

### Datasheet

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Figure 1. 51CH Dry Contact Module

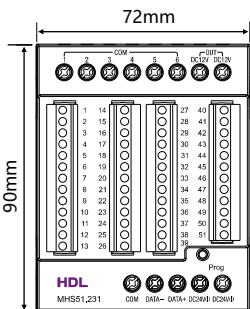


Figure 2. Dimensions - Front View

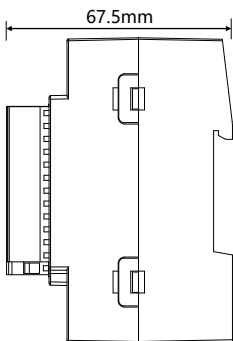


Figure 3. Dimensions - Side View

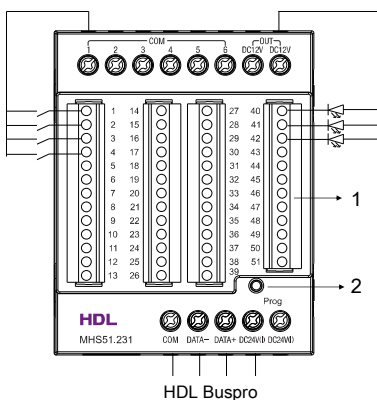


Figure 4. Wiring

## Overview

51CH Dry Contact Module (See Figure 1) has 51 channels. It supports input and output settings of each channel via HDL Buspro Setup Tool according to the user's requirements.

## Functions

- 51 channels for dry contact input and output.
- It can control dimming and switch functions of the targets, when the dry contact inputs.
- Input or output of each channel can be set independently.
- Enable or disable function of each channel can be set independently.
- Switch types include: mechanical switch, single-on, single-off, single-on/off, combination on, combination off, combination on/off, multifunction, parallel combination switch, short/long press (Mechanical switches, combination switches and multifunction switches can set up to 49 control targets).
- Control target types: scene, sequence, universal switch, single channel lighting control, broadcast scene, broadcast channel, curtain control, panel control, GPRS, security control, music play control etc.
- Supports HDL Buspro online upgrade.

## Important Notes

- Installation - Inside DB box.
- Buspro cable - CAT5E or dedicated HDL Buspro cable.
- Buspro connection - Series connection (hand-in-hand recommended).
- The power consumption will reach 280mA, when all channels are set in output status.

## Product Information

Dimensions - See Figure 2 - 3

Wiring - See Figure 4

### 1. Input/output channel:

This Module has 51 channels. It supports input and output settings of each channel. It is recommended for users to plan for input and output settings as to make proper connections.

Take Channel 1 - 4 as examples, set as dry contact input channels.

Take Channel 40 - 42 as examples, set as LED lights output channels.

**2. Programming button & indicator:** The indicator flickers when the module is working properly. Keep pressing for 3s, the user can read and modify the address of the module in HDL Buspro Setup Tool.

### HDL Buspro:

Buspro interface. This module has 2 independent DC24V terminals, one of them can work as backup power supply. When only one of them is connected, the module can work properly.

### Installation - See Figure 5 - 7

Step 1. Fix the DIN rail with screws.

Step 2. Buckle the bottom cap of the 51CH Dry Contact Module 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.

## Package Contents

HDL-MHS51.231\*1 / Datasheet\*1



Figure 5

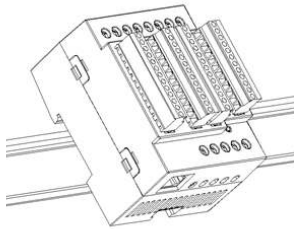


Figure 6

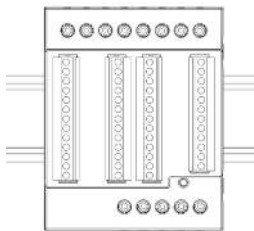


Figure 7

Figure 5 - 7. Installation

## Technical Data

### Basic Parameters

Working voltage	15~30V DC
Working current	280mA/24V DC
Output current	Max. 8mA/CH
Output impedance	100Ω
Communication	HDL Buspro

### 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×67.5mm
Net weight	387g
Housing material	Nylon
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 Cable	CAT5/CAT5E
DATA+	Yellow	Blue/Green
DATA-	White	Blue white/Green white
COM	Black	Brown white/Orange white
24V DC	Red	Brown/Orange

#### Technical support

E-mail: [support@hdlautomation.com](mailto:support@hdlautomation.com)

Website: <https://www.hdlautomation.com>

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