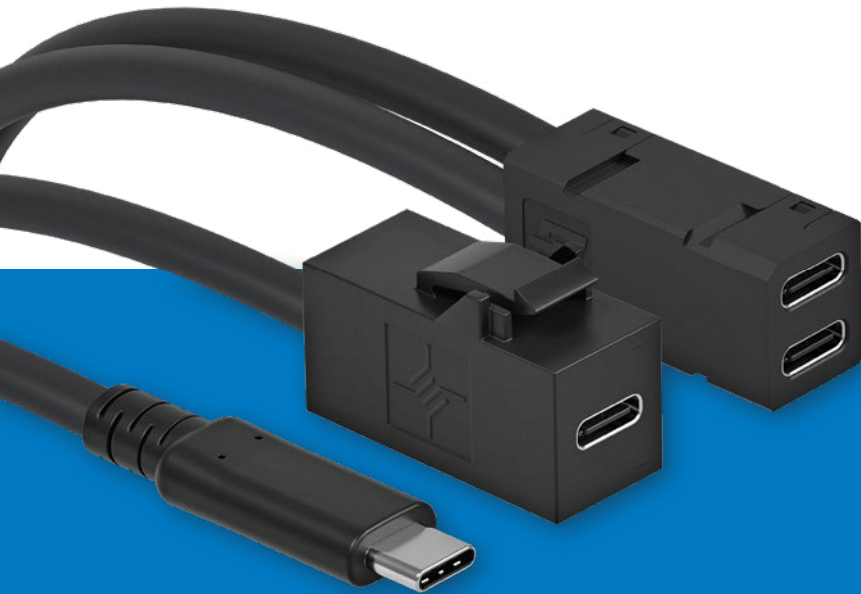




USB-C 4.0



Automation



Medical



Transportation



Automotive



Network Infrastructure

FAST.
EFFICIENT.
FLEXIBLE.

USB-C 4.0 – The ideal solution for easy connection of peripheral devices.

USB-C 4.0

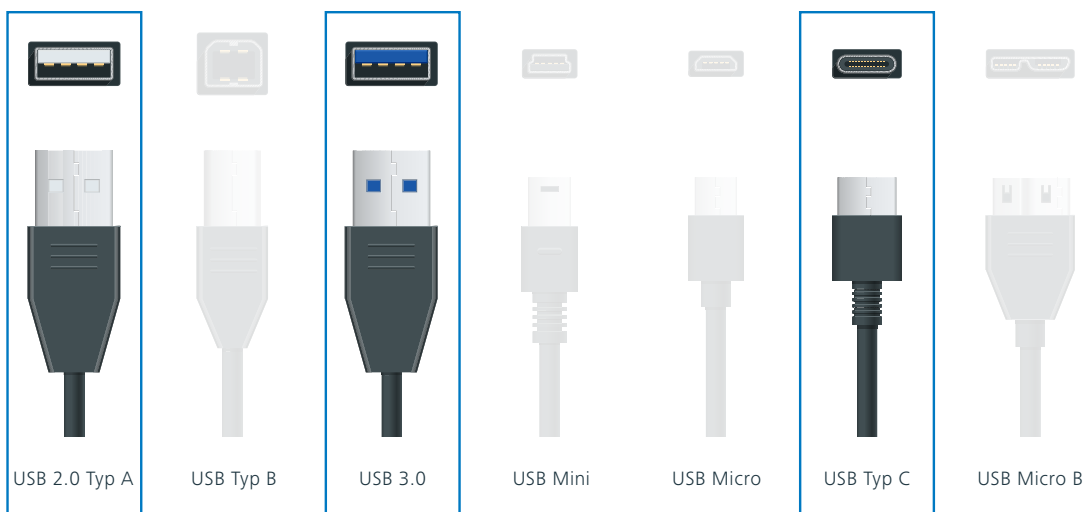
THE HIGH-PERFORMANCE STANDARD

Information technology is evolving rapidly, and with it the demands placed on connectivity performance and versatility. USB has evolved from a simple interface for peripheral devices into a versatile, high-performance connectivity standard for a wide range of applications and has become an indispensable part of modern IT environments.

In recent years, **USB-C 4.0** has established itself as a universal, future-proof standard, impressing users with its compact form factor and outstanding performance.

