

# ALCOSWITCH PUSHBUTTON 22mm EMERGENCY STOP SWITCH

ILLUMINATED AND NON-ILLUMINATED

## INTRODUCTION

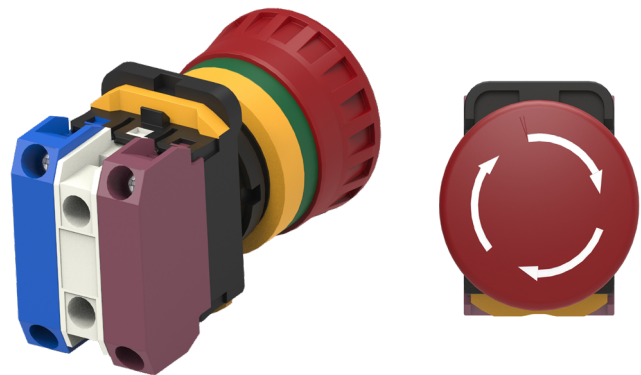
TE Connectivity (TE)'s ALCOSWITCH PBES22 series pushbutton emergency stop switch is offered in illuminated or non-illuminated styles. When mounted, the switch offers IP65 protection on the front of the panel. Easy to terminate screw terminals allow fast and virtually tool-free termination. Optional mounting plate is also available with this series.

## FEATURES

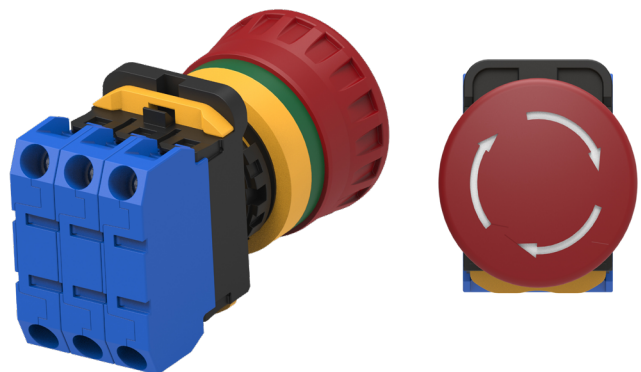
- IP65 rated front of panel
- IEC 60947-5-1 & IEC 60947-5-5
- 22mm mounting hole
- Simple and easy mounting
- Contact blocks with screw terminals
- Gold plating
- Illuminated and non-illuminated styles
- LED & incandescent
- High actuation force

## APPROVALS

- UL, CE & TUV agency approval



2416049



2416050

# ALCOSWITCH Pushbutton 22mm Emergency Stop Switch

Illuminated and Non-Illuminated

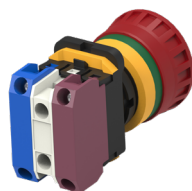
## PRODUCT SPECIFICATION

Mechanical life	>100,000 Operations
Electrical life	>100,000 Operations
Motion tolerance	< 20 Operations/minute (mechanical and electrical life)
Degree of protection	Panel front: IP65 (IEC 60529) Contact block: IP20 (IEC 60529)
Panel thickness	0.8mm to 6.0mm (without anti-rotation ring or nameplate) 1.2mm to 4.5mm (with anti-rotation ring or nameplate)
Mounting torque	2 N-m
Maximum insulation voltage	2500VAC @ 50/60Hz, 10mA, 1 minute
Insulation resistance	100MΩ @ 500VDC, 100mA, 1 minute
Storage temperature	-45 °C to +85 °C
Operating temperature	-25 °C to +70 °C (Without lamp)
Contact resistance	≤ 100 mΩ, 1A, 6 to 8VDC
Operating forces	Push - lock : 20N to 30N, Pull - reset : 24N to 32N Turn - reset 0.35 N-m, maximum
Operating travel	Push - lock 8±2 mm, Pull - reset : 4.6±1 mm Turn - reset CW 20°
Pollution degree	3
Wire diameter	16 to 14 awg, 1.5mm <sup>2</sup> to 2.5mm <sup>2</sup>
Min applicable load	3V AC/DC, 3mA
Rated impulse withstanding voltage	2.5kV
Conditional short-circuit current	1Ka
Screw size for contact block	M3.5
Tightening torque for contact block	0.8N-m

## ELECTRICAL RATINGS

Rated insulation voltage (Ui)	600V			
Conventional enclosed thermal current (Ithe)	10A			
Rated operational voltage (Ue)	24V	120V	240V	380V
Utilization category	Rated operational current (Ie)			
AC-15	10A	6A	3A	2A
AC-12	10A	6A	6A	2A
DC-13	4A	4A	1A	--
DC-12	8A	8A	2A	--

