

HIGH-SPEED DATA TECHNOLOGY CABLE ASSEMBLIES

HDMI   
ODU HIGH SPEED DATA TECHNOLOGY



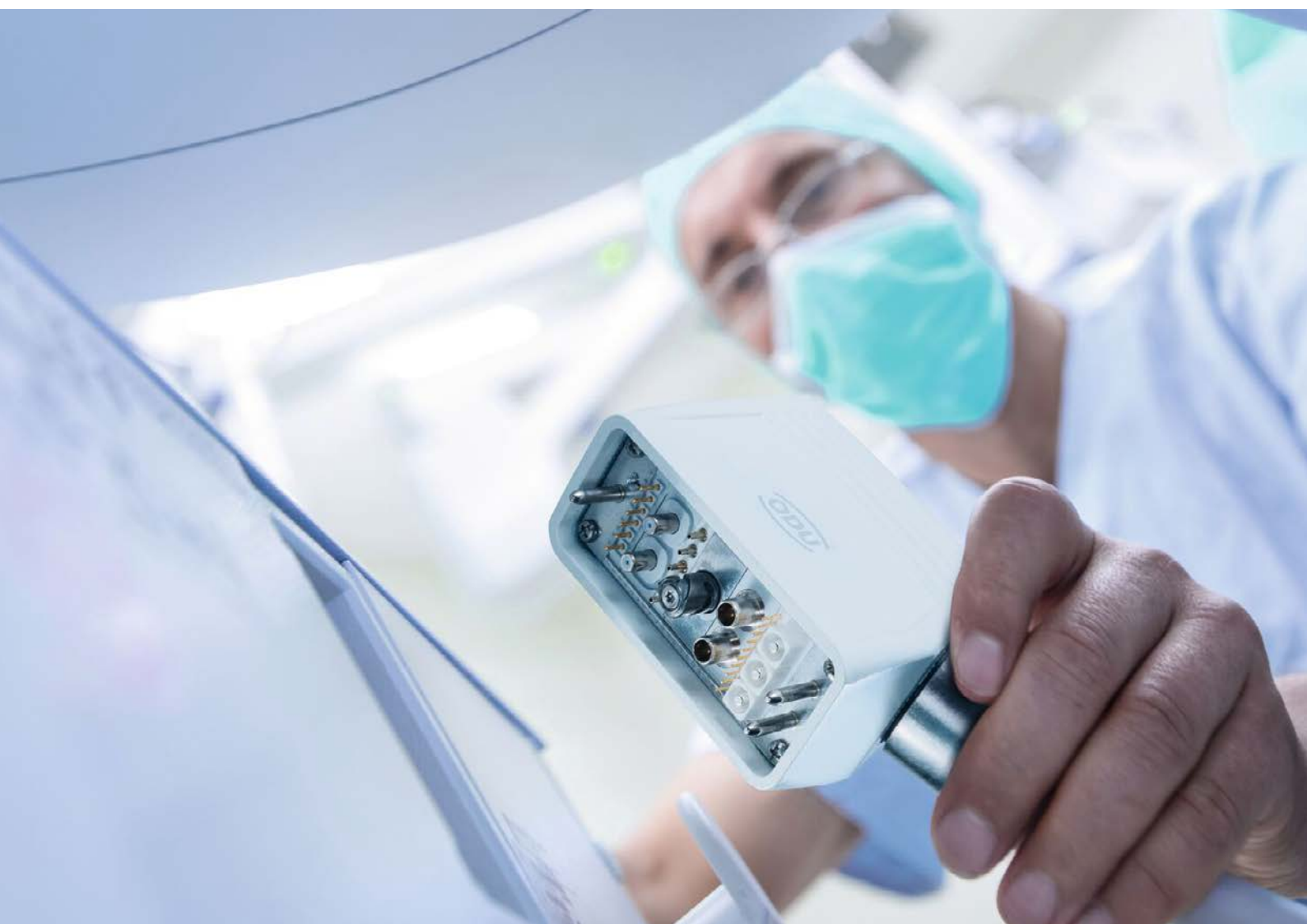


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In the field of data technology, a standard cable assembly comprises usually an ODU connector at one end and a standard interface connector at the other end of the cable. You can also get a solution with ODU connectors on both sides of the cable assembly. The catalogue includes the following ODU connectors (availability depends on data protocol):

- ODU MINI-SNAP® (L/K)
- ODU AMC®
- ODU AMC® High-Density
- ODU AMC® Series T
- ODU-MAC® Blue-Line

Data transmission protocols

The contact arrangement of an ODU data transmission connector differs from a standard data transmission connector due to the robust ODU specific design. However, the ODU design meets the electrical specifications of the respective standard data transmission protocol.

For further support and customer specific cable solutions please contact: sales@odu.de



ODU FIBER OPTIC EXPANDED BEAM PERFORMANCE

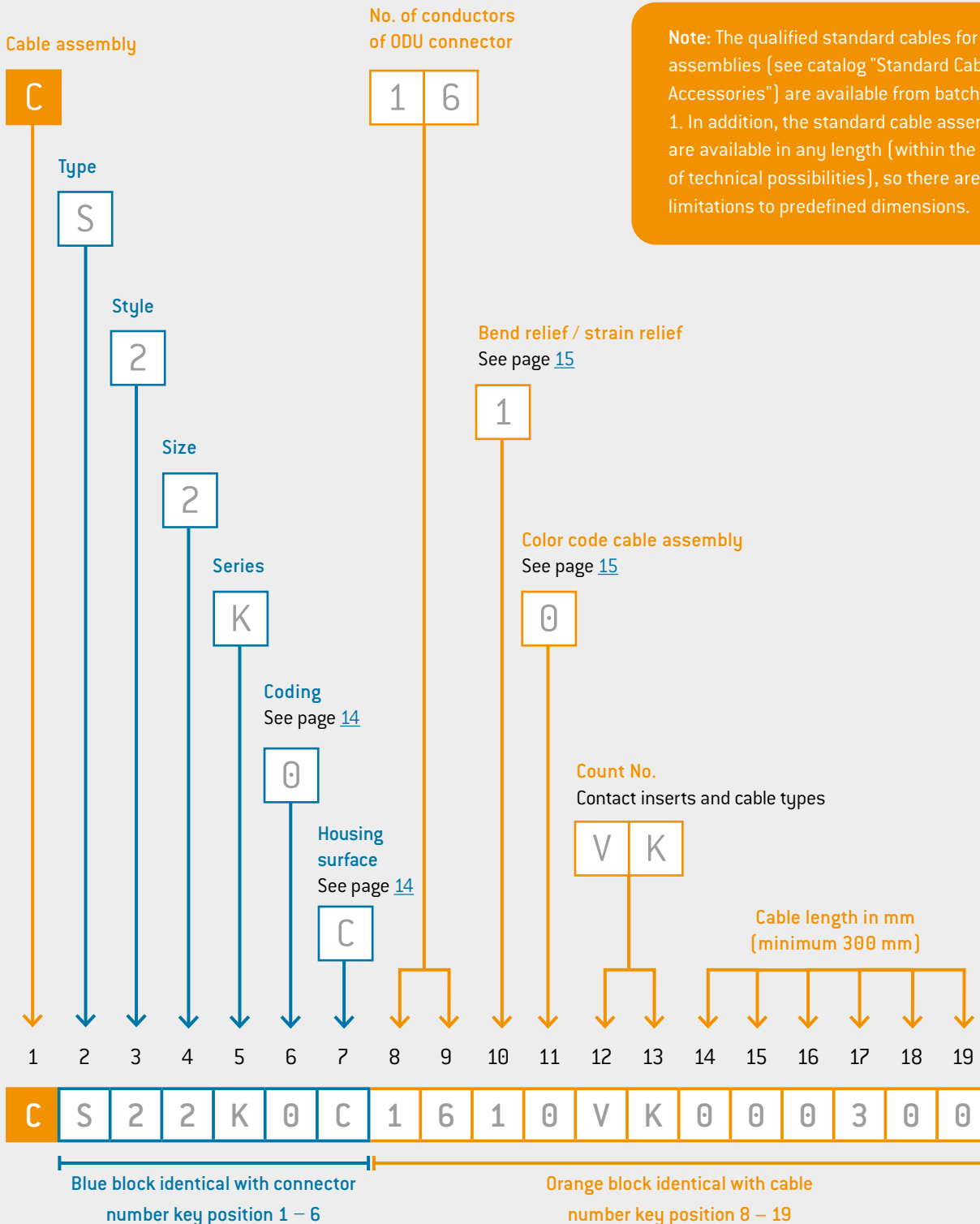
Advanced fiber optic solution which offers high-end transmission characteristics over many mating cycles.

YOUR WAY TO AN INDIVIDUAL CABLE ASSEMBLY SOLUTION

HOW TO CONFIGURE WITH THE CABLE NUMBER KEY

This shows you how ODU's cable number key is composed:

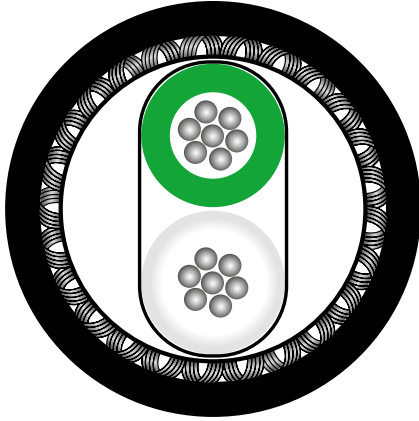
- In the first part of the configuration – after the "C" for cable, please insert the first 6 positions of your connector number key.
- In the middle part of the cable number key, you configure bend relief, color and count number.
- The last 6 positions determine the length of the cable in mm.



CABLE SPECIFICATIONS

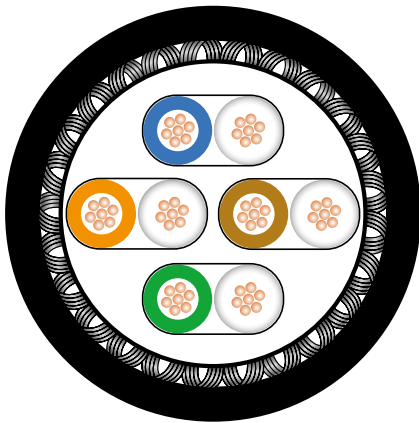
TECHNICAL DATA

DATA CABLES SINGLE PAIR ETHERNET®



TECHNICAL DATA	BY THE METER	PRE-ASSEMBLED
Conductor	Tinned copper wire	
Composition	1 x 2 x AWG 26	1 x 2 x AWG 22
Stranding	2 cores stranded to a pair	
Jacket / Color	PVC / Black ISO 19642-7, class B	PVC / Black
Insulation	PP Ø 1.26 mm	PE Ø 1.65 mm
Shielding	Tinned copper	
Temperature range	-40 up to +105 °C	-20 up to +80 °C

DATA CABLES ETHERNET®

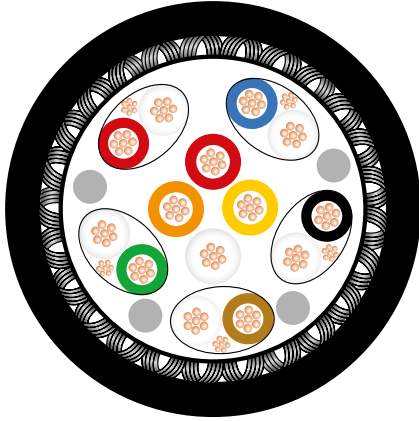


TECHNICAL DATA	BY THE METER	PRE-ASSEMBLED
Conductor	Bare copper wire	
Stranding	2 cores stranded to a pair – 4 pairs	
Insulation	Foam-Skin PE, 1.05 mm	PE Ø 1.02 mm (core)
Jacket / Color	DMC FLEX PUR, Black	LSZH (jacket) / PVC (bend relief) / Black
Shielding	Tinned copper braid	
Pair shielding	Aluminium-coated plastic composite foil	
Operating temperature	-20 °C to +60 °C	-40 °C to +75 °C



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DATA CABLES HDMI® 2.0

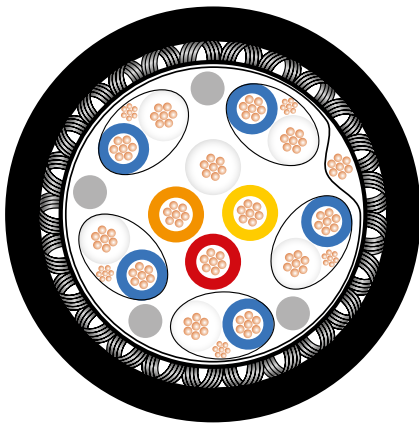


TECHNICAL DATA

Conductor	Stranded copper wire
Composition	5 x 2 x AWG30 4 x AWG30
UL-Style	20276
Jacket / Color	PVC / Black
Temperature range	-20 up to +80 °C
Test voltage	300 V/AC

PRE-ASSEMBLED

DATA CABLES HDMI® 2.1

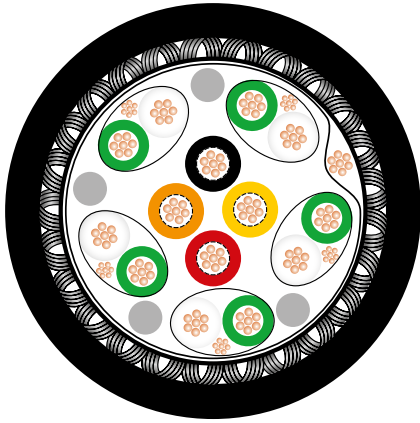


TECHNICAL DATA

Conductor	Stranded copper wire
Composition	Length 1 m / 2 m: 5 x 2 x AWG30 4 x AWG30 Length 3 m: 5 x 2 x AWG30 4 x AWG28
UL-Style	20276
Jacket / Color	PVC / Black
Temperature range	-20 up to +80 °C
Test voltage	300 V/AC

PRE-ASSEMBLED

DATA CABLES DISPLAYPORT® 2.0



TECHNICAL DATA

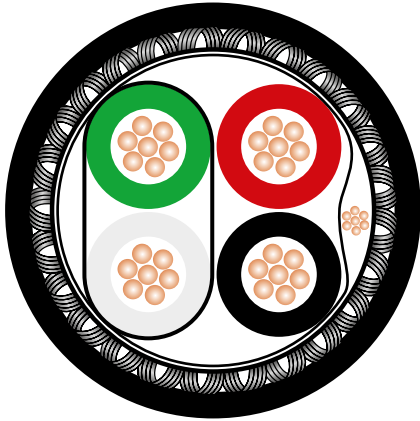
Conductor	Stranded copper wire
Composition	5 x 2 x AWG30 4 x AWG30
UL-Style	20276
Jacket / Color	PVC / Black
Temperature range	-20 up to +80 °C
Test voltage	300 V/AC

PRE-ASSEMBLED

Conductor	Stranded copper wire
Composition	5 x 2 x AWG30 4 x AWG30
UL-Style	20276
Jacket / Color	PVC / Black
Temperature range	-20 up to +80 °C
Test voltage	300 V/AC



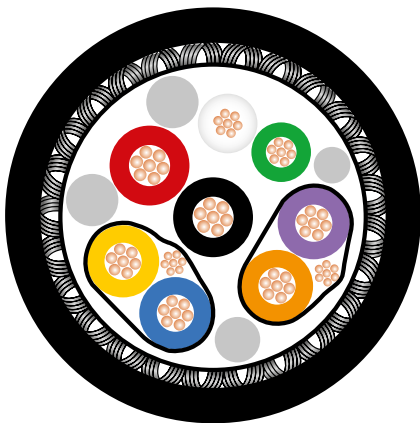
DATA CABLES USB® 2.0



TECHNICAL DATA

	BY THE METER	PRE-ASSEMBLED – TYPE A
Conductor	Stranded tinned copper wire	Stranded copper wire
Composition	1 x 2 x AWG 28 2 x AWG 28	1 x 2 x AWG 28 2 x AWG 24
Jacket / Color	TPU / Black	PVC / Black
Temperature range	-30 up to 80 °C	-15 up to +80 °C
Test voltage	100 V	

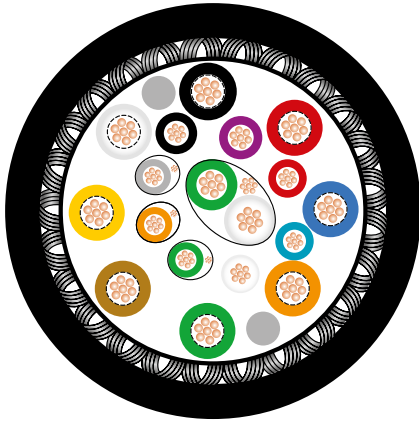
DATA CABLES USB® 3.2 GEN 1x1



TECHNICAL DATA

	BY THE METER	PRE-ASSEMBLED – TYPE A
Conductor	Stranded tinned copper wire	Stranded copper wire
Composition	2 x 2 x AWG 28 1 x 2 x AWG 28 2 x AWG 24	
UL-Style	20963	20276
Jacket / Color	PUR / Black	PVC / Black
Temperature range	-40 up to 80 °C	-15 up to +80 °C
Test voltage	500 V	300 V

DATA CABLES USB® 3.2 GEN 2x2



TECHNICAL DATA

	PRE-ASSEMBLED –TYPE C PLUG (PASSIVE)
Conductor	Stranded copper wire
Composition	8 x AWG 30 / Coaxial 1 x 2 x AWG 30 2 x AWG 28 3 x AWG 30 3 x AWG 30 / Foil shield
UL-Style	758
Jacket / Color	TPE / Black
Temperature range	-20 up to +85 °C
Temperature range at motion	±0 up to +50 °C
Test voltage	300 V



CONNECTOR LOCKING AND STYLE OPTIONS

- Miniaturized and light weight
- Watertight with IP68 and IP69
- Optimized mechanical and optical color coding
- Long lifetime with over 5000 mating cycles
- Blind mating and demating in difficult-to-reach places

ODU AMC®

available with DP / HDMI® / Ethernet® / USB®

Pos. 2-3	PLUGS
S1	Push-pull 
A1	Break-away 

Pos. 2-3	RECEPTACLE
K1	In-line receptacle 
G6	Panel mount receptacle 

ODU AMC® High-Density

available with HDMI® / Ethernet® / USB®

A1	Break-away 
C1	Screw 

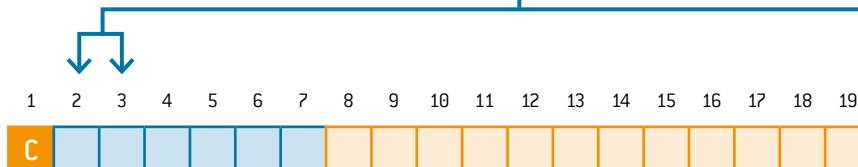
G6	Panel mount receptacle 
K1	In-line receptacle 
KC	In-line receptacle with screw-lock 
GS	Panel mount receptacle with screw-lock 

ODU AMC® SERIES T

available with DP / HDMI® / Ethernet®
Serie-T 38999 certified

S1	Push-Pull 
A1	Break-away 
C1	Screw locking 



K1	In-line receptacle 
G6	Panel mount receptacle 



ODU MINI-SNAP® SERIES L

available with DP / HDMI® / Ethernet® / USB®

- Quick and easy mating and demating
- Low space requirements on the receptacles
- Definite and secure locking conditions
- IP50

Pos. 2-3	PLUGS
S1	Push-pull 
S2	Push-pull 
A1	Break-away 
A2	Break-away 


Pos. 2-3	RECEPTACLE
K1	In-line receptacle 
G6	Panel mount receptacle 

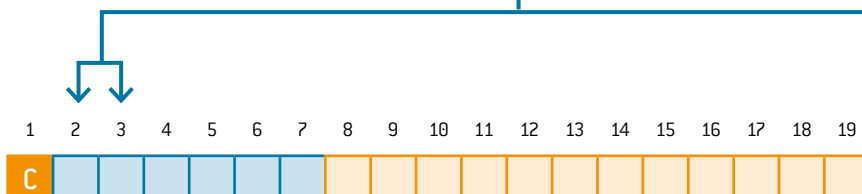
ODU MINI-SNAP® SERIES K

available with DP / HDMI® / Ethernet® / USB®

- Quick and easy mating and demating
- Low space requirements on the receptacles
- Definite and secure locking conditions
- IP68

S1	Push-pull 
S2	Push-pull 
A1	Break-away 
A2	Break-away 

K1	In-line receptacle 
K2	In-line receptacle 
G6/GB	Panel mount receptacle 



CONNECTOR CODING AND PLATING

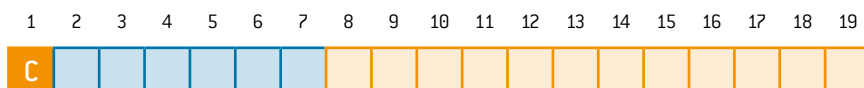


ODU MINI-SNAP® Series L								
Pos. 6	Angle	Receptacle front view	Size					
			00	0	1	2	3	4
0	0°		•	•	•	•	•	•
A	30°		•	•	•	•	•	
C	45°					•	•	
C	-45°		•	•	•			
F	60°		•	•	•	•	•	

ODU MINI-SNAP® Series K							
Pos. 6	Angle	Receptacle front view	Size				
			0	1	2	3	4
0	0°		•	•	•	•	•
A	30°		•	•	•	•	
C	45°		•	•	•		
F	60°		•	•	•		

ODU AMC® Y/T/HD		
Pos. 6	Plug front view	Color
A		Light brown
B		Red
C		Blue
D		Green

ODU MINI-SNAP® Series L/K		
Pos. 7	Plating	
C	Standard	Matte chrome
Z	On request	Tin-nickel

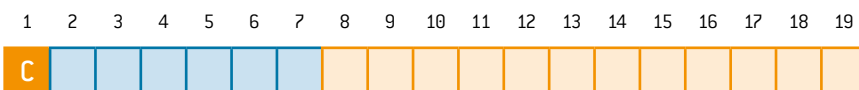


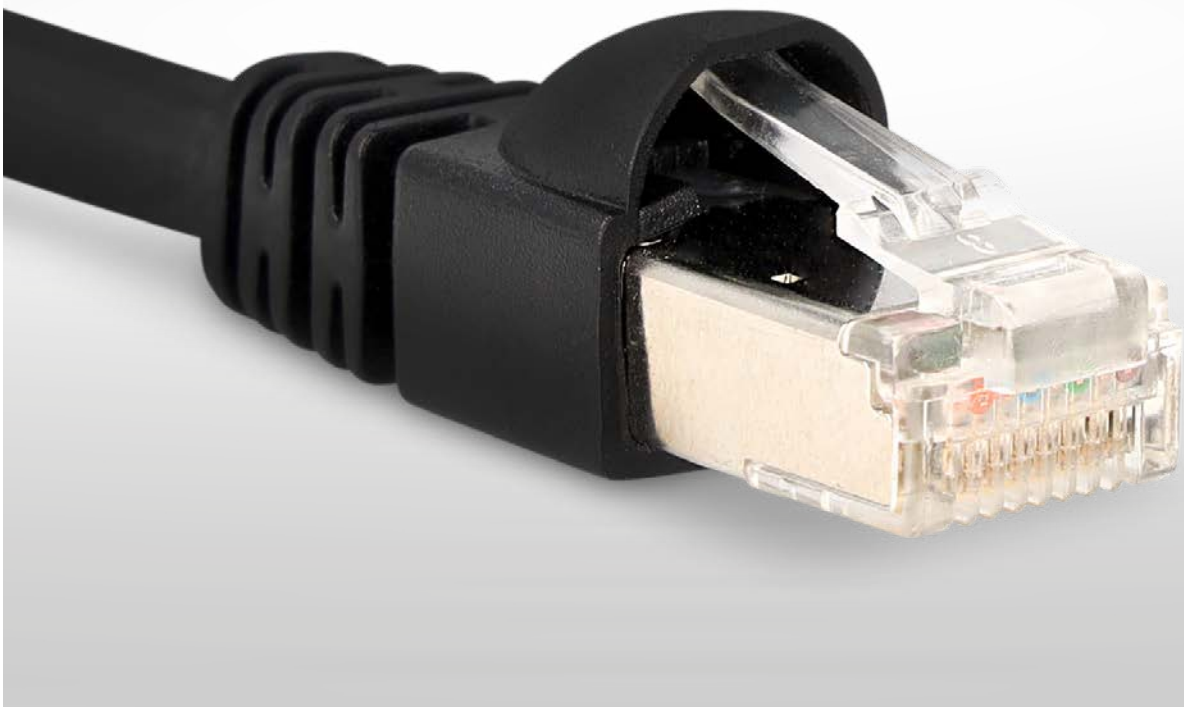
Further codings are available on request.

