altitude	≤ 2500 m (For restrictions, see the manufacturer's declaration for altitude operation)
Degree of protection	IP20

General

Electrical isolation	VCC // Ethernet // DSL (A) // DSL (B) // FE
Test voltage data interface/power supply	1.5 kV AC (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Mounting type	DIN rail: 35 mm
Net weight	766 g
Housing material	Aluminum / steel sheet DC01
MTTF	506 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	260 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	110 Years (SN 29500 standard, temperature 40°C, operating cycle 100%)

Power supply

Nominal supply voltage	24 V DC ±5 %
Supply voltage range	10 V DC ... 60 V DC
Typical current consumption	90 mA (60 V DC)
	200 mA (24 V DC)
	450 mA (10 V DC)
Connection method	Push-in spring connection

Interfaces

Interface 1	Ethernet interface, 10/100Base-T(X) in accordance with IEEE 802.3
Interface	Ethernet

Modem - TC EXTENDER 6004 ETH-2S - 2702255

Technical data

Interfaces

No. of ports	4
Connection method	RJ45 jack, shielded
	4 ports 10/100BaseT(X), auto negotiation and autocrossing
Transmission length	< 100 m (shielded twisted pair)
Protocols supported	IPv4, IPv6, TCP/IP, HTTP, HTTPS
Auxiliary protocols	ARP, DHCP (Client), PING, SNMP
Serial transmission speed	10/100 Mbps, auto negotiation
Interface 2	SHDSL interface according to ITU-T G.991.2.bis
No. of ports	2 (2-wire operation)
Connection method	Push-in spring connection
Transmission length	< 20 km (Depending on data rate and cable cross section)
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Serial transmission speed	4-wire operation: 64 kbps ... 30 Mbps
	2-wire operation: 32 kbps ... 15.3 Mbps

Function

Web-based management	yes
Management	Web-based management: Diagnostics, log book, customized configuration
Status and diagnostic indicators	Display for warning, status and device information

Digital outputs

Output name	Digital output
Number of outputs	2
Voltage output signal	depending on the operating voltage
Current output signal	≤ 500 mA (Short-circuit-proof)
Connection method	Push-in spring connection

Conformance/approvals

Designation	CE
Certificate	CE-compliant
Designation	ATEX
Identification	# II 3 G Ex nA IIC T4 Gc X
Additional text	Please follow the special installation instructions in the documentation!
Designation	UL, USA/Canada
Identification	508 Listed
Designation	Corrosive gas test
Identification	ISA-S71.04-1985 G3 Harsh Group A

Modem - TC EXTENDER 6004 ETH-2S - 2702255

Technical data

Standards and Regulations

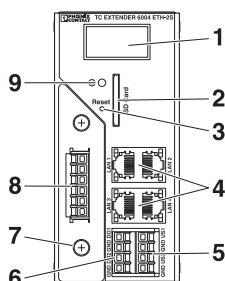
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Type of test	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6
Test result	5g, 10...150 Hz, 2.5 h, in XYZ direction
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	15g
Standards/regulations	EN 61000-4-2
Contact discharge	± 6 kV
Indirect discharge	± 6 kV
Standards/regulations	EN 61000-4-3
Frequency range	80 MHz ... 3 GHz
Standards/regulations	EN 61000-4-4
Comments	Criterion B
Standards/regulations	EN 61000-4-5
Signal	± 1 kV (asymmetrical, shielded Ethernet cable)
	± 4 kV (asymmetrical: line to ground, unshielded SHDSL cable)
	± 2 kV (symmetrical: line to line, unshielded SHDSL cable)
Standards/regulations	EN 55011
	EN 61000-4-6
Frequency range	0.15 MHz ... 80 MHz
Standards/regulations	EN 50121-4

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
	Dechlorane Plus
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

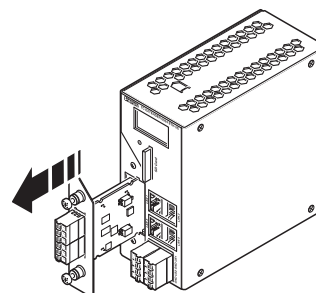
Drawings

Schematic diagram



Front view

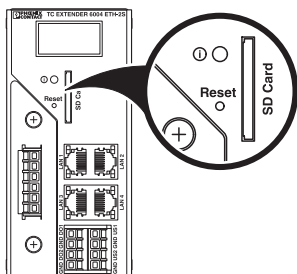
Schematic diagram



Replacement of protective module

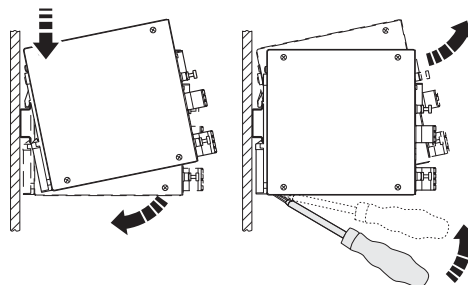
Modem - TC EXTENDER 6004 ETH-2S - 2702255

