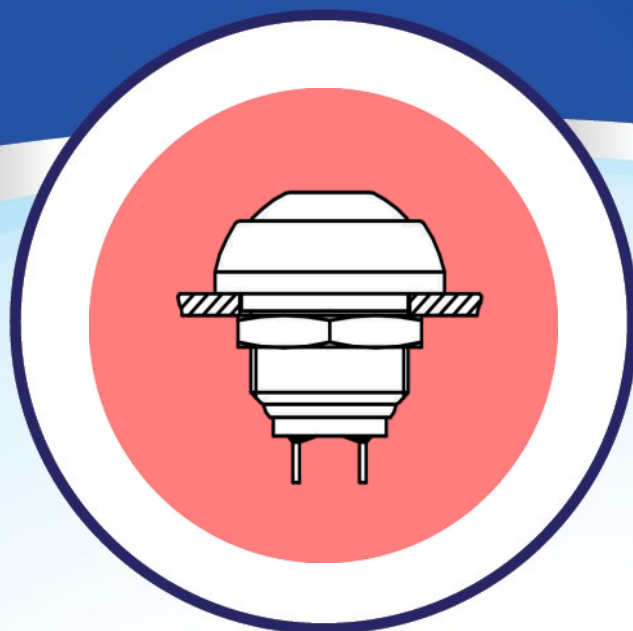


SWITCHES

Catalog

Edition No.
ENN110123



IN THIS CATALOG:

- ◆ SWITCHES FOR PANEL MOUNT
- ◆ SWITCHES FOR PCB
- ◆ INPUT DEVICES
- ◆ INDICATORS

RANGE

PUSHBUTTON	KEY-SWITCH	ROTARY	ROCKER	DETECTOR
TOGGLE	22MM	16MM	MICROSWITCH	MCB
ENCODER	FOOT	TILT	CAM	MICROSWITCH
NAVIGATOR	SLIDE	DIP	TACT	5-WAY
JOYSTICK	MOUSE	TOUCH-PAD	TRACKBALL	FINGER-PRINT
KEY-BOARD	INDICATOR	ACCESORIES		



PANEL-MOUNT SWITCHES


ENN110123

PUSHBUTTON switches
NAVIGATOR switches
DETECTOR switches
ROTARY switches
TOGGLE switches
SLIDE switches
CAM switches
FOOT switches

ROCKER switches
SAFETY switches
22mm switches
16mm switches

SERIES

SAO	SBI	SDE	SFA	SFH
SFN	SFO	SGA	SHA	SHI
SHP	SNI	SPH	SPU	STB
STD	SWI	SXB		



ENVIRONMENTAL SPECIFICATIONS:

The “Water & dust” protection, mentioned in this catalog, is according to the “IP-Level” table that you can find in the last page of this catalog. ADR offer a different protection level for some of the items.



ELECTRICAL SPECIFICATIONS:

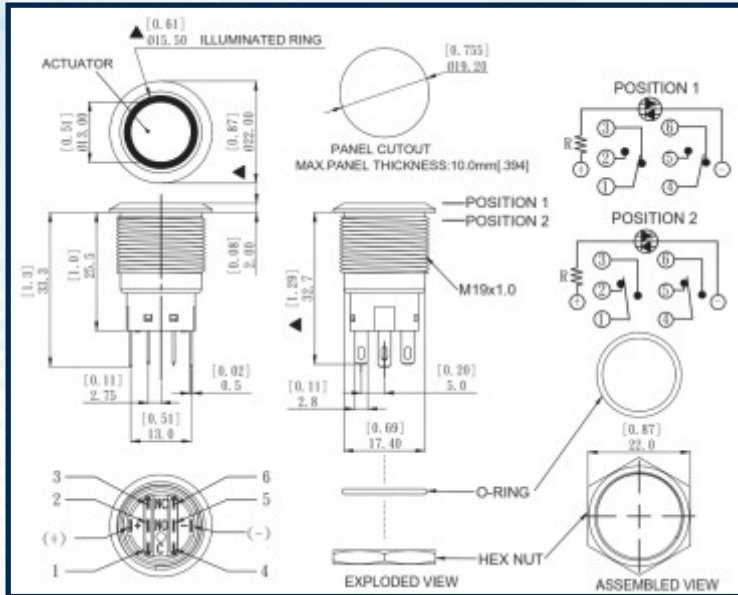
The electrical rating, mentioned in this catalog is for DC voltage. For AC voltage rating, you may contact our engineering department.



MECHANICAL SPECIFICATIONS:

All mechanical dimensions in this catalog are in “mm”, unless otherwise stated. “Operating cycle” means number of cycle under full load.

METAL PUSHBUTTON IP67



P/N: SFA-2370-S028

MECHANICAL SPECIFICATIONS:

Function: Alternate—Latch.

Mechanical cycles: 500,000 cycles Min.

Total plunger Travel: 3.2mm.

Torque: 5-13Nm

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -20/+55 °C.

Water & Dust protection: IP-67, IK-10.

ELECTRICAL SPECIFICATIONS:

Contact form: 2XChangeover.

Maximum rating: 3A/24VDC.

LED: Blue.

Contact resistance: 50m Ohm.

Dielectric strength: 2000V RMS

MATERIALS:

Housing: Stainless Steel.

Base: PBT UL94-V0

O-Ring: Silicon.

Contacts: Brass Silver plated.

Options & information:

Diameters: 16, 19, 22, 25, 30mm.

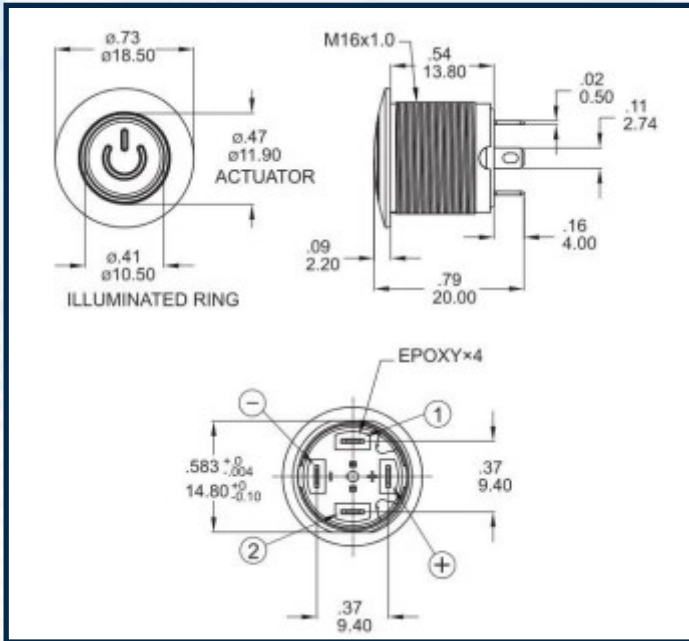
Function: Alternate-Latch or Momentary. 1 or 2 poles.

Terminals: Solder-lug or Flying leads (up to 200cm). Specific connector assembled—optional.

Colors: White, Blue, Green, Red, Yellow & Bicolor options. LED voltage: 3,6,12,24,36,110,220 volt.

Black Chrome plating - optional. Power-Symbol—optional. Short body—optional.

16mm IP67 METAL PUSHBUTTON



P/N: SFA-2390-S000

MECHANICAL SPECIFICATIONS:

Actuator travel: 2.0 $\pm$ 0.20mm.

Operating cycles: 200,000 cycles Min.

Panel cut-out: 16mm +0.2/-0.0 ("D-Shape" is Optional).

Panel thickness: 8.00mm Max.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -20/+70 °C.

Water & dust protection: IP67.

ELECTRICAL SPECIFICATIONS:

Rating: 2A/36VDC.

Function: 1xN.O Momentary.

Illumination: Power-Symbol, Green, 12V.

Contact resistance: 50m Ohm.

Dielectric strength: 2,000V RMS.

MATERIALS:

Bushing: Aluminum, Black plate.

Cap: Aluminum.

O-Ring : Silicon

Contacts: Silver alloy

Options & information:

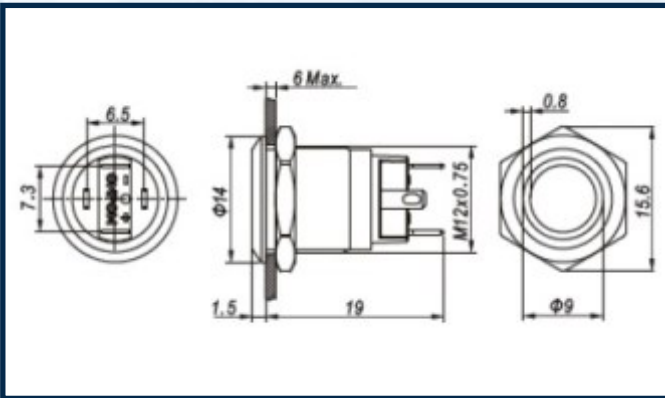
Housing & cup colors: Silver or Black.

Illumination type: Ring or Power-symbol.

Illumination colors: RGB, Red/Green, Blue, White, Green, Red, Yellow.

Illumination voltage. 3, 6, 12, 24, Without.

flying leads—Optional.

12mm PANEL-MOUNT PUSHBUTTON**P/N: SFN-2348-S000****MECHANICAL SPECIFICATIONS:**

Travel: 1.5 mm.

Operating cycles: 200,000 cycles min.

Torque: 1.5N max.

Operation type: Momentary.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+55 °C.

Water & Dust protection: IP-65.

ELECTRICAL SPECIFICATIONS:

Contact form: N.O

Maximum rating: 2A / 36VDC.

Contact resistance: 50m Ohm or less.

Dielectric strength: 1,500 VAC rms.

Led light: Bi-color 12V Orange/Green

MATERIALS:

Housing: Stainless steel.

Terminals & Contacts: silver plated.

Base material: PA.

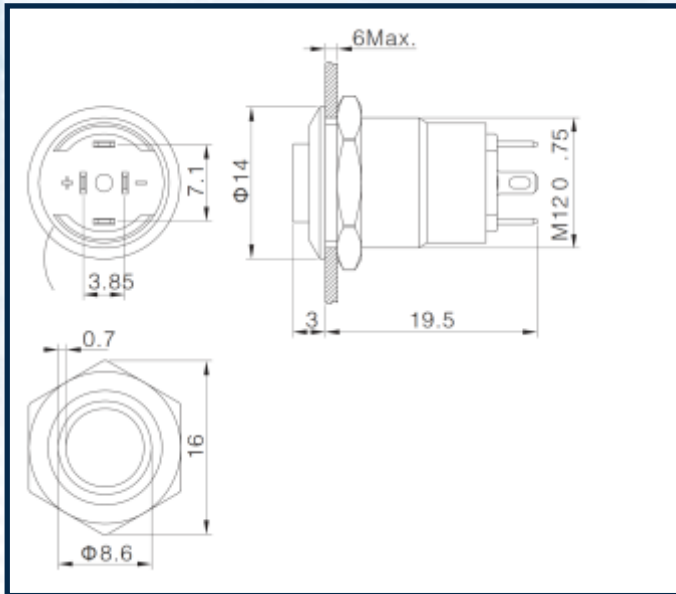
Options & information:

Customized harness

Other LED colors

Other LED voltage.



ON-OFF METAL 12MM ILLUMINATED**P/N: SFN-2446-S000****MECHANICAL SPECIFICATIONS:**

Push & Pull force: 2.5N

Stroke: 2.40mm

Operation cycles: 50,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -25/+55 °C

Water & Dust protection: IP67

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x NO

Maximum rating: 2A/36VDC.

Contact resistance: 50mΩ.

Insulation resistance: 100MΩ /500VDC.

Illumination: Green led 12VDC

MATERIALS:

Housing & Plunger: Stainless Steel.

Terminals & Contacts: Brass, Silver plated.

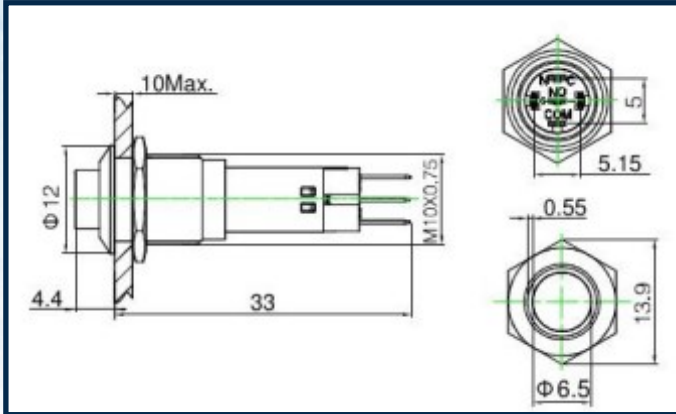
Options & information:

Different LED colors & voltages.

Momentary function.

Flat plunger.

10mm METAL PUSHBUTTON



P/N: SFN-2330-S000

MECHANICAL SPECIFICATIONS:

Actuator travel: 2.5mm.
 Operating cycles: 50,000 cycles min.
 Panel cut-out: 10mm +0.2/-0.0.
 Panel thickness: 10.00mm Max.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+55 °C.
 Humidity: 45~85% RH.

ELECTRICAL SPECIFICATIONS:

Rating: 1A/24VDC.
 Illumination color & voltage: Blue, 24V.
 Insulation resistance: > 100M Ohm.
 Contact resistance: 50m Ohm.
 Dielectric strength: 2,000V RMS.

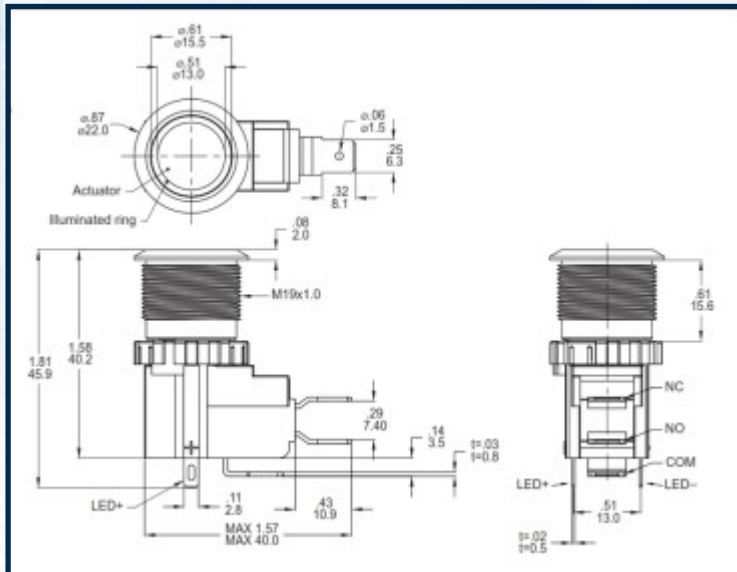
MATERIALS:

Housing: Stainless steel

Options & information:

Terminals: solder-lug.
 Illumination type: Ring.
 Illumination colors: Blue, White, Green, Red, Yellow, Orange.
 Illumination voltage: 6, 12, 24, 36, Without.