COLOR OPTION



Color bend relief ODU MINI-SNAP® Series L / K		
Pos. 10-11	Bend-/strain relief	Color (RAL)
10	Standard backnut	Gray
3A	Silicon bend relief	Red (3020)
3B		White (9010)
3C		Yellow (1016)
3D		Green (6029)
3E		Blue (5002)
3F		Gray (7005)
3G		Black (9005)
4B	Overmolding	White (9010)
4F		Gray (7005)
4G		Black (9005)
Color bend relief ODU AMC®		
Pos. 10-11	Bend-/strain relief	Color (RAL)
4I	Overmolding	Black (9005)





Ethernet® is the most widely used local area network (LAN) technology that allows devices to communicate with each other using a protocol – a set of rules or a common network language. Ethernet® is a data link layer protocol in the TCP / IP stack that describes how network devices can send and receive data packages so that other devices in the same local or site network segment can find, receive, and process them.

An Ethernet® cable is the physical, encapsulated line over which the data is transmitted. Compared to the Wi-Fi technology, Ethernet® is generally less susceptible to interference – whether from radio wave interference nor physical barriers. It can also provide a greater level of network security and control than wireless technology because the devices need to be connected via physical cables. This makes it difficult for outsiders to access network data or hijack bandwidth for unauthorized devices.

The maximum channel length for Ethernet® class EA is 100 meters.

High-speed data technology cable assemblies

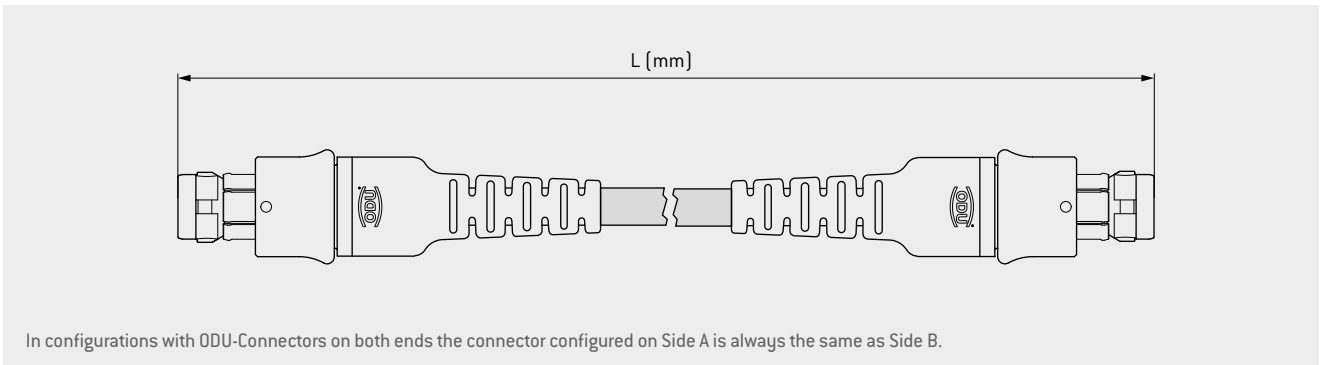
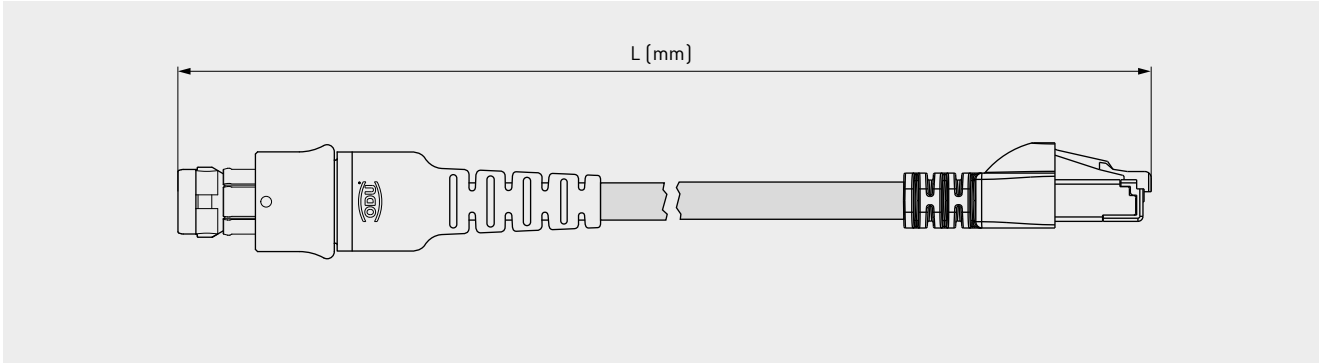


ETHERNET/IP® UP TO 10 GBIT/S

ODU AMC®	18
ODU AMC® High-Density	19
ODU AMC® Series T	20
ODU-MAC® Blue-Line	21
ODU MINI-SNAP® Series L	22
ODU MINI-SNAP® Series K	24

ODU AMC®

Ethernet® up to 25000 mm per single side assembly



Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
K1	In-line receptacle
G6	Panel mount receptacle

Pos. 4	Size	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
1	1	1 Gbit/s	Pin	RJ45	Y0
			Socket	RJ45	YR
A	1.5	1 Gbit/s	Pin	RJ45	YI
			Socket	RJ45	YG
2	2	10 Gbit/s	Pin	RJ45	YL
			Socket	RJ45	YJ
					YK

Pos. 6	Coding
A	Light brown
B	Red
C	Blue
D	Green

Pos. 14-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 001000	

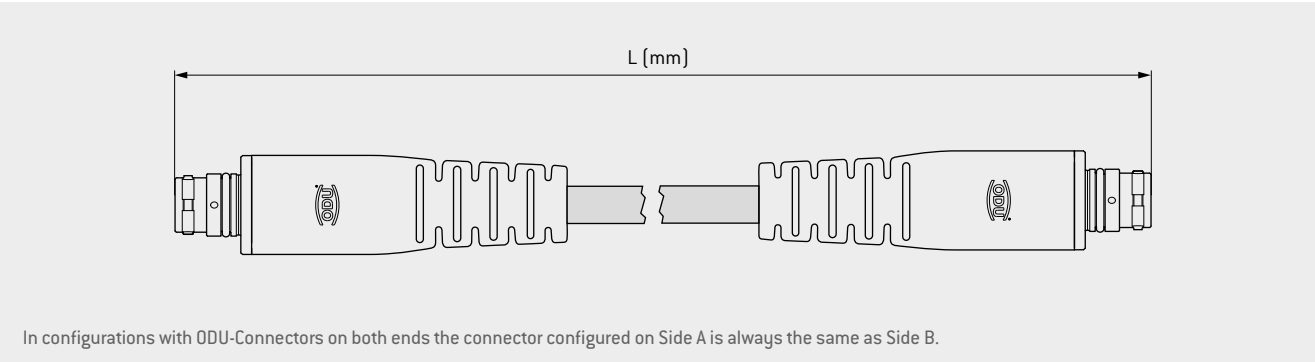
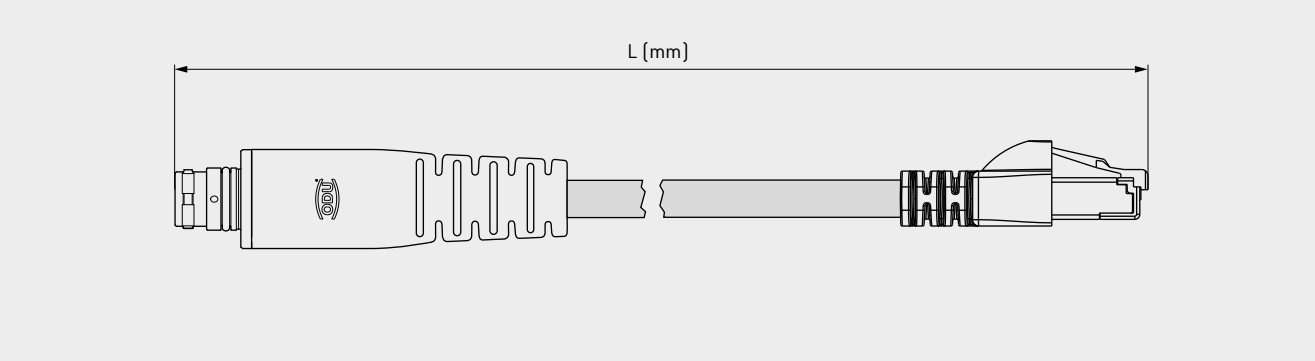
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

C Y R 0 8 4 I

*Data rates mentioned are based on the respective standard data transmission protocol and are determined by connector size.

ODU AMC® HIGH-DENSITY

Ethernet® up to 25000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A1	Break-away plug
C1	Threaded plug
K1	In-line receptacle
G6	Panel mount receptacle
KC	In-line receptacle with screw-lock
GS	Panel mount receptacle with screw-lock

Pos. 6	Coding
A	Light brown
B	Red
C	Blue
D	Green

Data rate	Pin/Socket	2 nd side	Pos. 12-13
10 Gbit/s	Pin	RJ45	YL
		ODU	YJ
	Socket	RJ45	YK

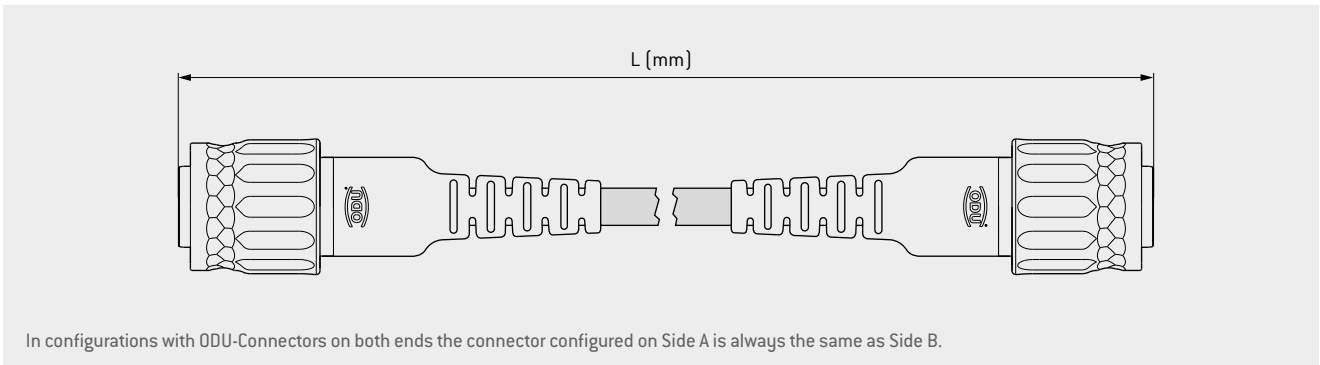
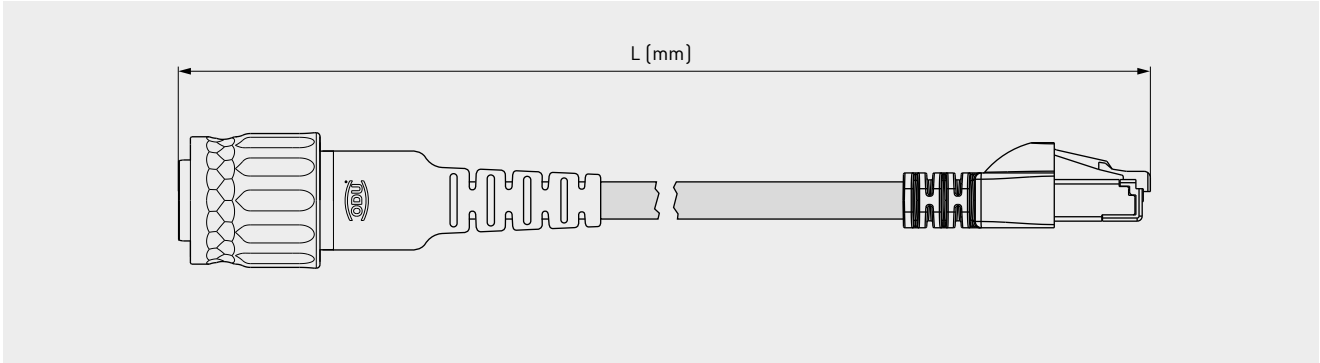
Pos. 14-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 001000	



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU AMC® SERIES T

Ethernet® up to 25000 mm per single side assembly



Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
C1	Threaded plug
K1	In-line receptacle
G6	Panel mount receptacle

Data rate*	Pin/Socket	2 nd side	Pos. 12-13
10 Gbit/s	Pin	RJ45	ZJ
		ODU	ZH
10 Gbit/s	Socket	RJ45	ZI

Pos. 6	Coding
A	Light brown
B	Red
C	Blue
D	Green

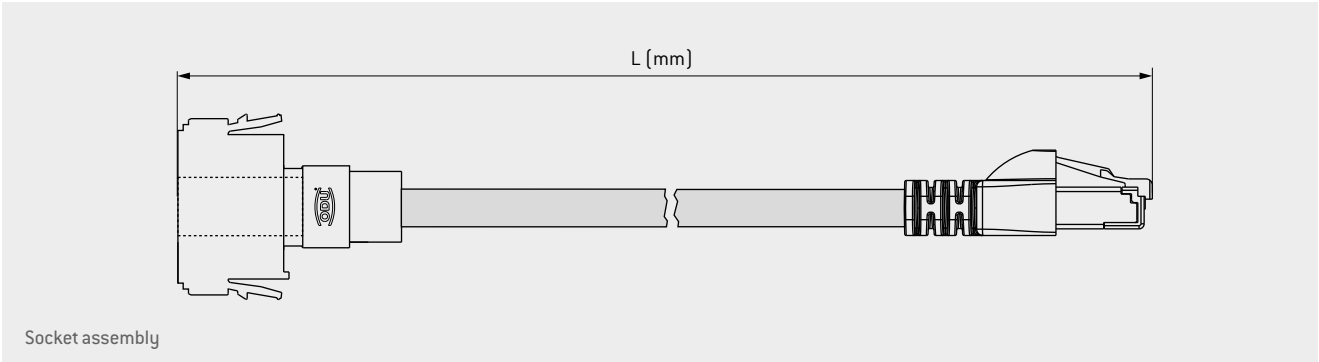
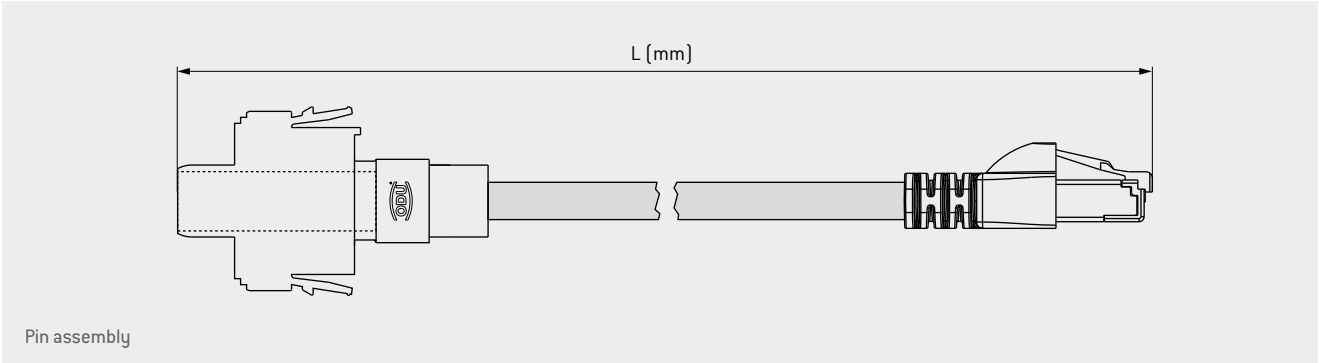
Pos. 14-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 001000	



*Data rates mentioned are based on the respective standard data transmission protocol.

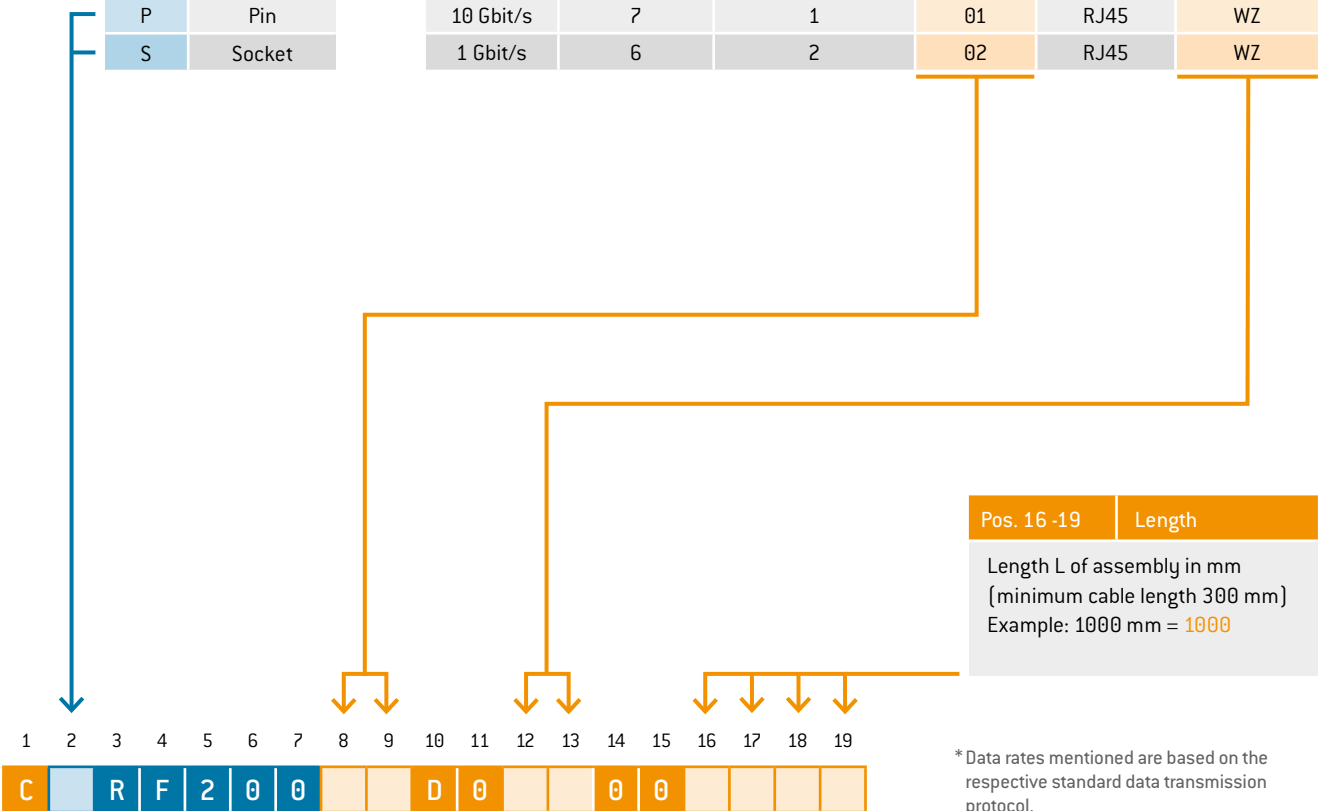
ODU-MAC® BLUE-LINE

Ethernet® up to 5000 mm per single side assembly



Pos. 2	Pin/Socket
P	Pin
S	Socket

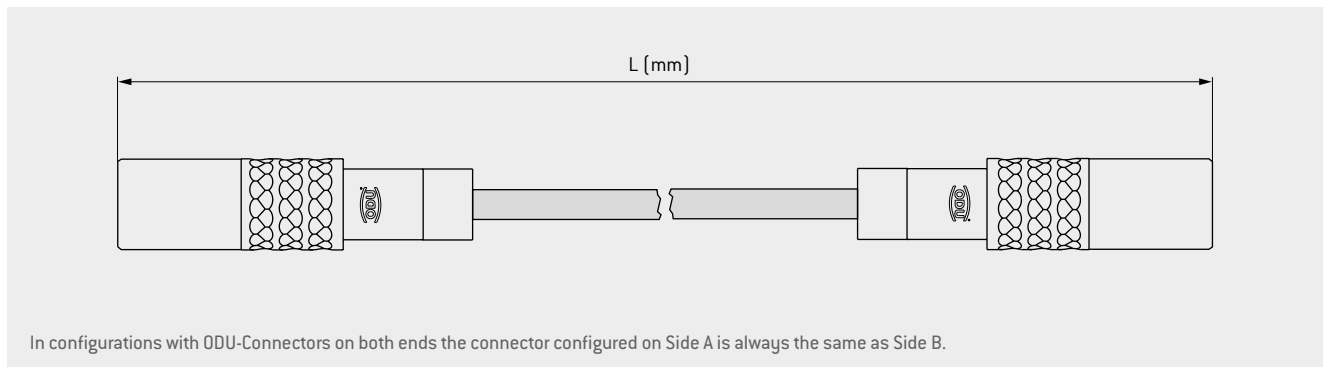
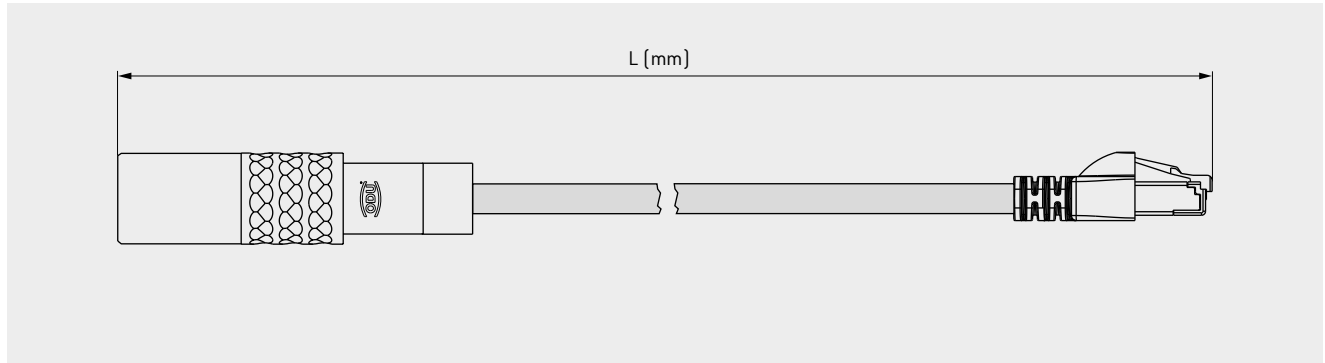
Data rate*	Module units	Number of inserts	Pos. 8-9	2 nd side	Pos. 12-13
10 Gbit/s	7	1	01	RJ45	WZ
1 Gbit/s	6	2	02	RJ45	WZ



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU MINI-SNAP® SERIES L

Ethernet® without bend relief up to 25000 mm per single side assembly



Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
K1	In-line receptacle
G6	Panel mount receptacle

Pos. 4	Size	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
1	1	1 Gbit/s	Pin	RJ45	VZ
			Socket	RJ45	VX
2	2	10 Gbit/s	Pin	RJ45	VW
			Socket	RJ45	VU

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

Pos. 14-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 001000	

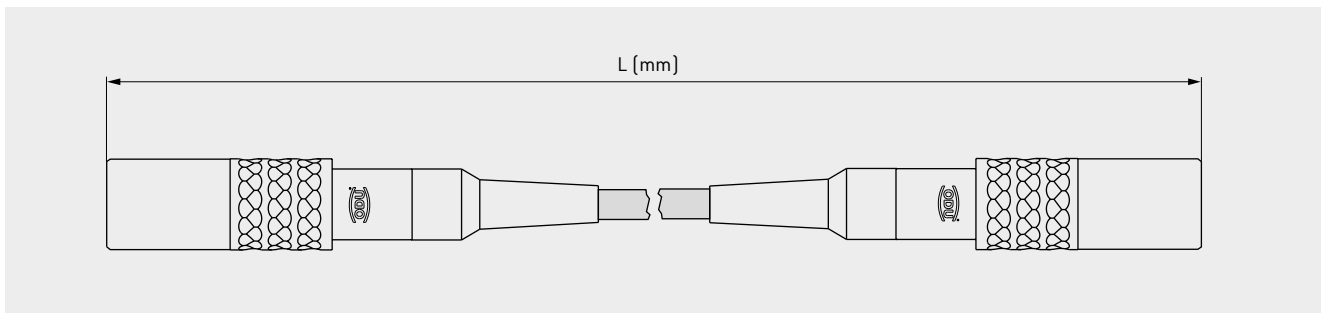
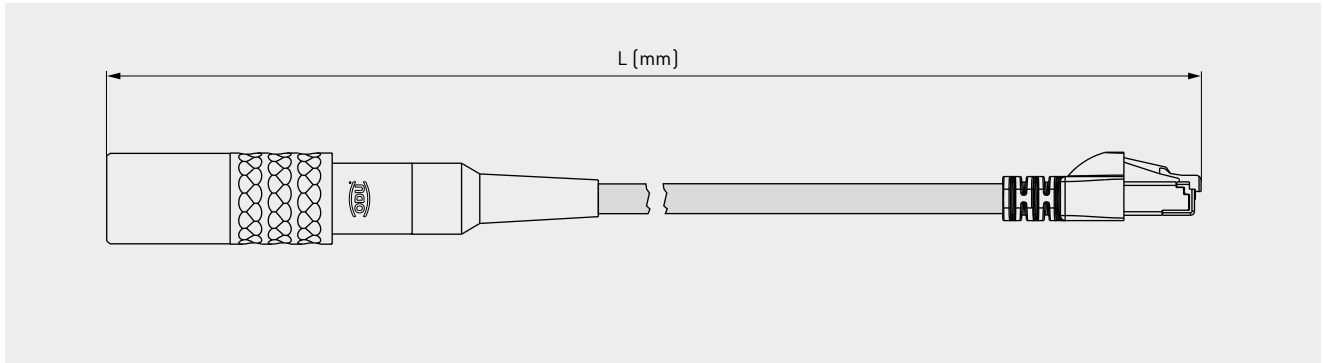


C L 0 C 0 8 1 0

*Data rates mentioned are based on the respective standard data transmission protocol and are determined by connector size.

