



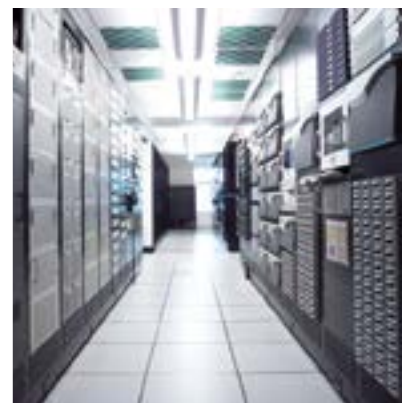
## DP KVM extenders

## DP-Vision

### KVM extenders

Extender systems to bridge IT-distances

Catalogue  
V1.1



**G&D IF IT'S KVM**



The company

Experience the whole world of

KVM

## G&D IF IT'S KVM

Guntermann & Drunck is regarded as a leading manufacturer of KVM equipment used in control rooms in air traffic control, broadcast studios, on ships and to monitor industrial processes.

With a powerful portfolio consisting of KVM extenders, switches and matrix switches, G&D's users get real added value. G&D provides the broadest KVM product portfolio at the market. Even with different features, all G&D products are compatible and can be combined. Our KVM solutions optimise the application of IT equipment and improve the working conditions for humans and computers.

No matter where KVM devices are installed, there's always one main requirement - robust, reliable, user-friendly and easy to operate KVM systems that can be adapted to future requirements and grow with your demands.

By short lines of communication G&D is able to solve challenging requirements and tailor systems to our customers' needs. We keep direct contact to our customers and are personally available. We are proactive and always keep an eye on the trends in the industry. Functionalities required by our customers are quickly implemented into our products. Our success can only be measured with our customers' satisfaction.

Trust in G&D for your optimal KVM solution.

### DP-Vision - transmission of DisplayPort™ signals via CAT or fibre optics

The DP-Vision transmits the following signals:

- DisplayPort™ 1.1
- bidirectional audio and RS232
- PS/2 and USB keyboard/mouse support
- Integrated USB 2.0 (ARU variant)
- Transparent transmission of USB 2.0 (ARU2 variant)
- Generic USB-HID interface

The system consists of a computer module (transmitter) and a user module (receiver) and enables you to operate a computer on a local or remote console.

DP-Vision uses CAT-x cables or fibre optics to transmit signals up to 10,000 m. The devices use DisplayPort video and are available as variants displaying 1, 2, 3 or 4 video channels. It is also possible to transmit transparent USB 2.0, RS232 and audio signals.

With its network port, the web interface and monitoring functions, the DP-Vision system offers important features for mission-critical applications.



DP-Vision - back view

DP-Vision - front view

## Highlights

### Video

- Highly developed compression algorithm of the latest generation for best video quality and latency-free transmission - The High-Dynamic-Image-Processing level 3
- DisplayPort 1.1a signals
- Resolutions per channel up to 2560 × 1600 @ 60 Hz (more VESA and CEA standardized resolutions within the video bandwidth and the horizontal / vertical frequency are possible, e.g. 1600 × 1200 @ 60 Hz)
- 24 Hz to 120 Hz vertical frequency
- 24 bit colour mode
- Transparent forwarding of E-DDC information
- Single- and multi-channel variants

### Signals

- Transmission of bidirectional audio and RS232
- Embedded audio on DisplayPort up to stereo PCM
- PS/2 and USB keyboard/mouse support
- Integrated USB 2.0 transmission with Full Speed (ARU variant)
- Transparent transmission of USB 2.0 with Hi-Speed 480 MBit/s (ARU2 variant)
- Generic USB-HID interface for connecting any HID device, e.g. touchscreens or tablets

### Operation

- At both modules console with all video channels
- via Web-Interface or OSD
- Competing or exclusive operation via local or remote workplace

### Transmission

- Distances up to 140 meters at maximum resolution over CAT-x cable (x = 5e, 6, 7; depending on cable)
- Distances up to 400 metres at maximum resolution with multimode fiber optics
- Distances up to 5,000 (S) or 10,000 m (S+) metres at maximum resolution with singlemode fiber optics

### Device

- Supports PS/2 and USB keyboard/mouse; allows mixed operation
- Permanent keyboard/mouse emulation
- Redundant, external power supply (optional)
- Ident LED helps finding the device in complex installations
- Shipped as desktop variant (Twin devices and sets for rack- or tablemounting are separately available)

### System update

- Over the config panel

## Features

### Screen-Freeze Function

If the console module loses the video signal due to a broken connection or a problem with the computer's graphics card, the Screen-Freeze function „freezes“ the last displayed image of the monitor. This state is highlighted by a red semi-transparent frame. The function is automatically cancelled when the display receives an active video signal.