WATERPROOF POWER SWITCH



P/N: SFA-2380-S000

MECHANICAL SPECIFICATIONS:

Latching mechanism.
Travel : 3.2mm
Operation force: 350gf
Operation cycles: 500,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -25/+85 °C
Water & Dust protection: IP67

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x Change Over.
Maximum rating: 16A/24VDC.
Contact resistance: 50m Ohm.
Dielectric strength: 1,500V RMS 50HZ for 1 Min.
Red illumination ring, 12V

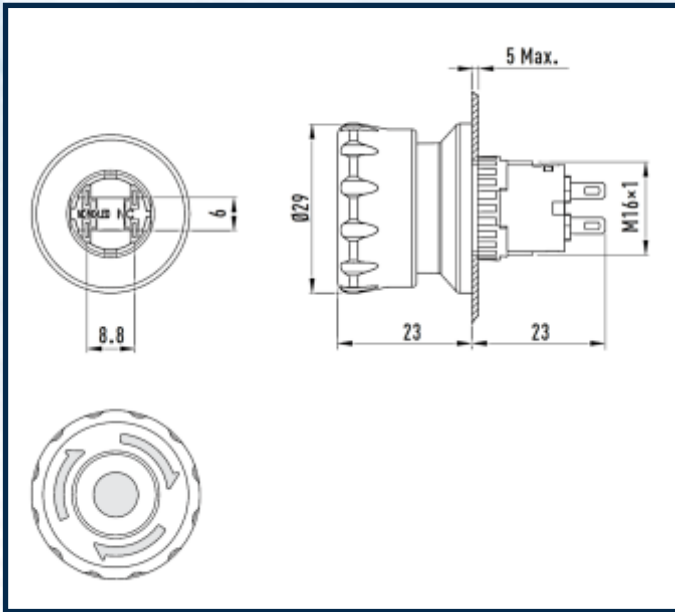
MATERIALS:

Bushing: Stainless Steel.
Actuator: Stainless Steel.
Base : PBT(UL 94-V0).
Terminals & Contacts: Brass, Silver plated.

Options & information:

Dual color led.
Led voltage: 3, 6, 12, 24, 36, volt.
22mm & 25mm bushing diameter options.
Momentary or Latching mechanism.
Power symbol.

16MM EMERGENCY METAL



P/N: SNN-2550-S000

MECHANICAL SPECIFICATIONS:

Operating force: 2.5-4N

Travel: 2.40mm

Operation cycles: 50,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -25/+55 °C

Water & Dust protection: IP67

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x NC

Maximum rating: 3A/24VDC.

Initial contact resistance: 50mΩ

Insulation resistance: 1000MΩ/500VDC

Lighting: Red led 24VDC

MATERIALS:

bushing & cap: Aluminum alloy .

housing: PA.

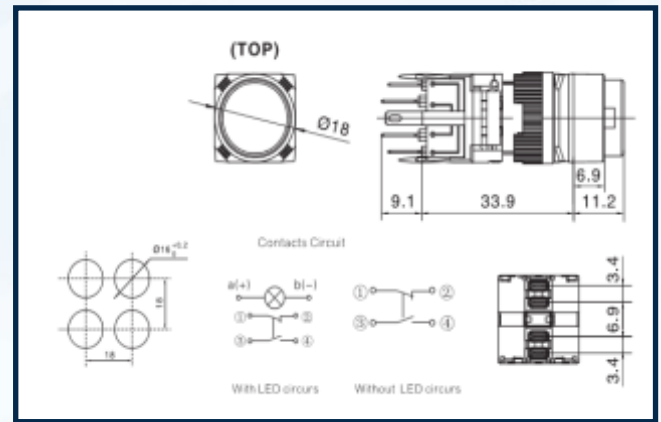
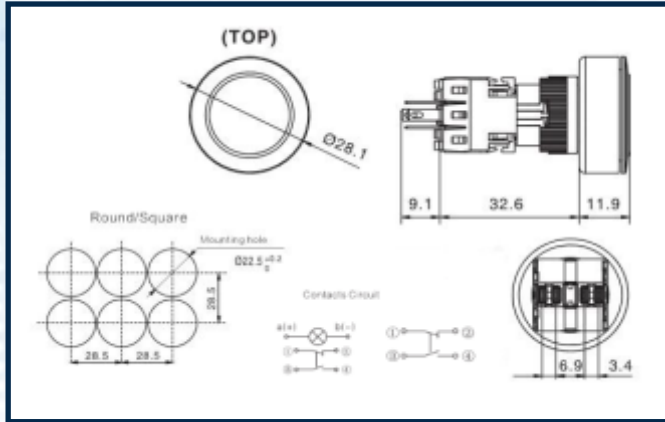
Options & information:

Different lighting colors & voltage.

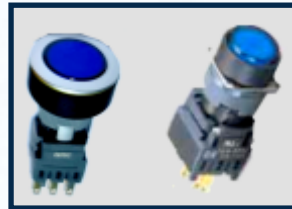
Plastic bushing & cap.

Other electrical contact forms.

16/22mm WATERPROOF PUSHBUTTON



P/N (22mm): SNI-3720-S102



P/N (16mm): SNI-3725-S000

MECHANICAL SPECIFICATIONS:

Contact form: NO+NC

Operating cycles: 100,000 cycles Min.

Number of poles: 1, 2 or 3.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+55 °C.

Water & Dust protection: IP65.

Relative Humidity: 45-85%.

ELECTRICAL SPECIFICATIONS:

Electrical function: On-Off (Maintained)

Maximum rating: 1A/24VDC.

Contact resistance: 50m Ohm.

Dielectric strength: 2000 VAC for 1 minute.

MATERIALS:

Terminals & Contacts: silver, gold plated.

Housing: POM

Options & information:

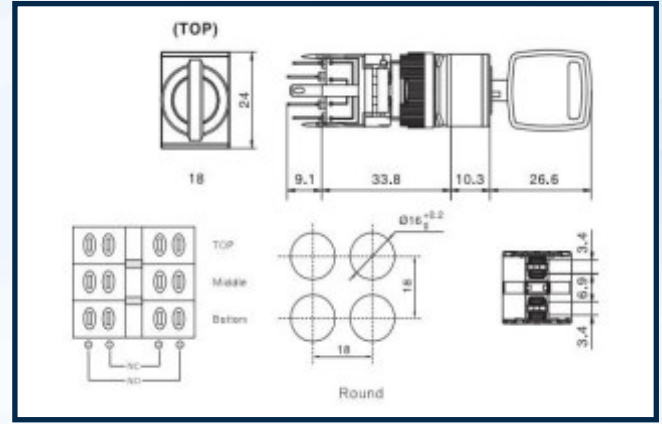
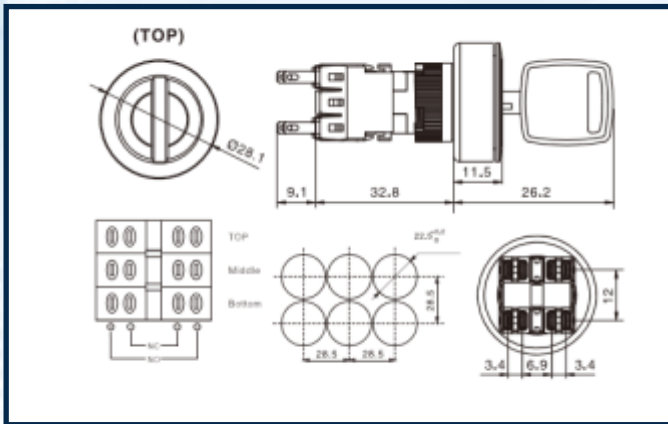
Electrical functions: Momentary, Maintained.

Colors: White, Blue, Yellow, Red, green, Orange.

LED voltage: 6.3VDC, 12VDC, 24VDC, 110VAC, 220VAC.

Cap shapes: Round, Square Rectangular.

16/22mm WATERPROOF KEY-SWITCH



P/N (22mm): SNI-3721-S000



P/N (16mm): SNI-3726-S000

MECHANICAL SPECIFICATIONS:

Rotation force > 10gf.
Contact form: NO+NC
Operating cycles: 100,000 cycles Min.
Number of poles: 2.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+55 °C.
Water & Dust protection: IP65.
Relative Humidity: 45-85% .

ELECTRICAL SPECIFICATIONS:

Electrical function: On-Off Maintained (90°)
Maximum rating: 1A/24VDC.
Contact resistance: 50m Ohm.
Dielectric strength: 2000 VAC for 1 minute.

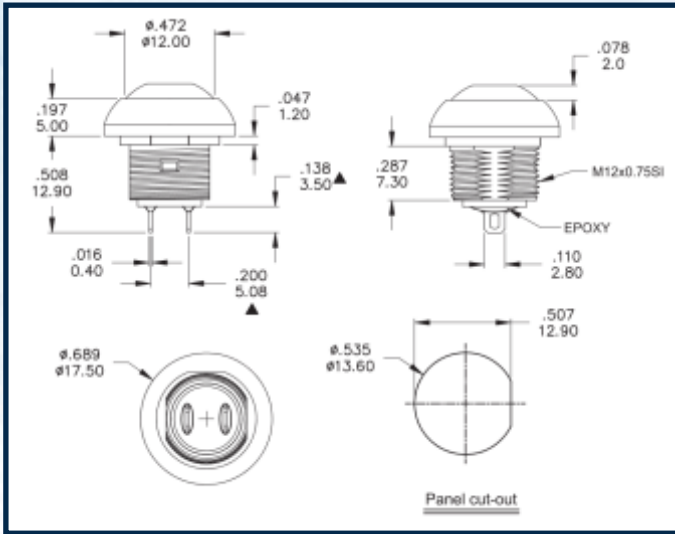
MATERIALS:

Terminals & Contacts: silver, gold plated.
Barrel: Metal alloy, Nickel plated .
Housing: POM.

Options & information:

Electrical functions: On-Off, On-Off-On (Maintained or Momentary).
Number of poles: 1, 2 or 3.
Cap shapes: Round, Square, Rectangular.
2 keys supplied with the switch.
Soldering temperature: 260 °C for 3 seconds.
Wired terminals — Optional.

IP68 PANEL-MOUNT PUSHBUTTON



P/N: SFA-2332-S000

MECHANICAL SPECIFICATIONS:

Panel thickness: 1.5 — 4.0mm

Operating force: 3N—6N.

Operation cycles: 500,000 cycles Min.

Accessories: O-Ring, Nut, Lock-washer.

Cap color: Black

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -30/+85 °C

Water & dust protection: IP68.

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x Normally Open.

Maximum rating: 200mA/50VDC

Contact resistance: 50m Ohm.

Dielectric strength: 1,500 VAC RMS.

MATERIALS:

Cap: Polyamide 6/6

Bushing: Polyamide 6/6

Case: DAP (UL94V-0).

Terminals & Contact: Silver, Au plated.

Options & information:

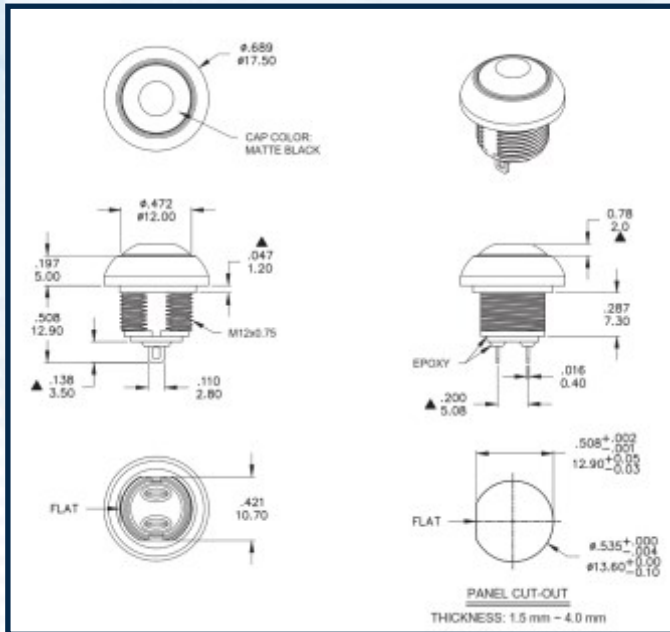
Wide range of cap colors.

Illuminated version is available.

Normally Close version— Optional

Flying leads, up to 500mm— Optional.

IP67 PANEL-MOUNT PUSHBUTTON



P/N: SFA-2323-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 2N~5N.

Travel: 1.5 mm.

Operating cycles: 500,000 cycles min.

Torque: 0.5Nm max.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -30/+85 °C.

Water & Dust protection: IP-67.

ELECTRICAL SPECIFICATIONS:

Contact form: N.O

Maximum rating: 200 mA 50VDC.

Contact resistance: 50m Ohm.

Dielectric strength: 1,500 VAC rms.

MATERIALS:

Housing: DAP UL94V-0.

Cap: PA 6/6.

Terminals & Contacts: Gold over silver plated.

Options & information:

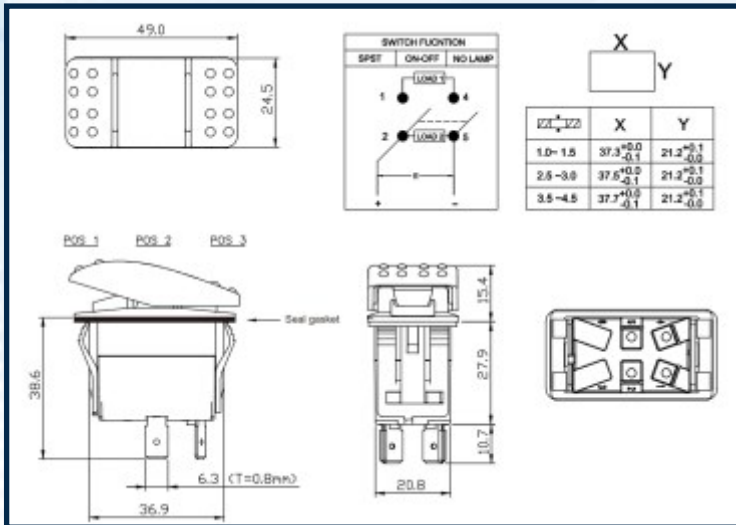
Cap colors: Black, Green, Red, Yellow, White, Orange, Blue.

Metal housing is available.

N.C Contact form is available.

Different cap styles.

IP-67 ILLUMINATED ROCKER SWITCH



P/N: SHA-7270-S000

MECHANICAL SPECIFICATIONS:

Operation cycles: 10,000 cycles Min.

