

M/IRAC.1 Infrared Emitter
红外发射模块

Hardware Version: B / 硬件版本: B



Datasheet
产品说明书

Issued: January 14, 2019

发布: 2019年1月14日

Edition V1.0.0



Figure 1. Infrared Emitter
图 1. 红外发射模块

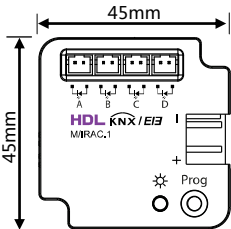


Figure 2. Dimensions-Front View
图 2. 尺寸图-正面

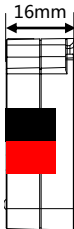


Figure 3. Dimensions-Side View
图 3. 尺寸图-侧面

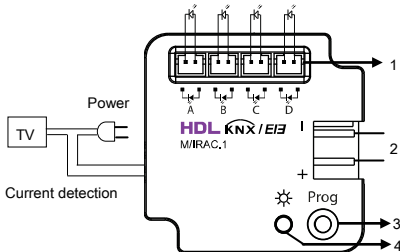


Figure 4. Wiring
图 4. 接线图

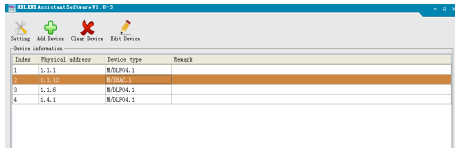


Figure 5. HDL KNX Assistant Software
图 5. HDL KNX 辅助软件



Figure 6. IR Learner (HDL-MIR01L.01)
图 6. 红外学习器



Figure 7. IR emission tube
图 7. 红外发射头

Overview

Infrared Emitter (See Figure 1) is one of HDL KNX/EIB series products. The module can store up to 960 infrared codes. The first 150 infrared codes are used for general control, for example TV, DVD and other infrared receiving devices; The latter 810 infrared codes are used for controlling AC of any brand.

Functions

- Various control modes: Single control, Repeated control, Sequence control, Air conditioning control;
- AC control types: ON/OFF control, Temperature control, Cooling/ Heating, Fan speed control, Swing control;
- Supports current detection with current up to 2A;
- After learned, obtained and downloaded the infrared codes through infrared learning page of KNX Assistant Software and IR Learner, the Infrared Emitter can control TV, DVD, air conditioner etc.
- After current detection function setting, the module can confirm the ON/OFF status of the device. This function mainly aims at the circumstance that one IR code control the ON/OFF status of the device.

Important Notes

- Programming - This device is compliant with the KNX standard and can only be programmed by ETS software.
- KNX Bus voltage - 21~30V DC, no AC power supply allowed.
- When using the current detection function, the emitter should be installed close to the power switch. Please be careful during installation.
- The IR emission tube should be used close to the emitter.

Product Information

Dimensions - See Figure 2 - 3

Wiring - See Figure 4

1. IR emission channels
2. KNX interface
3. Programming button
4. LED indicator of programming button

HDL KNX Assistant Software - See Figure 5

IR Learner - See Figure 6

IR emission tube - See Figure 7

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.
- 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.

Package Contents

M/IRAC.1*1 / IR emission tube*1 / Datasheet*1

产品概述

红外发射模块 (见图1) 是HDL KNX/EIB系列产品之一。该模块最多可以存储960个红外码。前150个红外码用于通用控制,如电视、DVD等红外接收设备;后810个红外码用于空调控制,适用于任何品牌的空调设备。

功能说明

- 支持多种控制方式: 单独控制、重复控制、序列控制、空调控制;
- 空调控制包括: 开关控制, 温度控制, 制热、制冷控制, 风速控制, 扫风控制;
- 支持电流检测, 最大检测电流2A;
- 使用时, 通过KNX辅助软件红外学习页面+红外学习器, 学习并取得红外码后下载到设备, 可控制电视, DVD, 空调等设备。
- 设置电流检测功能后, 模块可以确定设备的开或关状态。这个功能主要用于同一个红外码控制开、关的情况。

注意事项

- 编程 - 本设备属于KNX标准系统设备, 使用ETS软件进行编程。
- KNX总线电压 - 21~30V DC, 不能接入交流电源。
- 当使用电流检测功能时, 本设备需要靠近电源开关安装, 请注意安全;
- 红外发射头需要靠近设备使用。

产品信息

产品尺寸 - 见图 2 - 3

产品接线 - 见图 4

1. 红外发射通道
2. KNX接口
3. 编程按钮
4. 编程按钮LED指示灯

HDL KNX 辅助软件 - 见图 5

红外学习器 - 见图 6

红外发射头 - 见图 7

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。
- 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。

装箱清单

M/IRAC.1*1 / 红外发射头*1 / 说明书*1

Technical Data

Electrical Parameters						
Working voltage		21~30V DC				
Working current		5mA / 30V DC				
Transmitting carrier wave frequency		38kHz				
Emission distance		7m				
Current detection		<2A				
Communication		KNX/EIB				
KNX terminals		Φ0.6 – 0.8mm single core cable				
External Environment						
Working temperature		-5℃~45℃				
Working relative humidity		≤90%				
Storage temperature		-20℃~60℃				
Storage relative humidity		≤93%				
Specifications						
Dimensions		45mm×45mm×16mm				
Net weight		60g				
Housing material		ABS				
Installation		Screw installation				
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	×	-	-
Solder	×	o	o	o	-	-
PCB	×	o	o	o	o	o
IC	o	o	o	o	×	×
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 “×” 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.						
KNX Cable Guide						
KNX		KNX cable				
-		Black				
+		Red				

KNX Cable Guide

KNX	KNX cable
-	Black
+	Red

技术参数

电气参数						
工作电压		21~30V DC				
工作电流		5mA / 30V DC				
载波频率		38kHz				
发射距离		7m				
电流测试		<2A				
通信方式		KNX/EIB				
KNX总线接线端子		Φ0.6-0.8mm单芯电缆				
外部环境						
工作温度		-5℃~45℃				
工作相对湿度		≤90%				
储存温度		-20℃~60℃				
储存相对湿度		≤93%				
产品规格						
尺寸		45mm×45mm×16mm				
净重		60g				
外壳材料		ABS				
安装方式		螺丝安装				
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	×	-	-
焊锡	×	o	o	o	-	-
PCB组件	×	o	o	o	o	o
IC	o	o	o	o	×	×
- : 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。 × : 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。						
KNX总线定义						
KNX		KNX 电缆				
-		黑				
+		红				

KNX总线定义

KNX	KNX 电缆
-	黑
+	红

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)
邮箱：kfb@hdlchina.com.cn
网址：http://www.hdlchina.com

Technical support
E-mail: support@hdlchina.com.cn
Website: https://www.hdlautomation.com