

ACTIVE TECHNOLOGY BY CTS

NETWORKING OF THE FUTURE ALREADY TODAY



EFB-ELEKTRONIK IN PROFILE

EFB-Elektronik GmbH is a leading manufacturer and system provider of networking technology and industrial system solutions. Our expertise ranges from structured cabling using certified high-end products for data centres to custom developments for industrial clients.

Our team services customers worldwide from our headquarters in Bielefeld, Germany. Our customer base includes renowned household names from the IT and security industry, as well as medium sized companies and large corporations.

Our membership in the international TKH Group based in the Netherlands, with more than 6,500 employees and production facilities around the globe, gives us additional leverage for the benefit of our customers. The EFB group of companies has 240 employees across eight locations in Europe, five of them in Germany and three subsidiary companies located in Istanbul, Copenhagen and Vienna.

The current turnover of the TKH Group amounts to 1.5 billion Euros (2019). With a sales volume of 65.4 million Euros (2019), the EFB-Elektronik GmbH ranks among the leading companies of the group.

LEARN MORE:
WWW.EFB-ELEKTRONIK.DE/EN/ABOUTUS

CTS: Professional Networking-Solution-Provider



Connection Technology System Inc. (CTS) was founded 1998 and consists of a group of design-, technology- and marketing-experts with various backgrounds in the field of communication-technology. The main focus is on professional FTTX- and industrial networking solutions for telecommunication-companies, network-providers and broadband-suppliers all over the world.

With over 20 years of FTTX-domaine-knowledge and a company-internal development, CTS is a reliable partner. They constantly operate proactive to comprehend the customers requirements and provide the most innovative and valuable solutions. Thanks to expansions with local branches in Sweden, USA, Japan and Austria, CTS warrants a fast and efficient reaction and a deeper understanding as well as a better relationship to regional markets.

LEARN MORE:
WWW.CTSYSTEM.COM

TABLE OF CONTENTS

Introduction

EFB-Elektronik and CTS in Profile	2
Table of Contents	3
Interplay of Active-Technology by CTS	4-5

