

# Technical data

## General features of the series

DP1.2-VISION-FIBER SERIES		
<b>Interfaces for computers</b>	Video:	› see specific features
	PS/2 keyboard:	1 × PS/2 socket
	USB keyboard/mouse:	1 × USB-B socket
	Audio:	3.5-mm jack plug (Line In) 3.5-mm jack plug (Line Out)
	USB 2.0:	› Variant -ARU Shared transmission of signals of USB devices as well as keyboard and mouse via USB-B socket.
		› Variant -ARU2 1 × USB-B socket
RS232:	1 × RS232 socket	
<b>Interfaces for remote console</b>	Monitor:	› see specific features
	PS/2 keyboard/mouse:	1 × PS/2 socket
	USB keyboard/mouse:	2 × USB-A socket
	Generic-HID:	1 × USB-A socket
	Audio:	3.5-mm jack plug (Speaker) 3.5-mm jack plug (Line In)
	USB 2.0:	2 × USB-A socket
	› Variant -ARU	
	USB 2.0:	4 × USB-A socket
› Variant -ARU2		
RS232:	1 × RS232 plug	
<b>Interfaces for local console</b>	Monitor:	› see specific features
	PS/2 keyboard:	1 × PS/2 socket
	USB keyboard/mouse:	2 × USB-A socket
<b>Other interfaces</b>	Connection to network:	1 × RJ 45 socket (10/100 MBit/s)
	Service:	1 × Mini-USB socket (type B)
<b>Audio</b> › DisplayPort Digital	Transmission type:	2 channel LPCM, stereo
	Resolutions:	16/20/24 bit
	Sampling rates:	up to 48 kHz
<b>Audio</b>	Transmission type:	transparent, bidirectional
	Resolution:	24 bit digital, Stereo
	Sampling rate:	96 kHz
	Bandwidth:	22 kHz

<b>DP1.2-VISION-FIBER SERIES</b>		
<b>Graphics</b>	Format:	DisplayPort (DP 1.2a)
	Colour depth:	24 Bit
	Pixel encoding:	RGB 4:4:4 with24bpp/8bpc
	Videobandwidth:	max. 600 MP/s, DisplayPort 4 Lanes, LBR, HBR, HBR2, SingleStreamTransport (SST)
	Max. resolution per video channel:	<ul style="list-style-type: none"> <li>▪ 2560 × 1600 @ 60Hz</li> <li>▪ 4096 × 2160 @ 60Hz (4Kp60Hz)</li> </ul>
	Exemplary resolutions:	per video channel: <ul style="list-style-type: none"> <li>▪ 1920 × 1200 @ 60Hz</li> <li>▪ 2048 × 2048 @ 60Hz (2K × 2K)</li> <li>▪ 2560 × 1600 @ 60Hz</li> <li>▪ 3840 × 2160 @ 60Hz (Ultra HD/60Hz)</li> <li>▪ 4096 × 2160 @ 60Hz (4Kp60Hz)</li> </ul> ▶ further standardised resolutions possible
	Vertical frequency:	24 Hz to 200 Hz
	Horizontal frequency:	25 kHz to 185 kHz
<b>RS232</b>	Transmission type:	transparent
	Transmission rate:	max. 115.200 bit/s
	Supported signals:	RxD, TxD, RTS, CTS, DTR, DSR, DCD
<b>USB 2.0 full speed</b> ▶ -ARU variant	Specification:	USB 2.0
	Transmission type:	transparent
	Supported devices:	high power devices (up to 500 mA)
	Range:	max. 10.000 meters
<b>USB 2.0 high speed</b> ▶ -ARU2 variant	Specification:	USB 2.0
	Transmission type:	transparent
	Transmission rate:	max. 480 Mbit/s
	Supported devices:	high power devices (up to 500 mA)
	Range:	max. 10.000 meters
<b>Main power supply</b>	Type:	internal power pack
	Connector:	IEC plug (IEC-320 C14)
	Voltage:	AC100-240V/60-50Hz
<b>Redundant power supply</b>	Type:	external power pack
	Connector:	miniDIN-4 Power socket
	Voltage:	+12VDC

