

4CH 10A 0-10V Dimming Actuator

Datasheet



MDA04-R10-KT.13



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Before using this product, please read this datasheet carefully and keep it properly!

Document Version: C

◆◆ Overview

4CH 10A 0-10V Dimming Actuator (Model: MDA04-R10-KT.13, hereinafter referred to as "this product" or "this device") , supports 0/1-10V dimming for 4 independent channels. Each channel is integrated with a 10A relay for synchronous on/off control. Equipped with physical direct keys and status indicators, the module enables lighting switch control and scene management functions.

Note: All illustrations in this manual are for reference only. All operations shall be subject to the actual product.

Main Functions:

- Adopts standard KNX communication protocol
- 4-channel relay switch output
- 4-channel 0-10V analog signal input/output, compatible with 0-10V fluorescent lamps, LED lamps and other dimmable lighting devices
- Multiple control modes: time statistics, status response, status restoration, staircase lighting, flash lighting, scene control, sequence control, threshold switching and PWM heating control
- Configurable upper and lower dimming limits for each channel
- Manual on/off control for individual relay channels

◆◆ Appearance

1. Product Dimensions

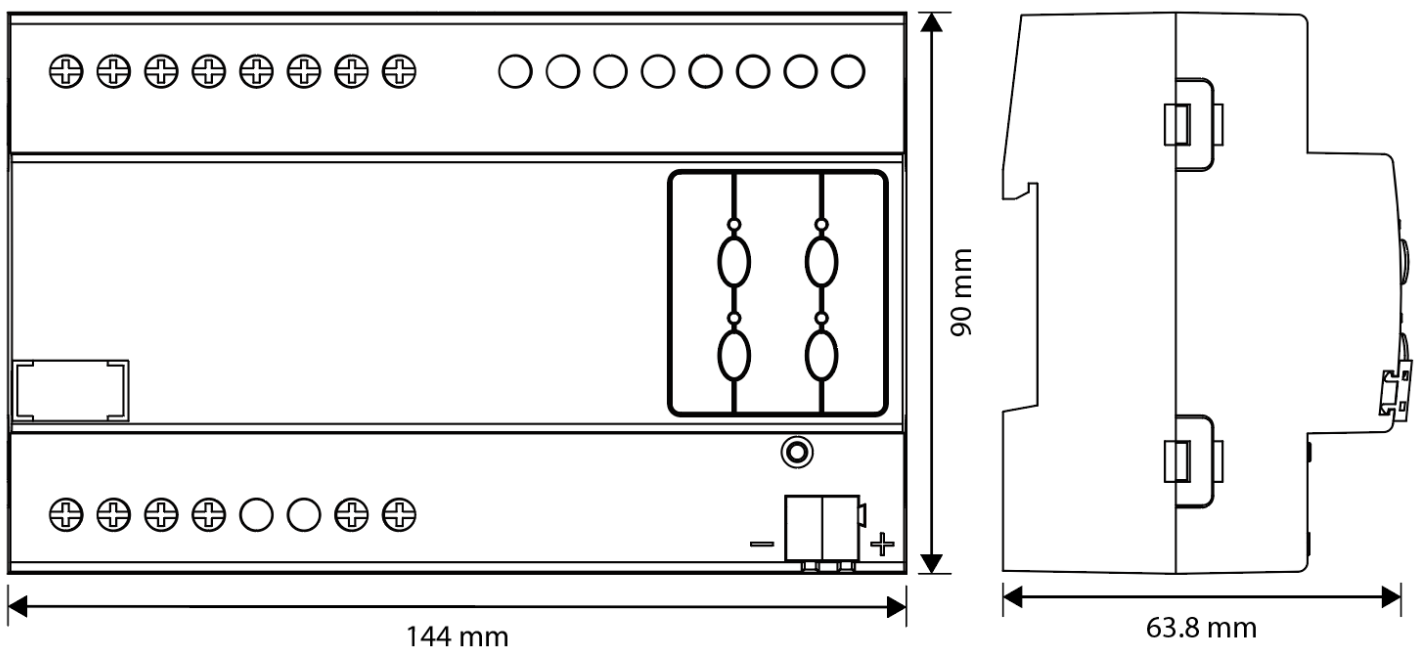


Figure 1

2. Port Information

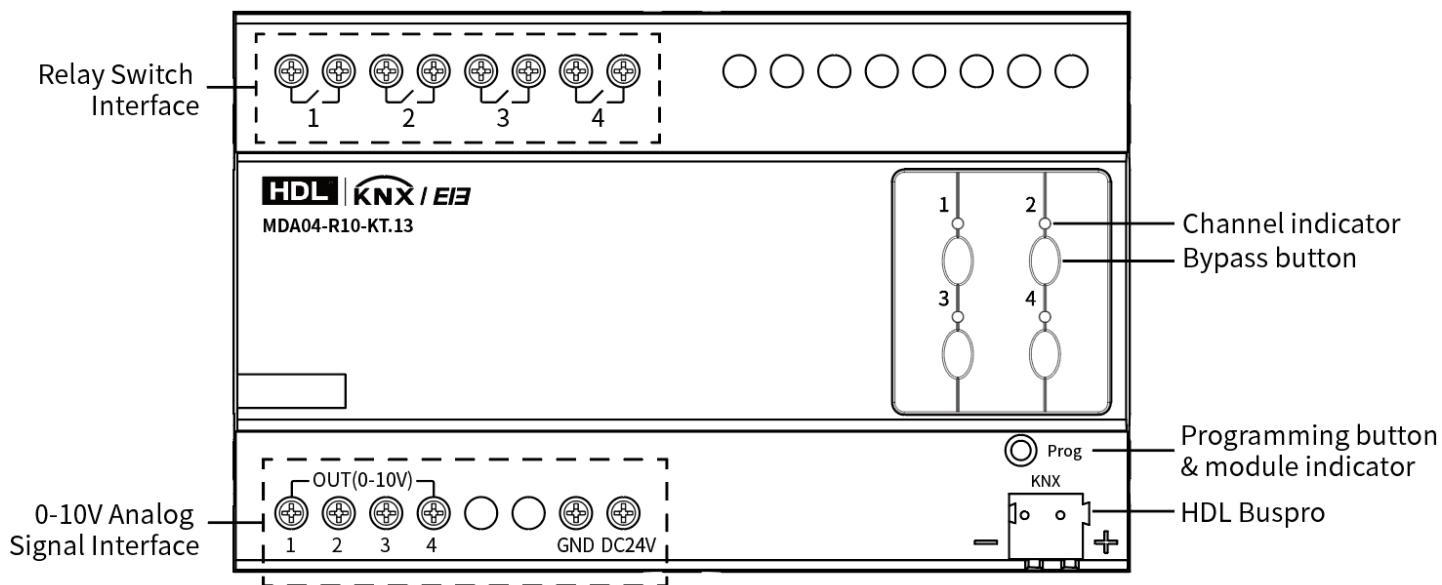


Figure 2

◆◆ Technical Data

Item	Parameter
Rated voltage	30V DC
Rated current	15mA/30V DC
Input voltage	100-240V~50/60HZ
Output channel	4CH, 10A/CH
Relay Specifications	TV-8
Dimming Output	0-10V DC, 24mA/CH
Communication protocol	KNX
