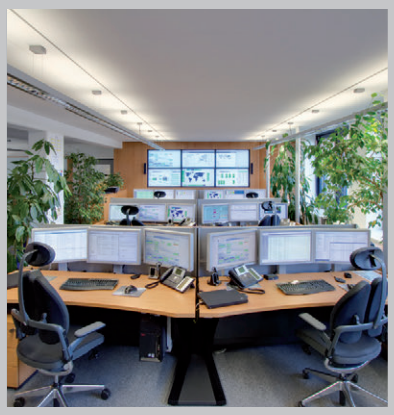
DP-Vision-IP

DP-Vision-IP 1.0

KVM extenders

Extender systems to bridge IT-distances






G&D IF IT'S KVM

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Guntermann & Drunck is regarded as a leading manufacturer of digital and analogue 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-IP - DisplayPort signal transmission over standard IP-based networks, CAT, layer 3

The IP xxtender system **DP-Vision-IP** extends the signals:

- Keyboard/Mouse (USB and PS/2)
- Displayport™ 1.1a
- Audio
- RS232
- USB HID Generic

The DP-Vision-IP-System consists of a computer module (transmitter) and a user module (receiver). DisplayPort image data is processed according to DP1.1a. Thus, the maximum possible image resolution of a pixel rate will be between 25MPixel/s up to 600MPixel/s.

The transmission is compressed, pixel perfect, with low latency and ideal hand-eye coordination on CAT infrastructure over standard IP networks on layer 3 even beyond optional network components.

DP-Vision-IP - rear view

By means of manual bandwidth management, the transmission can be adapted to a wide range of bandwidth requirements.

The video, keyboard, mouse and control data are encrypted with AES-128.

Functionality

The DP-Vision-IP uses G&D's KVM-over-IP™ transmission. The transmission is based on layer 3 IP networks over gigabit ethernet. The device provides one network interface for transmission, web interface, monitoring, SNMP and updates. The integrated web interface lets users configure and update the device. On top of this, an OSD is provided to configure and operate the device at the console.

Until the devices are manually reconfigured, they are interconnected via the safety functions. Due to predefined IP addresses, plug & play is supported for a console and a target that are connected via CAT cable without a network infrastructure.

DP-Vision-IP is not compatible to G&D devices of other series. G&D's KVM-over-IP™ technology provides further flexibility compared to systems with dedicated cabling. With transmission over IP structures the medium can be shared and the distance for remote access virtually becomes unlimited.

Features

Configuration and safety

- Encrypted video, keyboard, mouse and control data with AES-128

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.

Features

Monitoring

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

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

- Proactive monitoring of device status
- 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
- Status interfaces (CPU and CON modules)
- Freeze status (all channels)
- Type of display (local and remote)

Details

Video

- Support of DisplayPort 1.1a resolutions
- Resolution with pixel rates between 25 MPixel/s and 300 MPixel/s
- Exemplary resolutions: 2560x1600/60Hz, 2048x2048/60Hz (2Kx2K), 4096x2160/30Hz (4K@30Hz), 3840x2160/30Hz (Ultra-HD/30Hz), 1920x1200/60Hz,
- Further VESA and CEA standardized resolutions with refresh rates within the range of the maximum pixel rate as well as horizontal and vertical frequency possible
- Horizontal frequency: 25kHz - 180kHz
- Vertical frequency: 24Hz - 200Hz
- Common interlaced formats like 1080i/60Hz are supported
- Pixel encoding RGB 4:4:4 with 24bpp / 8bpc
- 24 bit colour depth
- Transmission is compressed, pixel perfect and with ideal hand-eye coordination

Operation

- EDID support
- Automatic video optimization for effects like tearing, jerking, latency, delayed hand-eye coordination
- Manual bandwidth management to adjust the bandwidth required
- OSD for configuration and operation
- Web interface for configuration, monitoring and updates
- Encrypted video, keyboard, mouse and control data
- Encryption AES-128
- SNMP (trap and agent)
- Local console at computer module
- Ident LED to quickly find devices in complex installations
- Freeze function at remote console

