

Features

The motorized curtain contains master and slave, is a professional curtains controller, the master are HDL-BUS enabled. Support manual mode, have the function of over load protection and over heat protection.

- Auto test the distance of curtain
- Manual mode : long drag , short drag , drag no action
- Percentage control
- Supports HDL-BUS online upgrading
- Supports easy programming

Important Notes

- **Bus cable** - HDL Bus/KNX Cable, 0.8mm Single Core Copper cable
- **Bus connection** - Recommend connection of Bus wire hand by hand
- Mounting position – Hanging
- Installation - when you install the motor to the drive unit , ensure the latch has pushed into the locked hole.

Specifications

- Bus working voltage : DC12-30V
- Rated voltage : AC230V / 50HZ
- Working voltage : DC24V(Master)
DC12V(Slave) from Master.
- Bus power Consumption : 40mA/DC24V(Master)
33mA/DC12V(Slave)
- Communication interface : HDL-BUS(Master)
- slave interface : 6P network port
- Rated power : 70W
- Rated torque : 1.0Nm
- Rated speed : 112rpm
- Rail belt speed : 16cm/s
- Insulation class : E
- IP class : IP41
- Working Temperature: 0°C ~ +45°C
- Working Relative Humidity: 40% - 90%
- Storage Temperature: -40°C- +55°C
- Storage Relative Humidity: 10% - 93%

HDL-Bus Definition for cable

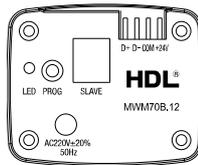
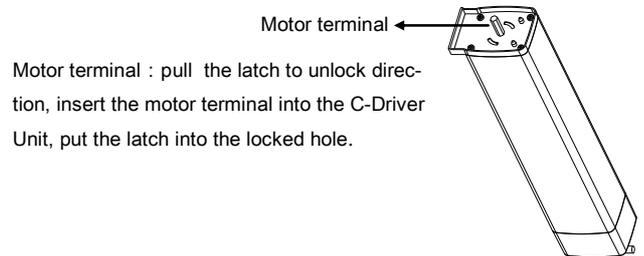
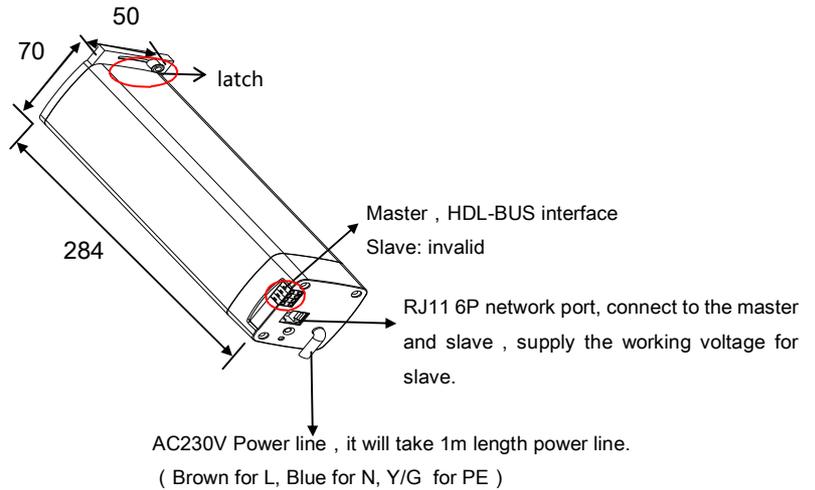
| Bus | HDL Bus/KNX Cable |
|-------|-------------------|
| COM | Black |
| DATA- | White |
| DATA+ | Yellow |
| DC24V | Red |



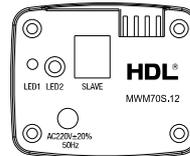
Safety Attention

- Do not make wrong connection on Bus interface, it will damage the Bus interface
- Avoid the rain or water into module, it will damage this device
- Do not get AC230V voltage into Bus wire , it will damage all of devices in system
- Do not pull the curtain with too much force, and do not put any additional weight on the rail, do not climb the curtain not hang anything on the curtain.

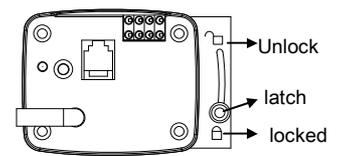
Layout



Master MWM70B.12



Slave MWM70S.12



LED indicate :

- Turn ON 1 time per 2s to indicate motor are working fine
- Turn ON to indicate enable modification for the address of Motor
- Turn OFF 1 time per 2s for testing mode (manual control)
- Turn OFF 2 times per 2s to indicate enable easy programming mode
- **PROG button - Modify the address of Motor**
Long press the button 3s, the LED turn ON, then you can modify the address by HDL-BUS software. Press the button 3s again or have no action after 2min will exit the mode .
- **PROG button - testing for installation**
long press the button 5s, the LED will turn ON 1 time per 2s , the curtain come into installation and debugging mode. It will automatically measure moveable distance for the rail, short press the button to manually open and close, stop after measure (open-stop-close-stop-open loop), press button 5s to exit manual operation mode and enter the normal working mode, automatically exit after 20min without operation.
- **PROG Button - Easy programming mode**
long press the button 10S,the LED will turn OFF 2 times per 2s to indicate the curtain into easy programming mode.
In this mode, you can control the curtain by PROG button, and switch panel can record the status from curtain motor by long push or short press buttons in panel , Long press the button of motor for 10s, or automatically exit after 20min without operation

Function description :

Motor running mode : Forward or reverse.