ODU MINI-SNAP® SERIES L

Ethernet® with bend relief up to 25000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A2	Break-away plug
S2	Push-pull plug
K2	In-line receptacle

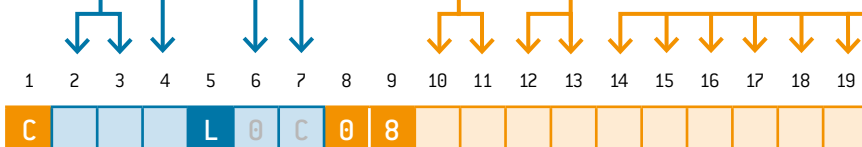
Pos. 4	Size	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
1	1	1 Gbit/s	Pin	RJ45	VZ
			Socket	RJ45	VX
2	2	10 Gbit/s	Pin	RJ45	VW
			Socket	RJ45	VU

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

The available color of the bend and strain relief can be found on page 15.

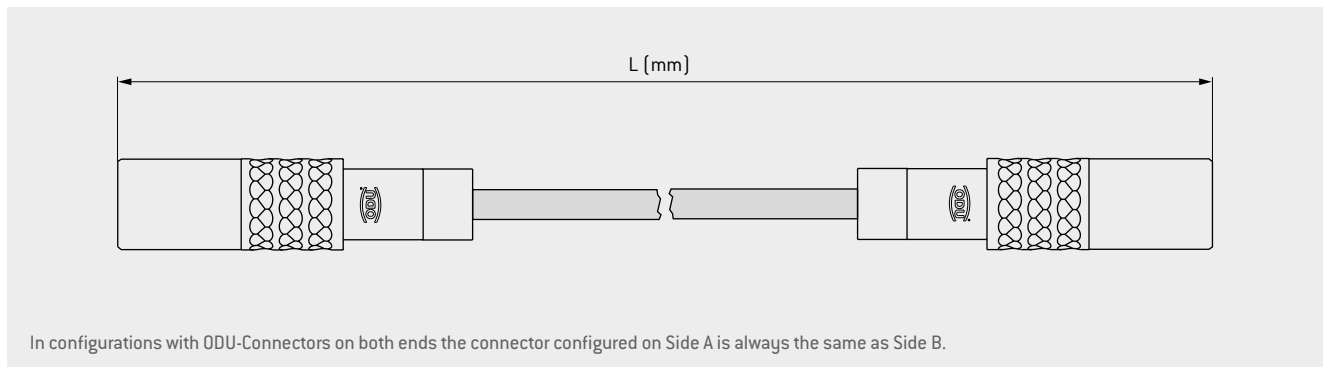
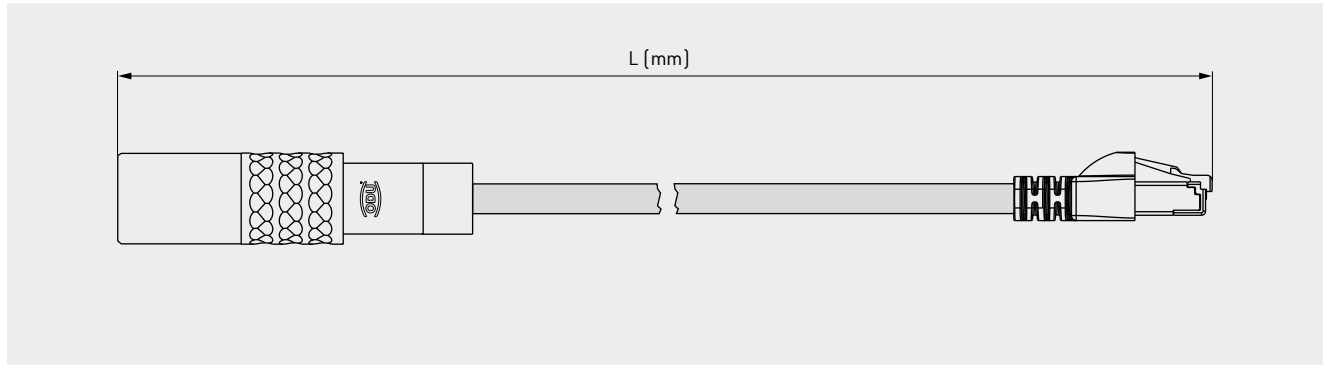
Pos. 14-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 001000	



*Data rates mentioned are based on the respective standard data transmission protocol and are determined by connector size.

ODU MINI-SNAP® SERIES K

Ethernet® without bend relief up to 25000 mm per single side assembly



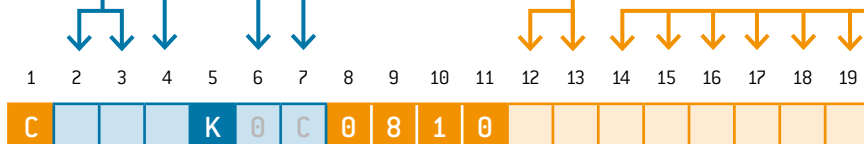
Pos. 2-3	Connector type
SA	Push-pull plug, Size 1
KA	In-line receptacle, Size 1
GB	Panel mount receptacle, Size 1
S1	Push-pull plug, Size 2
K1	In-line receptacle, Size 2
G6	Panel mount receptacle, Size 2

Pos. 4	Size	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
1	1	1 Gbit/s	Pin	RJ45	VZ
			Socket	RJ45	VX
2	2	10 Gbit/s	Pin	RJ45	VW
			Socket	RJ45	VU

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

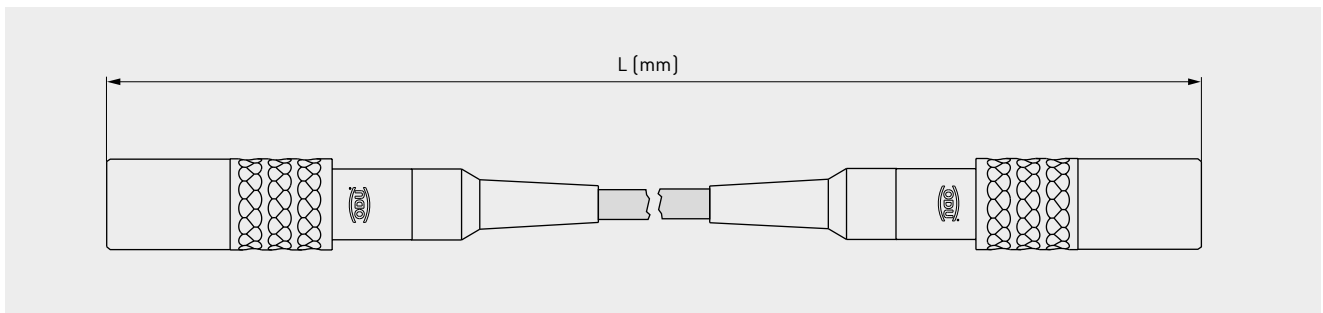
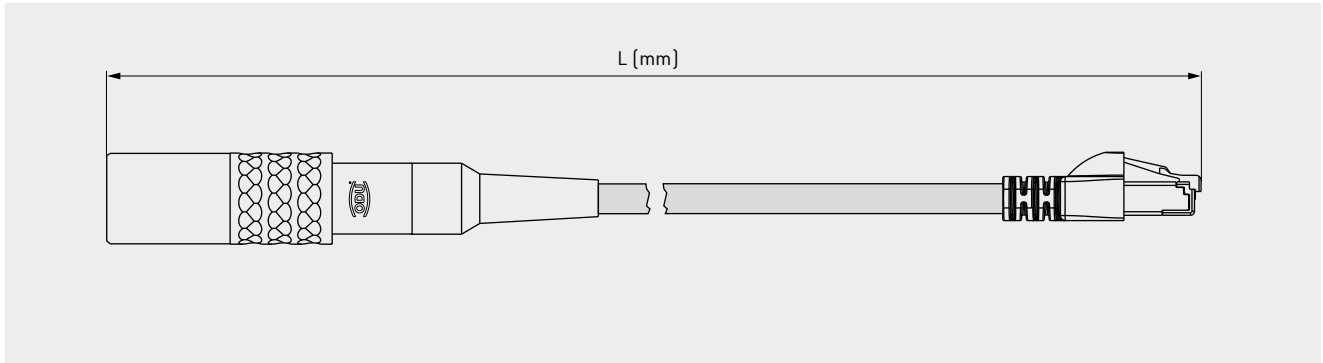
Pos. 14-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 001000	



*Data rates mentioned are based on the respective standard data transmission protocol and are determined by connector size.

ODU MINI-SNAP® SERIES K

Ethernet® with bend relief up to 25000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
SB	Push-pull plug, Size 1
KB	In-line receptacle, Size 1
S2	Push-pull plug, Size 2
K2	In-line receptacle, Size 2

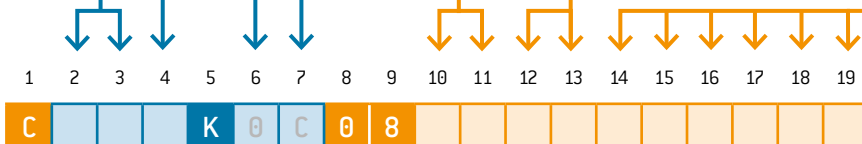
Pos. 4	Size	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
1	1	1 Gbit/s	Pin	RJ45	VZ
			Socket	RJ45	VX
2	2	10 Gbit/s	Pin	RJ45	VW
			Socket	RJ45	VU

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

The available color of the bend and strain relief can be found on page 15.

Pos. 14-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 001000	



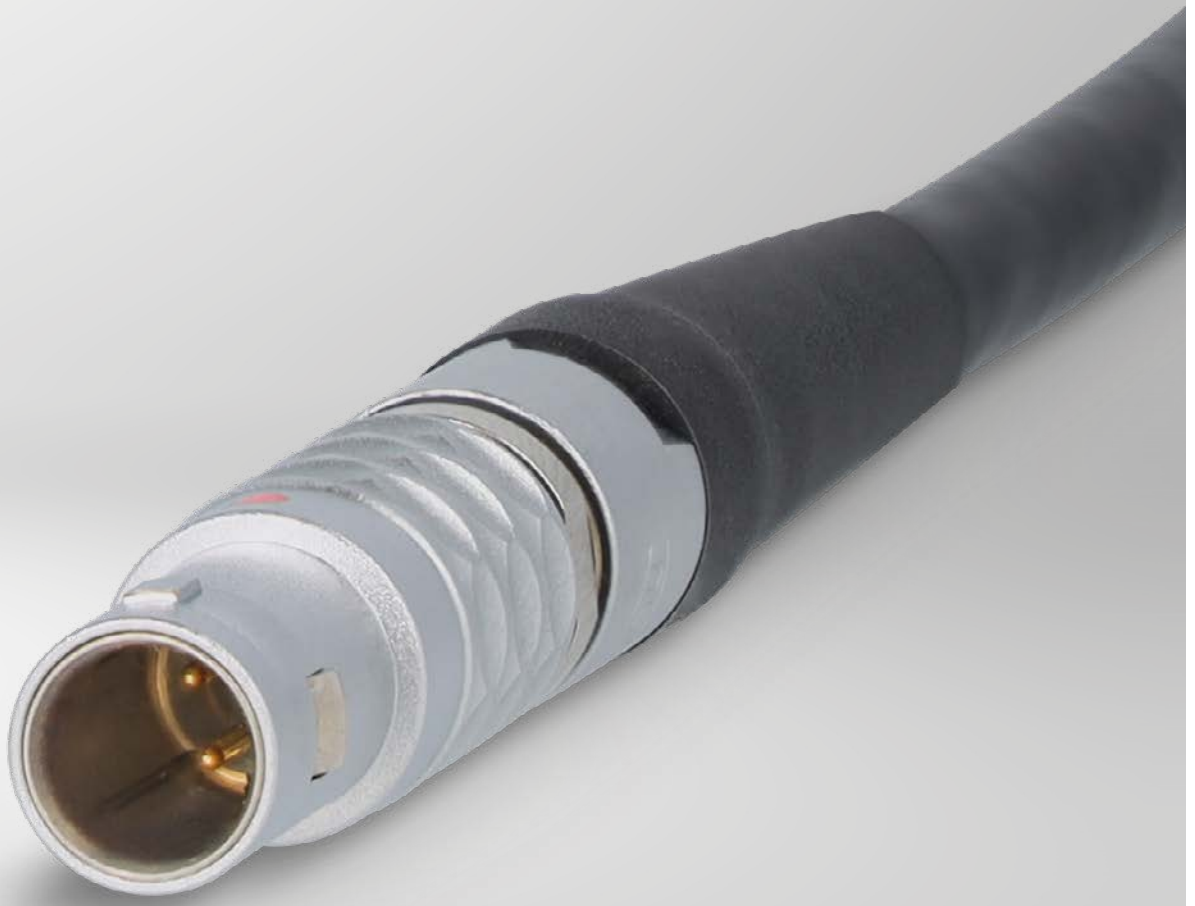
*Data rates mentioned are based on the respective standard data transmission protocol and are determined by connector size.



SPE transmits its data via one twisted pair and is nearly as capable transmission wise as Multi Pair Ethernet®. Due to the simplified design, SPE is more compact and requires less effort during installation. The key to the challenges of the industrial production of the future lies in fast access to data and seamless communication from the sensor to the cloud. Connect your devices via Single Pair Ethernet®. There is no other future-proof network technology that offers comparable performance and benefits. Single Pair Ethernet® revolutionizes the market: In the long term, SPE will replace classic serial bus systems. Single-pair data cabling is innovative and efficient. With its seamless communication, SPE is paving the way for the Industrial Internet of Things (IIoT) and Industry 4.0.

The maximum channel length for SPE Link Segment B acc. to IEEE 802.3bp is 40 meters whereas it is 15m for IEEE 802.3ch.

High-speed data technology cable assemblies

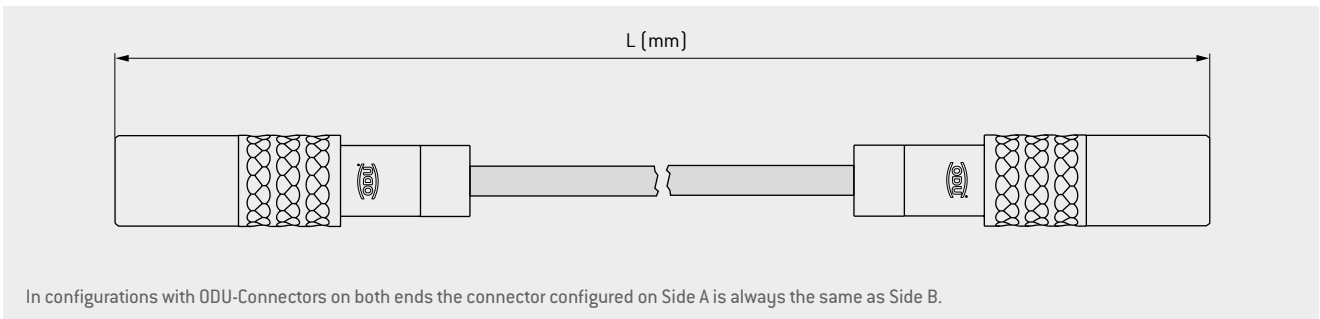
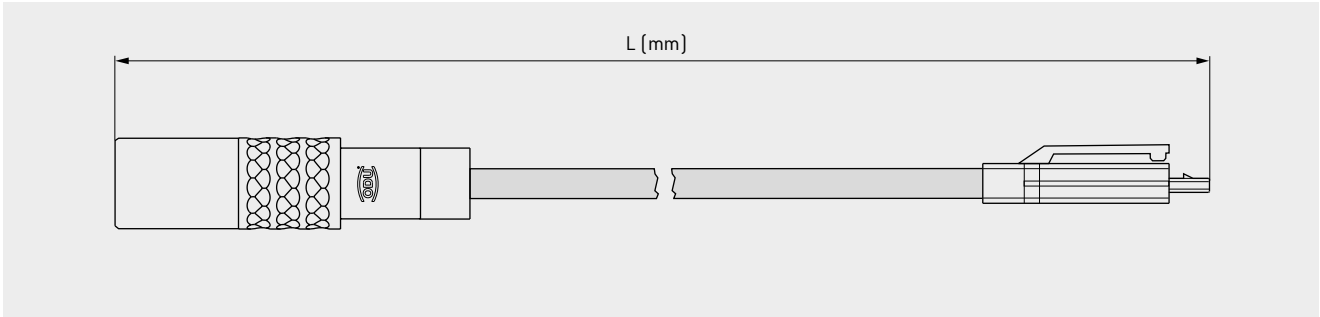


SPE UP TO 10 GBIT/S

ODU MINI-SNAP® Series L	<u>28</u>
ODU MINI-SNAP® Series K	<u>30</u>
ODU-MAC® Blue-Line	<u>32</u>

ODU MINI-SNAP® SERIES L

SPE without bend relief up to 15000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
K1	In-line receptacle
G6	Panel mount receptacle

Data rate*	Pin/Socket	2 nd side	Pos. 12-13
1 Gbit/s	Pin	IEC 63171-2	VA
10 Gbit/s		ODU	VB
1 Gbit/s	Socket	IEC 63171-2	V9

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

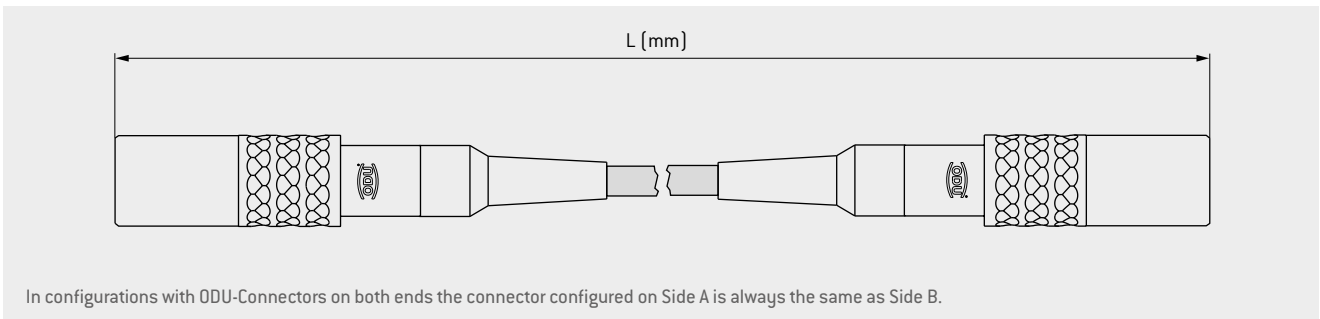
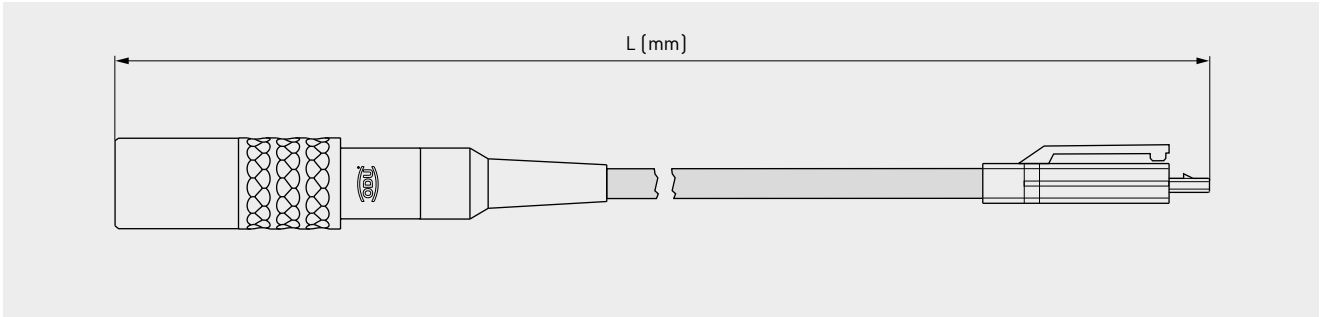
Pos. 14-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 001000	



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU MINI-SNAP® SERIES L

SPE with bend relief up to 15000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A2	Break-away plug
S2	Push-pull plug
K2	In-line receptacle

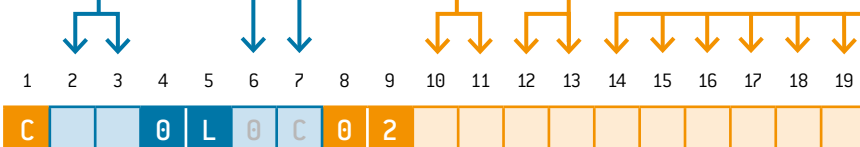
Data rate*	Pin/Socket	2 nd side	Pos. 12-13
1 Gbit/s	Pin	IEC 63171-2	VA
10 Gbit/s		ODU	VB
1 Gbit/s	Socket	IEC 63171-2	V9

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

The available color of the bend and strain relief can be found on page 15.

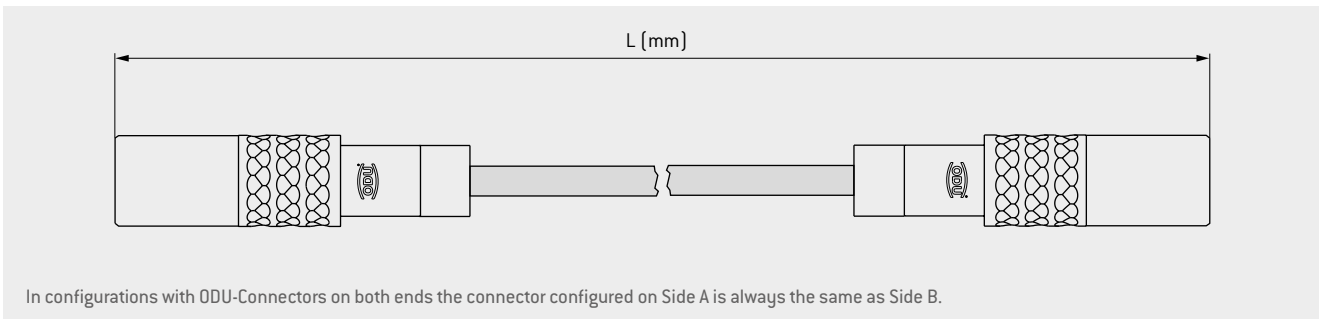
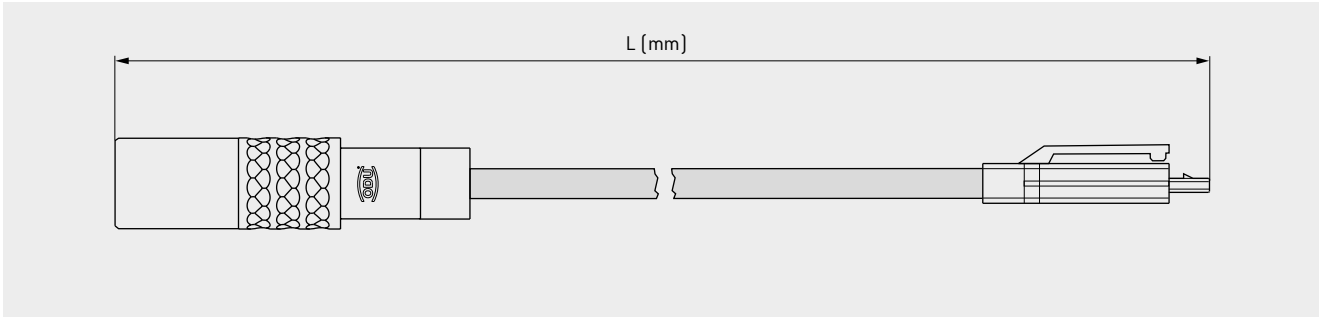
Pos. 14-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 10000 mm = 001000	



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU MINI-SNAP® SERIES K

SPE without bend relief up to 15000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
K1	In-line receptacle
G6	Panel mount receptacle

Data rate*	Pin/Socket	2 nd side	Pos. 12-13
1 Gbit/s	Pin	IEC 63171-2	VA
10 Gbit/s		ODU	VB
1 Gbit/s	Socket	IEC 63171-2	V9

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

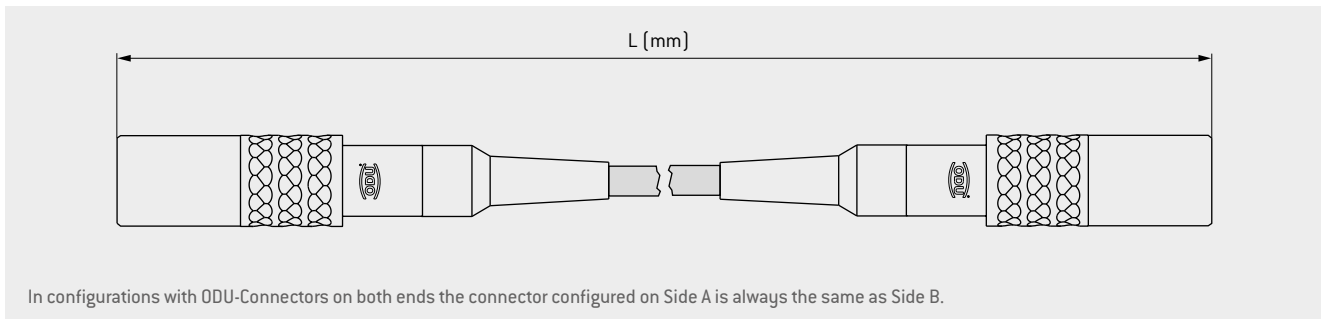
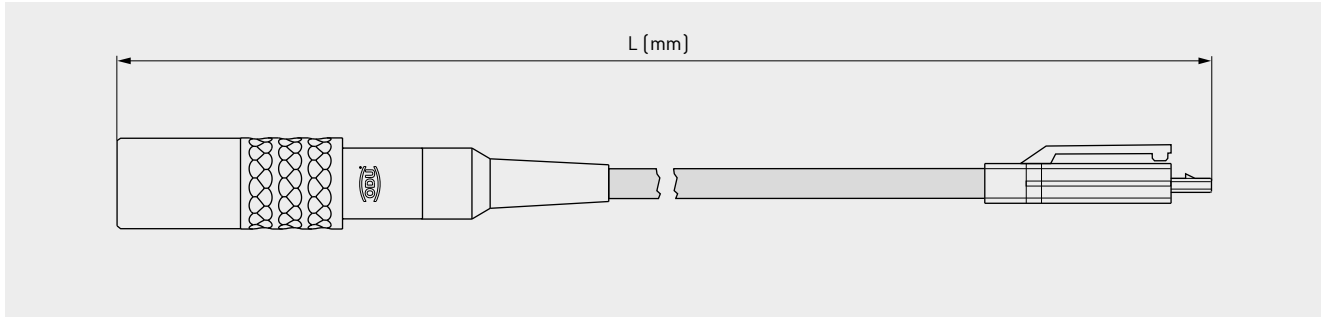
Pos. 14-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 001000	



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU MINI-SNAP® SERIES K

SPE with bend relief up to 15000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A2	Break-away plug
S2	Push-pull plug
K2	In-line receptacle

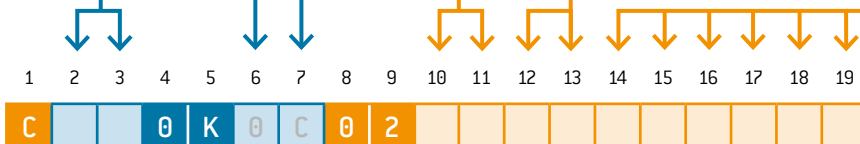
Data rate*	Pin/Socket	2 nd side	Pos. 12-13
1 Gbit/s	Pin	IEC 63171-2	VA
10 Gbit/s		ODU	VB
1 Gbit/s	Socket	IEC 63171-2	V9

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

The available color of the bend and strain relief can be found on page 15.

