

MDT RGB LED Controller

Version		
AKD-0224V.02	LED Controller	For 2 x White 12/24V LED
AKD-0324V.02	RGB LED Controller	For 12/24V RGB / 3 x White LED
AKD-0424V.02	RGBW LED Controller	For 12/24V RGBW / 4 x White LED

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

These functions are available:

- Absolute and relative dimming for **HSV color space** and RGB
- Tunable White color temperature control
- Selectable dimming curve and PWM frequency up to **1000Hz**
- Global and individual dimming speeds
- Individual and predefined sequences (e.g. TV Simulator)
- Suitable for 12/24V CV LED, 3A for each channel (Common Anode)
- **Parallel operation and selectable load distribution**
- **Operating modes: 3 x White, RGB, Tunable White**
- **Automatic color temperature control Dim2Warm**
- **Dynamic daylight control HCL (Human Centric Lighting)**
- **Automatic time-dependent dimming**
- **Day/night function**
- Overcurrent and overtemperature supervision
- Intelligent 16A C-Load Relay output to control external LED power supply

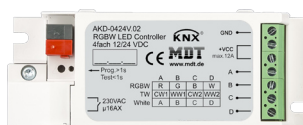
The MDT LED Controller is an installation device for installation in dry rooms.

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

AKD-0324V.02

AKD-0424V.02



AKD-0224V.02



- Production in Germany, certified according to ISO 9001
- **Extensive function extension**
- Absolute and relative dimming for **HSV color space** and RGB
- Tunable White color temperature control
- Selectable dimming curve and PWM frequency up to **1000Hz**
- Global and individual dimming speeds
- Individual and predefined sequences (e.g. TV Simulator)
- Suitable for 12/24V CV LED, 3A for each channel (Common Anode)
- **Parallel operation and selectable load distribution**
- **Operating modes: 3 x White, RGB, Tunable White**
- **Automatic color temperature control Dim2Warm**
- **Dynamic daylight control HCL (Human Centric Lighting)**
- **Automatic time-dependent dimming**
- **Day/night function**
- Overcurrent and overtemperature supervision
- Intelligent 16A C-Load Relay output to control external LED power supply
- 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	2 channels with 2,25A / 1 channel 4,5A	3 channels je 2,25A / 1 channel 5,25A	--
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 ² solid core 0,5 - 2,5mm ² finely stranded	0,5 - 4,0mm ² solid core 0,5 - 2,5mm ² finely stranded	0,5 - 4,0mm ² solid core 0,5 - 2,5mm ² 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

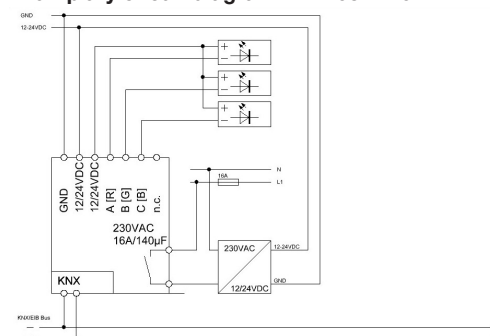
* For sensitive persons, we recommend to set the dimming method to 1000Hz.

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

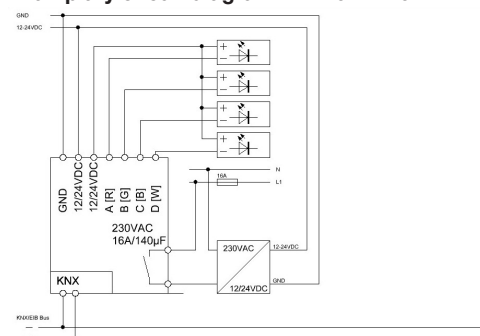
*** It is required to use a power supply according to EN 61347-2-13.

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

Exemplary circuit diagram AKD-0324V.02



Exemplary circuit diagram AKD-0424V.02



Exemplary circuit diagram AKD-0224V.02