I Media Converter

MCT-Media Converter	6-8
10G Media Converter	9
MCT Rack Chassis	10

II Fiber Access Switches

.....	11
-------	----

III Industrial Converter & Switches

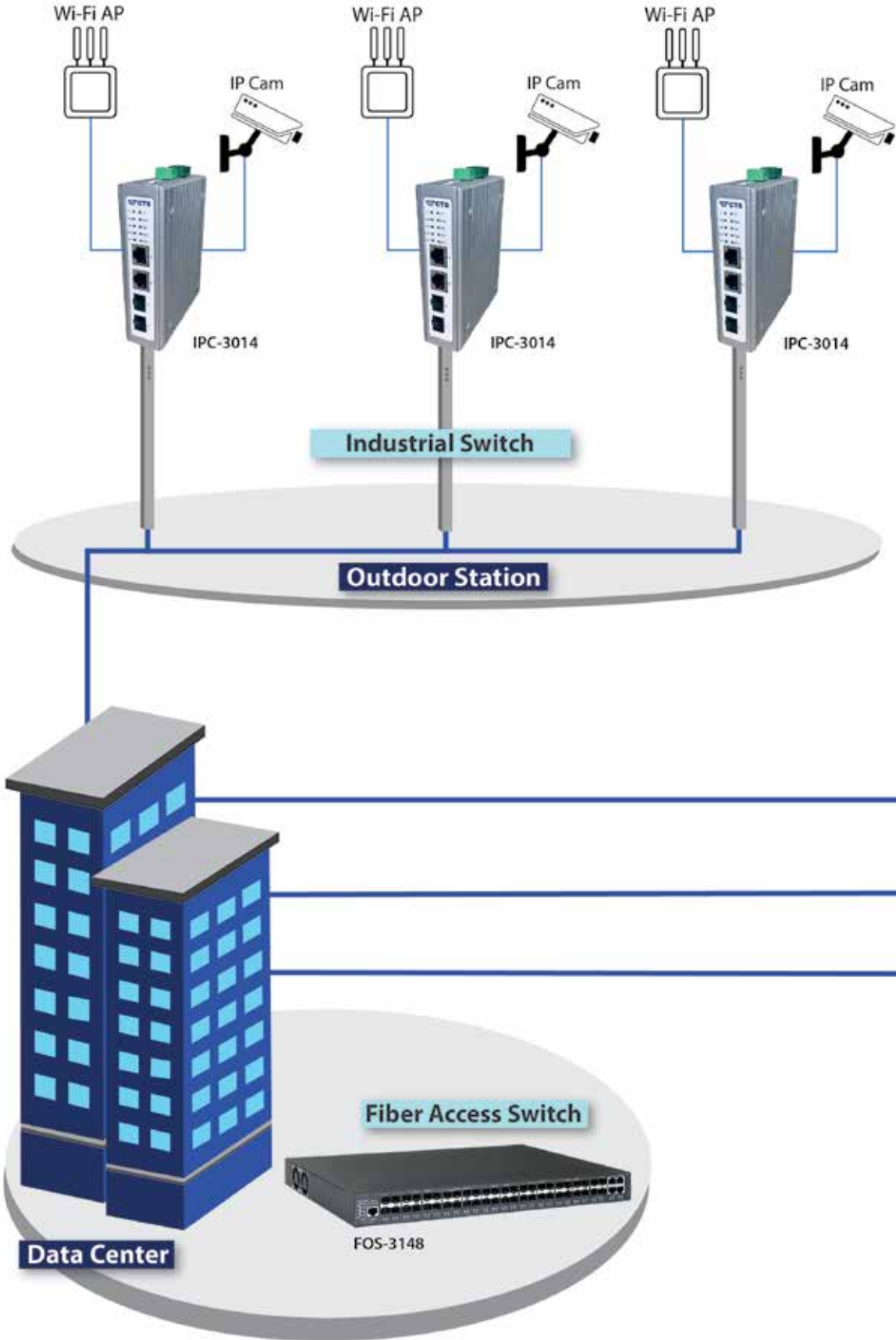
.....	12-17
-------	-------

IV Accessories

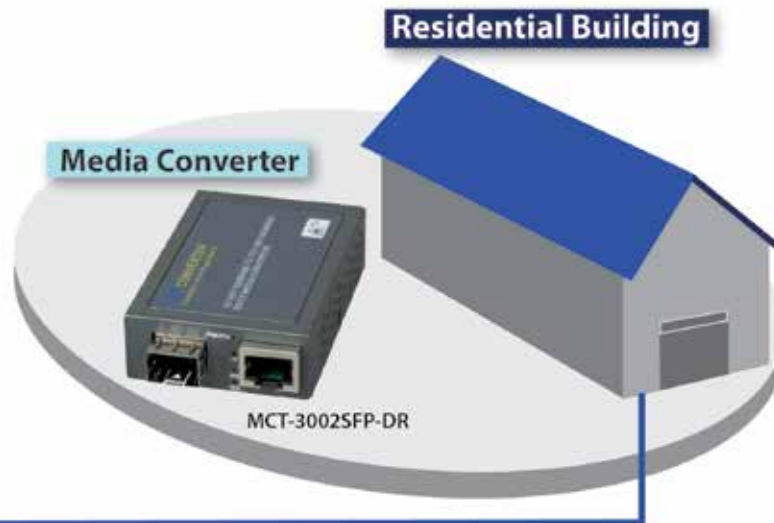
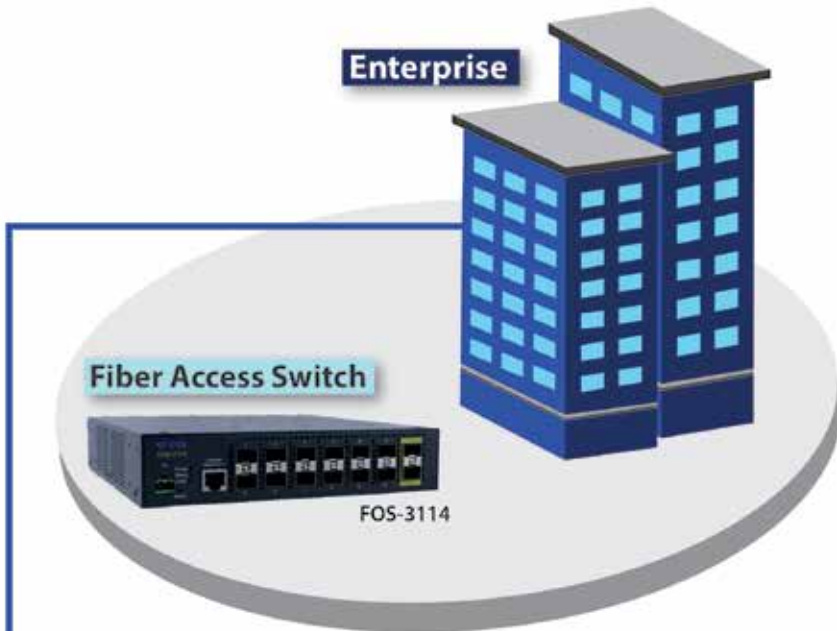
Rail Holder und Mains Adapters	18
Transceiver Modules und Cables	19
Fiber Optic Jumper and Adapter	20
RJ45 Patchcable	21
Accessories	22



THE INTERPLAY OF THE ACTIVE



TECHNOLOGY BY CTS



I Media Converter

MCT Media Converter

The MCT-Media-Converter series is a compact converter for the media-conversion from copper to fiber in different designs for Fast Ethernet and Gigabit Ethernet. The converters of this series are 40% smaller than conventional media converters. The downsizing leads to lower weight as well as savings in the energy consumption. The MTC family includes a broad range of various models that differ from each other in features such as speed, reach, media-conversion and administration. These numerous advantages provide significant savings in installation and maintenance to the administrator.

Saves Space and Costs

- Space-saving: up to 40% smaller than conventional media converter
- Lower weight: More than 50% lighter
- Lower energy-consumption: 30% less, compared to standard-products
- Comprehensive offer in Fast Ethernet and Gigabit Ethernet Media Converters as well as Standard-, Managed or WDM-Versions
- Cost savings in Installation and Maintenance
- Single-, Chassis- or DIN-Rail Installation



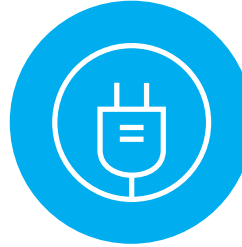
Product Features

DIP-SWITCH



Extended Settings adjustable directly at the media converter via DIP-Switch

PLUG-AND-PLAY



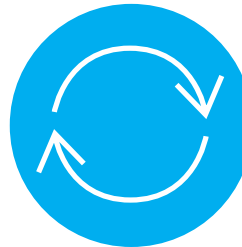
Simple Plug-and-Play Installation

LINK ALARM



Provides Link-Error-Management for media converters

AUTONEGOTIATION



RJ45 Port with Autonegotiation Funktion for automatical recognition of transmission speed

DIAGNOSE LEDS



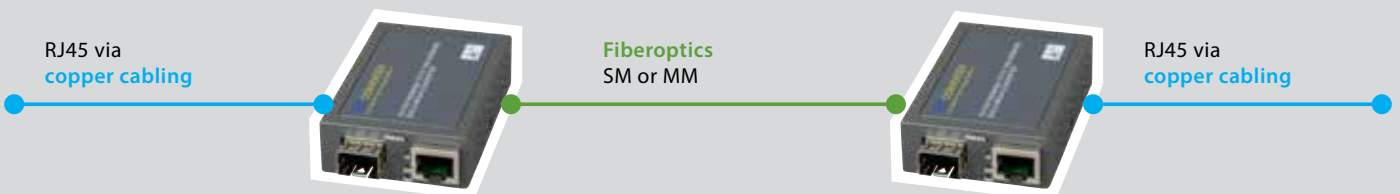
LED's for display of operating status

REDUNDANT VOLTAGE SUPPLY



Redundant voltage supply in combination with MCT-Rack Chassis. No breakdown of connection and loss of data.

EXTEND YOUR TRANSMISSION LENGTH OVER FIBER OPTIC



MCT Media Converter

CTS Fast Ethernet Kompakt Media Converter



Very compact design, space- and cost-saving solution
 For single device use or in MCT-RACK-Chassis series to mix installation with MCT series converter
 Autonegotiation and Auto MDI/MDIX
 Link Alarm for port monitoring
 With diagnose LEDs
 Target Application: Point-to-point fibre connection for long distance
 External power supply included
 Metal housing (D x W x H): 74 x 51 x 20 mm

Article-No.	RJ45-Port	LWL-Port	Mode	Distance
MCT-100BTFT	10/100TX	ST 100FX	MM	2000 m
MCT-100BTFC	10/100TX	SC 100FX	MM	2000 m
MCT-100BTFC-SM30	10/100TX	SC 100FX	SM	30000 m

CTS Gigabit Ethernet Kompakt Media Converter

**TOP
SELLER**



Very compact design, space- and cost-saving solution
 For single device use or in MCT-RACK-Chassis series to mix installation with MCT series converter

SFP Fiber Port für 100-FX (Fast Ethernet) und 1000-BaseX (Gigabit Ethernet)
 Autonegotiation, Auto MDI/MDIX, Link Alarm...
 With integrated dip-switches for more adjustments
 With diagnose LEDs
 Target Application: Point-to-point fibre connection for long distance
 External power supply included
 Metal housing (D x W x H): 74 x 51 x 20 mm

Article-No.	RJ45-Port	LWL-Port	Mode	Distance
MCT-3002BTFC	10/100/1000T	SC 1000SX	MM	550 m
MCT-3002BTFC-SM10	10/100/1000T	SC 1000LX	SM	10000 m
MCT-3002SFP-DR	10/100/1000T	1x MGBIC 100/1000 Mbit/s	MM oder SM	-

Accessory

Article-No.	Description
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP,1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP,1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

CTS Gigabit Ethernet WDM Compact Converter



W2A
 TX: 1310nm
 RX: 1550nm
W2B
 TX: 1550nm
 RX: 1310nm

Should be used in combination W2A and W2B as transmitter and receiver, or with other WDM MGBics!

