



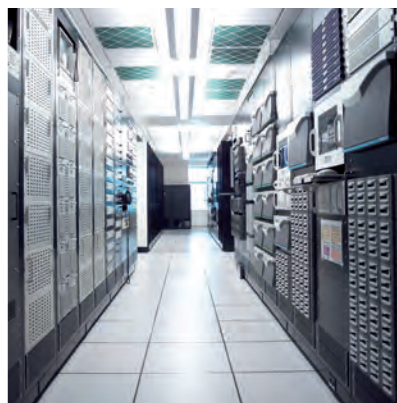
## DVI KVM switches

DL-DVI-MUX2-NT  
DL-DVI-MUX4-NT

### KVM switches

Switches for effective operation of multiple computers via one workstation

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.

**DL-DVI-MUX2-NT** - Dual-Link DVI KVM switch with mission-critical features

The KVM switch **DL-DVI-MUX2-NT** / **DL-DVI-MUX4-NT** switches the following signals

- Dual-Link-DVI
- Keyboard / mouse
- USB 3.0 transparent
- Audio

The KVM switch DL-DVI-MUX2-NT enables you to operate up to four computers via one console.

The console is provided with a USB keyboard, a USB mouse and up to four monitors. The switching process between computers takes place either via the push buttons on the front panel, configurable key combinations, or a serial device which is connected to the Service- or RS232 port.

Various Monitoring & SNMP features can be used via the network interfaces. These can also be used to configure the device via the Config Panel.



DL-DVI-MUX2-NT - front view



DL-DVI-MUX2-NT -rear view

## Highlights

### Video

- DVI-I on input and output side
- Colour depth: 24 bit

### Video resolution

Up to 4096 x 2160 @ 30Hz (4K @ 30 Hz) or 2560 x 1600 @ 60 Hz at 24 bit colour depth. More standardized resolutions within the max. pixelrate (330 MP/s) and refresh rate between 20 and 120 Hz possible.

### Other characteristics

- Switches analog and embedded audio and transparent USB 3.0
- Colour mode up to 24 bit
- Suitable for all operating systems
- Hot-pluggable
- OSD
- Two network interfaces
- Web interface for remote configuration and displaying of the Monitoring values and channel switching
- Redundant power supply
- Channel switching via hotkey, SNMP, buttons, Web interface, IP-Control or external serial device
- Comprehensive proactive diagnostics by monitoring and SNMP
- User management
- Accesses the computer's standard interfaces only

- Requires no software installation
- Available as desktop and 19" rackmount variant
- Aluminium housing for best interference resistance

### Signals

- Dual-Link-DVI (DVI-I interface supports analog and digital video)
- Keyboard / mouse
- USB 3.0 transparent
- Audio

### System update

- Update via Config Panel

## Variants

### Design

- Available as desktop (DT) or rack mount (RM) variant

### Peripheral connections

- Available for USB connections

### Video channels

- Single-Channel
- Multi-Channel 2
- Multi-Channel 3
- Multi-Channel 4

## Expansions

The DL-DVI-MUX-NT switches are fully equipped. There are no recent expansions available.

## Installation

Connect the computers to the back side of the device.  
Distinctive standard cables connect keyboard, mouse, audio and USB interfaces to the switch.

- Cable length of PS/2 cable sets: 2 m, 5 m
- Cable length of USB cable sets: 2 m, 5 m

For connecting the user console simply link keyboard, monitor, mouse, speakers and USB devices to the intended interfaces.

## DL-DVI-MUX2-NT



DL-DVI-MUX2-NT-MC2 - front view



DL-DVI-MUX2-NT-MC2 - rear view

### General features of the DL-DVI-MUX2-NT series

General features	
No. of video sources	
Per computer / workstation:	See variant features
Workstation	
Connectors per device:	1
Connection:	Directly on the device
Interfaces for workstation	
Video:	See variant features
PS/2 keyboard / mouse:	1 × PS/2 socket
USB keyboard / mouse:	2 × USB A socket
USB 3.0 devices:	2 × USB A socket
Audio:	1 × 3,5 mm jack plug (speakers)
External switch:	1 × RS232 socket
Computer	
Connectors per device:	2
Connection:	With optional cable sets on the device
Interfaces per computer	
Video:	See variant features
PS/2:	1 × PS/2 socket
USB:	1 × USB B socket
USB 3.0:	1 × USB B socket
Audio:	1 × 3,5 mm jack plug (line in)
Graphics	
Signal Type:	DVI-I (analog and digital video)
Colour depth:	24 bit
DDC:	Enhanced Display Data Channel
DDC/CI:	The device is ready to support monitors with a DDC/CI function. The DDC information are transparently forwarded to the monitor to support a maximum number of monitors. However, the support cannot be guaranteed for all monitor models.
Mixed mode:	Supported (digital / analog)

