

## 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.

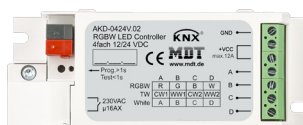
These functions are available:

- 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 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

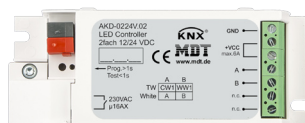
The MDT LED Controller is an installation device for installation in dry rooms. For project design and commissioning of the MDT Controller it is recommended to use the ETS or later. Please download the application software at [www.mdt.de/Downloads.html](http://www.mdt.de/Downloads.html)

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 / 2 channels with 2,25A	1 channel 5,25A / 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 0,5 - 2,5mm <sup>2</sup> finely stranded	0,5 - 4,0mm <sup>2</sup> solid core 0,5 - 2,5mm <sup>2</sup> finely stranded	0,5 - 4,0mm <sup>2</sup> solid core 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

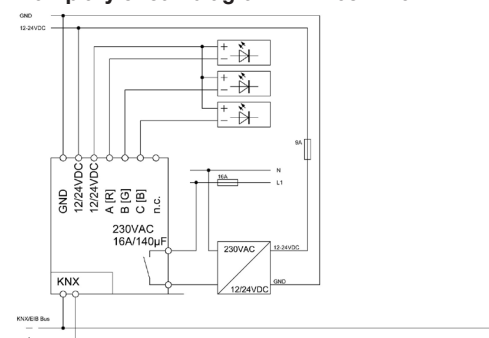
\* It is required to use a power supply according to EN 61347-2-13.

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

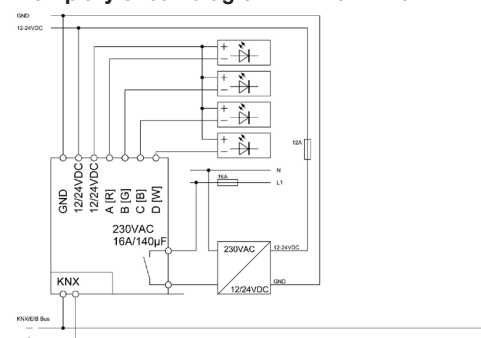
\*\*\* The length of the single supply lines must be the same.

\*\*\*\* 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

