



# EPM-DM6D

## Universal Dimmer Module

### Quick Reference Guide (revision 1.20 for H/W Rev.A)



## OVERVIEW

The universal dimmer module EPM-DM6D is designed to control lighting loads. The module can operate in six-channel, five-channel and four-channel modes. The device supports dimming of both forward (leading edge) and reverse phase (trailing edge) type loads.

The control, data exchange and configuration are all handled via TCP/IP protocol.

Every channel has a pair of digital inputs for manual control and supports one-button and two-button control modes.

The device supports 220-240 Volt electronic and magnetic low-voltage, incandescent, neon/cold cathode, 2-wire dimmable fluorescent, 2-wire dimmable LED lighting loads.

## SPECIFICATIONS

Number of channels	4 - 6
Number of digital inputs	6 pairs
Maximum load per output	250 W
Dimming type	Trailing edge cut, Leading edge cut, Non-dim
Overload and short circuit protection	25 A, 100 $\mu$ s
Overheat protection	Yes
Maximum voltage	250 V
Supply voltage range	12-24 VDC via power terminals 48 VDC via PoE port
Consumption current	200 mA @ 12 VDC

Network interface	Ethernet (10/100)
Operating temperature	-20° C to 45° C -5° F to 115° F
Operating humidity	5 to 80% RH non-condensing
Dimensions (HWD)	90 mm x 160 mm x 58 mm 3.55" x 6.30" x 2.28"
Weight	355 g 0.78 lbs
Supported data exchange protocols	NetString ModBus TCP ModBus RTU over TCP

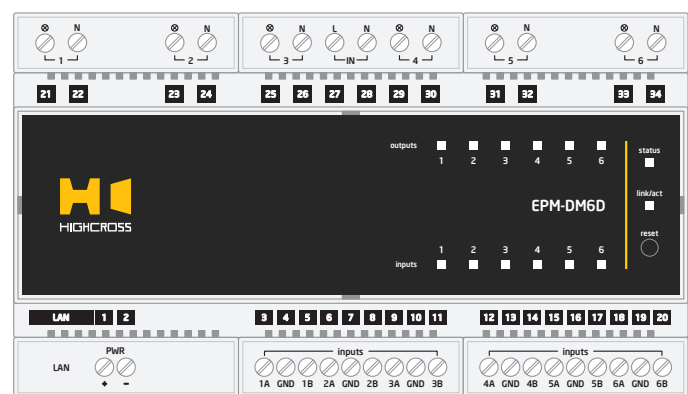
## DEVICE CONTROL COMPONENTS

### FACE PANEL COMPONENTS

<b>outputs 1-6</b>	Indicators of outputs status
<b>inputs 1-6</b>	Indicators of inputs status
<b>status</b>	Indicates power status and connection to controllers
<b>link/act</b>	Ethernet link and activity indicator
<b>reset</b>	Multifunctional button (reboot, reset, boot-loader)

### LOW VOLTAGE TERMINAL BLOCK

<b>LAN</b>	Ethernet network and PoE power connector
<b>PWR</b>	Power supply terminals (12-24 VDC)
<b>1A - 6B</b>	Digital inputs terminals
<b>GND</b>	Ground contact for inputs, electrically connected to <b>PWR</b> "-" contact



### HIGH VOLTAGE TERMINAL BLOCK

<b>LOAD 1-6</b>	Terminals for Load
<b>N 1-6</b>	Terminals for Neutral
<b>LINE</b>	Terminal for Line

LED "status" indicates the power connection and connection status with controllers	
Off	No power connected
Blink (1 Hz)	No connection with external controllers
Fast blink (4 Hz)	The device is in bootloader mode
On	Connected to external controllers

LED "link" indicates Ethernet network link and activity	
Off	No connection to Ethernet network
Blink	Connected to Ethernet network Receiving Ethernet data packets
On	Connected to Ethernet network No network activity

LEDs "outputs 1-6" display status of output	
Off	The output is off
On	The output is on
Blink	No Line or Load

LEDs "inputs 1-6" displays status of input	
Off	The input is inactive
On	The input is active

### Multifunctional button "reset"

**To reboot the device** push the button for 1 second

**To reset the device to factory defaults** push and hold the button for 5 seconds.

IP-address will be set to 10.0.1.101, subnet mask to 255.255.255.0 and gateway to 10.0.1.1.  
All other settings will be set to default values

**For firmware update**, power off the device, push and hold the button and power the device on. Release the button after the LED "status" will start to blink fast.

The network settings of the device started in bootloader mode are: IP-address - **10.0.1.101**, subnet mask - **255.255.255.0**, gateway - **10.0.1.1**

The **PWR "+"** and **"-"** terminals are designed to power the device 12-24 VDC if connected Ethernet switch has no PoE support.

For Load connection diagrams refer to the Instruction manual.

## SETUP AND CONFIGURATION

The configuration of the module is handled via web-interface.

To start working with the device:

- Connect the device to the Ethernet switch. If the switch has no PoE support, connect the power 12-24 VDC to the **PWR** terminal
- Ensure that your computer can connect to the network address 10.0.1.101 or set the TCP/IP settings of active network adaptor to: IP address - **10.0.1.100**, subnet mask - **255.255.255.0**
- Enter **10.0.1.101** in address bar of your web-browser
- Enter: login - **root**, password - **root**
- Configure the device settings

The web-interface contains the next web-pages:

<b>Home</b>	Displays device and channels state, the hardware revision and the firmware version
<b>Settings</b>	Network settings, type of data exchange protocol, channels combining mode, dimming type, outputs and digital inputs settings
<b>Control</b>	Control of channels
<b>Events</b>	Displays information events
<b>Connections</b>	Displays TCP/IP connections and device uptime info

For further information refer to [www.highcross.pro](http://www.highcross.pro)