HDL-M/D02.1
KNX 2CH 3A Universal Dimming Actuator

HDL-M/D04.1
KNX 4CH 1.5A Universal Dimming Actuator

HDL-M/D06.1
KNX 6CH 1A Universal Dimming Actuator

Hardware Version: B

Datasheet
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Figure 1. KNX 2CH 3A Universal Dimming Actuator

Figure 2. KNX 4CH 1.5A Universal Dimming Actuator

Figure 3. KNX 6CH 1A Universal Dimming Actuator

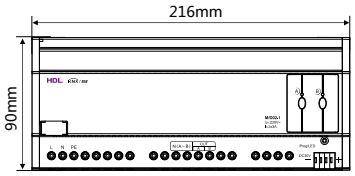


Figure 4. Dimensions - Front View (HDL-M/D02.1)

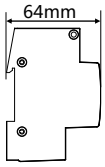


Figure 5. Dimensions - Side View (HDL-M/D02.1)

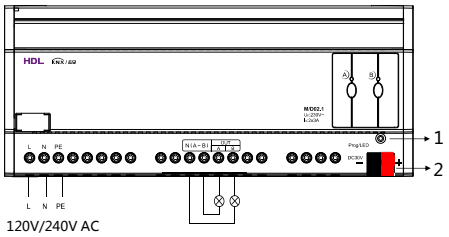


Figure 6. Wiring

Overview

KNX Universal Dimming Actuator (See Figure 1-3) has 3 types (2CH3A, 4CH1.5A, and 6CH1A) of output circuits, which supports multiple control types. This series of dimming actuators are in full compliance with European Safety Standards and KNX standard protocol.

Functions

- 3 types of output circuits: 2, 4 and 6 channels of dimming actuator.
- Supports leading edge mode and trailing edge mode.
- Parallel channels may form large current output, and its configuration should be consistent.
- Manual control: Manual operation for each channel.
- Control types: Statistics ON time, Status response, Status recovery, Short-circuit protection, Overload protection, Overheat protection, Staircase light, Flashing light, Scene control, Scene dimming, Read temperature, Overheat alarm, Dimming higher limit control, Dimming lower limit control, Sequence control, Heating control (PWM).

Important Notes

- Programming - The device is compliant with the KNX standard and the parameters are set by the Engineering Tool Software (ETS).
- Load types - Incandescent light, halogen light, dimmable LED light etc.
- Capacitive load is recommended for trailing edge mode.
- Inductive and resistive loads are recommended for leading edge mode.
- Check connections - Re-tighten all connections after installation.
- Output current - Total current : Less than 6A.

Product Information

Dimensions - See Figure 4 - 5

Actuators of this series share the same dimensions, and here takes HDL-M/D02.1 as an example.

Wiring - See Figure 6

1. Programming button/indicator: Red LED indicates programming mode.
2. KNX/EIB interface.

Installation - See Figure 7 (Take HDL-M/D02.1 as an example)

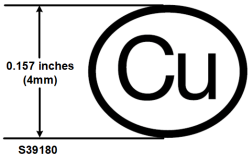
Step 1. Fix the DIN rail with screws.

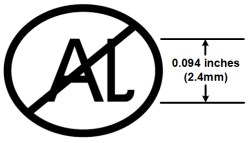
Step 2. Buckle the bottom cap of the 2CH 3A Universal Dimming Actuator on the edge of the DIN rail.

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

Safety Precautions

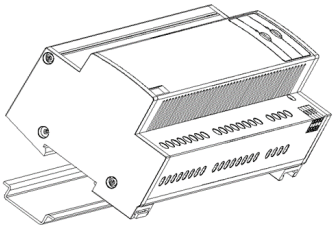
- The installation and commissioning of the device must be carried out by HDL or the organization designated by HDL. For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.
- The device should be installed in distribution box with DIN rail. HDL takes no responsibility for all consequences caused by installation and wire connection which 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.
- CAUTION - Risk of Electric Shock - More than one disconnect switch may be required to de-energize the equipment before servicing.
- The marking appears on the device (shown below) shall be used to indicate that the device is for use with copper wire. The mark shall be legible with letters at least 2.4 mm high. “Use copper wire only”, “Cu wire only” or equivalent wording, or a mark with both the symbols as illustrated.





Package Contents

KNX Universal Dimming Actuator*1 / Label*5 / Datasheet*1



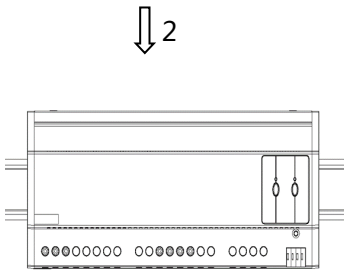


Figure 7. Installation

Technical Data

Basic Parameters	
Working voltage	21~30V DC Class 2
Working current	15mA/30V DC
Input voltage	120V/240V AC (50/60Hz)
Communication	KNX
Cable diameter of KNX terminal	0.6 - 0.8mm
User control	Manual operation for each channel
Line in/Line out terminals	2.5 - 4mm²
Output channel	HDL-M/D02.1: 2CH/3A HDL-M/D04.1: 4CH/1.5A HDL-M/D06.1: 6CH/1A
External Environmental	
Working temperature	-5℃~45℃
Working relative humidity	≤90%
Storage temperature	-20℃~60℃
Storage relative humidity	≤93%
Specifications	
Dimensions	90×216×64(mm)
Net weight	HDL-M/D02.1: 0.73kg HDL-M/D04.1: 0.76kg HDL-M/D06.1: 0.78kg
Housing material	Flame-retardant nylon
Installation	35mm DIN rail installation (See Figure 7)
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.

KNX Cable Guide

KNX	KNX Cable
+	Red
-	Black

Technical support
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