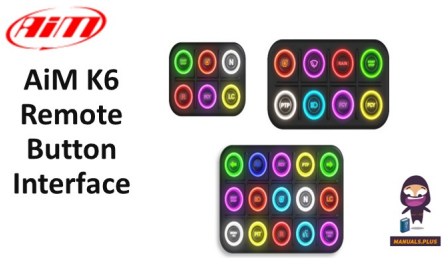


AiM K6 Remote Button Interface User Guide

Contents

AiM K6 Remote Button Interface

Specifications:

- Buttons: K6 – 6 programmable, K8 – 8 programmable, K15 – 15 programmable
- Backlight: RGB with Dimming option
- Connection: AiM CAN through 5 pins Binder 712 female connector
- Body Material: Rubber silicon and reinforced PA6 GS30%
- Dimensions: K6 – 97.4x71x4x24mm, K8 – 127.4×71.4x24mm, K15 – 157.4×104.4x24mm
- Weight: K6 – 120g, K8 – 150g, K15 – 250g
- Waterproof: IP67

Product Usage Instructions

Connecting the Keypad:
Connect the Keypad to an AiM PDM08 or PDM32 using the provided CAN cable. Ensure a secure connection is made.

Configuring the Buttons:
Use the AiM RaceStudio 3 Software to configure each button on the Keypad according to your preferences. Buttons can be set as Momentary or Multi-Status.

Setting Button Modes:

- **Momentary:** Associate a command to each pushbutton. Requires a Display to PDM configuration.
- **Multi-Status:** Allows the status to change every time the pushbutton is pressed. Useful for selecting different settings.

Setting Time Threshold:
You can define different values for the pushbutton depending on how long it is pressed. Enable the timing checkbox in the setting panels to set this feature.

Open Version Usage:
If using the Keypad in an AiM installation without a master device, follow the provided steps for defining CAN streams.

FAQ:

1. **How do I download the AiM RaceStudio3 software?**
   To download the software, visit the AiM website at **aim-sportline.com** and navigate to the Software/Firmware download area.
2. **Can I purchase spare CAN cables for the Keypad?**
   Yes, spare CAN cables can be bought separately. Refer to the related part numbers for ordering.
3. **Can I freely associate status ON and OFF with numeric values?**
   Yes, both status ON and OFF can be associated with numeric values when configuring the Keypad buttons.

Introduction

- AiM Keypad is the new range of AiM compact expansions based on the CAN Bus protocol exclusively used on an AiM network; they can only be connected to AiM PDM08 or PDM32.
- Keypad is available in different versions according to the number of pushbuttons it features and whose status is constantly transmitted to the Network Master through an AiM CAN connection.
- All buttons are fully configurable using AiM RaceStudio 3 Software.

Each button can be set as:

- Momentary: the pushbutton status is ON when the pushbutton is pushed
- Toggle: the pushbutton status changes from ON to OFF each time the pushbutton is pushed
- Multi-status: the pushbutton value changes from 0 to a MAX Value each time the pushbutton is pushed.

You can also define a time threshold for each button that implies different behaviours when a SHORT or LONG compression event is detected. Every pushbutton can be customised in a different colour or in a solid, slow, fast or blinking mode. The keypad automatically shares all the installation channels that can be used – thanks to the colour LEDS – both to acknowledge a button compression event or to the status of a device.

Finally, it is possible to configure a pushbutton to increase or decrease the brightness level of the keypad. and to transmit commands to the master device. The table below shows the characteristics of available Keypads versions.

	K6	K8	K15
Buttons	6 programmable	8 programmable	15 programmable
Backlight		RGB with Dimming option	
Connection	AiM CAN through 5 pins Binder 712 female connector		
Body Material	Rubber silicon and reinforced PA6 GS30%		
Dimensions	97.4x71x4x24mm	127.4×71.4×24	157.4×104.4×24
Weight	120g	150g	250g
Waterproof		IP67	

Available kits and spare parts

Keypad available kits are:

Keypad K6

Keypad K6

- Keypad K6+50 cm AiM CAN cable X08KPK6AC050
- Keypad K6+100 cm AiM CAN cable X08KPK6AC050
- Keypad K6+200 cm AiM CAN cable X08KPK6AC050
- Keypad K6+400 cm AiM CAN cable X08KPK6AC050

Keypad K8

- Keypad K8+50 cm AiM CAN cable X08KPK8AC050
- Keypad K8+100 cm AiM CAN cable X08KPK8AC100
- Keypad K8+200 cm AiM CAN cable X08KPK8AC200
- Keypad K8+400 cm AiM CAN cable X08KPK8AC400

Keypad K15

- Keypad K15+50 cm AiM CAN cable X08KPK15AC050
- Keypad K15+100 cm AiM CAN cable X08KPK15AC100
- Keypad K15+200 cm AiM CAN cable X08KPK15AC200
- Keypad K15+400 cm AiM CAN cable X08KPK15AC400

All Keypads come with a CAN cable used to connect it to the master device but cables can also be bought separately as spare parts.

