

HDL-MR0416.431 4CH 16A High Power Switch Actuator
4路16A继电器

buspro

Datasheet
产品说明书

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Figure 1. 4CH 16A High Power Switch Actuator
图 1. 4路16A继电器

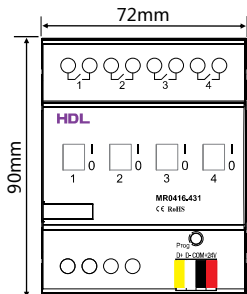


Figure 2. Dimensions - Front View
图 2. 尺寸图 - 正面

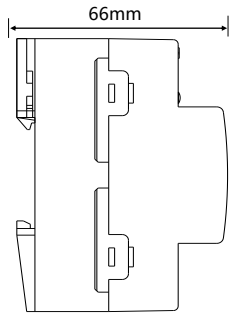


Figure 3. Dimensions - Side View
图 3. 尺寸图 - 侧面

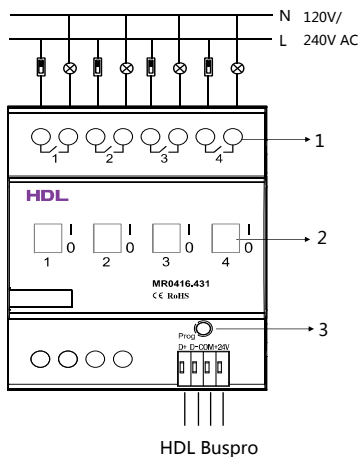


Figure 4. Wiring
图 4. 接线图

Overview

4CH 16A High Power Switch Actuator (See Figure 1) has 4 channels(16A for each channel) and 50A magnetic latching relay. With low power consumption and long lifetime, the module has manual control switches and supports scene and sequence control.

Functions

- 4-channel relay output unit
- Scene control and sequence control
- Up to 4 separate zones
- 8 scenes for each zone, scene running time up to 60 minutes
- 2 sequences for each zone, up to 4 steps for each sequence
- Light protection delay for each channel (0-60 minutes)
- Mass turn-on delay for each channel(0-25 seconds)
- Manual switch for each channel
- Stair lamp function of the channel settable
- Selected scene or scene before power off automatically activated when device restarts
- Specified scene or no operation for options when power off
- HDL Buspro communication
- Supports online upgrade

Important Notes

- Buspro cable - HDL Buspro/KNX cable, 0.8mm single-core copper cable.
- Buspro connection - Series connection (hand-in-hand recommended).
- Maximum current for each output channel: 16A
- One 16A breaker for each channel for protection

Product Information

Dimensions - See Figure 2 - 3

Wiring - See Figure 4

- Connect to load
- Direct connection switch
- Programming button & module Indicator

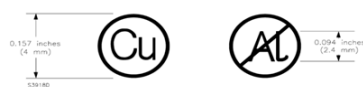
Indicator flashes when device is in normal working mode. Press the button for 3 seconds, then the ID can be read and modified via HDL Buspro Setup Tool.

Installation - See Figure 5 - 7

- Fix the din rail with screws.
- Buckle the bottom cap of the 4CH 16A High Power Switch Actuator on the edge of the din rail.
- 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 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.
- 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 marking shall be legible with letters at least 2.4 mm high. "Use copper wire only", "Cu wire only" or equivalent wording, or a marking containing both the symbols as the illustrations.



Package Contents

HDL-MR0416.431*1 / Buspro connector*1 / Label*5 / Datasheet*1

产品概述

4路16A继电器 (见图1) 具有4回路, 每回路16A, 采用50A磁保持继电器。该设备具有手动控制开关, 支持场景和序列控制。它具有低功耗, 长寿命的优点。

功能说明

- 具有4路继电器开关输出单元
- 支持场景和序列控制
- 最多可具有4个独立区域
- 每个区域可具有8个场景, 场景运行时间最长60分钟
- 每个区域有2个序列, 每个序列最多可以设置4个步骤
- 每个回路具有灯具保护延时 (0~60分钟)
- 每个回路具有分批开启延时 (0~25秒)
- 每个回路继电器开关可手动控制
- 回路可设置楼梯灯功能
- 设备重启后可选择指定场景或断电前场景
- 设备断电可选择指定场景或无动作
- 采用HDL Buspro通讯方式
- 支持在线升级

注意事项

- 总线 - HDL Buspro/KNX专用电缆, 0.8mm单芯铜线
- 总线连接 - 推荐手拉手的连接方式
- 每个输出回路的电流不能超过16A
- 为保护设备及负载建议每回路接一个16A断路器

