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**Guntermann & Drunck GmbH Systementwicklung** 

The matrix-compatible KVM extenders of the DVI-Vision series extend keyboard, video, and mouse signals, as well as other peripheral data (e.g., audio and USB), via a dedicated CAT or fiber connection (up to 10,000 m). An extender system consists of a computer module (CPU) and a compatible console module (CON). Computers can be controlled in near real-time – both in extender and matrix applications. The DVI-Vision series supports SingleLink DVI for digital video resolutions up to  $1920 \times 1200$  (60 Hz). Video data is processed pixel-perfectly and offers excellent

hand-eye coordination, thanks to bluedec $^{\text{TM}}$  – G&D's advanced, multi-stage, lossless compression technology.

# **Scope of delivery**

## Quantity Description Article number

PowerCable-2 Standard cable 2m A6300057

## **Details**

### Video

1

- bluedec<sup>TM</sup> advanced developed multi-stage compression for best video quality and practically latency-free transmission. This method enables pixel-perfect video transmission with efficient bandwidth use.
- The end devices can be flexibly combined with each other, even if they process different video signals (Mix & Match)
- EDID data utilization from the workplace monitor
- Flexible EDID profile options for optimized monitor settings
- Resolution up to 1920 × 1200 @ 60 Hz, 1280 × 1024 @ 85 Hz

## **Signals**

- Transparent audio signals (stereo, analog)
- Transparent RS232 (max. 115,200 bps)
- USB 2.0 with Hi-Speed (separate transmission line, transparent, all USB classes)

#### **Transmission**

• The transmission distance is up to 140 meters over CAT

### **Device**

- Improved security through physical separation between workplaces and computers
- Access to standard interfaces of the computer, with no software installation required
- The devices are compatible with the ControlCenter-Digital and ControlCenter-Compact series (matrix operation) and other end devices for computer and workplace connections (extender operation)
- Internal power pack for main power supply
- CON-2 variant: console module with two transmission lines for redundancy

- These modules can be connected to various counterparts, such as compatible computer modules or KVM matrix switches, whereby switching is carried out via pushbuttons, hotkeys or automatically, depending on the configuration
- UC variant: computer module with two transmission lines for redundancy
  - These modules can be connected to various counterparts, such as compatible console modules or KVM matrix switches
- MultiChannel variants (MC): Modules for multi-monitor workplaces with multi-channel video
  - MC mode uses the full bandwidth for each video channel, whereby a separate transmission line is required for each channel

### Warranty

- A 3-year, free of charge product guarantee
- For an additional fee guarantee extension possible

## **Features**

## **Security features**

- Console modules do not store security-relevant information such as login credentials, which could be extracted in the event of device loss
- Early detection of security incidents or unusual activities through continuous monitoring via Syslog, monitoring, and SNMP
- Comprehensive rights management and user administration, allowing precise control over which user can access which resources
- Option for activatable access protection (default operating mode in matrix systems), in which authentication is required before accessing computer sources
- Support for external directory services (Active Directory, Radius, LDAP) to meet company security policies
- To comply with individual password policies and improve security, password complexity can be configured system-wide
- Configurable login options, such as displaying terms of use or setting the maximum acceptable number of failed login attempts, can enhance system security
- Auto Backup Function: Automates backups at user-defined intervals and replaces manual intervention – ensuring reliable, timely data protection without the need for continuous monitoring
- Freeze function: If the video signal is lost, the last displayed image is frozen and highlighted with a colored frame and timer
- 2-Factor-Authentication (2FA) is integrated by default in KVM extenders and enhances security by requiring a second, possession-based factor during user authentication:
  - $\circ$  The traditional password authentication is combined with a time-limited, single-use code (Time-Based-One-Time-Password TOTP)

- You can choose between using the internal authentication server provided in the device or an external directory service
- Authenticator apps or hardware token can be used
- This additional layer of protection prevents unauthorized access and ensures the highest level of security, particularly in sensitive IT environments

## **Operation features**

- Ready for operation out of the box, no additional configuration required
- Permanent keyboard/mouse emulation ensures a stable system
- Compatibility with special USB-HID input devices
- Operation via multilingual on-screen display (OSD) and hotkeys
- Configuration and update via the multilingual HTML5 web interface "Config Panel 21" (Java-free)
- Support of DDC/CI (Display Data Channel / Command Interface) to enable centralized software-side control of monitor settings such as brightness
- Local console at the computer module allows on-site operation, including all video channels
- Exclusive or concurrent operation: The KVM extender allows computer control both remotely and locally. When an input is detected, the extender automatically locks the competing console. The lock is lifted after a preset timeout if no further input is detected. A key combination can activate exclusive operation, immediately disabling the competing console. Another key combination restores shared control.

