

User manual



MPX 405

dimmer pack

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16.06.2020, ID: 152999 (V3)

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1 General information

This user manual contains important information on the safe operation of the device. Read and follow all safety notes and all instructions. Save this manual for future reference. Make sure that it is available to all persons using this device. If you sell the device to another user, be sure that they also receive this manual.

Our products and user manuals are subject to a process of continuous development. We therefore reserve the right to make changes without notice. Please refer to the latest version of the user manual which is ready for download under www.thomann.de.

1.1 Further information

On our website (www.thomann.de) you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: *'24ch'*, *'OFF'*.

Instructions



The individual steps of an instruction are numbered consecutively. The result of a step is indented and highlighted by an arrow.

Example:

- 1.** ▶ Switch on the device.
- 2.** ▶ Press *[Auto]*.
 - ⇒ Automatic operation is started.
- 3.** ▶ Switch off the device.

1.3 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this manual.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.
Warning signs	Type of danger
	Warning – high-voltage.
	Warning – danger zone.

2 Safety instructions

Intended use

This appliance is intended to be used to control the brightness of connected spotlights. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety



DANGER!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.



DANGER!

Electric shock caused by high voltages inside

Within the device there are areas where high voltages may be present. Never remove any covers.

There are no user-serviceable parts inside.

Do not use the device if covers, protectors or optical components are missing or damaged.



DANGER!

Electric shock caused by short-circuit

Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.



NOTICE!

Risk of fire

Do not block areas of ventilation. Do not install the device near any direct heat source. Keep the device away from naked flames.



NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.



NOTICE!

Power supply

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

3 Features

- 4 dimmer channels
- Outputs: 4 protective contact sockets
- Control via DMX 512 and via buttons and display on the unit
- Individual DMX addressing per channel
- Channel function selectable per channel
- Operating modes:
 - DMX
 - Automatic
- Single channel protection

4 Installation and starting up

Unpack and check carefully there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the product against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

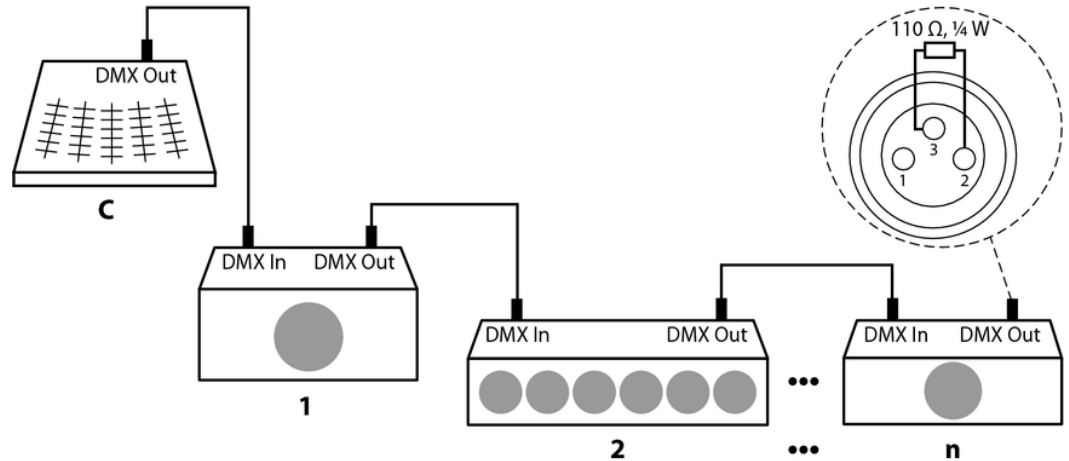
Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

The unit is designed for wall or stand mounting. For this purpose, there is a mounting bracket on top of the unit. Using the two M10 threads, the device can be mounted vertically or horizontally with suitable screws on a stand. Alternatively, there are two bores available for wall mounting using suitable mounting hooks and anchors (mounting hardware not included).

First, connect the loads to the terminals on the sides of the device. If you want to operate the device in 'DMX' mode, establish the DMX connection to the controller. Finally, connect the power plug of the device to a mains power socket.

