



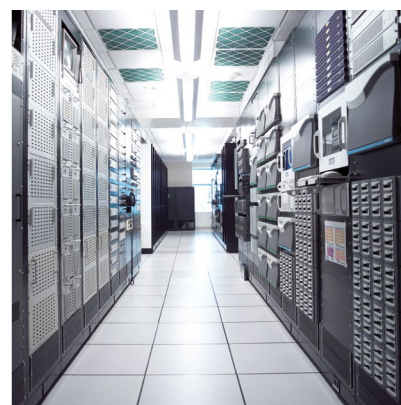
## DP KVM Switches

## DP1.4-MUX

### **KVM switches**

Switches for the effective operation of multiple computers via one workstation

**Catalogue  
V1.2**



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



The company

Experience the whole world of

KVM

## G&D IF IT'S KVM

Guntermann & Drunk 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.

### DP1.4-MUX - The KVM switch for native 4K UltraHD resolution over DisplayPort™ 1.4

The KVM switch **DP1.4-MUX** switches the signals

- DisplayPort™ 1.4
- USB keyboard / mouse
- USB 2.0 transparent
- Audio
- Variants with RS232 support on request

The DP1.4-MUX4 KVM switch enables you to operate up to four computers via one console and the DP1.4-MUX2 enables you to operate two computers.

The console is provided with a USB keyboard, a USB mouse and a DisplayPort™ monitor. Variants with RS232 support are also available on request. The computers connected to the KVM switch are operated from the installed console.

The switching 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.



DP1.4-MUX4 - front view



DP1.4-MUX4 - rear view

The front panel of the device provides two USB 2.0 interfaces to operate any USB devices. The connected USB devices are available to whichever active computer.

The KVM switch works with full keyboard and mouse emulation on each channel and guarantees error-free booting and operation of the connected computers at all times. The multichannel version allows you to connect up to four monitors per computer to the KVM switch.

## Details

### Video

- DisplayPort™ 1.4 on input and output side
- E-DDC support
- Colour depth: 24 Bit

### Exemplary resolutions:

- 7680 x 4320 @ 30 Hz (UHD-2/30 Hz)
- 5120 x 2880 @ 60 Hz (5K/60 Hz)
- 3840 x 2160 @ 120 Hz (4K UHD/120 Hz)
- 4096 x 2160 @ 60 Hz (4K2K/60 Hz)
- 3840 x 2160 @ 60 Hz (4K UHD/60 Hz)
- 2560 x 1600 @ 60 Hz
- 2560 x 1440 @ 144 Hz
- 2560 x 1440 @ 240 Hz
- 1920 x 1200 @ 60 Hz
- 1920 x 1080 @ 240 Hz (Full HD/240 Hz)
- 2048 x 2048 @ 60 Hz (2K x 2K/60 Hz)

More standardised resolutions within the pixel rate and horizontal/vertical frequency.

### Device

- Accesses the computer's standard interfaces only
- Switching via push button, keyboard hotkeys or serial device connected to the service interface
- Requires no software installation
- Available as desktop variant
- Internal power supply
- Aluminium housing for best interference resistance
- Hot-pluggable

### Signals

- DisplayPort™ 1.4
- USB keyboard / mouse
- USB 2.0 transparent
- Audio
- Variants with RS232 support on request

### System-Upgrade

- Flash upgrade at device

## Variants

### Connections to computers

- for 2 computers (MUX2)
- for 4 computers (MUX4)

### Video channels

- Single-Channel
- Multi-Channel 2 (MC2)
- Multi-Channel 3 (MC3)
- Multi-Channel 4 (MC4)

### Peripheral connections

- Available for USB connections

### Signals

- Variants with RS232 support on request (-R)

### Design

- Desktop variant

## Expansion

The DP1.4-MUX 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 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.

To find out more details about the startup, please download the manual.

## DP1.4-MUX series

General features	
<b>No. of video sources</b>	
per computer/console:	see variant features
<b>Console</b>	
Connections per device:	1
Connection:	directly at the device
<b>Interfaces for console</b>	
Video:	see variant features
USB keyboard/mouse:	2 × USB-A socket
USB 2.0 devices:	2 × USB-A socket
Audio:	1 × 3,5 mm jack socket (Line In) 1 × 3,5 mm jack socket (Speaker)
RS232:	see variant features
<b>Computer</b>	
Connections per device:::	see variant features
Connection:	with optional cable sets at the device
<b>Interfaces per computer</b>	
Video:	see variant features
USB:	1 × USB-B socket
Audio:	1 × 3,5 mm jack socket (Line In) 1 × 3,5 mm jack socket (Line Out)
<b>Graphics</b>	
Signal input:	DisplayPort™ 1.4 (LBR, HBR, HBR2, HBR3, SST, MST, DSC)
Signal output:	DisplayPort™ 1.4 (LBR, HBR, HBR2, HBR3, SST, MST, DSC)
Colour depth:	24 Bit
Exemplary resolutions:	7680 x 4320 @ 30 Hz (UHD-2/30 Hz) 5120 x 2880 @ 60 Hz (5K/60 Hz) 3840 x 2160 @ 120 Hz (4K UHD/120 Hz) 4096 x 2160 @ 60 Hz (4K2K/60 Hz) 3840 x 2160 @ 60 Hz (Ultra HD/60 Hz) 2560 x 1600 @ 60 Hz 2560 x 1440 @ 144 Hz 2560 x 1440 @ 240 Hz 1920 x 1200 @ 60 Hz 1920 x 1080 @ 240 Hz (Full HD/240 Hz) 2048 x 2048 @ 60 Hz (2K x 2K/60 Hz)  More standardised resolutions within the pixel rate and horizontal/vertical frequency.
Pixel rate:	25 MPixel/s to 1080 MPixel/s
Pixel coding:	RGB 4:4:4 with 24 bpp/8 bpc
Vertical frequency:	20 Hz to 240 Hz
Horizontal frequency:	25 kHz to 390 kHz
EDID incl. DDC/CI:	E-DID support via DP AUX channel
DDC/CI:	The device is ready to support monitors with DDC/CI function. The DDC information is transparently transmitted to the monitor to support as many monitors as possible. However, support cannot be guaranteed for all monitor models..

