

ControlCenter-Digital

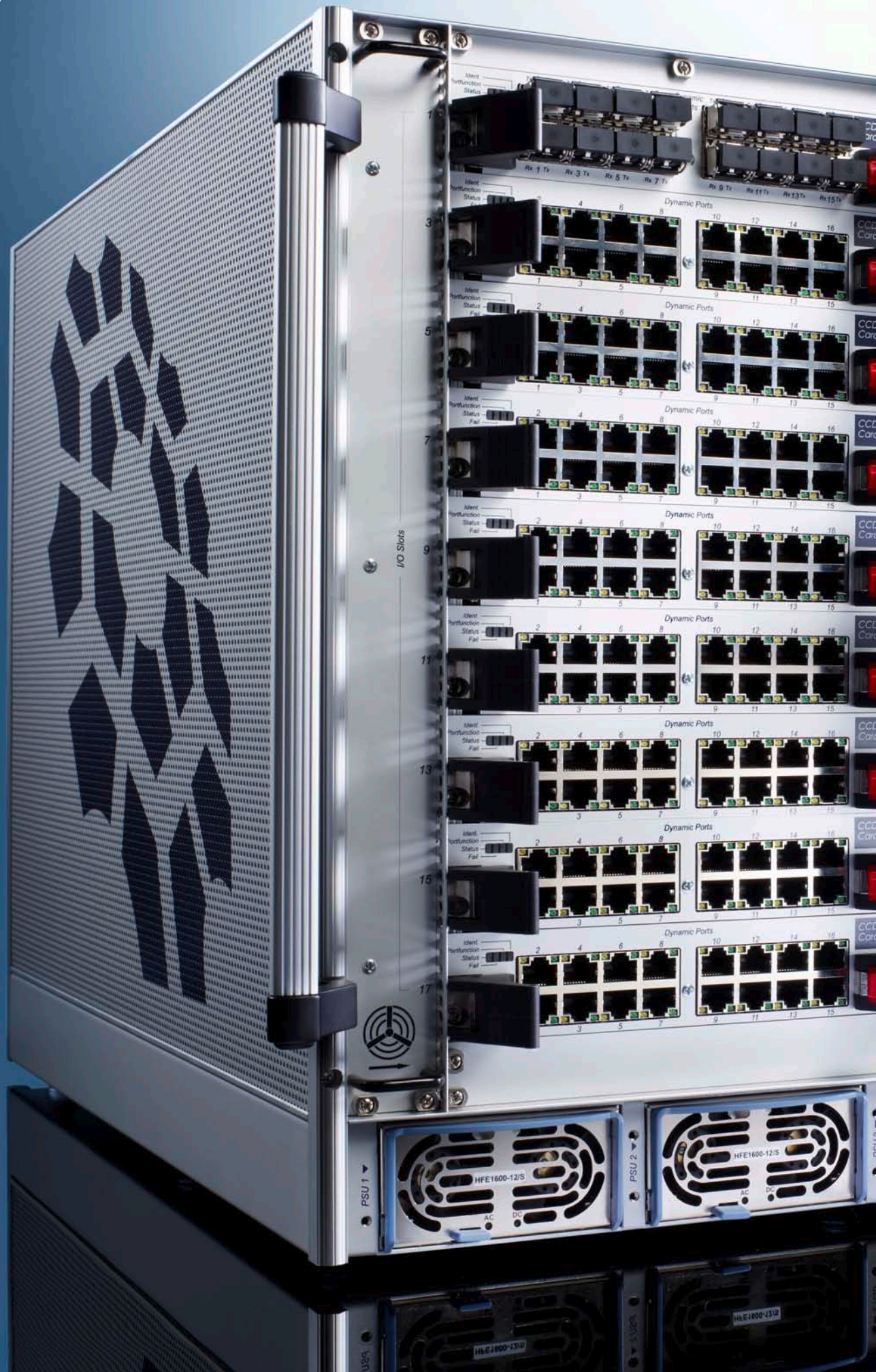
NEW DIMENSIONS



Modularity | Flexibility | Performance



Do you have challenging demands?





