HDL-MSC06.432

6CH Input & Output Module

buspro

Datasheet

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Figure 1. 6CH Input & Output Module

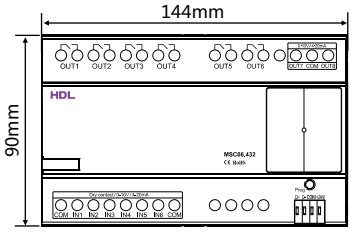

Figure 2. Dimensions-Front View

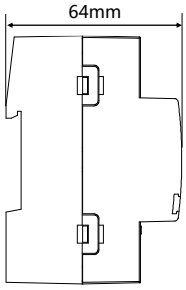

Figure 3. Dimensions-Side View

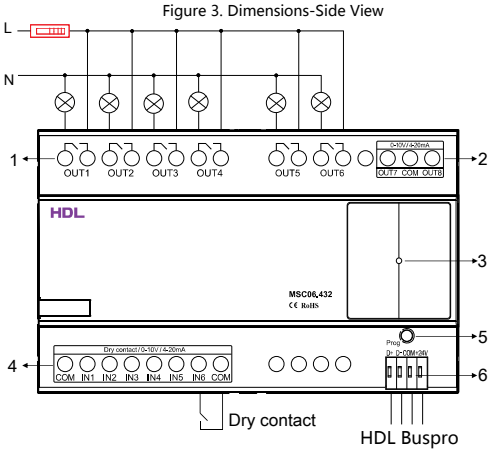

Figure 4. Wiring

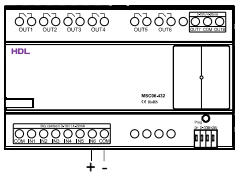

Figure 5. Wiring

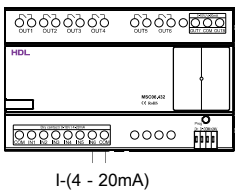

Figure 6. Wiring

Overview

6CH Input & Output Module (See Figure 1) has 6ch relay outputs and supports various kinds of output and input signal. The input types include: Dry contact, voltage, analogy voltage, current and analogy current. The parameters can be set via HDL Buspro Setup Tool.

Functions

- Supports input types: Dry contact,Voltage(0~10V DC), Analogy Voltage(0~10V DC), Current (4~20mA), Analogy current(4~20mA).
- Analogy function enables the module to convert the value of voltage and current into other physical quantities, including temperature, luminance, humidity, pressure, etc. in order to control targets.
- The input channel can be set as a mechanical switch and an electronic switch.
- Each input channel can be set to control 20 targets.
- Output 1 to Output 6 are 10A relay outputs. Output 7 and Output 8 are 0-10V output or 4mA-20mA output, and can be set by users according to their preference.
- Each input and output channel can be set separately.
- Online upgrade via HDL Buspro Setup Tool.
- Easy programming.

Important Notes

- 35mm DIN rail installation, inside DB Box.
- Buspro cable - CAT5E or dedicated HDL Buspro cable.
- Buspro connection - Hand-in-hand recommended.

During the analogy function setting (such as, temperature, luminance, humidity, pressure), the measurement resolution cannot be too low, or it will affect the accuracy of the measurement conversion. Higher measurement resolution (There are more points in the direction of the X axis) means more accurate measurement result.

Taking temperature measurement as an example:

Connect a sensor with measurement range from 0℃ to 100℃, when the curve is only set 10 points with 10℃ for an interval, the deviation is as high as 10℃ .

So it is recommended to set: The curve is set 1000 points with 0.1℃ for an interval, then the deviation is as low as 0.1℃ .

Product Information

Dimensions - See Figure 2 - 3

Wiring - See Figure 4 - 6

1. Output 1-6: Relay output.
2. Output 7, 8: output 0-10VDC or 4mA-20mA
3. Indicator: flickers when the module is working properly.
4. Input: Dry contact, 0-10VDC or 4mA-20mA
5. Programming button: Keep pressing for 3 seconds, then the address of the module can be read and modified via the HDL Buspro Setup Tool.
6. HDL Buspro: from left to right: Data+, Data-,COM, DC24V

Note: take Input 6(See Figure 5-6) as an example for wiring, the input signal are dry contact, 0-10VDC, 4mA-20mA.

Installation - See Figure 7 - 9

Step 1. Fix the DIN rail with screws.

Step 2. Buckle the bottom cap of the 6CH Input & Output 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-MSC06.432*1 / Buspro connector*1 / Label*5 / Datasheet*1

Figure 7

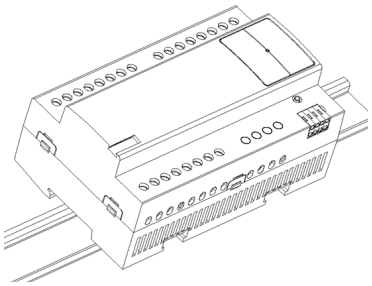

Figure 8

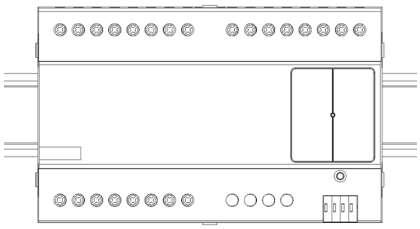

Figure 9

Figure 7 - 9. Installation

Technical Data

Basic Parameters	
Working voltage	15~30V DC
Working current	80mA/24V DC
Input voltage	AC100-240V(50/60Hz)
Relay output	6CH/10A
Signal input	Dry contact, Voltage(0~10V DC), Analogy Voltage(0~10V DC), Current (4~20mA), Analogy current (4~20mA)
Signal output	0~10V DC / 4~20mA
Communication	HDL Buspro
External Environment	
Working temperature	-5℃~45℃
Working relative humidity	≤90%
Storage temperature	-20℃~60℃
Storage relative humidity	≤93%
Specifications	
Dimensions	144mm×90mm×64mm
Net weight	375g
Housing material	Nylon
Installation	35mm DIN rail installation (See Figure 7 - 9)
Protection rating (Compliant with EN 60529)	IP20
Recommended Load Type and Power	
Motors	1H (1HP=746W)
Incandescent lamp load	1600W
Inductive transformer	1000W
Electronic transformer	800W
Halogen lamp 220V	1600W
Mercury vapor lamp	
Uncompensated lamp	1000W
Parallel compensated lamp	800W
Fluorescent lampT5 / T8	
Uncompensated lamp	1000W
Parallel compensated lamp	800W
DUO lamp	800W
Dulux lamp	
Uncompensated lamp	1000W
Parallel compensated lamp	800W

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.

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
Website: https://www.hdlautomation.com