## **Extensions**

#### **Device**

- External power supply via external 12V power pack or G&D-MultiPower, providing a central and redundant power supply
- Device mounting via RackMount sets, TableMount sets or other mounting tools

## **System extension**

• You can integrate the matrix-compatible extenders into a complete installation with a ControlCenter-Compact or ControlCenter-Digital, even at a later point in time. This provides you with even greater flexibility through the possibility of distributed access — and the existing components can continue to be used.

# Interfaces

# Front

Aperture designation	Design	Description
USB Devices	USB-A socket 2.0	Port for USB devices (transparent)
USB Devices	USB-A socket 2.0	Port for USB devices (transparent)
Network	RJ45 socket	Port for IP network
Service	Micro-USB socket	Port for service purposes

## Back

Aperture designation	Design	Description
Transmission 2	RJ45 socket	Data transmission to computer module or matrix switch (CAT)
DVI / VGA Out2	DVI-D socket	Port for monitor
USB 2.0 Trans.	RJ45 socket	Separate USB transmission to computer module (CAT)
Transmission 1	RJ45 socket	Data transmission to computer module or matrix switch (CAT)
RS232	D-Sub9 socket	Port for serial devices
DVI / VGA Out 1	DVI-D socket	Port for monitor
USB 2.0 Devices	USB-A socket 2.0	Port for USB devices (transparent)
USB 2.0 Devices	USB-A socket 2.0	Port for USB devices (transparent)
Micro In	Jack socket - 3,5 mm	Port for microphone
Speaker	Jack socket - 3,5 mm	Port for speaker/headset
Generic	USB-A socket 2.0	Port for USB devices (Generic)
Keyb./Mouse	USB-A socket 2.0	Port for keyboard and mouse

Aperture designation	Design	Description
Keyb./Mouse	USB-A socket 2.0	Port for keyboard and mouse
Mouse	PS/2 socket	Port for mouse
Keyb.	PS/2 socket	Port for keyboard
Red. Power 12VDC	Mini-DIN 4 socket	Power supply DC redundant
Main Power	IEC plug 320 C14	Power supply AC

# **Technical data**

	Product group	KVM extenders
	Product Family	Vision
General	Number of workstations	1
	KVM matrix system component	Console module (digital)
	Power Supply	Redundancy without load balancing
	USB mouse	yes
Innut ontions	USB keyboard	yes
Input options	PS/2 mouse	yes
	PS/2 keyboard	yes
	Number of transmission channels	3
	Redundant transmission channels	no redundant KVM transmission
Transmission	Range	140 m (AWG22) 100 m (AWG24) 80 m (AWG26)
	Medium	CAT5e CAT6 CAT7
	Data rate	1 Gbit/s
	Quantity	2
	Format	Singlelink DVI
	Colour depth	24 bit
	Pixel rate ca.	25 MHz to 165 MHz
Video output	Vertical frequency	24 Hz to 120 Hz
	Horizontal frequency	25 kHz to 130 kHz
	Exemplary resolutions	1920 × 1200 (60 Hz) 1920 × 1080 (60 Hz) 1600 × 1200 (60 Hz) 1280 × 1024 (85 Hz)

	General Notes	Further VESA and CTA standardised resolutions possible within pixel rate and horizontal/vertical frequency.
	Supported interlace resolutions	1440 × 480i (60 Hz) 1440 × 576i (50 Hz) 1920 × 1080i (50 Hz) 1920 × 1080i (60 Hz)
	Only the listed interlace formats are supported	yes
	Transmission type	Stereo Transparent
Audio	Resolutions Sampling rate	24 bit digital up to 96 kHz
	Bandwidth	22 kHz
	Audio support Separate USB transmission port	Analog yes
	Specification	USB 2.0
	Specification	
USB	Medium	CAT5e CAT6 CAT7
	Transmission rate	max. 480 Mbit/s (Hi-Speed)
	Range	max. 100 m
	Power (output)	500 mA (HighPower)
	USB classes	All
	Standard	
		RS232
	Transparent transmission	yes
	Data rate	max. 115,200 bps
Serial	Signals	TxD RxD DTR DSR RTS CTS DCD
	Quantity	1
Network	Medium	CAT5 CAT6 CAT7
	Data rate	10 Mbit/s 100 Mbit/s
3.4	Update via	ConfigPanel (Network)
Maintenance	Serviceport settings	115200bps (8/N/1)
	Material	anodised aluminium
Housing	Width ca.	270 mm
Housing	Widdi Ca.	44

44 mm

Height ca.

