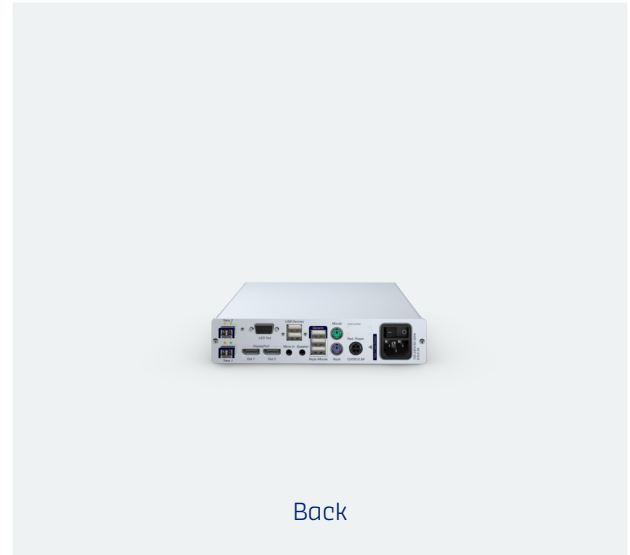


# DP-HR-U-CON-2-FIBER(M)-DH

KVM extenders, Article number A1120276



The matrix-compatible KVM extenders of the DP-HR-CON 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 DP-HR-CON series supports DisplayPort 1.1 for high-resolution video up to 2560 × 1600 (60 Hz) or 4096 × 2160 (30 Hz). Video data is processed pixel-perfectly and offers excellent hand-eye coordination, thanks to bluedec™ – G&D's advanced, multi-stage, lossless compression technology.

## SCOPE OF DELIVERY

| Quantity | Description                             | Article number |
|----------|-----------------------------------------|----------------|
| 1        | PowerCable-2 Standard cable 2m          | A6300057       |
| 1        | Safety instructions flyer - FCC class B | A9100371       |

## DETAILS

### VIDEO

- bluedec™ – 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)
- Use of a monitor profile optimized for the computer module (EDID profile)
- Flexible use of the EDID data of the workplace monitor as required
- Resolution up to  
2560 × 1600 @ 60 Hz,  
4096 × 2160 @ 30 Hz
- The DualHead variant (DH) allows the transmission of two separate video signals via one transmission cable. Both video channels support embedded audio.
  - Two-channel operation supports a guaranteed total pixel rate of up to 330MPixel/s.
  - The second video channel supports up to 165MPixel/s.
  - This corresponds, for example, to a resolution of up to  
1920 × 1200 @ 60 Hz,  
1920 × 1080 @ 60 Hz or  
1280 × 1024 @ 60 Hz.
  - If the resolution on the second video channel is lower, the main channel can transmit a higher resolution.
  - Exceeding the total pixel rate of 330MPixel/s may result in a loss of quality.

### SIGNALS

- Bidirectional audio signals (stereo)
- Embedded stereo audio (Digital, 2 channel LPCM)
- Embedded USB 2.0 with Full Speed, transparent, all USB classes

### TRANSMISSION

- The transmission distance is up to 400 meters over fiber multimode optics, incl. transmission module(s)/SFP transceiver(s)

### 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
- 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

### OPERATION FEATURES

- Ready for operation out of the box, no additional configuration required
- Operation via multilingual on-screen display (OSD) and hotkeys
- Compatibility with special USB-HID input devices
- Support of DDC/CI (Display Data Channel / Command Interface) to enable centralized software-side control of monitor settings such as brightness

## 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.

## TECHNICAL DATA

|               |                                 |                                                                                                                                                                |
|---------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General       | Product group                   | KVM extenders                                                                                                                                                  |
|               | Product Family                  | MTX-CPU/CON                                                                                                                                                    |
|               | Number of workstations          | 1                                                                                                                                                              |
|               | KVM matrix system component     | Console module (digital)                                                                                                                                       |
|               | Max. total bandwidth DualHead   | 330 MPixel/s                                                                                                                                                   |
|               | Power Supply                    | Redundancy without load balancing                                                                                                                              |
| Input options | USB mouse                       | yes                                                                                                                                                            |
|               | USB keyboard                    | yes                                                                                                                                                            |
|               | PS/2 mouse                      | yes                                                                                                                                                            |
|               | PS/2 keyboard                   | yes                                                                                                                                                            |
| Transmission  | Number of transmission channels | 1                                                                                                                                                              |
|               | Redundant transmission channels | Redundant KVM transmission available                                                                                                                           |
|               | Range                           | 100 m (62.5/125µm)<br>200 m (50.0/125µm, OM2)<br>400 m (50.0/125µm, OM3)<br>70 m (62.5/125µm)<br>150 m (50.0/125µm)<br>400 m (50.0/125µm, OM4 -<br>4700MHz*km) |
|               | Laser class                     | Class 1                                                                                                                                                        |
|               | Type of interface               | LC-Duplex                                                                                                                                                      |
|               | Wavelength                      | 850 nm                                                                                                                                                         |
|               | Medium                          | Fiber MM                                                                                                                                                       |

