

### Parameters

#### Electrical Parameters

Working Voltage	21~30VDC Class 2
Communication	KNX/EIB
DC current	15mA
KNX terminals	KNX Bus Terminal-(Red/Grey)0.6 – 0.8mm Diameter single-core copper cable
Rated switch voltage	250V AC/440VAC Supply
Rated switch current	16A lighting load, Max inrush 500A
Operation times	>1000000
Output Terminals	Line In, Line Out for each channel 2.5-4mm <sup>2</sup>
Output Current capacity	4CH/16A,8CH/16A,12CH/16A
capacitance	<300μF

#### Environmental Conditions

Operating temperature	-5°C~45°C
Working relative Humidity	Up to 90%
Storage temperature	-20°C~+60°C
Storage relative humidity	Up to 93%

#### Approved

CE, RoHS, UL  
KNX

#### Product information

Dimensions	H90mm x W72mm x D 66mm(M/R4.16.1)
	H90mm x W144mm x D 66mm(M/R8.16.1)
	H90mm x W216mm x D 66mm(M/R12.16.1)
Net weight	257.1g (M/R4.16.1)
	577g (M/R8.16.1)
	823.4g (M/R12.16.1)
Housing material	Flame-retarded nylon
IP rating	IP 20

### Safety Precautions



- The screw down strength should not exceed 0.4Nm.
- Connect a breaker or fuse into each channel.
- Current in each channel is less than 16A.
- Installation Position: Distribution Box (DB).
- Do not make wrong connection on Bus interface, it will damage the Bus interface of this module
- Do not get AC voltage into KNX/EIB Bus wire, it will damage all devices in the system.
- Ensure good ventilation.
- Avoid contact with the liquids and aggressive gases.
- **CAUTION - Risk of Electric Shock - More than one disconnect switch may be required to de-energize the equipment before servicing**

### Overview



HDL/KNX-EIB Bus relay series products are fully compliant with European safety standards and protocols for High-power switching KNX equipment, internal use of 50A High-current magnetic relay, zero power consumption and long life are some of the key features.

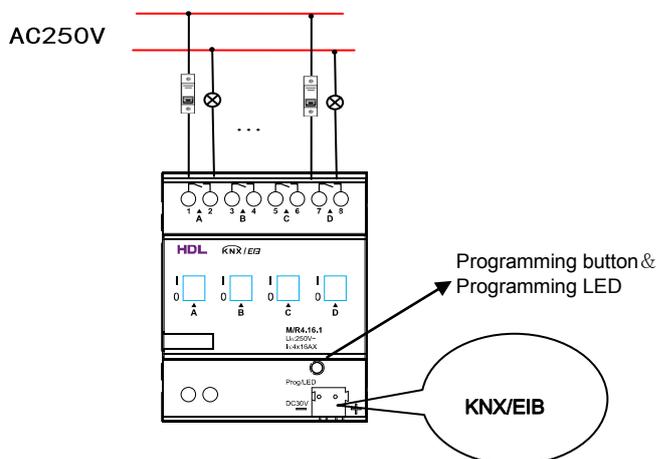
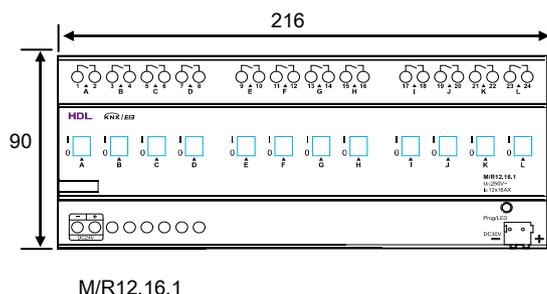
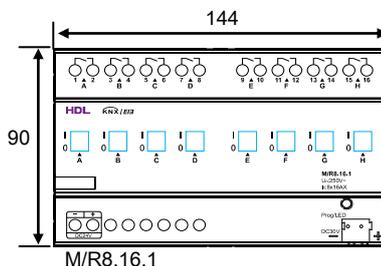
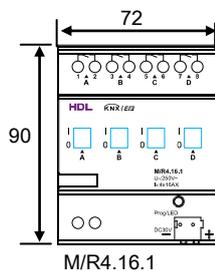
### Functions

- The switch Actuators can drive for 4, 8 and 12 channels loads.
- The maximum 16 A on every output channel, also can manually operation.
- The module functions: Statistical ON time, Status response, Status Recovery, Staircase light, Flashing, ON/OFF delay, Protection delay, Scene Control, Threshold Function, Curtain Control and so on.
- Logic Function: AND, OR, XOR, Gate.
- Heating Function: PWM(1bit/1byte) control output.

### Installation Steps

- Mount MCB for circuit short and overload protection on each channel.
- Labeling for AC power wires, loads wires and KNX Bus wire.
- Mount the device on a DIN rail of DB.
- Connect wires for loads and AC power.
- Make sure there is no circuit short or open.
- Make sure the KNX cable type is correct and has no circuit short.
- Connect bus cables. Make sure the color of wire same as definition of Bus.
- Tidy the all wire and separate Bus wire from AC power wire.

Layout and Wirings



Important Notes

- **Special Programming** – This device is designed for professional KNX installation. It can only be programmed by ETS software.
- **Check Connections** – Re-tighten all connections after installation.
- **Output Circuit** – The load on the switched circuits must not exceed the specified capacity of 16A, these circuits should be fed via a 16A fuse/circuit breaker.
- **Three Phase Connection** – this Relay module support 3 phase input, channel 1,4,7 for L1. channel 2,5,8 for L2. channel 3,6 for L3
- **The load types can be LED, fluorescent lamp, and so on.**
- Ratings for each output contacts:
  - 250V, 16A, Resistive, 100,000 cycles, 85°C;
  - 250V, 1HP (8FLA/48LRA), Motor, 6,000 cycles, 95°C;
  - 277V, 6A, Tungsten, 6,000 cycles, 40°C;
  - 277V, 6A, Standard Ballast, 6,000 cycles, 40°C;
  - 120V, 0.5HP (9.8FLA/58.8LRA), Motor, 20,000 cycles, 40°C;
  - 120V, 15A, Tungsten, 20,000 cycles, 40°C;
  - 120V, 15A, Electronic Ballast, 20,000 cycles, 40°C;
  - 120V, 15A, Standard Ballast, 6,000 cycles, 40°C;