

M/R4.10.1
KNX 4CH 10A High Power Switch Actuator

M/R8.10.1
KNX 8CH 10A High Power Switch Actuator

M/R12.10.1
KNX 12CH 10A High Power Switch Actuator

M/R16.10.1
KNX 16CH 10A High Power Switch Actuator

Hardware Version: B



Datasheet
Issued: December 14, 2021
File Edition: A



Figure 1. 4CH 10A High Power Switch Actuator



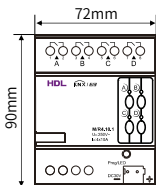
Figure 2. 8CH 10A High Power Switch Actuator



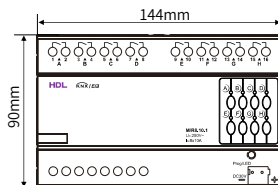
Figure 3. 12CH 10A High Power Switch Actuator



Figure 4. 16CH 10A High Power Switch Actuator



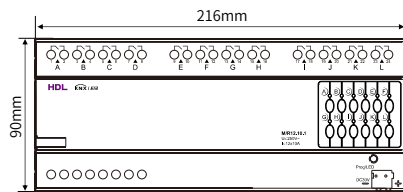
M/R4.10.1



M/R8.10.1

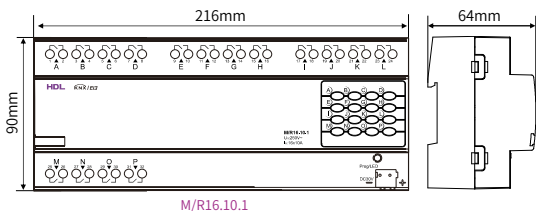
Figure 5. Dimensions - Front View

Figure 6. Dimensions - Front View



M/R12.10.1

Figure 7. Dimensions - Front View



M/R16.10.1

Figure 8. Dimensions - Front View

Figure 9. Dimensions - Side View

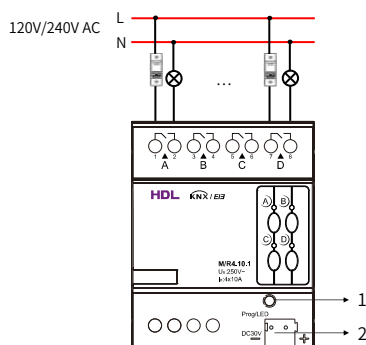


Figure 10. Wiring

Overview

KNX 10A High Power Switch Actuator (See Figure 1-4) includes 4 types (4CH, 8CH, 12CH and 16CH) of output circuits, and each channel outputs 10A current. With characteristics of long life, low power consumption and fast execution speed, this series of actuators are in full compliance with European KNX safety standards and protocols of high-power switching equipment.

Functions

- 10A High Power Switch Actuators include 4 types: 4, 8, 12 and 16 channels of actuator.
- Maximum output current of each channel: 10A.
- Control functions: Statistical ON time, Status response, Status recall, Staircase light, Flashing, ON/OFF delay, Protection delay, Scene control, Threshold function, Curtain control, etc.
- Logic function: AND, OR, XOR, Gate.
- Heating function: PWM(1bit/1byte) control output.

Important Notes

- Programming - This device is compliant with the KNX standard and can only be programmed by ETS software.
- Maximum output current of each channel: 10A, and a fuse/circuit breaker more than 10A should be connected to each channel for protection.
- Three phase connection - This series of actuators support 3 phase input, take the 12CH actuator as an example, CH1, 4, 7, 10 connect to L1. CH2, 5, 8, 11 connect to L2. CH3, 6, 9, 12 connect to L3.

Product Information

Dimensions - See Figure 5 - 9

Wiring - See Figure 10

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

Safety Precautions



- The installation and testing for the product must be carried out by HDL Automation Co., Ltd. or its appointed service agencies. The electric construction shall comply with local laws and safety regulations.
- The device should be installed in distribution box with DIN rail. HDL will not be responsible for any consequence caused by the inexpert or faulty installation and wiring methods, which are not in accordance with the instructions contained in this operating instruction.
- 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 our after-sales departments or our designated service agencies for your maintenance service. Product failures caused by private disassembly are not subject to this warranty.
- It is not allowed to exceed the range.

Package Contents

KNX 10A High Power Switch Actuator*1 / Label*5 / Datasheet*1



Figure 11

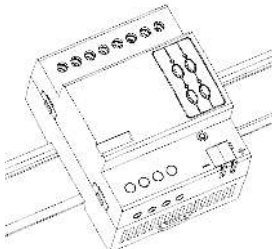


Figure 12

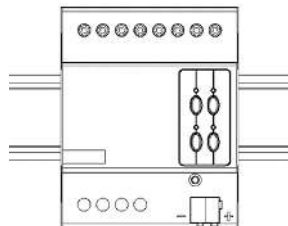


Figure 13

Figure 11 - 13. Installation

Technical Data

Basic Parameters

Working voltage	21~30V DC
Working current	15mA/30V DC
Input voltage	120V/240V AC (50/60Hz)
Communication	KNX
Cable diameter of KNX terminal	0.6-0.8mm
Rated switch current	10A lighting load, max inrush 500A
Operation times	>100,000
Line in/Line out terminals	2.5-4mm ²
Output channel	4CH/10A, 8CH/10A, 12CH/10A, 16CH/10A
Capacitance	<300μF

External Environment

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

Specifications

Dimensions	M/R4.10.1 90 x 72 x 64(mm)
	M/R8.10.1 90 x 144 x 64(mm)
	M/R12.10.1 90 x 216 x 64(mm)
	M/R16.10.1 90 x 216 x 64(mm)
Net weight	M/R4.10.1: 256g
	M/R8.10.1: 576g
	M/R12.10.1: 823g
	M/R16.10.1: 830g
Housing material	Flame-retardant nylon
Installation	35mm DIN rail installation (See Figure 11 - 13)
Protection rating (Compliant with EN 60529)	IP20

Recommended Load Types and Power

240V, 10A, Resistive, 100,000 cycles, 40°C;

240V, 1HP (8FLA/48LRA), Motor, 6,000 cycles, 40°C;

240V, 6A, Standard Ballast, 6,000 cycles, 40°C;

120V, 0.5HP (9.8FLA/58.8LRA), Motor, 20,000 cycles, 40°C;

120V, 10A, Electronic Ballast, 20,000 cycles, 40°C;

120V, 10A, Standard Ballast, 6,000 cycles, 40°C;

Approved

CE, RoHS

KNX

KNX Cable Guide

KNX	KNX Cable
-	Black
+	Red

Installation

Installation - See Figure 11 - 13 (Take M/R4.10.1 as an example)

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.

Technical support

E-mail: hdltickets@hdlautomation.com

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

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