KNX Tile Series Button Panel 2.0, plastic version and metal version

Product name	Buttons	Model No.
Tile Series Button Panel 2.0 (Plastic & metal 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

Hardware Version: B

Datasheet

Issued: August 28, 2020

File Edition: C

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

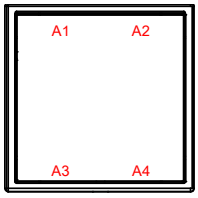


Figure 6-1. 1 Button Panel A /1 Button Panel B

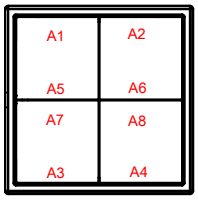
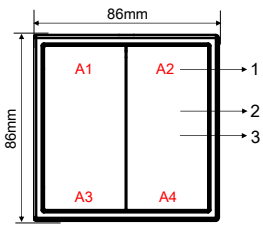
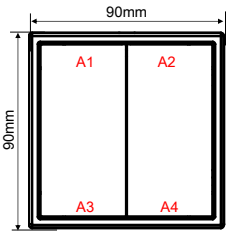


Figure 6-2. 4 Buttons Panel A /4 Buttons Panel B



2 Buttons Panel A/2 Buttons Panel B

Figure 7. Dimensions - Plastic version



2 Buttons Panel A/2 Buttons Panel B

Figure 8. Dimensions - Metal version

Figure 9. Dimensions - Side View

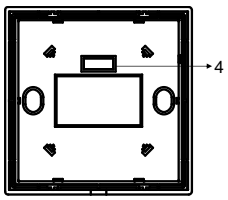


Figure 10. Components - Back View

Overview

KNX Tile series Button Panel 2.0 (See Figure 1-6) contains 1/2/4-button panels, both plastic and metal versions. 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 (maximum sensing distance: 20~30cm)
- 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 - 9

Components - See Figure 10

1. Button: Controls targets.

2. RGB backlight: Color and brightness level can be set.

3. Icons & text: Support laser labelling.

4. Communication interface

Backlight color setting:

Press Button A2 and A3 (see Figure 6-1, 6-2, 7&8) 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, 6-2, 7&8) 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&8) , 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 11

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 12

Vertical installation - See Figure 13

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

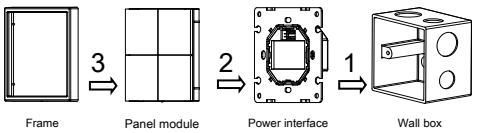


Figure 11. Installation

Figure 12. Horizontal installation

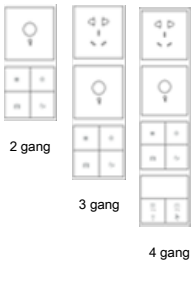


Figure 13. Vertical installation

Notes: Metal panels can be installed either horizontally or vertically. Plastic panels can be only installed horizontally.

Product name	Frame Types	Gang	Dimensions
2/3/4-gang frames	Metal	2 gang	176*90*11(mm)
		3 gang	262*90*11(mm)
		4 gang	348*90*11(mm)
	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 M/PT1RB.1: 8.5mA / 30V DC M/PT2RA.1: 9mA / 30V DC M/PT2RB.1: 11.5mA / 30V DC M/PT4RA.1: 12mA / 30V DC M/PT4RB.1: 17mA / 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) Metal version: 90×90×11(mm)
Net weight	Plastic version: 64g Metal version: 110g
Housing material	Plastic version: Flame retardant PC Metal version: Aluminum alloy
Installation	Wall box (See Figure 11)
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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