## Specific features of single-channel devices

<b>DP1.2-VISION-FIBER-CPU</b>		
<b>Interfaces for local console</b>	Monitor:	1 × DisplayPort jack
<b>Interfaces for computer</b>	Video:	1 × DisplayPort jack
<b>Interfaces to user module</b>	KVM, Audio and RS232: ‣ When using the -ARU variant the signals of USB 2.0 devices are transmitted via this cable.	1 × LC duplex socket
	USB 2.0 ‣ -ARU2 variant	1 × LC duplex socket
	Transmission 2: ‣ -UC variant	1 × LC duplex socket
<b>Casing</b>	Material:	anodised aluminium
	Dimensions (W × H × D):	210 × 44 × 210 mm (Desktop) 19" × 1 U × 210 mm (Rackmount)
	Weight:	approx. 1.4 kg
<b>Operating environment</b>	Temperature:	+5 to +45 °C
	Air humidity:	< 80 %, non-condensing
<b>DP1.2-VISION-FIBER-CON</b>		
<b>Interfaces for remote console</b>	Monitor:	1 × DisplayPort jack
<b>Interface to computer module</b>	KVM, Audio and RS232: ‣ When using the -ARU variant the signals of USB 2.0 devices are additionally transmitted via this cable.	1 × LC duplex socket
	USB 2.0 ‣ -ARU2 variant	1 × LC duplex socket
	Transmission 2: ‣ -CON-2 variant	1 × LC duplex socket
<b>Casing</b>	Material:	anodised aluminium
	Dimensions (W × H × D):	210 × 44 × 210 mm (Desktop) 19" × 1 U × 210 mm (Rackmount)
	Weight:	approx. 1.5 kg
<b>Operating environment</b>	Temperature:	+5 to +45 °C
	Air humidity:	< 80 %, non-condensing

## Specific features of multi-channel devices

<b>DP1.2-VISION-FIBER-MC2-CPU</b>		
<b>Interfaces for local console</b>	Monitor:	2 × DisplayPort jack
<b>Interfaces for computer</b>	Video:	2 × DisplayPort jack
<b>Interfaces to user module</b>	KVM, Audio and RS232: ‣ When using the -ARU variant the signals of USB 2.0 devices are transmitted via this cable.	2 × LC duplex socket
	USB 2.0 ‣ -ARU2 variant	1 × LC duplex socket
<b>Casing</b>	Material:	anodised aluminium
	Dimensions (W × H × D):	270 × 44 × 210 mm
	Weight:	approx. 1.8 kg
<b>Operating environment</b>	Temperature:	+5 to +45 °C
	Air humidity:	< 80 %, non-condensing
<b>DP1.2-VISION-FIBER-MC2-CON</b>		
<b>Interfaces for remote console</b>	Monitor:	2 × DisplayPort jack
<b>Interface to computer module</b>	KVM, Audio and RS232: ‣ When using the -ARU variant the signals of USB 2.0 devices are additionally transmitted via this cable.	2 × LC duplex socket
	USB 2.0 ‣ -ARU2 variant	1 × LC duplex socket
<b>Casing</b>	Material:	anodised aluminium
	Dimensions (W × H × D):	270 × 44 × 210 mm
	Weight:	approx. 1.8 kg
<b>Operating environment</b>	Temperature:	+5 to +45 °C
	Air humidity:	< 80 %, non-condensing

**DP1.2-VISION-FIBER-MC4-CPU**

<b>Interfaces for local console</b>	Monitor:	4 × DisplayPort jack
<b>Interfaces to computer</b>	Video:	4 × DisplayPort jack
<b>Interfaces to user module</b>	KVM, Audio and RS232: ‣ When using the -ARU variant the signals of USB 2.0 devices are transmitted via this cable.	4 × LC duplex socket
	USB 2.0 ‣ -ARU2 variant	1 × LC duplex socket
<b>Casing</b>	Material:	anodised aluminium
	Dimensions (W × H × D):	435 × 44 × 210 mm
	Weight:	approx. 2.6 kg
<b>Operating environment</b>	Temperature:	+5 to +45 °C
	Air humidity:	< 80 %, non-condensing

**DP1.2-VISION-FIBER-MC4-CON**

<b>Interfaces for remote console</b>	Monitor:	4 × DisplayPort jack
<b>Interface to computer module</b>	KVM, Audio and RS232: ‣ When using the -ARU variant the signals of USB 2.0 devices are additionally transmitted via this cable.	4 × LC duplex socket
	USB 2.0 ‣ -ARU2 variant	1 × LC duplex socket
<b>Casing</b>	Materialien:	anodised aluminium
	Dimensions (W × H × D):	435 × 44 × 210 mm
	Weight:	approx. 2.6 kg
<b>Operating environment</b>	Temperature:	‣ -AR variant +5 to +45 °C
		‣ -ARU and -ARU2 variant +5 to +40 °C
	Air humidity:	< 80 %, non-condensing