## General features of the DL-DVI-MUX2-NT series

General features	
Analog video processing	
Video bandwidth:	Max. 400 MHz
Max. resolution:	Max. 1920 x 1440 @ 75 Hz
Vertical frequency:	20 Hz to 120 Hz
Horizontal frequency:	25 kHz to 135 kHz
Digital video processing	
Pixel rate:	25 to 300 MP/s
Pixel coding:	RGB 4:4:4 with 24 bpp/8 bpc
Max. resolution:	2560 x 1600 @ 60 Hz / 4096 x 2160 @ 30 Hz (UHD-4K)
Exemplary resolutions:	per video channel: 2048 x 2048 @ 60 Hz 2048 x 2160 @ 60 Hz 2560 x 1600 @ 60 Hz 3840 x 2160 @ 30 Hz (Ultra HD)
	When using two video channels: 3840 x 2160 @ 60 Hz (Ultra HD) / 4096 x 2160 @ 60 Hz
	nVidia 3D-Vision 120 Hz: 1680 x 1050 @ 120 Hz Other standard resolutions within the pixel rate and refresh rates possible.
Vertical frequency:	20 Hz to 120 Hz
Horizontal frequency:	25 kHz to 135 kHz
Audio	
Type:	Analog, transparent
Resolution:	24 bit digital, stereo
Sampling rate:	96 kHz
Bandwidth:	22 kHz
Other interfaces	
Service:	1 x Mini USB B socket
Network:	2 x RJ45 socket
USB	
Specification:	USB 3.1 Gen 1 (USB 3.0 / USB 2.0 compatible)
Transmission rate:	SuperSpeed 5.0 Gbps (low speed, full speed, Hi speed compatible)
Power (output):	HighPower (0,9A)
Max. cable length:	USB 3.0 / 3.1: max. 3 m USB 2.0: max. 5 m
Power supply	
Type:	Internal power pack
Connection:	IEC plug (IEC-320 C14)
Power consumption:	See variant features
Operating environment	
Temperature:	+5 to +45 °C
Air humidity:	< 80%, non-condensing
Conformity	
	CE, RoHS



## Individual variant features of the DL-DVI-MUX2-NT series

Individual features	DL-DVI-MUX2-NT	DL-DVI-MUX2-NT-MC2
No. of video sources		
Per computer / workstation:	1	2
Interfaces for workstation		
Video:	1 x DVI-I socket	2 x DVI-I socket
Interfaces per computer		
Video:	1 x DVI-I socket	2 x DVI-I socket
Power supply		
Power consumption:	0,3 A@240VAC; 0,5 mA@ 100VAC	
Casing		
Material:	Anodised aluminium	
Dimensions (W x H x D):	435 x 44 x 210 mm	435 x 66 x 210 mm
Weight:	Approx. 2,5 kg	Approx. 2,8 kg

## List of item numbers

Item No.	Description	Design
A2100195	DL-DVI-MUX2-NT	Desktop and rack mount kit
A2100196	DL-DVI-MUX2-NT-MC2	Desktop and rack mount kit

## DL-DVI-MUX4-NT



DL-DVI-MUX4-NT - front view



DL-DVI-MUX4-NT - rear view

### General features of the DL-DVI-MUX4-NT series

General features	
No. of video sources	
Per computer / workstation:	See variant features
Workstation	
Connectors per device:	1
Connection:	Directly on the device
Interfaces for workstation	
Video:	See variant features
PS/2 keyboard / mouse:	1 × PS/2 socket
USB keyboard / mouse:	2 × USB A socket
USB 3.0 devices:	2 × USB A socket
Audio:	1 × 3,5 mm jack plug (speakers)
Extrenal switch:	1 × RS232 socket
Computer	
Connectors per device:	4
Connection:	With optional cable sets on the device
Interfaces per computer	
Video:	See variant features
PS/2:	1 × PS/2 socket
USB:	1 × USB B socket
USB 3.0:	1 × USB B socket
Audio:	1 × 3,5 mm jack plug (line in)
Graphics	
Signal Type:	DVI-I (analog and digital video)
Colour depth:	24 bit
DDC:	Enhanced Display Data Channel
DDC/CI:	The device is ready to support monitors with a DDC/CI function. The DDC informa-tion are transparently forwarded to the monitor to support a maximum number of monitors. However, the support cannot be guaranteed for all monitor models.
Mixed mode:	Supported (digital / analog)