Single device use or with Chassis MCT-RACK-18-2A / MCT-RACK-18-MGM-2A
 Gigabit Ethernet over RJ45 - SC Singlemode
 Link Alarm
 Diagnostic LEDs
 frame checking and error filtering
 External power supply included
 Metal housing (D x W x H): 74 x 51 x 20 mm

Article-No.	RJ45-Port	LWL-Port	Mode	Distance
MCT-3002W2A-SM10	10/100/1000T	SC 1000LX	SM	10000 m
MCT-3002W2B-SM10	10/100/1000T	SC 1000LX	SM	10000 m

CTS Managed Gigabit Ethernet compact Media Converter



Managed Media Converter for 100/1000Mbit applications
 Features: QOS, OAM, VLAN, Link Pass Through eg.
 Fully Compatible with MCT-RACK-18-2A / MCT-RACK-18-MGM-2A
 For full management features the use of MCT-RACK-MGM-2A is recommended
 Gigabit Ethernet, RJ45 - SFP
 Dual Speed SFP
 Diagnostic LEDs
 frame checking and error filtering
 External power supply included
 Metal housing (D x W x H): 74 x 51 x 20 mm

Article-No.	RJ45-Port	LWL-Port	Mode
MCT-3512SFP-DR	10/100/1000T	1x MGBIC 100/1000Mbit/s	MM oder SM

Accessory

Article-No.	Description
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP,1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP,1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC

10G Media Converter

CTS Kompakt Media Converter, 10G N-Base-T

NEW



10G Media Converter with N-Base-T Technology
 Supports data rates up to: 100M/1G/2,5G/5G/10G Ethernet
 Very compact design, space- and cost-saving solution
 For single device use or in MCT-RACK-Chassis series to mix installation with MCT series converter
 Autonegotiation and Auto MDI/MDIX
 Link Alarm for port monitoring
 With integrated dip-switches for more adjustments
 With diagnose LEDs
 High quality metal housing with cooling fins
 Target Application: Point-to-point fibre connection for long distance, 10G data rates
 External power supply included
 Metal housing (D x W x H): 74 x 51 x 20 mm

Article-No.	RJ45-Port	LWL-Port	Mode
MCT-5002SFP+	1 x 100M/1G/2.5G/5G/10G	1 x SFP+ 10GBase-R	MM oder SM

Accessory

Article-No.	Description
FTLX8574D3BCL	MiniGBIC MM 10GBase SFP+, LC, 850nm, 10G 0..70°C, LC
FTLX1471D3BCL	MiniGBIC SM 10GBase SFP+, LC, 1310nm, 10G -5..75°C, LC

CTS 10G Media Converter Fiber, 2 x SFP+ Slots

PRODUCT HIGHLIGHT



Supports 10 Gigabit SFP+ to SFP+ fiber optic connection with full duplex conversion
 Comply with IEEE 802.3ae 10GBASE-R
 LED Indicators for link and power status
 Support 3R Signal regeneration (Re-amplifying, Re-shaping, Re-timing) optical signal regeneration
 Fully Compatible with CTS CVT-RACK-16 Series
 (D x W x H): 91 x 74 x 26 mm
 External power supply included

***3R**

Re-Amplifying: Signal amplifying
 Re-Shaping: Signal polishing/reshaping
 Re-Timing: adjusting the Signal-time

Field of Application:

10G point-to-point fiber optic connection, mode-conversion (MM<->SM), fiber optic distance extending

Article-No.	LWL-Port	Mode
CVT-5002SFP+	2 x SFP+ 10GBase-R	MM oder SM

Accessory

Article-No.	Description
FTLX8574D3BCL	MiniGBIC MM 10GBase SFP+, LC, 850nm, 10G 0..70°C, LC
FTLX1471D3BCL	MiniGBIC SM 10GBase SFP+, LC, 1310nm, 10G -5..75°C, LC

FEATURES AND APPLICATION AREAS

FEATURES

- Re-Amplifying: Signal amplifying
- Re-Shaping: Signal improvement
- Re-Timing: Signaltime adjustment

APPLICATION AREAS

- 10G Point-to-Point Fiberconnection
- Mode-Conversion (MM<->SM)
- Extend Fiber distance



10G SWITCH



CVT-5002SFP+



CVT-5002SFP+



10G SWITCH



●—● FIBER OPTIC

MCT Rack Chassis

CTS Rack Chassis for Kompakt Media Converter



MCT-RACK-18-MGM-2A



MCT-RACK-18-2A



MCT-RACK-2

Rackchassis from 2 up to 18 converters

Converter can be exchanged during operation (hot-swappable)
 Supports 10G, Fast Ethernet, Gigabit, Singlemode and Multimode MCT media converters.
 Installation of managed and unmanaged MCT media converters possible.
 Diagnostic LEDs for „Power“ and „Fans“.
 Easy mounting and fast access to the media converters from the front with thumbscrews.
 Ideal application for environments with limited space.
 Installation in 10" (MCT-RACK2) and 19" mounting with the supplied rack mounting bracket.
 MCT-RACK2 with rack mounting bracket for 10" and 19"

Article-No.	Description
MCT-RACK-2	1U 10/19" CTS Rack Chassis for MCT Converter, 2 Slots, Unmanaged, incl. 1 power s.
MCT-RACK-18-2A	1.5U 19" Rack Chassis for MCT Converter, 18 Slots, Unmanaged, incl. 2 power s.
MCT-RACK-18-MGM-2A	1.5U 19" Rack Chassis for MCT Converter, 18 Slots, Managed, incl. 2x power s.

II Fiber Access Switches

L2 Managed Gigabit Ethernet Fiber Switches



The FOS series is your ticket to the world of fiber. With the high-performance, the good and documented management, the robust FOS switches are your ideal helpers to connect your network with your fiber cable infrastructure.

