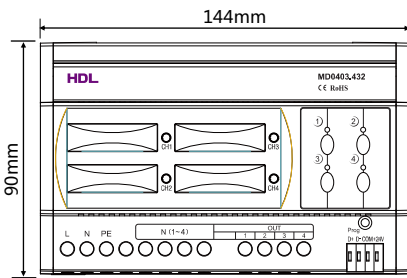
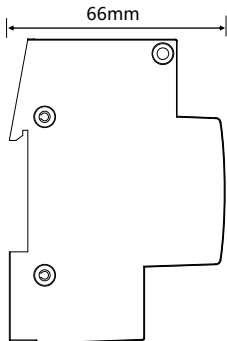
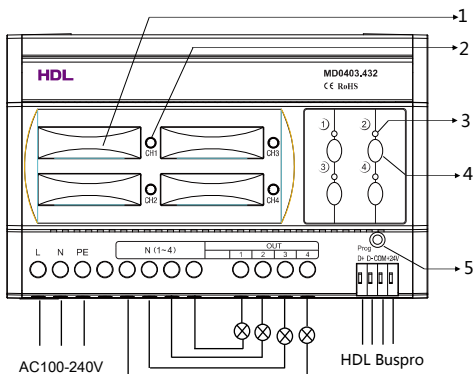


Figure 1. 4CH 3A Leading Edge Dimming Actuator
图 1. 4路3A调光器Figure 2. Dimensions - Front View
图 2. 尺寸图 - 正面Figure 3. Dimensions - Side View
图 3. 尺寸图 - 侧面Figure 4. Wiring
图 4. 接线图

Overview

4CH 3A Leading Edge Dimming Actuator (See Figure 1) supports AC220V and AC110V power input. It has 4 output channels and each channel has a bypass button for manual control. Fuse protection is available for each channel, so that the dimmer will be protected in case of short circuit. LED indicators are available for indicating you whether a short circuit occurs in the channel.

Functions

- Up to 4 separate zones; Up to 12 scenes for each zone
- Up to 6 sequences and each sequence has 12 steps
- 4 dimming curves with 512 dimming accuracy
- Low, high, max threshold for each channel
- Bypass button for manual control is available for each channel
- Selected scene or scene before power off can be activated automatically when the device restarts
- Short circuit and over heat protection
- Up to 3A of each channel, 8A fuse of each channel for protection (aR type)
- Supports HDL Buspro online upgrade

Important Notes

- Buspro cable - HDL Buspro/KNX cable, 0.8mm single-core copper cable
- Buspro Connection - Series connection (hand-in-hand recommended)
- The PE terminal should be connected.
- Two types of power input can be chosen via HDL Buspro Setup Tool 2: 220V AC or 110V AC.
- Connection checking - Check all connections after installation
- Output Channel - The current of each channel can not exceed 3A.
- Fuse - Cut off the power of the dimmer when replace the fuse. The fuse to replace the broken one must be of the same type (aR type).
- Load types - Incandescent light, halogen light, low-voltage halogen light, LED light, etc. The loads must be suitable for leading edge dimming.
- Make sure the working temperature of the dimmer does not exceed 45 °C.

Product Information

Dimensions - See Figure 2 - 3

Wiring - See Figure 4

- Fuse socket
- Fuse indicator
- Load status indicator
- Bypass button
- Programming button & module Indicator

Programming button & indicator: The indicator will flash when the device is in working mode. Keep pressing the button for 3 seconds, the ID can be read and modified via HDL Buspro Setup Tool 2.

Installation - See Figure 5 - 7

- Step 1. Fix the din rail with screws.
- Step 2. Buckle the bottom cap of the 4CH 3A Leading Edge Dimming 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.

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.

Package Contents

HDL-MD0403.432*1 / Buspro connector*1 / Fuse*2 / Datasheet*1

产品概述

4路3A调光器(见图1)支持220V AC和110V AC两种工作电压,有4个输出回路,每回路具有直通开关按键,每回路配置有快速保险丝,在负载短路时能够有效保护调光器,相应指示灯也会指示回路是否发生短路。

功能说明

- 最多可具有4个独立区域,每个区域可具有12个场景
- 最多6个序列,每个序列有12步
- 512调光精度,4条调光曲线
- 每个回路具有低阈限幅、高阈限幅、最大限幅
- 每个回路具有紧急直通开关
- 设备断电重启后可选择断电前的场景或指定的场景
- 支持短路保护、过热保护
- 每回路电流3A,每回路接有8A快速保险丝(aR类型)
- 支持HDL Buspro 总线升级

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
- 接地端子(PE)需要接地保护
- 在HDL Buspro系统软件中选择电压,220V AC或者110V AC
- 连接检查 - 安装后,检查所有的连接是否正确连接
- 输出回路 - 每回路的电流不能超过3A
- 保险丝 - 更换新保险丝时必须切断调光器的输入电源。新更换的保险丝必须是相同类型的快速熔断器(aR)
- 负载类型 - 白炽灯、卤素灯、低压卤素灯、LED灯等,所接的设备要支持前沿调光
- 保持调光器环境温度低于45度

产品信息

产品尺寸-见图2-3

产品接线-见图4

- 保险座
- 保险丝指示灯
- 负载状态指示灯
- 直通开关,控制各个回路
- 编程按钮&模块指示灯

编程按键&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软件中读取或修改本模块地址。

设备的安装-见图5-7

- 步骤1. 用螺丝固定丁导轨。
- 步骤2. 将4路3A调光器底盖的一端扣上导轨的边上。步骤3. 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,安装在配电箱里,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。

装箱清单

HDL-MD0403.432*1 / 总线端子*1 / 保险丝*2 / 说明书*1

Technical Data

Electrical Parameters

Working voltage	15~30V DC
Working current	28mA/24V DC
Input voltage	AC100-240V (50/60Hz)
Output channel	4CH/3A
Maximum total output current	10A
Fuse	8A aR type
Dimming mode	TRIAC, Minimum Load 40W
Dimming curves	Linear, 1.5 exponent, 2.0 exponent, 3.0 exponent

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×66mm
Net weight	715g
Housing material	Nylon, PC
Installation	35mm DIN rail installation (See 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.

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	15~30V DC
工作电流	28mA/24V DC
输入电压	AC100-240V (50/60Hz)
输出回路	4CH/3A
回路最大总输出电流	10A
保险丝	8A aR 类型
调光方式	前沿调光, 最小负载40W
调光曲线	线性, 1.5 次方, 2.0 次方, 3.0 次方

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	144mm×90mm×66mm
净重	715g
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

产品中有害物质的名称及含量

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

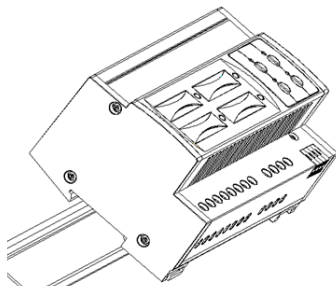


Figure 6 / 图 6

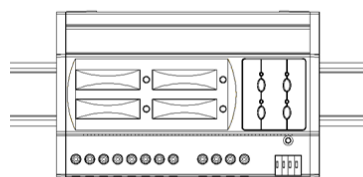


Figure 7 / 图 7

Figure 5 - 7. Installation

图 5 - 7. 安装图

技术支持

服务热线 : 020-85820195

(工作时间 : 9:00-12:00, 13:00-18:00, 星期一至星期五)

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