Signals

- Support of PS/2 and USB keyboard/mouse (even in mixed mode)
- Permanent keyboard and mouse emulation
- Permanent monitor emulation
- Audio stereo bidirectional
- RS232 transparent
- Generic USB HID

Transmission

- Signal transmission over standard IP-based networks, CAT, layer 3
- Unlimited transmission distance, with up to 100 meters between 2 active network components

Device

- Redundant power supply
- Internal power pack for main power supply

Systemupdate

- System update via Config Panel

DP-Vision-IP

DP-Vision-IP-CAT-CON - front view

DP-Vision-IP-CAT-CON - rear view

GENERAL FEATURES
DP-VISION-IP series

Technical data	
Interfaces for computers	
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)
RS232:	1 × RS232 socket
Interfaces for remote console	
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)
RS232:	1 × RS232 plug
Interfaces for local console	
Monitor:	see specific features
PS/2 keyboard:	1 × PS/2 socket
USB keyboard/mouse:	2 × USB-A socket
Other interfaces	
Connection to network:	1 × RJ 45 socket (1000 MBit/s)
Service:	1 × Mini-USB socket (type B)
Graphics	
Format:	DisplayPort (DP 1.1a)
Colour depth:	24 Bit
Pixel encoding:	RGB 4:4:4 with24bpp/8bpc
Videobandwidth:	25 to 300 MP / s
Max. resolution:	2560 × 1600 (60 Hz) 4096 × 2160 (30 Hz)

GENERAL FEATURES
DP-VISION-IP series

Technical data	
Exemplary resolutions:	3840 × 2160 (30 Hz) 2048 × 2048 (60 Hz) 1920 × 1200 (60 Hz) further standardised resolutions possible
Vertical frequency:	24 Hz to 120 Hz
Horizontal frequency:	25 kHz to 185 kHz
Audio	
Transmission type:	transparent, bidirectional
Resolution:	24 bit digital, Stereo
Sampling rate:	96 kHz
Bandwidth:	22 kHz
RS232	
Transmission type:	transparent
Transmission rate:	max. 115.200 bit/s
Supported signals:	RxD, TxD, RTS, CTS, DTR, DSR, DCD
Main power supply	
Type:	internal power pack
Connector:	IEC plug (IEC-320 C14)
Voltage:	AC100-240V/60-50Hz
Redundant power suppply	
Type:	external power pack
Connector:	miniDIN-4 Power socket
Voltage:	+12VDC

SPECIFIC FEATURES

DP-VISION-IP

	DP-VISION-CAT-AR-CPU	DP-VISION-CAT-AR-CON
Interfaces for local console		
Monitor:	1 × DisplayPort jack	-
Interfaces for computer		
Video:	1 × DisplayPort jack	-
Interfaces for remote console		
Monitor:	-	1 × DisplayPort jack
Casing		
Material:	anodised aluminium	
Dimensions (W × H × D):	210 × 44 × 210 mm	
Weight:	approx. 1.3 kg	
Current consumption		
Main power supply:	100-240 VAC/60-50 Hz/0.3-0.2 A	
Redundant power suppply:	12VDC/0.9 A	
Operating environment		
Temperature:	+5 to +45 °C	
Air humidity:	< 80 %, non-condensing	

Item numbers DP-Vision-IP

Item no.	Description	Design
A1110197	DP-Vision-IP-AR-CPU	Desktop
A1120290	DP-Vision-IP-AR-CON	Desktop

ABBREVIATIONS

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

EQUIPMENT FEATURES

- Audio
- CAT cable
- CrossDisplay-Switching
- Delay
- DisplayPort™ 1.1
- DVI Dual link video
- DVI Single link video
- Expansion
- Fiber optics
- Keyboard/Mouse
- KVM over IP
- KVM-NetworkCenter-Support
- Media control
- Mix & Match
- Modular setup
- Monitoring
- Multi user
- Multi channel Video
- Network connection
- Power switching
- Remote IP
- RS 232
- Screen Freeze
- Separate local/remote user
- Single user
- USB 2.0
- VGA Video
- Web interface