- Dual speed SFP ports, auto-adjusting fiber optic
- IP4 / IPV6 support
- Dual firmware image, never again scared of damaged firmwares
- Optimized for IPTV streaming
- Depending on the model with 10G SFP slots, battery backup or redundant power supply

Artide-No.	Mounting method	Management	100/1000 Mbit/s SFP Ports	100/1000 Mbit/s Combo RJ45/SFP Ports	10G SFP Ports
FOS-3110	482,6 mm (19 Zoll)-installation (10" Montage möglich)	Layer 2	8	2	-
FOS-3114	482,6 mm (19 Zoll)-installation (10" Montage möglich)	Layer 2	14	-	-
FOS-3128	482,6 mm (19 Zoll)-installation	Layer 2	24	4	-
FOS-3148	482,6 mm (19 Zoll)-installation	Layer 2	44	4	-
FOS-5126	482,6 mm (19 Zoll)-installation	Layer 2	20	4	2

Accessory

Artide-No.	Description
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP,1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP,1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
FTLX8574D3BCL	MiniGBIC MM 10GBase SFP+, LC, 850nm, 10G 0..70°C, LC
FTLX1471D3BCL	MiniGBIC SM 10GBase SFP+, LC, 1310nm, 10G -5..75°C, LC

III Industrial Converter & Switches



Robust, reliable and flexible solutions for industrial environments

The Industrial Switch series is perfect for use in harsh environments. The extremely robust housing withstands operating temperatures from -40 to 75° Celsius thanks to IP30 protection. In addition, these switches have a top-hat rail mount for easy installation. The switches with PoE function support PoE performance according to IEEE 802.3af / at / bt (up to 60W), which can be used to supply PoE-compatible devices with power. Industrial switches thus guarantee a safer, more stable and sustainable connection.



For reference: IP protection classes to IEC 60 529 (EN 60 529)

Industrial components are subdivided according to their suitability for different environmental conditions according to an IP coding, in the form of a two-digit number. The first digit represents the extent of protection against contact or foreign objects and the second digit classifies protection against moisture.

IP	3	0
International Protection		
No Protection	0	0
Protection against intrusion of solid foreign particles (Diameter > 50 mm)	1	1
Protection against intrusion of solid foreign particles (Diameter > 12 mm)	2	2
Protection against intrusion of solid foreign particles (Diameter > 2,5 mm)	3	3
Protection against intrusion of solid foreign particles (Diameter > 1 mm)	4	4
Absolute protection against contact (against dust in critical amount)	5	5
Absolute protection against contact and dust (dustproof)	6	6
		7
		8

Various Application Szenarios thanks to IP30-Housing

CTS-Industrie-Media Converter im robusten IP30-Gehäuse erfüllen die Anforderungen industrieller Netzwerke für Plug-CTS industrial media converters in robust IP30 housings meet the requirements of industrial networks for plug-and-play applications. Industrial media converters can extend Ethernet networks by more than 100 km.



- › Robust metal housing perfectly adapted to harsh industrial environments according to current IEC standards IEC 60068-2-32 (free fall), IEC 60068-2-27 (shock), IEC 60068-2-26 (vibration)
- › Safe protection against intrusion of small and solid foreign particles: min. degree of protection IP30
- › Safe protection against electromagnetic radiation: EMC-resistant metal housing according to FCC
- › CLASS A, EN 61000-4-X /-6-X
- › Mounting on DIN rail (DIN-Rail)
- › Withstands temperatures from -40°C to 75°C
- › Extended input voltage range
- › edundant power supply

Industrial Media Converter with SFP Slot

PRODUCT HIGHLIGHT



The IAC series media converter are the Gigabit Ethernet 10/100/1000 Base-T to 1000Base-X media converter. The IAC series media converter converts traditional twisted-pair RJ45 cable into various fiber media including multi-mode, single-mode, SC connector, bi-directional WDM. The traditional transmission distance of 100m over RJ45 copper can be extended from 550m to 80km over fiber.

Wide range of operation voltage 12 .. 48 V DC

Auto-MDI/MDI-X function

Dual Rate SFP Slot supports 100FX and 1000BaseX

Support for 3 different modes: Switch, Fiber Backup and Dual Media Converter mode

Redundant power supply input

Temperature range -40°C .. +75°C *

Rugged metal housing, EMV-secure, protection class IP30

DIN-Rail or wall mounting possible

Suitable DIN-Rail power supply : DR-15-24

Article-No.	RJ45-Port	LWL-Port
IAC-3012	1 x 10/100/1000T	1 x 100/1000
IAC-3014	2 x 10/100/1000T	2 x 100/1000

Accessory

Article-No.	Description
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP,1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP,1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-15-24	Hutschienen-Netzteil 24 V DC, 0.63 A, 15 Watt, Mean Well

PoE Industrial Media Converter with SFP Slot



The IPC series media converter are the Gigabit Ethernet 10/100/1000 Base-T to 1000Base-X media converter. The IPC series media converter converts traditional twisted-pair RJ45 cable into various fiber media including multi-mode, single-mode, SC connector, bi-directional WDM. The traditional transmission distance of 100m over RJ45 copper can be extended from 550m to 80km over fiber.

PoE+ Injector IEEE802.3at/af with up to 15/30/60W

Wide range of operation voltage 12 .. 57 V DC

Auto-MDI/MDI-X function

Dual Rate SFP Slot

Redundant power supply input

Temperature range -40°C .. +75°C

Rugged metal housing, EMV-secure, protection class IP30

DIN-Rail or wall mounting possible

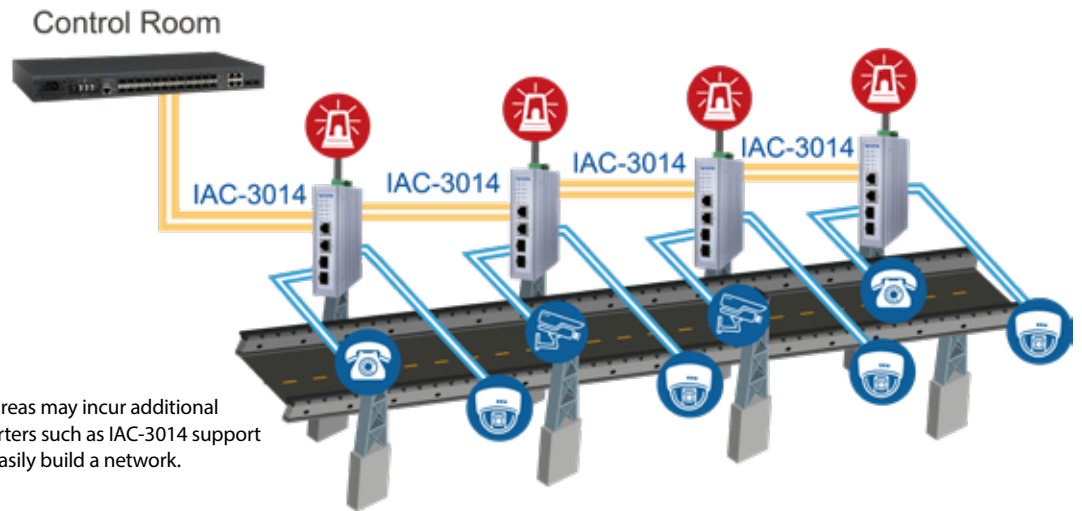
Suitable DIN-Rail power supply: DR-75-48

