

# GRENTON TOUCH PANEL+4B

TPA-204-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:  
Show OK and Show ERROR
- 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	Event occurs when a change in the input state takes place (regardless of the value)
OnSwitchOn	Event occurs when the high state is set at input
OnSwitchOff	Event occurs when the low state is set at input
OnShortPress	Event occurs after pressing the button for 500 ms - 2000 ms
OnLongPress	Event occurs after pressing the button for 2000 ms - 5000 ms
OnHold	Event occurs for the first time after HoldDelay time passes and then cyclically every HoldInterval value
OnClick	Event occurs after pressing the button for less than 500 ms

## PANEL PROPERTIES

### CHARACTERISTICS

Name	Description
BuzzerValue	Sound indication control (ON/OFF)

### METHODS

Name	Description
SetBuzzerValue	Sets the BuzzerValue

## SENSOR PROPERTIES

### CHARACTERISTICS

Name	Description
Threshold	Hysteresis size (accuracy 0.1°C or 0.1%) specifying the sensitivity when the following events are generated: OnChange, OnLowerValue, OnRaiseValue
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
MaxValue	Maximum value of the Value characteristic after exceeding which the OnOutOfRange event is generated
Value	Input value: for temperature sensor from 0.0 to 40.0 (°C), for light sensor 0 - 100

### EVENTS

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

# POWER SUPPLY PROPERTIES

## CHARACTERISTICS

Name	Description
Value	Current output value taking into account the scalar
Value%	Current percentage input value of the maximum value (MaxValue characteristic)
Scale	Input scalar – parameter which is used for multiplying the input value during reading
Sensitivity	Sensitivity – minimum change of input state when the OnChange, OnLowerValue or OnRaiseValue event is generated
MinValue	Minimum value of the Value characteristic after exceeding which the OnOutOfRange event is generated
MaxValue	Maximum value of the Value characteristic after exceeding which the OnOutOfRange event is generated

## METHODS

Name	Description
SetScale	Sets scalar value
SetSensitivity	Sets input sensitivity value
SetMin	Sets MinValue
SetMax	Sets MaxValue

## EVENTS

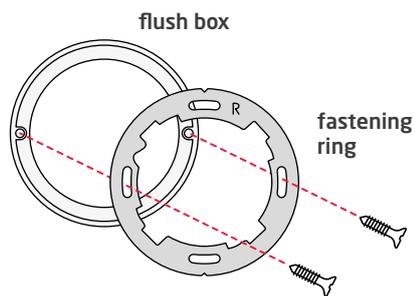
Name	Description
OnChange	Event resulting from changing input state
OnLowerValue	Event occurs when a value lower than the value from the last reading appears at input
OnRaiseValue	Event occurs when a value higher than the value from the last reading appears at input
OnOutOfRange	Event resulting from exceeding the permissible range (MinValue;MaxValue)
OnSwitchOn	Event occurs when the input value reaches MaxValue
OnSwitchOff	Event occurs when the input value reaches MinValue

## TECHNICAL SPECIFICATIONS

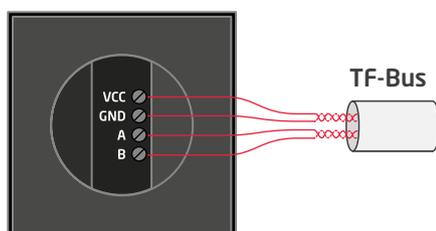
DC supply	5 - 24 V
max. current input	7 mA (at 24 V)
weight	114 g
dimensions (H/W/D)	80/80/10 mm
operating temperature range	0 to +40°C

## WIRING DIAGRAM

1



2



3