### Monitoring

With the Monitoring function, you can auto-output device status messages to Syslog servers or SNMP. The web interface lets you monitor the device manually.

The Monitoring function of the DP-Vision queries the following values:

- Proactive monitoring of device states
- Event reporting function (Syslog or SNMP traps)
- Status power supply unit (on/off)
- Status temperature threshold device (in/over limit)
- Status connection cables (ok/nok)
- Status computer (on/off)
- Status image signal graphics card computer (available/not available)
- Status network
- Fan monitoring
- Status SFP modules (in -Fiber variants)
- Status interfaces (CPU and CON modules)
- Freeze status (all channels)
- Type of display (local and remote)

## Variants

### Transmission medium

- **DP-Vision-CAT variants:** transmission via CAT-x cables
- **DP-Vision-Fiber variants:** transmission via multimode or singlemode fiber optics

### Video channels

- Single-channel
- Multi-channel 2, 3 or 4

### USB transmission

- **„U“ variants:** integrated USB 2.0 transmission without an additional transmission cable. This variant offers transfer speed up to 16 Mbit/s.
- **„U2“ variants:** USB 2.0 transmission with an additional cable. This solution reaches the HiSpeed transfer rate of 480 Mbit/s.

## Expansion

### Embedding extenders in digital matrix systems

To be prepared for growing installations, the integrated matrix support turns the DP1.2-Vision into a future-proof investment.

This way, it is possible to include extenders at a later point into one of the digital G&D matrix systems within an existing installation. Thus, users benefit from more flexibility through distributed access - and any existing components can still be used as before.



## Installation

Link the computer to the back of the DP-Vision transmitter. Distinctive cables connect the computer's keyboard, video, mouse, audio, RS232, and USB interfaces to the DP-Vision computer module.

Installing the user console is just as easy: simply connect the operating hardware with the corresponding interfaces of the DP-Vision receiver.

Use the existing cabling structure to link transmitter and receiver.

## DP-Vision-CAT



DP-Vision-CAT-ARU computer module



DP-Vision-CAT-ARU computer module

### General features of the series DP-Vision-CAT

Technical data	
<b>Interfaces for computers</b>	
Video	--> see specific features
PS/2 keyboard/mouse:	2 × 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.
USB 2.0 variant -ARU2	1 × USB-B socket
RS232	1 × RS232 socket
<b>Interfaces for remote console</b>	
Monitor:	--> see specific features
PS/2 keyboard/mouse:	2 × 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 (Micro In)
USB 2.0 variant -ARU	2 × USB-A socket
USB 2.0 variant -ARU2	2 × USB-A socket (front panel) 2 × USB-A socket (back panel)
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
Service:	1 × Mini-USB socket (type B)
<b>Audio (DisplayPort™ digital)</b>	
Transmission type:	2-channel LPCM, stereo
Resolution:	16/20/24 bit
Sampling rate:	Up to 48 kHz

## General features of the series DP-Vision-CAT

Technical data	
<b>Audio</b>	
Transmission type:	transparent, bidirectional
Resolution:	24 bit digital, Stereo
Sampling rate:	96 kHz
Bandwidth:	22 kHz
<b>RS232</b>	
Transmission type:	transparent
Transmission rate:	max. 115.200 bit/s
Supported signals:	RxD, TxD, RTS, CTS, DTR, DSR, DCD
<b>Graphics</b>	
Format:	DisplayPort (DP 1.1a)
Colour depth:	24 Bit
Video bandwidth:	25 to 300 MP / s, DisplayPort 4 Lanes, HBR 2.7 Gbps
Max. resolution:	2560 × 1600 (60 Hz) 4096 × 2160 (30 Hz)
Exemplary resolutions:	4096 × 2160 (24 od 25 Hz) 3840 × 2160 (24, 25 od 30 Hz) 2048 × 2160 (60 Hz) 2048 × 2048 (60 Hz) Further VESA and CEA standardised resolution possible for video bandwidth/ pixel rate and horizontal/vertical frequency.
Vertical frequency:	24 Hz to 120 Hz
Horizontal frequency:	25 kHz to 185 kHz
<b>USB 2.0 Full Speed (-ARU variant)</b>	
Specification:	USB 2.0
Transmission type:	transparent
Supported devices:	high power devices (up to 500 mA)
Range:	max. 140 meters
<b>USB 2.0 high speed (-ARU2 variant)</b>	
Specification:	USB 2.0
Transmission type:	transparent
Transmission rate:	max. 480 Mbit/s
Supported devices:	high power devices (up to 500 mA)
Range:	max. 100 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