Article-No.	RJ45-Port	LWL-Port	PoE
IPC-3012	1 x 10/100/1000T	1 x 100/1000	PoE+
IPC-3014	2 x 10/100/1000T	2 x 100/1000	PoE+

Accessory

Article-No.	Description
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP,1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP,1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-75-48	Hutschienen-Netzteil 48 V DC, 1.6 A, 75 Watt, Mean Well

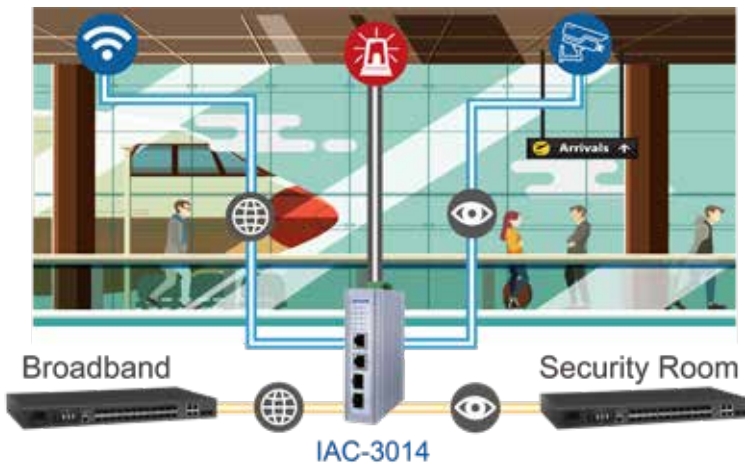
Switch Mode



Bridges and tunnels

Surveillance systems deployed in remote areas may incur additional costs during deployment. Industrial converters such as IAC-3014 support switch mode, which allows converters to easily build a network.

Dual Media Converter Mode



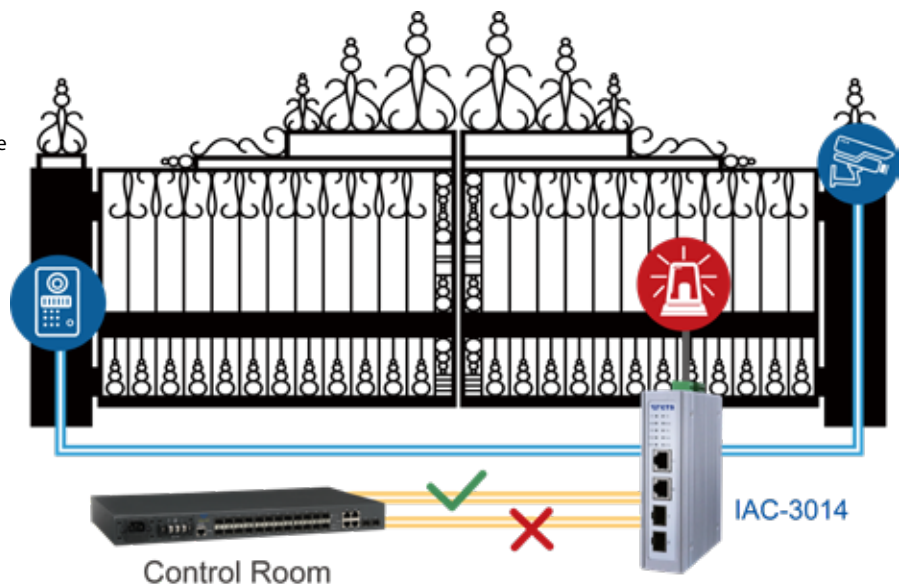
Public places

With the emerging trend of mobile devices, more and more public places are offering free WIFI. At the same time, the security of surveillance systems must not be compromised. With solutions such as IAC-3014 supports Dual Media Converter mode, which separates traffic for various purposes (e.g. public WIFI and surveillance).

Fiber Backup Mode

Highly secure control points

Here a malfunction of the monitoring systems can lead to serious damage. In order to ensure smooth functionality of the system, even if a fiber-optic cable connection is interrupted, products such as IAC-3014 support fiber-optic backup mode.



IES-3005-F1, Industrial Switch 4x 100/1000T RJ45, 1x 100/1000 SFP



Wide range of operation voltage 12 .. 48 V DC
 Auto-MDI/MDI-X function
 Dual Rate SFP Slot for 100FX and 1000BaseX
 Redundant power supply input
 Temperature range -40°C .. +75°C
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply : DR-15-24

Article-No.	RJ45-Port	LWL-Port
IES-3005-F1	4 x 100/100/1000T	1 x 100/1000

Accessory

Article-No.	Description
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP,1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP,1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-15-24	Hutschienen-Netzteil 24V DC, 0.63 A, 15 Watt, Mean Well

IES-3008, Industrial Switch 8x 10/100/1000T



Wide range of operation voltage 12 .. 58 V DC
 Auto-MDI/MDI-X function
 Dual Rate SFP Slot
 Redundant power supply input
 Temperature range -40°C .. +75°C
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-15-24

Article-No.	RJ45-Port	LWL-Port
IES-3008	8 x 10/100/1000T	-

Accessory

Article-No.	Description
DR-15-24	Hutschienen-Netzteil 24V DC, 0.63 A, 15 Watt, Mean Well

IES-3008-F2, Industrial Switch 6x 10/100/1000T, 2x 100/1000 SFP



Wide range of operation voltage 12 .. 58 V DC
 Auto-MDI/MDI-X function
 Dual Rate SFP Slot
 Redundant power supply input
 Temperature range -40°C .. +75°C
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-15-24

Article-No.	RJ45-Port	LWL-Port
IES-3008-F2	6 x 10/100/1000T	2 x 100/1000

Accessory

Article-No.	Description
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP,1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP,1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DR-15-24	Hutschienen-Netzteil 24V DC, 0.63 A, 15 Watt, Mean Well

IPS-3112-PoE++, Industrial Switch 8x RJ45 10/100/1000TX PoE++, 4x 100/1000TX SFP

PRODUCT HIGHLIGHT

8x 60W PoE Injector compatible to IEEE802.3at/af
 Management: SNMP, WEB, CLI
 Features: IGMP, QOS, VLAN, FastRing and much more
 Dual Rate SFP Slot for 100-FX and 1000-BaseX
 Wide range of operation voltage 12 .. 48 V DC
 Auto-MDI/MDI-X function
 Dual Rate SFP Slot
 Redundant power supply input
 Temperature range -40°C .. +75°C
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply: DR-480-48



Article-No.	RJ45-Port	LWL-Port	PoE
IPS-3112-PoE++	8 x 10/100/1000T	4 x 100/1000	PoE++