Ensure motor running mode by HDL Easy Engineering Editor software.

First select FWD , setting open , if the curtain is open ,the running mode is right. But if the curtain is closed, the motor running mode is REW .

Note: change the running mode after power on , the curtain will auto close for reset.

- **set the curtain's running after power on: Auto close or no action.**

When power failure , only control the curtain by manual.

Auto close when power on : after power on , the curtain close automatically.

No action : after power on , The curtain has no action until received the control command.

Note: when setting no action, the first time for percentage control, the curtain will auto close, then reached the target of setting.

- **Drag mode : long drag , short drag , drag no action.**

Long drag : when drag a certain distance, the curtain will fully open or close automatically, the default distance is 20cm.

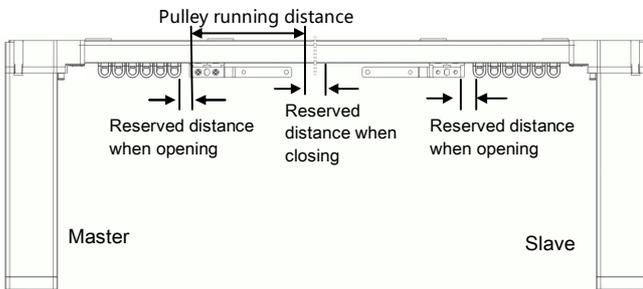
Short drag : drag curtain a certain distance , the distance more than the safe distance and less than the short drag distance, the curtain will open or close automatically , the default safe distance is 5cm , in order to avoid misoperation or curtain flap you can set the safe distance. The default distance is 20cm.

Drag no action : you must control the curtain by manual.

Note: When pulley moving, the length should not less than 5cm, and no more than the half of total length.

- **Test distance ,reserved distance of fully open and close:**

Test distance is the running distance of single pulley.



Workflow

- 1、when power on, test the distance of the curtain by itself , then , short press PROG button, control the curtain make sure the curtain is working fine.
 - 2、Change the address of curtain by HDL-BUS or HDL Easy Engineering Editor software.
 - 3、confirm the motor running mode, forward or reverse.
 - 4、Set the work mode: long drag, short drag, drag no action.
 - 5、Set the reserved distance. (don't change after setting)
 - 6、Set the panel's target, control the curtain.
- Note: the steps 3.4.5 are set by HDL Easy Engineering Editor software.

HDL Easy Engineering Editor software's surface :

The screenshot shows the 'Basic Information' window. Key settings are highlighted with red boxes and arrows:

- Motor Running mode:** FWD (selected) and REV. A checkbox for 'Auto OFF when power on' is checked.
- Drag Mode:** Long Drag (cm) and Short Drag (cm) are both set to 20. A 'Protect' value of 5 is set.
- Test section:** Read Length (cm) is 33. Curtain Switch is OPEN. Adjust ON/OFF is OPEN.

Set up reserved distance, set the position of curtain actual running.

- **position open setting**

when control test the curtain , select open, reach the right position click the test,, it will running the position when the next open.

- **Position close setting**

When control test the curtain, select close, reach the right place click the test, it will running the position when the next off.

The way to calculate reserved distance should take below two points in consideration :

Point A: curtain fabric is not extruded tightly when open

Point B: pulley does not collide when close

Note: reserved distance is not a fixed number.

About LCD panel's setting

The curtain must work with LCD panel, there are 2 ways for control.

1 : The button's setting as follow.(HDL-BUS software)

Operation: Long press the button, open or close the curtain, loosen the button, stop running . If fully open or close, automatic stop running.

Short press the button, percent control the curtain .

| Key no. | Remark | Mode | Function no. | Subnet ID | Device ID | Type | Parameter 1 | Parameter 2 | Par |
|---------|--------|---------------|--------------|-----------|-----------|----------------|---------------|---------------------|-----|
| 1 | | Single on/off | 1 | 1 | 247 | Curtain switch | 1[Switch no.] | 45 %[Switch Status] | N/A |

2 : The button's setting as follow.(HDL-BUS software)

Operation: short press the panel's button, control the curtain open, close or stop.

| Key no. | Remark | Mode | Function no. | Subnet ID | Device ID | Type | Parameter 1 | Parameter 2 | Par |
|---------|--------|---------------|--------------|-----------|-----------|------------------|---------------|-------------------|-----|
| 1 | | Single on/off | 1 | 1 | 247 | Universal switch | 1[Switch no.] | In[Switch Status] | N/A |
| 2 | | Single on | | | | | | | |