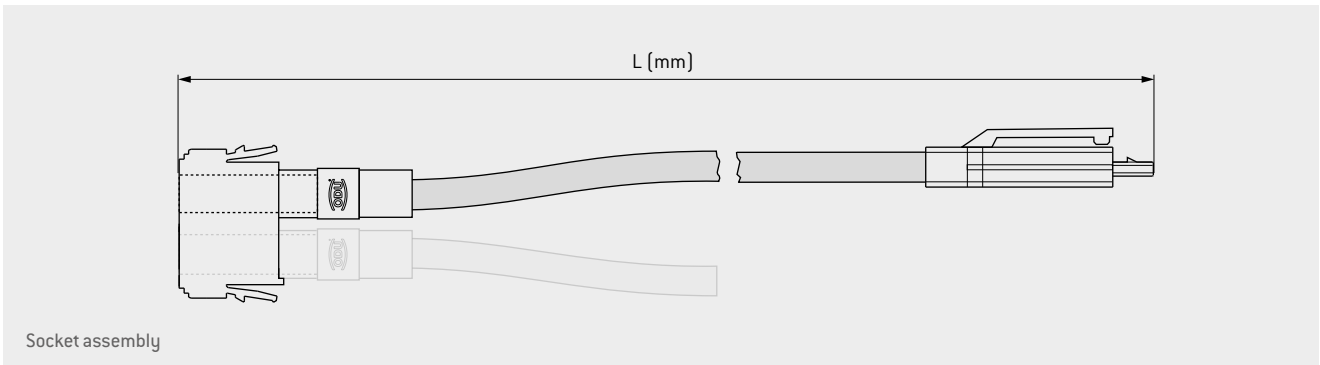
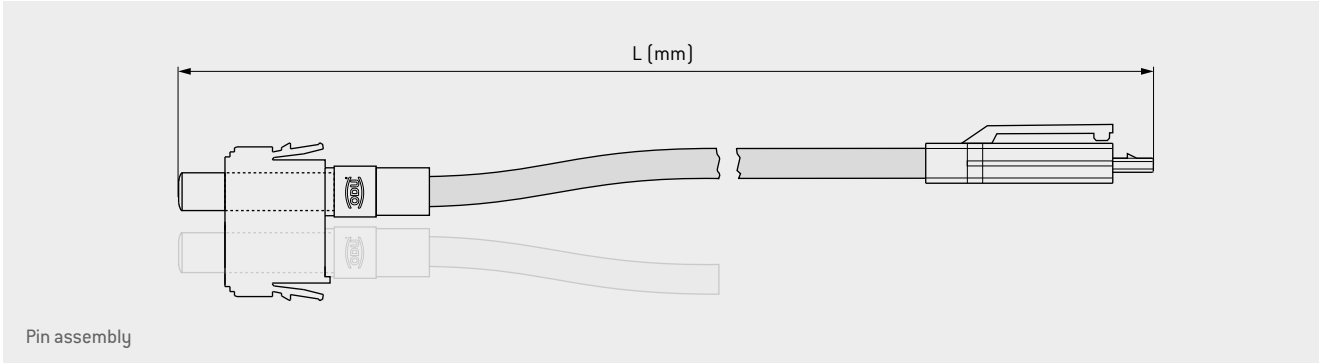
Pos. 14 -19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 10000 mm = 001000	



*Data rates mentioned are based on the respective standard data transmission protocol.

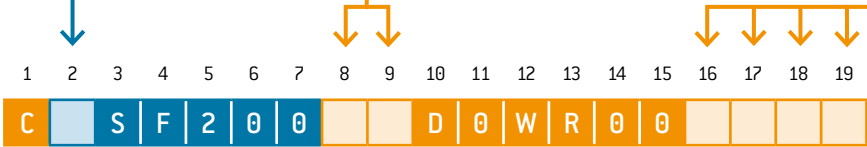
ODU-MAC® BLUE-LINE

SPE up to 5000 mm per single side assembly



Pos. 2	Pin/Socket	Data rate*	Module units	Number of inserts	Pos. 8-9
P	Pin	1 Gbit/s	6	1	01
S	Socket	1 Gbit/s	6	2	02

Pos. 14-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 001000	



*Data rates mentioned are based on the respective standard data transmission protocol.

For support and customer
specific solutions: sales@odu.de



DisplayPort® is a digital display interface that allows to transmit audio and video signals at the same time. It relies on packetized data transmission with an embedded clock signal making the data transfer more efficient and thereby supporting higher resolutions and refresh rates.

If the transmitter (graphics card) and receiver (display) are connected, they synchronize and set the signal levels between 200 and 600 mV. DisplayPort® does not specify the data line and image signal. Instead, each pixel is transferred sequentially. An image signal can therefore only be transmitted via a single channel. A total of four channels are available, connections via two channels are also possible. As with DVI and HDMI, each channel has its own pair of lines. An additional AUX channel not only houses the Display Data Channel (DDC) for the transmission of monitor data, but also offers enough bandwidth with almost 100 Mbit/s to supply webcams, microphones and loudspeakers in the monitor without additional cabling.

The maximum cable length for DisplayPort® is 5 meters.

High-speed data technology cable assemblies

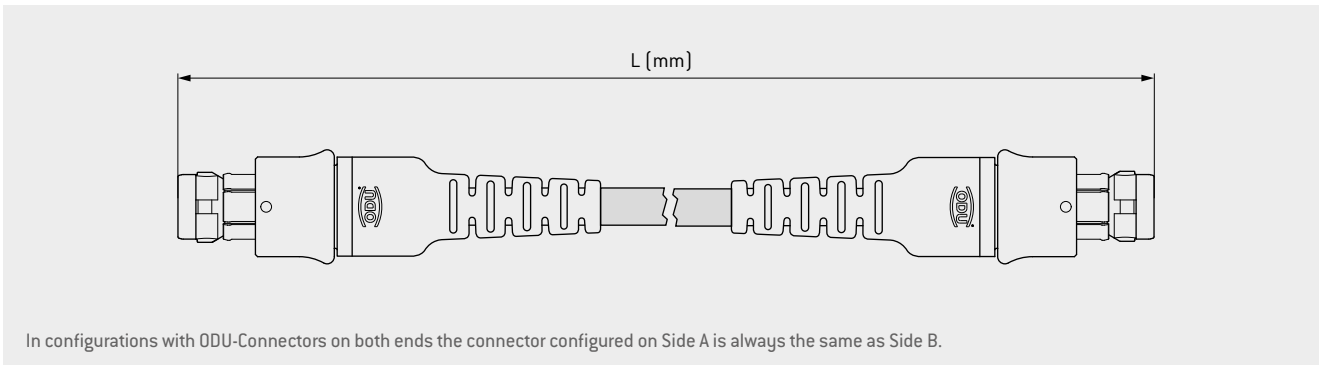
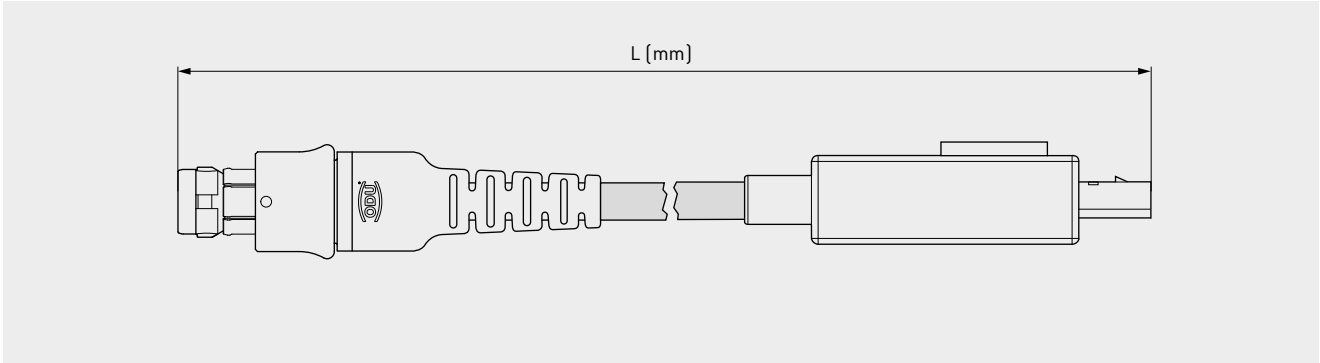


DISPLAYPORT® UP TO 40 GBIT/S

ODU AMC®	<u>36</u>
ODU AMC® Series T	<u>37</u>
ODU MINI-SNAP® Series L	<u>38</u>
ODU MINI-SNAP® Series K	<u>40</u>
ODU-MAC® Blue-Line	<u>42</u>

ODU AMC®

DisplayPort® up to 4800 mm per single side assembly



Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
K1	In-line receptacle
G6	Panel mount receptacle

Pos. 6	Coding
A	Light brown
B	Red
C	Blue
D	Green

Pin/Socket	Data rate*	2 nd side	Pos. 12-13
Pin	21.6 Gbit/s	DP-plug	YE
Socket		ODU-Connector	YD
		DP-plug	YF

Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300) Example: 1000 mm = 1000	

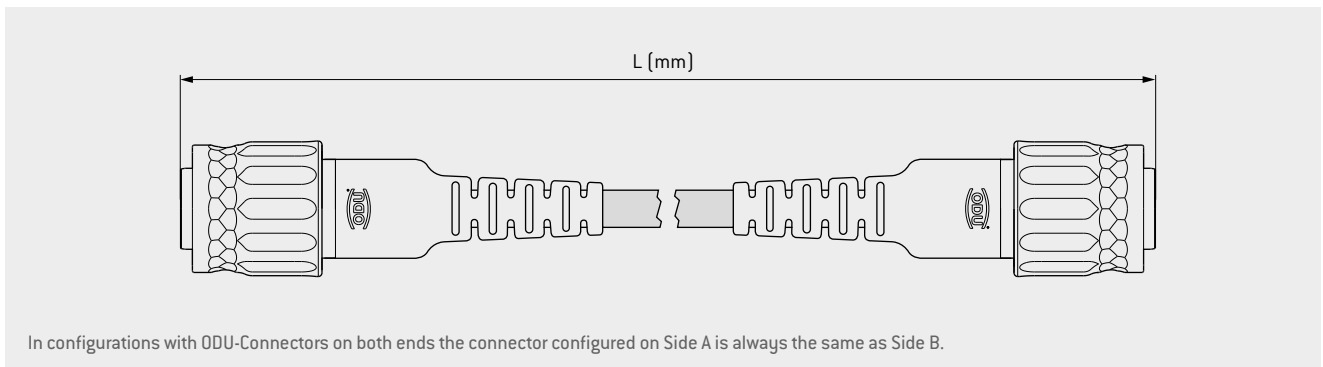
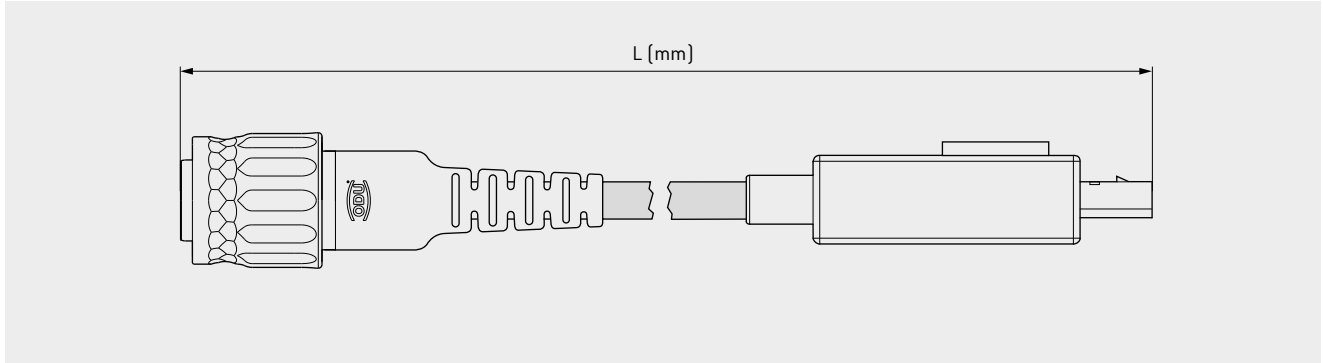


*Data rates mentioned are based on the respective standard data transmission protocol.



ODU AMC® SERIES T

DisplayPort® up to 4800 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
C1	Threaded plug
K1	In-line receptacle
G6	Panel mount receptacle

Pos. 6	Coding
A	Light brown
B	Red
C	Blue
D	Green

Pin/Socket	Data rate*	2 nd side	Pos. 12-13
Pin	21.6 Gbit/s	DP-plug	YE
Socket		ODU-Connector	YD
		DP-plug	YF

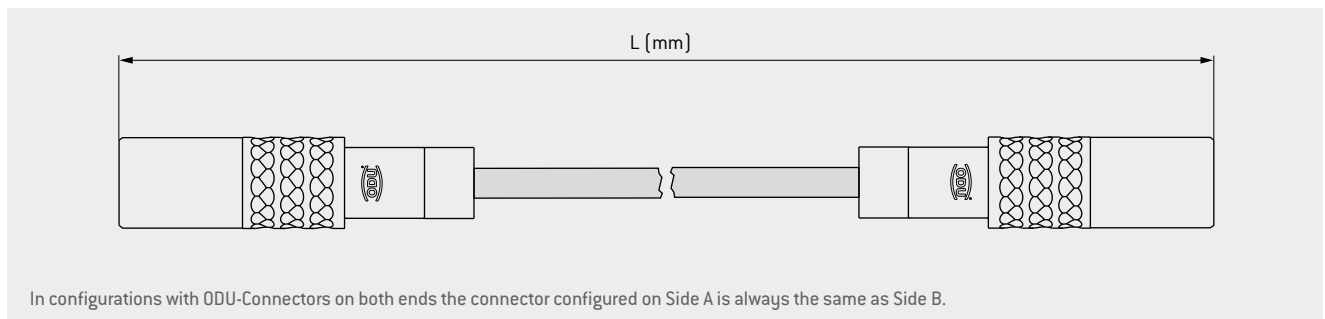
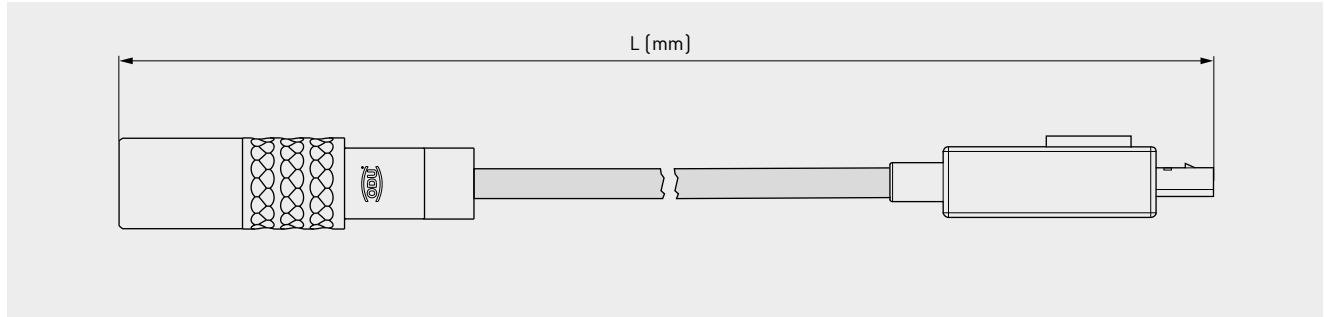
Pos. 16-19	Length
	Length L of assembly in mm (minimum cable length 300) Example: 1000 mm = 1000



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU MINI-SNAP® SERIES L

DisplayPort® without bend relief up to 4800 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
K1	In-line receptacle
G6	Panel mount receptacle

Pin/Socket	Data rate*	2 nd side	Pos. 12-13
Pin	40 Gbit/s	DP-plug	VE
		ODU-Connector	VD
Socket		DP-plug	VC

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

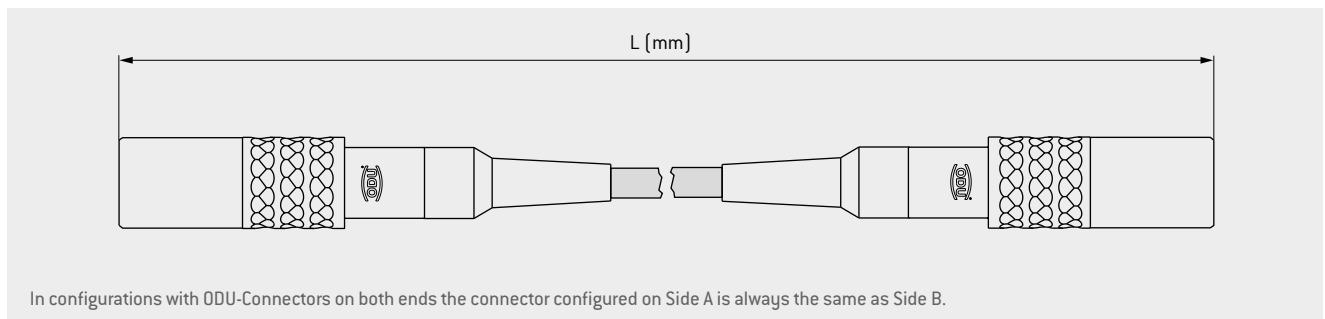
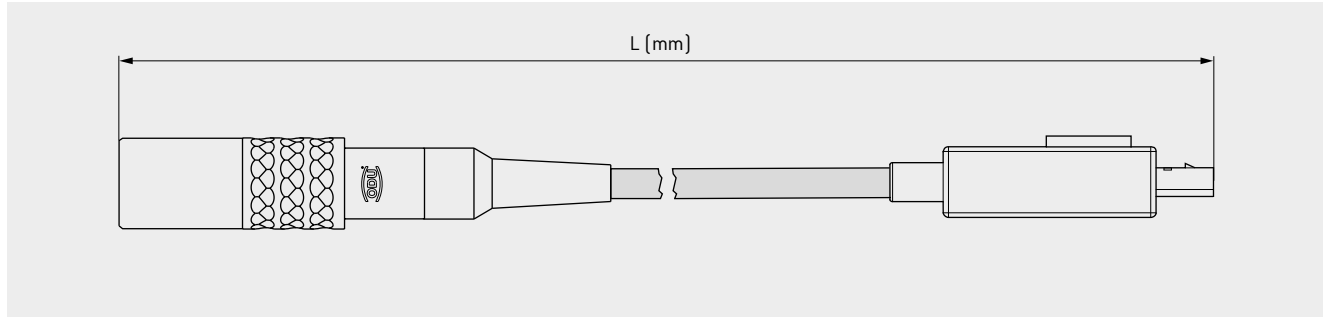
Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU MINI-SNAP® SERIES L

DisplayPort® with bend relief up to 4800 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A2	Break-away plug
S2	Push-pull plug
K2	In-line receptacle

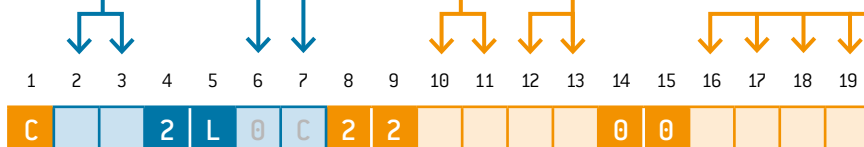
Pin/Socket	Data rate*	2 nd side	Pos. 12-13
Pin	40 Gbit/s	DP-plug	VE
		ODU-Connector	VD
Socket		DP-plug	VC

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

The available color of the bend and strain relief can be found on page 15.