Accessory

Article-No.	Description
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP,1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP,1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DRP-480-48	DIN-Rail power supply 48V DC, 10.0 A, 480 Watt, Mean Well

IPS-3106SFP-DR-BT, Hutschienen Switch 4x 100/1000T RJ45 with PoE+, 2x 100/1000 SFP, Bluetooth

4 x PoE Injector IEEE802.3at/af with up to 30 W per port
 Management: SNMP, WEB, CLI, Bluetooth Management
 Features: IGMP, QOS, VLAN, Bluetooth incl. mobile app, auto config. over USB and much more
 Dual Rate SFP Slot for 100FX and 1000BaseX
 Wide range of operation voltage 12 .. 48 V DC
 Auto-MDI/MDI-X function
 Dual Rate SFP Slot
 Redundant power supply input
 Temperature range -40°C .. +75°C
 Rugged metal housing, EMV-secure, protection class IP30
 DIN-Rail or wall mounting possible
 Suitable DIN-Rail power supply : DR-240-48



Article-No.	RJ45-Port	LWL-Port	PoE
IPS-3106SFP-DR-BT	4 x 10/100/1000T	2 x 100/1000	PoE+

Accessory

Article-No.	Description
FTLF1217P2BTL	MiniGBIC MM 100FX 2km SFP,1310nm 155Mbps -40..85°C, LC
FTLF1323P1BTL	MiniGBIC SM 100FX 40km SFP,1310nm 155Mbps -40..85°C, LC
FTLF8519P3BNL	MiniGBIC MM 1000SX 550m SFP, 850nm 1.25G -20..85°C, LC
FTLF1318P3BTL	MiniGBIC SM 1000LX 10km SFP, 1310nm 1.25G -40..85°C, LC
DRP-240-48	Hutschienen-Netzteil 48 V DC, 5.0 A, 240 Watt, Mean Well

IV Accessory

DIN-Rail Holder and Power Supply

19" 4U Universal DIN-Rail Holder



For carrying of DIN rail (hat rail) components
 Also suitable for wall- and ceiling mounting
 DIN rail according to DIN EN 60715 TH35 (35 x 7.5 mm)
 Width of DIN rail 435 mm
 DIN rail depth-adjustable from ca. 55 .. 165 mm (step-less)
 Rear-sided C-rail for cable fixing, height-adjustable
 DIN-rail is mountable also horizontally

Article-No.	Description
53719.1	19" Universal DIN Rail Holder incl. 4U Bracket Set

Mean Well DIN-Rail Power Supply



DIN-Rail power supplies for industrial components

Article-No.	Voltage	Power	Amper
DR-15-24	24 V	15 W	0,63 A
DR-30-24	24 V	30 W	1,5 A
DR-45-24	24 V	45 W	2,0 A
DR-75-24	24 V	75 W	3,2 A
DR-120-24	24 V	120 W	5,0 A
DR-75-48	48 V	75 W	1,6 A
DR-120-48	48 V	120 W	2,5 A
DRP-240-48	48 V	240 W	5,0 A
DRP-480-48	48 V	480 W	10,0 A

MCT-DR-ADAPTER, DIN-Rail Adapter for MCT-Media Converter



Adapter for DIN-Rail installation of MCT-Converter Series
 For all CTS MCT-Media-Converter
 Incl. 2x screws M3 x 5,5

Article-No.	Description
MCT-DR-ADAPTER	DIN-Rail Adapter for MCT Converter

Transceiver Modules and Cables

SFP Dual Rate 100/1000Mbit/s

Dual Rate WDM Transceiver 1310nm
 Hot-pluggable SFP
 Speed: 100Mbit (100-FX) / 1G (1000-BaseX)
 Compatible with all standard SFP slots



Article-No.	Speed	Medium	Wavelength	Link Distance	Connector	Fiber quality	Temperature
SFP-31FC-DR	100/1000 Mbit/s	Multimode	1310 nm	2 / 0.550 km	LC duplex	OM2/OM3	0 – 70 °C
SFP-31FC-SM10-DR	100/1000 Mbit/s	Singlemode	1310 nm	10 km	LC duplex	OS2	0 – 70 °C
SFP-31W2A-SM10-DR	100/1000 Mbit/s	Singlemode	TX1310/RX1550 nm	10 km	LC simplex	OS2	0 – 70 °C
SFP-31W2B-SM10-DR	100/1000 Mbit/s	Singlemode	TX1550/RX1310 nm	10 km	LC simplex	OS2	0 – 70 °C

SFP Gigabit Ethernet 1000Mbit/s

Transceiver for Gigabit Ethernet applications
 Hot-pluggable SFP
 Integrated digital diagnostic



Article-No.	Speed	Medium	Wavelength	Link Distance	Connector	Fiber quality	Temperature
FCLF8521P2BTL	1000 Mbit/s	Kupfer Cat.5/6/6a	-	100 m	RJ45	-	-10 – 70 °C
FTLF8519P3BNL	1000 Mbit/s	Multimode	850 nm	550 m	LC duplex	OM2/OM3	-40 – 75 °C
FTLF1318P3BTL	1000 Mbit/s	Singlemode	1310 nm	10 km	LC duplex	OS2	-40 – 75 °C

SFP+ 10Gigabit Ethernet 10Gbit/s

Transceiver for 10GBASE Ethernet and 10G Fibre Channel applications.
 Hot-pluggable SFP
 Digital Diagnostics Monitoring



Article-No.	Speed	Medium	Wavelength	Link Distance	Connector	Fiber quality	Temperature
FTLX8571D3BCL	10 Gbit/s	Multimode	850 nm	82/300 m	LC duplex	OM2/OM3	0 – 70 °C
FTLX1471D3BCL	10 Gbit/s	Singlemode	1310 nm	10 km	LC duplex	OS2	-5 – 75 °C

DAC SFP+ 10Gigabit Ethernet - Direct Attach Copper Cable

Up to 11 GbD bi-directional data links
 Compliant with 10GFC
 Compliant with SFF8431
 Compliant with IEEE 802.3ae standard
 Hot-pluggable SFP+ footprint
 Enhanced EMI design
 Single power supply 3.3V
 Operating temperature range: 0° to 70°

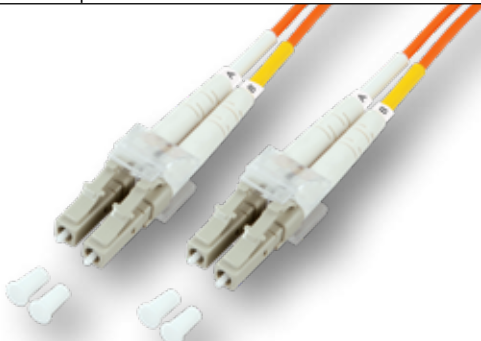


Length in m: 1,0 - 2,0 - 3,0 - 5,0 - 7,0 m

Article-No.	Speed	Type	Temperature
K5300V2.x	10 Gbit/s	2 x SFP+ konfektioniert	0 – 70°C