Get your all-in-one solution.



New dimensions of flexibility

The new ControlCenter-Digital is a KVM matrix switch, which helps you operate multiple computers via multiple consoles. The matrix switch convinces with its modular design and consists of:

- Replaceable in- and output cards (*I/O cards*)*,
- *Switch card*, which contains the matrix's central switching logic,
- *Controller card* with the system's central administration, monitoring and control
- Three redundant power packs
- Two fan boards

The modular in- and output cards support the transmission of signals via CAT cables and fibre optics even in mixed mode. The switch card and the controller card are on separate cards each and can be replaced individually if need be.

With its modular setup, the new ControlCenter-Digital is highly flexible and ready to adapt to any environmental conditions. The matrix switch enables the local administration of large, distributed IT installations in control rooms and is ready for any future requirements of IT administrators.

Enter a new dimension of flexibility, adaptability and usability – experience the new ControlCenter-Digital.

Flexibility

// 4-5

Expand your possibilities – with the ControlCenter-Digital

Performance

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Power on the spot – experience performance live

Growth

// 8-9

Don't limit your growth – design progress

Safety

// 10-11

Safety first – play it safe with the ControlCenter-Digital

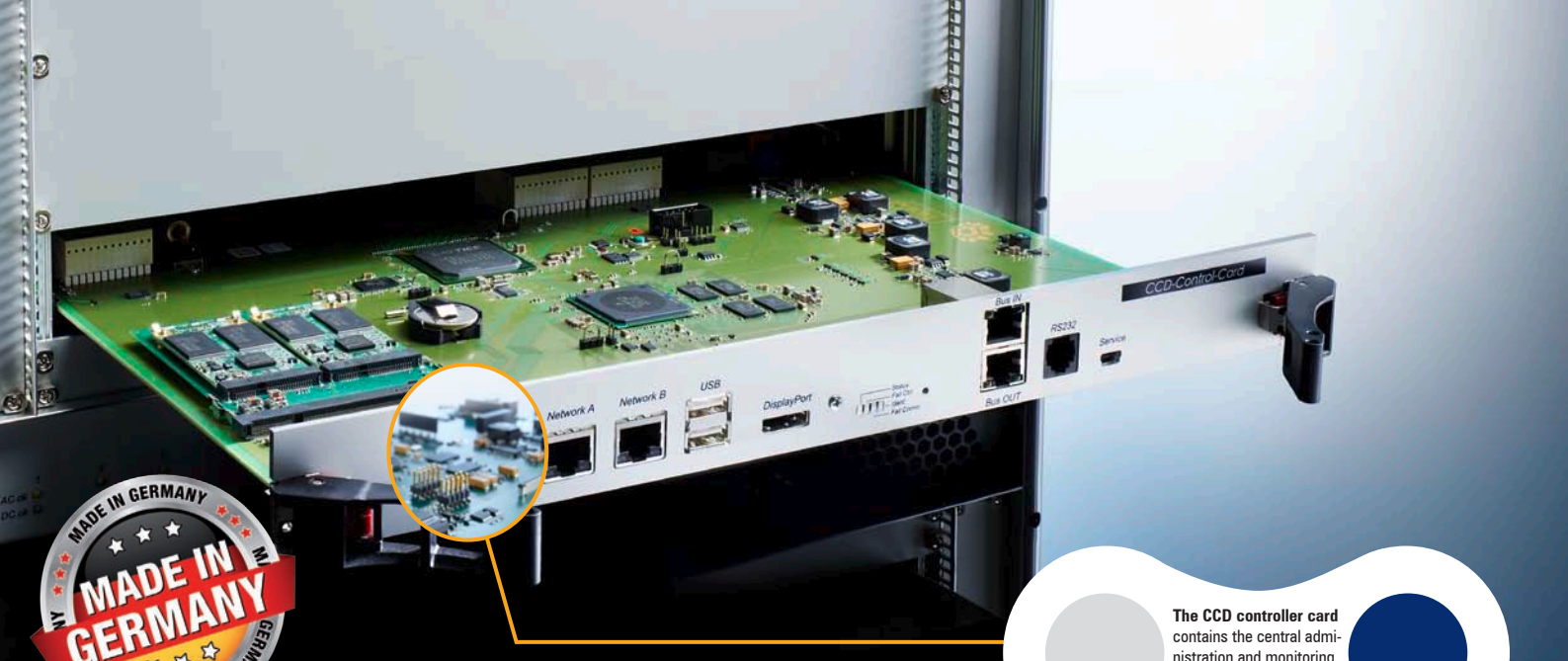


Expand your possibilities – with the ControlCenter-Digital

The ControlCenter-Digital offers maximum flexibility. With its modular design, you can adjust all system components precisely according to your requirements. This way, your ControlCenter-Digital consists exactly of the parts you need – not more and not less.

The basic model contains four different modular types of cards: I/O CAT