Panel thickness: 1.5-4.5mm

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -45/+85 °C.

Water & Dust protection: IP-67.

ELECTRICAL SPECIFICATIONS:

Contact form: DPST.

Maximum rating: 16A/30VDC.

LED Color: Red.

Contact resistance: 20m Ohm.

Dielectric strength: 1,500VAC for 1 minute.

Options & information:

Single & Double poles.

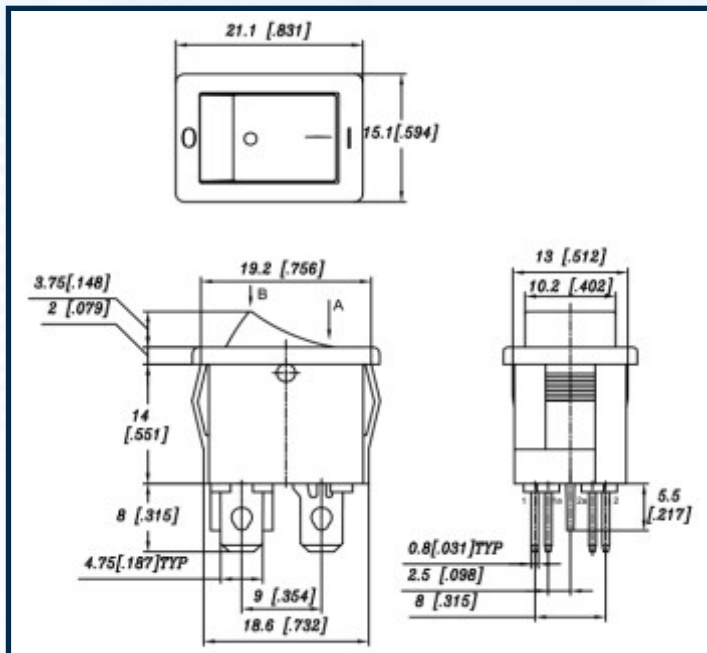
Function: ON-OFF, ON-ON, ON-OFF-ON, ON-ON-ON. Same functions available with MOMENTARY (ON) action.

Terminals: Solder-lug, Quick connect (6.30), Screws.

Colors: White, Blue, Green, Red, Yellow. LED voltage: 6,12,24 volt.

Accessories: Guard, Housing for serial Switches mount, Silicon boot.

DPST MINIATURE ROCKER



P/N: SHI-8770-S000

MECHANICAL SPECIFICATIONS:

Panel cut-out: 12.90~13.10 X 19.3~19.6mm.

Panel thickness: 1.25-3.00mm

Operation cycles: 10,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+85 °C.

Ambient humidity: Max. 85%.

ELECTRICAL SPECIFICATIONS:

Maximum rating: 6A/24VDC.

Contact resistance: 20m Ohm.

Dielectric strength: 1500V for 1 minute.

Inrush current: 80A.

MATERIALS:

Housing: PA 66.

Rocker: Rocker: PC & PA66.

Contacts: Brass Silver plated.

Movable arm: Beryllium copper.

Options & information:

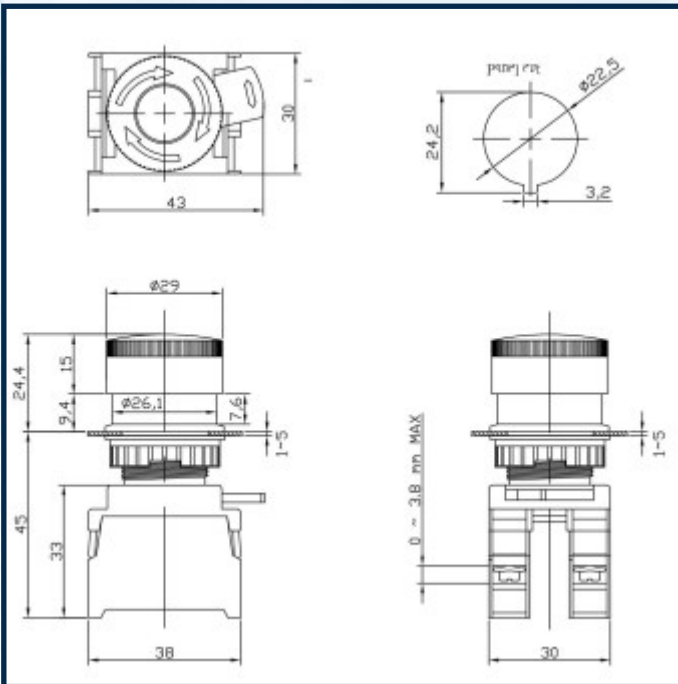
AC rating: 6A/250, 9A/125.

Housing colors: Black, Gray, White.

Actuator colors: Black, Gray, White, Red, Blue, Green, Orange.

Lighted versions: 6,12,24,125,250 volt. LED/LAMP & resistor are assembled between terminals 1 to terminal 2.

SMALL-CAP EMERGENCY SWITCH



P/N: SPU-3470-S009

MECHANICAL SPECIFICATIONS:

Snap-in contacts.

Twist to release mechanism.

Quick release mechanism to separate the actuator.

Operating cycles: 100,000

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -20/+60 °C

Water & dust protection: IP65.

ELECTRICAL SPECIFICATIONS:

Insulation: 600V.

Contact resistance: 50m Ohm.

Thermal current (Ith) 10A 50/60Hz.

Rating: 3A/240V.

Options & information:

Cap size options: 29, 36, 39mm. Colors: Red, Green.

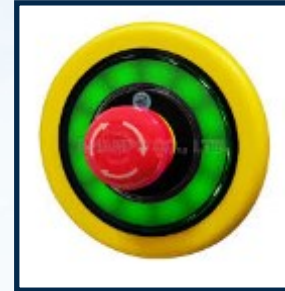
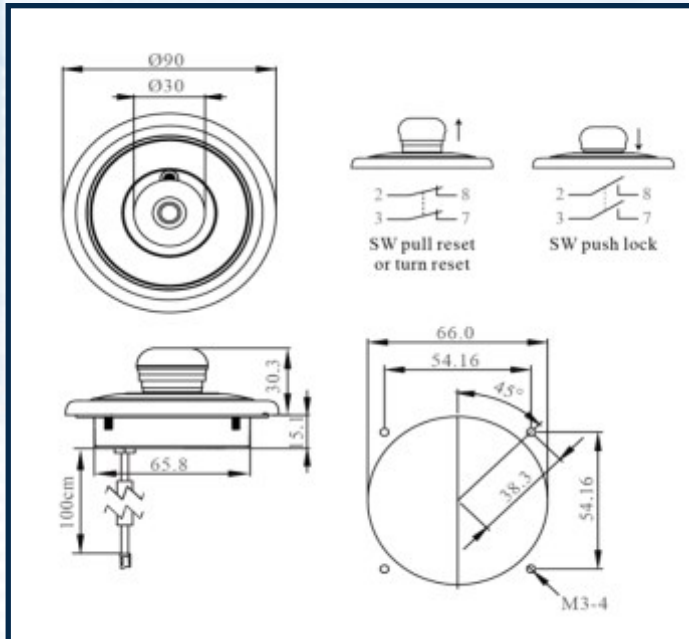
Contacts: NO, NC. Up to 6 contacts in a single switch.

Other options: cap with a key, Illuminated cap.

Special marking—Optional.



LIGHTED EMERGENCY WITH A BUZZER



P/N: SPH-2245-S000

MECHANICAL SPECIFICATIONS:

Push to lock: 1,100gf.
Mechanical cycles: 100,000 cycles Min.
Total Travel: 4.5mm.
Screws for mounting: M3.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+60 °C.
Water & Dust protection: IP65.

ELECTRICAL SPECIFICATIONS:

Contact form: 2XNC.
Maximum rating: 1A/30VDC.
LED: RGB.
Buzzer: 80db.

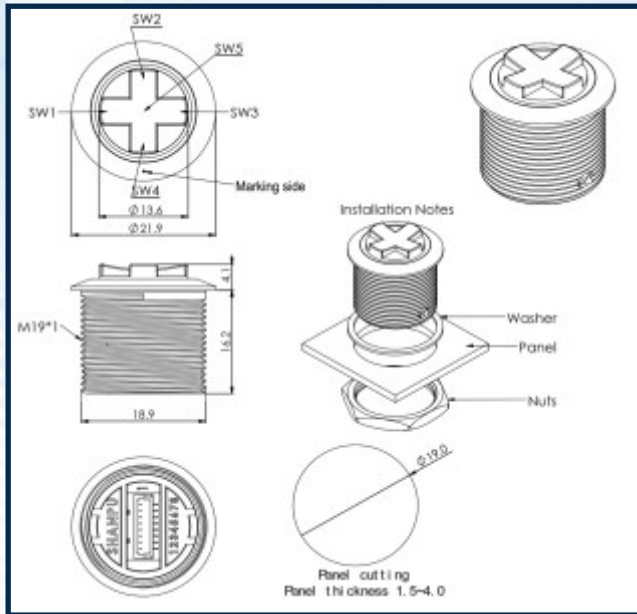
MATERIALS:

Housing: PC.
Cap: PC.
Contacts: Brass gold plated.

Options & information:

With or without buzzer.
Yellow guard—Optional.
8 wires cable with open tail—standard.
Connector assembly — Optional.

5-WAY THUMB NAVIGAROR



P/N: SFH-2345-S000

MECHANICAL SPECIFICATIONS:

Operating Force:
Center Push: 650±200gf. 4-Direction: 250±100gf.
Total travel:
Center Push: 0.2±0.1mm. 4-Direction: 0.4±0.1mm.
Mechanical cycles: 50,000 Min.
Concave shape cap.

ELECTRICAL SPECIFICATIONS:

Electrical function: SP5T.
Power rating: 50mA/12VDC.
Contact resistance: 300m Ohm.
Insulation Resistance: 1000M Ohm.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -20/+70 °C.
Water & Dust protection: IP65.

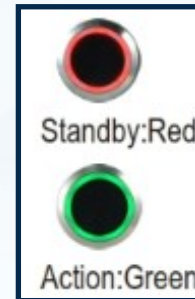
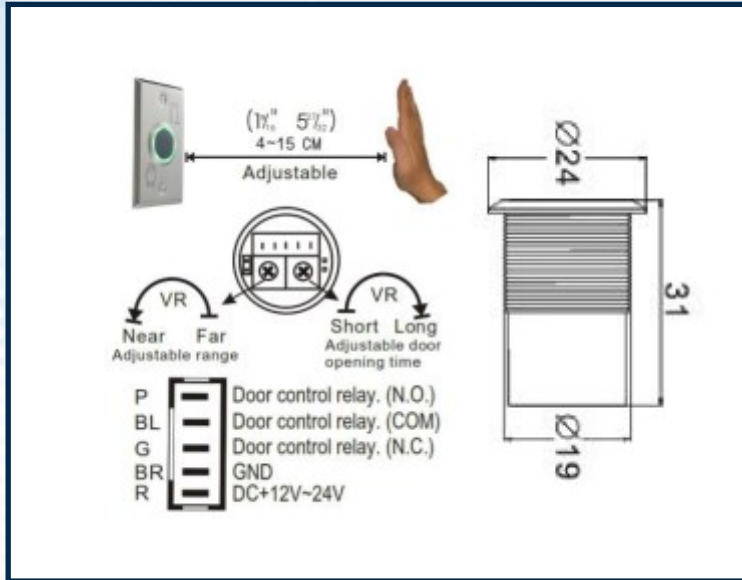
MATERIALS:

Cover: SUS.
Case: LCP.
Stem: LCP.
Terminals: Brass.

Options & information:

Prominent or Concave cap styles.
Interface: 8 pins connector—JST BM08B-SRSS-TB or similar.
With/Without LED light.
Nut & Washer include in the kit.

TOUCHLESS IR PUSHBUTTON



P/N: SFO-3280-S056

MECHANICAL SPECIFICATIONS:

Adjustable proximity distance

Single pole.

Operation cycles: Relay mechanical lifespan:1,000,000

Infrared sensor:100,000 hours

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -10/+70 °C

Water & Dust protection: IP65

ELECTRICAL SPECIFICATIONS:

Contact form: NO or NC

Maximum rating: 1A/24VDC

Trigger state (0.5~30sec) or toggle mode output.

MATERIALS:

Case: Stainless Steel 304.

Housing: Polycarbonate fireproof.

Options & information:

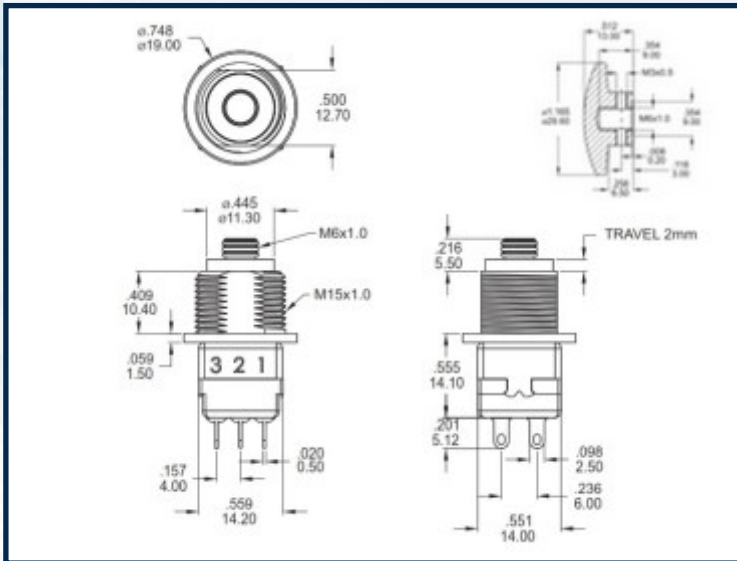
Sizes: 19,22 & 38mm.

Voltage: 12 or 24VDC.

Illumination: Lighted dot indication or lighted ring.

Wall mount panel with the PB is available.

PUSH-PULL METAL SWITCH



P/N: SFA-2311-S025

MECHANICAL SPECIFICATIONS:

Push & Pull force: 2000gf

Stroke: 2.00mm

Operation cycles: 100,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -40/+85 °C

Water & Dust protection: IP65

ELECTRICAL SPECIFICATIONS:

Contact form: 2 x Change Over

Maximum rating: 4A/24VDC.

Contact resistance: 10m Ohm.

Dielectric strength: 1,000V RMS 50HZ Min.

MATERIALS:

Bushing: Brass, Nickel plated.

Case: Diallyl phthalate (UL94v-0).

Housing: Stainless Steel.

Terminals & Contacts: Brass, Silver plated.

