

**Datasheet**

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Figure 1. 6CH Floor Heating Module

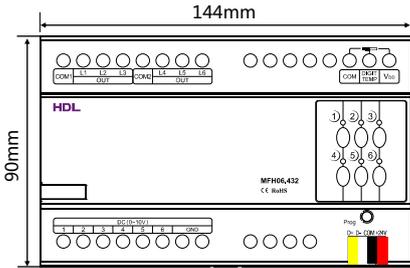


Figure 2. Dimensions - Front View

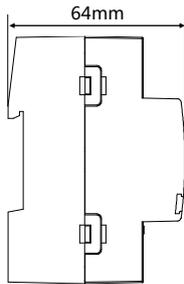


Figure 3. Dimensions - Side View

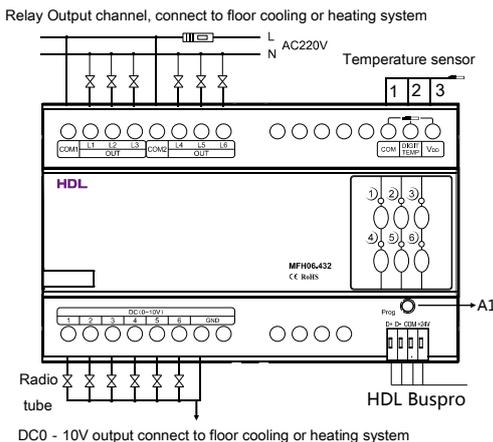


Figure 4. Wiring

## Overview

6CH Floor Heating Module (See Figure 1) is a 6-channel floor heating controller. Each channel supports Relay output and 0-10V power output. With built-in PI controller, 13 digital temperature sensors and overheat protection function, the Module can be used to control floor heating and indoor temperature.

## Functions

- Detects temperature with digital temperature sensor DS18B20, maximum length of the sensor cable is 100 meters.
- 6 channels of separate PI Control, supports floor heating and floor cooling.
- Supports AC/DC electrical heating valve and 0-10V electrical heating valve.
- The control range of temperature is 5~40°C, the accuracy is 0.5°C.
- Supports flush function, manual flush or timer controlled.
- Supports master and slave mode.
- Optional multiple mode: Timer, away, home, normal, etc.
- Maximum and minimum heating value can be set.
- Expand control: Command can be sent to external high power relay, to control the high power loads, like heater.
- Supports floor overheat protection and temperature sensor failure protection.
- Online update supported via HDL Buspro Setup Tool.

## Important Notes

- Buspro cable - CAT5E or dedicated HDL Buspro cable
- Buspro connection - Series connection (hand-in-hand recommended)
- External DS18B20 needs 3 cables, make sure the 3 cables are well insulated. Maximum 13 temperature sensors can be connected in the module.
- Temperature sensors can be parallel or series connected to the module.
- Pay attention to the working voltage and type (Normally closed, normally open) of the electrical heating valve

## Product Information

**Dimensions - See Figure 2 - 3**

**Wiring - See Figure 4**

1. White wire
2. Yellow wire
3. Red wire

A1: Programming button & module indicator: It flickers when the module is working properly. Keep pressing the programming button for 3 seconds, the address of the module can be read and modified in HDL Buspro Setup Tool.

**Installation - See Figure 5 - 7**

- Step 1. Fix the DIN rail with screws.
- Step 2. Buckle the bottom cap of the 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.
- It is not allowed to exceed the range.

## Package Contents

HDL-MFH06.432\*1 / Buspro connector\*1 / Label\*5 / Datasheet\*1 / Temperature probe\*3



Figure 5

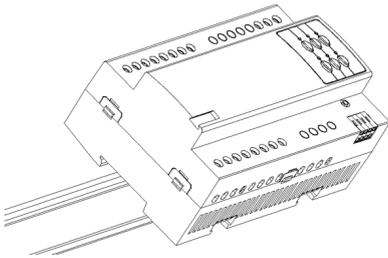


Figure 6

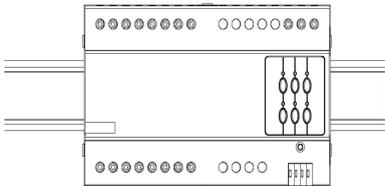


Figure 7

Figure 5 - 7. Installation

## Technical Data

### Basic Parameters

Working voltage	15~30V DC
Working current	150mA/24V DC
Output channels	6
DC 0-10V output current	10mA
Input voltage	AC100-240V (50/60Hz)
Relay output current	1A
Relay unit life time	5,000,000 actuations

### 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×64mm
Net weight	285g
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 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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