MDT LED Controller

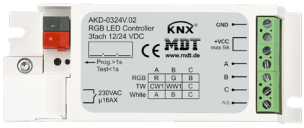
MDT LED Controller 2/3/4-channel

Version		
AKD-0224V.02	LED Controller 2-channel, 3/6 A	For 12/24 V CV LED, 2 separate channels
AKD-0324V.02	LED Controller 3-channel, 3/6 A	For 12/24 V CV LED, 3 separate channels RGB, TW
AKD-0424V.02	LED Controller 4-channel, 3/6 A	For 12/24 V CV LED, 4 separate channels RGBW, TW

The MDT LED controller AKD can be used to dim typical LED lamps with 12 V and 24 V constant voltage (CV). Whether single-colour LED spot, tunable white or RGB(W) strips, the outputs of the LED controllers are individually adjustable. The comprehensive setting options of the application enable customised lighting.

AKD-0424V.02

AKD-0324V.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 **1000 Hz**
- 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 3 A
  AKD-0324V.02: 3 channels each 3 A or 1 ch. 4.50 A and 2 ch. 2.25 A
  AKD-0424V.02: 4 channels each 3 A or 1 ch. 5.25 A and 3 ch. 2.25 A
- **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

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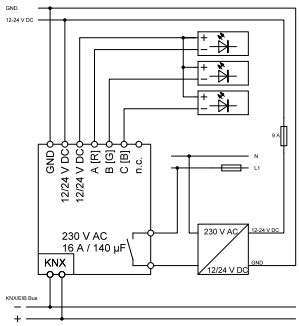
Stand: 0225

MDT LED Controller

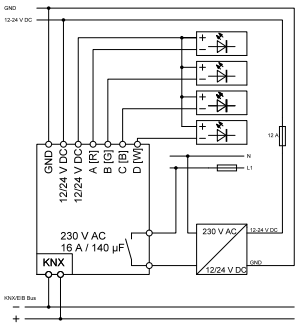
Technical Data	AKD-0324V.02	AKD-0424V.02	AKD-0224V.02
Number of outputs	3	4	2
Dimming process****	PWM 600/1000 Hz	PWM 600/1000 Hz	PWM 600/1000 Hz
Switching voltage relay output	230 V AC / 50 Hz	230 V AC / 50 Hz	230 V AC / 50 Hz
Max. fuse relay output	16 A	16 A	16 A
Maximum current relay output	16 A / 140 µF	16 A / 140 µF	16 A / 140 µF
LED power supply	12/24 V DC +10 %	12/24 V DC +10 %	12/24 V DC +10 %
Max. current for each color channel without load distribution	3/6 A**	3/6 A**	3/6 A**
Max. current for each color channel with activated load distribution	1 channel 4.5 A / 2 channels with 2.25 A	1 channel 5.25 A / 3 channels je 2.25 A	--
Max. current external power supply*	9 A	12 A	6 A
Recommended length supply line***	< 3 m, max. 10 m	< 3 m, max. 10 m	< 3 m, max. 10 m
Specification KNX interface	TP-256	TP-256	TP-256
Available application software	as of ETS 4	as of ETS 4	as of ETS 4
Permitted wire gauge			
Screw terminal	0.5 - 4.0 mm² solid core 0.5 - 2.5 mm² finely stranded	0.5 - 4.0 mm² solid core 0.5 - 2.5 mm² finely stranded	0.5 - 4.0 mm² solid core 0.5 - 2.5 mm² finely stranded
KNX bus connection terminal	Ø 0.8 mm, solid core	Ø 0.8 mm, solid core	Ø 0.8 mm, solid core
Power supply	KNX bus	KNX bus	KNX bus
Power consumption KNX bus typ.	< 0,3 W	< 0,3 W	< 0,3 W
Operation temperature range	0 ... 45 °C	0 ... 45 °C	0 ... 45 °C
Enclosure	IP20	IP20	IP20
Dimensions (W x H x D)	46 x 25 x 113 mm	46 x 25 x 113 mm	46 x 25 x 113 mm

* 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 1000 Hz.

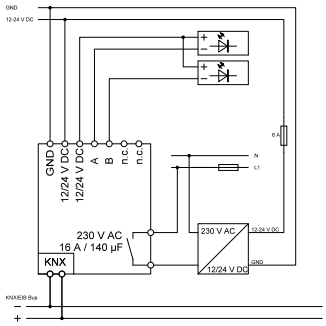
Exemplary wiring diagram AKD-0324V.02



Exemplary wiring diagram AKD-0424V.02



Exemplary wiring diagram AKD-0224V.02



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