Options & information:

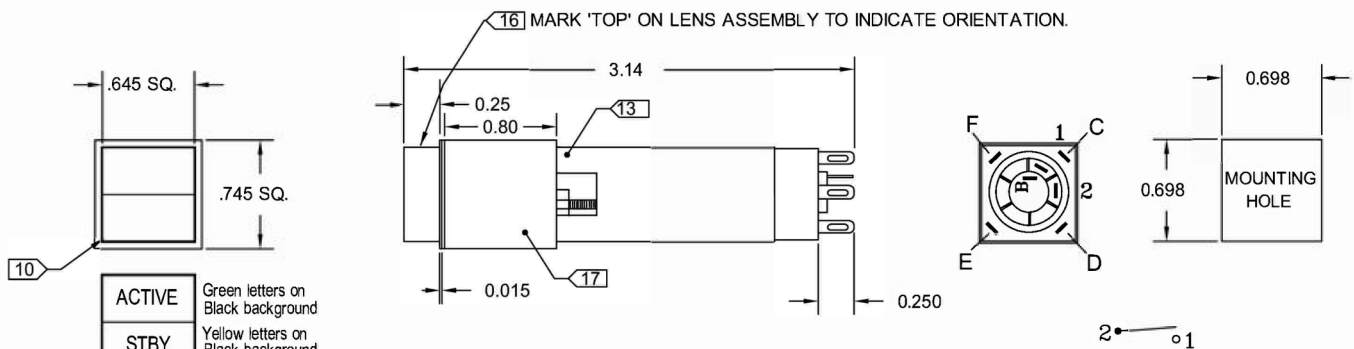
Different cap colors.

Flying leads.

Tray package.

QUAD LED NVG PUSHBUTTON

P/N: SFD-3255-S123



NOTES

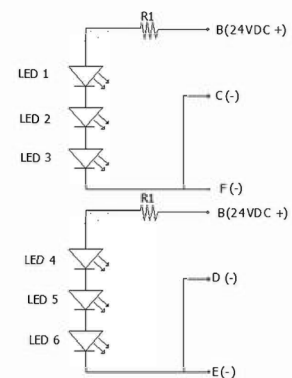
1. RATINGS: 30VDC OR 115VAC, 2 AMPS RESISTIVE, 0.5 AMP INDUCTIVE.
2. OPERATING PRESSURE: 3 LBS. $\pm$ 1LB.
3. PLUNGER TRAVEL: 0.187 APPROX.
4. ACTUATIONS: 100,000 MINIMUM.
5. CONTACTS: SILVER PLATED.
6. TERMINALS: STANDARD EMC SOLDER LUG. ACCEPTS TWO 20 AWG WIRES.
7. SWITCH TYPE: 644-2328, MULTI-LED ILLUMINATED PUSHBUTTON SWITCH.
8. SWITCH ACTION: Push-On/ Remain-In/ Push-off
9. SWITCH CIRCUITRY: SPST, 1 N.O.
10. LENS: SPECIAL LENS ASSEMBLY.
SPLIT FACE LENS, Horizontal split
LEGENDS ARE HIDDEN LEGEND. LEGENDS ILLUMINATE IN COLOR ON BLACK BACKGROUND.
Upper half: Photo negative film legend. Black letters on black background.
Filter layer includes NVIS Green-B filter, EMC PN 6818.
Lower half: Photo negative film legend. Letters illuminate on black background.
Filter layer includes NVIS Yellow filter, EMC PN 6823.
11. LED'S: SMT LED'S ON PCB ARRAY. SEE SCHEMATIC. $V_f = 24$ VDC.
- 11A. LED'S: PN: KINGBRIGHT AA3528VR4AS-C1 (6976), CURRENT RATING 20ma PER CIRCUIT.
12. LENS LEGEND: LEGEND FONT AND SIZE TBD TO FIT INTO AREA AVAILABLE.
13. MOUNTING: BACK-UP SLEEVE IN MOUNTING HOLE AS SHOWN.
14. PARTS LIST IS DOCUMENT SW45276-900.
15. INSPECT PER DOCUMENT EMWID860-25.
16. MARK LENS ASSEMBLY AS SHOWN TO INDICATE ORIENTATION AND PART NUMBER.
17. MOUNTING SLEEVE IS 0.80 LONG.

CUSTOMER: ADR Technology, Tel-Mond, Israel

Switch Schematic

LEDs Schematic

SPLIT FACE, SERIES QXT,
2 INDEPENDENT QXTS



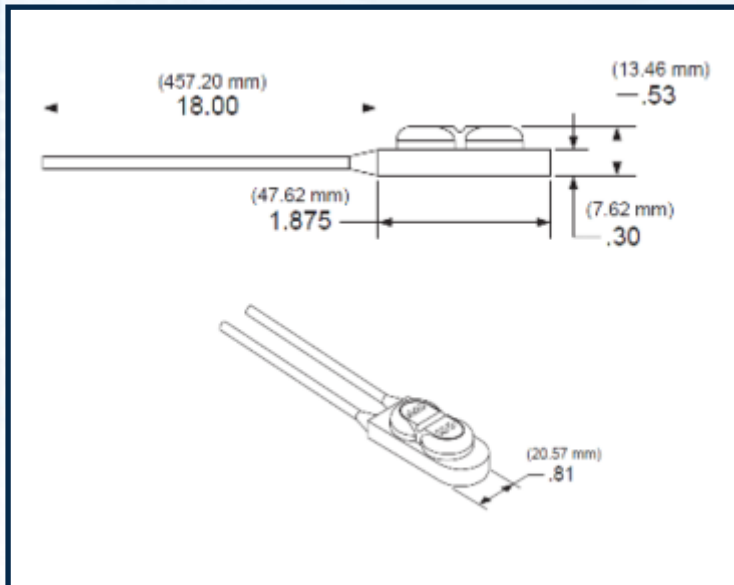
NOTES

1. SMD RESISTOR R1: 680 OHMS
2. SMD RESISTOR R2: 540 OHMS
3. ALL SMD WHITE LED'S ARE KINGBRIGHT AA3528VR4AS-C1

NVG BUTTON SWITCH

0	Initial Release.			SCALE FULL	DRAWN TT				
LT	REVISIONS	DATE	DIM. IN INCHES	TOL. XX $\pm$ 0.020 XXX $\pm$ 0.015	FILE	DATE 13Sep24	PAGE 1 of 1		NBS

SUBMERSIBLE ON-OFF SWITCH



P/N: SHP-2265-S000

MECHANICAL SPECIFICATIONS:

Operation cycles: 100,000 Min.

Leads: 16 AWG , 457mm.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -54/+74 °C.

Water & Dust protection: submersible.

ELECTRICAL SPECIFICATIONS:

Function: SPST

Rating: 15A / 28 VDC.

Maintained action.

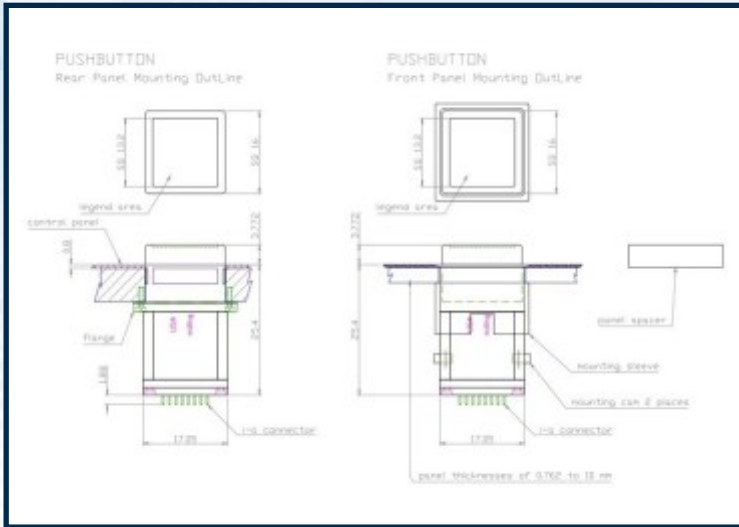
MATERIALS:

Housing: Neoprene.

Options & information:

Momentary action—Optional.

IP67 ROBUST QUAD LEDS SWITCH



P/N: SFA-4750-S000

MECHANICAL SPECIFICATIONS:

Momentary or Alternate action.

Front panel mount..

Panel cut-out: 17.5x17.5mm.

Operating cycles: 50,000 cycles min.

ELECTRICAL SPECIFICATIONS:

DC Supply Voltage: -4,75 to 5,25 V.

Contact rating: 100mA/28VDC.

ESD at any Input Pin: 1000V.

4 light sources.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -55/+80 °C.

Shock: 75 G's - MIL-STD-202, method 213 condition B.

Vibration: 15 G's from 10 to 2.000Hz - MIL-STD-202, method 204 condition B.

Salt Spray: MIL-STD-202, method 101 condition B.

Options & information:

6 types of display configuration.

Front or rear mount options.

Transparent guard—Optional

It is possible to illuminate each zone independently.

IP-67 TOGGLE LOCKING-LEVER

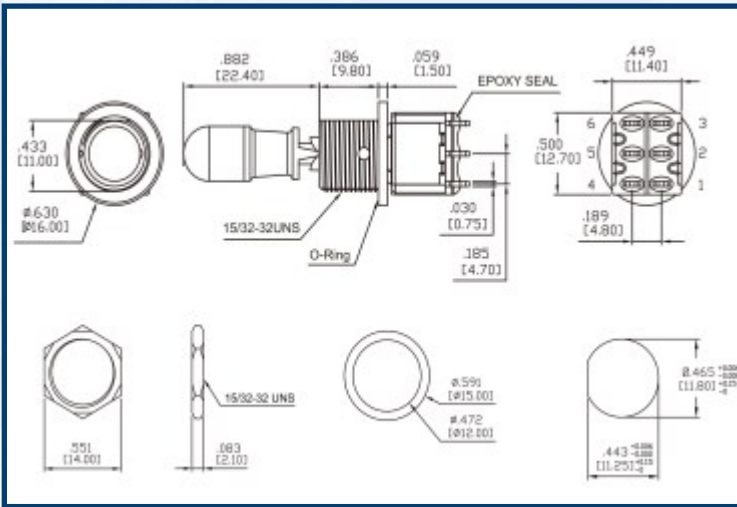


Image for illustration only

P/N: SGQ-6340S000

MECHANICAL SPECIFICATIONS:

Function: ON-OFF-ON.

Sealing: By external & internal O-Rings.

Terminals protection: Epoxy.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -30/+85 °C. *

Water & Dust protection: IP-67.

ELECTRICAL SPECIFICATIONS:

Maximum rating: 5A/28VDC.

Contact resistance: 10m Ohm.

Dielectric strength: 1500V RMS.

Life cycles at full load: 50,000

MATERIALS:

Handle: Brass, chrome plated.

Case: DAP UL94-V0

O-Ring: Silicon.

Terminals: Silver plated with outer gold plating layer.

Options & information:

Other functions: ON-OFF, ON-ON, MOM-OFF-MOM, ON-OFF-MOM, ON-ON-ON.

Number of poles: 1, 2, 3, 4.

Lever colors: Black or Chrome silver.

Terminals plating: Silver, Gold or Tin.

* Temperature range of -40/+85 °C can be achieved for specific part-number.



MINI TOGGLE FOR HARSH ENVIRONMENT

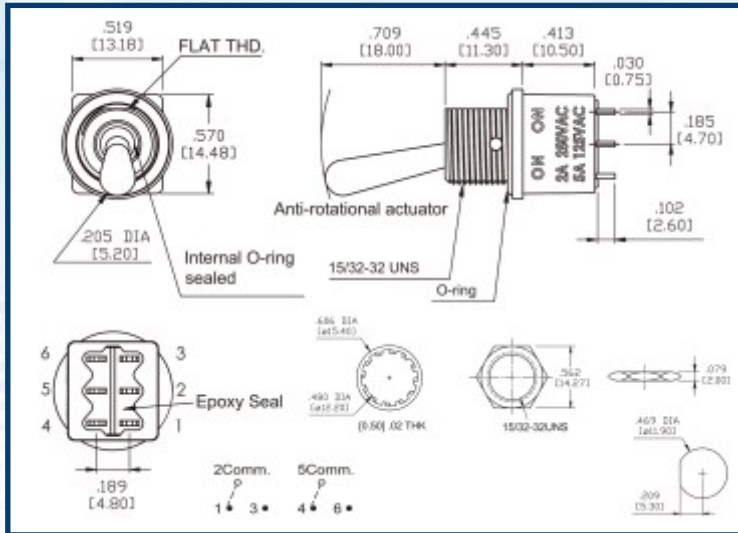


Image for illustration only

P/N: SGQ-6461S000

MECHANICAL SPECIFICATIONS:

Function: ON-OFF-ON.

Number of poles: 2

Sealing: By O-Rings & Thermoplastic case on housing.

Terminals protection: Epoxy.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -30/+85 °C. *

Water & Dust protection: IP-68.

ELECTRICAL SPECIFICATIONS:

Maximum rating: 5A/28VDC.

Contact resistance: 10m Ohm.

Dielectric strength: 1500V RMS.

Life cycles at full load: 50,000

MATERIALS:

Handle: Black chrome plated.

Case: DAP UL94-V0

O-Ring: Silicon.

Terminals: Silver plated with outer gold plating layer.

Options & information:

Other functions: ON-OFF, ON-ON, MOM-OFF-MOM, ON-OFF-MOM, ON-ON-ON.

Number of poles: 1, 2.

Different lever styles.

Terminals plating: Silver, Gold or Tin.

* Temperature range of -40/+85 °C can be achieved for specific part-number.

POWER TOGGLE FOR HARSH-ENVIRONMENT

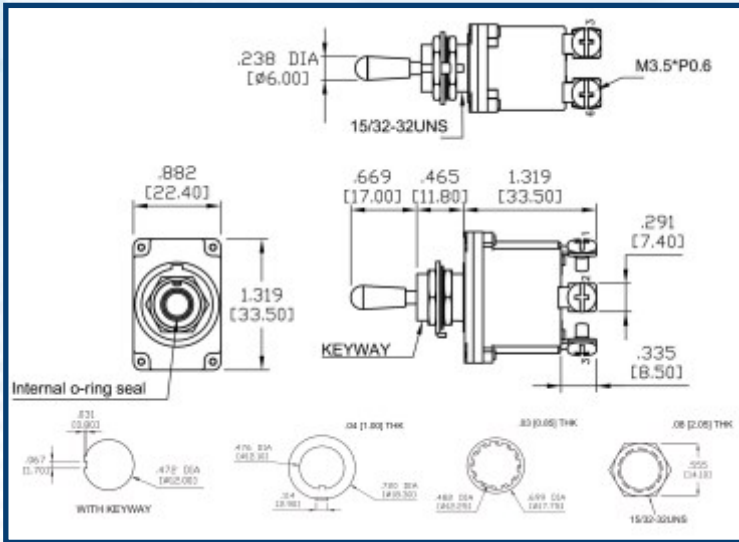


Image for illustration only

P/N: SGQ-6261S200

MECHANICAL SPECIFICATIONS:

Function: ON-OFF-ON.

