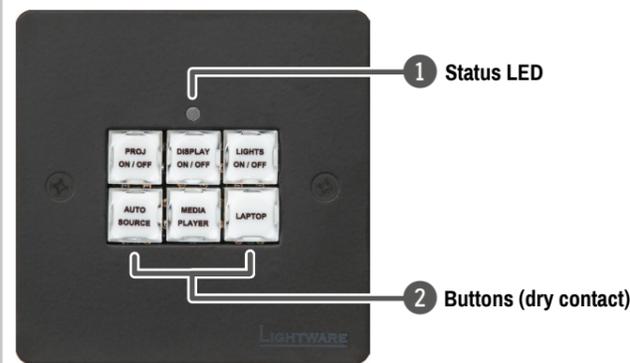




## Quick Start Guide

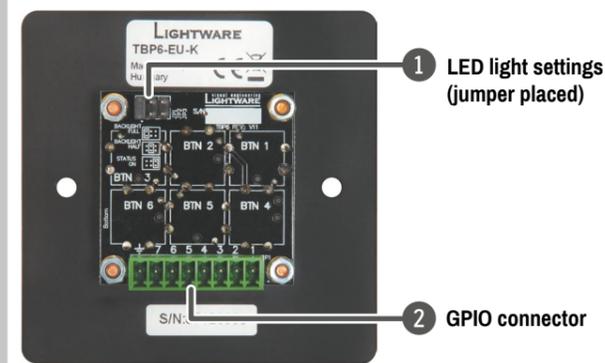
TBP6-EU-W, TBP6-EU-K  
Button Panels

### Front View



- The labels of the buttons are just for illustration since the button caps are empty by default. The user can insert the desired label from the attached sheet.
- To disable the backlight/status LED at all, do not link the 7th pins of the GPIO connectors, or set the **Output level** of the GPIO pin7 to **Low** in the Lightware device.

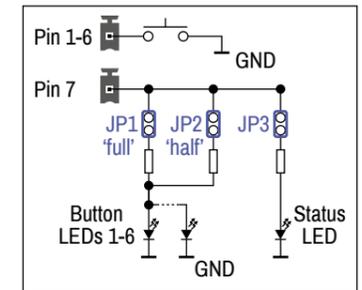
### Rear View



### Jumper positions

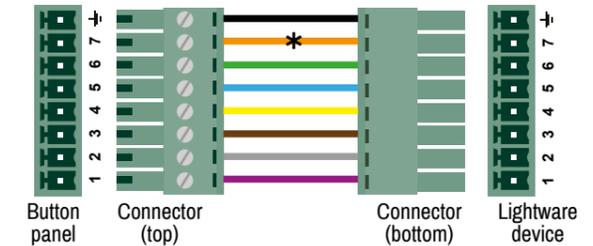
- The backlight of the buttons is bright (full).
- The backlight of the buttons is low (half).
- The front panel status LED is constantly on.

### The Simplified Schematic of the Button Panel



### Phoenix Connector Wiring

The recommended cable for the connectors is the AWG24 (0.2 mm<sup>2</sup> diameter) or the generally used 'alarm cable' with 8x0.22 mm<sup>2</sup> wires.



### Important Safety Instructions

Please read the supplied safety instruction document before using the product and keep it available for future reference.

### Introduction

TBP6 button panel was designed to be used with the Event Manager built-in control feature in select Lightware matrix switcher and extender products. The button panel can be installed in meeting rooms to perform basic system control actions like input selection, switching the system on/off, increasing or lowering the volume, etc.

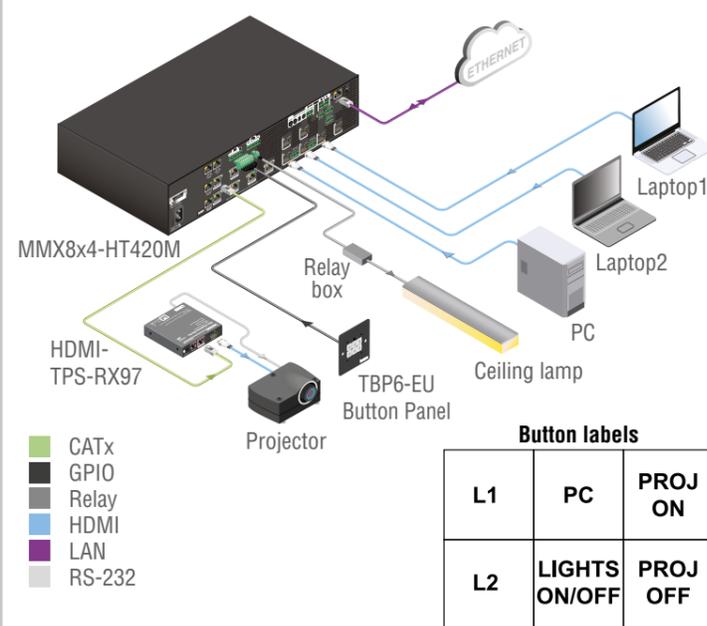
This product has a status LED and a backlight, which are fed from the 7th pin of the GPIO connector. The backlight can be switched off, or its intensity can be set to two levels with the help of traditional jumper switches.