## SWITCH STYLES



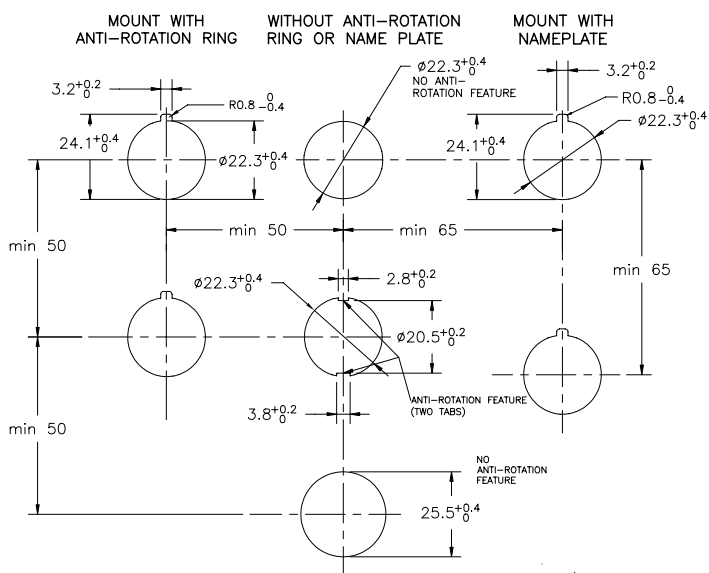
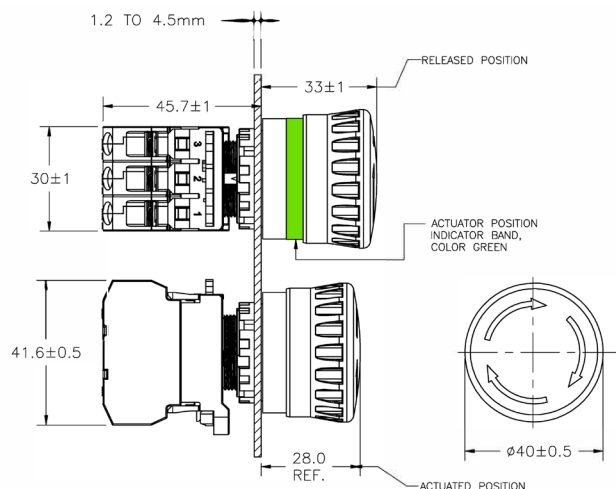
2416049



2416050

## Illuminated and Non-Illuminated

2416050

[illegible]

COLOR: GREEN

COLOR: BLUE

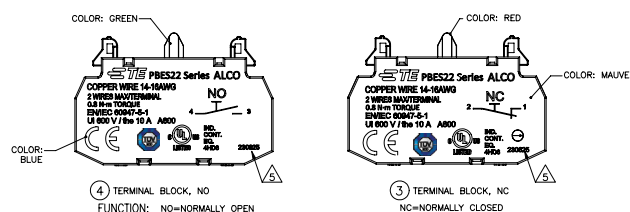
COLOR: MAUVE

**PBES22 Series ALCO**  
 COPPER WIRE 14-16AWG  
 2 WIRE MAIN TERMINAL  
 0.8 IN. TORQUE  
 ENEC 90947-4-1  
 UL 600 V / 10 A A800  
 NO COVT. 250V 50/60Hz

**PBES22 Series ALCO**  
 COPPER WIRE 14-16AWG  
 2 WIRE MAIN TERMINAL  
 0.8 IN. TORQUE  
 ENEC 90947-4-1  
 UL 600 V / 10 A A800  
 NO COVT. 250V 50/60Hz

**PBES22 Series ALCO**  
 COPPER WIRE 14-16AWG  
 2 WIRE MAIN TERMINAL  
 0.8 IN. TORQUE  
 ENEC 90947-4-1  
 UL 600 V / 10 A A800  
 NO COVT. 250V 50/60Hz