The related part numbers are:

- 50 cm AiM CAN cable V02554790

- 100 cm AiM CAN cable V02554810
- 200 cm AiM CAN cable V02554820
- 400 cm AiM CAN cable V02554830

Buttons icons:

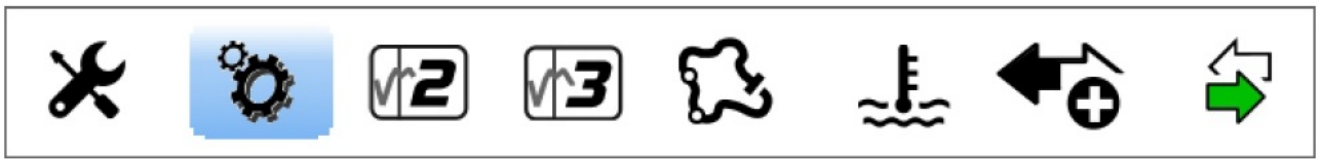
- 72 pieces icon kit X08KPK8KICONS
- single icon click here to know each icon part number

Software configuration

- For configuring AiM Keypads, please download AiM RaceStudio3 software from AiM website at aim-sportline.com Software/firmware download area: AiM – Software/Firmware download (aim-sportline.com)

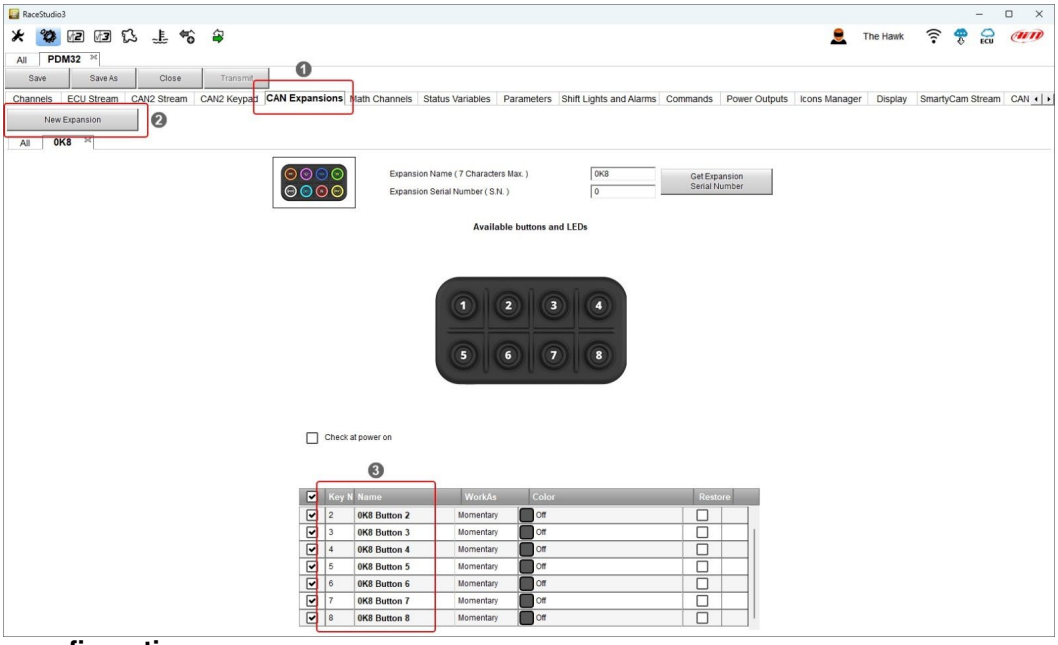
After having installed the software, run it and follow these steps:

- Enter the Configuration Menu by clicking the icon highlighted below:



- Press “New” button on the top right toolbar and select the PDM you wish to configure
- The software enters PDM Configuration
- Enter “CAN Expansions” tab (1) and press “New Expansion” (2)
- Select the desired Keypad (K8 in the example)
- Configure it

Please note: your master device can manage a maximum of 8 keypads.