cards, I/O fibre cards, the switch card and the controller card, which all can be replaced if necessary. The modular in- and output cards support the mixed mode (CAT and fibre) as well. CAT cards, power packs, redundant power packs and fan modules can be hot-plugged or hot-swapped.



The CCD controller card contains the central administration and monitoring of the matrix.



Advantages for more flexibility

- Completely modular setup, replaceable parts
- Signal transmission via CAT cables and fibre optics even in mixed operation
- Variable port assignment and automatic device detection
- Maximum flexibility through high adaptability and compatibility to existing G&D equipment
- Even largest installations with thousands of servers can be implemented
- Hot-pluggable and hot-swappable system parts
- *Stay-alive function*
- Optional *TradeSwitch function*, *Push-Get function*, *CrossDisplay-Switching* as well as optional *remote control over IP switching*
- Devices can be configured, backed up and restored via web interface
- Firmware updates over network (web interface) or service port (matrix switch and peripherals)

Technical data

Modularity	<ul style="list-style-type: none"> ➤ I/O cards (input/output cards), switch and controller card as well as fan modules and power packs can be easily replaced ➤ Be even more flexible: with the central system administration, monitoring and control placed on a separate controller card ➤ Backup and restore of configuration data possible
Ports	<ul style="list-style-type: none"> ➤ 288, 160 or 80 dynamic ports (160 & 80 port variants in preparation) ➤ Flexible I/O slots ➤ Automatic use for computer and user modules
Range	<ul style="list-style-type: none"> ➤ Via CAT cables: up to 140 m between two parts ➤ Via fibre optics: up to 10,000 m between two parts
Compatibility	<ul style="list-style-type: none"> ➤ All devices belonging to the DVICenter series
System parts	<ul style="list-style-type: none"> ➤ 1 × central module ControlCenter-Digital with controller and switch card ➤ 1 × I/O card ➤ 1 × <i>computer module DVI-CPU</i> ➤ 1 × <i>user module DVI-CON</i> ➤ 2 × transmission cables (CAT or fibre optics)