Turn-off Method	Turn-off via pulse-operated latching relay
Cable diameter of KNX terminal	0.6-0.8mm
Electronic life	> 100000
Mechanical Life	> 100000
Working temperature	-5°C~45°C
Working relative humidity	≤90%
Storage temperature	-20°C~60°C
Storage relative humidity	≤93%

◆◆ Specifications

Item	参数
Dimensions (W × H × D)	144mm×90mm×63.8mm
Net weight	325g
Housing material	Nylon
Installation	35mm DIN rail mounted
Protection rating (Compliant with EN 60529)	IP20

◆◆ Safety Precaution

- The installation and testing for the product must be carried out by HDL Automation Co., Ltd. (hereinafter referred to as HDL) or its appointed service agencies. The electric construction shall comply with local laws and safety regulations.
- The device should be installed with DIN rail in DB box. HDL will not be responsible for any consequence caused by the inexperienced or faulty installation and wiring methods, which are not in accordance with the instructions contained in this datasheet.
- Please do not privately disassemble or replace any parts of the product. Otherwise, it may cause mechanical fault, electric shock, fire or personal injuries.
- Please contact HDL after-sales departments or our designated service agencies for your maintenance service. Product failures caused by private disassembly are not subject to the warranty.
- Overrange is not allowed. Please use the device in accordance with the technical specifications.
- Programming — This device is a standard KNX device, programmed via ETS software.
- Output Circuit — The switching load current connected to output circuit shall not exceed 10A.
- Protection — A 10A circuit-breaker or fuse shall be installed on the output load circuit.