### Event Manager

The Event Manager is a smart, built-in feature in the Lightware HDBaseT™ compatible TPS extender family, the MODEX line and in certain matrix switchers like the MMX8x4 series. The feature can be customized through the Lightware Device Controller (LDC) software. The Event Manager reacts to internal status changes or user interactions without any external control system. The detected event is called Condition, the response is called Action.



### Typical Application (Example)



### Example Description

The Button panel is connected to the GPIO port of the matrix. The six buttons have the following functions:

Button	Function	The realized action
L1	Switching the Laptop1 to the Projector (RX97)	Crosspoint change
L2	Switching the Laptop2 to the Projector (RX97)	Crosspoint change
PC	Switching the PC to the Projector (RX97)	Crosspoint change
LIGHTS ON/OFF	Toggle the On/Off state of the Ceiling lamp	Toggle the Relay connection
PROJ ON	Switching the Projector on	Message sending over RS-232
PROJ OFF	Switching the Projector off	Message sending over RS-232

The direction of the P1-P6 GPIO pins in the matrix are set as Input. Thus, when a button is pressed the input level of the pin is changed to Low. That is used as a Condition which triggers an Action in the Event Manager. Six events are defined in the Event Manager for the six buttons.

- The cable between the button panel and the GPIO port was tested by 50 m, AWG23 cable type. For longer distance, please contact Lightware.

### \* Tips and Tricks with Pin7

The 7th pin of the GPIO connection can be used for any of the following functions:

#### 1. Button Backlight Function

The 7th pin of the button panel is connected to the 7th pin of GPIO port in the Lightware device. Set the **pin direction** of the 7th pin to **Output** and the **Output level** to **High** e.g. by using the LDC (Lightware Device Controller) software. The jumper is placed to **JP1** or **JP2** position. Thus, the backlight of the buttons are powered over the 7th pin.

#### 2. Remote Status Feedback (Event Manager action)

The 7th pin of the button panel is connected to the 7th pin of GPIO port in the Lightware device. The jumper is placed to **JP3**, the pin direction of the 7th pin is set as **Output** and the **Output level** to **Low**. Thus, the 7th pin of the GPIO port in the Lightware device can be used as an Action. E.g. when the projector is switched on, the LED lights (the output level of the 7th pin is changed to High).

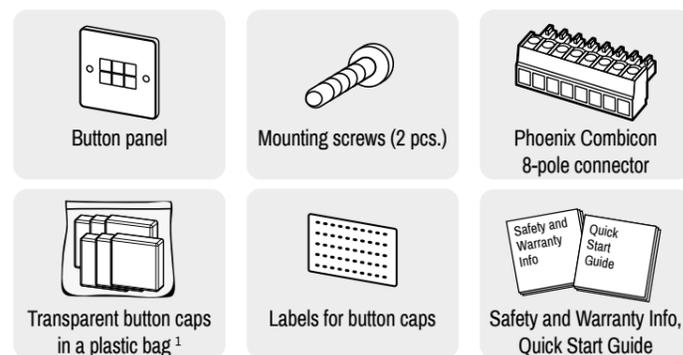
- This feature is not available in the case of MMX8x4-HT420M.

#### 3. Custom Usage of the 7th Pin

In this case the LEDs of the button panel will be dark. The 7th pin of the button panel is **not connected**. The 7th pin of the GPIO port in the Lightware device will be free and can be used as an input or output.

- The 7th pin of the GPIO port in the MMX8x4-HT420M matrix sends 5V constantly.

