

# DL-VISION(M)-MC2-ARU2+CPU

KVM extenders, Article number A1110188



Front



Back

The KVM extenders of the DL-Vision series extend keyboard, video, and mouse signals, as well as other peripheral data (e.g., audio and USB), via a dedicated fiber connection (up to 10,000 m) uncompressed, pixel-perfect and without any latency or loss. An extender system consists of a computer module (CPU) and a console module (CON). The DL-Vision series supports DualLink-DVI for high-resolution video up to 2560 × 1600 (60 Hz) or 4096 × 2160 (30 Hz).

## SCOPE OF DELIVERY

| Quantity | Description                             | Article number |
|----------|-----------------------------------------|----------------|
| 2        | PowerCable-2 Standard cable 2m          | A6300057       |
| 2        | DVI-D-DL-M/M-2 cable DVI-D 2m           | A6300100       |
| 2        | USB-AM/BM-2 cable USB 2m                | A6300113       |
| 2        | RS232-M/F-2 cable RS232 2m              | A6300023       |
| 2        | Audio-M/M-2-ferrite cable 2m            | A6300083       |
| 1        | 19" RM-Set-436-1RU-Type2                | A7000011       |
| 1        | Safety instructions flyer - FCC class B | A9100371       |

## DETAILS

### VIDEO

- EDID data utilization from the workplace monitor
- Flexible EDID profile options for optimized monitor settings
- Resolution up to  
2560 × 1600 @ 60 Hz

### SIGNALS

- Transparent audio signals (stereo, analog)
- Transparent RS232 (max. 230,400 bps)
- USB 2.0 with Hi-Speed (separate transmission line, 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
- 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

- Early detection of security incidents or unusual activities through continuous monitoring via Syslog, monitoring, and SNMP
- Comprehensive rights management and user administration, allowing precise control over which user can access which resources
- Option for activatable access protection (default operating mode in matrix systems), in which authentication is required before accessing computer sources
- Support for external directory services (Active Directory, Radius, LDAP) to meet company security policies
- Freeze function: If the video signal is lost, the last displayed image is frozen and highlighted with a colored frame and timer
- Redundant internal power packs
- Redundant network interface

### OPERATION FEATURES

- Ready for operation out of the box, no additional configuration required
- Permanent keyboard/mouse emulation ensures a stable system
- Operation via multilingual on-screen display (OSD) and hotkeys
- Support of DDC/CI (Display Data Channel / Command Interface) to enable centralized software-side control of monitor settings such as brightness
- Local console at the computer module allows on-site operation, including all video channels
- Exclusive or concurrent operation: The KVM extender allows computer control both remotely and locally. When an input is detected, the extender automatically locks the competing console. The lock is lifted after a preset timeout if no further input is detected. A key combination can activate exclusive operation, immediately disabling the competing console. Another key combination restores shared control.

## TECHNICAL DATA

|               |                                 |                                                                                                                                                                                                    |
|---------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General       | Product group                   | KVM extenders                                                                                                                                                                                      |
|               | Product Family                  | DL-Vision                                                                                                                                                                                          |
|               | 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 | 3                                                                                                                                                                                                  |
|               | Redundant transmission channels | no redundant KVM transmission                                                                                                                                                                      |
|               | Range                           | 400 m (50.0/125µm, OM4 - 4700MHz*km)<br>300 m (50.0/125µm, OM3 - 2000MHz*km)<br>82 m (50.0/125µm, OM2 - 500MHz*km)<br>66 m (50.0/125µm)<br>33 m (62.5/125µm, OM1 - 200MHz*km)<br>26 m (62.5/125µm) |
|               | Laser class                     | Class 1                                                                                                                                                                                            |
|               | Type of interface               | LC-Duplex                                                                                                                                                                                          |
|               | Wavelength                      | 850 nm                                                                                                                                                                                             |
|               | Medium                          | Fiber MM                                                                                                                                                                                           |
|               | Data rate                       | 10 Gbit/s                                                                                                                                                                                          |
|               |                                 |                                                                                                                                                                                                    |
| Video input   | Quantity                        | 2                                                                                                                                                                                                  |

|       |                                |                                                                                                                 |
|-------|--------------------------------|-----------------------------------------------------------------------------------------------------------------|
|       | Format                         | DualLink DVI                                                                                                    |
|       | Colour depth                   | 24 bit                                                                                                          |
|       | Pixel rate ca.                 | 25 MPixel/s to 330 MPixel/s                                                                                     |
|       | Vertical frequency             | 20 Hz to 120 Hz                                                                                                 |
|       | Horizontal frequency           | 25 kHz to 185 kHz                                                                                               |
|       | Exemplary resolutions          | 2560 × 1600 (60 Hz)<br>4096 × 2160 (30 Hz)<br>2048 × 2160 (60 Hz)<br>2048 × 2048 (60 Hz)<br>3840 × 2160 (30 Hz) |
|       | General Notes                  | Further VESA and CTA standardised resolutions possible within pixel rate and horizontal/vertical frequency.     |
| Audio | Supported industry standards   | Enhanced Display Data Channel (E-DDC)<br>Display Data Channel Command Interface (DDC/CI)                        |
|       | Transmission type              | Stereo<br>Transparent                                                                                           |
|       | Resolutions                    | 24 bit digital                                                                                                  |
|       | Sampling rate                  | up to 96 kHz                                                                                                    |
|       | Bandwidth                      | 22 kHz                                                                                                          |
| USB   | Audio support                  | Analog                                                                                                          |
|       | Separate USB transmission port | yes                                                                                                             |
|       | Specification                  | USB 2.0                                                                                                         |
|       | Medium                         | Fiber MM                                                                                                        |

