

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 CV LED, 4A for each color channel (Common Anode)
- Parallel operation of 2 channels with 8A
- Operation mode RGBW or 4-fold (white CV LED) selectable
- Relay output to control external LED power supply maximum switching current 16A, capacitive load max. 140µF
- Commissioning with ETS 4/5

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 ETS. Please download the application software at www.mdt.de/Downloads.html

AKD-0424R.01



- Production in Germany, certified according to ISO 9001
- Absolute and relative dimming (HSV and RGB)
- Scene function
- Random function
- Dimming speed and hold time adjustable
- Predefined sequences (e.g. sunrise)
- Repeating of sequences
- Defining of colors
- Overcurrent supervision
- Overtemperature supervision
- Suitable for 12/24V CV LED Stripes, 4A for each color channel (Common Anode)
- Parallel operation of 2 channels with 8A
- Operation mode RGBW or 4-fold (white CV LED) selectable
- Relay output to control external LED power supply maximum switching current 16A, capacitive load max. 140µF
- Commissioning with ETS 4/5
- 3 years warranty

Technical Data	AKD-0424R.01	
Number of outputs	4	
Switching voltage relay output	230VAC/50Hz	
Max. fuse relay output	16A	
Maximum current relay output	16A/140µF	
LED power supply*	12/24VDC +10%	
Max. current for each color channel**	4/8A**	
Max. current external LED power supply	16A	
Recommended wire gauge of LED supply line***		
Length < 20m, current 2A	1,5mm ²	
Length < 35m, current 2A	2,5mm ²	
Length < 10m, current 4A	1,5mm ²	
Length < 18m, current 4A	2,5mm ²	
Length < 9m, current 8A**	2,5mm ²	
Specification KNX Interface	TP-256	
Available application software	ETS 4/5	
Permitted wire gauge		
Screw terminal	0,5 - 4,0mm ² solid core 0,5 - 2,5mm ² finely stranded	
KNX busconnection terminal	0,8mm Ø, solid core	
Dimming process****	PWM 600/1000Hz	
Power supply MCU	KNX bus	
Power consumption KNX bus typ.	< 0,3W	
Operation temperature range	0 to + 45°C	
Enclosure	IP 20	
Dimensions MDRC (Space Units)	4SU	

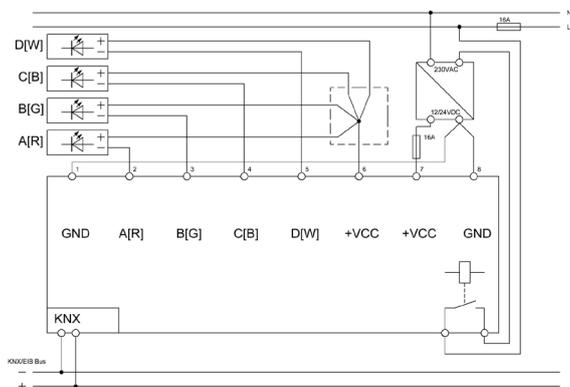
* t is required to use a power supply according to EN 61347-2-13.

** 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