◆◆ Wiring

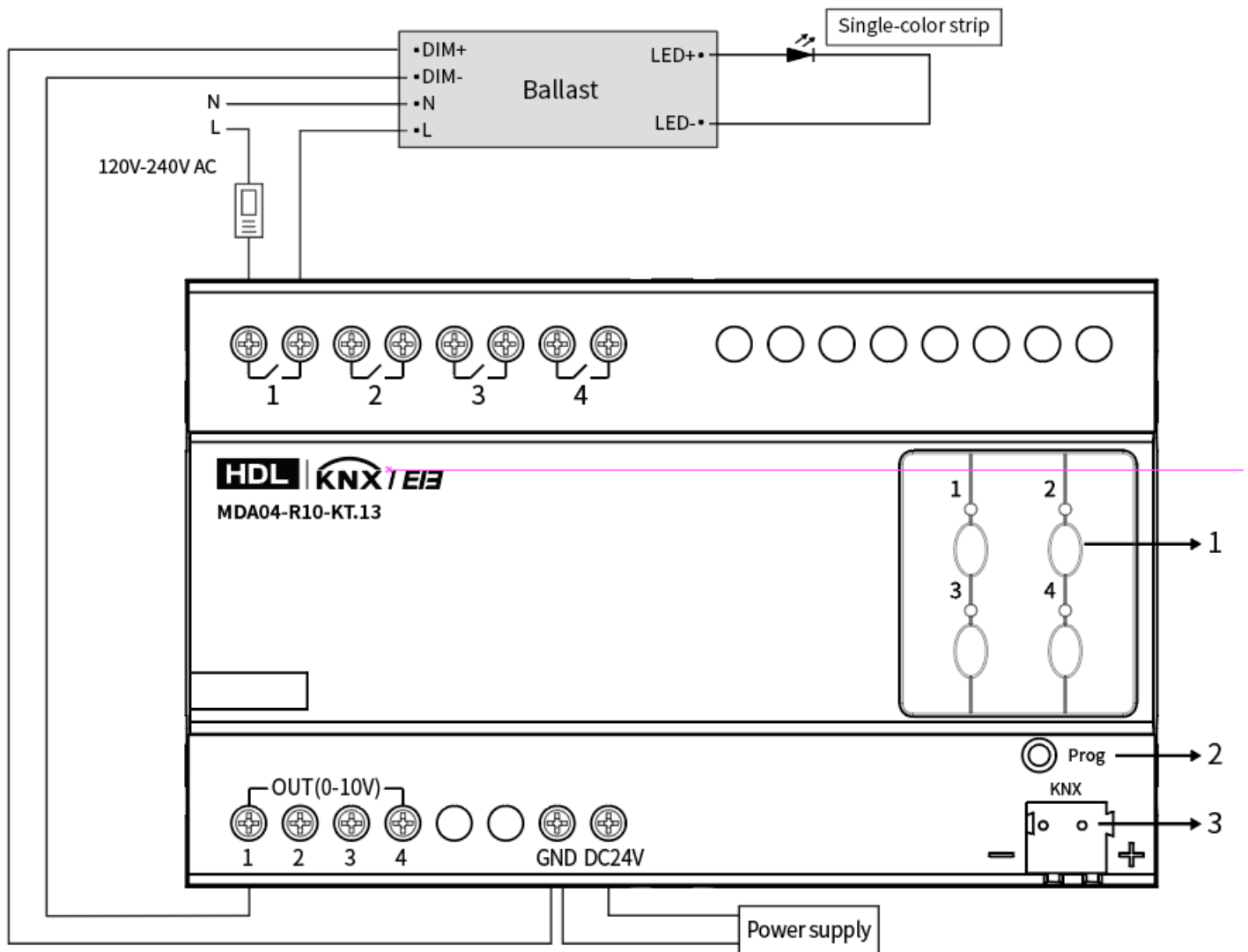


Figure 3

1. Manual Buttons
2. Programming Button / Indicator LED: Red LED indicates programming mode
3. KNX/EIB Bus Interface

Note: External 24 V DC auxiliary power supply is required.

◆◆ Installation

Warning: Before performing any installation or disassembly procedures on the device, it is crucial to disconnect the device from all voltage sources. This step is necessary to ensure the safety of the technician and prevent any potential damage to the device.

Step 1. Fix the DIN rail with screws.

Step 2. Buckle the bottom cap of the actuator on the edge of the DIN rail.

Step 3. Press the device on the DIN rail, slide it and fix it up until an appropriate position is adjusted.

