

# VGA KVM Switches

# miniMUX 7.2

## KVM Switches

Switches for the effective operation of multiple computers via one workstation



**Leading the way in digital KVM**



## Leading the Way in digital KVM

Guntermann & Drunck GmbH has been established in 1985 and is named after its founders. Over 25 years have since past, and we are now a leading manufacturer of digital and analog KVM switching systems.

As an owner-managed company we work with a broad range in both digital and analog KVM closely with the marketplace and make our decisions with and in the interests of our customers. It is our philosophy to meet our customers while making decisions, to accompany them in the process and ensure that they achieve their goals.

We can do this because as a medium sized company we have short communication paths and all core competencies are in house – from development through to production. This way we can even make the impossible possible at times. If it is thanks to the modularity of the products or by implementing a customised solution. We orient ourselves towards the needs of the customer – and not the other way round.

Organisations, service providers and companies of all sizes managing numerous computers, servers and other network devices trust the comprehensive advice and service provided by Guntermann & Drunck GmbH.

Thanks to these different fields of specialisation, the demands placed on the products are many and are manifold. Our products have to provide a long-life service, be secure, uncomplicated, user-friendly, understandable and adaptable.

The KVM Switches miniMUX enable you to operate two, four, or eight computers over one user console.

The miniMUX switches the following signals:

- keyboard/mouse
- VGA

When cascaded, up to 64 computers can be operated.

The devices are available as variants transmitting one, two, four, or four video channels.

A working system consists of one miniMUX and the required computer connection cable sets. The package contents of the miniMUX2 include cable sets of 2 m length.



DVIMUX4-MC3-PS/2 - Front view

## Highlights

### Video

- single-/multi-channel variants

### Signals

- PS/2 and USB keyboard/mouse support

### Safety

- access protection can be deactivated
- computer-sided support for USB, SUN-USB and PS/2 keyboard/mouse
- redundant power supply

### Miscellaneous

- cascadable to up to 64 computers

## Features

### Device

- only accesses standard keyboard/video/mouse interfaces
- full keyboard/mouse emulation for each channel
- no software installation required
- available as desktop and rack mount version
- cascadable
- can be combined with all G&D products
- hot-pluggable
- password protection and rights assignment for each user

### Video

- VGA resolution up to 1920 x 1440 @ 75 Hz or 2k x 2k @ 60 Hz
- video bandwidth VGA up to 400 MHz

### System upgrade

- update by flash upgrade at device

## Variants

### Video channels

- miniMUX2 - single channel, MC2
- miniMUX4 - single channel, MC2, MC3, MC4
- miniMUX8 - single channel

### Design

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

## Expansion

The miniMUX devices are fully equipped.  
Recently no expansions are available.

## Installation

Connect the computers to the back side of the device.  
Combined standard cables link keyboard, video, and mouse  
interfaces to the switch.

Cable length for PS/2 cable sets: 2 m, 4 m, 6 m  
Cable length for USB cable sets: 2 m, 4 m

For connecting the user console simply link keyboard, moni-  
tor, and mouse to the intended interfaces.

Feel free to download the miniMUX manual to find out more  
details about the start-up.

## miniMUX2/4



top left: miniMUX2 - Front view  
top right: miniMUX2 - Rear view

bottom left: miniMUX4 - Front view  
bottom right: miniMUX4 - Rear view

	miniMUX2	miniMUX4
<b>Video</b>		
User console connection per device	1	
Signal type/video	analog video	
Resolution	up to 1920 × 1440 @ 75 Hz or 2k × 2k @ 60 Hz	
Bandwidth	up to 400 MHz	
No. of switchable video sources per computer	1	
Computer connection	combined KVM cable	
Computer ports	2	4
Computer ports, cascade level 1		16
Interfaces for user console	1 × D-Sub HD 15 socket	
Interfaces to computer (KVM)	2 × MDR20 socket	4 × MDR20 socket
<b>Keyboard/Mouse</b>		
Interfaces for user console	2 × Mini-DIN 6 socket	
	2 × USB-A socket	
Interfaces to computer (KVM)	2 × MDR20 socket	4 × MDR20 socket
<b>Power supply</b>		
Type	external power pack	internal power pack
Connection	Mini-DIN power socket	IEC plug
Voltage	+12VDC	AC100-240V/60-50Hz
	4A	1.5-0.7A
<b>Casing</b>		
Material	anodised aluminium	
Desktop (W × H × D)	160 × 44 × 210 mm	270 × 44 × 210 mm
Rackmount (W × H × D)	19" × 1 U × 210 mm	
Weight	approx. 0.8 kg	approx. 1.3 kg
<b>Update</b>		
Process	local service socket	
Connection	1 × 2.5 mm jack plug	
<b>Operating environment</b>		
Temperature	+5 to +40 °C	
Air humidity	< 80% non-condensing	
Conformity	CE, RoHs	

