M/R4.16.1
KNX 4CH 16A High Power Switch Actuator
M/R8.16.1
KNX 8CH 16A High Power Switch Actuator
M/R12.16.1
KNX 12CH 16A High Power Switch Actuator

Hardware Version: B

Datasheet

Issued: February 21, 2022

Edition: V1.0.2

Overview

KNX 16A High Power Switch Actuator (See Figure 1-3) adopts 50A magnetic latching relay, which has three types (4CH, 8CH and 12CH) of output circuits, and each channel outputs 16A current. This series of High Power Actuators have the characteristics of long life, low power consumption and fast execution speed.

Functions

- 16A High Power Switch Actuator includes 3 types: 4, 8 and 12 channels of actuator.
- Maximum output current of each channel: 16A.
- 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.



Figure 1. 4CH 16A High Power Switch Actuator



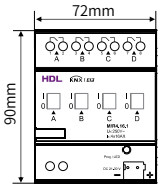
Figure 2. 8CH 16A High Power Switch Actuator



Figure 3. 12CH 16A High Power Switch Actuator

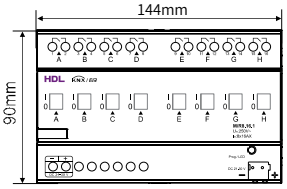
Important Notes

- Programming - This device is compliant with the KNX standard and can only be programmed by ETS software.
- Maximum output current of each channel: 16A, and a fuse/circuit breaker more than 16A 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.



M/R4.16.1

Figure 4. Dimensions - Front View



M/R8.16.1

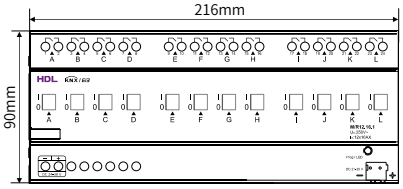
Figure 5. Dimensions - Front View

Product Information

Dimensions - See Figure 4 - 7

Wiring - See Figure 8

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



M/R12.16.1

Figure 6. Dimensions - Front View

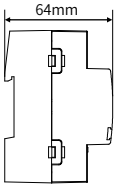


Figure 7. Dimensions - Side View

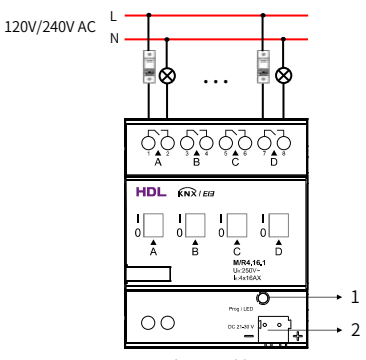


Figure 8. Wiring

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 16A High Power Switch Actuator*1 / Label*5 / Datasheet*1



Figure 9

1

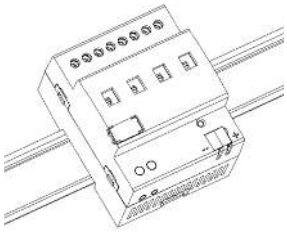


Figure 10

2

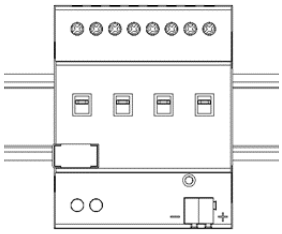


Figure 11

Figure 9 - 11. 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	16A lighting load, max inrush 500A
Operation times	>100,000
Line in/Line out terminals	2.5-4mm^2
Output channel	4CH, 16A/CH; 8CH, 16A/CH; 12CH, 16A/CH
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/R4.16.1 90 x 72 x 64(mm) M/R8.16.1 90 x 144 x 64(mm) M/R12.16.1 90 x 216 x 64(mm)
Net weight	M/R4.16.1: 257g M/R8.16.1: 577g M/R12.16.1: 823g
Housing material	Flame-retardant nylon
Installation	35mm DIN rail installation (See Figure 9 - 11)
Protection rating (Compliant with EN 60529)	IP20
Recommended Load Types and Power	
240V, 16A, Resistive, 100,000 cycles, 40°C;	
240V, 16FLA/96LRA, Motor, 30,000 cycles, 40°C;	
240V, 16A, Standard Ballast, 30,000 cycles, 40°C;	
240V, 16A, Electronic Ballast, 6,000 cycles, 40°C;	
120V, 16FLA/96LRA, Motor, 30,000 cycles, 40°C;	
120V, 16A, Electronic Ballast, 6,000 cycles, 40°C;	
120V, 16A, Standard Ballast, 30,000 cycles, 40°C;	
Approved	
CE, RoHS	
KNX	

KNX Cable Guide

KNX	KNX Cable
-	Black
+	Red

Installation

Installation - See Figure 9 - 11 (Take M/R4.16.1 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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