

## MDT RGBW LED Controller

Version		
AKD-0424R.01	RGBW LED Controller	For 12/24V RGBW LED Stripes

The MDT LED Controller receives KNX/EIB telegrams and controls 12/24V RGB LED stripes. 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 (HSV and RGB)
- Scene function
- Random function
- Dimming speed and hold time programmable
- Predefined sequences (e.g. sunrise)
- Repeating of sequences
- Defining of colors
- Overcurrent supervision
- Overtemperature supervision
- Suitable for 12/24V LED Stripes, 4A for each color channel (Common Anode)
- Suitable for LED with constant voltage (CV)
- Relay output to control external LED power supply maximum switching current 16A, capacitive load max. 140µF
- Commissioning with ETS4/5

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 ETS4/ETS5 or later. Please download the application software at [www.mdt.de/Downloads.html](http://www.mdt.de/Downloads.html)

AKD-0424R.01



- Production in Germany, certified according to ISO 9001
- Absolute and relative dimming (HSV and RGB)
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- Overcurrent supervision
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- Suitable for 12/24V LED Stripes, 4A for each color channel (Common Anode)
- Suitable for LED with constant voltage (CV)
- Relay output to control external LED power supply maximum switching current 16A, capacitive load max. 140µF
- Commissioning with ETS4/5
- Modular installation device for DIN 35mm rails
- Integrated bus coupling unit
- 3 years warranty

<b>Technical Data</b>	AKD-0424R.01	
<b>Number of outputs</b>	4	
<b>Switching voltage relay output</b>	230VAC/50Hz	
<b>Max. fuse relay output</b>	16A	
<b>Maximum current relay output</b>	16A/140µF	
<b>LED power supply*</b>	12/24VDC +10%	
<b>Max. current for each color channel**</b>	4/8A**	
<b>Max. current external LED power supply</b>	16A	
<b>Recommended wire gauge of LED supply line***</b>		
Length < 20m, current 2A	1,5mm <sup>2</sup>	
Length < 35m, current 2A	2,5mm <sup>2</sup>	
Length < 10m, current 4A	1,5mm <sup>2</sup>	
Length < 18m, current 4A	2,5mm <sup>2</sup>	
Length < 9m, current 8A**	2,5mm <sup>2</sup>	
<b>Permitted wire gauge</b>		
Screw terminal	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	
<b>Dimming process****</b>	PWM 600/1000Hz	
<b>Power supply MCU</b>	KNX bus	
<b>Power consumption KNX bus typ.</b>	< 0,3W	
<b>Operation temperature range</b>	0 to + 45°C	
<b>Enclosure</b>	IP 20	
<b>Dimensions MDRC (Space Units)</b>	4SU	

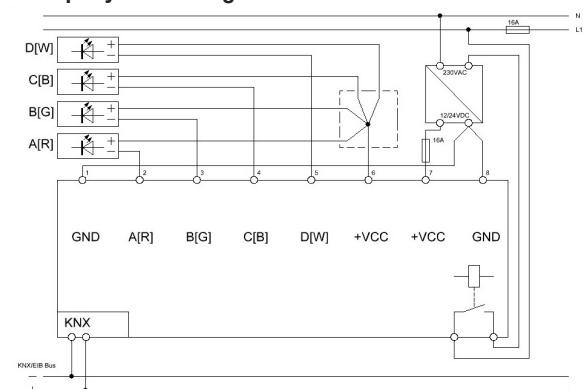
\* t is required to use a power supply according to EN 61347-2-13.

\*\* 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 and separate wiring of go and return line. If a common return line is used the wire gauge has to be increased accordingly.

\*\*\*\* We suggest to use the LED Controller only to create light moods. If you use PWM devices for main light sensitive persons can be irritated by strobe effects or flickering.

**Exemplary circuit diagram AKD-0424R.01**



**Exemplary circuit diagram AKD-0424R.01 parallel connection A/B and C/D**