VOLTAGE LABEL



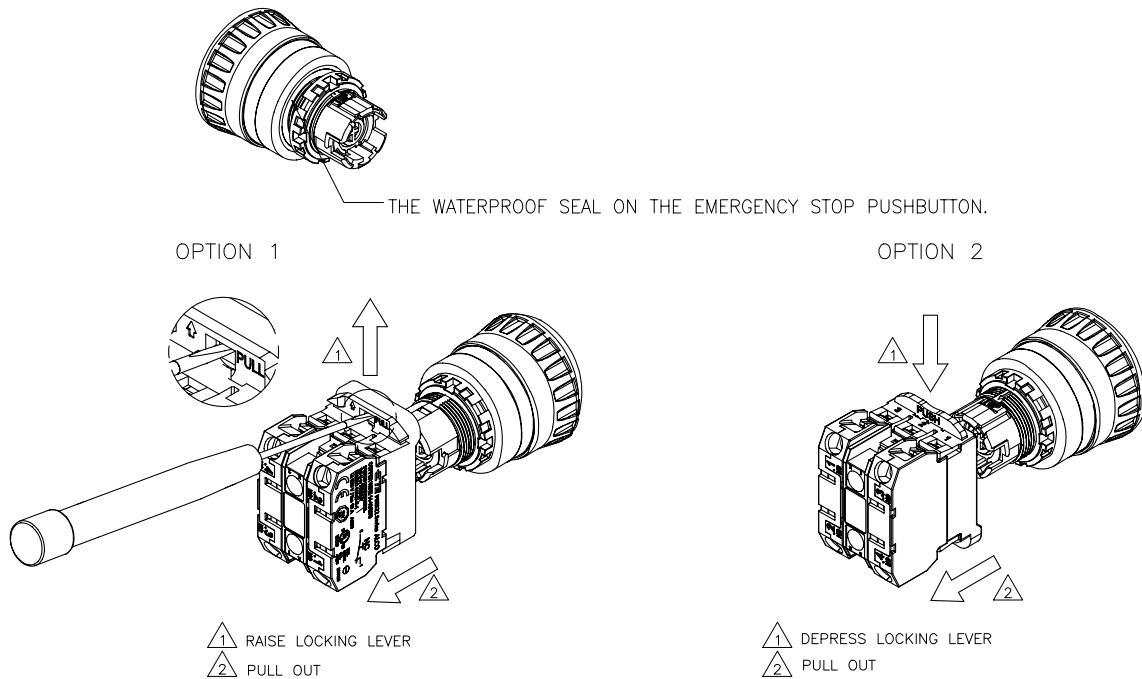
1. Dimensions in millimetres unless otherwise specified.
2. Dimensions shown for reference purposes only. Specifications subject to change.

# ALCOSWITCH Pushbutton 22mm Emergency Stop Switch

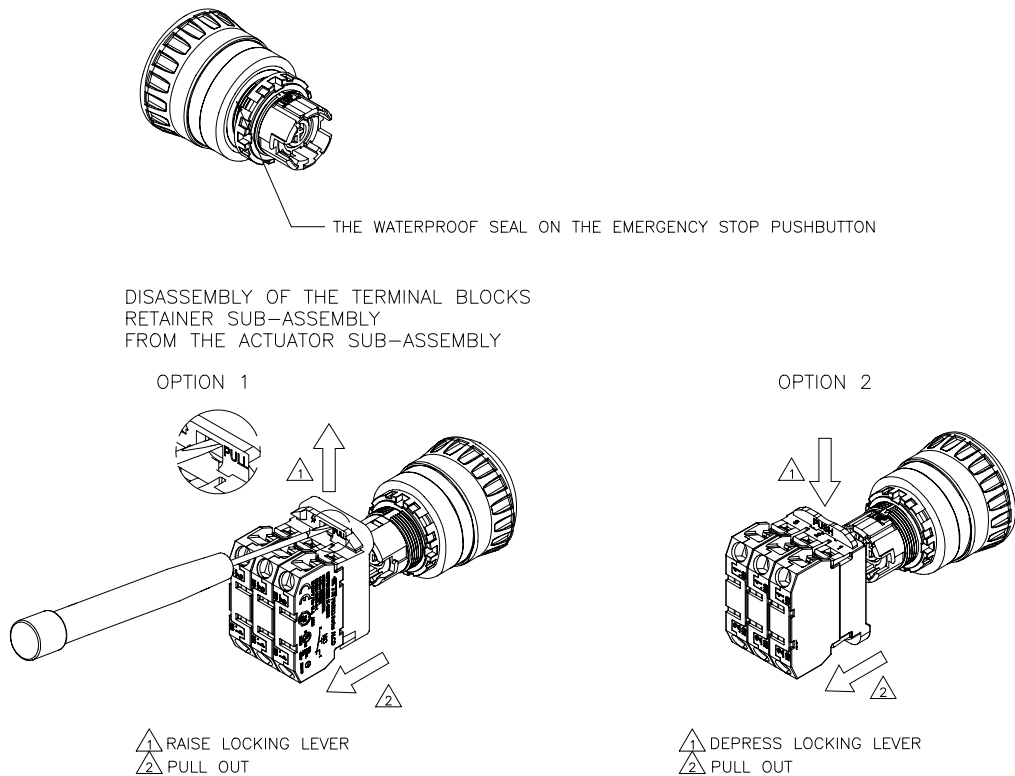
Illuminated and Non-Illuminated

## INSTALLATION PROCEDURE

2416049



2416050



### Notes:

1. Dimensions in millimetres unless otherwise specified.
2. Dimensions shown for reference purposes only. Specifications subject to change.