Pushbuttons configuration

Some quick notes before we start analysing how to configure AiM Keypads:

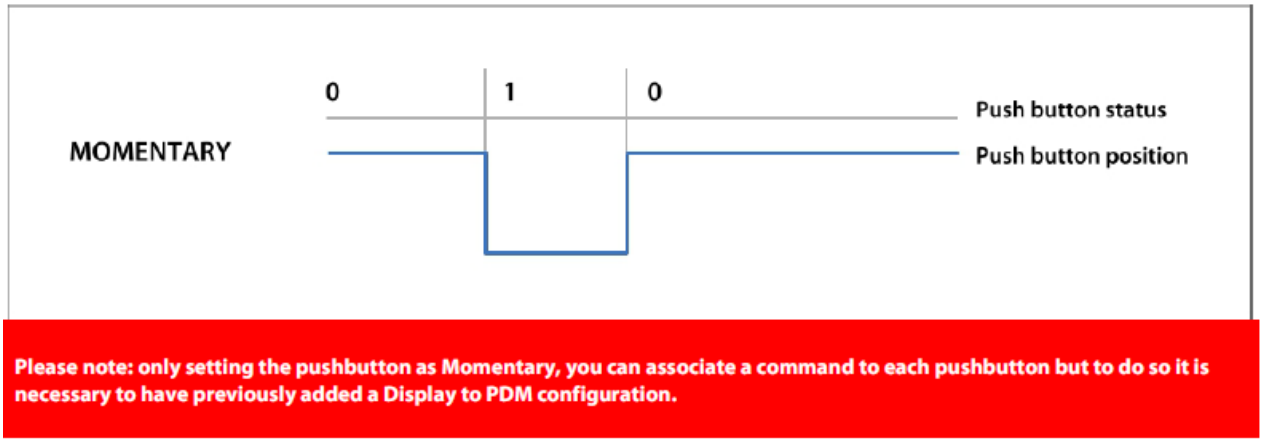
- pushbutton status can be set as Momentary, Toggle or Multi-status as explained in paragraph 3.1.1.; It is also possible to set a time threshold to manage short and long button compression in different ways
- pushbutton status is constantly transmitted through AiM CAN bus
- the status of each pushbutton at power OFF can be restored at the following power ON
- each pushbutton can be customized – solid or blinking – in 8 different colors as explained in paragraph 3.1.2
- it is possible to configure a pushbutton to increase or decrease the LED brightness level
- setting the pushbutton as Momentary you can associate a command ("Menu enter" etc.) to each pushbutton.

Pushbuttons status configuration
You may set different modes per every pushbutton:

MOMENTARY. the status is:

- ON when the pushbutton is pushed
- OFF when the pushbutton is released

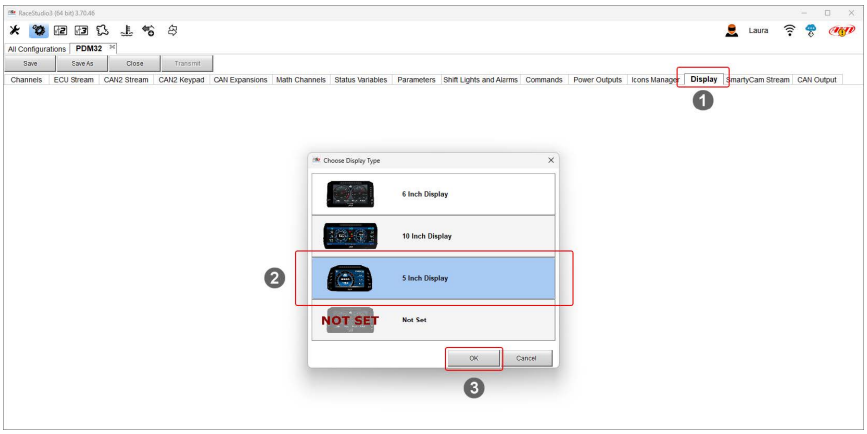
Please note: both status ON and OFF can be freely associated with a numeric value.



Please note: only setting the pushbutton as Momentary, you can associate a command to each pushbutton but to do so it is necessary to have previously added a Display to PDM configuration.