## DP-Vision-CAT



DP-Vision-CAT-ARU user module



DP-Vision-CAT-ARU user module

### Specific features of single-channel devices

	DP-VISION-CAT-CPU	DP-VISION-CAT-CON
<b>Interfaces for local console</b>		
Monitor:	1 × DisplayPort jack	-
<b>Interfaces for remote console</b>		
Monitor:	-	1 × DisplayPort jack
<b>Interfaces for computer</b>		
Video:	1 × DisplayPort jack	-
<b>Interfaces to console module</b>		
KVM, Audio and RS232 (When using the -ARU variant the signals of USB 2.0 devices are transmitted via this cable.)	1 × RJ 45 socket	-
USB 2.0 (-ARU2 variant)	1 × RJ45-Buchse	-
<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 × RJ 45 socket
USB 2.0 (-ARU2 variant)	-	1 × RJ 45 socket
<b>Casing</b>		
Material:	anodised aluminium	
Dimensions (W × H × D): -AR and -ARU variants	210 × 44 × 210 mm (Desktop) 19" × 1 HE × 210 mm (Rackmount)	-
Dimensions (W × H × D): -ARU2 variant	270 × 44 × 210 mm (Desktop) 19" × 1 HE × 210 mm (Rackmount)	-
Dimensionen (W × H × D):	-	210 × 44 × 210 mm (Desktop) 19" × 1 HE × 210 mm (Rackmount)
<b>Operating environment</b>		
Temperature:	+5 to +45 °C	
Air humidity:	< 80 %, non-condensing	



## DP-Vision-CAT-MC2



DP-Vision-CAT-MC2-ARU computer module



DP-Vision-CAT-MC2-ARU computer module

### Specific features of multi-channel devices

	DP-VISION-CAT-MC2-CPU	DP-VISION-CAT-MC2-CON
<b>Interfaces for local console</b>		
Monitor:	2 × DisplayPort jack	-
<b>Interfaces for remote 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 × RJ 45 socket	-
USB 2.0 (-ARU2 variant)	1 × RJ 45 socket	-
<b>Interfaces 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 × RJ 45 socket
USB 2.0 (-ARU2 variant)	-	1 × RJ 45 socket
<b>Casing</b>		
Material:	anodised aluminium	
Dimensions (W × H × D):	270 × 44 × 210 mm	
<b>Operating environment</b>		
Temperature:	+5 to +45 °C	
Air humidity:	< 80 %, non-condensing	

## DP-Vision-CAT-MC4



DP-Vision-CAT-MC4-AR computer module



DP-Vision-CAT-MC4-AR computer module

### Specific features of multi-channel devices

	DP-VISION-CAT-MC4-CPU	DP-VISION-CAT-MC4-CON
<b>Interfaces for local console</b>		
Monitor:	4 × DisplayPort jack	-
<b>Interfaces for remote console</b>		
Monitor:	-	4 × DisplayPort jack
<b>Interfaces for computer</b>		
Video:	4 × DisplayPort jack	-
<b>Interfaces to user module</b>		
KVM, Audio und RS232 (When using the -ARU variant the signals of USB 2.0 devices are transmitted via this cable.)	4 × RJ 45 socket	-
USB 2.0 (Variante -ARU2)	1 × RJ 45 socket	-
<b>Interfaces to computer module</b>		
KVM, Audio und RS232 (When using the -ARU variant the signals of USB 2.0 devices are additionally transmitted via this cable)	-	4 × RJ 45 socket
USB 2.0 (-ARU2 variant)	-	1 × RJ 45 socket
<b>Casing</b>		
Material:	anodised aluminium	
Dimensions (W × H × D):	435 × 44 × 210 mm	
<b>Operating environment</b>		
Temperature:	+5 to +45 °C	
Air humidity:	< 80 %, non-condensing	