DVI single-link
perfect resolutions for
crystal-clear images

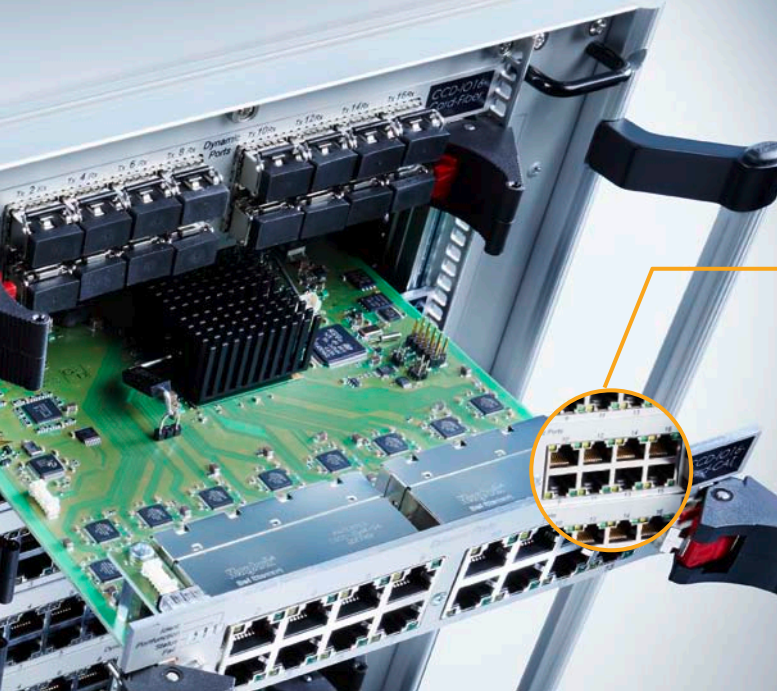


Power on the spot – experience performance live

When it comes to performance, the ControlCenter-Digital is your best choice. The broad variety of switchable signals turns the new G&D matrix switch into a reliable all-rounder.

Following signals can be switched: keyboard/mouse (USB & PS/2), single-link DVI video (dual-link DVI coming soon), DisplayPort, bidirectional audio, USB transparent, RS232. You can also use VGA video sources

with the matrix switch. Profit from performance and crystal-clear video quality – for optimised 1:1 keyboard, video and mouse performance without any latency. The variety of supported data signals, the different transmission media as well as intuitive and easy configuration and operation make the ControlCenter-Digital the perfect partner for any future requirements and best performance.



DynamicPorts
for maximum flexibility



Use all common
video signals in one
matrix switch



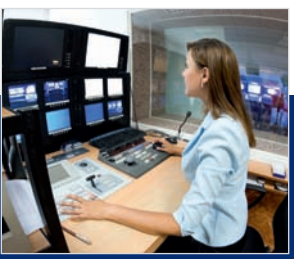
MODULAR
POWERFUL
SAFE

Advantages for more performance

- Resolution for crystal-clear video images: single-link DVI up to 1920 × 1200@60 Hz (dual-link DVI coming soon)
- Multi-monitor workstations
- Mixed operation of different cable types possible
- Optional CrossDisplay-Switching for user-friendly switching via mouse
- Undisturbed transmission of moving images
- Comprehensive EDID support (Extended Display Identification Data)
- Support of touch screens

Technical data

Switchable signals	➤ Keyboard/mouse (USB & PS/2) ➤ Single-link DVI video (dual-link coming soon) ➤ DisplayPort video sources ➤ VGA video sources ➤ Bidirectional audio ➤ USB 2.0 transparent ➤ RS232
Video resolution	➤ Up to 1920 × 1200@60 Hz ➤ All video resolutions with video bandwidths of up to 165 mp/s, e.g. 1920 × 1080 (full HD)
Operation	➤ Mixed operation of CAT cables and fibre optics
Expansion	➤ Up to 4,096 computers manageable ➤ Stacking (up to 9 further satellites possible) ➤ Channel grouping (see page 8)



Ready for any application

Whenever large, distributed installations and the local administration and operation of computers are required, the ControlCenter-Digital is the perfect solution. With its modular design, the newest member of G&D's family of matrix switches perfectly matches the requirements of large installations in control centres or in broadcasting and studios, for example.



Advantages for more growth

- Money well spent on a system that grows with you and your requirements
- Freedom for development through expansions of over 4,000 computers
- Simultaneous connection of different transmission media (CAT cables and fibre optics) give you space to grow
- Even more signals supported: on top of DVI, Audio, USB 2.0, RS232 even DisplayPort and VGA (in preparation)
- Dual modules to access computers from different ControlCenter-Digital clusters



More growth and a safe investment by implementing new devices into existing installations

Unlimited growth

Only when encountering the most challenging tasks you recognize the best of the bests. A large number of servers or simultaneous workstations, sophisticated systems to assign access rights or intuitive, user-friendly configurations and operation, complex signals or implementing different transmission cables – the new ControlCenter-Digital is ready to face the highest demands.

