

# GRENTON TOUCH PANEL

TPA-023-T-0X

## TOUCH PANEL WITH 4 BUTTONS



**The touch panel replaces traditional light switches.**

- 4 buttons
- each button can execute up to four independent functions
- features a built-in temperature sensor
- each button can signal correctness of activation or errors ShowOK and ShowError
- available in different colors

# BUTTON PROPERTIES

## CHARACTERISTICS

Name	Description
Value	Returns input state as 0 or 1
Mode	Returns the selected mode of button action (0 – monostable, 1 – bistable, 2 – locked). In locked mode, the diode is illuminated in continuous red light.
HoldDelay	Time in milliseconds after which, when pressing and holding a button, the OnHold event occurs.
HoldInterval	Cyclical interval in milliseconds after which, when pressing and holding a button, the OnHold event occurs.

## METHODS

Name	Description
SetMode	Sets the mode of button action (0 – monostable, 1 – bistable, 2 – locked). In locked mode, the diode is illuminated in continuous red light.
SetHoldDelay	Sets HoldDelay value
SetHoldInterval	Sets HoldInterval value
ShowError	Causes the red diode on the button to flash for 2 seconds (frequency 500 ms). The green diode on the button is off
ShowOK	Causes the green diode on the button to flash for 2 seconds (frequency 500 ms). The red diode on the button is off
LedSwitchOn	Activates the green diode on the button
LedSwitchOff	Deactivates the green diode on the button

## EVENTS

Name	Description
OnChange	Occurs when a change in the input state takes place (regardless of the value)
OnSwitchOn	Occurs when the high state is set at input
OnSwitchOff	Occurs when the low state is set at input
OnShortPress	Occurs after pressing the button for 500 - 2000 ms
OnLongPress	Occurs after pressing the button for two seconds
OnHold	Occurs for the first time after HoldDelay time passes and then cyclically every HoldInterval value
OnClick	Occurs after pressing the button for less than 500 ms

# SENSOR PROPERTIES

## CHARACTERISTICS

Name	Description
Value	Input value: for temperature sensor from 0.0 to 6553.5 (°C), for light sensor 0 - 100
Threshold	Hysteresis size (accuracy 0.1°C or 0.1%) specifying the sensitivity when the following events are generated: OnChange, OnLower, OnRaise
Sensitivity	Time (in ms) for which the sampled values are averaged
MinValue	Minimum value of the Value characteristic after exceeding which the OnOutOfRange event is generated

## METHODS

Name	Description
SetThreshold	Changes hysteresis size
SetSensitivity	Changes sensitivity value
SetMinValue	Sets minimum value for the Value characteristic
SetMaxValue	Sets maximum value for the Value characteristic

## EVENTS

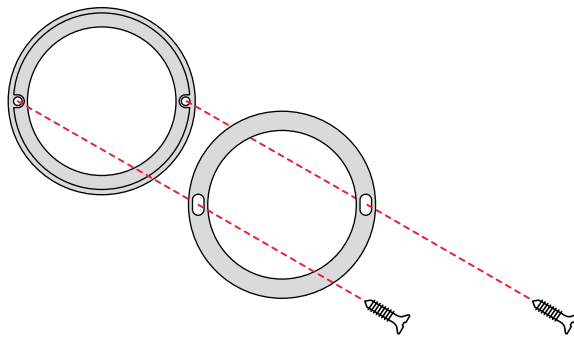
Name	Description
OnChange	Event resulting from changing input state
OnRaise	Event resulting from exceeding the upper threshold of hysteresis
OnLower	Event resulting from exceeding the lower threshold of hysteresis
OnOutOfRange	Event resulting from exceeding any range

## TECHNICAL SPECIFICATIONS

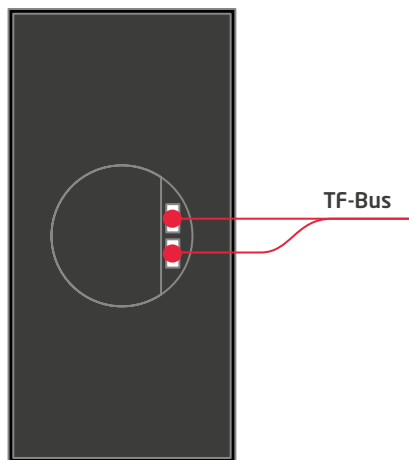
DC supply	5 V
max. current input	36.3 mA
weight	200 g
dimensions (H/W/D)	160/80/18 mm
operating temperature range	0 to +40°C

## WIRING DIAGRAM

1



2



3