## Current consumption

Device variant	Main power supply	Redundant power supply
AR-CPU	100-240V, 60-50Hz, 0.3-0.2A	12VDC/1.1A
AR-CON	100-240V, 60-50Hz, 0.3-0.2A	12VDC/1.3A
ARU-CPU	100-240V, 60-50Hz, 0.3-0.2A	12VDC/1.1A
ARU-CON	100-240V, 60-50Hz, 0.5-0.3A	12VDC/2.2A
ARU2-CPU	100-240V, 60-50Hz, 0.3-0.2A	12VDC/1.2A
ARU2-CON	100-240V, 60-50Hz, 0.5-0.3A	12VDC/2.3A
MC2-AR-CPU	100-240V, 60-50Hz, 0.4-0.2A	12VDC/1.7A
MC2-AR-CON	100-240V, 60-50Hz, 0.4-0.2A	12VDC/1.8A
MC2-ARU-CPU	100-240V, 60-50Hz, 0.4-0.2A	12VDC/1.7A
MC2-ARU-CON	100-240V, 60-50Hz, 0.6-0.3A	12VDC/2.8A
MC2-ARU2-CPU	100-240V, 60-50Hz, 0.4-0.2A	12VDC/1.8A
MC2-ARU2-CON	100-240V, 60-50Hz, 0.6-0.3A	12VDC/2.9A
MC4-AR-CPU	100-240V, 60-50Hz, 0.5-0.3A	12VDC/3.0A
MC4-AR-CON	100-240V, 60-50Hz, 0.6-0.3A	12VDC/3.0A
MC4-ARU-CPU	100-240V, 60-50Hz, 0.5-0.3A	12VDC/3.1A
MC4-ARU-CON	100-240V, 60-50Hz, 0.6-0.3A	12VDC/4.0A
MC4-ARU2-CPU	100-240V, 60-50Hz, 0.6-0.3A	12VDC/3.1A
MC4-ARU2-CON	100-240V, 60-50Hz, 0.6-0.4A	12VDC/4.1A

## DP-Vision-Fiber



DP-Vision-Fiber-AR computer module



DP-Vision-Fiber-AR computer module

### General features of the series DP-Vision-Fiber

Technical data	
<b>Interfaces for computers</b>	
Video	--> see specific features
PS/2 keyboard/mouse:	2 × 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.
USB 2.0 variant -ARU2	1 × USB-B socket
RS232	1 × RS232 socket
<b>Interfaces for remote console</b>	
Monitor:	--> see specific features
PS/2 keyboard/mouse:	2 × 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 (Micro In)
USB 2.0 variant -ARU	2 × USB-A socket
USB 2.0 variant -ARU2	2 × USB-A socket (front panel) 2 × USB-A socket (back panel)
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
Service:	1 × Mini-USB socket (type B)
<b>Audio (DisplayPort™ digital)</b>	
Transmission type:	2-channel LPCM, stereo
Resolution:	16/20/24 bit
Sampling rate:	Up to 48 kHz

## General features of the series DP-Vision-Fiber

Technical data	
<b>Audio</b>	
Transmission type:	transparent, bidirectional
Resolution:	24 bit digital, Stereo
Sampling rate:	96 kHz
Bandwidth:	22 kHz
<b>RS232</b>	
Transmission type:	transparent
Transmission rate:	max. 115.200 bit/s
Supported signals:	RxD, TxD, RTS, CTS, DTR, DSR, DCD
<b>Graphics</b>	
Format:	DisplayPort (DP 1.1a)
Colour depth:	24 Bit
Video bandwidth:	25 to 300 MP / s, DisplayPort 4 Lanes, HBR 2.7 Gbps
Max. resolution:	2560 × 1600 (60 Hz) 4096 × 2160 (30 Hz)
Exemplary resolutions:	4096 × 2160 (24 od 25 Hz) 3840 × 2160 (24, 25 od 30 Hz) 2048 × 2160 (60 Hz) 2048 × 2048 (60 Hz) Further VESA and CEA standardised resolution possible for video bandwidth/ pixel rate and horizontal/vertical frequency.
Vertical frequency:	24 Hz to 120 Hz
Horizontal frequency:	25 kHz to 185 kHz
<b>USB 2.0 Full Speed (-ARU variant)</b>	
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 (-ARU2 variant)</b>	
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

