HDL-MDT0203.532 2CH 3A MOSFET Dimming Actuator
HDL-MDT04015.532 4CH 1.5A MOSFET Dimming Actuator
HDL-MDT06015.533 6CH 1.5A MOSFET Dimming Actuator

Datasheet

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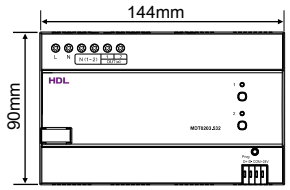
File Edition: A

Figure 1. 2CH 3A MOSFET Dimming Actuator

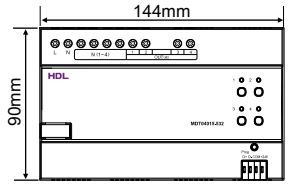
Figure 2. 4CH 1.5A MOSFET Dimming Actuator

Figure 3. 6CH 1.5A MOSFET Dimming Actuator



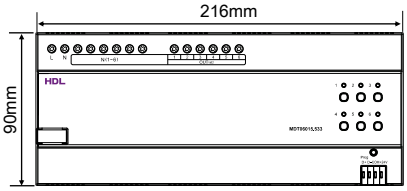
2CH 3A MOSFET Dimming Actuator

Figure 4. Dimensions - Front View



4CH 1.5A MOSFET Dimming Actuator

Figure 5. Dimensions - Front View



6CH 1.5A MOSFET Dimming Actuator

Figure 6. Dimensions - Front View

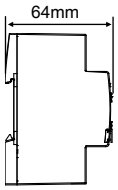
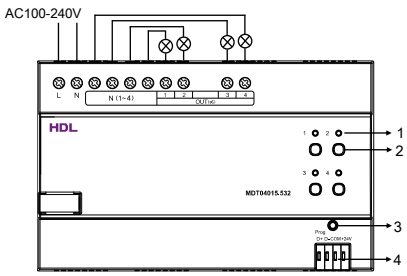


Figure 7. Dimensions - Side View



Take connection of HDL-MDT04015.532 as an example

Figure 8. Wiring

Overview

MOSFET Dimming Actuator (See Figure 1-3) is designed based on the MOSFET dimming technology, which has 3 kinds(2CH 3A / 4CH 1.5A / 6CH 1.5A) of output channels and each channel has a bypass button for manual control. MOSFET trailing edge dimming mode supported for each channel, which is applicable to dimming control of different types, for example, incandescent light, halogen light, dimmable LED light, dimmable LED driver, etc.

Its functions include:

- LED status indicator and bypass button for each output channel are available.
- Up to 2 separate zones, and up to 12 scenes can be set for each zone.
- Up to 6 sequences, and 12 steps for each sequence
- Low Threshold, High Threshold, Maximum Threshold are all available for each channel.
- Selected scene or scene before power off can be activated automatically when the device restarts.
- Trailing edge dimming mode is supported for each channel.
- Short circuit protection, instant overvoltage protection and overheat protection
- 4 dimming curves
- Online update via HDL Buspro Setup Tool

Components and Operation

Dimensions - See Figure 4 - 7

Wiring - See Figure 8

1. LED indicator, indicates the status of the channel
2. Bypass button
3. Programming button & module indicator

Programming button & indicator: The indicator will flash when the device is in working mode. Keep pressing the button for 3 seconds, the ID can be read and modified via HDL Buspro Setup Tool.

4. HDL Buspro interface

Installation

Installation - See Figure 9 - 11 (Take HDL-MDT04015.532 as an example)

Step 1. Fix the DIN rail with screws.

Step 2. Buckle the bottom cap of the device 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.

Important Notes

- Buspro cable - Dedicated HDL Buspro cable.
- Buspro connection - Series connection (hand-in-hand recommended)
- Connection checking - Check all connections after installation
- Output channel - The current of each channel (HDL-MDT0203.532) can not exceed 3A, the maximum current in total can not exceed 6A.The current of each channel (HDL-MDT0203.532) can not exceed 1.5A, the maximum current in total can not exceed 6A. The current of each channel (HDL-MDT06015.533) can not exceed 1.5A, the maximum current in total can not exceed 9A.
- Load types - Incandescent light, halogen light, dimmable LED light, dimmable LED driver, etc.
- Trailing edge mode is not allowed when the inductive load is connected.
- Make sure the working temperature of the dimmer does not exceed 45℃.