With reference to the image below, to add a display to PDM configuration:

- enter Display tab (1)
- a selection panel is prompted select the one you will add (2)
- press "OK" (3) and select the desired display layout in the panel that is prompted



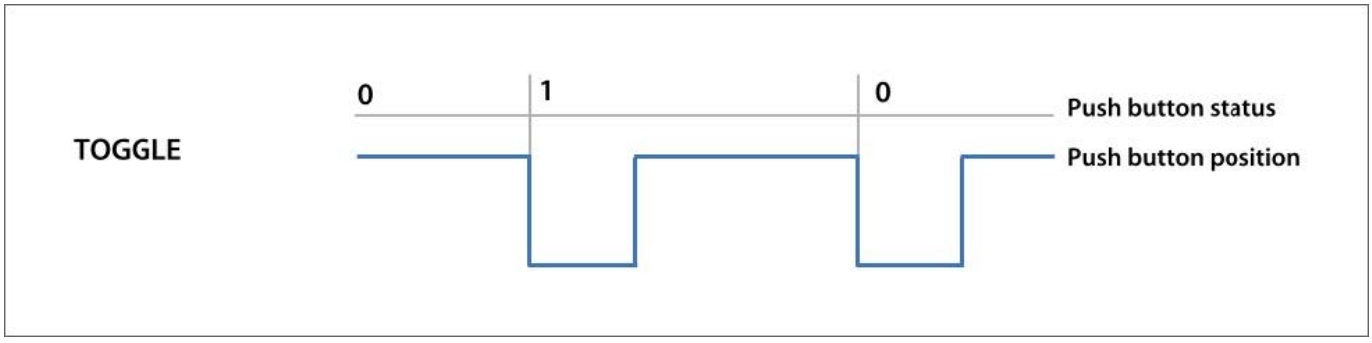
Available commands are:

- Change display page:
  - Next display page
  - Previous display page
- Display button:
  - Enter menu: to navigate the display menu: four pushbuttons are needed; they become white while the others are disabled. Please note: used pushbuttons change according to the position – horizontal or vertical – of your keypad, for this reason a selection of the position is necessary.
  - Enter recall: this command enters the display data recall after a test.
- Reset alarms whose end condition is a button is pressed.
- Reset counters:
  - Reset all odometers.
  - Reset odometer “x” (according to the number of available odometers)
- Keypad brightness
  - Increment
  - Decrement

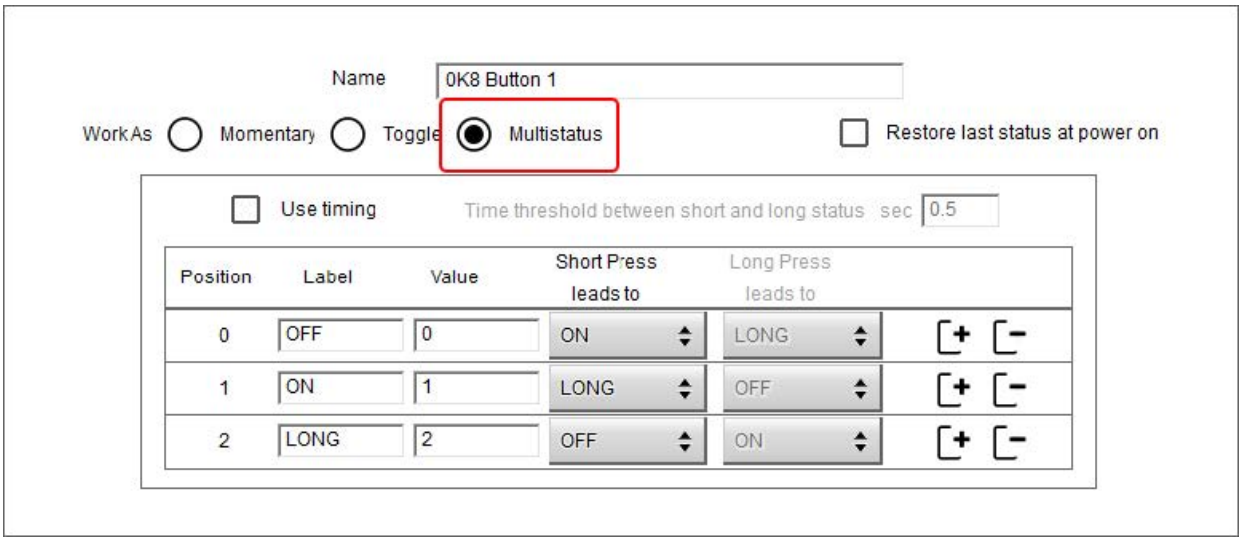
TOGGLE, the status is:

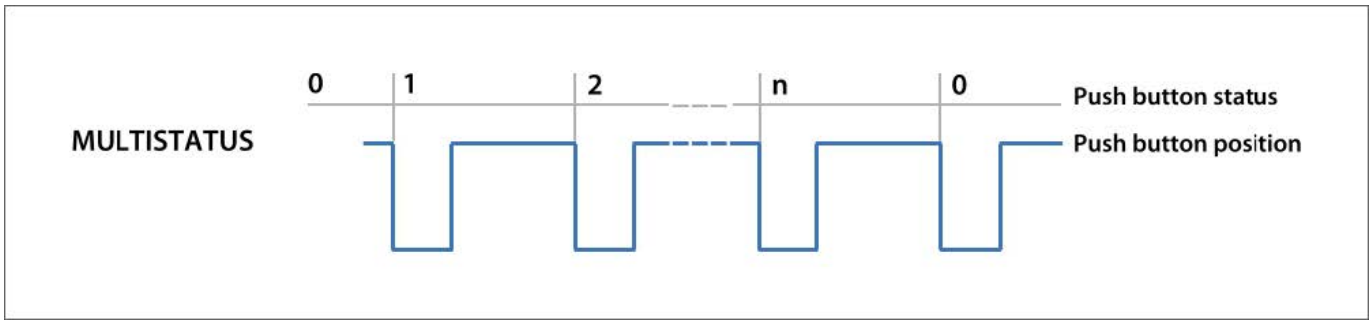
• ON when the button is pushed once, and it remains ON until it is pushed again
• OFF when the button is pushed the second time.

Please note: both status ON and OFF can be freely associated with a numeric value

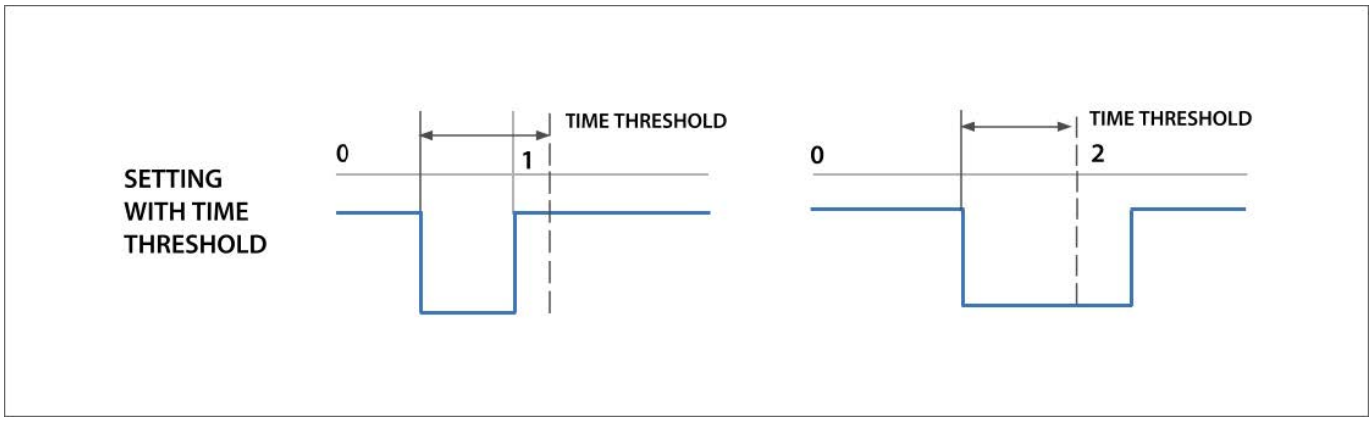


MULTI-STATUS: the status may assume different values that change every time the pushbutton is pushed. This setting is useful, for example, to select different maps or to set different suspension levels etc.

