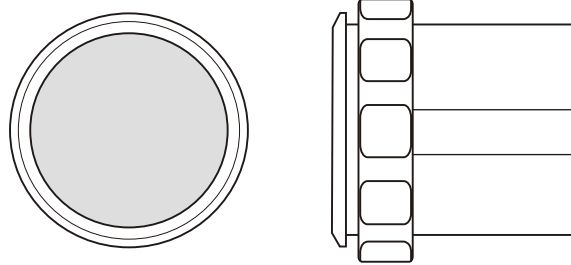


TOUCHLESS BUTTON AL-27-xx



Description

Touchless button AL-27 operates from a low voltage power source and provide a simple digital output when an object is detected in front of the button.

The button sensor works through most materials and is resistant to dirt deposits on the surface of the sensor, such as dust and grease. It can reliably detect a hand or a finger even through clothing.

Unlike optical (IR) touchless buttons, AL-27 uses patent-pending capacitive sensing technology and is completely unaffected by ambient light or reflective surface, that can false-trigger optical sensors.

It is primarily designed to be used as an elevator/lift button and it uses proprietary sensor technology for reliable detection of objects while maintaining a large sensing range and strong EMI noise immunity.

The button features a stainless steel front plate and is designed to be indistinguishable from regular mechanical elevator/lift buttons. This makes it perfect for the direct replacement of existing buttons while maintaining the same aesthetics and mechanical strength.

In addition to touchless operation, the AL 27 button offers a fallback to mechanical operation if needed. By disabling the electronics inside of the button, it can operate as a regular mechanical button.

In case of power failure, it automatically falls back to mechanical operation.

The button also features LED backlighting in various standard colors.

A user-selectable activation delay can reduce the possibility of accidental activation. The delay can be set by a trimmer on the back of the button.

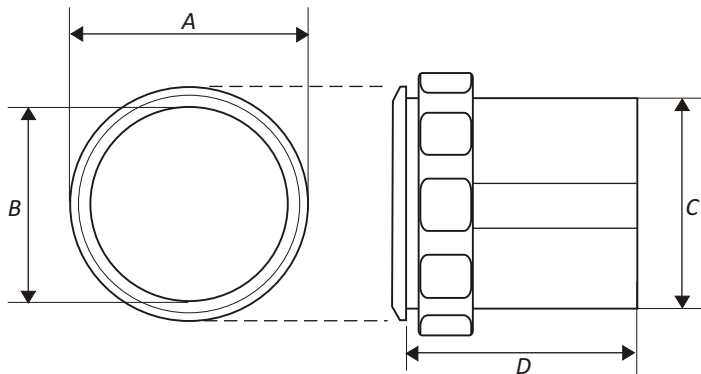
Features

- *An innovative alternative to mechanical lift/elevator buttons.*
- *No-touch operation eliminates users exposure to cross-contamination with pathogens*
- *Unaffected by ambient light and reflective surfaces*
- *Option to operate as a mechanical button if electronics is disabled or in case of power failure*
- *It can directly replace standard mechanical buttons*
- *Stainless steel front plate design makes it indistinguishable from mechanical buttons*
- *LED backlighting in various standard colors*
- *Resistant to vandalism*
- *Activation delay adjusted with a trimmer*
- *Excellent EMI noise immunity.*

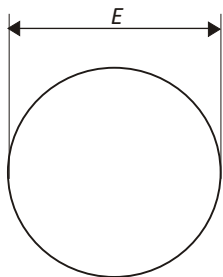
Specifications

TECHNICAL DATA	AL-27-12V	AL-27-24V	AL-27-48V
Supply input voltage range nom:	12V DC	24V DC	48V DC
Supply input voltage (min - max):	10.8 - 13.2 V DC	21.6 - 26.4 V DC	43.2 - 52.8 V DC
LED backlight activation voltage:	0V - LED off 12 V - LED on	0V - LED off 24V - LED on	0V - LED off 48V - LED on
Supply current:	max. 15mA @ 12V (27mA when LED indicator is active)		
Output:	Isolated signal relay contact (NO), or mechanical push button (NO)		
Detection frequency:	5 Hz		
Detection range :	30 mm		
Mounting method:	Plastic nut		
Mounting plate thickness:	1-5 mm		
Input/Output connections:	JST XH 6-pin connector (20cm wire harness included)		
Relay activation delay (adjustable):	0-250ms		
Operating temperature range:	0 °C to +55 °C		
Mechanical button lifespan:	> 5 million operations		
Housing dimensions (W x D):	30mm x 28mm		