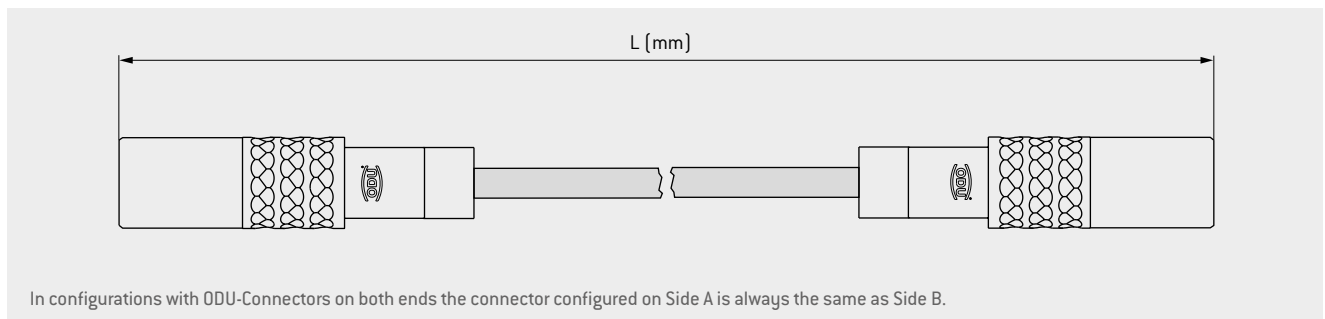
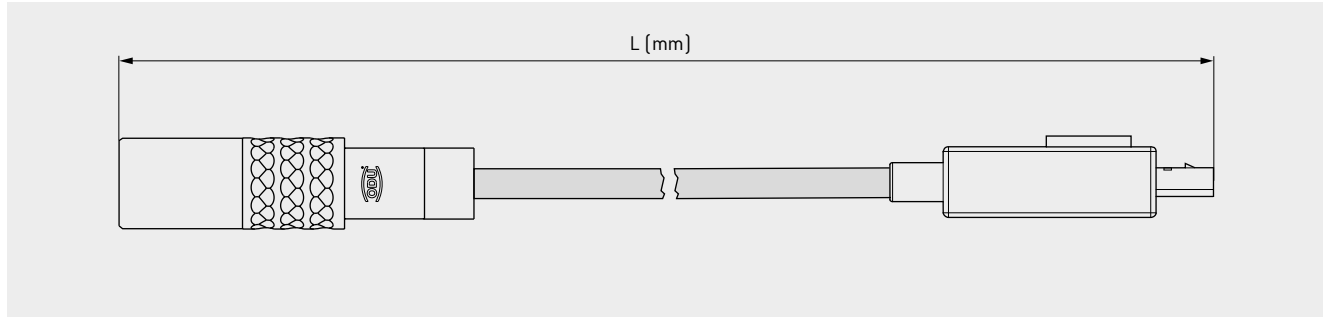
Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU MINI-SNAP® SERIES K

DisplayPort® without bend relief up to 4800 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
SA	Push-pull plug
KA	In-line receptacle
GB	Panel mount receptacle

Pin/Socket	Data rate*	2 nd side	Pos. 12-13
Pin	40 Gbit/s	DP-plug	VE
		ODU-Connector	VD
Socket		DP-plug	VC

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

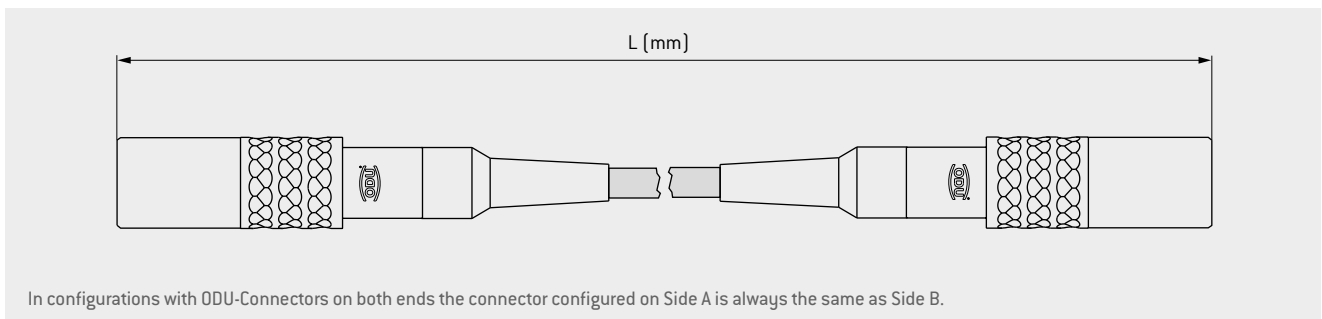
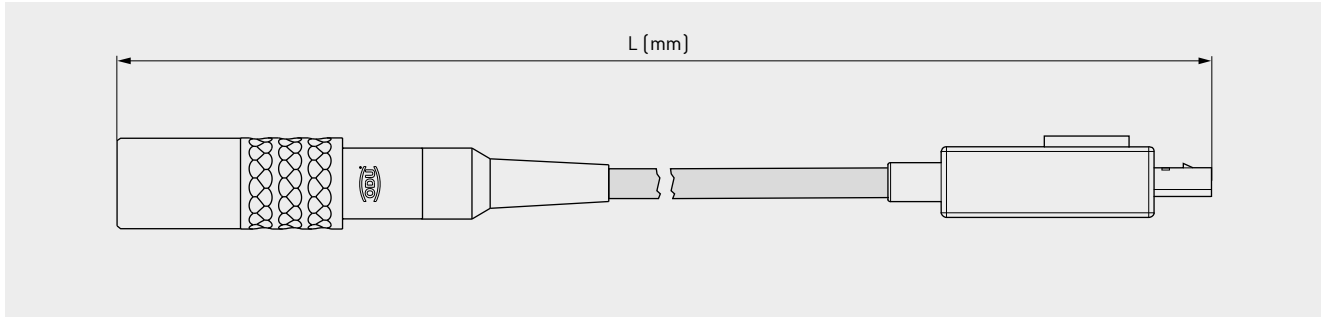
Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU MINI-SNAP® SERIES K

DisplayPort® with bend relief up to 4800 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
SB	Push-pull plug
KB	In-line receptacle

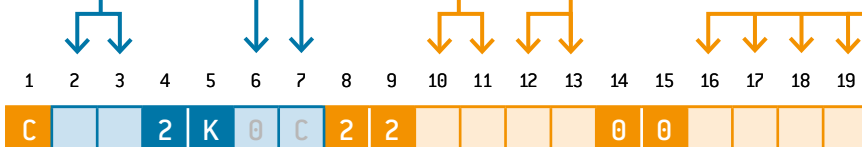
Pin/Socket	Data rate*	2 nd side	Pos. 12-13
Pin	40 Gbit/s	DP-plug	VE
Socket		ODU-Connector	VD
		DP-plug	VC

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

The available color of the bend and strain relief can be found on page 15.

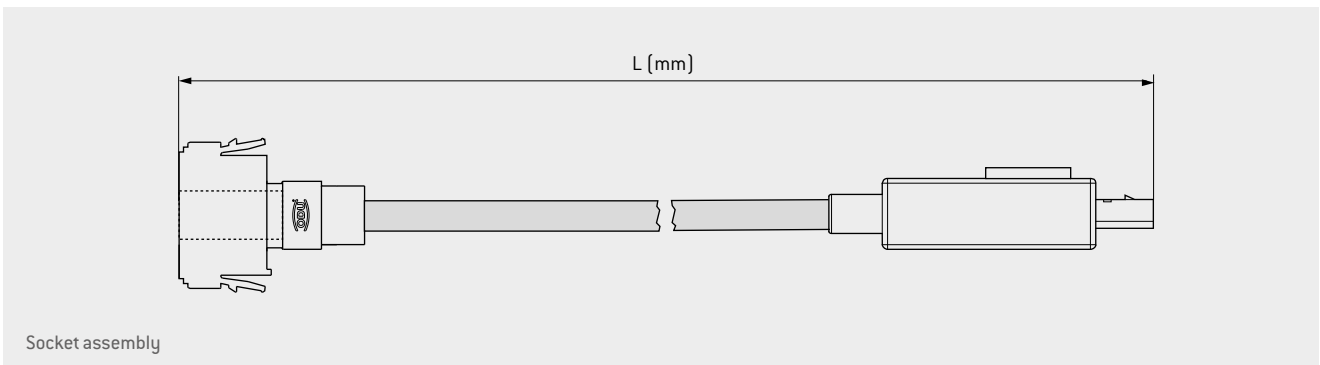
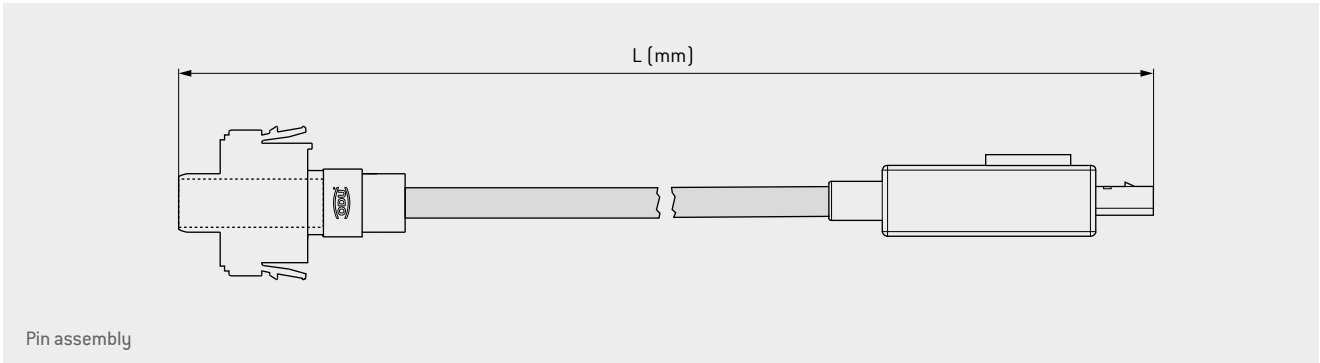
Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol.

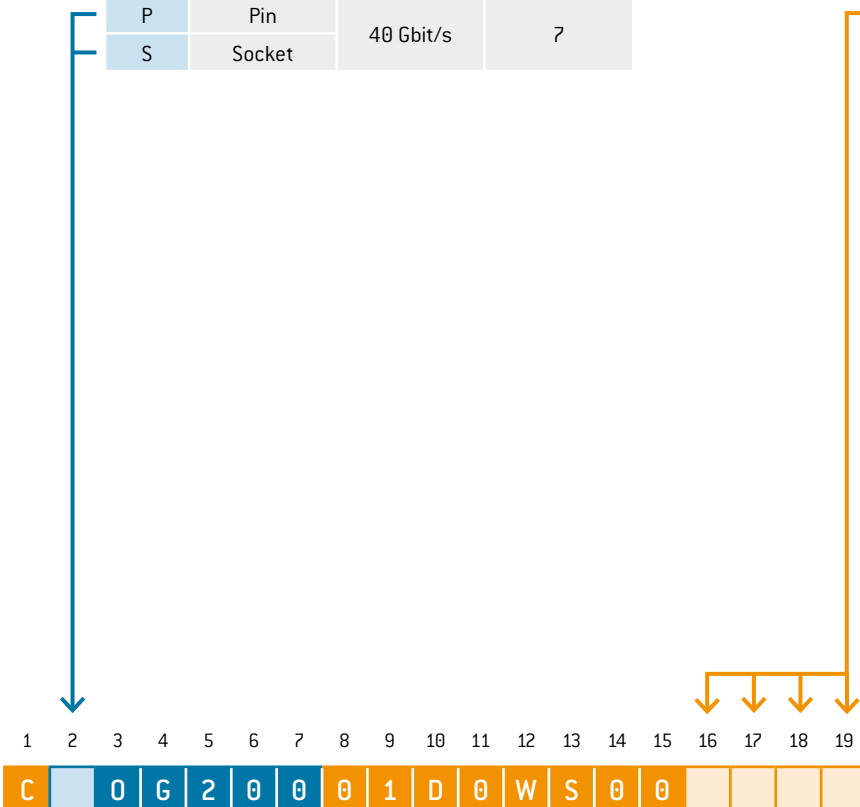
ODU-MAC® BLUE-LINE

DisplayPort® up to 4800 mm per single side assembly



Pos. 2	Pin/Socket	Data rate*	Module units
P	Pin	40 Gbit/s	7
S	Socket		

Pos. 16 -19	Length
	Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000



*Data rates mentioned are based on the respective standard data transmission protocol.

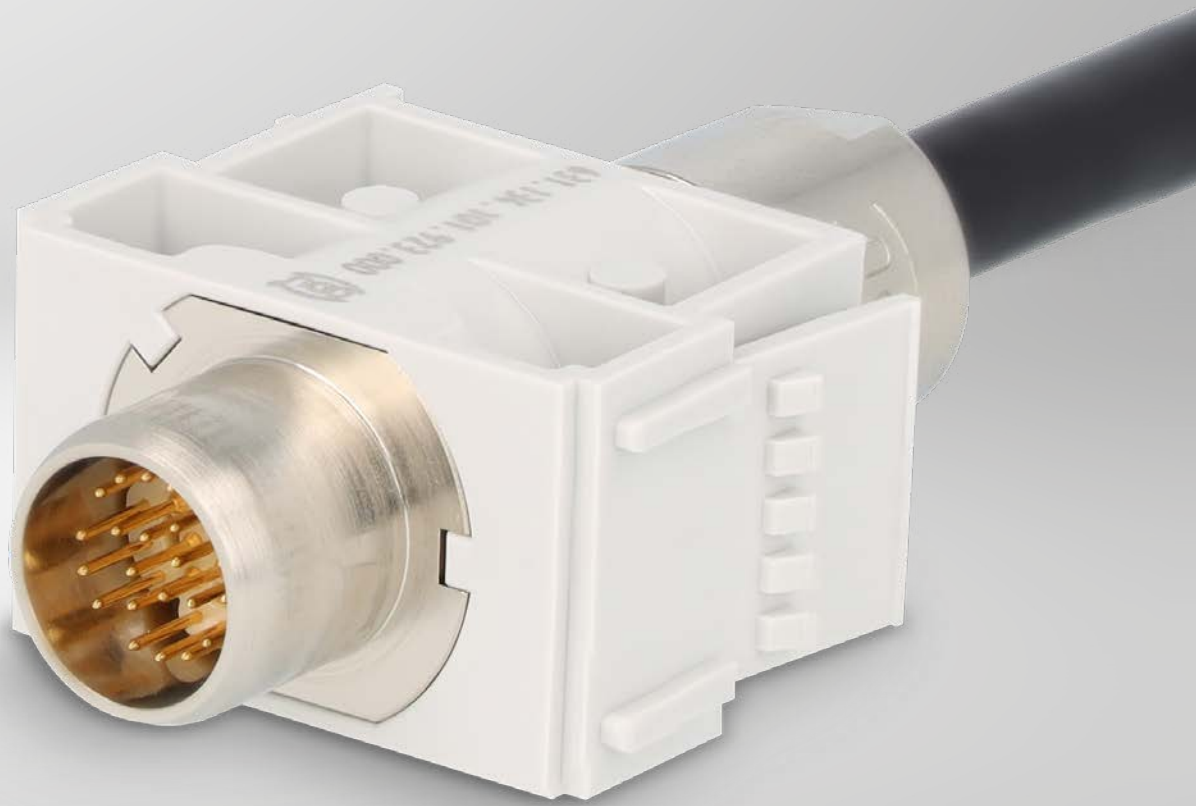
For support and customer
specific solutions: sales@odu.de



The abbreviation HDMI® stands for High-Definition Multimedia Interface. It refers to a digital multimedia interface that can deliver audio and video signals via a single cable – in contrast to analog predecessors such as VGA, DVI or SCART HDMI® is the go-to standard for digitally transmitting uncompressed video and audio data. The current standard HDMI® 2.1 supports up to 45 Gbit/s in bandwidth and a 8K resolution at 60 Hz.

The maximum cable length for HDMI® is 5 meters.

High-speed data technology cable assemblies

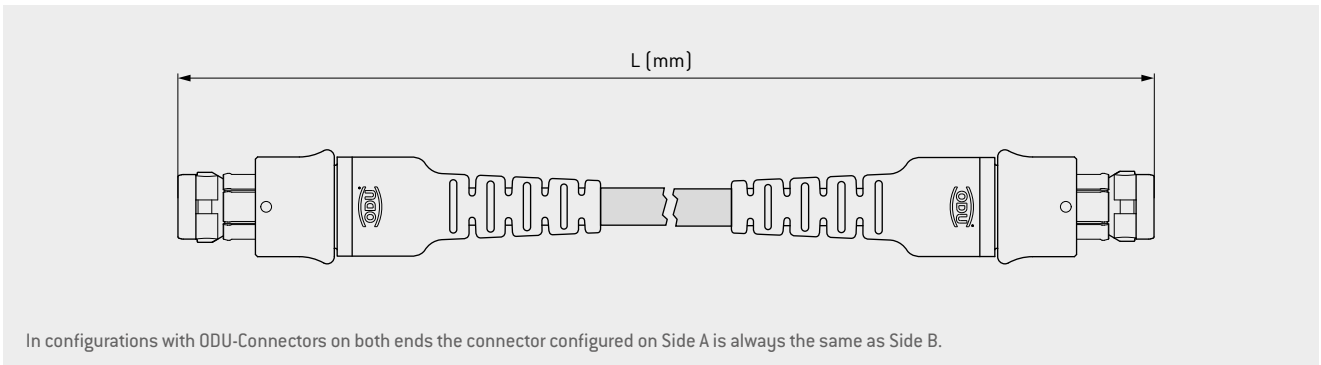
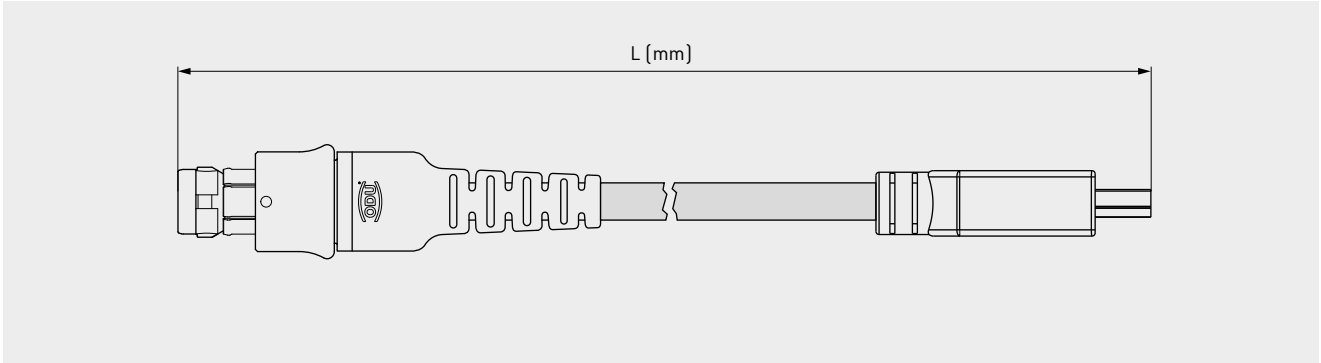


HDMI® UP TO 48 GBIT/S

ODU AMC®	46
ODU AMC® Series T	47
ODU AMC® High-Density	48
ODU-MAC® Blue-Line	49
ODU MINI-SNAP® Series L	50
ODU MINI-SNAP® Series K	52

ODU AMC®

HDMI® up to 3000 mm per single side assembly



Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
K1	In-line receptacle
G6	Panel mount receptacle

Pos. 6	Coding
A	Light brown
B	Red
C	Blue
D	Green

Pin/Socket	Data rate*	2 nd side	Pos. 12-13
Pin	10.2 Gbit/s	HDMI® A Plug	YQ
		ODU-Connector	YP
Socket		HDMI® A Plug	YR

Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300) Example: 1000 mm = 1000	

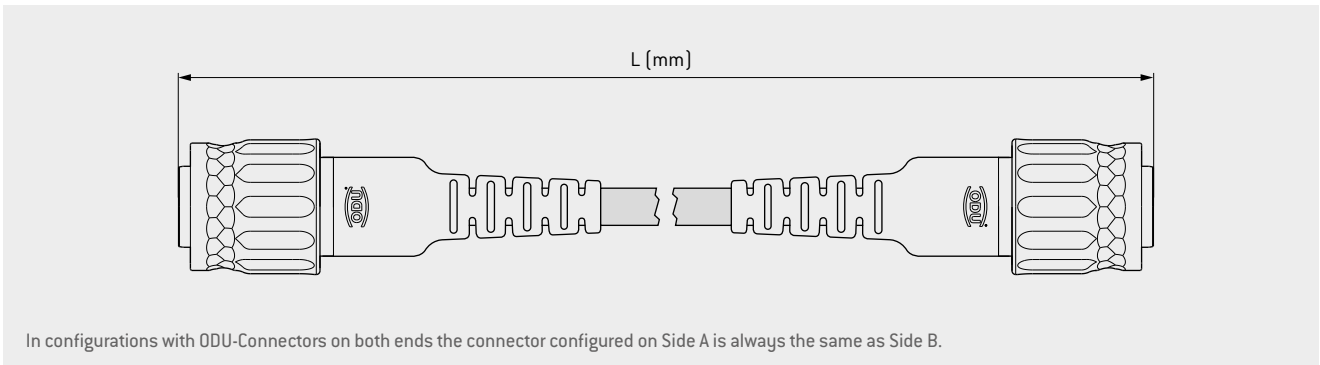
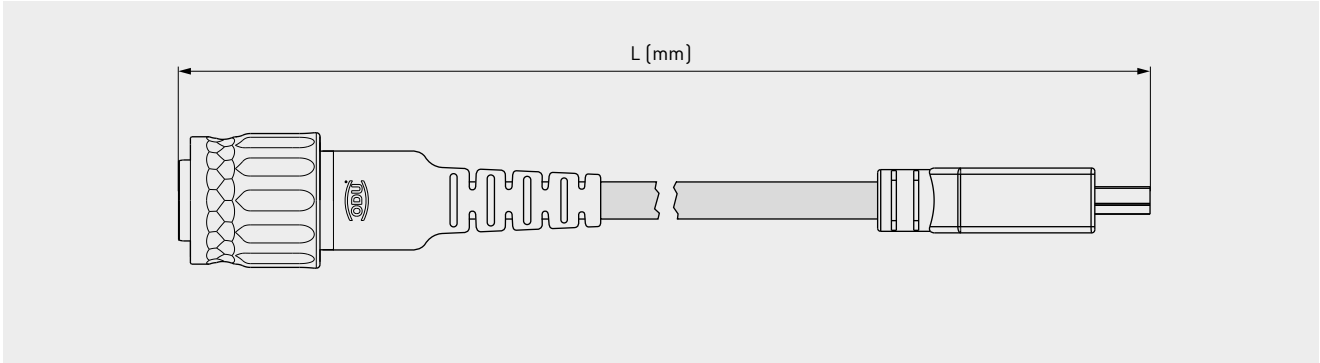


*Data rates mentioned are based on the respective standard data transmission protocol.



ODU AMC® SERIES T

HDMI® up to 3000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
C1	Threaded plug
K1	In-line receptacle
G6	Panel mount receptacle

Pos. 6	Coding
A	Light brown
B	Red
C	Blue
D	Green

Pin/Socket	Data rate*	2 nd side	Pos. 12-13
Pin	10.2 Gbit/s	HDMI® A Plug	ZD
		ODU-Connector	ZB
Socket		HDMI® A Plug	ZC

Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300) Example: 1000 mm = 1000	

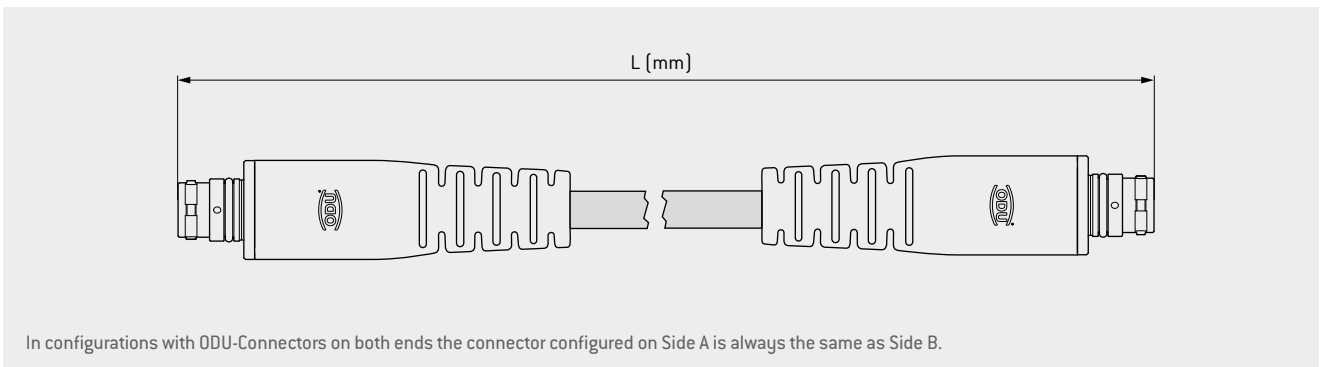
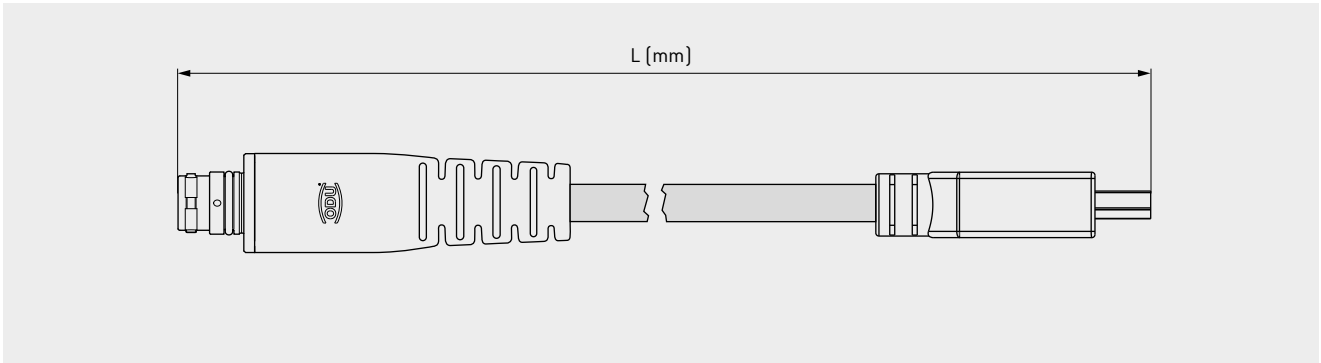


C E T T 2 0 4 I 0 0

*Data rates mentioned are based on the respective standard data transmission protocol.