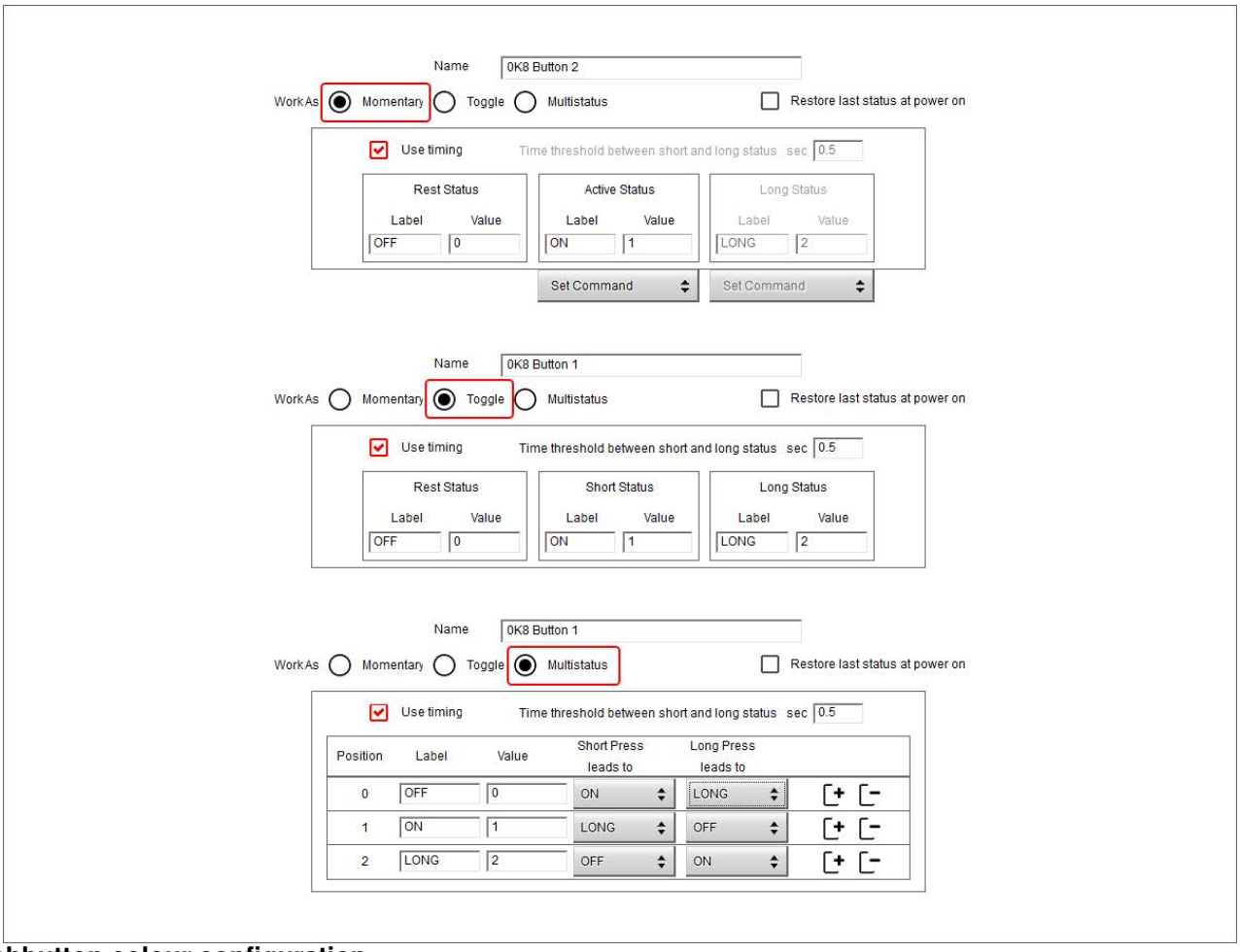




No matter the mode the pushbutton is set you can also set a time threshold: in this case, the pushbutton is set at two different values that you may define depending on how long you push it.

