

## MDT LED Controller 2/3/4-channel

| Version      |                                |   |
|--------------|--------------------------------|---|
| AKD-0224V.02 | LED Controller 2-channel, 3/6A | For 12/24V CV LED, 2 separate channels          |
| AKD-0324V.02 | LED Controller 3-channel, 3/6A | For 12/24V CV LED, 3 separate channels RGB, TW  |
| AKD-0424V.02 | LED Controller 4-channel, 3/6A | For 12/24V CV LED, 4 separate channels RGBW, TW |

The MDT LED Controller receives KNX/EIB telegrams and controls 12/24V RGB LED.

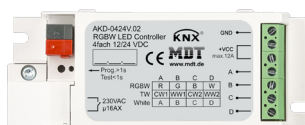
These functions are available:

- Absolute and relative dimming for **HSV colour space** and RGB
- Tunable White colour temperature control
- Selectable dimming curve and PWM frequency up to **1000Hz**
- Global and individual dimming speeds
- Individual and predefined sequences (e.g. TV Simulator)
- Repetition of sequences for automatic colour control
- Suitable for 12/24V CV LED (Common Anode)
- **Selectable load distribution:**  
**AKD-0224V.02: 2 channels each 3A**  
**AKD-0324V.02: 3 channels each 3A or 1 ch. 4,50A and 2 ch. 2,25A**  
**AKD-0424V.02: 4 channels each 3A or 1 ch. 5,25A and 3 ch. 2,25A**
- Parallel operation of 2 channels with 4A
- **Operating modes: 4 x White, RGB, RGBW, Tunable White**
- Automatic colour temperature control Dim2Warm
- Dynamic daylight control HCL (Human Centric Lighting)
- Automatic time dependent dimming
- **Day/Night function**
- Overcurrent and overtemperature supervision

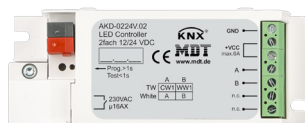
The MDT LED Controller is an installation device for installation in dry rooms. For project design and commissioning of the MDT Controller it is recommended to use the ETS or later. Please download the application software at [www.mdt.de/Downloads.html](http://www.mdt.de/Downloads.html)

AKD-0324V.02

AKD-0424V.02



AKD-0224V.02



- Production in Germany, certified according to ISO 9001
- **Comprehensive application**
- Absolute and relative dimming for **HSV colour space** and RGB
- Tunable White colour temperature control
- Selectable dimming curve and PWM frequency up to **1000Hz**
- Individual and predefined sequences (e.g. TV Simulator)
- Suitable for 12/24V CV LED (Common Anode)
- **Selectable load distribution:**  
**AKD-0224V.02: 2 channels each 3A**  
**AKD-0324V.02: 3 channels each 3A or 1 ch. 4,50A and 2 ch. 2,25A**  
**AKD-0424V.02: 4 channels each 3A or 1 ch. 5,25A and 3 ch. 2,25A**
- Parallel operation of 2 channels with 6A
- **Operating modes: 4 x White, RGB, RGBW, Tunable White**
- Automatic colour temperature control Dim2Warm
- Dynamic daylight control HCL (Human Centric Lighting)
- Automatic time dependent dimming
- **Day/Night function**
- Overcurrent and overtemperature supervision
- 3 years warranty

| Technical Data   | AKD-0324V.02  | AKD-0424V.02  | AKD-0224V.02  |
|--|---|---|---|
| Number of outputs  | 3   | 4   | 2   |
| Dimming process****  | PWM 600/1000Hz  | PWM 600/1000Hz  | PWM 600/1000Hz  |
| Switching voltage relay output                                       | 230VAC/50Hz   | 230VAC/50Hz   | 230VAC/50Hz   |
| Max. fuse relay output   | 16A   | 16A   | 16A   |
| Maximum current relay output   | 16A/140µF   | 16A/140µF   | 16A/140µF   |
| LED power supply   | 12/24VDC +10%   | 12/24VDC +10%   | 12/24VDC +10%   |
| Max. current for each color channel without load distribution        | 3/6A**  | 3/6A**  | 3/6A**  |
| Max. current for each color channel with activated load distribution | 1 channel 4,5A /<br>2 channels with 2,25A                                       | 1 channel 5,25A /<br>3 channels je 2,25A  | --  |
| Max. current external power supply*                                  | 12A   | 12A   | 12A   |
| Recommended length supply line***                                    | < 3m, max. 10m  | < 3m, max. 10m  | < 3m, max. 10m  |
| Specification KNX interface  | TP-256  | TP-256  | TP-256  |
| Available application software                                       | ETS 4/5   | ETS 4/5   | ETS 4/5   |
| Permitted wire gauge   |   |   |   |
| Screw terminal   | 0,5 - 4,0mm <sup>2</sup> solid core<br>0,5 - 2,5mm <sup>2</sup> finely stranded | 0,5 - 4,0mm <sup>2</sup> solid core<br>0,5 - 2,5mm <sup>2</sup> finely stranded | 0,5 - 4,0mm <sup>2</sup> solid core<br>0,5 - 2,5mm <sup>2</sup> finely stranded |
| KNX busconnection terminal   | 0,8mm Ø, solid core   | 0,8mm Ø, solid core   | 0,8mm Ø, solid core   |
| Power supply   | KNX bus   | KNX bus   | KNX bus   |
| Power consumption KNX bus typ.                                       | < 0,3W  | < 0,3W  | < 0,3W  |
| Operation temperature range  | 0 to + 45°C   | 0 to + 45°C   | 0 to + 45°C   |
| Enclosure  | IP 20   | IP 20   | IP 20   |
| Dimensions (W x H x D)   | 46mm x 25mm x 113mm   | 46mm x 25mm x 113mm   | 46mm x 25mm x 113mm   |

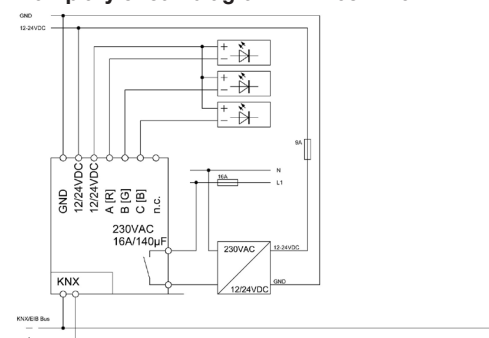
\* It is required to use a power supply according to EN 61347-2-13.

\*\* Only if the channels A/B and C/D are connected in parallel. The channels have to be bridged directly at the connection terminals.

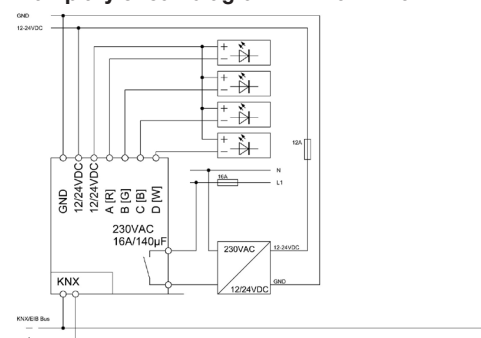
\*\*\* The length of the single supply lines must be the same.

\*\*\*\* For sensitive persons, we recommend to set the dimming method to 1000Hz.

Exemplary circuit diagram AKD-0324V.02



Exemplary circuit diagram AKD-0424V.02



Exemplary circuit diagram AKD-0224V.02