English

## Current consumption

<b>Device variant</b>	<b>Main power supply</b>	<b>Redundant power supply</b>
<b>AR-CPU</b>	100-240V/60-50Hz/0.5-0.3A	12VDC/2.0A
<b>AR-CPU-UC</b>	100-240V/60-50Hz/0.6-0.3A	12VDC/2.1A
<b>AR-CON</b>	100-240V/60-50Hz/0.6-0.3A	12VDC/2.2A
<b>AR-CON-2</b>	100-240V/60-50Hz/0.6-0.3A	12VDC/2.3A
<b>ARU-CPU</b>	100-240V/60-50Hz/0.5-0.3A	12VDC/2.0A
<b>ARU-CPU-UC</b>	100-240V/60-50Hz/0.6-0.3A	12VDC/2.1A
<b>ARU-CON</b>	100-240V/60-50Hz/0.8-0.4A	12VDC/3.2A
<b>ARU-CON-2</b>	100-240V/60-50Hz/0.8-0.5A	12VDC/3.3A
<b>ARU2-CPU</b>	100-240V/60-50Hz/0.5-0.3A	12VDC/2.0A
<b>ARU2-CON</b>	100-240V/60-50Hz/0.8-0.5A	12VDC/3.3A
<b>MC2-AR-CPU</b>	100-240V/60-50Hz/0.6-0.3A	12VDC/3.2A
<b>MC2-AR-CON</b>	100-240V/60-50Hz/0.7-0.2A	12VDC/4.2A
<b>MC2-ARU-CPU</b>	100-240V/60-50Hz/0.6-0.3A	12VDC/3.2A
<b>MC2-ARU-CON</b>	100-240V/60-50Hz/0.8-0.4A	12VDC/4.2A
<b>MC2-ARU2-CPU</b>	100-240V/60-50Hz/0.6-0.3A	12VDC/3.3A
<b>MC2-ARU2-CON</b>	100-240V/60-50Hz/0.8-0.4A	12VDC/4.4A
<b>MC4-AR-CPU</b>	100-240V/60-50Hz/0.8-0.4A	12VDC/5.7A
<b>MC4-AR-CON</b>	100-240V/60-50Hz/0.8-0.4A	12VDC/5.7A
<b>MC4-ARU-CPU</b>	100-240V/60-50Hz/0.8-0.4A	12VDC/5.7A
<b>MC4-ARU-CON</b>	100-240V/60-50Hz/1.0-0.5A	12VDC/6.7A
<b>MC4-ARU2-CPU</b>	100-240V/60-50Hz/0.8-0.4A	12VDC/5.8A
<b>MC4-ARU2-CON</b>	100-240V/60-50Hz/1.0-0.5A	12VDC/6.9A

## Features of transmission modules

MULTIMODE TRANSMISSION MODULE		
<b>Data transmission</b>	Type:	Optical fibres (2 fibres)
	Type of interface:	LC duplex
<b>Cable length (max.)</b>	Multimode 62.5/125 $\mu\text{m}$ :	100 meters
	Multimode 50.0/125 $\mu\text{m}$ , Class OM2:	200 meters
	Multimode 50.0/125 $\mu\text{m}$ , Class OM3:	400 meters
<b>Performance data</b>	Wavelength( $\lambda$ ):	850 nm (830 nm bis 860 nm)
	Optical power output ( $P_{\text{OUT}}$ ) in 50 oder 62,5 $\mu\text{m}$ MMF:	-9,0 dBm bis -2,5 dBm
	Receiving sensitivity ( $P_{\text{MIN}}$ ):	-15 dBm (OMA)
	Sensitivity – Stressed ( $P_S$ ):	138 $\mu\text{W}$ (50 $\mu\text{m}$ MMF)
SINGLEMODE (S) TRANSMISSION MODULE		
<b>Data transmission</b>	Type:	Optical fibres (2 fibres)
	Type of interface:	LC duplex
<b>Cable length (max.)</b>	Singlemode 9/125 $\mu\text{m}$ , Class OS1:	5 Kilometer
<b>Performance data</b>	Wavelength( $\lambda$ ):	1310 nm (1260 nm bis 1350 nm)
	Optical power output ( $P_{\text{OUT}}$ ) in 9 $\mu\text{m}$ SMF:	-9,5 dBm bis -3,0 dBm
	Receiving sensitivity ( $P_{\text{MIN}}$ ):	-18 dBm (OMA)
SINGLEMODE (S+) TRANSMISSION MODULE		
<b>Data transmission</b>	Type:	Optical fibres (2 fibres)
	Type of interface:	LC duplex
<b>Cable length (max.)</b>	Singlemode 9/125 $\mu\text{m}$ , Class OS1:	10 Kilometer
<b>Performance data</b>	Wavelength( $\lambda$ ):	1310 nm (1260 nm bis 1360 nm)
	Optical power output ( $P_{\text{OUT}}$ ) in 9 $\mu\text{m}$ SMF:	-8,4 dBm bis -1,0 dBm
	Receiving sensitivity ( $P_{\text{MIN}}$ ):	-18 dBm (OMA)