|                |                              |                                                                                                                                                                                                                                    |
|----------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Video output 1 | Data rate                    | 2.5 Gbit/s                                                                                                                                                                                                                         |
|                | Quantity                     | 1                                                                                                                                                                                                                                  |
|                | Format                       | DisplayPort 1.1 (HBR)                                                                                                                                                                                                              |
|                | Colour depth                 | 24 bit                                                                                                                                                                                                                             |
|                | Pixel rate ca.               | 25 MPixel/s to 300 MPixel/s                                                                                                                                                                                                        |
|                | Vertical frequency           | 24 Hz to 120 Hz                                                                                                                                                                                                                    |
|                | Horizontal frequency         | 25 kHz to 135 kHz                                                                                                                                                                                                                  |
|                | Exemplary resolutions        | 4096 × 2160 (30 Hz)<br>4096 × 2160 (25 Hz)<br>4096 × 2160 (24 Hz)<br>3840 × 2160 (30 Hz)<br>3840 × 2160 (25 Hz)<br>3840 × 2160 (24 Hz)<br>2560 × 1600 (60 Hz)<br>2048 × 2048 (60 Hz)<br>1920 × 1200 (60 Hz)<br>1920 × 1080 (60 Hz) |
|                | General Notes                | Further VESA and CTA standardised resolutions possible within pixel rate and horizontal/vertical frequency.                                                                                                                        |
|                | Supported industry standards | Display Data Channel Command Interface (DDC/CI)<br>Display Data Channel (DDC)<br>Extended Display Identification Data (EDID)                                                                                                       |
| Video output 2 | Quantity                     | 1                                                                                                                                                                                                                                  |
|                | Format                       | DisplayPort 1.1                                                                                                                                                                                                                    |
|                | Colour depth                 | 24 bit                                                                                                                                                                                                                             |
|                | Pixel rate ca.               | 25 MPixel/s to 165 MPixel/s                                                                                                                                                                                                        |

|         |                              |                                                                                                             |
|---------|------------------------------|-------------------------------------------------------------------------------------------------------------|
|         | Vertical frequency           | 24 Hz to 120 Hz                                                                                             |
|         | Horizontal frequency         | 25 kHz to 135 kHz                                                                                           |
|         | Exemplary resolutions        | 1920 × 1200 (60 Hz)<br>1920 × 1080 (60 Hz)<br>1280 × 1024 (85 Hz)<br>640 × 480 (60 Hz)                      |
|         | General Notes                | Further VESA and CTA standardised resolutions possible within pixel rate and horizontal/vertical frequency. |
|         | Supported industry standards | Display Data Channel Command Interface (DDC/CI)<br>Extended Display Identification Data (EDID)              |
| Audio 1 | Transmission type            | Bidirectional<br>Stereo                                                                                     |
|         | Resolutions                  | 24 bit digital                                                                                              |
|         | Sampling rate                | up to 96 kHz                                                                                                |
|         | Bandwidth                    | 22 kHz                                                                                                      |
|         | Audio support                | Analog                                                                                                      |
| Audio 2 | Transmission type            | Stereo<br>2-channel LPCM                                                                                    |
|         | Resolutions                  | 24 bit<br>20 bit<br>16 bit                                                                                  |
|         | Sampling rate                | up to 48 kHz                                                                                                |
|         | Audio support                | Digital Embedded                                                                                            |
| USB     | Specification                | USB 2.0                                                                                                     |

|                      |                                            |                                   |
|----------------------|--------------------------------------------|-----------------------------------|
|                      | Medium                                     | Embedded                          |
|                      | Transmission rate                          | max. 16 Mbit/s (app. Full Speed)  |
|                      | Range                                      | max. 400 m                        |
|                      | USB classes                                | All                               |
| Maintenance          | Update via                                 | Update Wizard (service interface) |
|                      | Serviceport settings                       | 115200bps (8/N/1)                 |
| Housing              | Material                                   | anodised aluminium                |
|                      | Width ca.                                  | 210 mm                            |
|                      | Height ca.                                 | 44 mm                             |
|                      | Depth ca.                                  | 210 mm                            |
|                      | IP protection class                        | IP20                              |
|                      | Weight ca.                                 | 1.4 kg                            |
| Operating conditions | 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 | 3,000 m                           |
|                      | Storage temperature                        | -20 °C to 60 °C                   |
|                      | Storage air humidity, non-condensing       | 15 % to 85 %                      |