## DP-Vision-Fiber



DP-Vision-Fiber-AR user module



DP-Vision-Fiber-AR user module

### Specific features of single-channel devices

	DP-VISION-FIBER-CPU	DP-VISION-FIBER-CON
<b>Interfaces for local console</b>		
Monitor:	1 × DisplayPort jack	-
<b>Interfaces for remote 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	-
<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
<b>Casing</b>		
Material:	anodised aluminium	
Dimensions (W × H × D): -AR and -ARU variants	210 × 44 × 210 mm (Desktop) 19" × 1 HE × 210 mm (Rackmount)	-
Dimensions (W × H × D): -ARU2 variant	270 × 44 × 210 mm (Desktop) 19" × 1 HE × 210 mm (Rackmount)	-
Dimensionen (W × H × D):	-	210 × 44 × 210 mm (Desktop) 19" × 1 HE × 210 mm (Rackmount)
<b>Operating environment</b>		
Temperature:	+5 to +45 °C	
Air humidity:	< 80 %, non-condensing	

## DP-Vision-Fiber-MC2



DP-Vision-Fiber-MC2-AR user module



DP-Vision-Fiber-MC2-AR user module

### Specific features of multi-channel devices

	DP-VISION-Fiber-MC2-CPU	DP-VISION-Fiber-MC2-CON
<b>Interfaces for local console</b>		
Monitor:	2 × DisplayPort jack	-
<b>Interfaces for remote 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>Interfaces 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	
<b>Operating environment</b>		
Temperature:	+5 to +45 °C	
Air humidity:	< 80 %, non-condensing	

## DP-Vision-Fiber-MC4



DP-Vision-Fiber-MC4-AR user module



DP-Vision-Fiber-MC4-AR user module

### Specific features of multi-channel devices

	DP-VISION-Fiber-MC4-CPU	DP-VISION-Fiber-MC4-CON
<b>Interfaces for local console</b>		
Monitor:	4 × DisplayPort jack	-
<b>Interfaces for remote console</b>		
Monitor:	-	4 × DisplayPort jack
<b>Interfaces for computer</b>		
Video:	4 × DisplayPort jack	-
<b>Interfaces to user module</b>		
KVM, Audio und 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 (Variante -ARU2)	1 × LC duplex socket	-
<b>Interfaces to computer module</b>		
KVM, Audio und 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>		
Material:	anodised aluminium	
Dimensions (W × H × D):	435 × 44 × 210 mm	
<b>Operating environment</b>		
Temperature:	+5 to +45 °C	
Air humidity:	< 80 %, non-condensing	



## Current consumption

Device variant	Main power supply	Redundant power supply
AR-CPU	100-240V, 60-50Hz, 0.3-0.2A	12VDC/1.1A
AR-CON	100-240V, 60-50Hz, 0.3-0.2A	12VDC/1.3A
ARU-CPU	100-240V, 60-50Hz, 0.3-0.2A	12VDC/1.1A
ARU-CON	100-240V, 60-50Hz, 0.5-0.3A	12VDC/2.2A
ARU2-CPU	100-240V, 60-50Hz, 0.3-0.2A	12VDC/1.3A
ARU2-CON	100-240V, 60-50Hz, 0.5-0.3A	12VDC/2.4A
MC2-AR-CPU	100-240V, 60-50Hz, 0.4-0.2A	12VDC/1.8A
MC2-AR-CON	100-240V, 60-50Hz, 0.4-0.2A	12VDC/1.9A
MC2-ARU-CPU	100-240V, 60-50Hz, 0.4-0.2A	12VDC/1.8A
MC2-ARU-CON	100-240V, 60-50Hz, 0.6-0.3A	12VDC/2.9A
MC2-ARU2-CPU	100-240V, 60-50Hz, 0.4-0.2A	12VDC/1.9A
MC2-ARU2-CON	100-240V, 60-50Hz, 0.7-0.3A	12VDC/3.0A
MC4-AR-CPU	100-240V, 60-50Hz, 0.6-0.3A	12VDC/3.1A
MC4-AR-CON	100-240V, 60-50Hz, 0.6-0.3A	12VDC/3.2A
MC4-ARU-CPU	100-240V, 60-50Hz, 0.6-0.3A	12VDC/3.1A
MC4-ARU-CON	100-240V, 60-50Hz, 0.6-0.3A	12VDC/4.1A
MC4-ARU2-CPU	100-240V, 60-50Hz, 0.6-0.3A	12VDC/3.3A
MC4-ARU2-CON	100-240V, 60-50Hz, 0.6-0.4A	12VDC/4.3A

