

M/MHD02R17U.1  
 KNX 19CH Mix Actuator  
 Hardware Version: A



**Datasheet**

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Figure 1. KNX 19CH Mix Actuator

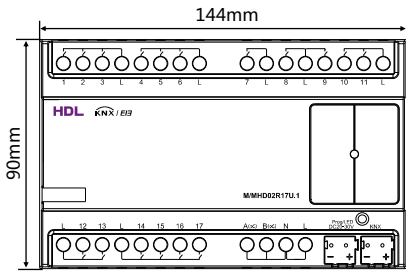


Figure 2. Dimensions - Front View

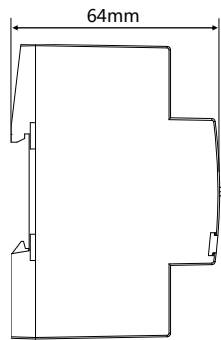


Figure 3. Dimensions - Side View

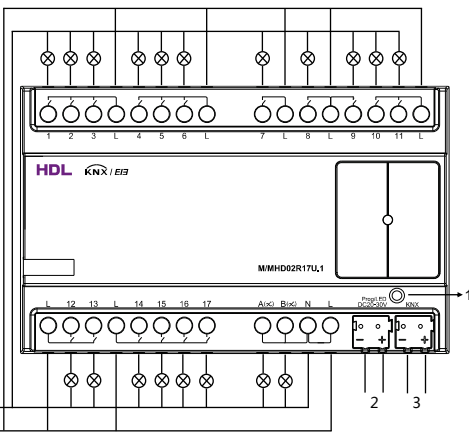


Figure 4. Wiring

## Overview

KNX 19CH Mix Actuator (See Figure 1) is used for controlling relays, dimmers, curtains and air conditioners. The actuator supports 19CH control channels.

Its main features include:

- Supports 19CH control channels, 17 of which are relay channels and the other 2 are MOSFET dimming channels
- Among the 17 relay control channels, CH1-6 and 12-17 are TV8 5A relays, and CH7-11 are magnetic latching relays with an operating current of 10A.
- The 17 relay control channels can be connected to loads, for example, incandescent lamps, halogen lamps, and LED lamps, etc. They can be used for fan speed control or mode control of air-conditioning, and curtain control (supporting inching control).
- 2 MOSFET dimming channels (support short-circuit protection, overheat protection) with working current of 1A, can be used for trailing edge dimming of lamps (incandescent lamps, low-voltage halogen lamps, dimmable LED lamps, etc.).
- Dimming control: Status response, Dimming range setting (dimming maximum / minimum value, dimming upper / lower threshold), Light up and fade out time setting, Enable/disable absolute dimming and relative dimming, Scene control.

## Components and Operation

**Dimensions - See Figure 2 - 3**

**Wiring - See Figure 4**

1. Programming button / LED indicator  
 The red LED indicator indicates programming mode.
2. Auxiliary power supply: 20~30V DC input
3. KNX interface

## Installation

**Installation - See Figure 5 - 7**

- 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.

## Note(s)

- Installation - Distribution box
- KNX Bus voltage - 21~30V DC, no AC power supply allowed
- Programming - This device is compliant with the KNX standard and can only be programmed by ETS software.
- Load types - Incandescent lamps, halogen lamps, low voltage halogen lamps, dimmable LED lamps, etc.
- Inductive loads are prohibited from operating in the trailing edge dimming mode.



## 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.

## Package Contents

M/MHD02R17U.1\*1 / Label\*5 / Datasheet\*1

## Technical Data

### Basic Parameters

Working voltage	21-30V DC
Working current	14mA/30V DC
Auxiliary voltage	20V~30V DC
Auxiliary current	97mA/30V DC
Input voltage	AC100-240V(50/60Hz)
Output channel	12CH/5A TV8 relay (CH1-6, CH12-17) 5CH/10A Magnetic latching relay (CH7-11) 2CH/1A MOSFET dimming channel (CH A(∞), CH B(∞))
Communication	KNX
Cable diameter of KNX terminal	0.6-0.8mm

### External Environment

Working temperature	-5°C~45°C
Working relative humidity	≤90%
Storage temperature	-20°C~60°C
Storage relative humidity	≤93%

### Specifications

Dimensions	144mm×90mm×64mm
Net weight	524g
Housing material	PA66
Installation	35mm DIN rail installation (Figure 5 - 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	x	-	-
Solder	x	o	o	o	-	-
PCB	x	o	o	o	o	o
IC	o	o	o	o	x	x

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 "x" 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
-	Black
+	Red



Figure 5

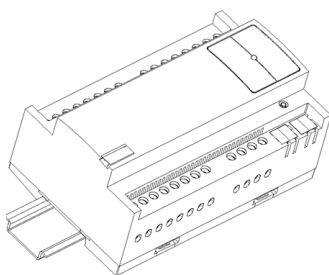


Figure 6

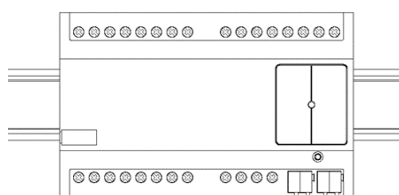


Figure 7

Figure 5 - 7. Installation

#### Technical support

E-mail: [support@hdlautomation.com](mailto:support@hdlautomation.com)

Website: <https://www.hdlautomation.com>

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