|             |                          |                                               |
|-------------|--------------------------|-----------------------------------------------|
|             | Transmission rate        | max. 480 Mbit/s (Hi-Speed)                    |
|             | Range                    | max. 550 m                                    |
|             | Power (output)           | 500 mA (HighPower)                            |
|             | USB classes              | All                                           |
| Serial      | Standard                 | RS232                                         |
|             | Transparent transmission | yes                                           |
|             | Data rate                | max. 230,400 bps                              |
|             | Signals                  | TxD<br>RxD<br>DTR<br>DSR<br>RTS<br>CTS<br>DCD |
| Network     | Quantity                 | 2                                             |
|             | Medium                   | CAT5<br>CAT6<br>CAT7                          |
|             | Data rate                | 10 Mbit/s<br>100 Mbit/s<br>1 Gbit/s           |
| Maintenance | Update via               | ConfigPanel (Network)                         |
|             | Serviceport settings     | 230400bps (8/N/1)                             |
| Housing     | Material                 | anodised aluminium                            |
|             | Width ca.                | 436 mm                                        |
|             | Height ca.               | 44 mm                                         |

|                      |                                            |                                                                                                                                                                                                                                                                   |
|----------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                      | Depth ca.                                  | 284 mm                                                                                                                                                                                                                                                            |
|                      | IP protection class                        | IP20                                                                                                                                                                                                                                                              |
|                      | Weight ca.                                 | 3.3 kg                                                                                                                                                                                                                                                            |
| Operating conditions | Operating temperature                      | 5 °C to 45 °C                                                                                                                                                                                                                                                     |
|                      | Operating air humidity, non-condensing     | 0 % to 80 %                                                                                                                                                                                                                                                       |
|                      | Area of application                        | Indoor use                                                                                                                                                                                                                                                        |
|                      | Maximum operating altitude above sea level | 3,048 m                                                                                                                                                                                                                                                           |
|                      | Storage temperature                        | -10 °C to 55 °C                                                                                                                                                                                                                                                   |
|                      | Storage air humidity, non-condensing       | 0 % to 85 %                                                                                                                                                                                                                                                       |
|                      | MTBF                                       | 125,000 h at 25°C                                                                                                                                                                                                                                                 |
|                      | 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         | Quantity                                   | 2                                                                                                                                                                                                                                                                 |
|                      | Type                                       | Internal                                                                                                                                                                                                                                                          |
|                      | Input voltage                              | 100-240 VAC                                                                                                                                                                                                                                                       |
|                      | Input frequency                            | 60-50 Hz                                                                                                                                                                                                                                                          |
|                      | Current consumption                        | 0.7-0.3 A                                                                                                                                                                                                                                                         |



|  |                        |        |
|--|------------------------|--------|
|  | Power consumption max. | 30.7 W |
|  | Heat output max.       | 27.7 W |

## 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>Twin-PS/2-M/M-5 cable PS/2 5m</b><br>Combined cable for connecting PS/2 keyboard and mouse channels;<br>lockable | A6300103       |
|    | <b>USB-AM/BM-3 cable USB 3m</b><br>USB cable, Type-A Plug/Type-B Plug                                               | A6300114       |
|  | <b>USB-AM/BM-5 cable USB 5m</b><br>USB cable, Type-A Plug/Type-B Plug                                               | A6300111       |
|  | <b>RS232-M/F-3 cable RS232 3m</b><br>Cable to connect a serial device                                               | A6300024       |
|  | <b>RS232-M/F-5 cable RS232 5m</b><br>Cable to connect a serial device                                               | A6300025       |
|  | <b>Audio-M/M-3-ferrite cable 3m</b><br>Audio connection cable with ferrite core                                     | A6300118       |
|  | <b>Audio-M/M-5-ferrite cable 5m</b><br>Audio connection cable with ferrite core                                     | A6300085       |
|  | <b>DVI-D-DL-M/M-3 cable DVI-D 3m</b><br>Single cable for connecting a digital dual-link video channel               | A6300164       |
|  | <b>DVI-D-DL-M/M-5 cable DVI-D 5m</b><br>Single cable for connecting a digital dual-link video channel               | A6300104       |

## RELATED PRODUCTS

| Description                                                                                             | Article number |
|---------------------------------------------------------------------------------------------------------|----------------|
| <b>DL-Vision(M)-MC2-ARU2-CON</b><br>Console module to receive Dual-Link-DVI signals via fiber multimode | A1220226       |

## MORE VARIANTS

| Description                                                                                           | Article number |
|-------------------------------------------------------------------------------------------------------|----------------|
| <b>DL-Vision(M)-AR-CPU</b><br>Computer module to extend Dual-Link-DVI signals via fiber multimode     | A1210068       |
| <b>DL-Vision(M)-ARU2-CPU</b><br>Computer module to extend Dual-Link-DVI signals via fiber multimode   | A1210190       |
| <b>DL-Vision(M)-MC2-AR-CPU</b><br>Computer module to extend Dual-Link-DVI signals via fiber multimode | A1210072       |

# 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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