Dimensions

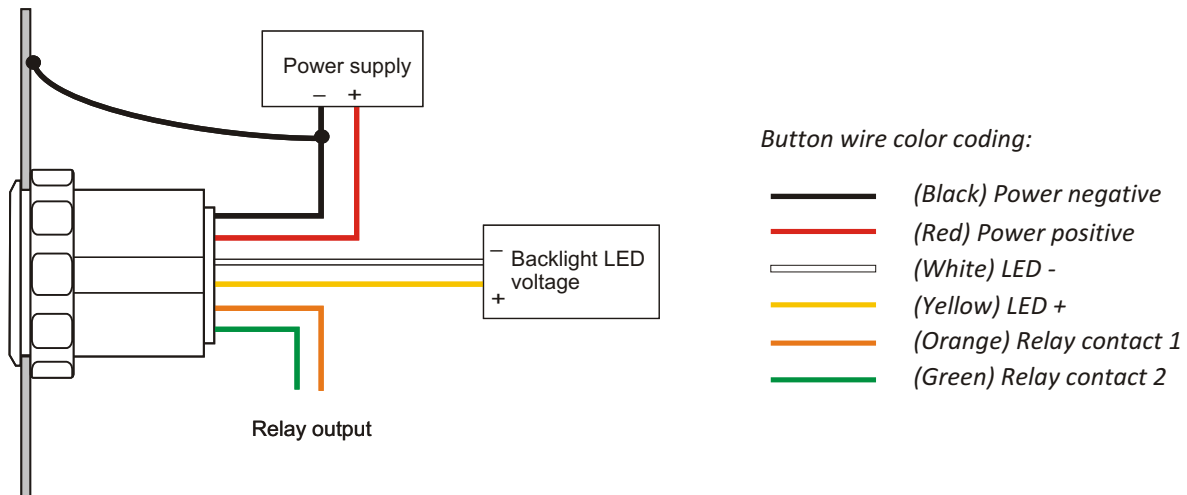


A (overall width)	30 mm
B (front button width)	25 mm
C (back housing width)	26 mm
D (back housing depth)	28 mm
E (mount hole diameter)	27 mm



Panel mounting cutout

Installation



Wiring diagram

IMPORTANT: The chassis (mounting panel) ground should be connected to the button PSU negative wire. Ground loops should be avoided. Make sure that wire connections are secure, any loose contact in any connection could lead to unstable operation.

IMPORTANT: Touchless buttons relay output is SIGNAL only. It should NOT be used to switch loads.

Note 1: The trimmer on the back of the button labeled "Delay" can be used to adjust the relay activation delay. The button is supplied with the delay set to "0".

Relay activation delay can be used to reduce false activations. If the delay is set to "0", the relay is activated immediately when the user puts the hand in the sensing range. At the same time, LED illumination is automatically activated (the button lights up).

If the activation delay is set to a non zero value, the relay will activate after the set time after the user puts the hand in the sensing range. The LED illumination is activated immediately, regardless of the activation delay setting.