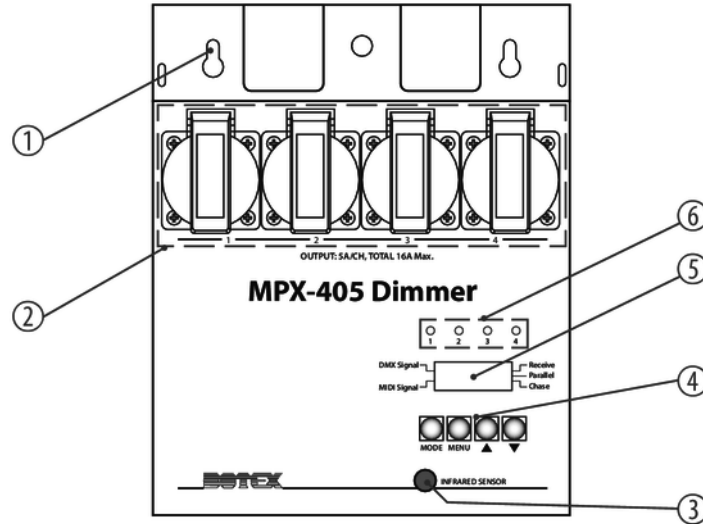
Connections in DMX mode

Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor ($110\ \Omega$, $\frac{1}{4}\text{ W}$).



5 Connections and controls

Front panel



1	Mounting rail for mounting on a wall or on a truss beam. Maximum tube diameter: 45 mm.
2	Dimmer outputs, 4 protective contact sockets.
3	<i>[INFRARED SENSOR]</i> No function.
4	Key panel
	<i>[MODE]</i> Switches between the operating modes.
	<i>[MENU]</i> Opens the main menu or a submenu.
	▲, ▼ Arrow buttons for navigating within an open menu or for changing values.
5	Display with additional indicator LEDs
	<i>[DMX signal]</i> : lights up when the unit is turned on and receives a DMX signal.
	<i>[MIDI signal]</i> : lights up when the unit is turned on and receives a MIDI signal.

[Receive]: lights up when the unit is in 'Receive' mode.

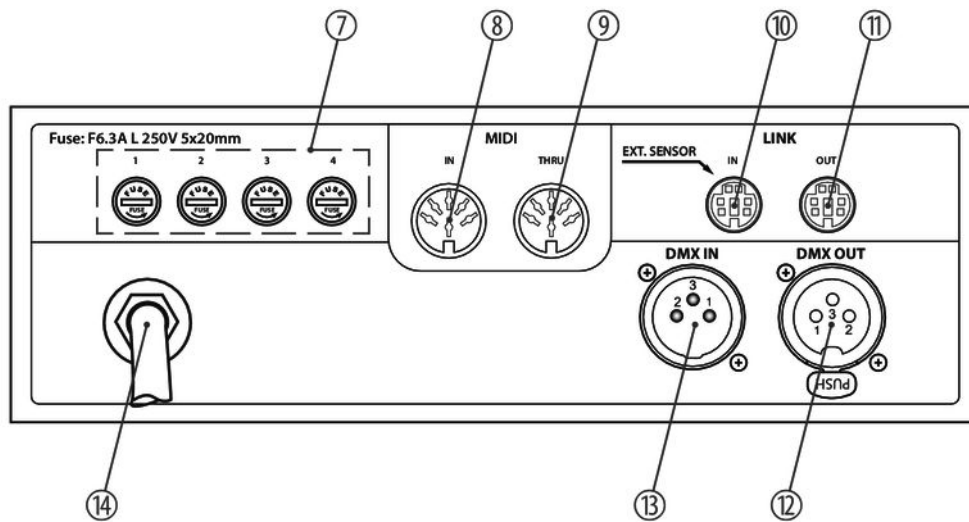
[Parallel]: lights up when the unit is in 'Parallel' mode.

[Chase]: lights up when the unit is in 'Chase' mode.

6 Channel indicators [1]...[4].

In all operating modes, the channel indicators show which channels are currently being used by the running programme (LEDs light up).