Schematic diagram



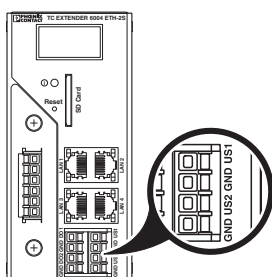
Reset button

Schematic diagram



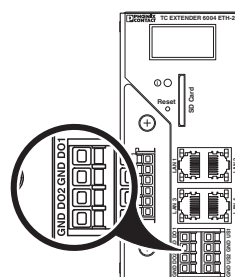
Mounting and removing

Schematic diagram



Power supply

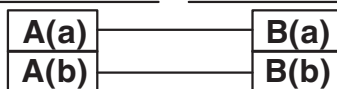
Schematic diagram



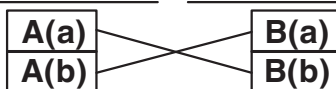
Digital switching outputs

Connection diagram

DSL A / Client DSL B / Server



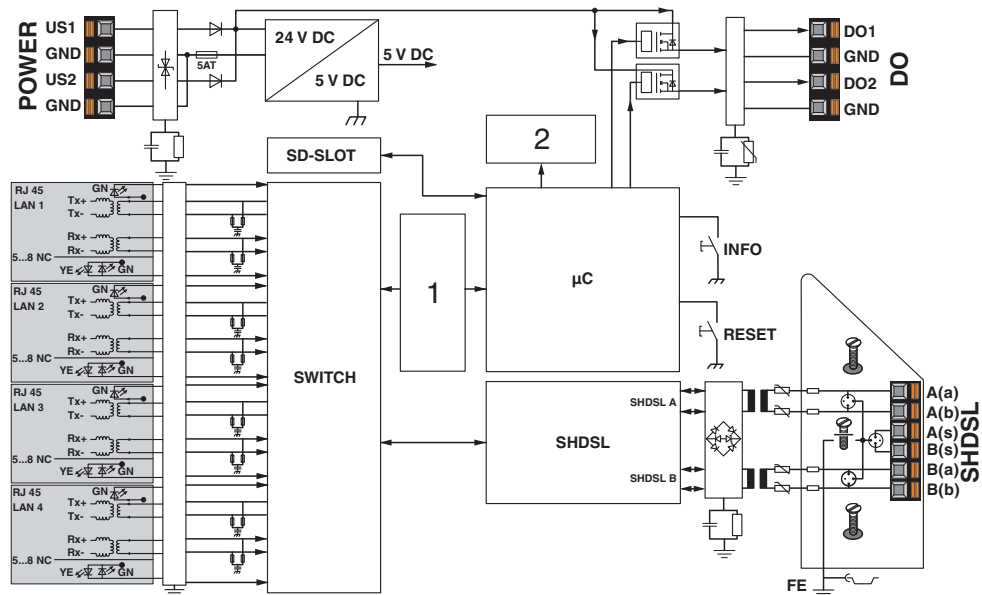
DSL A / Client DSL B / Server



DSL connection

Modem - TC EXTENDER 6004 ETH-2S - 2702255

Circuit diagram



Classifications

eCl@ss

eCl@ss 10.0.1	19060590
eCl@ss 11.0	19060590
eCl@ss 5.0	19030100
eCl@ss 5.1	19030100
eCl@ss 6.0	19060500
eCl@ss 7.0	19060590
eCl@ss 9.0	19060590

ETIM

ETIM 4.0	EC000740
ETIM 6.0	EC000740
ETIM 7.0	EC000740

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	43222628
UNSPSC 18.0	43222628
UNSPSC 19.0	43222628
UNSPSC 20.0	43222628
UNSPSC 21.0	43222628

Modem - TC EXTENDER 6004 ETH-2S - 2702255

Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

ATEX

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
-----------	--	---	---------------

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
------------	--	---	---------------

cULus Listed			
--------------	--	--	--

Accessories

Accessories

Data cable preassembled

Network cable - FL CAT5 HEAVY CONF/ - 2744827



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, preassembled on both sides with RJ45 plug, crossover or line

Data plug

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

Modem - TC EXTENDER 6004 ETH-2S - 2702255

Accessories

Modem

Modem - TC EXTENDER 2001 ETH-2S - 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

Parameterization memory

Memory - SD FLASH 512MB - 2988146



Program and configuration memory, plug-in, 512 Mbyte.

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263



Patch cable, CAT5, assembled, 0.5 m

Patch cable - FL CAT5 PATCH 5,0 - 2832580



Patch cable, CAT5, assembled, 5 m

Power supply

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



Primary-switched MINI POWER supply for DIN rail mounting, input: 1-phase, output: 24 V DC/1.5 A

Modem - TC EXTENDER 6004 ETH-2S - 2702255

Accessories

Replacement plug

Surge protection plug - TC EXTENDER PT-IQ-2S - 2702258



Replaceable surge protection module, only for Ethernet extender TC EXTENDER 6004 ETH-2S (2702255), 2 SHDSL ports, two-wire protection for floating SHDSL cables, two-level protective circuit

Safety locking

Port Guard Security Element - FL PATCH SAFE CLIP - 2891246



Security element for FL patch cable

Surge protection for information technology

Surge protection device - DT-LAN-CAT.6+ - 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+) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.