Safety Precautions

- The installation and commissioning of the device must be carried out by HDL or the organization designated by HDL. For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.
- The device should be installed with DIN rail in DB box. HDL does not take responsibility for all the consequences caused by installation and wire connection that are not in accordance with this document.
- Please do not privately disassemble the device or change components, otherwise it may cause mechanical failure, electric shock, fire or body injury.
- Please resort to our customer service department or designated agencies for maintenance service. The warranty is not applicable for the product fault caused by private disassembly.
- It is not allowed to exceed the range.

Package Contents

MOSFET Dimming Actuator*1 / Buspro connector*1 / Label*5 / Datasheet*1

Figure 9

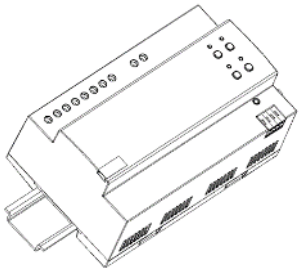


Figure 10

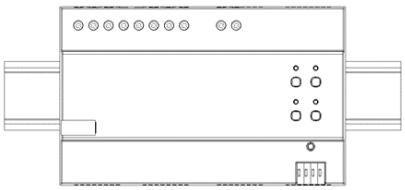


Figure 11

Figure 9 - 11. Installation

Technical Data

Basic Parameters	
Working voltage	15~30V DC
Working current	HDL-MDT0203.532: 26mA/24V DC HDL-MDT04015.532: 35mA/24V DC HDL-MDT06015.533: 40mA/24V DC
Input voltage	AC100-240V (50/60Hz)
Output channel	HDL-MDT0203.532: 2CH, 3A/CH HDL-MDT04015.532: 4CH, 1.5A/CH HDL-MDT06015.533: 6CH, 1.5A/CH
Total output current	HDL-MDT0203.532: 6A Max. HDL-MDT04015.532: 6A Max. HDL-MDT06015.533: 9A Max.
Dimming mode	Trailing edge
Dimming curves	Linear, 1.5 exponent, 2.0 exponent, 3.0 exponent, custom
External Environment	
Working temperature	-5℃~45℃
Working relative humidity	≤90%
Storage temperature	-20℃~60℃
Storage relative humidity	≤93%
Specifications	
Dimensions	HDL-MDT0203.532: 144mm×90mm×64mm HDL-MDT04015.532: 144mm×90mm×64mm HDL-MDT06015.533: 216mm×90mm×64mm
Net weight	HDL-MDT0203.532: 403g HDL-MDT04015.532: 409g HDL-MDT06015.533: 518g
Housing material	Nylon, PC
Installation	35mm DIN rail installation (See Figure 9 - 11)
Protection rating (Compliant with EN 60529)	IP20

Name and Content of Hazardous Substances in Products

Components	Hazardous substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Chromium VI (Cr (VI))	Poly-brominated biphenyls (PBB)	Poly-brominated diphenyl ethers (PBDE)
Plastic	o	o	o	o	o	o
Hardware	o	o	o	o	-	-
Screw	o	o	o	×	-	-
Solder	×	o	o	o	-	-
PCB	×	o	o	o	o	o
IC	o	o	o	o	×	×

The symbol “-” indicates that the hazardous substance is not contained.

The symbol "o" indicates that the content of the hazardous substances in all the homogeneous materials of the component is below the limit requirement specified in the Standard IEC62321-2015.

The symbol “×” indicates that the content of the hazardous substance in at least one of the homogeneous materials of the part exceeds the limit requirement specified in the Standard IEC62321-2015.

HDL Buspro Cable Guide

HDL Buspro	HDL Buspro Cable
DATA+	Yellow
DATA-	White
COM	Black
24V DC	Red

Technical support

E-mail: hdltickets@hdlautomation.com

Website: https://www.hdlautomation.com

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Specifications subject to change without notice.