Number of poles: 2

Life cycles: 100,000

Terminals type: Screw.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -30/+85 °C. *

Water & Dust protection: IP-68.

ELECTRICAL SPECIFICATIONS:

Maximum rating: 12A/250VAC.

Contact resistance: 20m Ohm for up to 4 volt.

Dielectric strength: 1500V RMS.

Life cycles at full load: 30,000

MATERIALS:

Handle: Black chrome plated.

Case: DAP UL94-V0

O-Ring: Silicon.

Terminals: Silver plated with outer gold plating layer.

Options & information:

Other electrical functions: ON-OFF, ON-ON, MOM-OFF-MOM, ON-OFF-MOM, ON-ON-ON.

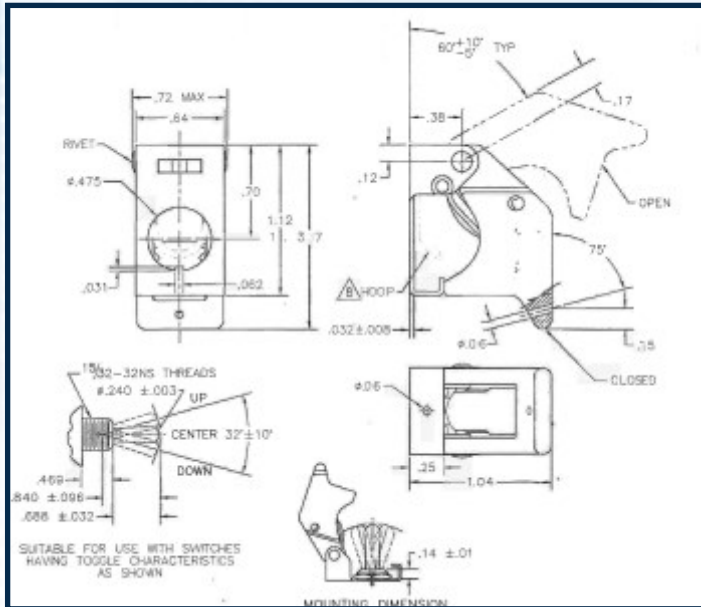
Locking lever (Black or Silver color) for each electrical function.

1-4 poles.

* Temperature range of -40/+85 °C can be achieved for specific part-number.

External sealing washer.

SECURITY-CAP FOR TOGGLE



P/N: SGE-7811-S000

SPECIFICATIONS:

Cap color: Red.

Key-way location: As shown.

Number of positions: 3

NOTE:

The closing guard must move the switch lever to the center position, whether it is currently in the up or down position.

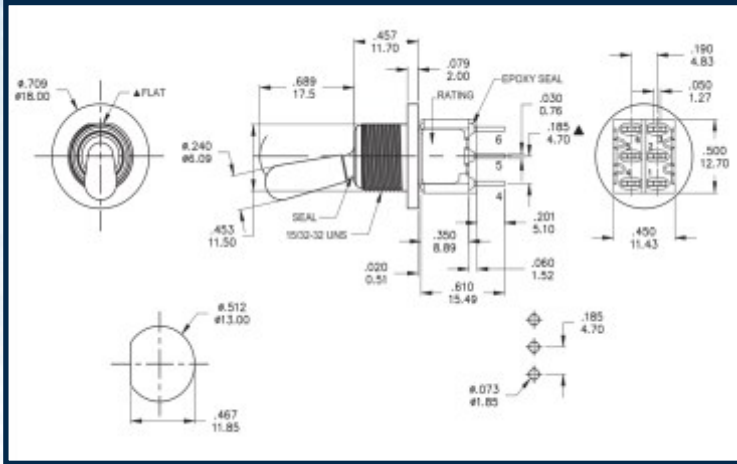
Options & information:

Key-way: As shown or, 180 opposite.

Colors: Red or Black.

Number of positions: 2 or 3.

WATERPROOF TOGGLE FOR 28VDC



P/N: SGA-2640-S000

MECHANICAL SPECIFICATIONS:

D-Shape bushing (to eliminate rotation).

Terminals are sealed with Epoxy.

Operation cycles: 100,000.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -30/+85 °C

Water & Dust protection: IP67.

ELECTRICAL SPECIFICATIONS:

Contact form: 2 x Change Over

Maximum rating: 28VDC / 5A

Contact resistance: 100m Ohm.

Dielectric strength: 1,000V RMS 50HZ Min.

MATERIALS:

Bushing: Brass, nickel plated.

Case: DAP (UL94v-0).

Housing: Stainless Steel.

Terminals & Contacts: Brass, Silver plated.

Options & information:

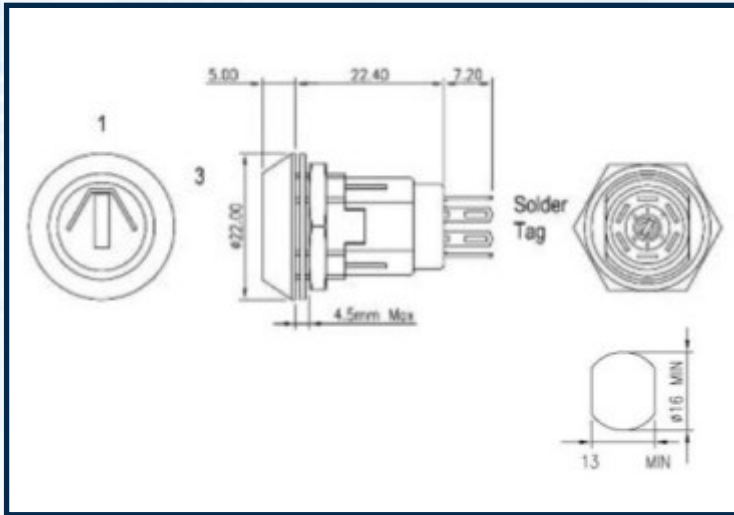
Number of poles: 1 & 2

Electrical function options: On-On, On-Off-On, On-On-On (Maintained & Momentary).

Accessories: O-Ring + Nut (included).

Terminal options: Solder-lug (for wires) & Through-Hole (for pcb).

WATERPROOF KEY SWITCH



P/N: SAO-2525-S000

MECHANICAL SPECIFICATIONS:

Max. panel thickness 3.5mm.

Lock type: : 5 Disc.

Operation cycles: 10,000 cycles min.

2 positions, Indexing 60°.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -20/+65 °C

Water & Dust protection: IP66/IP67

ELECTRICAL SPECIFICATIONS:

Contact form: 2PDT.

Maximum rating: 1A/24VDC.

Contact resistance: 20m Ohm.

Insulation resistance: 1000MΩ @ 500Vdc.

MATERIALS:

Lock housing: Zinc alloy Chrome plated.

Actuator: Stainless Steel.

Body: Polyamide (UL 94-V0).

Terminals & Contacts: Brass, Ag plated.

Options & information:

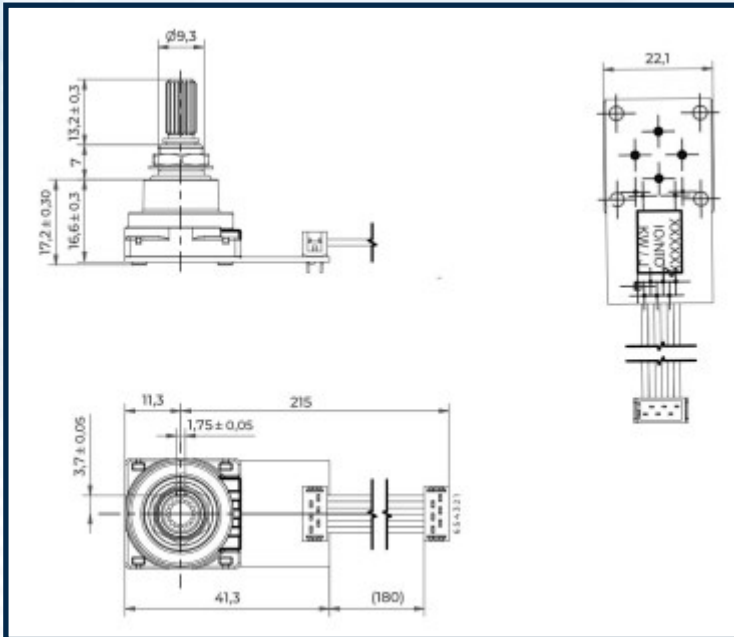
Set of 2 keys supply as standard

Single or double poles.

2 & 3 positions available.

Different kind of kyes—Optional.

ROBUST IP67 ROTARY ENCODER



P/N: STD-1650-S000

MECHANICAL SPECIFICATIONS:

Number of positions: 20.

Operation cycles: 500,000 cycles min. 1M for the push.

Rotate force: 2-4 Ncm.

Push force: 8-12 Ncm

ENVIRONMENTAL SPECIFICATIONS:

Water & dust protection: IP67

Operating temperature range: $-45/+80$ °C.

Relative humidity: 99%.

ELECTRICAL SPECIFICATIONS:

Switching mode encoder: Photoelectric barrier.

Contact form: 2 Signals & Momentary push.

Maximum rating: 20mA/5VDC.

Contact bouncing: < 4ms.

EMATERIALS SPECIFICATIONS:

Housing: Zinc die-cast Nickel-plated.

Shaft: Stainless steel.

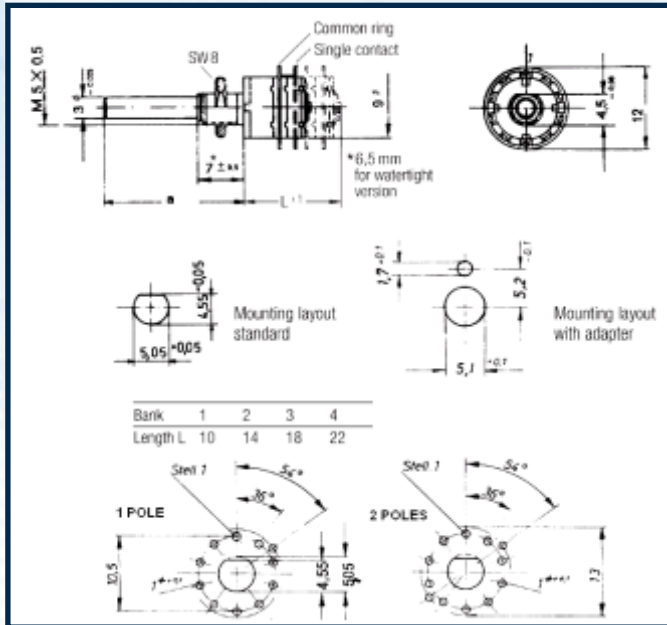
Options & information:

Nut & Spring washer can be added upon request.

2.2K Ω external pull-up resistors required for operation, between lines 6-5 & lines 6-4.

2 options for the length of the shaft.

9mm WATERPROOF ROTARY SWITCH



P/N: STB-1560-S000

MECHANICAL SPECIFICATIONS:

Number of wafers: 2.
 Detent: 60 degrees.
 Wafer's combination: 1x6.
 Stop strength: > 50Ncm.

ENVIRONMENTAL SPECIFICATIONS:

Water & dust protection: IP67
 Temperature range: -40/+85 °C.
 Relative Humidity: 95%.

ELECTRICAL SPECIFICATIONS:

Rating: 200mA/24VDC
 Insulation resistance: > 100M Ohm.

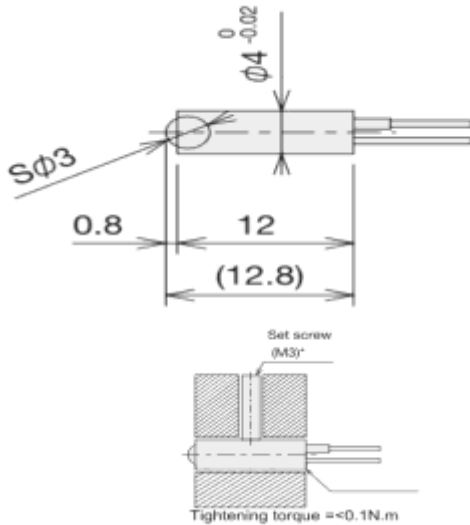
MATERIALS:

Wafers: DAP
 Rotor: CP

Options & information:

1-4 Wafers.
 1-3 circuits per a wafer.
 30, 36 or 60 Degrees. With / without stopper.
 Silver or gold contacts. Solder-lug or PCB terminals.
 Flat shaft available.

M4 BALL DETECTOR



P/N: SDE-5820-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 1N.

Pretravel: 0.30mm

Stroke: 0.8mm.

Operation cycles: 1,000,000 cycles Min.

Angled touch: 90 +/-5° Max.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: 0/+80 °C

Water & Dust protection: IP40.

Shock Resistance: 300m/s²

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x Normally Open

Maximum rating: 10mA/5-24VDC.

MATERIALS:

Contact: Tungsten carbide.

Case: SUS 303.

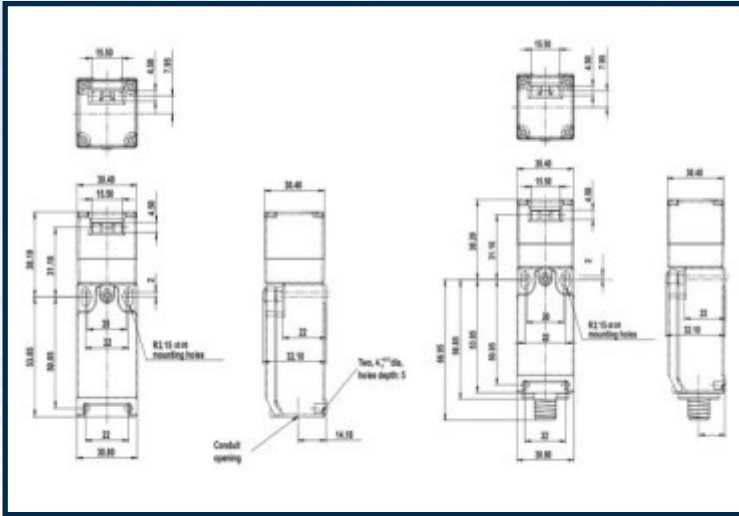
Cables: Core-wire cable 0.5m×2, Oil resistant

Options & information:

No set screw is provided.

M5 & M6 similar products are available..

IP67 ROBUST DOOR LOCK SWITCH



P/N: SBI-6240-S000

MECHANICAL SPECIFICATIONS:

Key type: Right angle.

Operating cycles: 150,000 cycles min.