## DP-Vision-Fiber

### 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 µm:	100 meters
Multimode 50.0/125 µm, Class OM2:	200 meters
Multimode 50.0/125 µm, Class OM3:	400 meters
<b>Performance data</b>	
Wavelength (λ):	850 nm (830 nm to 860 nm)
Optical power output (P <sub>OUT</sub> ) in 50 od 62,5 µm MMF:	-9,0 dBm to -2,5 dBm
Receiving sensitivity (P <sub>MIN</sub> ):	-15 dBm (OMA)
Sensitivity – Stressed (P <sub>Sj</sub> ):	138µW (50 µm 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 9/125µm, Class OS1:	5 Kilometer
<b>Performance data</b>	
Wavelength (λ):	1310 nm (1260 nm to 1350 nm)
Optical power output (P <sub>OUT</sub> ) in 9 µm MMF:	-9,5 dBm to -3,0 dBm
Receiving sensitivity (P <sub>MIN</sub> ):	-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 9/125µm, Class OS1:	10 Kilometer
<b>Performance data</b>	
Wavelength (λ):	1310 nm (1260 nm to 1360 nm)
Optical power output (P <sub>OUT</sub> ) in 9 µm MMF:	-8,4 dBm to -1,0 dBm
Receiving sensitivity (P <sub>MIN</sub> ):	-18 dBm (OMA)

## List of item numbers CAT single-channel

Item No.	Description	USB 2.0	Design
A1120195	DP-Vision-CAT-AR-CON		Desktop
A1110166	DP-Vision-CAT-AR-CPU		Desktop
A1120187	DP-Vision-CAT-ARU2-CON	USB 2.0	Desktop
A1110158	DP-Vision-CAT-ARU2-CPU	USB 2.0	Desktop
A1120188	DP-Vision-CAT-ARU-CON	USB 2.0	Desktop
A1110159	DP-Vision-CAT-ARU-CPU	USB 2.0	Desktop

## List of item numbers CAT multi-channel

Item No.	Description	USB 2.0	Design
A1220200	DP-Vision-CAT-MC2-AR-CON		Desktop
A1210169	DP-Vision-CAT-MC2-AR-CPU		Desktop
A1220202	DP-Vision-CAT-MC2-ARU-CON	USB 2.0	Desktop
A1210171	DP-Vision-CAT-MC2-ARU-CPU	USB 2.0	Desktop
A1220201	DP-Vision-CAT-MC2-ARU2-CON	USB 2.0	Desktop
A1210170	DP-Vision-CAT-MC2-ARU2-CPU	USB 2.0	Desktop
A1320035	DP-Vision-CAT-MC3-AR-CON		Desktop
A1310044	DP-Vision-CAT-MC3-AR-CPU		Desktop
A1320036	DP-Vision-CAT-MC3-ARU-CON	USB 2.0	Desktop
A1310045	DP-Vision-CAT-MC3-ARU-CPU	USB 2.0	Desktop
A1320037	DP-Vision-CAT-MC3-ARU2-CON	USB 2.0	Desktop
A1310046	DP-Vision-CAT-MC3-ARU2-CPU	USB 2.0	Desktop
A1420203	DP-Vision-CAT-MC4-AR-CON		Desktop/Rackmount-Kit
A1410172	DP-Vision-CAT-MC4-AR-CPU		Desktop/Rackmount-Kit
A1420199	DP-Vision-CAT-MC4-ARU-CON	USB 2.0	Desktop/Rackmount-Kit
A1410168	DP-Vision-CAT-MC4-ARU-CPU	USB 2.0	Desktop/Rackmount-Kit
A1420198	DP-Vision-CAT-MC4-ARU2-CON	USB 2.0	Desktop/Rackmount-Kit
A1410167	DP-Vision-CAT-MC4-ARU2-CPU	USB 2.0	Desktop/Rackmount-Kit