The ControlCenter-Digital allows the fast and easy expansion of your existing installations. Now it's possible to seamlessly implement other G&D matrix switches into the ControlCenter-Digital system.

Enable progress

288 ports are not enough? Do you need more ports for large and powerful IT installations? Cascaded to up to three levels via CAT cables or fibre optics, the ControlCenter-Digital provides thousands of ports and lets you expand the system to your requirements. With the help of fibre optics, even workstations on different floors or buildings can be implemented into the installation. The modular ControlCenter-Digital supports you with controlling your complex IT equipment in control centres, optimising processes and increasing efficiency.

Channel grouping

Thanks to the possibility to group channels, it's easy to create multi-monitor workstation with the ControlCenter-Digital. Here, you can easily group up to eight video channels.

Administration is carried out in the web interface of the ControlCenter-Digital. In addition to several image sources, you can add other signals to the group. The system also supports the transparent transmission and switching of USB 2.0 and RS232 signals.

Experience versatility – Stacking

The stacking feature enhances the flexible and versatile system even further. It increases the number of available ports by combining up to 10 ControlCenter-Digital matrix switches (1 primary, 9 satellites) via bus port. The ports of the stacked matrix switches are switched in parallel to the matrix system. Now you are not only able to create multi-monitor workstations but also assign USB and RS232 channels to consoles.

Trust in our professional solutions and tailored devices for the requirements of matrix switches, instead of empty switching of extender systems.