Positive opening mechanism. Double-insulation structure.

Contact form: 2XNC.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+80 °C.
Water & Dust protection: IP-67.
Vibration: IEC 68-2-6, 10-55Hz±1 Hz.

ELECTRICAL SPECIFICATIONS:

Utilization Category: AC15 A600.

Thermal Current: 10A.

Contact resistance: 25m Ohm.

Insulation Resistance: 100MΩ min. (DC 500V).

MATERIALS:

Actuator: Stainless steel.

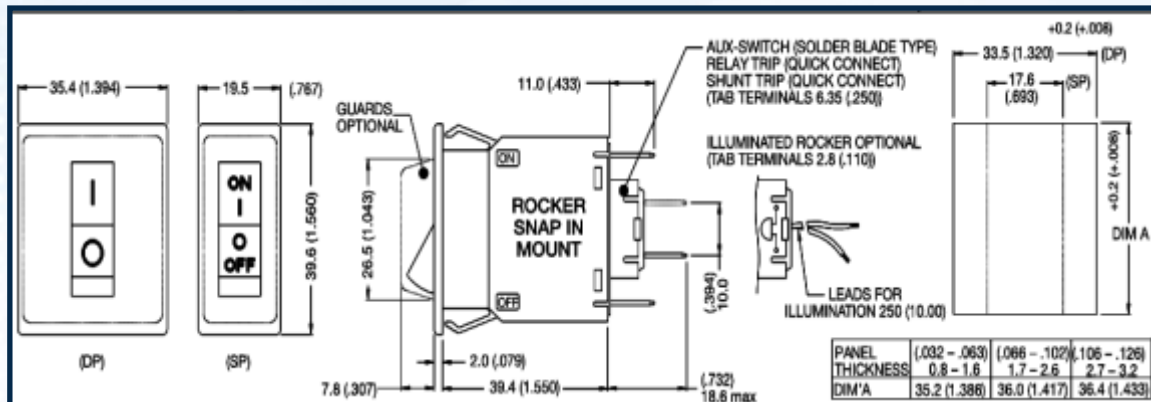
Options & information:

Contact types: 1NO+1NC, 2XNC, 1NO+2NC, 3XNC.

Lead exit options: PG-11/13.5/M16/20, 4 pins M12 Connector.

Key options: Flat, Right-angle, Adjustable.

MINIATURE HYDRAULIC-MAGNETIC MCB



P/N: SXB-2510-S000

MECHANICAL SPECIFICATIONS:

Snap-in mounting.

Quick connect terminals.

Silicon boot to prevent water & dust (optional).

Housing: Polyamide UL94-V0.

ELECTRICAL SPECIFICATIONS:

Single pole with trip.

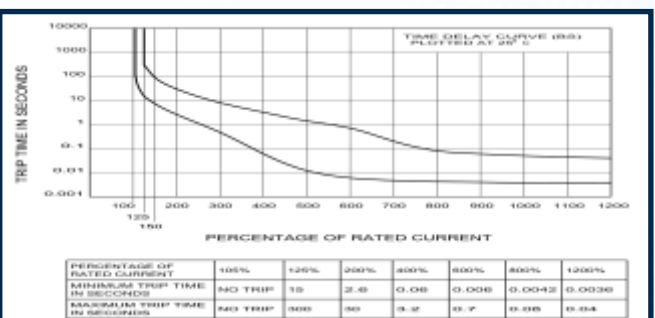
Rating: 5A/65VDC.

Main Circuit Current Ratings: 20mA—30A.

Interrupting Capacity: 1kA/240VAC, 0.6kA/80VDC.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -40/+85 °C.



Options & information:

Handles: Paddle, Baton, Illuminated Rocker, Push-to-Reset, Push-Pull.

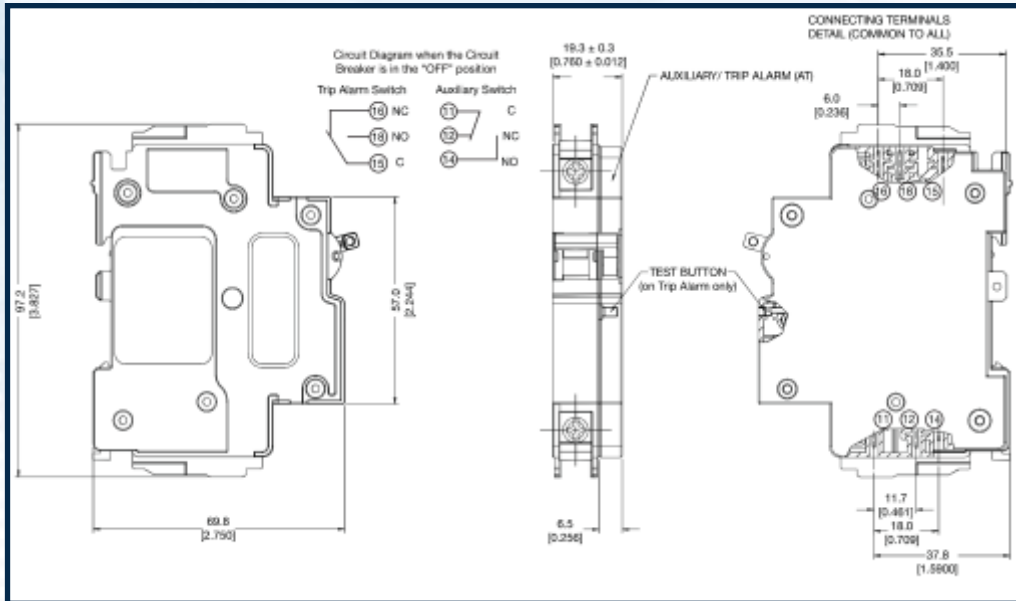
The rubber keys can be purchased separately.

Auxiliary Switch—Optional.

Terminals: quick connect, 45° bent screw terminal (M4 / 8-32), 90° bent quick connect terminal.

Rating range: 0-30A

13mm WIDTH HYDRAULIC-MAGNETIC MCB



P/N: SXB-2770-S000

MECHANICAL SPECIFICATIONS:

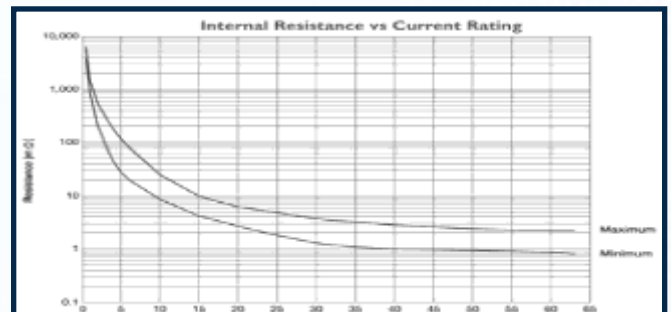
Ultra compact - 13 mm wide module.
Dual mount product.
Suitable to use for electrical isolation.
Auxiliary attached to right hand side of Circuit Breaker.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -40/+85 °C.

ELECTRICAL SPECIFICATIONS:

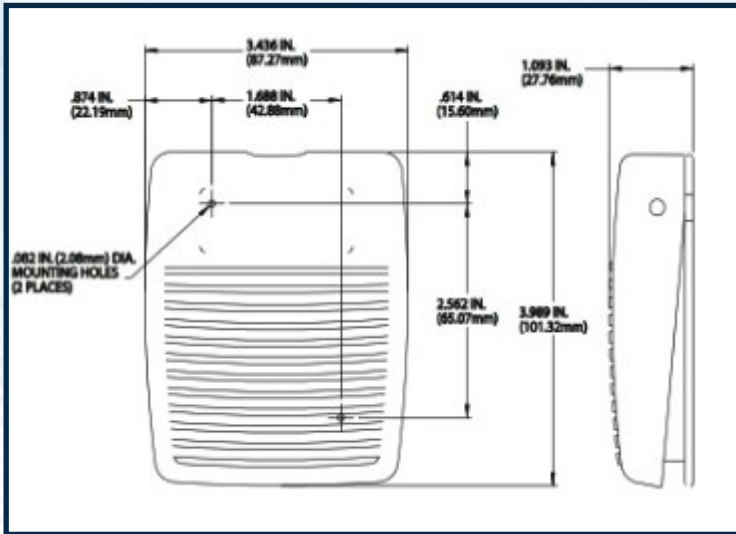
Rating: 0.1 to 63 A (1 & 2 pole), 3 pole parallel.
80 VDC devices are reverse feedable..
125 / 250 / 600 VDC devices are polarity sensitive.
Reset immediately after overload.



Options & information:

Auxiliary Switch/Trip alarm—Optional.
Wide range of time delays and operating currents..
Handle lock—optional

MEDICAL FOOT-SWITCH IP68



P/N: SWI-4530-S096

MECHANICAL SPECIFICATIONS:

Color: Dark gray.

Integrated adjustable strain relief clamp.

Full and oversized guard included.

Wire length: 2 Meter.

ENVIRONMENTAL SPECIFICATIONS:

Water & Dust protection: IP-68

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x Normally Open

Maximum rating: 3A/25VAC.

Function: Momentary.

Options & information:

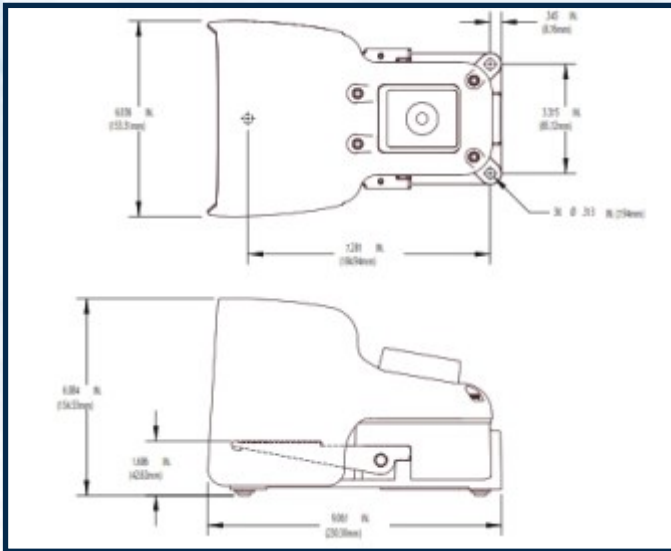
Different electrical function.

Metal or Polymeric material for the switch case.

Different types & length of wire.

Different colors for switch.

IP68 WIRELESS FOOT-SWITCH



P/N: SWI-4442-S000

MECHANICAL SPECIFICATIONS:

Treadle and housing constructed from cast iron .

The switch have a neoprene cover gasket plus O-rings on the activating shaft and a separate ground screw .

Action: Momentary.

ENVIRONMENTAL SPECIFICATIONS:

Water & Dust protection: IP-68.

Weather resistant construction for harsh environments .

ELECTRICAL SPECIFICATIONS:

Powered by 3 (AA) batteries (Transmitter), for 700 hours.

12 meter RF transmission range.

US & European 802.15.4 Compliant, 2.405-2.480 GHz.

Minimum Contact Load : 100mA/12VDC

MATERIALS:

strong cast aluminum oversized shield .

Options & information:

UL & RoHS approvals.

Electrical functions available: SPDT, DPDT & TPDT.

6 volt adapter, instead of AC Power Adapter.

ENABLE SWITCH: 3 POSITIONS-LARGE

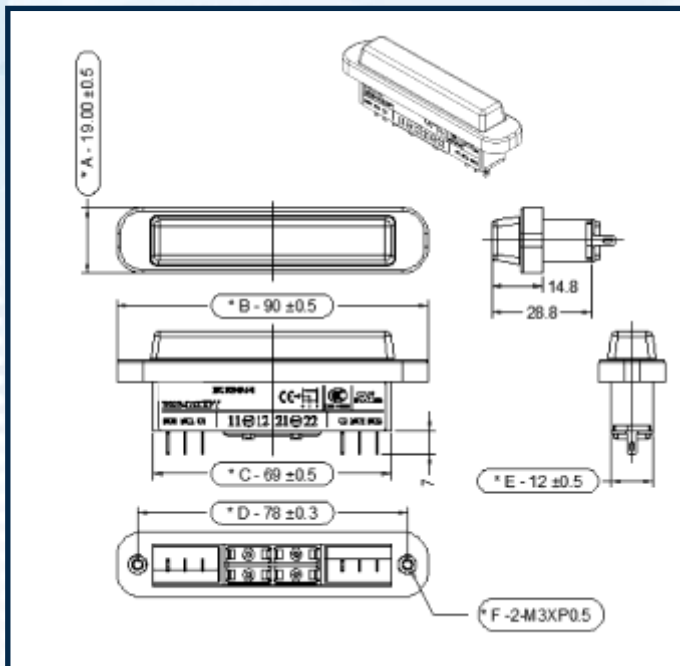


Image for illustration only

P/N: SBD-2242-S000

MECHANICAL SPECIFICATIONS:

Function: 3 position.
Number of poles: 2
Life cycles: 1,000,000
Operator strength: 250N Min.

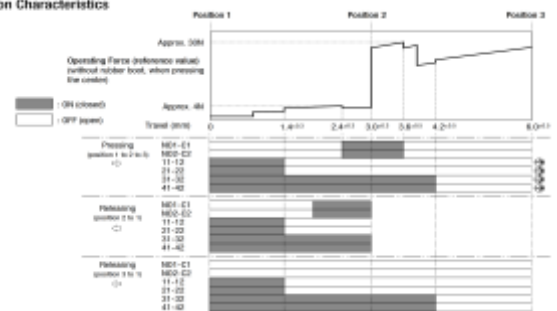
ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+60 °C.
Shock resistance: 1 50 m/s²
Water & Dust protection: IP-65.