Overview of the Different USB Types

With high-performance products for USB Type A, USB 3.0 and USB Type C, Telegärtner offers reliable solutions that meet or exceed the highest quality standards.

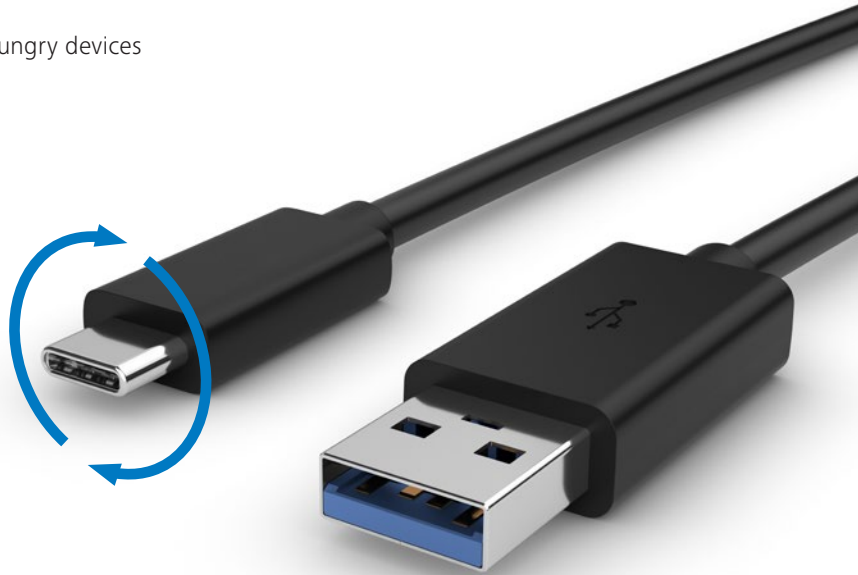


Evolution of the data rates in USB standards



USB-C 4.0 takes connectivity to a high level of performance, combining speed, efficiency and versatility in a single solution:

- Ultra-fast data transfer – up to 40 Gbit/s for 4K/8K content and large volumes of data
- All-in-one connectivity – a single interface for data, power and video transmission
- High-power delivery – up to 240 W for power-hungry devices
- Compact design – ideal for slim, modern devices and docking solutions



Works – either way round

USB-C offers a key advantage over older USB connector types: the connector is reversible and works reliably regardless of its orientation. This is made possible by 12 contacts on each side, which are automatically detected and energized to ensure optimal performance.

USB 4.0
up to 40 Gbit/s

USB 3.2
20 Gbit/s

The technical challenge: USB-C couplers

With a USB-C coupler, this advantage is lost, as the coupler cannot detect which contacts are active.

The consequence: USB-C couplers currently available on the market only work when the USB-C cable is connected in the “correct” orientation. If the connector is rotated by 180°, data transmission may fail.

Telegärtner’s solution to the coupler challenge



BETTER: OUR NEW PRODUCT – THE USB-C EXTENDER

Telegärtner USB-C extenders eliminate the coupler issue described above. They always work regardless of the connector’s orientation.

USB-C 4.0 EXTENDER

Keystone type



Telegärtner Quality
10,000 mating cycles
40 Gbit/s



STX type



Telegärtner in the USB-IF

Telegärtner is a member of the USB Implementers Forum, Inc. (USB-IF). Our USB product solutions are USB-certified under Vendor ID 14675.

Multiple versions available

- Keystone and STX variants for different applications
- Available in both single-port and dual-port versions
- Extenders available in lengths of 0.5 m, 1 m, 1.5 m and 2 m

Space-saving design

- The dual-port version allows two USB-C cables to be connected to a single extender, saving a considerable amount of space

Maximum data rate – 40 Gbit/s

- With a proven transmission speed of 40 Gbit/s, these extenders meet the requirements of data-intensive applications

Guaranteed functionality regardless of plug orientation

- The plug can be inserted being rotated by 180°

Technical Data:

Description	Extender
Mating cycles	10,000
Cable diameter	5.2 mm
Operating temperature	-20 °C bis + 80 °C
Current-carrying capacity	0.5 m und 1 m: 5 A; 1.5 m und 2 m: 3 A
Data rate up to	40 Gbit/s
Jacket material	TPE
Connector housing	PC + ABS UL94 V-0

