**KNX Tile Series Button Panel 2.0**

| Product name | Buttons | Model No. |
|---|---|---|
| Tile Series Button Panel 2.0 (Plastic versions) | 1 Button Panel A | M/PT1RA.1 |
| | 1 Button Panel B | M/PT1RB.1 |
| | 2 Buttons Panel A | M/PT2RA.1 |
| | 2 Buttons Panel B | M/PT2RB.1 |
| | 4 Buttons Panel A | M/PT4RA.1 |
| | 4 Buttons Panel B | M/PT4RB.1 |
| | Frames | HDL-MP1-EC/TILE.48 |

Hardware Version: B

**Datasheet**

Issued: April 21, 2020

File Edition: B



Figure 1. 1 Button Panel A



Figure 2. 1 Button Panel B



Figure 3. 2 Buttons Panel A



Figure 4. 2 Buttons Panel B



Figure 5. 4 Buttons Panel A



Figure 6. 4 Buttons Panel B

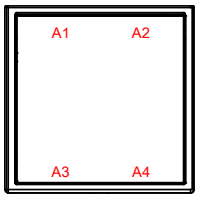



Figure 6-1. 1 Button Panel A /1 Button Panel B

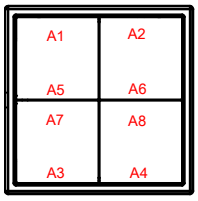
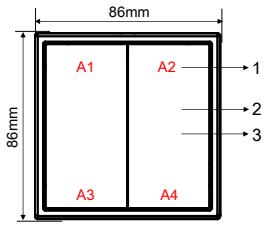



Figure 6-2. 4 Buttons Panel A /4 Buttons Panel B




2 Buttons Panel A/2 Buttons Panel B

Figure 7. Dimensions - Plastic version




Figure 8. Dimensions - Side View

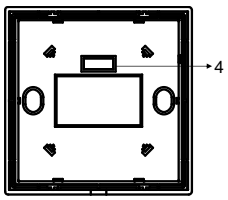



Figure 9. Components - Back View

## Overview

KNX Tile series Button Panel 2.0 (See Figure 1-6) contains 1/2/4-button panels. Icons and text of each button supports laser labelling. With built-in RGB backlight for each pushbutton, the color and brightness level can be set by ETS or manually set on the panel. The panels support controls of lighting, curtains, scenes, music, etc.

## Functions

- Built-in temperature sensor.
- Built-in proximity sensor.
- 1/2/4-button panels with built-in backlight.
- The color and brightness level of each button can be set.
- Button modes: single mode and combined mode.
- Control modes: Switching control, Dimming control, Shutter control, Flexible control, Scene control, Sequence control, Percentage control, Threshold control, String (14 bytes) control, Alternate control, Pulse control, RGB control, Fan control, Combination control.
- Supports online upgrade.

## Important Notes

- The panel should be mounted on the wall box with power interface (M/PTCI.1).
- The device is compliant with the KNX standard and the parameters are set by the Engineering Tool Software (ETS).

## Product Information

**1 Button Panel A/1 Button Panel B - See Figure 6 -1**

**4 Buttons Panel A/4 Buttons Panel B - See Figure 6 - 2**

**Dimensions - See Figure 7 - 8**

**Components - See Figure 9**

**1. Button:** Controls targets.
**2. RGB backlight:** Color and brightness level can be set.
**3. Icons & text:** Support laser labelling.
**4. KNX bus connector**

**Backlight color setting:**

Press Button A2 and A3 (see Figure 6-1, 6-2 & 7) simultaneously for 7 seconds, and the panel enters color selecting mode. Pressing Button A2 means selecting previous color from local color library, while pressing Button A3 means selecting next color. The color will be finally determined if no operation is done within 20 seconds.

**Programming mode:** Press Button A1 and A4 (see Figure 6-1) simultaneously for 2 seconds, and the panel enters programming mode. Press Button A1 and A4 (see Figure 6-2 & 7) simultaneously for 2 seconds, and the panel enters programming mode.

**Upgrade mode:** Press Button A2 and A3 simultaneously before powered on (see Figure 6-1, 6-2 & 7) , release the buttons after being powered on for 2s, then the panel enters upgrade mode.

**Product installation** (Take M/PT4RA.1 as an example)

**Installation - See Figure 10**

Step 1. Install the wall box in the wall.
Step 2. Secure the power interface to the wall box with screws.
Step 3. Install the panel on the power interface.
Step 4. Install the frame around the panel.

**Horizontal installation - See Figure 11**

## 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 wall box mounted. 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

Panel*1 / Datasheet*1

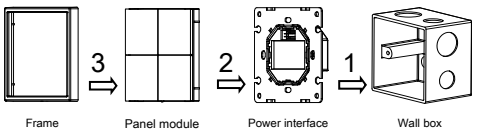



Figure 10. Installation

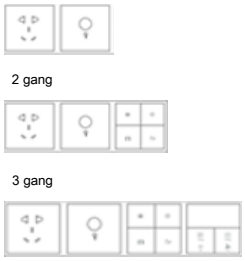



Figure 11. Horizontal installation

Notes: Plastic panels can be only installed horizontally.

| Product name | Frame Types | Gang | Dimensions |
|---|---|---|---|
| 2/3/4-gang frames | Plastic | 2 gang | 172*86*11(mm) |
| | | 3 gang | 258*86*11(mm) |
| | | 4 gang | 344*86*11(mm) |

# Technical Data

| Basic Parameters | |
|---|---|
| Working voltage | 21~30V DC |
| Working current | M/PT1RA.1: 7mA / 30V DC<br>M/PT1RB.1: 8.5mA / 30V DC<br>M/PT2RA.1: 9mA / 30V DC<br>M/PT2RB.1: 11.5mA / 30V DC<br>M/PT4RA.1: 12mA / 30V DC<br>M/PT4RB.1: 12mA / 30V DC |
| Communication | KNX |
| Cable diameter of KNX terminal | 0.6 - 0.8mm |
| **External Environment** | |
| Working temperature | -5℃~45℃ |
| Working relative humidity | ≤90% |
| Storage temperature | -20℃~60℃ |
| Storage relative humidity | ≤93% |
| **Specifications** | |
| Dimensions | Plastic version: 86×86×11(mm) |
| Net weight | Plastic version: 64g |
| Housing material | Plastic version: Flame retardant PC |
| Installation | Wall box (See Figure 10) |
| Protection rating (Compliant with EN 60529) | IP20 |

## 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.

# KNX Cable Guide

| KNX | KNX Cable |
|---|---|
| - | Black |
| + | Red |

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