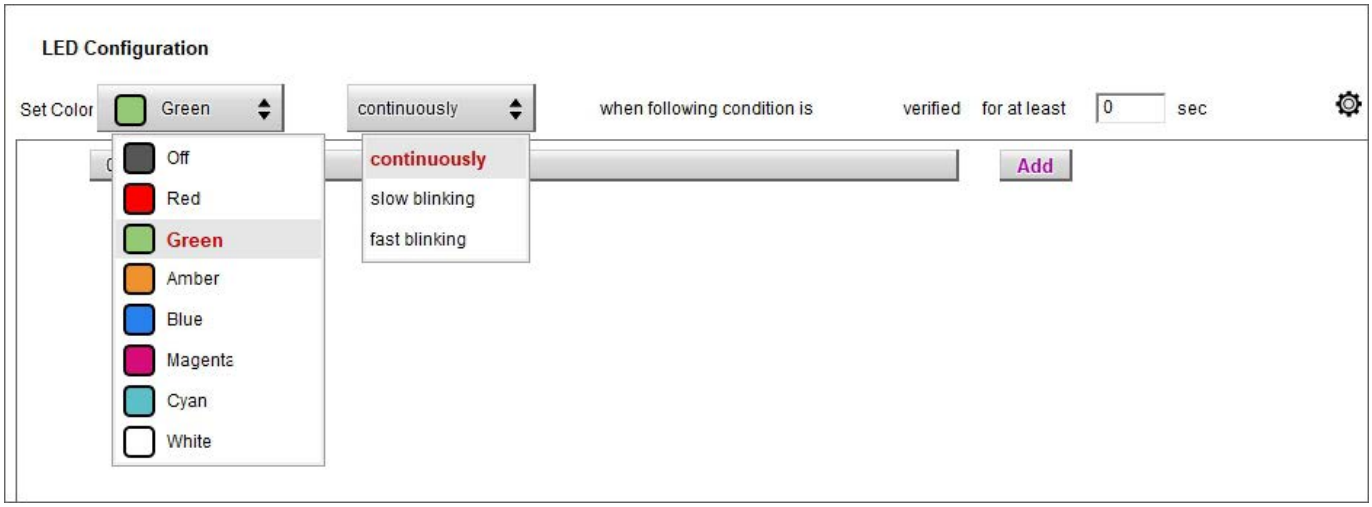


To do so enable “use timing” checkbox on the top box of the setting panels.



Pushbutton colour configuration

Each pushbutton can be set with different colours to indicate the action performed by the driver and the feedback of that action: the pushbutton may be turned – for example – blinking (slow or fast) GREEN to show that it has been pushed, and solid GREEN when the action is activated.



Keypad open versions

Keypad are also offered in an “Open” version that allows you to define the CAN streams. This version is intended to be used when an AiM master device is not present, but of course, you can use it in any AiM installation. In order to do so, you have to follow these steps:

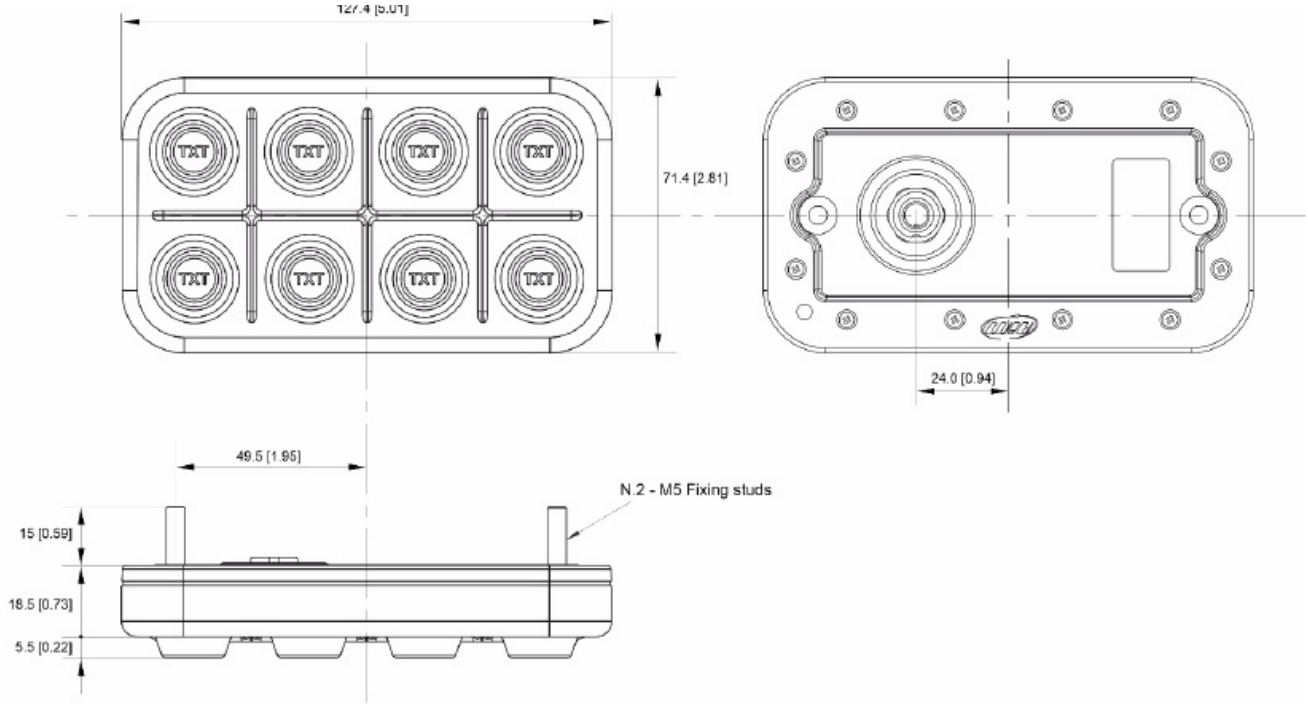
- set the Keypad as “connected to AiM device”
- transmit the configuration
- open the configuration of the AiM Device