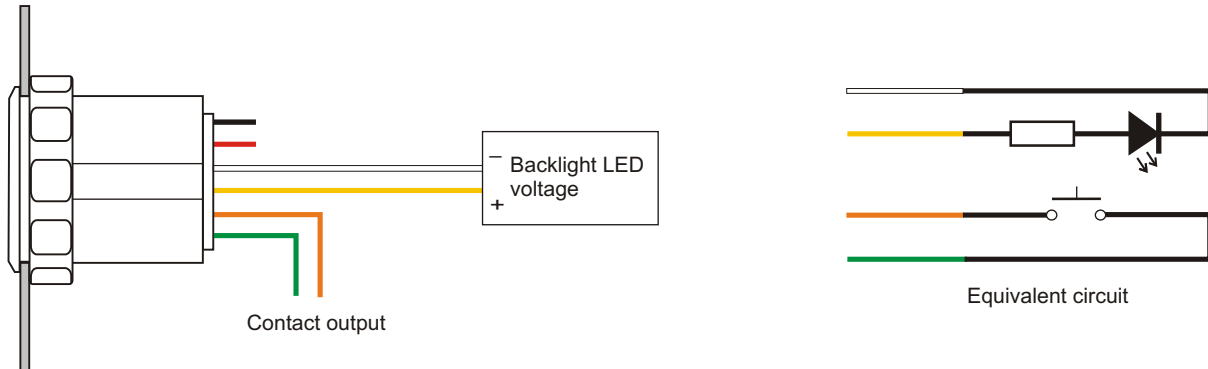
LED BACKLIGHTING:

LED backlighting activates automatically whenever the button sensor detects the hand in the button detection range, independent of the LED activation input (white wire) status.

If the LED activation input is inactive, the LED will switch "off" when the user moves the hand out of the sensor range.

If the LED activation input is active the LED will switch on and will remain on, while this input is active.

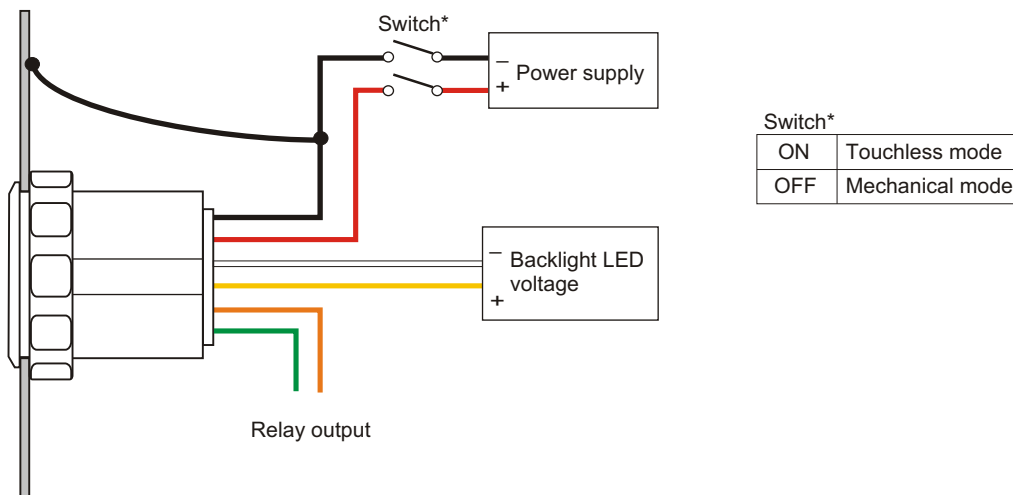
Installation as a mechanical button



Wiring diagram for mechanical operating mode

If the button power supply wires are not connected, the button acts as a regular mechanical button.

Selecting between touchless and mechanical operation



Wiring diagram for selecting between mechanical and touchless operating mode

The button has two operating modes:

- touchless operation, where sensor electronics detects a finger in front of the button and activates the output relay contacts. Mechanical push to the button will have no effect on the button operation in this mode.
- mechanical operation, where the push of a finger activates an internal mechanical switch. The operation in this mode is identical to any mechanical button.

By disconnecting the button power supply (via a switch or any other method) the sensor is disabled and the button enters the mechanical operating mode. Either power wire can be disconnected for electronics to be disabled.

By reconnecting the power supply, the button enters the touchless mode.

NOTE: if the power fails for any reason, the switch is always reverted to its backup mechanical operation