Bottom



7	<i>[1]...[4]</i> Fuses for dimmer channels 1...4.
8	<i>[MIDI IN]</i> MIDI signal input socket
9	<i>[MIDI THRU]</i> Output socket for looped-through MIDI signal
10, 11	<i>[LINK IN], [LINK OUT]</i> Connections for master / slave configuration.
12	<i>[DMX OUT]</i> DMX output
13	<i>[DMX IN]</i> DMX input
14	Power cable

6 Operating

Turning on and off

To start up the device, connect it to the mains. The device is immediately operational.

Pull the power plug of the unit to turn it completely volt-free.

Operating mode selection

Switch to normal operation and use *[MODE]* to select the desired operating mode. Here you have the choice between the modes:

- Receive (CH:...)
- Chase (P:...)

Chase (P:...)

That's how you configure your device without an external DMX controller:

The **Chase (P:...)** mode is to be selected when no external DMX controller is used.

The **Chase (P:...)** mode is selected, in the display, the LED [*Chase*] lights up.

1. ▶ To enter the device settings, press [*MENU*].
 - ⇒ Settings for dimming, running-light programme and running-light speed can be made here.
2. ▶ Select the dimming settings. Press [*MENU*] repeatedly until the display shows 'd:xxx'. Use [*UP*] and [*DOWN*] to set a value between 'd:001' and 'd:100'.
3. ▶ Select the running-light programme. Press [*MENU*] repeatedly until the display shows 'P:xx'. Use [*UP*] and [*DOWN*] to select the desired running-light programme 'P:01' to 'P:16'.
4. ▶ Select running-light speed. Press [*MENU*] repeatedly until the display shows 'SP:xx'. Use [*UP*] and [*DOWN*] to adjust the desired running-light speed 'SP:01' bis 'SP:99'.

Receive (CH:...)

That's how you configure your device with an external DMX or MIDI controller:

The **Receive (CH:...)** mode is to be selected when an external DMX or MIDI controller is used.

The **Receive (CH:...)** mode is selected, in the display, the LED *[Receive]* lights up.

1. ▶ To enter the device settings, press *[MENU]*.
 - ⇒ Settings for MIDI-IN channels, MIDI note number and DMX start address can be made here.
2. ▶ Select the DMX start address. Press *[MENU]* repeatedly until the display shows 'A:xxx'. Use *[UP]* and *[DOWN]* to set the desired DMX start address to a value between 'A:001' and 'A:512'.
3. ▶ Select the MIDI-IN channel. Press *[MENU]* repeatedly until the display shows 'CH:xx'. Use *[UP]* and *[DOWN]* to set the desired channel 'CH:01' to 'CH:16'.
4. ▶ Select the MIDI note number. Select 'MIDI-Note Number'. Press *[MENU]* repeatedly until the display shows 'N:xxx'. Use *[UP]* and *[DOWN]* to set the desired value 'N:001' to 'N:128'.

7 Technical specifications

Control principle	Leading edge phase control	
Input connections	Power supply	Protective contact sockets, single-phase
	Signal input	DMX 512 via 3-pin XLR plug
Output connections	Power supply	4 × outlets, 230 V
	Signal output	DMX 512 via 3-pin XLR socket
Channel fuse	5 mm × 20 mm, 6.3 A, 250 V, fast-acting (per channel)	
Power consumption	3680 W	
Supply voltage	230 V ~ 50 Hz	
Degree of protection	IP20	
Mounting options	Wall or stand mounting	
Dimensions (W × H × D)	200 mm × 180 mm × 65 mm	
Weight	2.4 kg	

Technical specifications

Ambient conditions	Temperature range	5 °C...35 °C
	Relative humidity	50 %, non-condensing

8 Plug and connection assignments

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment so that a perfect light experience is guaranteed.

Please take our tips, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into a socket, the result of an incorrect connection may be a destroyed DMX controller, a short circuit or 'just' a not working light show!

DMX connections



The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for the pin assignment of a suitable XLR plug.

Pin	Configuration
1	Ground, shielding
2	Signal inverted (DMX-, 'cold signal')
3	Signal (DMX+, 'hot signal')

9 Protecting the environment

Disposal of the packaging material



For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) in its currently valid version. Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.