## DP1.4-MUX series

<b>General features</b>	
<b>Audio (DisplayPort™ Digital)</b>	
Transmission type:	L-PCM (2/4/6/8 channels), stereo
Resolutions:	16/20/24 bit
Sampling rates:	32/44,1/48/88,2/96/176,4/192 kHz
<b>Audio (Line In/Out)</b>	
Type:	analog, bidirectional
Resolutions:	24 bit digital, stereo
Sampling rates:	96 kHz
<b>Other interfaces</b>	
Service:	1 × Mini-B USB socket
Remote:	1 × Mini-B USB socket
RS232:	1 × RJ 11 socket
<b>Power supply</b>	
Type:	internal power pack
Connection:	IEC socket (IEC-320 C14)
Power input:	see variant features
<b>Operational environment</b>	
Temperature:	+5 to +45 °C
Humidity:	20% to 80%, non-condensing
<b>Storage environment</b>	
Temperature:	-20 to +60 °C
Humidity:	15% to 85%, non-condensing
<b>Conformity</b>	
	CE, EAC, RoHS



## DP1.4-MUX2 variants



DP1.4-MUX2 - rear view



DP1.4-MUX2-MC2 - rear view

Individual features	DP1.4-MUX2-USB	DP1.4-MUX2-MC2-USB
<b>No. of video sources</b>		
per computer/console:	1	2
<b>Interfaces for console</b>		
Video:	1 × DisplayPort™ socket	2 × DisplayPort™ socket
RS232:	-	-
<b>Computer</b>		
Connections per device:	2	
<b>Interfaces per computer</b>		
Video:	1 × DisplayPort™ socket	2 × DisplayPort™ socket
<b>Power supply</b>		
Power input:	100 mA@240VAC; 200 mA@100VAC	200 mA@240VAC; 300 mA@100VAC
<b>Casing</b>		
Material:	anodised aluminium	
Dimensions (W × H × D):	210 × 44 × 210 mm	210 × 66 × 210 mm
Weight:	approx. 1.5 kg	approx. 1.6 kg

DP1.4-MUX4 variants



DP1.4-MUX4 - rear view



DP1.4-MUX4-MC2 - rear view

Individual features	DP1.4-MUX4-USB	DP1.4-MUX4-USB-R	DP1.4-MUX4-MC2-USB	DP1.4-MUX4-MC2-USB-R
<b>No. of video sources</b>				
per computer/console:	1		2	
<b>Interfaces for console</b>				
Video:	1 x DisplayPort™ socket		2 x DisplayPort™ socket	
RS232:	-	1 x RS232 socket	-	1 x RS232 socket
<b>Computer</b>				
Connections per device:	4			
<b>Interfaces per computer</b>				
Video:	1 x DisplayPort™ socket		2 x DisplayPort™ socket	
<b>Power supply</b>				
Power input:	200 mA@240VAC; 300 mA@100VAC		200 mA@240VAC; 400 mA@100VAC	
<b>Casing</b>				
Material:	anodised aluminium			
Dimensions (W x H x D):	270 x 44 x 210 mm	270 x 66 x 210 mm	270 x 66 x 210 mm	270 x 88 x 210 mm
Weight:	approx. 1,5 kg	approx. 1,6 kg	approx. 1,7 kg	



DP1.4-MUX4-MC3 - rear view



DP1.4-MUX4-MC4 - rear view

Individual features	DP1.4-MUX4-MC3-USB	DP1.4-MUX4-MC4-USB
<b>No. of video sources</b>		
per computer/console:	3	4
<b>Interfaces for console</b>		
Video:	3 x DisplayPort™ socket	4 x DisplayPort™ socket
RS232:	-	-
<b>Computer</b>		
Connections per device:	4	
<b>Interfaces per computer</b>		
Video:	3 x DisplayPort™ socket	4 x DisplayPort™ socket
<b>Power supply</b>		
Power input:	200 mA@240VAC; 400 mA@100VAC	200 mA@240VAC; 400 mA@100VAC
<b>Casing</b>		
Material:	anodised aluminium	
Dimensions (W x H x D):	270 x 88 x 210 mm	270 x 132 x 210 mm
Weight:	approx. 1,9 kg	approx. 2,3 kg



## Article overview

### DP1.4-MUX2

Art. no.	Name
A2100169	DP1.4-MUX2-USB
A2100170	DP1.4-MUX2-MC2-USB

### DP1.4-MUX4

Art. no.	Name	
A2100173	DP1.4-MUX4-USB	
A2100207	DP1.4-MUX4-USB-R	on request
A2100174	DP1.4-MUX4-MC2-USB	
A2100206	DP1.4-MUX4-MC2-USB-R	on request
A2100175	DP1.4-MUX4-MC3-USB	
A2100176	DP1.4-MUX4-MC4-USB	

## Legend

### ABBREVIATIONS

CPU = Computer module  
 PC = Computer module  
 CON = Console module  
 REM = Console module































MC2 = Multi-channel 2  
 MC3 = Multi-channel 3  
 MC4 = Multi-channel 4

M = Multimode  
 S = Singlemode  
 S+ = Singlemode+










RM = For assembly in a 19" rack  
 Desktop device  
 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	 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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