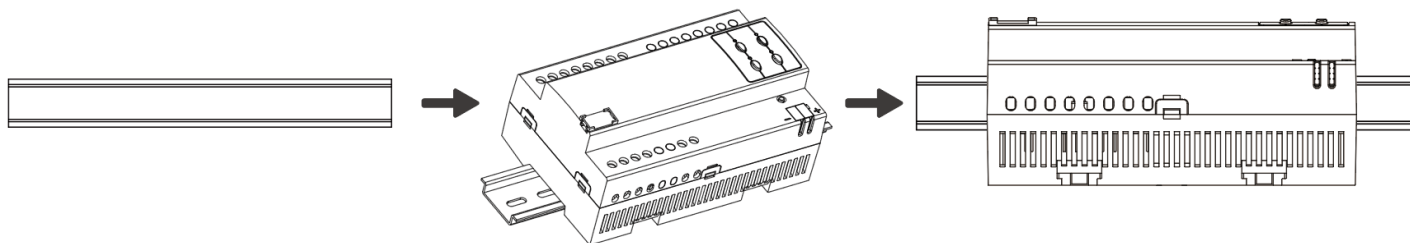


Figure 4

Note: After all of the cables are terminated, check for correct and good terminations. Before powering on, please ensure the device is tightly on the wall body.

◆◆ Operation

The device's buttons and LEDs require database installation for normal operation. See details below:

Note: Use an appropriate tool (e.g. reset pin) to actuate the programming button.

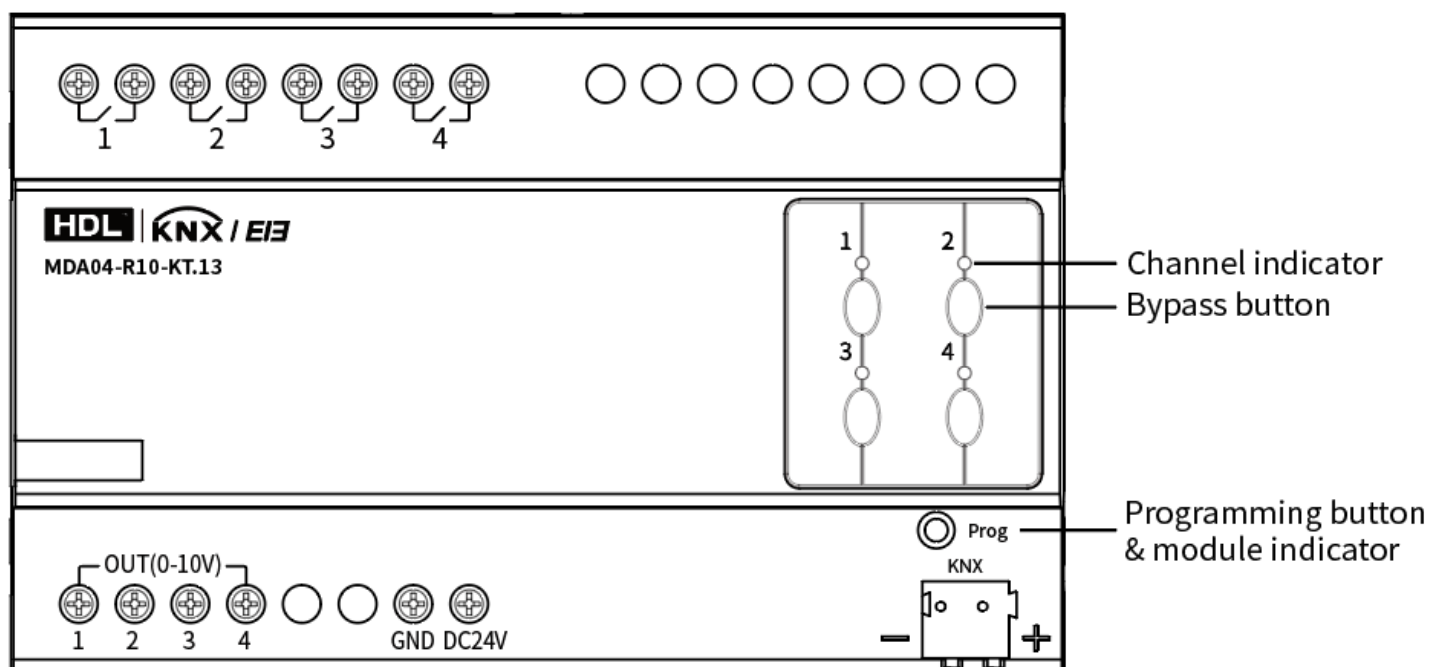


Figure 5

Operation	Result
Short-press the programming button.	The device enters programming mode with its LED illuminated red.
While in programming mode, short-press the button again.	Device exits programming mode.

◆◆ Packing List

- 4CH 10A 0-10V Dimming Actuator ×1
- Label ×5

- PET Label ×2

Note: After unpacking, please check if the product and the parts are complete.

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Update History:

The form below contains the information of every update. The latest version contains all the updates of all former versions.

Version	Update Information	Date
V1.0	Initial release	August 19, 2026

◆◆ Technical Support

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