

## MDT LED Controller 4-channel, RGBW, 2/4SU MDRC

Version		
AKD-0424R2.02	LED Controller 4-channel, 2/4A	For 12/24V CV LED, 4 separate channels RGBW, TW
AKD-0424R.02	LED Controller 4-channel, 4/8A	For 12/24V CV LED, 4 separate channels RGBW, TW

The MDT LED Controller receives KNX/EIB telegrams and controls 12/24V RGBW LED. If required the channels A/B and C/D can be connected in parallel to control higher loads up to 8A.

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-0424R2.02: 4 channels each 2A or 1 ch. 3,5A and 3 ch. 1,5A**  
**AKD-0424R.02: 4 channels each 4A or 1 ch. 7,0A and 3 ch. 3,0A**
- **Parallel operation of 2 channels with 4A (2SU) or 8A (4SU)**
- **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

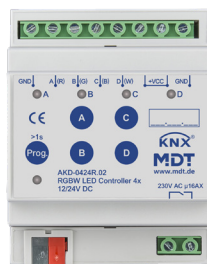
The MDT LED Controller is a modular installation device for fixed installation in dry rooms. It fits on DIN 35mm rails in power distribution boards or closed compact boxes.

For project design and commissioning of the MDT LED Controller it is recommended to use the ETS. Please download the application software at [www.mdt.de/Downloads.html](http://www.mdt.de/Downloads.html)

AKD-0424R2.02



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- Production in Germany, certified according to ISO 9001
- **Comprehensive application**
- Absolute and relative dimming for **HSV colour space** and RGB
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- Global and individual dimming speeds
- Individual and predefined sequences (e.g. TV Simulator)
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- **Automatic time dependent dimming**
- **Day/Night function**
- Overcurrent and overtemperature supervision
- 3 years warranty

Technical Data	AKD-0424R2.02	AKD-0424R.02
Number of outputs	4	4
Dimming process****	PWM 600/1000Hz	PWM 600/1000Hz
Switching voltage relay output	--	230VAC/50Hz
Max. fuse relay output	--	16A
Maximum current relay output	--	16A/140µF
LED power supply	12/24VDC +10%	12/24VDC +10%
Max. current for each channel without load distribution	2/4A**	4/8A**
Max. current for each channel with activated load distribution	1 channel 3,5A / 3 channels 1,5A	1 channel 7A / 3 channels 3A
Max. current external LED power supply*	8A	16A
Recommended wire gauge of LED supply line***		
Length < 20m, current 2A	1,5mm <sup>2</sup>	1,5mm <sup>2</sup>
Length < 35m, current 2A	2,5mm <sup>2</sup>	2,5mm <sup>2</sup>
Length < 10m, current 4A	1,5mm <sup>2</sup>	1,5mm <sup>2</sup>
Length < 18m, current 4A	2,5mm <sup>2</sup>	2,5mm <sup>2</sup>
Length < 9m, current 8A**	2,5mm <sup>2</sup>	2,5mm <sup>2</sup>
Specification KNX Interface	TP-256	TP-256
Available application software	ETS 4/5	ETS 4/5
Permitted wire gauge		
Screw terminal (max. 0,5Nm tightening torque)	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
Power supply MCU	KNX bus	KNX bus
Power consumption KNX bus typ.	< 0,3W	< 0,3W
Operation temperature range	0 to + 45°C	0 to + 45°C
Enclosure	IP 20	IP 20
Dimensions MDRC (Space Units)	2SU	4SU

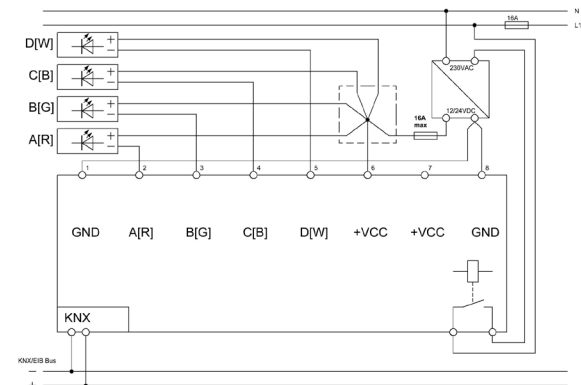
\* It is required to use a power supply according to EN 61347-2-13.

\*\* 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 declared length refer to a voltage drop below <1V abd separate wiring of go and return line. If a common return line is used the wire gauge has to be increased accordingly.

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

**Exemplary circuit diagram AKD-0424R.02**



**Exemplary circuit diagram AKD-0424R.02 parallel connection A/B and C/D**