ELECTRICAL SPECIFICATIONS:

Resistive rating: 1A/30VDC.
Insulation resistance: 100 MΩ minimum (500V DC megger).
Short circuit current: 50A (250VAC).
Life cycles at full load: 100,000

Operation Characteristics



Options & information:

Rubber Boot Material: Silicon Rubber Color: B: black Y: yellow . NBR/PVC Polyblend Color: gray

Terminals: Bottom view



ENABLE SWITCH: 3 POSITIONS-MEDIUM

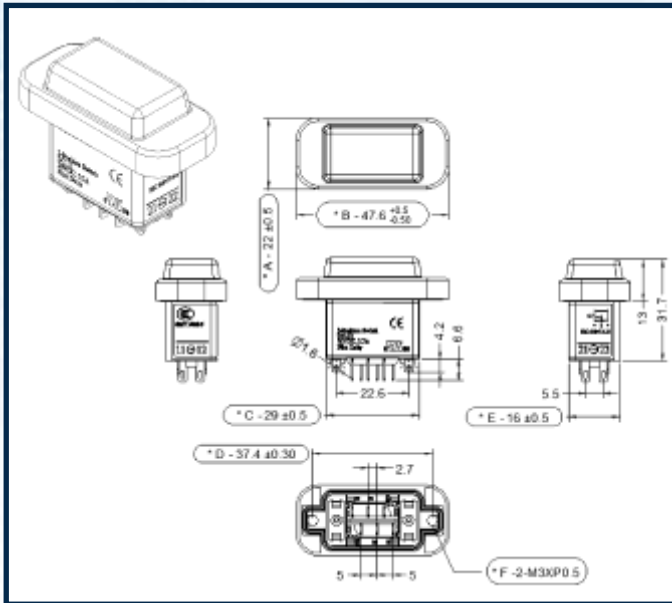


Image for illustration only

P/N: SBD-2256-S000

MECHANICAL SPECIFICATIONS:

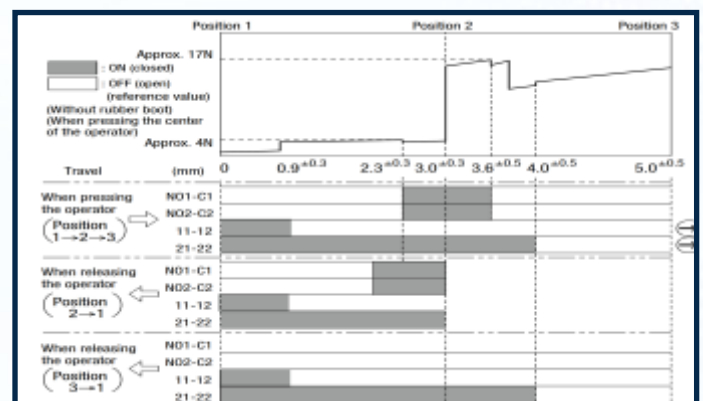
Function: 2 position.
 Number of poles: 2
 Life cycles: 1,000,000
 Operator strength: 250N Min.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+60 °C.
 Shock resistance: 1 50 m/s²
 Water & Dust protection: IP-65.

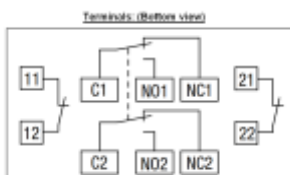
ELECTRICAL SPECIFICATIONS:

Resistive rating: 1A/30VDC.
 Insulation resistance: 100 MΩ minimum (500V DC megger).
 Short circuit current: 50A (250VAC).
 Life cycles at full load: 100,000.
 Contact resistance: 50 mΩ maximum.



Options & information:

Rubber Boot Material: Silicon Rubber Color: B: black Y: yellow . NBR/PVC Polyblend Color: gray.



ENABLE SWITCH: 3 POSITIONS-SMALL

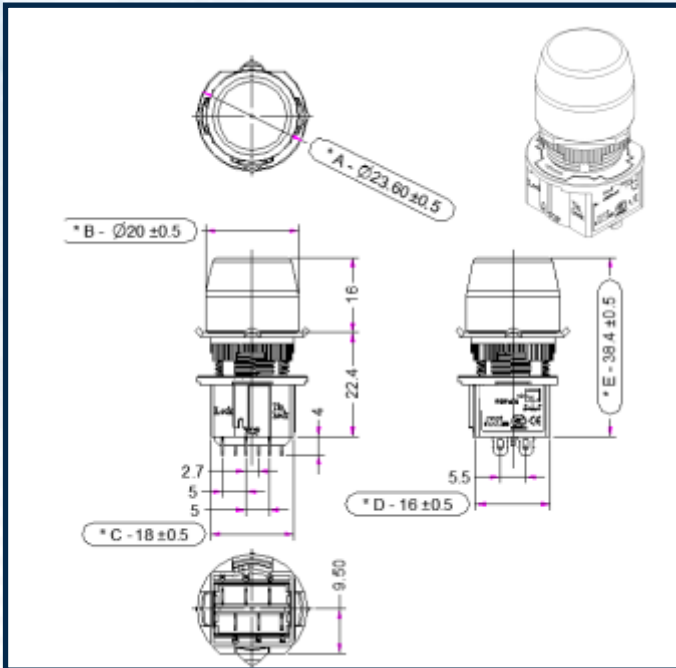


Image for illustration only

P/N: SBD-2245-S000

MECHANICAL SPECIFICATIONS:

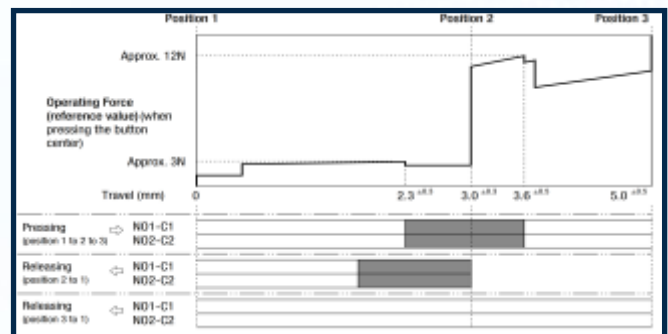
Function: 3 position.
 Number of poles: 2
 Life cycles: 1,000,000
 Operator strength: 250N Min.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+60 °C.
 Shock resistance: 1 50 m/s²
 Water & Dust protection: IP-65.

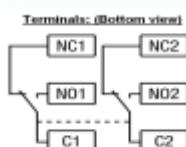
ELECTRICAL SPECIFICATIONS:

Resistive rating: 1A/30VDC.
 Insulation resistance: 100 MΩ minimum (500V DC megger).
 Short circuit current: 50A (250VAC).
 Life cycles at full load: 100,000



Options & information:

Rubber Boot Material: Silicon Rubber Color: B: black Y: yellow . NBR/PVC Polyblend Color: gray



SWITCHES FOR PCB



PUSHBUTTON switches
MICROSWITCH switches
DETECTOR switches
CODED switches
SLIDE switches
TACT switches
DIP switches

ENN110123

5-WAY switches
ROTARY switches
TILT switches
TOGGLE switches

SERIES

SDA	SDM	SFE	SKA	SKI
SMI	SSN	STM	STU	SUC
SUI	SUO	SVA	SVE	SVH
SVI				



ENVIRONMENTAL SPECIFICATIONS:

The “Water & dust” protection, mentioned in this catalog, is according to the “IP-Level” table that you can find in the last page of this catalog. ADR offer a different protection level for some of the items.



ELECTRICAL SPECIFICATIONS:

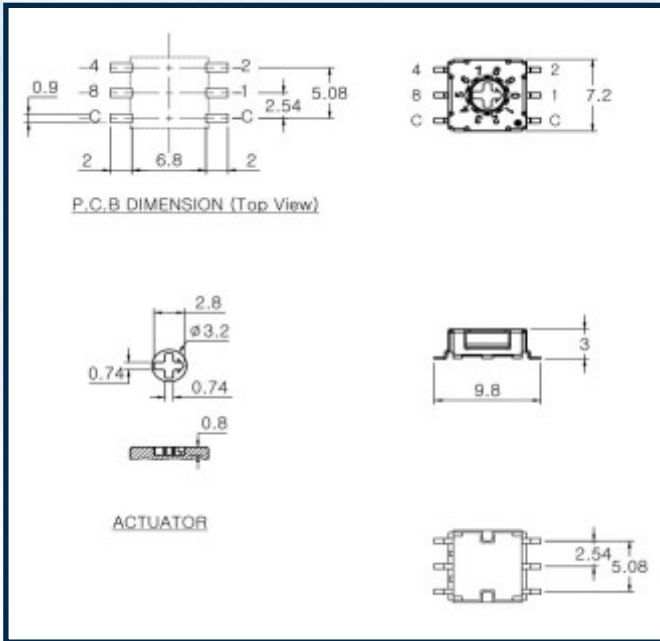
The electrical rating, mentioned in this catalog is for DC voltage. For AC voltage rating, you may contact our engineering department.



MECHANICAL SPECIFICATIONS:

All mechanical dimensions in this catalog are in “mm”, unless otherwise stated. “Operating cycle” means number of cycle under full load.

SMT ROTARY ENCODER



P/N: STU-2460-S000

MECHANICAL SPECIFICATIONS:

Number of positions: 10.
 Operation cycles: 25,000 steps min.
 Rotate force: 200gf Max.

ENVIRONMENTAL SPECIFICATIONS:

Water & dust protection: IP67
 Operating temperature range: -40/+85 °C.

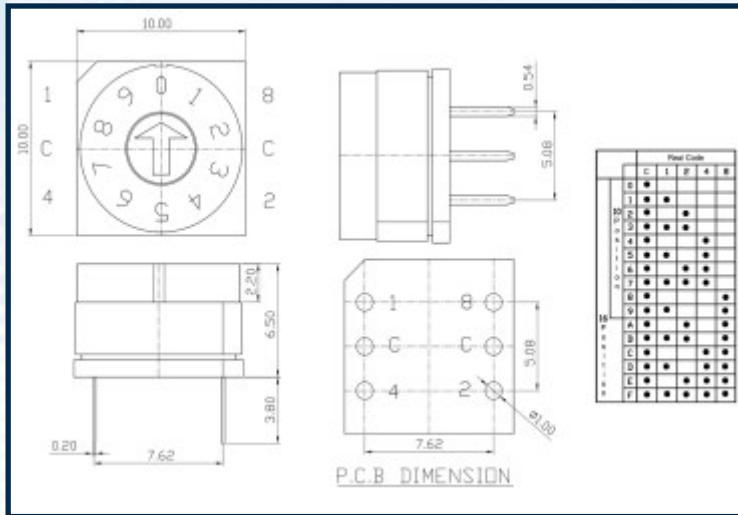
ELECTRICAL SPECIFICATIONS:

Code: Real-coded.
 Maximum rating: 100mA/5VDC.
 Contact Resistance : 100m Ohm Max.
 Dielectric strength: 250V AC(50Hz or 60Hz) for 1 minute.

Options & information:

“Tape & Reel” package.
 4 types of actuators available.
 Position options: 4, 10 & 16.
 Complement & Gray code are also available.

ROTARY ENCODER THROUGH-HOLE



P/N: STM-4550-S005

MECHANICAL SPECIFICATIONS:

Operating force: 0.7NCm

Operation cycles: 10,000 cycles min.

Number of positions: 10

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -45/+80 °C.

Relative humidity: 90—95%.

ELECTRICAL SPECIFICATIONS:

Contact form: Real code.

Maximum rating: 150mA/42V.

Contact resistance: 80m Ohm.

Dielectric strength: 250VAC (50Hz or 60Hz) for 1 minute.

Options & information:

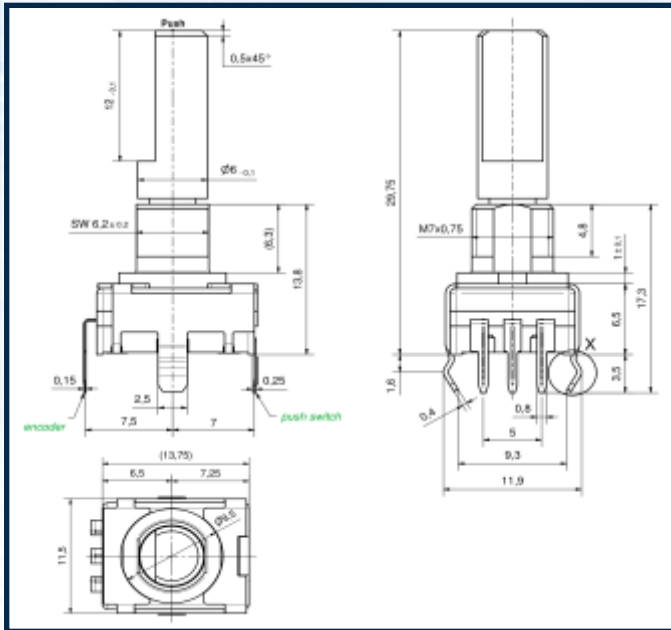
Terminals: TH-3X3, TH-3X2, SMT-3X3, SMT-3X2, RA TH-5.08, RA TH-2.54

Other codes: Complementary, Decimal, BCD, GRAY,

Positions: 4, 8, 6, 10, 16.

Package: Tube or Reel.

MINIATURE WATERPROOF ROTARY



P/N: STD-1670-S000

MECHANICAL SPECIFICATIONS:

Number of positions: 30.

Operation cycles: 100,000 cycles min.

Rotate force: 1.5 Ncm.

Push force: 6 Ncm

ENVIRONMENTAL SPECIFICATIONS:

Water & dust protection: IP65

Operating temperature range: -30/+80 °C.

ELECTRICAL SPECIFICATIONS:

Contact form: 2 Signals & Momentary push.

Maximum rating: 10mA/5VDC.

EMATERIALS SPECIFICATIONS:

Housing: Thermoplastic-UL-94-V0.

Shaft: Aluminum.

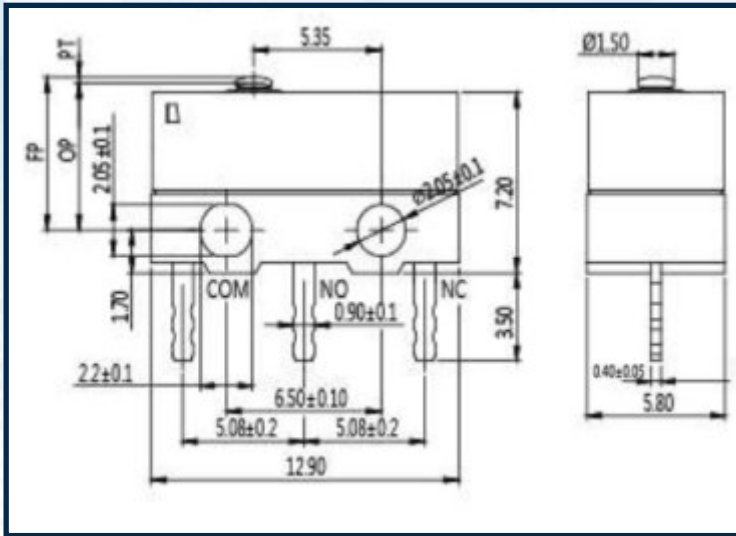
Options & information:

Nut, Gasket & Spring washer included.

4 types of shat available.

Position options: 15, 16 & 30.

IP-67 3A MICROSWITCH



P/N: SKI-7840-S000

MECHANICAL SPECIFICATIONS:

OP: 7.0 $\pm$ 0.2mm.

FP: 7.5mm.

OT: 0.2mm

Actuation force: 170gf

Electrical cycles: 10,000 cycles min.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -45/+85 °C.

Water & Dust protection: IP-67.

ELECTRICAL SPECIFICATIONS:

Maximum rating: 3A/24VDC.

Electrical function: Change-Over.