ODU AMC® HIGH-DENSITY

HDMI® up to 3000 mm per single side assembly



Pos. 2-3	Connector type
A1	Break-away plug
C1	Threaded plug
K1	In-line receptacle
G6	Panel mount receptacle
KC	In-line receptacle with screw-lock
GS	Panel mount receptacle with screw-lock

Pos. 6	Coding
A	Light brown
B	Red
C	Blue
D	Green

Pin/Socket	Data rate*	2 nd side	Pos. 12-13
Pin	10.2 Gbit/s	HDMI® A Plug	YN
		ODU-Connector	YM
Socket		HDMI® A Plug	YO

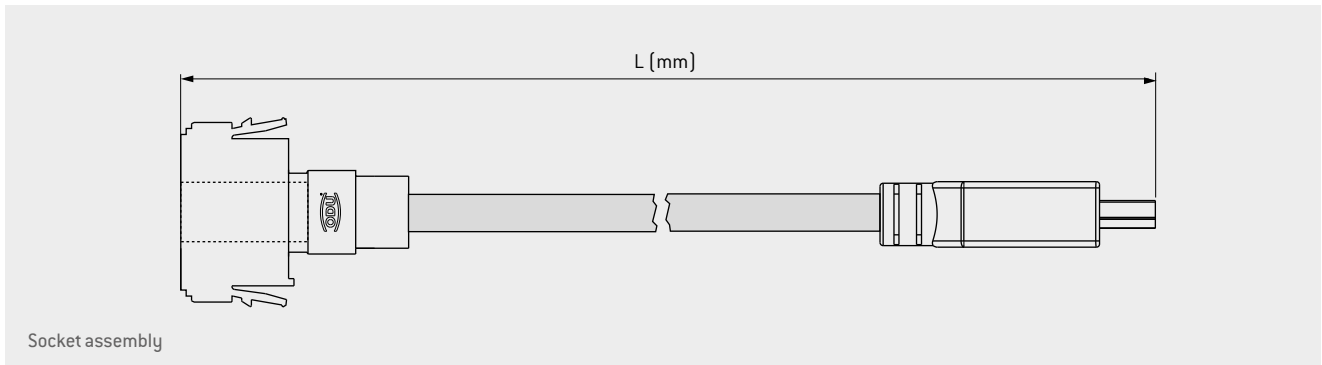
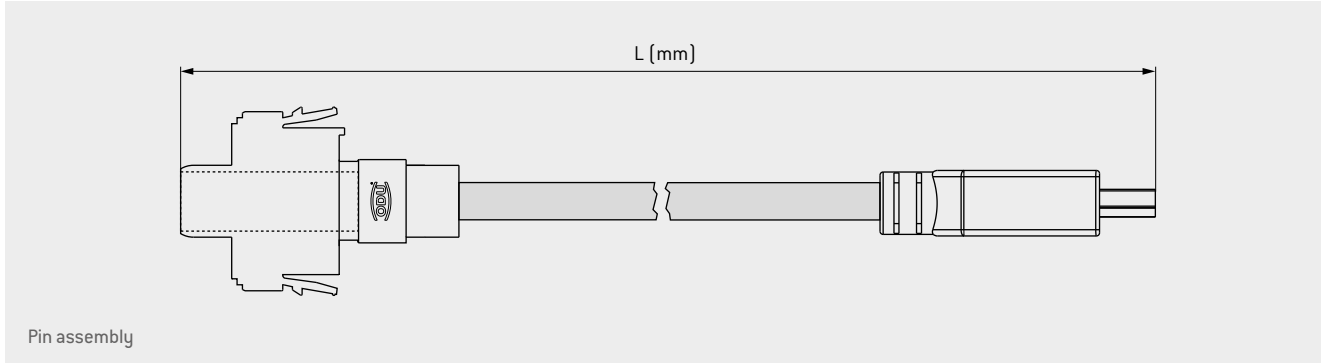
Pos. 16-19	Length
	Length L of assembly in mm (minimum cable length 300) Example: 1000 mm = 1000



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU-MAC® BLUE-LINE

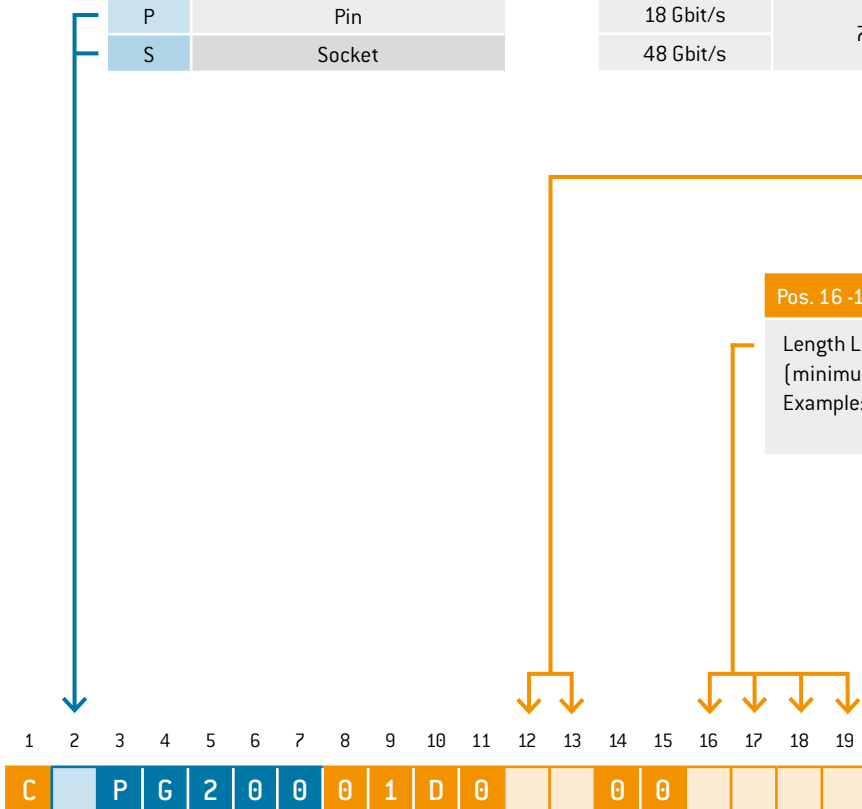
HDMI® up to 3000 mm per single side assembly



Pos. 2	Pin/Socket
P	Pin
S	Socket

Data rate*	Module units	2 nd side	Pos. 12-13
18 Gbit/s	?	HDMI® A Plug	WU
48 Gbit/s		HDMI® A Plug	WT

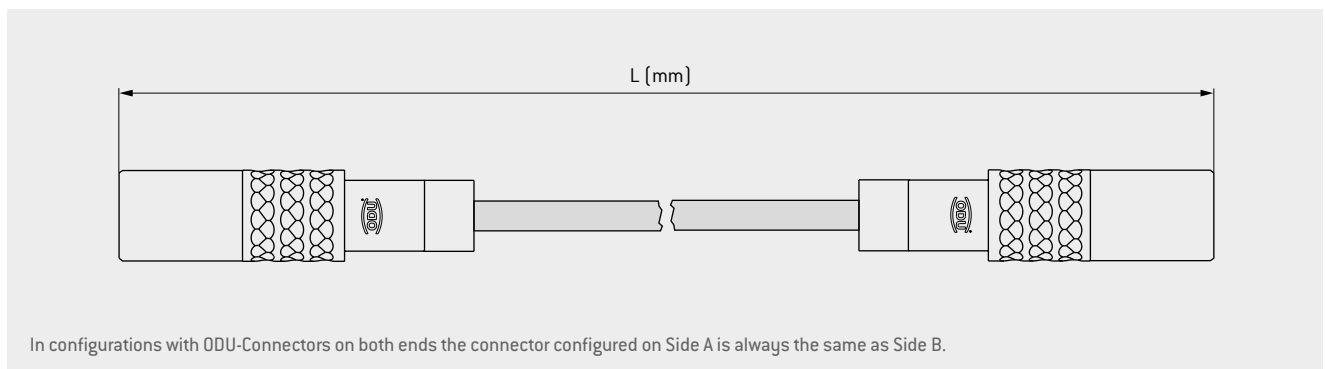
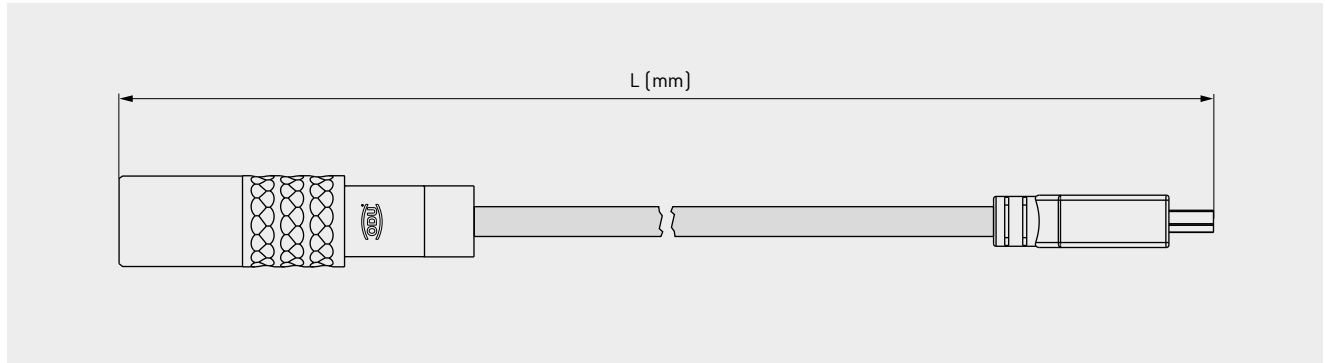
Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU MINI-SNAP® SERIES L

HDMI® without bend relief up to 3000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

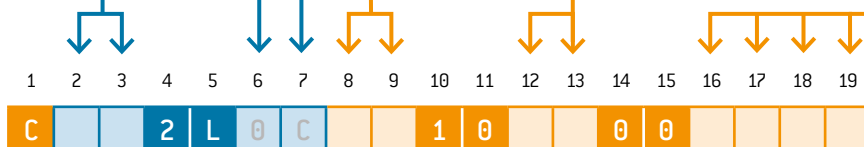
Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
K1	In-line receptacle
G6	Panel mount receptacle

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

Pos. 8-9	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
16	18 Gbit/s	Pin	HDMI® A Plug	VJ
		Socket	ODU-Connector	VK
22	48 Gbit/s	Pin	HDMI® A Plug	VH
			ODU-Connector	VG
		Socket	HDMI® A Plug	VF

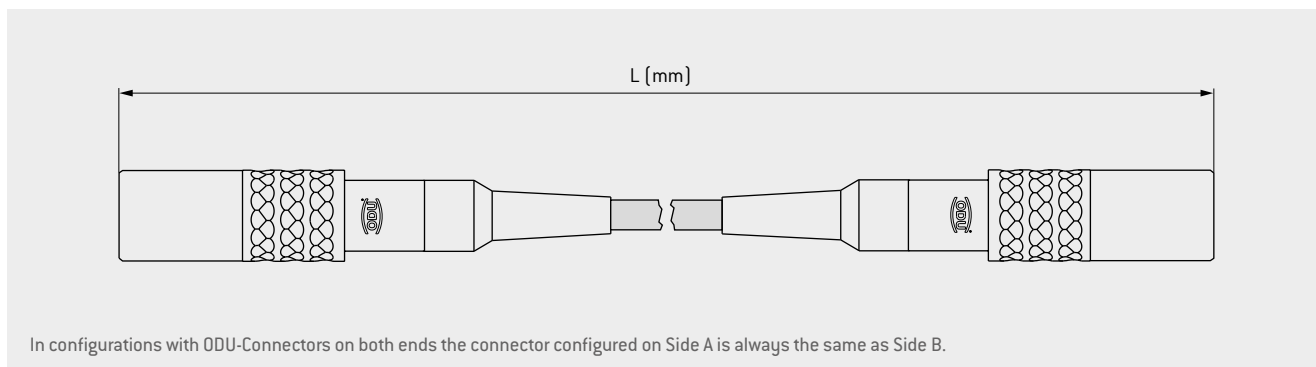
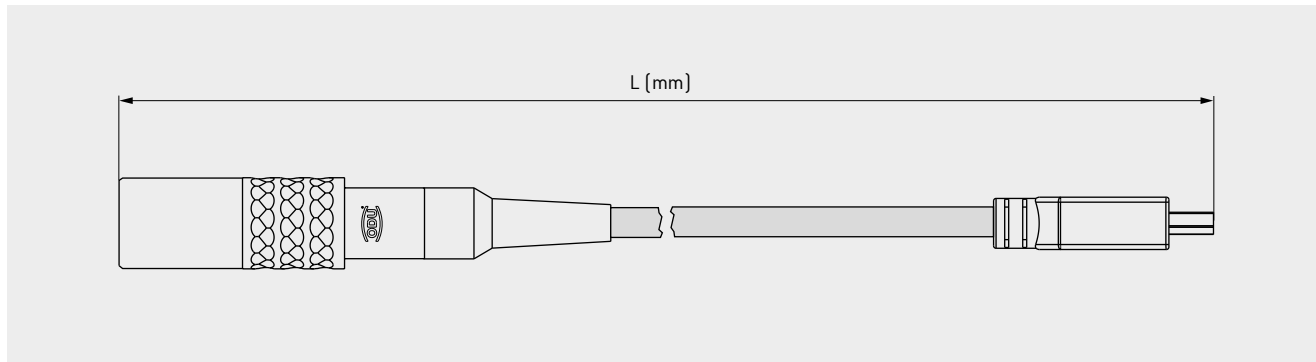
Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol and are determined by the number of conductors of the ODU connector.

ODU MINI-SNAP® SERIES L

HDMI® with bend relief up to 3000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A2	Break-away plug
S2	Push-pull plug
K2	In-line receptacle

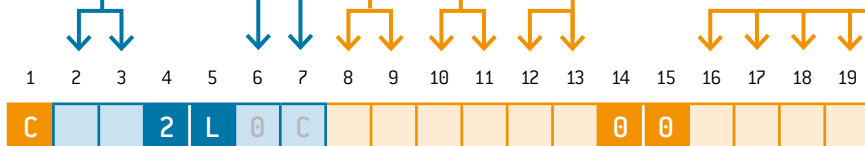
The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

The available color of the bend and strain relief can be found on page 15.

Pos. 8-9	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
16	18 Gbit/s	Pin	HDMI® A Plug	VJ
		Socket	ODU-Connector	VK
22	48 Gbit/s	Pin	HDMI® A Plug	VH
			ODU-Connector	VG
		Socket	HDMI® A Plug	VF

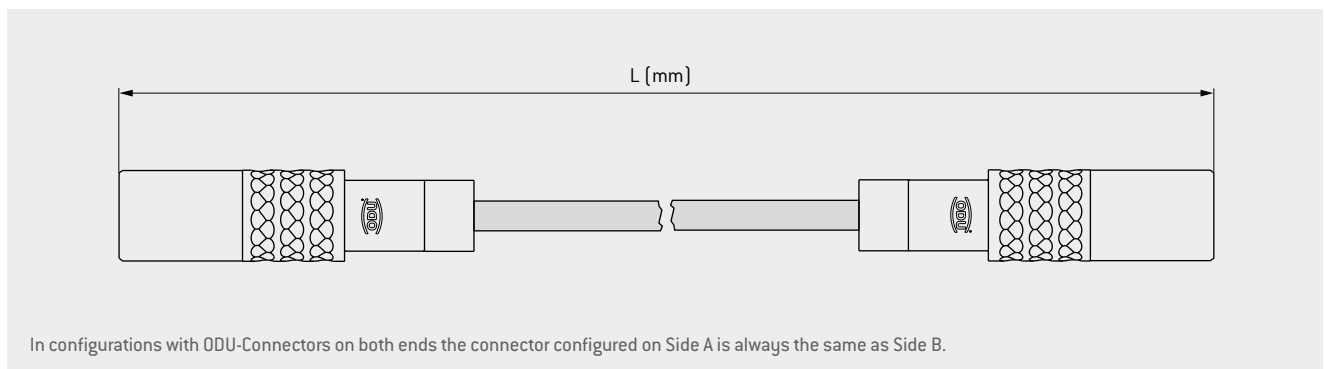
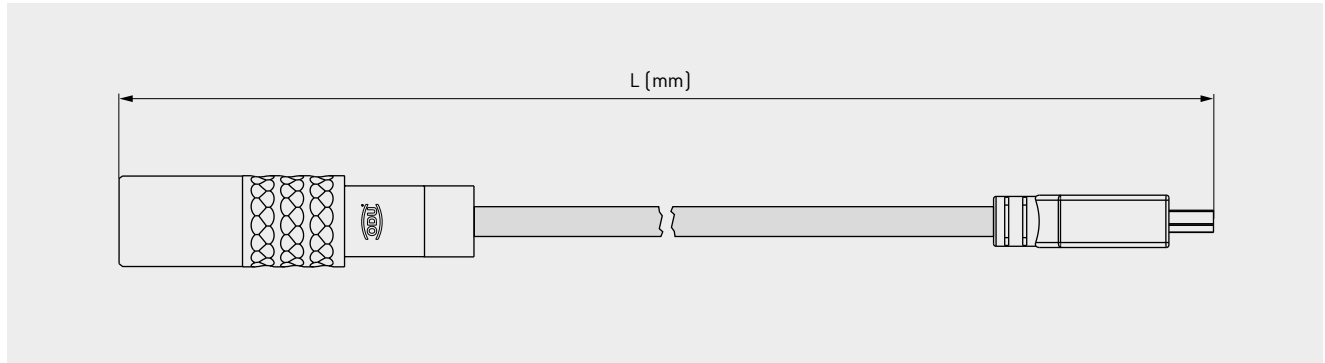
Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol and are determined by the number of conductors of the ODU connector.

ODU MINI-SNAP® SERIES K

HDMI® without bend relief up to 3000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

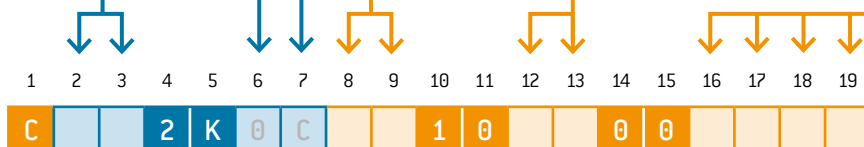
Pos. 2-3	Connector type
SA	Push-pull plug
KA	In-line receptacle
GB	Panel mount receptacle

Pos. 8-9	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
16	18 Gbit/s	Pin	HDMI® A Plug	VJ
		Socket	ODU-Connector	VK
22	48 Gbit/s	Pin	HDMI® A Plug	VH
		Socket	ODU-Connector	VG
		Socket	HDMI® A Plug	VF

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

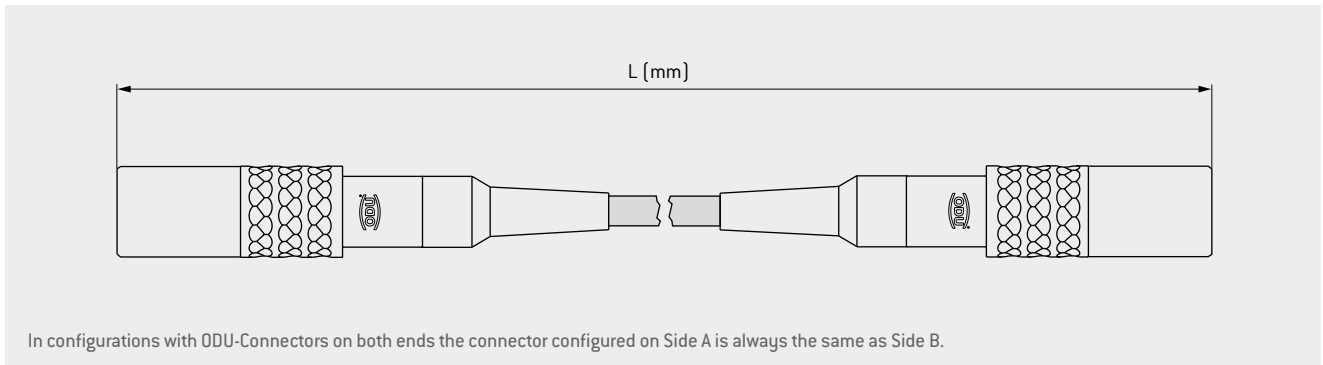
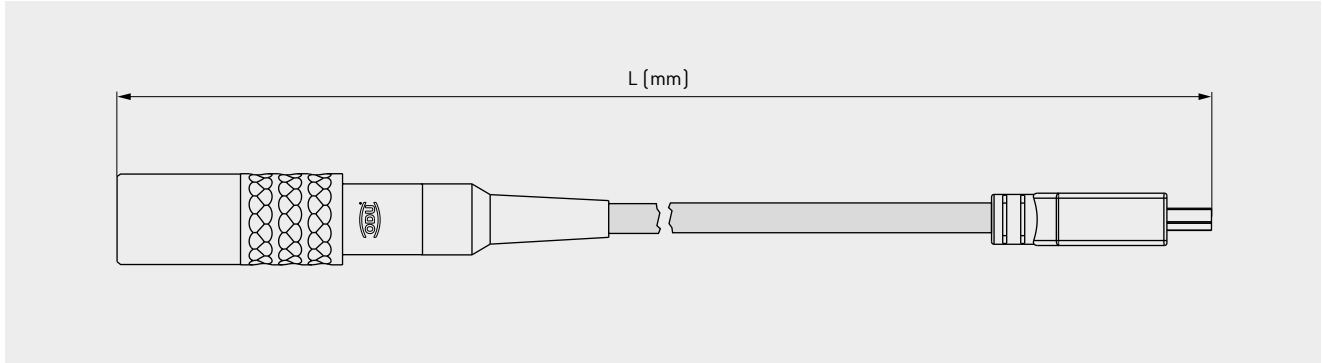
Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol and are determined by the number of conductors of the ODU connector.

ODU MINI-SNAP® SERIES K

HDMI® with bend relief up to 3000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
SB	Push-pull plug
KB	In-line receptacle

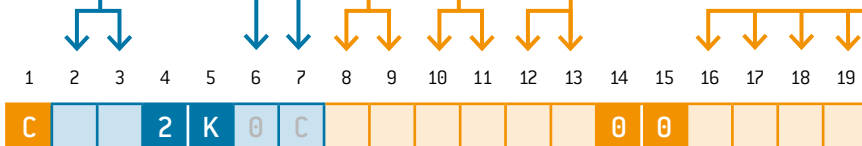
The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

The available color of the bend and strain relief can be found on page 15.

Pos. 8-9	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
16	18 Gbit/s	Pin	HDMI® A Plug	VJ
		Socket	ODU-Connector	VK
22	48 Gbit/s	Pin	HDMI® A Plug	VH
			ODU-Connector	VG
		Socket	HDMI® A Plug	VF

Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol and are determined by the number of conductors of the ODU connector.



USB® transmits the data bit-serially, i.e. the individual bits are transmitted one after the other. The transmission takes place differentially via a symmetrical pair of wires: if the high level is on the first wire, the low level is on the second and vice versa. The signal receiver evaluates the differential voltage at a termination resistor. From their sign, the two logical states zero or one result. The differential method and the use of twisted wires largely eliminate electrically irradiated interference.

Compared to previous solutions, USB® offers significantly higher data transfer rates. However, the data is transferred in packages. For some time-critical applications, it is therefore less suitable, such as packages with only a few bytes that reduce the transfer rate, or when collecting bytes to fill a package would delay transmission.

The maximum channel length for USB® 2.0 is 4 meters, while for USB® 3.2 Gen 1 xX, it is limited to 2 meters.