Fiber Jumper & Adapters

Duplex Jumper LC-LC



Length on stock: 0,5 - 1,0 - 1,50 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

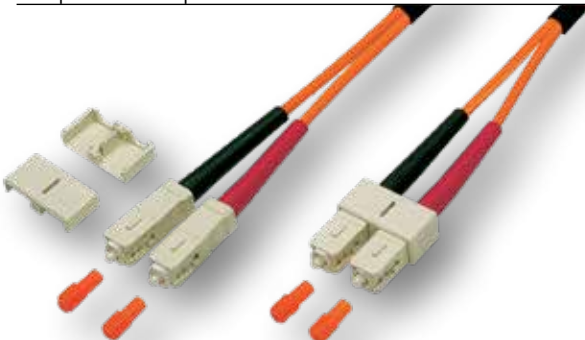
Article-No.	Description
O0350.x	Duplex Jumper LC-LC 9/125 μ , OS2, LSZH, yellow, 2.0mm, 1m
O0319.xOM5	Duplex Jumper LC-LC 50/125 μ , OM5, LSZH, lime green, 2.0mm, 1m
O0319.x	Duplex Jumper LC-LC 50/125 μ , OM4, LSZH, erika violet, 2.0mm, 1m
O0312.x	Duplex Jumper LC-LC 50/125 μ , OM3, LSZH, aqua, 2.0mm, 1m
O0310.x	Duplex Jumper LC-LC 50/125 μ , OM2, LSZH, orange, 2.0mm, 1m
O0330.x	Duplex Jumper LC-LC 62,5/125 μ , OM1, LSZH, orange, 2.0mm, 1m

LC Duplex Adapter in one piece case with Plastic housing



Article-No.	Description
53350.2	Adapter LC Duplex SM plastic blue, one piece case: SC-Simplex, Ceramic
53334.2	Adapter LC Duplex OM4 plastic, violet, one piece case: SC-Simplex, Ceramic
53357.2	Adapter LC Duplex OM3 plastic, aqua, one piece case: SC-Simplex, Ceramic
53348.3	Adapter LC Duplex OM2, plastic beige, one piece case: SC-Simplex, Ceramic

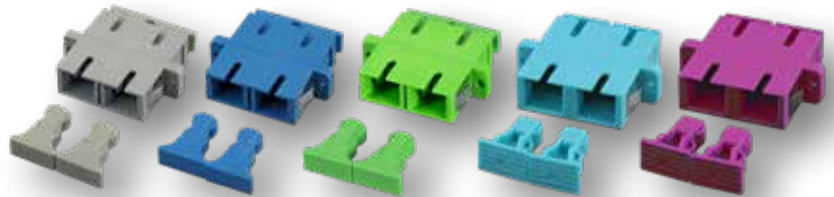
Duplex Jumper SC-SC



Length on stock: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Article-No.	Description
O2513.x	Duplex Jumper SC-SC 9/125 μ , OS2, LSZH, yellow, 3.0mm, 1m
O0318.xOM5	Duplex Jumper SC-SC 50/125 μ , OM5, LSZH, lime green, 3.0mm, 1m
O0318.x	Duplex Jumper SC-SC 50/125 μ , OM4, LSZH, erika violet, 3.0mm, 1m
O7413.x	Duplex Jumper SC-SC 50/125 μ , OM3, LSZH, aqua, 3.0mm, 1m
O6413.x	Duplex Jumper SC-SC 50/125 μ , OM2, LSZH, orange, 3.0mm, 1m
O6423.x	Duplex Jumper SC-SC 62,5/125 μ , OM1, LSZH, orange, 3.0mm, 1m

SC Duplex Adapter with Plastic housing



Article-No.	Description
53316.35	SC/SC duplex adapter APC green, ceramic sleeve
53316.3	SC/SC duplex adapter singlemode, blue, ceramic sleeve
53333.1OM5	SC/SC duplex adapter OM5, lime green, ceramic sleeve
53333.1	SC/SC duplex adapter OM4 erika violet, ceramic sleeve
53356.1	SC/SC duplex adapter Multimode, aqua, ceramic sleeve
53303.32	SC/SC duplex adapter multimode beige, ceramic sleeve

Duplex Jumper ST-ST



Length on stock: 0,5 - 1,0 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 m

Article-No.	Description
O2003.x	Duplex Jumper ST-ST 9/125 μ , OS2, LSZH, yellow, 3.0mm
O0348.x	Duplex Jumper ST-ST 50/125 μ , OM4, LSZH, erika violet, 3.0mm
O7013.x	Duplex Jumper ST-ST 50/125 μ , OM3, LSZH, aqua, 3.0mm
O6013.x	Duplex Jumper ST-ST 50/125 μ , OM2, LSZH, orange, 3.0mm
O6023.x	Duplex Jumper ST-ST 62,5/125 μ , OM1, LSZH, orange, 3.0mm

ST Duplex Adapter with Metal Housing



Article-No.	Description
53313.34	ST dpx. adapter Singlemode sleeve ceramic, metal housing

RJ45 Patch Cable

RJ45 Patch cable S/FTP, Cat.6A, Cat.7 Raw cable TPE superflex



Lagerlängen: 0,15 - 0,25 - 0,5 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 m

Article-No.	Mantel-Farbe
K5525FGR.x	grau
K5525FBL.x	blau
K5525FGE.x	gelb
K5525FGN.x	grün
K5525FRT.x	rot
K5525FSW.x	schwarz
K5525FWS.x	weiß

General specifications

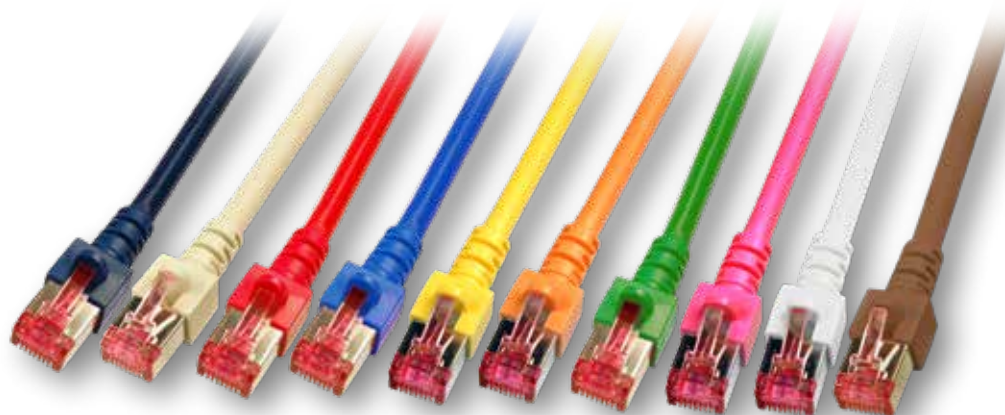
Category: Cat.6A
 Transmission: 10Gbit
 Bandwidth: 500MHz
 Assignment: According to TIA/EIA 568B
 Conductor material: Copper
 Connector: RJ45 shielded, IEC-60603-7-51
 Contacts: Gold plated
 Latch protection: available
 Cable structure: S/FTP
 Raw cable: Cat.7