USB-C 4.0 PATCH CORDS

Telegärtner Quality

100,000 mating cycles
40 Gbit/s



Technical Data:

Description	Patch cord
Mating cycles	100,000
Cable diameter	5.2 mm
Operating temperature	-20 °C bis + 80 °C
Current-carrying capacity	0.5 m und 1 m: 5 A; 1.5 m und 2 m: 3 A
Data rate up to	40 Gbit/s
Jacket material	TPE
Connector housing	PC + ABS UL94 V-0

USB-IF certified, including integrated e-marker

Highly automated manufacturing process

High data rate

Proven data transmission speed of up to 40 Gbit/s

Commitment to Quality

- Up to 100,000 mating cycles
- 100% end-of-line testing, including high-voltage testing

Safety Assurance

Overvoltage protection provided by the e-marker integrated in the connector

VERSATILE

USB-C 4.0 has established itself as a universal interface – powerful, flexible and future-proof.

Telegärtner's USB-C 4.0 solutions in **STX and Keystone versions** enable reliable integration into a wide range of system environments and support modern cabling concepts with demanding requirements for data rates and power.

Industrial image processing & high-speed cameras

Precise real-time quality control – high-speed cameras enable effective quality control in production lines. Telegärtner's USB patch cords reliably transmit 8K video and ultra-high frame rates without delay. Thanks to Thunderbolt compatibility, they are suitable for a wide range of camera systems – compact, robust and high-performing.

Edge computing & industrial PCs

Data processing at the edge – industrial PCs collect and analyse production data directly on site. Reliable network connections are essential to ensure trouble-free operation. USB-C 4.0 transmits both data and power over the same connection, enabling compact and modular device designs. Industrial and commercial enterprises worldwide rely on Telegärtner's dependable patch cords and connection cables.

Machine control & manufacturing automation

Less cabling, higher process reliability

Modern manufacturing plants process large volumes of data in real time to precisely control the machines. USB-C 4.0 combines high data rates and power in a single cable, significantly reducing cabling requirements. Telegärtner's USB extenders enable flexible, space-saving installation and allow simple extensions during operation.



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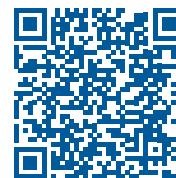
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ORDER INFORMATION:

Direct link:
Scan the QR code
to access the complete
range of USB products
on our website.



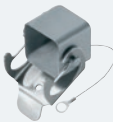
USB extender	Part no.	Description	Length
	100135834	STX USB-C one-port extender	0,5 m
	100135836	STX USB-C one-port extender	1 m
	100135837	STX USB-C one-port extender	1,5 m
	100135838	STX USB-C one-port extender	2 m
	100135839	STX USB-C two-port extender	0,5 m
	100135840	STX USB-C two-port extender	1 m
	100135841	STX USB-C two-port extender	1,5 m
	100135842	STX USB-C two-port extender	2 m
	100135843	Keystone USB-C one-port extender	0,5 m
	100135844	Keystone USB-C one-port extender	1 m
	100135845	Keystone USB-C one-port extender	1,5 m
	100135846	Keystone USB-C one-port extender	2 m
	100135847	Keystone USB-C two-port extender	0,5 m
	100135848	Keystone USB-C two-port extender	1 m
	100135850	Keystone USB-C two-port extender	1,5 m
	100135851	Keystone USB-C two-port extender	2 m

USB patch cord	Part no.	Description	Length
	100136930	USB-C patch cord	0,5 m
	100136931	USB-C patch cord	1 m
	100136932	USB-C patch cord	1,5 m
	100136933	USB-C patch cord	2 m

USB coupler	Part no.	Description
	100023178	USB-Keystone Type A, USB 2.0, f-f
	100023186	USB-Keystone Type A, USB-3.0, f-f

Flexible integration into various STX and Keystone applications*:

STX applications

					
Part no.: 100007441	100007415	100022893	100022771	100007424	100022906

Keystone applications

				
Part no.: 100021416	100007383	100022951	100022668	100021492

* Our product portfolio includes many more STX and Keystone applications.

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