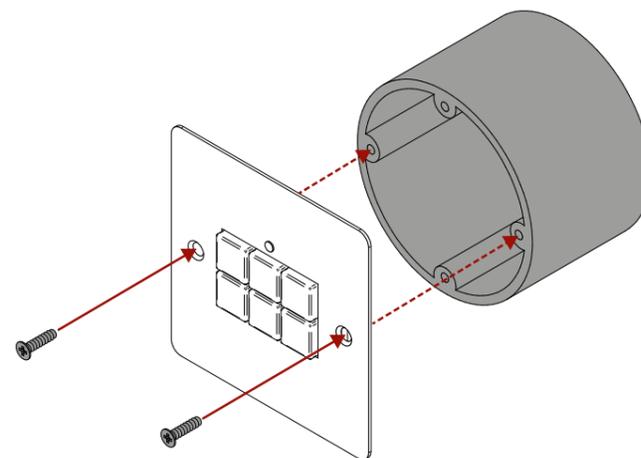
### Box Contents



<sup>1</sup> The transparent caps are not placed onto the buttons, thus, you can easily insert the desired labels and fix the caps – see the related section.

### Button Panel Mounting

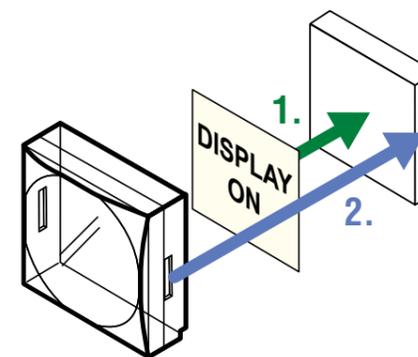
The TBP6-EU button panel can be mounted to a standard European round / circular wall mounting box:



### Label and Cap Fixation

The caps of the buttons are supplied separately with the product in a plastic bag. Select the desired label and insert it as shown in attached figure:

- Insert the label.
- Place the cap and pay attention to the nut; the direction of the buttons are different, thus, certain caps must be rotated by 90°.



Further information on the device is available at [www.lightware.com](http://www.lightware.com).



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 Budapest, Hungary

Doc. ver.: 1.2  
 19210012

## Specification

### General

Compliance .....	CE, UKCA
Safety compliance .....	IEC/EN 62368-1:2014
EMI / EMC .....	EN 55035:2017 / EN 55032:2015
Warranty .....	3 years
Operating temperature .....	0 to +50°C (+32 to +122°F)
Operating humidity .....	10% to 90%, non-condensing
Cooling .....	Passive
Enclosure .....	1 mm steel
Dimensions .....	80 W x 20 D x 80 H mm
Weight .....	90 g

### Power

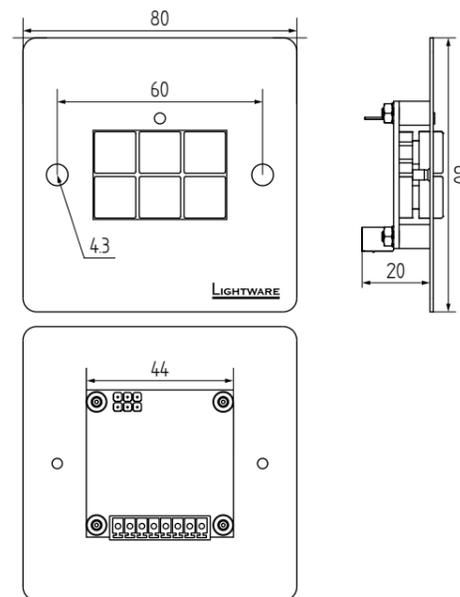
Power supply .....	remote power via the 7th pin of the GPIO
.....	(only for the light function)

## GPIO

Connector type .....	8-pole Phoenix connector
Number of configurable pins .....	7
Port direction.....	Input or output
Input voltage: Low / High level .....	0 - 0,8V / 2 - 5V
Output voltage: Low / High level.....	0 - 0,5 V / 4.5 - 5 V

## Dimensions

The values are in mm.



## Compatible Devices

The button panel can be connected to a Lightware device assembled with an 8-pole GPIO port:

- UMX-TPS-TX130, UMX-TPS-TX140, UMX-TPS-TX140-Plus
- UMX-HDMI-140, UMX-HDMI-140-Plus
- DP-TPS-TX220
- HDMI-TPS-TX220
- SW4-OPT-TX240RAK
- DVI-HDCP-TPS-TX220
- SW4-TPS-TX240, SW4-TPS-TX240-Plus
- MMX8x4-HT420M