## miniMUX2/4-MC2



left: miniMUX2-MC2 - front view  
right: miniMUX2-MC2 - rear view

	miniMUX2-MC2	miniMUX4-MC2
<b>Video</b>		
User console connection per device	1	
Signal type/video	analog video	
Resolution	up to 1920 × 1440 @ 75 Hz or 2k × 2k @ 60 Hz	
Bandwidth	up to 400 MHz	
No. of switchable video sources per computer	2	
Computer connection	KVM cable set	
Computer ports	2	4
Computer ports, cascade level 1		16
Interfaces for user console	2 × D-Sub HD 15 socket	
Interfaces to computer (KVM)	2 × MDR20 socket	4 × MDR20 socket
Additional video	2 × 1 × D-Sub HD 15 socket	4 × 1 × D-Sub HD 15 socket
<b>Keyboard/Mouse</b>		
Interfaces for user console	2 × Mini-DIN 6 socket	
	2 × USB-A socket	
Interfaces to computer (KVM)	2 × MDR20 socket	4 × MDR20 socket
<b>Power supply</b>		
Type	external power pack	internal power pack
Connection	Mini-DIN power socket	IEC plug
Voltage	+12VDC	AC100-240V/60-50Hz
	4.4A	1.7-0.75A
<b>Casing</b>		
Material	anodised aluminium	
Desktop (W × H × D)	160 × 44 × 210 mm	270 × 44 × 210 mm
Rackmount (W × H × D)	19" × 1 U × 210 mm	
Weight	approx. 0.8 kg	approx. 1.4 kg
<b>Update</b>		
Process	local service socket	
Connection	1 × 2.5 mm jack plug	
<b>Operating environment</b>		
Temperature	+5 to +40 °C	
Air humidity	< 80% non-condensing	
Conformity	CE, RoHS	

# miniMUX4-MC3/4



left: miniMUX4-MC4 - Front view  
 right: miniMUX4-MC4 - Rear view

	miniMUX4-MC3	miniMUX4-MC4
<b>Video</b>		
User console connection per device	1	
Signal type/ video	analog video	
Resolution	up to 1920 × 1440 @ 75 Hz or 2k x 2k @ 60 Hz	
Bandwidth	up to 400 MHz	
No. of switchable video sources per computer	3	4
Computer connection	KVM cable set	
Computer ports	4	
Computer ports, cascade level 1	16	
Interfaces for user console	3 × D-Sub HD 15 socket	4 × D-Sub HD 15 socket
Interfaces to computer (KVM)	4 × MDR20 socket	
Additional video	4 × 1 × D-Sub HD 15 socket	
<b>Keyboard/Mouse</b>		
Interfaces for user console	2 × Mini-DIN 6 socket	
	2 × USB-A socket	
Interfaces to computer (KVM)	4 × MDR20 socket	
<b>Power supply</b>		
Type	internal power pack	
Connection	IEC plug	
Voltage	AC100-240V/60-50Hz	
	1.95-0.85A	2.2-0.95A
<b>Casing</b>		
Material	anodised aluminium	
Desktop (W × H × D)	270 × 66 × 210 mm	270 × 88 × 210 mm
Rackmount (W × H × D)	19" × 1.5 U × 210 mm	19" × 2 U × 210 mm
Weight	approx. 1.8 kg	approx. 1.9 kg
<b>Update</b>		
Process	local service socket	
Connection	1 × 2.5 mm jack plug	
<b>Operating environment</b>		
Temperature	+5 to +40 °C	
Air humidity	< 80% non-condensing	
Conformity	CE, RoHS	