Depth ca. 210 mm
IP protection class IP20
Weight ca. 1.61 kg

Operating temperature 5 °C to 45 °C

Operating air humidity, non-

condensing

20 % to 80 %

Area of application Indoor use

Maximum operating altitude

above sea level

3,048 m

Storage temperature -20 °C to 60 °C

**Operating conditions** 

Storage air humidity, non-

condensing

15 % to 85 %

MTBF 200,000 h at 25°C

CE compliant (see downloads)
UKCA compliant (see downloads)
FCC compliant (see manual)
TAA compliant (see downloads)

Conformities

TAA compliant (see downloads)

EAC compliant (see downloads)

RoHS compliant (see downloads) WEEE (reg. no. DE30763240) REACH compliant (see downloads)

Quantity 1

Type Internal

Input voltage 100-240 VAC

Power supply 1

Input frequency 60-50 Hz
Current consumption 0.6-0.3 A
Power consumption max. 33.6 W
Heat output max. 18 W
Quantity 1

Type External Input voltage 12 VDC

Power supply Input voltage

2 Current consumption

Current consumption 2.6 A
Power consumption max. 29.2 W
Heat output max. 13.7 W

# accessory products

Image	Description	Article number
	USB-Service-2 cable 2m Cable for system updates and configuration	A6200103
	PowerCable-3 Standard cable 3m Cable to connect the power supply type Germany	A6300066
	PowerCable-5 Standard cable 5m Cable to connect the power supply type Germany	A6300065

Image	Description	Article number
	19" RM- Set-270-1RU 19" extension for rack mounting devices of 270 mm width within 1RU (44 mm height)	A7000023
	PowerPack 12 Type 2 12V/5A 60W power supply with 2m powercable	A4110008
	PowerPack 12 Type 2 12V/5A TAA 60W power supply with 2m powercable, TAA compliant	A4110061

# related products

## Description

## Article number

TS-LED-blue-R-2

LED to tag the active console of a TradeSwitch configuration of a matrix  $^{\mathrm{A6100173}}$ 

Description	Article number

TS-LED-blue-R-3

LED to tag the active console of a TradeSwitch configuration of a matrix  $^{A6100172}$ 

TS-LED-blue-R-5

LED to tag the active console of a TradeSwitch configuration of a matrix  $^{A6100171}$ 

## more variants

Description	Article number
DVI-Vision-CAT-AR-CON	A1120198
Console module to receive single link DVI signals via CAT cable	711120190
DVI-Vision-CAT-AR-CON-2	A 1120220
Redundant console module to receive single link DVI signals of 2 sources via CAT cable	A1120320
DVI-Vision-CAT-ARU-CON	A1120201
Console module to receive single link DVI signals via CAT cable	A1120201
DVI-Vision-CAT-ARU-CON-2	
Redundant console module to receive single link DVI signals of 2 sources via CAT cable	A1120321
DVI-Vision-CAT-ARU2-CON	A1120202
Console module to receive single link DVI signals via CAT cable	A1120202
DVI-Vision-CAT-MC2-AR-CON	A1220203
Console module to receive single link DVI signals via CAT cable	111220203
DVI-Vision-CAT-MC2-ARU-CON	A1220205
Console module to receive single link DVI signals via CAT cable	111220205
DVI-Vision-CAT-MC3-AR-CON	A1320020
Console module to receive single link DVI signals via CAT cable	111320020
DVI-Vision-CAT-MC3-ARU-CON	A1320021
Console module to receive single link DVI signals via CAT cable	
DVI-Vision-CAT-MC3-ARU2-CON	A1320022
Console module to receive single link DVI signals via CAT cable	
DVI-Vision-CAT-MC4-AR-CON	A1420204
Console module to receive single link DVI signals via CAT cable	
<b>DVI-Vision-CAT-MC4-ARU-CON</b> Console module to receive single link DVI signals via CAT cable	A1420206
DVI-Vision-CAT-MC4-ARU2-CON	
Console module to receive single link DVI signals via CAT cable	A1420205

# **Contact**

# We are here for you!

If you have any further questions, we are looking forward to advising you on your individual project requirements.

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