## List of item numbers Fiber single-channel

Item No.	Description	USB 2.0	Design
A1120189	DP-Vision-Fiber(M)-AR-CON		Desktop
A1110160	DP-Vision-Fiber(M)-AR-CPU		Desktop
A1120191	DP-Vision-Fiber(M)-ARU-CON	USB 2.0	Desktop
A1110162	DP-Vision-Fiber(M)-ARU-CPU	USB 2.0	Desktop
A1120190	DP-Vision-Fiber(M)-ARU2-CON	USB 2.0	Desktop
A1110161	DP-Vision-Fiber(M)-ARU2-CPU	USB 2.0	Desktop
A1120192	DP-Vision-Fiber(S)-AR-CON		Desktop
A1110163	DP-Vision-Fiber(S)-AR-CPU		Desktop
A1120194	DP-Vision-Fiber(S)-ARU-CON	USB 2.0	Desktop
A1110165	DP-Vision-Fiber(S)-ARU-CPU	USB 2.0	Desktop
A1120193	DP-Vision-Fiber(S)-ARU2-CON	USB 2.0	Desktop
A1110164	DP-Vision-Fiber(S)-ARU2-CPU	USB 2.0	Desktop
A1110190	DP-Vision-Fiber(S+)-AR-CPU		Desktop
A1120282	DP-Vision-Fiber(S+)-AR-CON		Desktop
A1120284	DP-Vision-Fiber(S+)-ARU-CON	USB 2.0	Desktop
A1110192	DP-Vision-Fiber(S+)-ARU-CPU	USB 2.0	Desktop
A1120283	DP-Vision-Fiber(S+)-ARU2-CON	USB 2.0	Desktop
A1110191	DP-Vision-Fiber(S+)-ARU2-CPU	USB 2.0	Desktop

## List of item numbers Fiber multi-channel multimode

Item No.	Description	USB 2.0	Design
A1220229	DP-Vision-F(M)-MC2-AR-CON		Desktop
A1210195	DP-Vision-F(M)-MC2-AR-CPU		Desktop
A1220231	DP-Vision-F(M)-MC2-ARU-CON	USB 2.0	Desktop
A1210197	DP-Vision-F(M)-MC2-ARU-CPU	USB 2.0	Desktop
A1220230	DP-Vision-F(M)-MC2-ARU2-CON	USB 2.0	Desktop
A1210196	DP-Vision-F(M)-MC2-ARU2-CPU	USB 2.0	Desktop
A1320038	DP-Vision-F(M)-MC3-AR-CON		Desktop
A1310047	DP-Vision-F(M)-MC3-AR-CPU		Desktop
A1320039	DP-Vision-F(M)-MC3-ARU-CON	USB 2.0	Desktop
A1310048	DP-Vision-F(M)-MC3-ARU-CPU	USB 2.0	Desktop
A1320040	DP-Vision-F(M)-MC3-ARU2-CON	USB 2.0	Desktop
A1310049	DP-Vision-F(M)-MC3-ARU2-CPU	USB 2.0	Desktop
A1420242	DP-Vision-F(M)-MC4-AR-CON		Desktop/Rackmount-Kit
A1410198	DP-Vision-F(M)-MC4-AR-CPU		Desktop/Rackmount-Kit
A1420232	DP-Vision-F(M)-MC4-ARU-CON	USB 2.0	Desktop/Rackmount-Kit
A1410189	DP-Vision-F(M)-MC4-ARU-CPU	USB 2.0	Desktop/Rackmount-Kit
A1420243	DP-Vision-F(M)-MC4-ARU2-CON	USB 2.0	Desktop/Rackmount-Kit
A1410188	DP-Vision-F(M)-MC4-ARU2-CPU	USB 2.0	Desktop/Rackmount-Kit