High-speed data technology cable assemblies



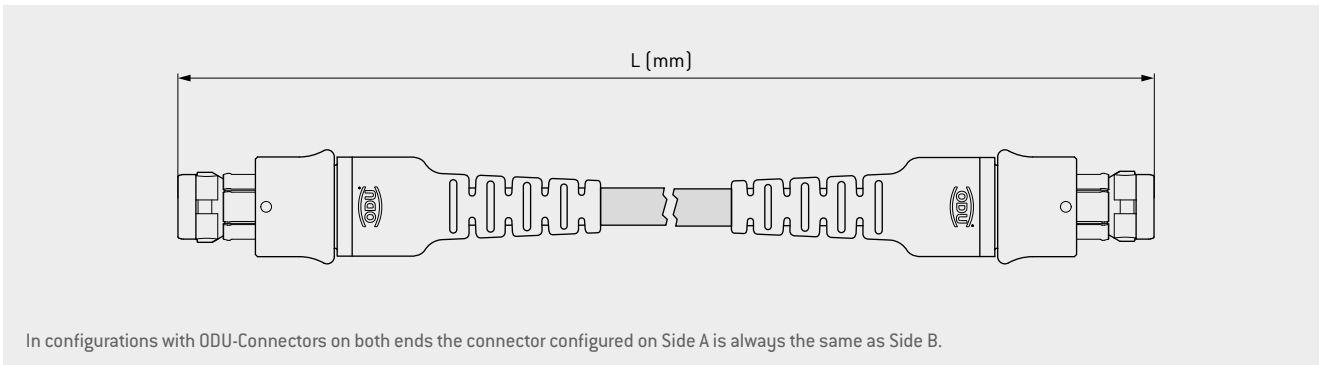
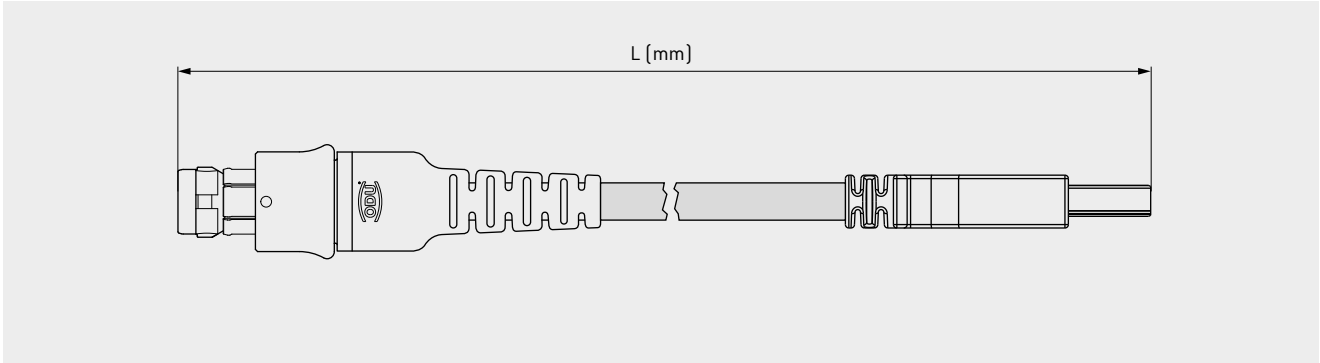
USB® UP TO 10 GBIT/S

ODU AMC®	56
ODU AMC® High-Density	57
ODU MINI-SNAP® Series L	58
ODU MINI-SNAP® Series K	62
ODU-MAC® Blue-Line	66

ODU AMC®

USB® up to 3000 mm per single side assembly with transfer of 480 Mbit/s

USB® up to 2000 mm per single side assembly with transfer of 5 Gbit/s



Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
K1	In-line receptacle
G6	Panel mount receptacle

Pos. 6	Coding
A	Light brown
B	Red
C	Blue
D	Green

Pos. 8-9	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
04	480 Mbit/s	Pin	USB® A Plug	YY
		Socket	ODU-Connector	YX
10	5 Gbit/s	Pin	USB® A Plug	YU
			ODU-Connector	YS
		Socket	USB® A Plug	YV

Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	

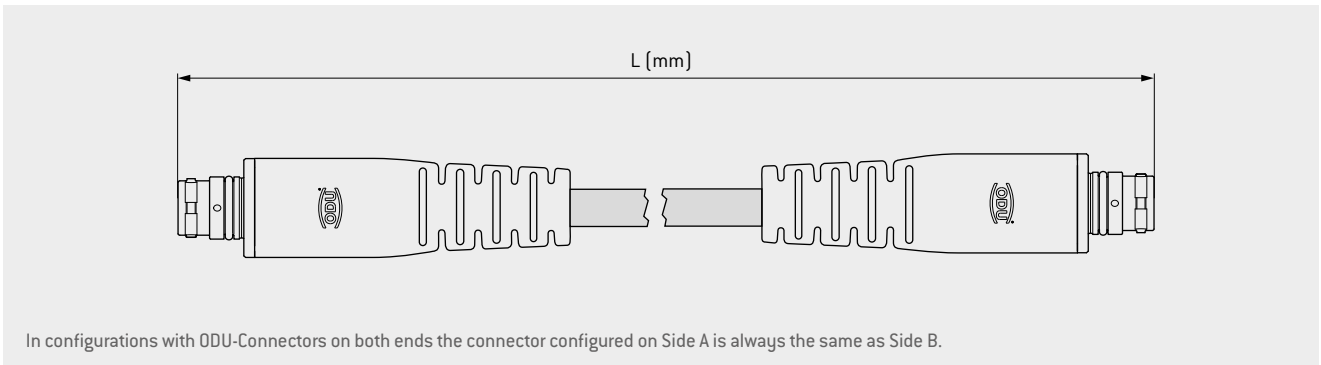
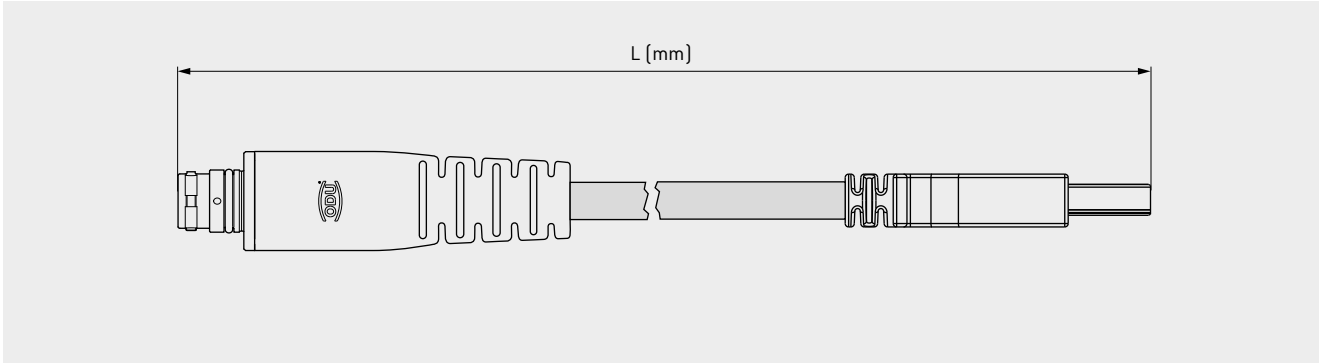
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
C			O	Y	R			4	I			0	0					

*Data rates mentioned are based on the respective standard data transmission protocol and are determined by the number of conductors of the ODU connector.

ODU AMC® HIGH-DENSITY

USB® up to 3000 mm per single side assembly with transfer of 480 Mbit/s

USB® up to 2000 mm per single side assembly with transfer of 5 Gbit/s



Pos. 2-3	Connector type	Pos. 4	Size	Pos. 8-9	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
A1	Break-away plug	C	00	04	480 Mbit/s	Pin	USB® A Plug	YY
C1	Threaded plug						ODU-Connector	YX
K1	In-line receptacle	0	0	12	5 Gbit/s	Socket	USB® A Plug	YZ
G6	Panel mount receptacle						USB® A Plug	YU
KC	In-line receptacle with screw-lock					Socket	ODU-Connector	YS
GS	Panel mount receptacle with screw-lock						USB® A Plug	YV

Pos. 6	Coding
A	Light brown
B	Red
C	Blue
D	Green

Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	

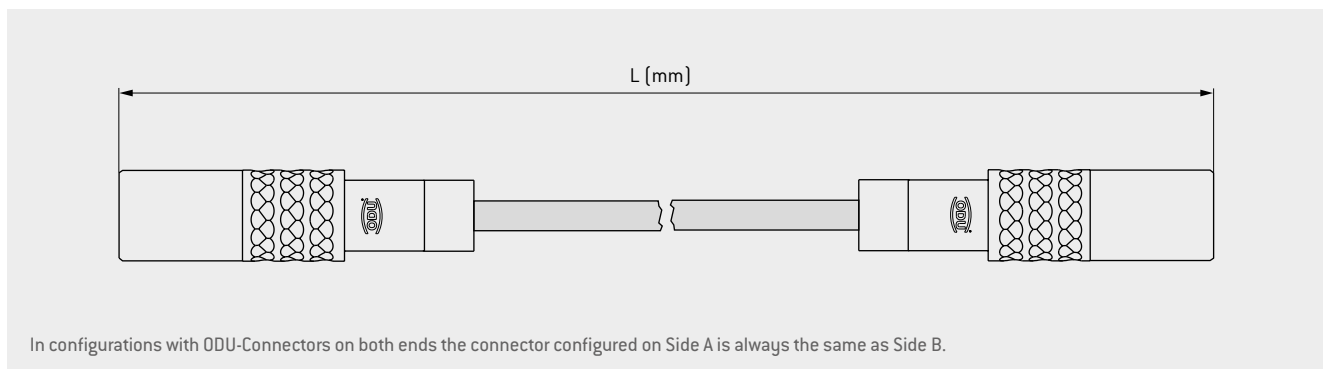
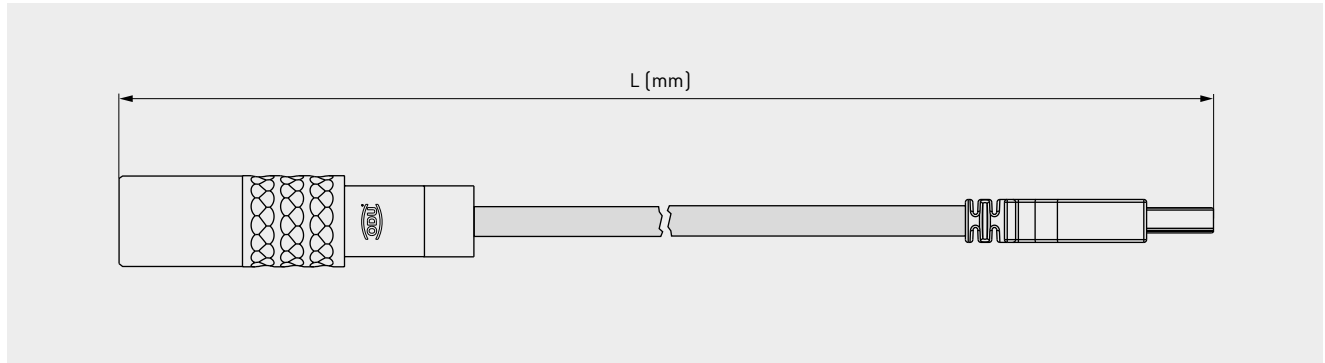
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
C			W		M			4	I			0	0					

*Data rates mentioned are based on the respective standard data transmission protocol and are determined by the number of conductors of the ODU connector.

ODU MINI-SNAP® SERIES L

USB® without bend relief up to 3000 mm per single side assembly with transfer of 480 Mbit/s

USB® without bend relief up to 2000 mm per single side assembly with transfer of 5 Gbit/s



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

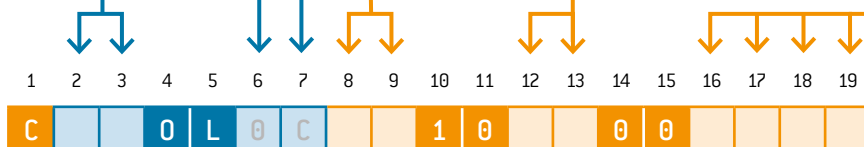
Pos. 2-3	Connector type
A1	Break-away plug, 4 pin
S1	Push-pull plug, 4 pin
K1	In-line receptacle, 4 pin
G6	Panel mount receptacle, 4 pin
A9	Break-away plug, 10 pin
S9	Push-pull plug, 10 pin
K9	In-line receptacle, 10 pin
G9	Panel mount receptacle, 10 pin

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

Pos. 8-9	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
04	480 Mbit/s	Pin	USB® A Plug	VS
		Socket	ODU-Connector	VT
10	5 Gbit/s	Pin	USB® A Plug	VP
		Socket	ODU-Connector	VQ
			USB® A Plug	V0

Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	

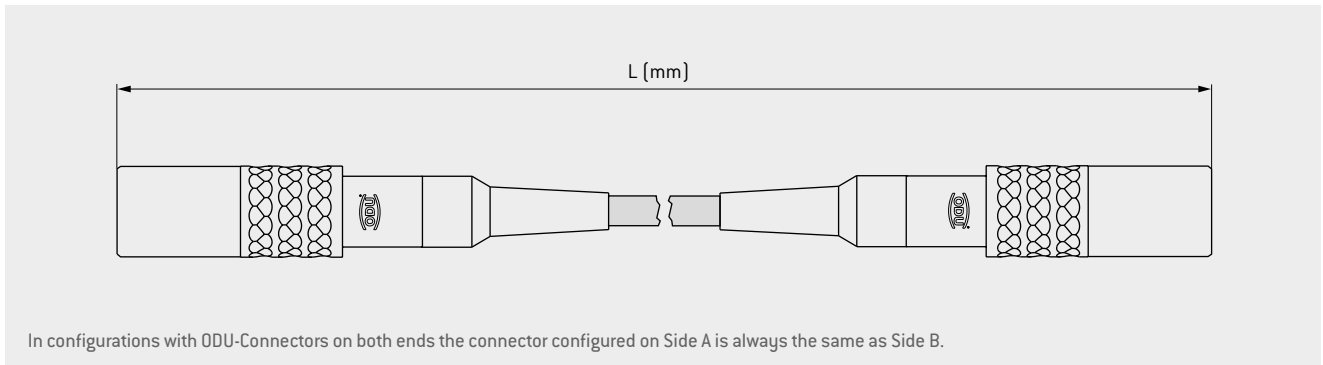
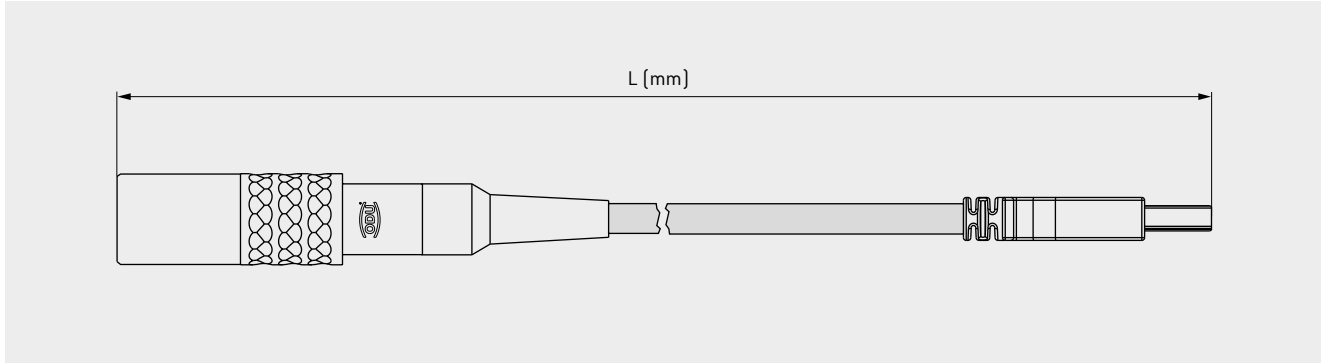


*Data rates mentioned are based on the respective standard data transmission protocol and are determined by the number of conductors of the ODU connector.

ODU MINI-SNAP® SERIES L

USB® with bend relief up to 3000 mm per single side assembly with transfer of 480 Mbit/s

USB® with bend relief up to 2000 mm per single side assembly with transfer of 5 Gbit/s



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A2	Break-away plug, 4 pin
S2	Push-pull plug, 4 pin
K2	In-line receptacle, 4 pin
A9	Break-away plug, 10 pin
S9	Push-pull plug, 10 pin
K9	In-line receptacle, 10 pin

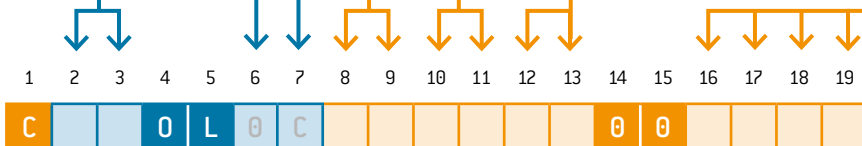
Pos. 8-9	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
04	480 Mbit/s	Pin	USB® A Plug	VS
		Socket	ODU-Connector	VT
10	5 Gbit/s	Pin	USB® A Plug	VP
			ODU-Connector	VQ
		Socket	USB® A Plug	V0

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

The available color of the bend and strain relief can be found on page 15.

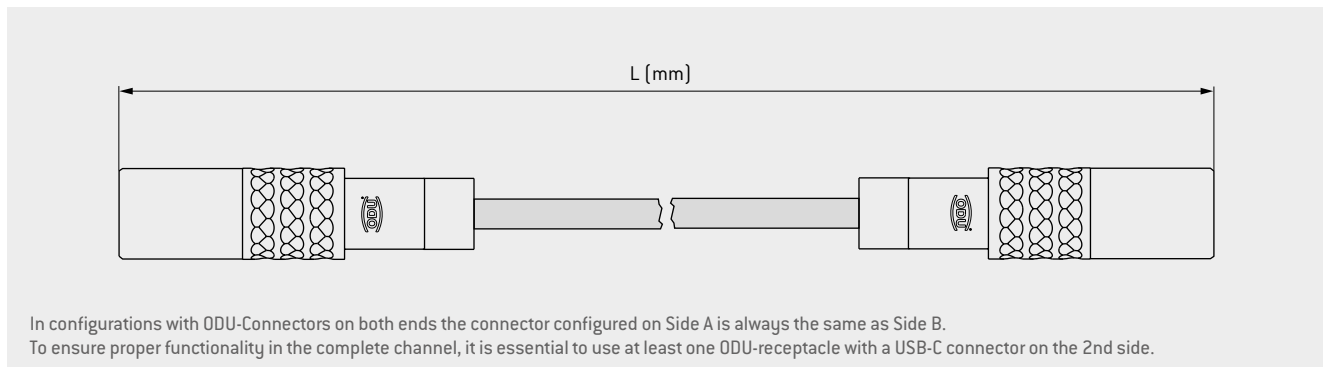
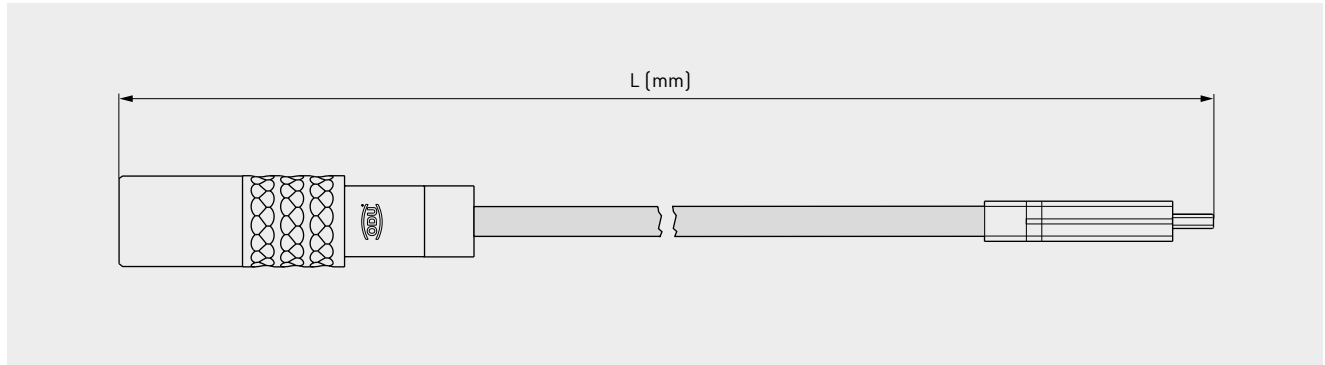
Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol and are determined by the number of conductors of the ODU connector.

ODU MINI-SNAP® SERIES L

USB® without bend relief up to 1000 mm per single side assembly



Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
K1	In-line receptacle
G6	Panel mount receptacle

Data rate*	Pin/Socket	2 nd side	Pos. 12-13
10 Gbit/s	Pin	USB® C Plug	VN
		ODU-Connector	VM
	Socket	USB® C Plug	VL

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

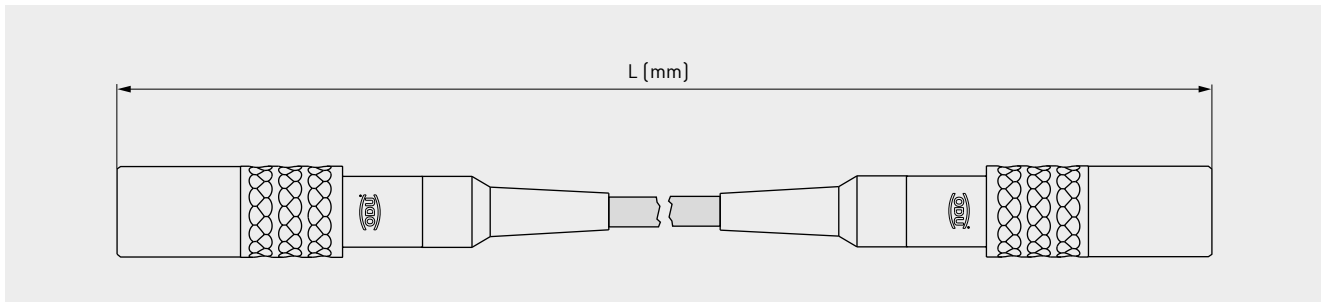
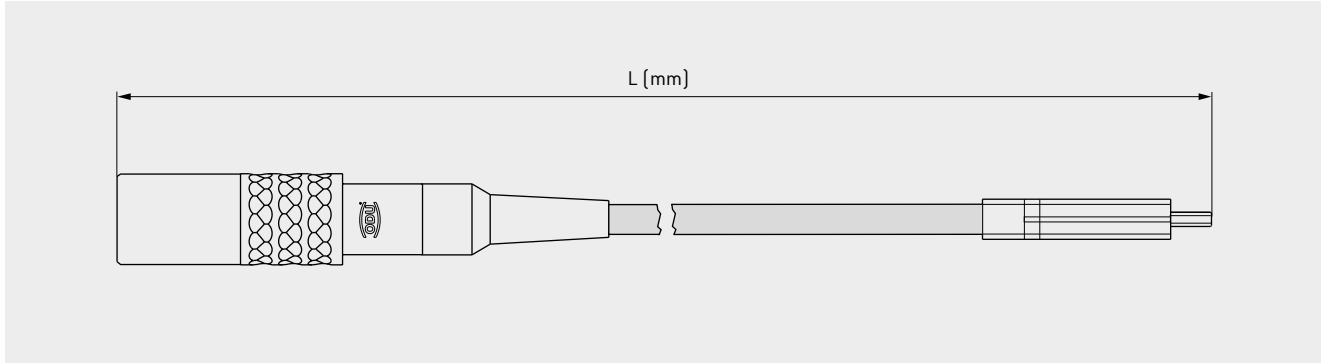
Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU MINI-SNAP® SERIES L

USB® with bend relief up to 1000 mm per single side assembly



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B. To ensure proper functionality in the complete channel, it is essential to use at least one ODU-receptacle with a USB-C connector on the 2nd side.

Pos. 2-3	Connector type
A2	Break-away plug
S2	Push-pull plug
K2	In-line receptacle

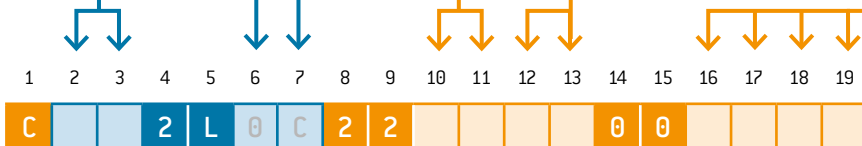
Data rate*	Pin/Socket	2 nd side	Pos. 12-13
10 Gbit/s	Pin	USB® C Plug	VN
		ODU-Connector	VM
	Socket	USB® C Plug	VL

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

The available color of the bend and strain relief can be found on page 15.

Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	

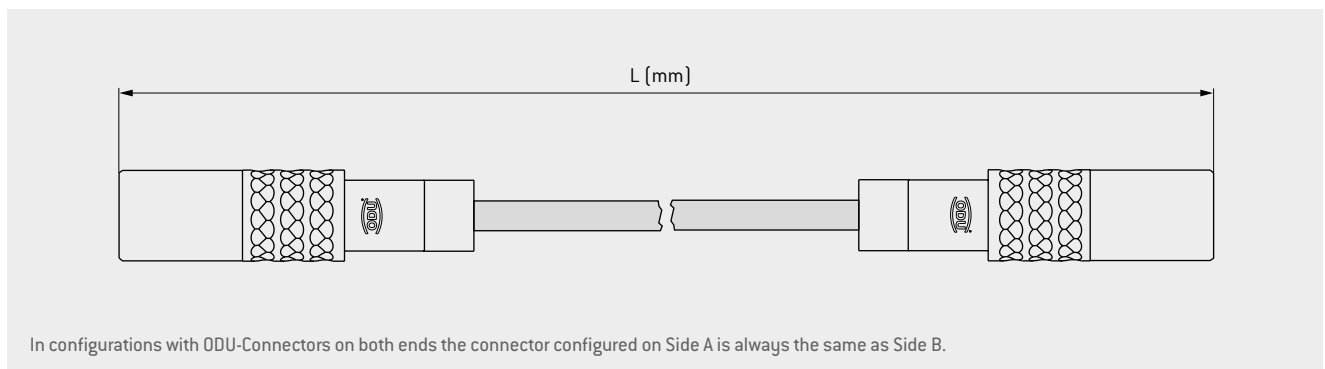
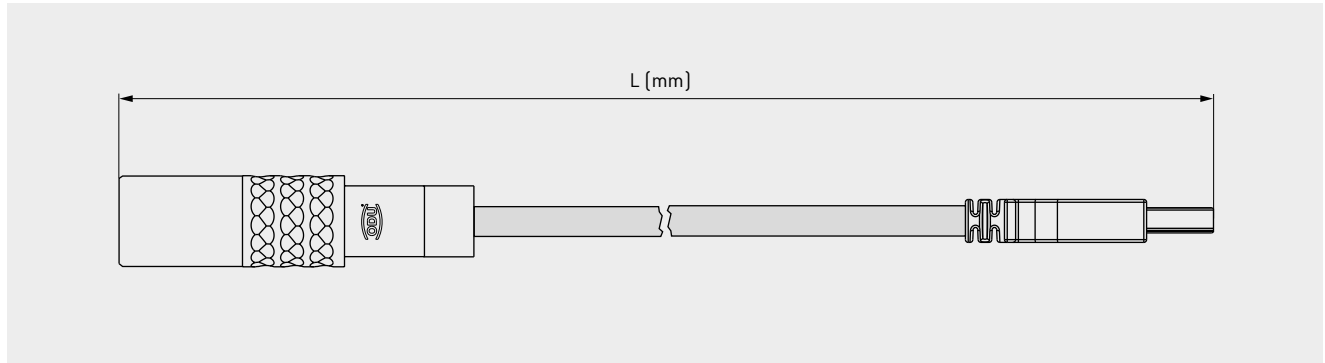


*Data rates mentioned are based on the respective standard data transmission protocol.