产品信息

产品尺寸- 见图 2 - 3

产品接线 - 见图 4

- 回路接负载端
- 直通开关
- 编程按钮 & 模块指示灯

编程按钮 & 模块指示灯: 当模块正常工作时, 指示灯闪烁, 按该键约3秒, 则可以在HDL Buspro软件中读取或修改模块地址。

设备的安装 - 见图 5 - 7

- 用螺丝固定丁导轨。
- 将4路16A继电器底盖的一端扣到导轨的边上。
- 将整个模块压到导轨上, 并滑动模块直至调整到合适的位置则固定下来。

安全警告

- 本设备的安装及调试工作必须由我司或我司指派的机构进行。其电气安装的计划和施工, 必须遵守当地相关的安全标准和法规。
- 该产品需以丁导轨安装方式, 安装在配电箱, 未按照本说明书进行安装及接线方式的, 所造成的一切后果皆与我司无关。
- 请不要私自拆装或更换零部件, 否则可能会导致机械故障、电击、火灾或身体伤害。
- 请将一切维修工作交由我司售后部门或指定机构进行, 本产品的保修范围不适用于因用户拆卸产品而导致的故障。
- 不得超量程使用。
- 警告 - 为防止触电-在维修设备前, 需要一个以上的断路开关来断开设备电源。
- 设备上的标识, 如下图所示, 应用来指示设备配合铜线使用。标记应以至少2.4毫米高的字母书写。"只可使用铜线"、"仅使用铜线" 或等效的措辞, 或包含两个符号的标记作为插图说明。



装箱清单

HDL-MR0416.431*1 / 总线端子*1 / 标签纸*5 / 说明书*1

Technical Data

Electrical Parameters	
Working voltage	24~30V DC Class 2
Working current	35mA/24V DC
Input voltage	120V/240V AC (50/60Hz)
Output channel	4CH/16A
Relay	50A Magnetic latching relay
Maximum current in each channel	16A
Electronic life time of relay	>60000 (Resistance Load)
Protection	Connect a breaker in each channel

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

Specifications	
Dimensions	72mm×90mm×66mm
Net weight	248g
Housing material	Nylon, PC
Installation	35mm DIN rail installation (See Figure 5 - 7)
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, Tungsten, 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, Tungsten, 30,000 cycles, 40°C;	
120V, 16A, Electronic Ballast, 6,000 cycles, 40°C;	
120V, 16A, Standard Ballast, 30,000 cycles, 40°C;	

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.

HDL Buspro Cable Guide

HDL Buspro	HDL Buspro/KNX	CAT5/CAT5E
DATA+	Yellow	Blue/Green
DATA-	White	Blue White/Green White
COM	Black	Brown White/Orange White
24V DC	Red	Brown/Orange

技术参数

电气参数	
工作电压	24~30V DC Class 2
工作电流	35mA/24V DC
输入电压	120V/240V AC (50/60Hz)
输出回路	4CH/16A
继电器	50A 磁保持继电器
每回路输出最大电流	16A
继电器电气寿命	> 60000次 (阻性负载)
防护	每个回路连接断路器

外部环境	
工作温度	-5°C~45°C
工作相对湿度	≤90%
储存温度	-20°C~60°C
储存相对湿度	≤93%

产品规格	
尺寸	72mm×90mm×66mm
净重	248g
外壳材料	尼龙, PC
安装方式	35mm 丁导轨安装 (见图5-7)
防护级别 (符合 EN 60529)	IP20

推荐负载类型及功率	
240V, 16A, 阻性负载, 100,000 cycles, 40°C;	
240V, 16FLA/96LRA, 电机, 30,000 cycles, 40°C;	
240V, 16A, 钨丝灯, 30,000 cycles, 40°C;	
240V, 16A, 标准镇流器, 30,000 cycles, 40°C;	
240V, 16A, 电子镇流器, 6,000 cycles, 40°C;	
120V, 16FLA/96LRA, 电机, 30,000 cycles, 40°C;	
120V, 16A, 钨丝灯, 30,000 cycles, 40°C;	
120V, 16A, 电子镇流器, 6,000 cycles, 40°C;	
120V, 16A, 标准镇流器, 30,000 cycles, 40°C;	

部件名称	有害物质					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
塑胶组件	o	o	o	o	o	o
五金铜件	o	o	o	o	-	-
螺丝组件	o	o	o	x	-	-
焊锡	x	o	o	o	-	-
PCB组件	x	o	o	o	o	o
IC	o	o	o	o	x	x

- : 表示不含有该有害物质。
o : 表示该有害物质在该部件所有均质材料中的含量均在IEC62321-2015规定的限量要求以下。
x : 表示该有害物质至少在该部件的某一均质材料中的含量超出IEC62321-2015规定的限量要求。

总线定义

HDL Buspro	HDL Buspro/KNX	CAT5/CAT5E
DATA+	黄	蓝/绿
DATA-	白	蓝白/绿白
COM	黑	棕白/橙白
24V DC	红	棕/橙



Figure 5 / 图 5

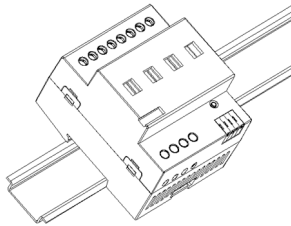


Figure 6 / 图 6

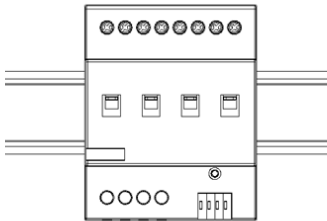


Figure 7 / 图 7

Figure 5 – 7. Installation
图 5 – 7. 安装图

技术支持
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