HDL®

M/S04.1 4 Zone Dry Contact Module
4路干接点输入输出模块

Hardware Version: A / 硬件版本：A

KNX®
Datasheet
产品说明书

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Figure 1. 4 Zone Dry Contact Module
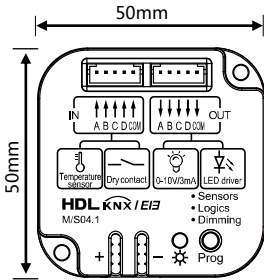图 1. 4路干接点输入输出模块

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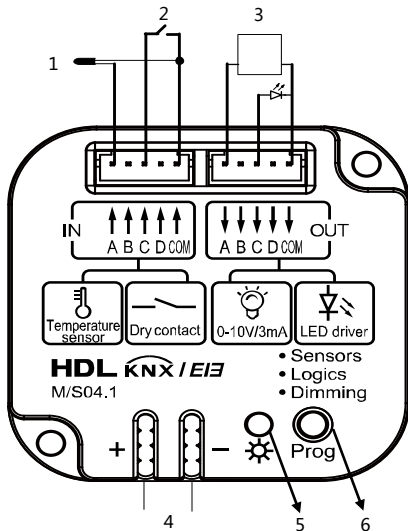图 2. 尺寸图-正面

Figure 3. TTS/APR 1.0
图 3. 温度传感器

Figure 4. Wiring
图 4. 接线图

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Overview

4 Zone Dry Contact Module (See Figure 1) belongs to HDL KNX/EIB series, with four signal input channels and four signal output channels. The signal input channels can receive the signal from the temperature sensor and the dry contact type trigger signal, while output channels can output 0-10V dimming signal, or be used for channel LED state drive. In the logic control, each logical block is composed of four signal input channels.

Functions

- Dry contact input and temperature sensor input are available
- 0-10V dimming output signal enable to control 0-10v devices, such as LED lights
- Supports 4CH dry contact input and 4CH LED state output
- 3 working modes:
  Sensor control (Dry contact sensor, temperature sensor)
  Logic control
  Dimming control (0-10V)
- Supports various control command sending via KNX software
- Control types: Switch control, Dimming control, Shutter control, Flexible control, Scene control, Sequence control, Percentage control, Threshold control, String control, Forced control, PMW output, Counter control, Combination control, LED status indication

Important Notes

- Installation - installed in switch box. When installing outdoor, please make sure the installation environment is water-proof.
- Programming - This device is a KNX standard system device and can only be programmed by ETS software.
- KNX Bus voltage - 21~30V DC, no AC power supply allowed.
- Temperature sensor - TTS/APR 1.0 is required.
- Hand-in-hand connection for KNX Bus is recommended.

Product Information

Dimensions - See Figure 2 - 3

Wring - See Figure 4

1. Temperature sensor
2. Dry contact sensor
3. Dimmable Ballast(0~10V)
4. KNX interface
5. LED indicator of programming button
6. Programming button

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/S04.1*1 / Temperature sensor*1 / Dry contact cable*2 / Datasheet*1

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产品概述

4路干接点输入输出模块（见图1）是HDL KNX/EIB的系列产品之一，具有4路信号输入通道、4路信号输出通道。信号输入通道可以接收来自温度传感器的信号以及干接点型触发信号；输出通道，可以输出0-10V调光信号，或用于通道LED状态驱动。其中，逻辑控制中，每个逻辑块由4个信号输入通道组成。

功能说明

- 具有干接点输入及温度传感器输入
- 输出的0-10V调光信号可控制0-10V设备，如LED灯
- 4路干接点输入，4路LED状态输出
- 3种工作模式：
  传感器控制（干接点传感器、温度传感器）
  逻辑控制
  调光控制（0-10V调光）
- 通过KNX软件可发送多种控制命令
- 控制类型：开关控制、调光控制、窗帘控制、灵活控制、场景控制、序列控制、百分比控制、阈值控制、字符串控制、强制控制、PWM输出、计数控制、组合控制、LED状态指示

注意事项

- 安装位置 - 安装在在开关盒内。当室外安装时，需要注意防水。
- 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。
- 温度传感器 - 使用TTS/APR 1.0传感器。
- 总线推荐使用手拉手的连接方式。

产品信息

产品尺寸 - 见图 2-3

产品接线 - 见图 4

1. 温度传感器
2. 干接点传感器
3. (0~10V)可调光镇流器
4. KNX接口
5. 编程按键LED指示灯
6. 编程按键

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/S04.1*1 / 温度传感器*1 / 干接点连接线*2 / 说明书*1

Technical Data

Electrical Parameters

Working voltage	21~30V DC
Working current	5mA/30V DC
Output voltage	0~10V DC
DC 0~10V output current	3mA
Input sensor	Switch/Temperature sensor
Temperature sensor	TTS/APR 1.0
Communication	KNX/EIB
KNX terminals	0.6 – 0.8mm diameter single core cable

External Environment

Working temperature	-5℃~45℃
Working relative humidity	≤90%
Storage temperature	-20℃~60℃
Storage relative humidity	≤93%

Specifications

Dimensions	50mm×50mm×13mm
Net weight	24g
Housing material	Flame-retardant ABS
Installation	Switch box 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	×	-	-
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

技术参数

电气参数

工作电压	21~30V DC
工作电流	5mA/30V DC
输出电压	0~10VDC
DC0-10V输出电流	3mA
传感器类型	开关、温度
温度传感器	TTS/APR1.0
通信方式	KNX/EIB
KNX总线接线端子	0.6-0.8mm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	50mm×50mm×13mm
净重	24g
外壳材料	阻燃ABS
安装方式	开关盒安装 (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	×	-	-
焊锡	×	o	o	o	-	-
PCB组件	×	o	o	o	o	o
IC	o	o	o	o	×	×

-：表示不含该有害物质。
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

技术支持
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