Flame retardance: IEC60332-1
 Halogen free: IEC60754-2
 Low smoke: IEC61034

Special features

Jacket material: **Extremely flexible TPE jacket (superflex)**
 Cross section: 4 x 2 x AWG26/7
 Cable diameter: 6.5mm
 Type of grommet: moulded bend relief, slim version
Length imprint: on bend relief

RJ45 Patch cable S/FTP, Cat.6 LSZH



Lagerlängen: 0,15 - 0,25 - 0,5 - 0,75 - 1,0 - 1,5 - 2,0 - 3,0 - 5,0 - 7,5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 m

Article-No.	Colour outer sheath
K5510.x	grey
K5511.x	yellow
K5512.x	red
K5513.x	blue
K5514.x	green
K5515.x	black
K5516.x	orange
K5517.x	brown
K5518.x	white
K5519.x	magenta
K5521.x	purple/violet

General specifications

Category: Cat.6
 Transmission: 5Gbit
 Bandwidth: 250MHz
 Assignment: According to TIA/EIA 568B
 Conductor material: Copper
 Connector: RJ45 shielded, IEC-60603-7-5
 Contacts: Gold plated
 Latch protection: available
 Cable structure: S/FTP
 Flame retardance: IEC60332-1
 Halogen free: IEC60754-2
 Low smoke: IEC61034

Special features

Jacket material: LSZH
 Cross section: 4 x 2 x AWG27/7
 Cable diameter: 6.2mm
 Type of grommet: moulded bend relief (**patented**)
Length imprint: on bend relief

Other Accessory

Connction module Cat.6 RJ45/RJ45 with Overvoltage protection



1-Line Fast / Gigabit Ethernet overvoltage protector
 Protects the equipment from overvoltage and lightning strikes
 Direct lightning strikes through a grounding line into the ground
 Compliance with 10 / 700us 6KV common mode lightning surge test (grounding wire must be properly installed)
 Easy connection for cables with RJ-45 plug
 Placement in a desk or on the wall possible
 Fully compatible with industry standard Power over Ethernet (PoE) devices and Ethernet networks
 Provides protection for both Ethernet data pairs and PoE DC power
 Dimensions (WxHxD: 25,2x25,2x71,4mm

Article-No.	Description
LPB-101G-P	Überspannungsschutz Cat.6 RJ45/RJ45, mit separatem Erdungsanschluss

Fiber Optic Basic Cleaning & Inspection Kit



Basic Cleaning Kit consists of:
 1x Bulb Blower (Ø: 42 mm)
 1x 2,5 mm Fiber Optic Ferrule Cleaner
 1x 1,25 mm Fiber Optic Ferrule Cleaner
 1x Fiber Optic Cleaning Cassette
 1x Package of Lint free wiper
 1x Fiber Optic Microscope for PC and APC 2.5 mm connector
 Magnification microscope: 200x

Article-No.	Description
39842.1	Fiber Optic Basic Cleaning & Inspection Kit

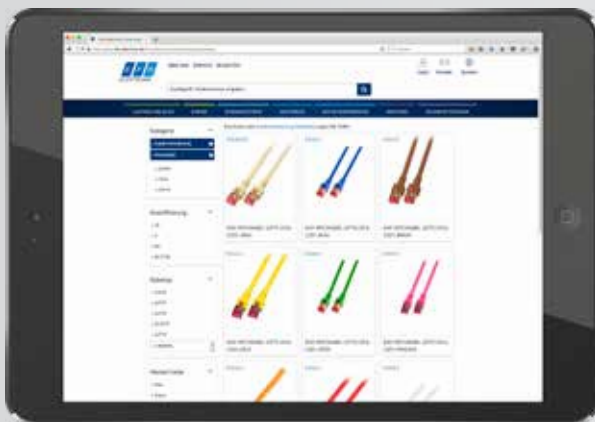
The EFB-Newsletter: Always well informed

Register now for our free newsletter quickly and easily. We provide you with news and interesting facts about product highlights and events. In addition, we will inform you about product launches at regular intervals and you will also receive exclusive offers, as well as free tickets to events where we are represented. Stay up-to-date with the EFB newsletters.



REGISTER NOW
www.efb-elektronik.de/newsletter

Experience EFB's product world digitally in the online shop



Immerse yourself in our product world with the EFB-Elektronik Online Shop. We offer a wide range of products from fiber optic or copper cabling to cabinet systems, multimedia and active components to security technology. A wide range of products - everything from a single source.

DISCOVER NOW
shop.efb-elektronik.de

GERMAN LOCATIONS

BIELEFELD - HEADQUARTERS

Striegauer Straße 1 • 33719 Bielefeld
fon +49 (0) 521/40418-0 • fax +49 (0) 521/40418-50

FRANKFURT / RAUNHEIM

Am Prime Parc 7 • 65479 Raunheim
fon +49 (0) 6142/9466-0 • fax +49 (0) 6142/9466-15

HAMBURG / BUXTEHUDE

Westende 12 • 21614 Buxtehude
fon +49 (0) 4161/5115-0 • fax +49 (0) 4161/5115-15

MUNICH / PUCHHEIM

Boschstraße 10 • 82178 Puchheim
fon +49 (0) 89 800 7469-0 • fax +49 (0) 89 800 7469-29

SONNEBERG

Johann-Nicol-Dorst-Straße 10 • 96515 Sonneberg
fon +49 (0) 3675/75069-0 • fax +49 (0) 3675/75069-25

INTERNATIONAL LOCATIONS

EFB-ELEKTRONIK AUSTRIA GMBH

Belgradplatz 5 • 1100 Vienna
fon +43 (0) 1 600 1781-0 • fax +43 (0) 1 600 1781-20
info@efb-elektronik.at • www.efb-elektronik.at

EFB-ELEKTRONIK TURKIYE

Halide Edip Adivar Mahallesi • Sultan Sokak
Mavi Plaza No:22 D:11/22A • 34381 Şişli/İSTANBUL
Tel: +90 212 222 92 50 pbx • Fax: +90 212 222 92 89
info@efb-elektronik.com.tr • www.efb-elektronik.com.tr

EFB NORDIC A/S

Naverland 22 • 2600 Glostrup
fon +45 44 66 29 11
info@efb-nordic.dk • www.efb-nordic.dk