# ALCOSWITCH Pushbutton 22mm Emergency Stop Switch

Illuminated and Non-Illuminated

## ORDERING INFORMATION

Part Number

PBES22 - - - -

Model No

PBES22

L

Lamp Available

Switch Function

10	1 NO
20	2 NO
01	1 NC
02	2 NC
11	1 NO / 1 NC
03	3 NC
12	1 NO / 2 NC
21	2 NO / 1 NC
30	3 NO

Lamp Options

0	No Lamp
2	6V, 11mA LED
3	12V, 10mA LED
4	24V, 10mA LED
H	110V, 1.4mA LED
M3	230/240V, 1.2mA LED
5	6V, 1W Incandescent
6	12V, 1W Incandescent
7	24, 1W Incandescent

Button Color

R

Red

## PART NUMBER LIST

TE Smart Part Number	TE Part Number	TE Smart Part Number	TE Part Number
2416050-1	PBES22N01R	1-2416049-9	PBES22L100R
2416050-2	PBES22N02R	2-2416049-0	PBES22L102R
2416050-3	PBES22N03R	2-2416049-1	PBES22L103R
2416050-4	PBES22N10R	2-2416049-2	PBES22L104R
2416050-5	PBES22N11R	2-2416049-3	PBES22L105R
2416050-6	PBES22N12R	2-2416049-4	PBES22L106R
2416050-7	PBES22N20R	2-2416049-5	PBES22L107R
2416050-8	PBES22N21R	2-2416049-6	PBES22L10HR
2416050-9	PBES22N30R	2-2416049-7	PBES22L10M3R
2416049-1	PBES22L010R	2-2416049-8	PBES22L110R
2416049-2	PBES22L012R	2-2416049-9	PBES22L112R
2416049-3	PBES22L013R	3-2416049-0	PBES22L113R
2416049-4	PBES22L014R	3-2416049-1	PBES22L114R
2416049-5	PBES22L015R	3-2416049-2	PBES22L115R
2416049-6	PBES22L016R	3-2416049-3	PBES22L116R
2416049-7	PBES22L017R	3-2416049-4	PBES22L117R
2416049-8	PBES22L01HR	3-2416049-5	PBES22L11HR
2416049-9	PBES22L01M3R	3-2416049-6	PBES22L11M3R
1-2416049-0	PBES22L020R	3-2416049-7	PBES22L200R
1-2416049-1	PBES22L022R	3-2416049-8	PBES22L202R
1-2416049-2	PBES22L023R	3-2416049-9	PBES22L203R
1-2416049-3	PBES22L024R	4-2416049-0	PBES22L204R
1-2416049-4	PBES22L025R	4-2416049-1	PBES22L205R
1-2416049-5	PBES22L026R	4-2416049-2	PBES22L206R
1-2416049-6	PBES22L027R	4-2416049-3	PBES22L207R
1-2416049-7	PBES22L02HR	4-2416049-4	PBES22L20HR
1-2416049-8	PBES22L02M3R	4-2416049-5	PBES22L20M3R

te.com

© 2023 TE Connectivity Ltd. family of companies. All Rights Reserved.

Alcoswitch, Alco, TE Connectivity, TE connectivity (logo) and Every Connection Counts are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information in this document, owned or licensed by the TE Connectivity family of companies. TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any changes to the information contained herein without prior notice. TE Connectivity assumes only those obligations set forth in the terms and conditions for this product and shall in no event be liable for any incidental, indirect, or consequential damages arising out of the sale, resale, use, or misapplication of the product. TE expressly disclaims any implied warranties with respect to the information contained herein, including, but not limited to, implied warranties of merchantability or fitness for a particular purpose. Dimensions, specifications and/or information contained herein are for reference purposes only and are subject to change without notice. Consult TE for the latest dimensions, specifications and/or information. Users of TE Connectivity products must make their own assessment as to whether the respective product is suitable for the respective desired application.

10/23 ED