## miniMUX8



left: miniMUX8 - Front view  
right: miniMUX8 - Rear view

	miniMUX8
<b>Video</b>	
User console connection per device	1
Signal type/video	analog video
Resolution	up to 1920 × 1440 @ 75 Hz or 2k × 2k @ 60 Hz
Bandwidth	up to 400 MHz
No. of switchable video sources per computer	8
Computer connection	KVM cable set
Computer ports	8
cascade level 1	64
Interfaces for user console	1 × D-Sub HD 15 socket
Interfaces to computer (KVM)	8 × MDR20 socket
<b>Keyboard/Mouse</b>	
Interfaces for user console	2 × Mini-DIN 6 socket
	2 × USB-A socket
<b>Power supply</b>	
Type	internal power pack
Connection	1 × IEC plug
Voltage	AC100-240V/60-50Hz
	1.5 - 1.0A
<b>Casing</b>	
Material	anodised aluminium
Desktop (W × H × D)	435 × 44 × 210 mm
Rackmount (W × H × D)	19" × 1 U × 210 mm
Weight	approx. 2.0 kg
<b>Update</b>	
Process	local service socket
Connection	1 × 2.5 mm jack plug
<b>Operating environment</b>	
Temperature	+5 to +40 °C
Air humidity	< 80% non-condensing
Conformity	CE, RoHs



## List of Item Numbers Single-Channel

\* Computer connection cables are supplied. All prices are including external power supplies.

Art.Nr.	Beschreibung	DT	RM
A2100133	miniMUX2-PS/2	DT	
A2100034	miniMUX2-PS/2-RM		RM
A2100035	miniMUX2-USB	DT	
A2100136	miniMUX2-USB-RM		RM
A2100149	miniMUX4-PS/2	DT	
A2100150	miniMUX4-PS/2-RM		RM
A2100151	miniMUX4-USB	DT	
A2100152	miniMUX4-USB-RM		RM
A2100153	miniMUX8-PS2	DT	RM
A2100128	miniMUX8-USB	DT	RM

## List of Item Numbers Multi-Channel

\* Computer connection cables are supplied. All prices are including external power supplies.

Art.Nr.	Beschreibung	DT	RM
A2100129	miniMUX2-MC2-PS2	DT	
A2100130	miniMUX2-MC2-PS2-RM		RM
A2100131	miniMUX2-MC2-USB	DT	
A2100132	miniMUX2-MC2-USB-RM		RM
A2100137	miniMUX4-MC2-PS/2	DT	
A2100138	miniMUX4-MC2-PS/2-RM		RM
A2100139	miniMUX4-MC2-USB	DT	
A2100140	miniMUX4-MC2-USB-RM		RM
A2100141	miniMUX4-MC3-PS/2	DT	
A2100142	miniMUX4-MC3-PS/2-RM		RM
A2100143	miniMUX4-MC3-USB	DT	
A2100144	miniMUX4-MC3-USB-RM		RM
A2100145	miniMUX4-MC4-PS/2	DT	
A2100146	miniMUX4-MC4-PS/2-RM		RM
A2100147	miniMUX4-MC4-USB	DT	
A2100148	miniMUX4-MC4-USB-RM		RM

## List of Item Numbers Single- & Multi-Channel (without connection cables)

Art.Nr.	Beschreibung	DT	RM
A2100034	miniMUX2	DT	
A2100035	miniMUX2-RM		RM
A2100036	miniMUX2-MC2	DT	
A2100037	miniMUX2-MC2-RM		RM
A2100028	miniMUX4	DT	
A2100029	miniMUX4-RM		RM
A2100038	miniMUX4-MC2	DT	
A2100039	miniMUX4-MC2-RM		RM
A2100040	miniMUX4-MC3	DT	
A2100041	miniMUX4-MC3-RM		RM
A2100042	miniMUX4-MC4	DT	
A2100043	miniMUX4-MC4-RM		RM
A2100115	miniMUX8	DT	RM

\* Computer connection cables are not supplied. According to the requirements cables can be combined individually. Please choose the cable sets as desired. All prices are including external power supplies.

## Legend

### ABBREVIATIONS

CPU	=	Computer module	M	=	Multimode
PC	=	Computer module	S	=	Singlemode
CON	=	User module	RM	=	For assembly in a 19" rack
REM	=	User module	DT	=	Available as desktop variant
MC2	=	Multichannel 2	A	=	Audio
MC3	=	Multichannel 3	AR	=	Audio + RS232
MC4	=	Multichannel 4	R	=	RS232
			U	=	transparent USB 1.1
			U2	=	transparent USB 2.0
			D	=	Delay

### EQUIPMENT FEATURES

	=	keyboard/mouse		=	VT100
	=	dual-link DVI video		=	KVM IP access
	=	single-link DVI video		=	Network connection
	=	single-link DVI + VGA		=	Web interface
	=	VGA video		=	DevCon support
	=	Audio		=	Monitoring
	=	RS232		=	CAT cable
	=	USB 1.1		=	Fiber optics
	=	USB 2.0		=	Single user
	=	Delay		=	Multi user
	=	Screen Freeze		=	Separat local/remote user
	=	Power Switching			
	=	Fire Wire			