Experience the whole world of

KVM



DVI-DP-CPU



DVI-CPU-MC2-UC



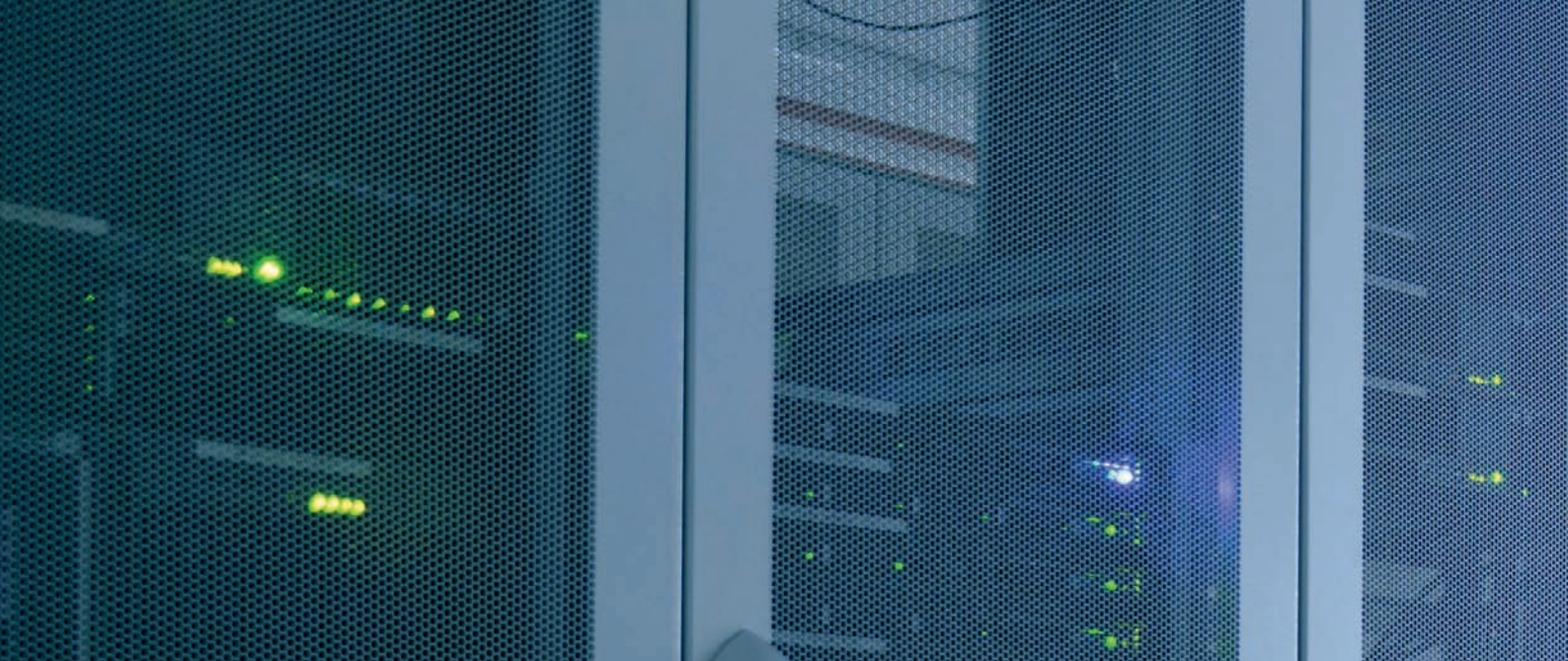
DVI-CON-MC2

Versatile products

Computer modules	Description
DVI-CPU	Module to connect a computer
DVI-CPU-UC	Dual module to connect a computer to two clusters
DVI-CPU-MC2	Module to connect a multi-video computer (2 × video)
DVI-CPU-MC2-UC	Dual module to connect a multi-video computer to two clusters (2 × video)
U2-R-CPU	Module to connect further signals (USB and RS232)
DVI-DP-CPU	Module to connect a DisplayPort computer
DVI-DP-CPU-UC	Dual module to connect a DisplayPort computer to two clusters
User modules	Description
DVI-CON	Module to operate devices up to 140 m away from the matrix switch
DVI-CON-Video	Module to implement another console monitor or a projector
DVI-CON-MC2 & DVI-CON-MC4	Multi-channel module to implement multi-monitor workstations (2 × or 4 × video)
U2-R-CON	Module to transmit USB 2.0 & RS232 interfaces up to 140 m
DVI-CON-Fiber (in preparation)	Module to operate computers from distances up to 10,000 m

Versatile functions

System expansion	<ul style="list-style-type: none"> ➤ In a cascade, CCD and DVICenter can be implemented as slaves to expand the number of ports / cascadable to up to 3 levels
Firmware expansion	<ul style="list-style-type: none"> ➤ The TradeSwitch function combines multiple user modules to one logical console, large screen projections can be implemented as well ➤ Push-Get function: Expansion to push your own screen contents to or get other screen contents from a monitor or a large screen projection ➤ IP-Control-API: external control of matrix (e.g. switching) over TCP/IP connection (AMX/Crestron compatible) ➤ CrossDisplay-Switching (part of the TS function) for seamless switching between computers by mouse
Cascading	<ul style="list-style-type: none"> ➤ Up to three levels, transmission distance between two devices between 140 m (CAT cables) and 10,000 m (fibre optics) ➤ Fully cascaded (three levels) with 21 ControlCenter-Digital devices more than 4,000 ports available, which can be flexibly assigned to connect computer or user modules
Console expansion	<ul style="list-style-type: none"> ➤ Dual modules let users access computers from two ControlCenter-Digital clusters ➤ Dynamic UserCenter enables the access to computers from several different ControlCenter-Digital clusters
System features	<ul style="list-style-type: none"> ➤ Automatic detection and display of system architecture (cable routes) ➤ Finder LED for all system components ➤ Comprehensive system information (e.g. software versions, configurations) ➤ Integrated user and rights management ➤ Groups for effective user management



Sophisticated solutions

We escort our customers anticipating future requirements. We consequently turn these requirements into high-end solutions such as rack mounting G&D devices fittings, switching and controlling computers via input devices or centrally supplying devices with power from external power packs.