ODU MINI-SNAP® SERIES K

USB® without bend relief up to 3000 mm per single side assembly with transfer of 480 Mbit/s

USB® without bend relief up to 2000 mm per single side assembly with transfer of 5 Gbit/s



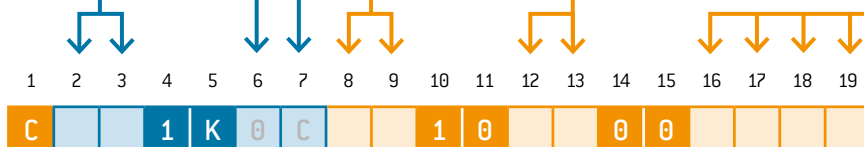
Pos. 2-3	Connector type
A1	Break-away plug
S1	Push-pull plug
K1	In-line receptacle
G6	Panel mount receptacle

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

Pos. 8-9	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
04	480 Mbit/s	Pin	USB® A Plug	VS
		Socket	ODU-Connector	VT
10	5 Gbit/s	Pin	USB® A Plug	VP
			ODU-Connector	VQ
		Socket	USB® A Plug	V0

Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	

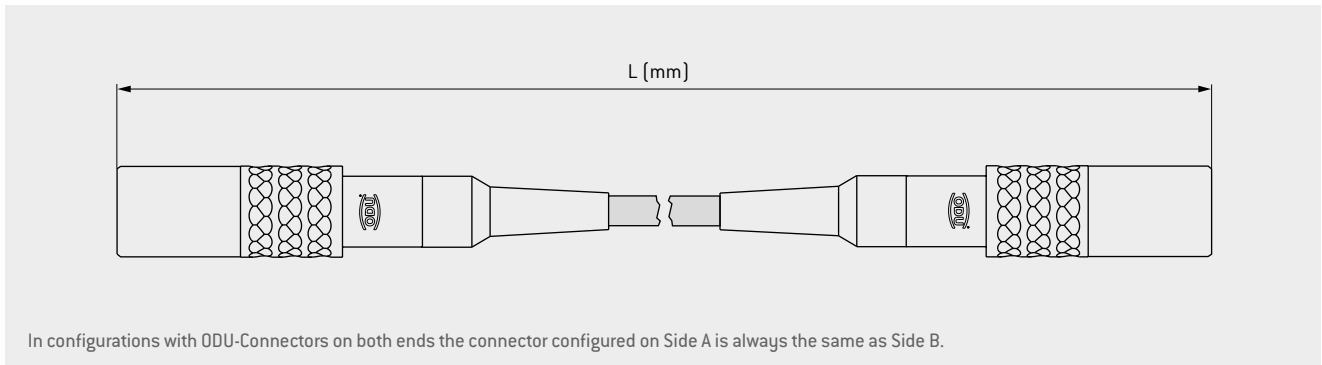
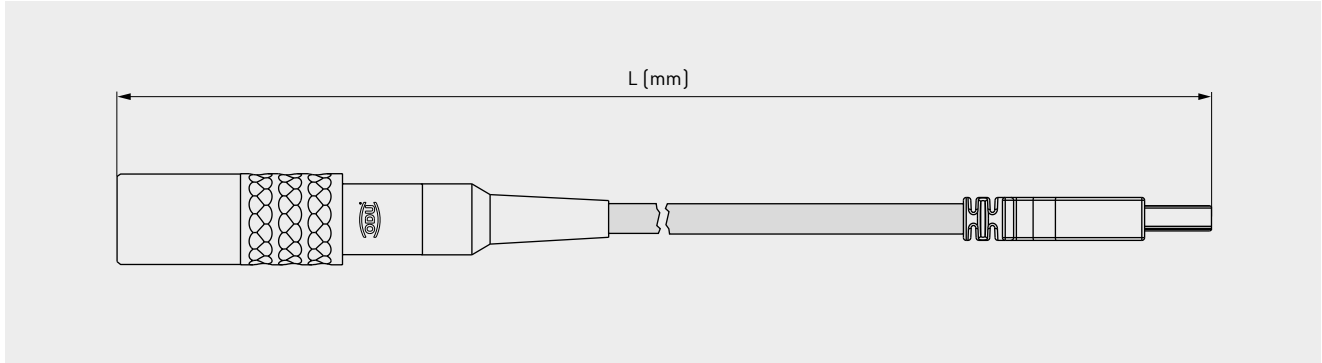


*Data rates mentioned are based on the respective standard data transmission protocol and are determined by the number of conductors of the ODU connector.

ODU MINI-SNAP® SERIES K

USB® with bend relief up to 3000 mm per single side assembly with transfer of 480 Mbit/s

USB® with bend relief up to 2000 mm per single side assembly with transfer of 5 Gbit/s



In configurations with ODU-Connectors on both ends the connector configured on Side A is always the same as Side B.

Pos. 2-3	Connector type
A2	Break-away plug
S2	Push-pull plug
K2	In-line receptacle

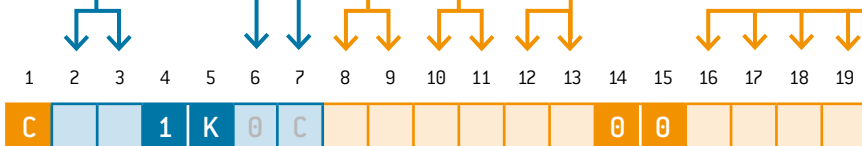
The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

The available color of the bend and strain relief can be found on page 15.

Pos. 8-9	Data rate*	Pin/Socket	2 nd side	Pos. 12-13
04	480 Mbit/s	Pin	USB® A Plug	VS
		Socket	USB® A Plug	VR
10	5 Gbit/s	Pin	USB® A Plug	VP
		Socket	USB® A Plug	VQ

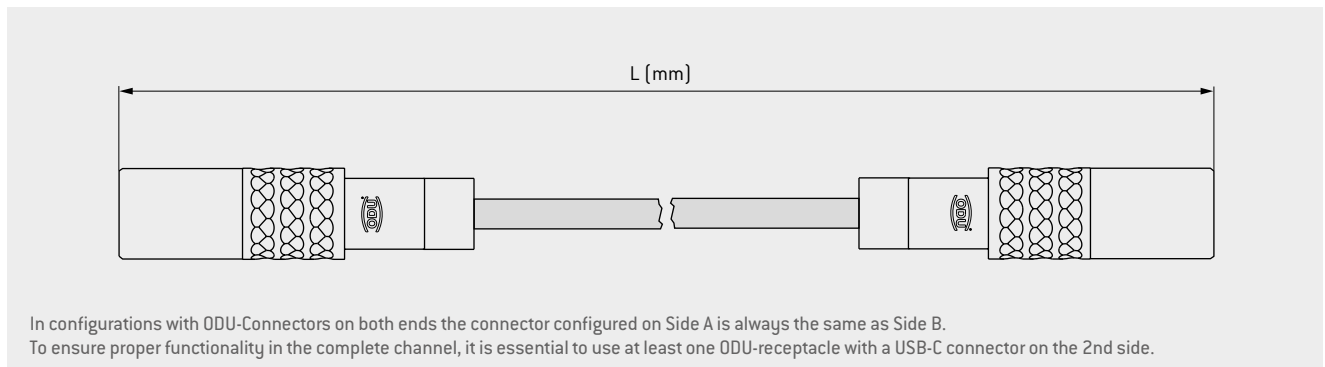
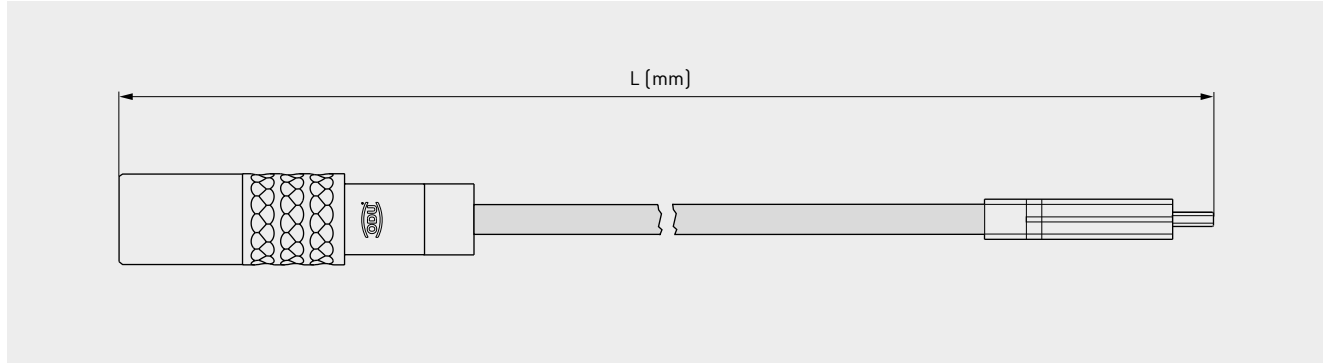
Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol and are determined by the number of conductors of the ODU connector.

ODU MINI-SNAP® SERIES K

USB® without bend relief up to 1000 mm per single side assembly



Pos. 2-3	Connector type
SA	Push-pull plug
KA	In-line receptacle
GB	Panel mount receptacle

Data rate*	Pin/Socket	2 nd side	Pos. 12-13
10 Gbit/s	Pin	USB® C Plug	VN
		ODU-Connector	VM
	Socket	USB® C Plug	VL

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

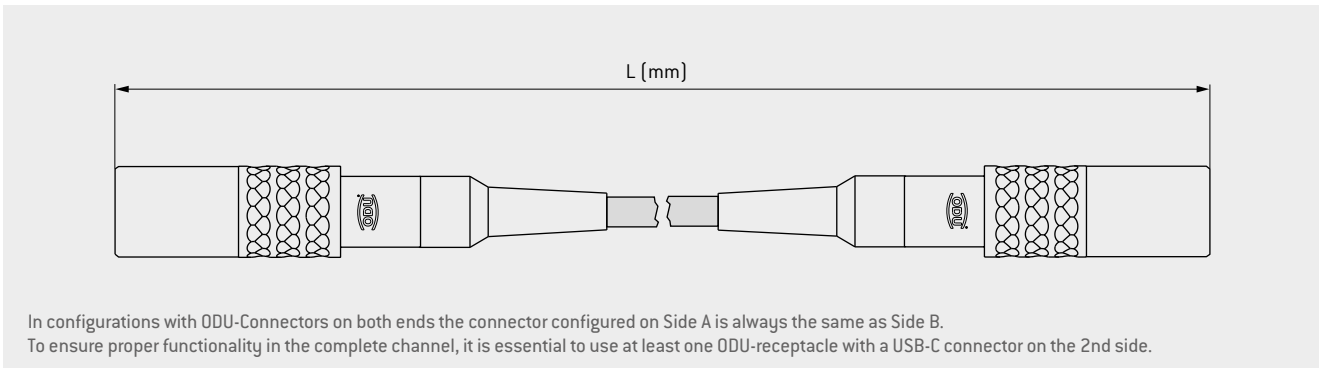
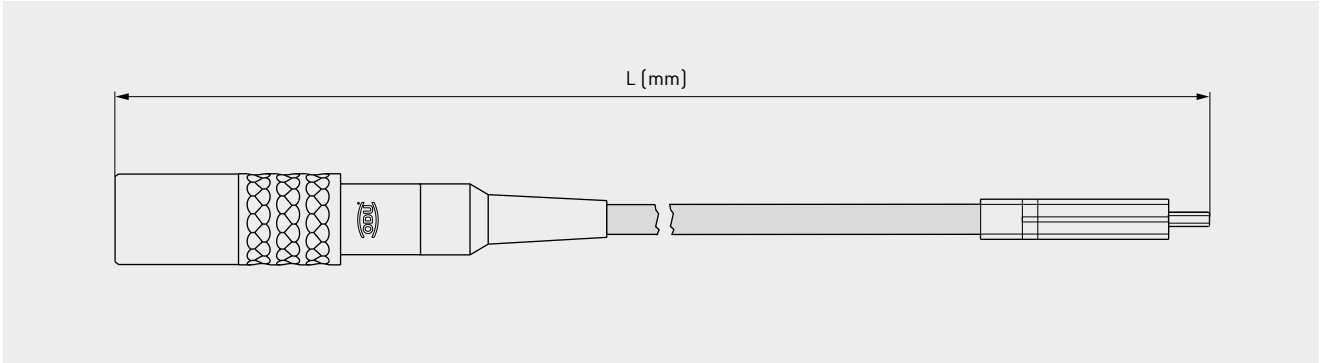
Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol.

ODU MINI-SNAP® SERIES K

USB® without bend relief up to 1000 mm per single side assembly



Pos. 2-3	Connector type
SB	Push-pull plug
KB	In-line receptacle

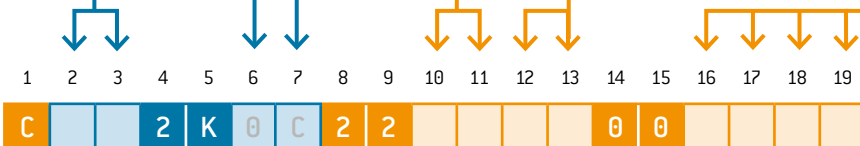
Data rate*	Pin/Socket	2 nd side	Pos. 12-13
10 Gbit/s	Pin	USB® C Plug	VN
		ODU-Connector	VM
	Socket	USB® C Plug	VL

The available codings for the respective series can be found on page 14.

Pos. 7	Housing surface
C	Matte chrome
Z	Tin-nickel

The available color of the bend and strain relief can be found on page 15.

Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	

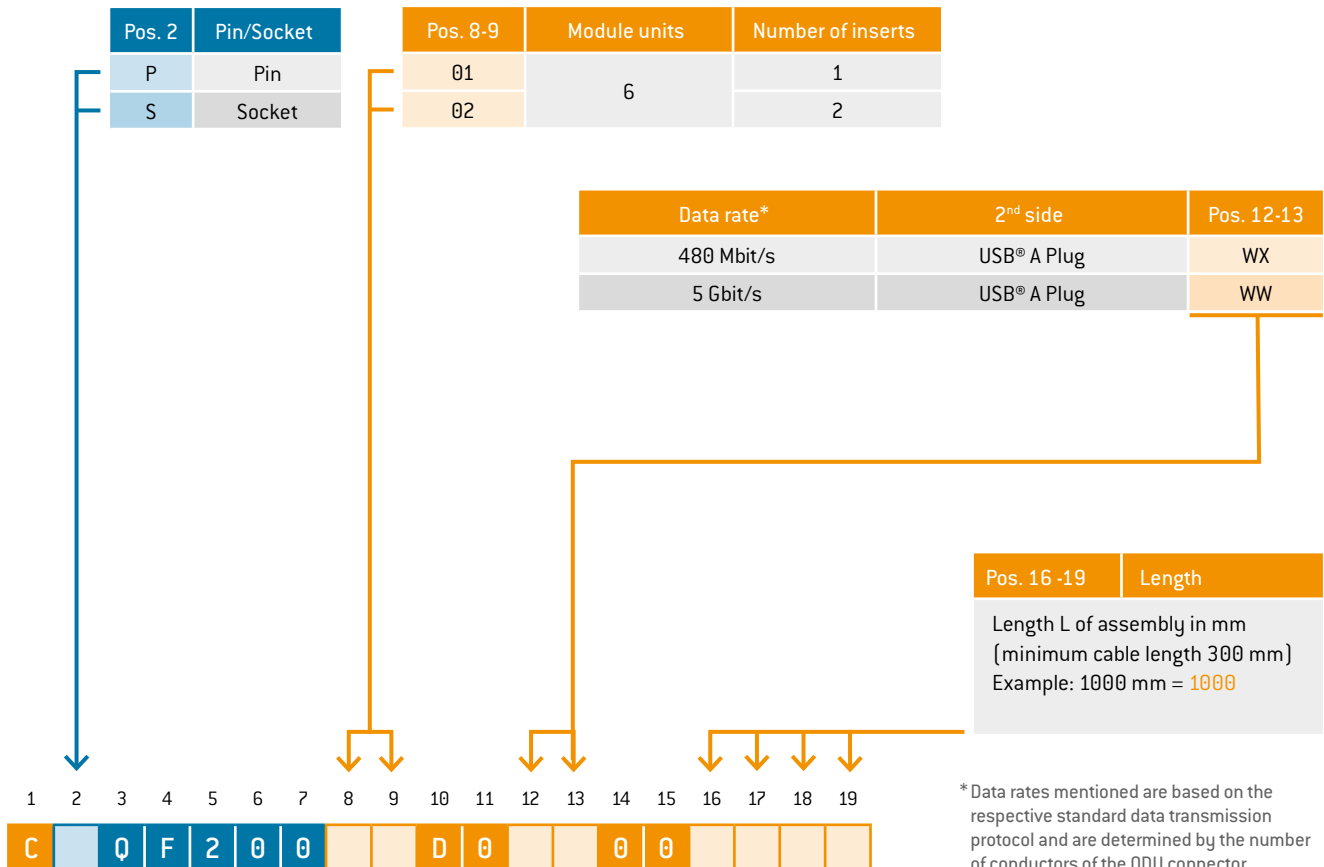
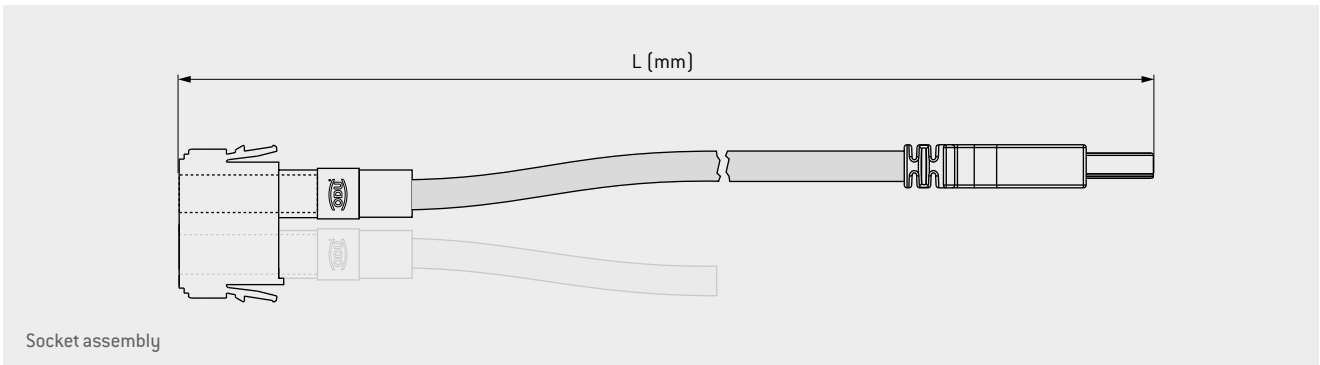
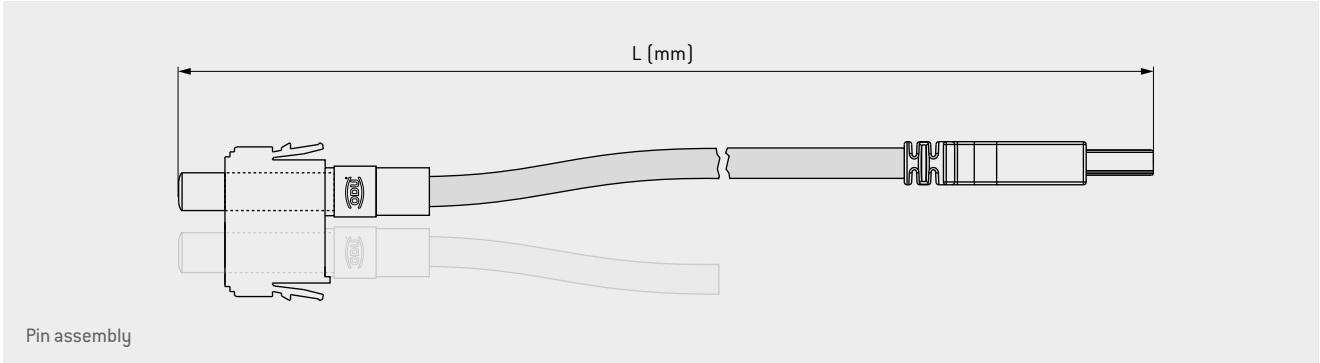


*Data rates mentioned are based on the respective standard data transmission protocol.

ODU-MAC® BLUE-LINE

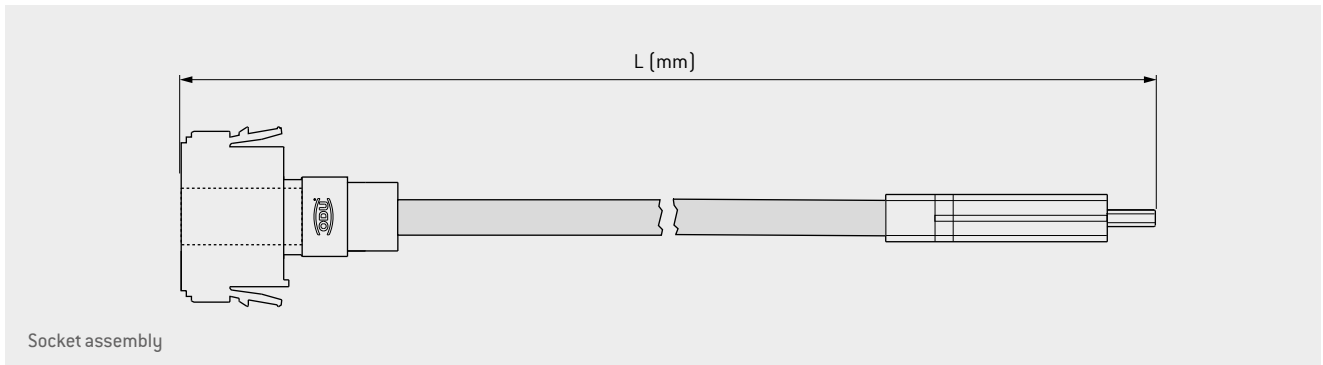
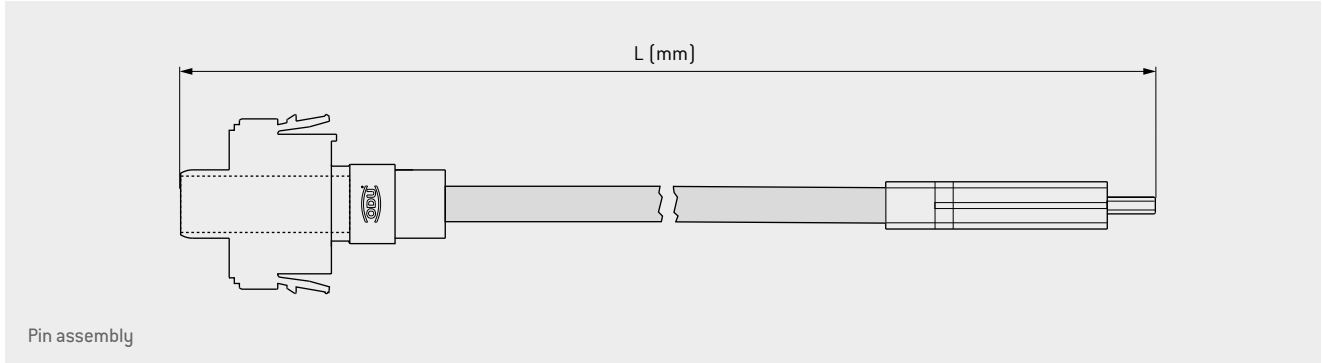
USB® up to 3000 mm per single side assembly with transfer of 480 Mbit/s

USB® up to 2000 mm per single side assembly with transfer of 5 Gbit/s



ODU-MAC® BLUE-LINE

USB® up to 1000 mm per single side assembly



Pos. 2	Pin/Socket
P	Pin
S	Socket

Data rate*	Module units	2 nd side	Pos. 12-13
10 Gbit/s	7	USB® C Plug	WV

Pos. 16-19	Length
Length L of assembly in mm (minimum cable length 300 mm) Example: 1000 mm = 1000	



*Data rates mentioned are based on the respective standard data transmission protocol.



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All dimensions are in mm.
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