## General features of the DL-DVI-MUX2-NT series

General features	
Analog video processing	
Video bandwidth:	Max. 400 MHz
Max. resolution:	Max. 1920 x 1440 @ 75 Hz
Vertical frequency:	20 Hz to 120 Hz
Horizontal frequency:	25 kHz to 135 kHz
Digital video processing	
Pixel rate:	25 to 300 MP/s
Pixel coding:	RGB 4:4:4 with 24 bpp/8 bpc
Max. resolution:	2560 x 1600 @ 60 Hz / 4096 x 2160 @ 30 Hz (UHD-4K)
Exemplary resolutions:	Per video channel: 2048 x 2048 @ 60 Hz 2048 x 2160 @ 60 Hz 2560 x 1600 @ 60 Hz 3840 x 2160 @ 30 Hz (Ultra HD)
	When using two video channels: 3840 x 2160 @ 60 Hz (Ultra HD) / 4096 x 2160 @ 60 Hz
	nVidia 3D-Vision 120 Hz: 1680 x 1050 @ 120 Hz Other standard resolutions within the pixel rate and refresh rates possible
Vertical frequency:	20 Hz to 120 Hz
Horizontal frequency:	25 kHz to 135 kHz
Audio	
Type:	analog, transparent
Resolution:	24 bit digital, stereo
Sampling Rate:	96 kHz
Bandwidth:	22 kHz
Other interfaces	
Service:	1 x Mini USB B socket
Network:	2 x RJ45 socket
USB	
Spezification:	USB 3.1 Gen 1 (USB 3.0 / USB 2.0 compatible)
Transmission rate:	SuperSpeed 5.0 Gbps (low speed, full speed, Hi speed compatible)
Power (output):	HighPower (0,9A)
Max. cable length:	USB 3.0 / 3.1: max. 3 m USB 2.0: max. 5 m
Power supply	
Type:	Internal power pack
Connection:	IEC plug (IEC-320 C14)
Power consumption:	See variant features
Operating environment	
Temperature:	+5 to +45 °C
Air humidity:	< 80%, non-condensing
Conformity	
	CE, RoHS

## DL-DVI-MUX4-NT



DL-DVI-MUX4-NT - front view



DL-DVI-MUX4-NT- rear view

### Individual features of DL-DVI-MUX4-NT

Individual features	DL-DVI-MUX4-NT
<b>No. of video sources</b>	
Per computer / workstation:	1
<b>Interfaces for workstation</b>	
Video:	1 x DVI-I socket
<b>Interfaces per computer</b>	
Video:	1 x DVI-I socket
<b>Power supply</b>	
Power consumption:	0,3 A@240VAC; 0,5 mA@ 100VAC
<b>Casing</b>	
Material:	Anodised aluminium
Dimensions (W x H x D):	435 x 44 x 210 mm
Weight:	Approx. 2,5 kg

## DL-DVI-MUX4-NT-MC2



DL-DVI-MUX4-NT-MC2 - front view



DL-DVI-MUX4-NT-MC2 - rear view

### Individual features of DL-DVI-MUX4-NT-MC2

Individual features	DL-DVI-MUX4-NT-MC2
<b>No. of video sources</b>	
Per computer / workstation:	2
<b>Interfaces for workstation</b>	
Video:	2 x DVI-I socket
<b>Interfaces per computer</b>	
Video:	2 x DVI-I socket
<b>Power supply</b>	
Power consumption:	0,3 A@240VAC; 0,5 mA@ 100VAC
<b>Casing</b>	
Material:	Anodised aluminium
Dimensions (W x H x D):	435 x 66 x 210 mm
Weight:	Approx. 2,9 kg

## DL-DVI-MUX4-NT-MC3



DL-DVI-MUX4-NT-MC3 - front view



DL-DVI-MUX4-NT-MC3- rear view

### Individual features of DL-DVI-MUX4-NT-MC3

Individual features	DL-DVI-MUX4-NT-MC3
<b>No. of video sources</b>	
Per computer / workstation:	3
<b>Interfaces for workstation</b>	
Video:	2 x DVI-I socket
<b>Interfaces per computer</b>	
Video:	3 x DVI-I socket
<b>Power supply</b>	
Power consumption:	0,4 A@240VAC; 0,6 mA@ 100VAC
<b>Casing</b>	
Material:	Anodised Aluminium
Dimensions (W x H x D):	435 x 38 x 210 mm
Weight:	Approx. 3,3 kg

## DL-DVI-MUX4-NT-MC4



DL-DVI-MUX4-NT-MC4 - front view



DL-DVI-MUX4-NT-MC4- rear view

### Individual features of DL-DVI-MUX4-NT-MC4

Individual features	DL-DVI-MUX4-NT-MC4
<b>No. of video sources</b>	
Per computer / workstation:	4
<b>Interfaces for workstation</b>	
Video:	4 x DVI-I socket
<b>Interfaces per computer</b>	
Video:	4 x DVI-I socket
<b>Power supply</b>	
Power consumption:	0,4 A@240VAC; 0,6 mA@ 100VAC
<b>Casing</b>	
Material:	Anodised aluminium
Dimensions (W x H x D):	435 x 132 x 210 mm
Weight:	Approx. 3,8 kg

### List of item numbers

Item No.	Description	Design
A2100197	DL-DVI-MUX4-NT	Desktop or rack mount kit
A2100198	DL-DVI-MUX4-NT-MC2	Desktop or rack mount kit
A2100199	DL-DVI-MUX4-NT-MC3	Desktop or rack mount kit
A2100200	DL-DVI-MUX4-NT-MC4	Desktop or rack mount 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	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



## From professionals to professionals:

Trust in our professional solutions - from planning through to aftersales support.

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