We offer a broad selection of rack mount kits to help you with the clear, space-saving installation of your G&D devices.



MultiPower-12

The MultiPower-12 serves as the central power source of G&D devices that require an external power pack (for example DVI-CPU). The MultiPower-12 enables you to operate and supply 12V (max. 600mA) to 12 different devices.

The Multipower-12 is a functional and a space-saving solution for applications as in a server room and computer rack. Optimally suitable for the power supply of DVI-CPU in a rack.

Safety first

We put the safety of your IT installations first. To be able to take account for even the largest installations and offer the safety required, the ControlCenter-Digital provides three redundant power supplies. If one of the power packs fails, it can be replaced even during live operation. To complete the safety package, the ControlCenter-Digital also comes with two modular fan boards for highest reliability – 24/7.

Always on the safe side with monitoring & SNMP

The ControlCenter-Digital provides monitoring features that detect and display the system status. IT administrators can access the device's web interface over network to get an overview of the device conditions.

Any changes in defined conditions (ON/OFF) or exceeding of defined thresholds (temperature) are stored in the web interface and can be viewed by the administrator.

Administrators also can receive monitoring values as SNMP traps or query them as well (SNMP-GET). Now people in charge do not miss important status messages and are able to react accordingly. This guarantees accumulated statistics as well as the early detection of critical system conditions.

In addition to monitoring information, syslog messages can also be viewed and sent to installed syslog servers.

Advantages for more safety

- Multiple redundant power packs
- Modular and replaceable fan boards
- Implemented monitoring of system status
- Support of external authentication and directory services LDAP, Active Directory, TACACS+, Radius
- Processing and output of syslog messages
- Support of SNMP-GET, SNMP trap and SNMP agent



Glossary

CON module	<i>(Short for console) The user console (CON module) receives the KVM information at the console.</i>
Controller card	<i>The controller card manages the system's central administration, monitoring and control.</i>
CPU module	<i>(Short for Central Processing Unit); Computer connection module, which taps the computer's KVM signals and transmits them to the matrix switch.</i>
CrossDisplay-Switching	<i>CrossDisplay-Switching enables users to easily switch between computers by mouse (TradeSwitch function required)</i>
Dual module	<i>A UC module (UserCenter module) or dual module enables users to access a particular computer from different ControlCenter-Digital clusters.</i>
EDID support	<i>A monitor's EDID information (Extended Display Information Data) inform the graphics card of a connected computer about the monitor's various technical features</i>
I/O card	<i>I/O cards are modular cards with multiple in-/output ports to which you can connect user or computer modules via CAT cables or fibre optics.</i>
Channel grouping	<i>Among other things, channel grouping lets you create multi-monitor workstations for computers with multiple video channels. Multiple channels can be grouped and switched together.</i>
MC2/MC4 modules	<i>Multi-channel modules are used to implement multi-video computers or multi-monitor workstations.</i>
Push-Get function	<i>Push the image of a target from the display to the display of another workstation or get it from there to your own screen or a larger screen projection (Get).</i>
Remote Control über IP-Switching	<i>The IP control API enables the external control of a matrix switch (e.g. switching over a TCP/IP connection).</i>
Stay-Alive function	<i>Implemented emulations in the CPU module make sure the initialised peripherals remain available even when inactive. This prevents new initialisations.</i>
Switch card	<i>The switch card is the central unit containing the switching logic of the matrix switch.</i>
TradeSwitch function	<i>The TradeSwitch function combines multiple user modules to one logical console, which can be operated with one keyboard and one mouse.</i>



From professionals for professionals:

Trust in our powerful KVM solutions – from planning to support



Guntermann & Drunck GmbH
Dortmunder Straße 4a
D-57234 Wilnsdorf

Telefon +49 (0) 2739 8901-333
Telefax +49 (0) 2739 8901-120

sales@gdsys.de

www.gdsys.de

<http://blog.gdsys.de/>



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