- select the expansion “Open” version and configure it as a normal Keypad K8.

Technical drawings

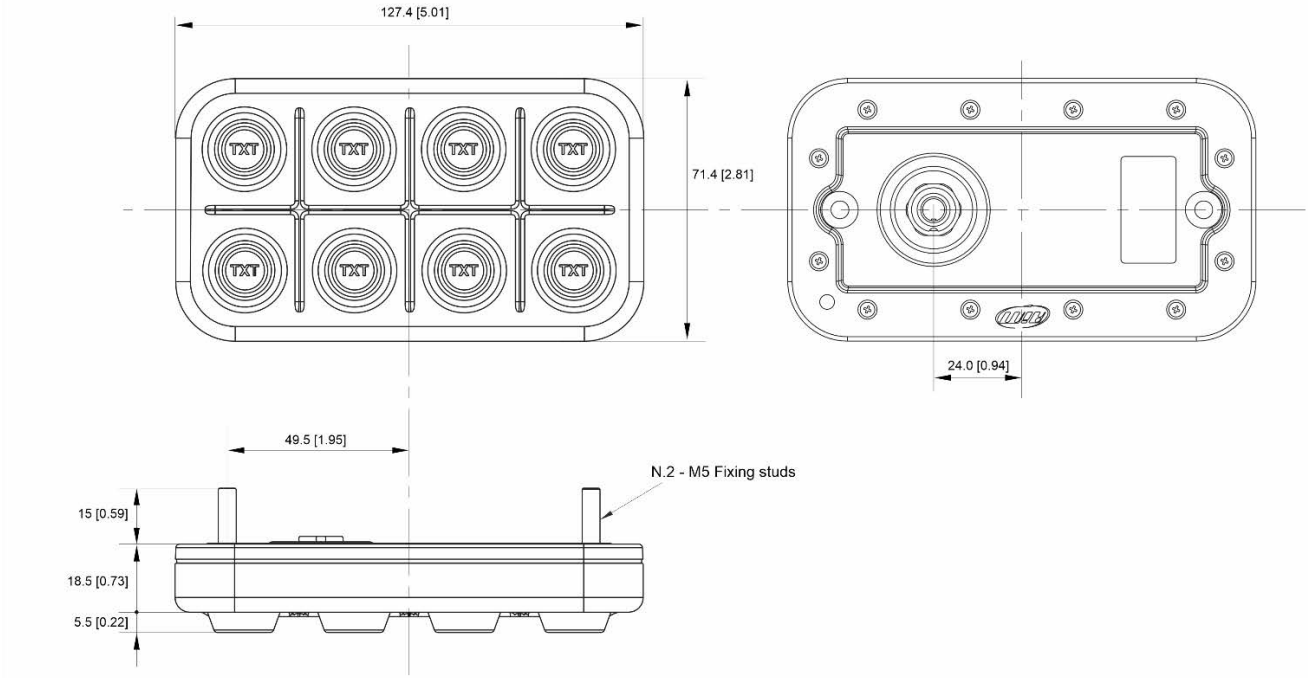
The following images show AiM Keypads dimensions and pinout.

Keypad K6 dimensions in mm [inches]



Keypad K6 pinout

Keypad K15 dimensions in mm [inches]:



Keypad K15 pinout:

Documents / Resources

	AiM K6 Remote Button Interface [pdf] User Guide K6, K8, K15, K6 Remote Button Interface, K6, Remote Button Interface, Button Interface, Interface

References

- User Manual