|                |                     |                                                                                                                                                                                                                                                                   |
|----------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | Conformities        | CE compliant (see downloads)<br>UKCA compliant (see downloads)<br>FCC compliant (see manual)<br>TAA compliant (see downloads)<br>EAC compliant (see downloads)<br>RoHS compliant (see downloads)<br>WEEE (reg. no. DE30763240)<br>REACH compliant (see downloads) |
|                |                     |                                                                                                                                                                                                                                                                   |
| Power supply 1 | Quantity            | 1                                                                                                                                                                                                                                                                 |
|                | Type                | Internal                                                                                                                                                                                                                                                          |
|                | Input voltage       | 100-240 VAC                                                                                                                                                                                                                                                       |
|                | Input frequency     | 60-50 Hz                                                                                                                                                                                                                                                          |
|                | Current consumption | 0.6-0.3 A                                                                                                                                                                                                                                                         |
| Power supply 2 | Quantity            | 1                                                                                                                                                                                                                                                                 |
|                | Type                | External                                                                                                                                                                                                                                                          |
|                | Input voltage       | 12 VDC                                                                                                                                                                                                                                                            |
|                | Current consumption | 2.5 A                                                                                                                                                                                                                                                             |

## ACCESSORY PRODUCTS

| Image                                                                               | Description                                                                                                                                                                   | Article number |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|    | <b>USB-Service-2 cable 2m</b><br>Cable for system updates and configuration                                                                                                   | A6200103       |
|    | <b>PowerCable-3 Standard cable 3m</b><br>Cable to connect the power supply type Germany                                                                                       | A6300066       |
|    | <b>PowerCable-5 Standard cable 5m</b><br>Cable to connect the power supply type Germany                                                                                       | A6300065       |
|    | <b>19" RM-Set-210-1RU</b><br>19" extension for rack mounting devices of 210 mm width within 1RU (44 mm height)                                                                | A7000022       |
|    | <b>19" RM-Set-210-1RU Incl. DeviceCarrier 1x105-26</b><br>19" extension for combined rack mounting devices of 210 mm width and devices of 105x26 mm within 1RU (44 mm height) | A7000035       |
|  | <b>PowerPack 12 Type 2 12V/5A</b><br>60W power supply with 2m powercable                                                                                                      | A4110008       |
|  | <b>PowerPack 12 Type 2 12V/5A TAA</b><br>60W power supply with 2m powercable, TAA compliant                                                                                   | A4110061       |

## RELATED PRODUCTS

| Description                                                                                                                                 | Article number |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>TS-LED-blue-2</b><br>LED to tag the active console of a TradeSwitch configuration of a matrix, resp. the active channel of a TradeSwitch | A6100168       |
| <b>TS-LED-blue-3</b><br>LED to tag the active console of a TradeSwitch configuration of a matrix, resp. the active channel of a TradeSwitch | A6100169       |
| <b>TS-LED-blue-5</b><br>LED to tag the active console of a TradeSwitch configuration of a matrix, resp. the active channel of a TradeSwitch | A6100170       |

## MORE VARIANTS

| Description                                                                                                                                                                             | Article number |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>DP-HR-CON-2-Fiber(M)</b><br>Redundant console module to receive DisplayPort signals of 2 sources via fiber multimode                                                                 | A1120221       |
| <b>DP-HR-CON-2-Fiber(M)-DH</b><br>Redundant dual head console module (fiber multimode) to receive DisplayPort signals of 2 sources including 2 video channels using 1 transmission line | A1120272       |
| <b>DP-HR-CON-Fiber(M)</b><br>Console module to receive DisplayPort signals via fiber multimode                                                                                          | A1120183       |
| <b>DP-HR-CON-Fiber(M)-DH</b><br>Dual head console module (fiber multimode) to receive DisplayPort signals of 1 source including 2 video channels using 1 transmission line              | A1120251       |
| <b>DP-HR-CON-Fiber(M)-MC2</b><br>Console module to receive DisplayPort signals via fiber multimode                                                                                      | A1120224       |
| <b>DP-HR-U-CON-2-Fiber(M)</b><br>Redundant console module to receive DisplayPort signals of 2 sources via fiber multimode                                                               | A1120231       |
| <b>DP-HR-U-CON-Fiber(M)</b><br>Console module to receive DisplayPort signals via fiber multimode                                                                                        | A1120186       |
| <b>DP-HR-U-CON-Fiber(M)-DH</b><br>Dual head console module (fiber multimode) to receive DisplayPort signals of 1 source including 2 video channels using 1 transmission line            | A1120247       |
| <b>DP-HR-U-CON-Fiber(M)-MC2</b><br>Console module to receive DisplayPort signals via fiber multimode                                                                                    | A1120234       |

# 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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