## List of item numbers Fiber multi-channel singlemode

Item No.	Description	USB 2.0	Design
A1220233	DP-Vision-F(S)-MC2-AR-CON		Desktop
A1210198	DP-Vision-F(S)-MC2-AR-CPU		Desktop
A1220235	DP-Vision-F(S)-MC2-ARU-CON	USB 2.0	Desktop
A1210191	DP-Vision-F(S)-MC2-ARU-CPU	USB 2.0	Desktop
A1220234	DP-Vision-F(S)-MC2-ARU2-CON	USB 2.0	Desktop
A1210199	DP-Vision-F(S)-MC2-ARU2-CPU	USB 2.0	Desktop
A1320041	DP-Vision-F(S)-MC3-AR-CON		Desktop
A1310050	DP-Vision-F(S)-MC3-AR-CPU		Desktop
A1320042	DP-Vision-F(S)-MC3-ARU-CON	USB 2.0	Desktop
A1310051	DP-Vision-F(S)-MC3-ARU-CPU	USB 2.0	Desktop
A1320043	DP-Vision-F(S)-MC3-ARU2-CON	USB 2.0	Desktop
A1310052	DP-Vision-F(S)-MC3-ARU2-CPU	USB 2.0	Desktop
A1420236	DP-Vision-F(S)-MC4-AR-CON		Desktop/Rackmount-Kit
A1410192	DP-Vision-F(S)-MC4-AR-CPU		Desktop/Rackmount-Kit
A1420238	DP-Vision-F(S)-MC4-ARU-CON	USB 2.0	Desktop/Rackmount-Kit
A1410194	DP-Vision-F(S)-MC4-ARU-CPU	USB 2.0	Desktop/Rackmount-Kit
A1420237	DP-Vision-F(S)-MC4-ARU2-CON	USB 2.0	Desktop/Rackmount-Kit
A1410193	DP-Vision-F(S)-MC4-ARU2-CPU	USB 2.0	Desktop/Rackmount-Kit

## List of item numbers Fiber multi-channel singlemode +

Item No.	Description	USB 2.0	DT
A1220227	DP-Vision-F(S+)-MC2-AR-CON		Desktop
A1210192	DP-Vision-F(S+)-MC2-AR-CPU		Desktop
A1220232	DP-Vision-F(S+)-MC2-ARU-CON	USB 2.0	Desktop
A1210194	DP-Vision-F(S+)-MC2-ARU-CPU	USB 2.0	Desktop
A1220228	DP-Vision-F(S+)-MC2-ARU2-CON	USB 2.0	Desktop
A1210193	DP-Vision-F(S+)-MC2-ARU2-CPU	USB 2.0	Desktop
A1320044	DP-Vision-F(S+)-MC3-AR-CON		Desktop
A1310053	DP-Vision-F(S+)-MC3-AR-CPU		Desktop
A1320045	DP-Vision-F(S+)-MC3-ARU-CON	USB 2.0	Desktop
A1310054	DP-Vision-F(S+)-MC3-ARU-CPU	USB 2.0	Desktop
A1320046	DP-Vision-F(S+)-MC3-ARU2-CON	USB 2.0	Desktop
A1310055	DP-Vision-F(S+)-MC3-ARU2-CPU	USB 2.0	Desktop
A1420239	DP-Vision-F(S+)-MC4-AR-CON		Desktop/Rackmount-Kit
A1410195	DP-Vision-F(S+)-MC4-AR-CPU		Desktop/Rackmount-Kit
A1420241	DP-Vision-F(S+)-MC4-ARU-CON	USB 2.0	Desktop/Rackmount-Kit
A1410197	DP-Vision-F(S+)-MC4-ARU-CPU	USB 2.0	Desktop/Rackmount-Kit
A1420240	DP-Vision-F(S+)-MC4-ARU2-CON	USB 2.0	Desktop/Rackmount-Kit
A1410196	DP-Vision-F(S+)-MC4-ARU2-CPU	USB 2.0	Desktop/Rackmount-Kit

## Legend

### ABBREVIATIONS

CPU = Computer module	M = Multimode	A = Audio
PC = Computer module	S = Singlemode	R = RS232
CON = User module	S+ = Singlemode+	U = Integr. USB 2.0 up to 16 MBit/s
REM = User module		U2 = Transp. USB 2.0 Hi-Speed 480 Mbit/s
MC2 = Multi-channel 2	RM = For assembly in a 19" rack Desktop device	D = Delay
MC3 = Multi-channel 3	DT = Desktop device	
MC4 = Multi-channel 4	DP = DisplayPort™	

### EQUIPMENT FEATURES

Audio	High Definition Multimedia Interface	Power switching
CAT cable	Keyboard/Mouse	Remote IP
Compact setup	KVM-over-IP™	RS232
CrossDisplay-Switching	Media control	Screen-Freeze
Delay	Mix & Match	Separate local/remote user
DisplayPort™	Modular setup	Single user
DVI dual link video	Monitoring	USB 2.0
DVI single link video	Multi user	USB 3.0
Expansion	Multi-channel video	VGA video
Fiber optics	Network connection	Web Interface

### COLOUR CATEGORY

KVM extenders	Digital KVM matrix systems	Monitoring & SNMP
KVM switches	Digital signage	KVM MultiPower
Analog KVM matrix systems	KVM add-ons	Accessories

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