Contact resistance: 100m Ohm.

Insulation resistance: 100M Ohm (At 500V).

Options & information:

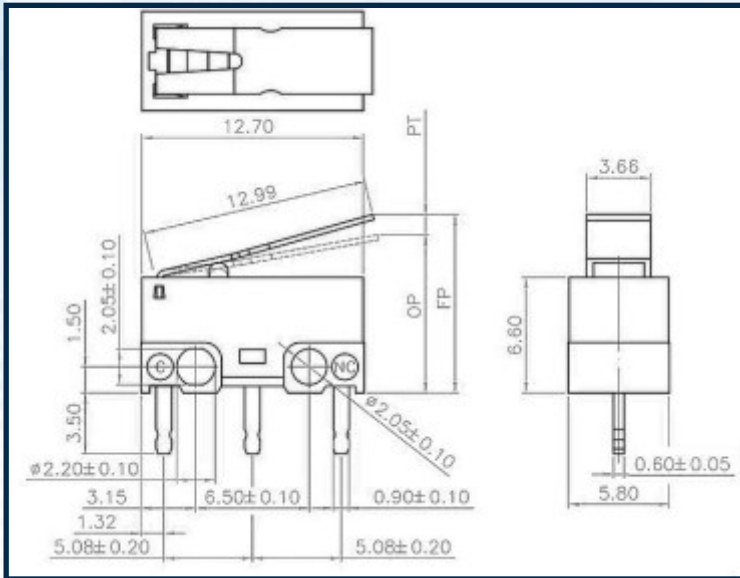
AC rating: 5A/250.

Terminals: Straight PC, RA Left/Right PC, Solder-Lug.

Actuators: With/Without lever. Straight or rounded levers, to determine the exact OP.

With/Without pillars

SPDT MICRO-SWITCH FOR PCB



P/N: SKI-7840-S000

MECHANICAL SPECIFICATIONS:

OP = 8.80mm

OF = 52gf Max.

Operation cycles: 1,000,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -40/+85 °C

Vibration resistance: 10-55Hz 0.75mm.

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x Change-Over.

Maximum rating: 0.1A/30VDC.

Contact resistance: 100m Ohm.

Dielectric strength: 1000VAC (50-60 Hz).

Options & information:

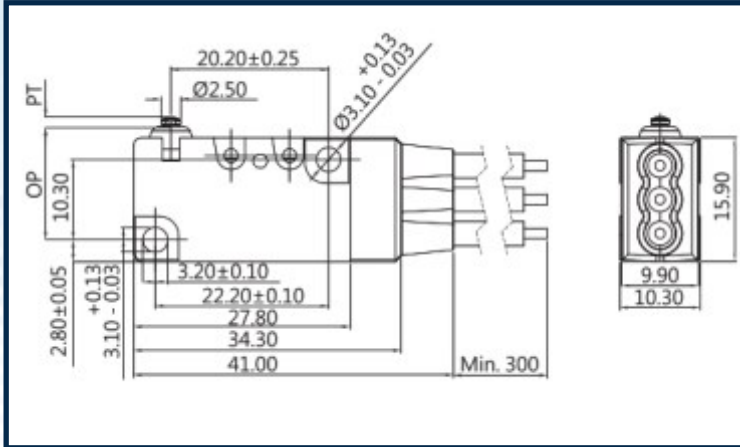
5,000 pcs. per box.

Suitable for bath soldering of Max. 260 °C for 5 seconds.

RA & Soldering-Lug terminals version is available.

Different lever types are available.

IP-67 10A/250V MICROSWITCH



P/N: SKI-7850-S000

MECHANICAL SPECIFICATIONS:

Wires: AWG-16,18,20,22,24,26 Depend on requested current. Length > 30cm.

Actuation force: Heavy/Standard/Light.

Electrical cycles: 10,000 cycles min.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -45/+85 °C.

Water & Dust protection: IP-67.

ELECTRICAL SPECIFICATIONS:

Maximum rating: 10A/250VAC , 5A/30VDC.

Electrical function: Change-Over.

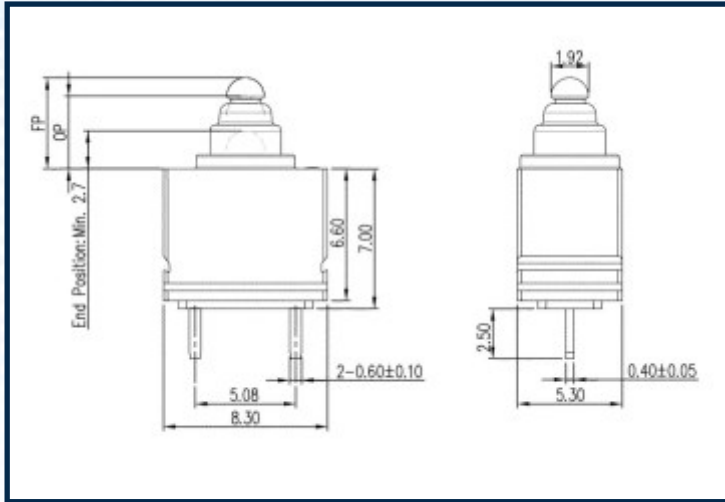
Options & information:

Lever can be fixed in 2 different positions (as shown in the drawing)

Actuators: With/Without lever. Straight, rounded and rolling levers.



IP-67 ULTRA SMALL MICROSWITCH



P/N: SKI-7834-S000

MECHANICAL SPECIFICATIONS:

OP: 7.1 +/-0.25mm.

FP: 7.7mm.

OT: 1.5mm

Actuation force: 122gf (without a lever)

Electrical cycles: 200,000 cycles min.

ELECTRICAL SPECIFICATIONS:

Maximum rating: 50mA/12VDC.

Electrical function: NO or NC.

Contact resistance: 500m Ohm Max.

Dielectric strength: 500VAC(50-60HZ) for 1 minute.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -45/+85 °C.

Water & Dust protection: IP-67.

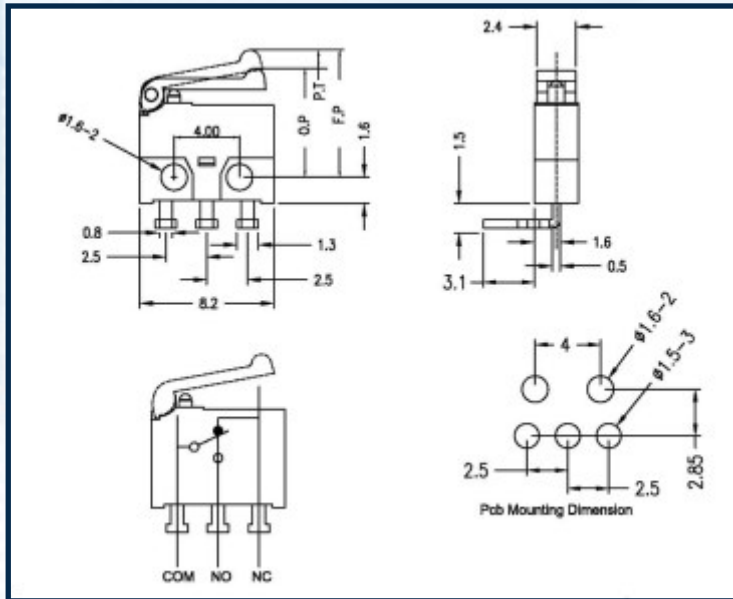
Options & information:

Terminals: Straight PC, RA Left/Right PC.

Actuators: With/Without lever. Straight or rounded levers, to determine the exact OP.

With/Without pillars.

MINIATURE RA MICRO-SWITCH



P/N: SKA-5710-S004

MECHANICAL SPECIFICATIONS:

OP = 6.70 +/-0.5mm

OF = 50gf Max.

Operation cycles: 300,000 cycles min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -25/+70 °C.

Relative humidity: 35~85%.

Vibration resistance: 10-55-10Hz for 1 minute.

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x Change Over

Maximum rating: 30VDC / 0.5A

Contact resistance: 100m Ohm.

Dielectric strength: AC 250 V (50Hz or 60Hz) for 1 minute.

MATERIALS:

Housing: PBT+15%Fib.

Terminals: Brass Ag-Plated.

Contact: Beryllium copper, Ag plated.

Lever & Button: POM.

Options & information:

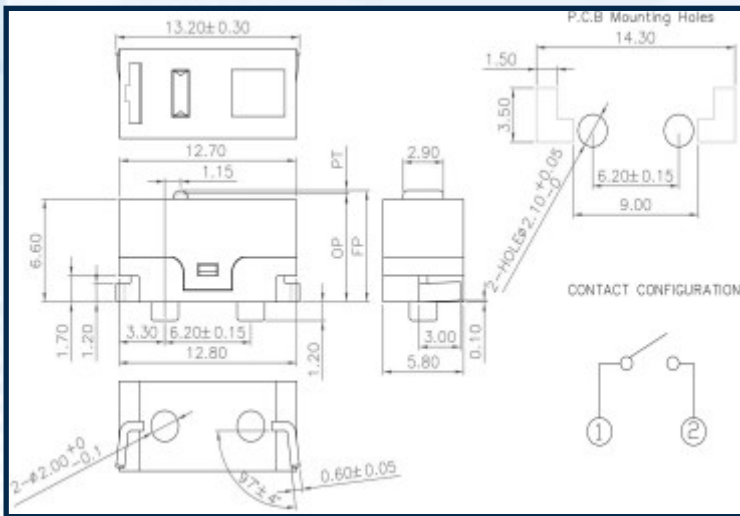
Terminals: straight, RA-Left, RA-Right.

SMT terminals—Optional.

10,000 pcs. per box.

Wave soldering: 260 +/- 5°C for 3 seconds.

MINIATURE SMT MICROSWITCH



P/N: SKI-7810-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 150gf.

FP: Max. 7.35mm.

OP: $7.0 \pm 0.2 \text{ mm}$.

Mechanical cycles: 1,000,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -40/+85 °C

Vibration test: 10~55Hz, displacement 0.75mm(p-p).

Shock test: Destruction: 1,000 m/s² {approx. 100G} max.

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x Normally Open

Maximum rating: 0.1A/30VDC.

Contact resistance: 100m Ohm.

Dielectric strength: 1000VAC(50-60HZ) for 1 minute.

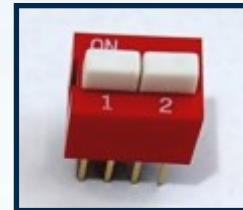
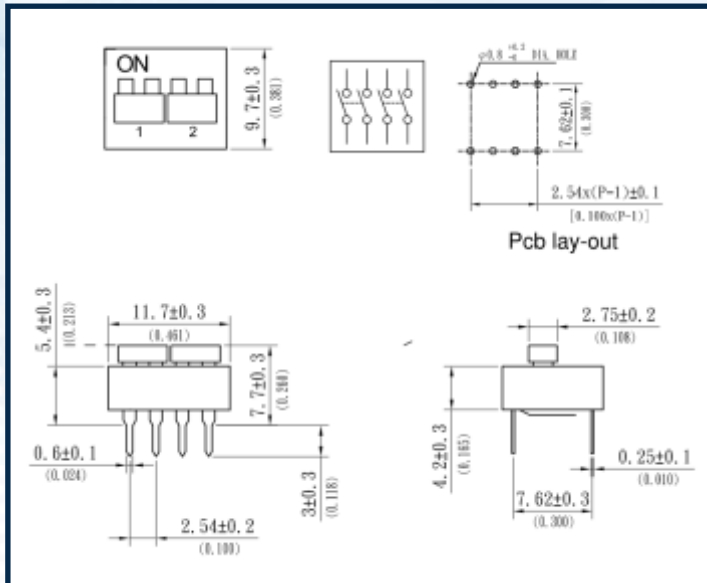
Options & information:

400 pcs. per reel.

Suitable for reflow process with a peak of Max. 260 °C for 10 seconds.

Actuation force can be reduced.

DPST DIP SWITCH



P/N: SUC-1210-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 800gf (for SPST).
Operating cycles: 2000 cycles min.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -40/+85 °C.
Humidity: 95% at 40 °C.

ELECTRICAL SPECIFICATIONS:

Electrical function: DPST
Maximum rating: 25 mA 24VDC.
Contact resistance: 50m Ohm.
Dielectric strength: 500 VDC for 1 minute.

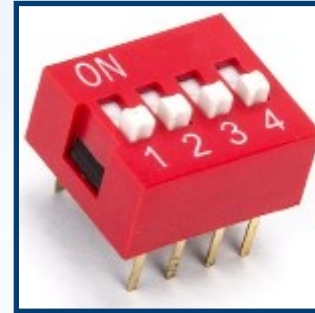
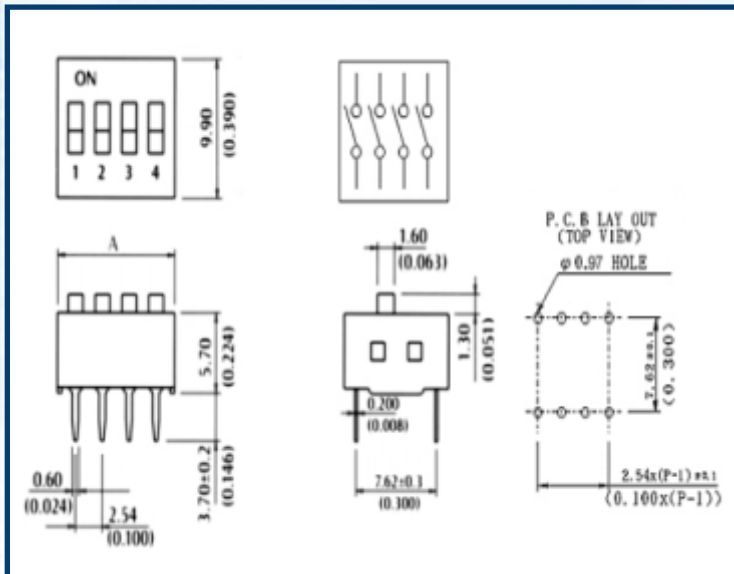
MATERIALS:

Housing: Plastic UL94V-0.
Contacts & Terminals: Gold or Tin plated.

Options & information:

Electrical function options: DPST, 3PST, 4PST.
Housing color: Red or Blue..
Tape sealed — Optional.

DIP SWITCH TH 2.54 PITCH



P/N: SUO-2420-S017

MECHANICAL SPECIFICATIONS:

Operating force: 200gf
Stroke: 2.00mm
Operation cycles: 2,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -20/+70 °C

ELECTRICAL SPECIFICATIONS:

Contact form: 4 x Normally Open.
Maximum rating: 25mA/24VDC.
Contact resistance: 50m Ohm.
Dielectric strength: 500V AC (50-60 Hz) for 1 minute.

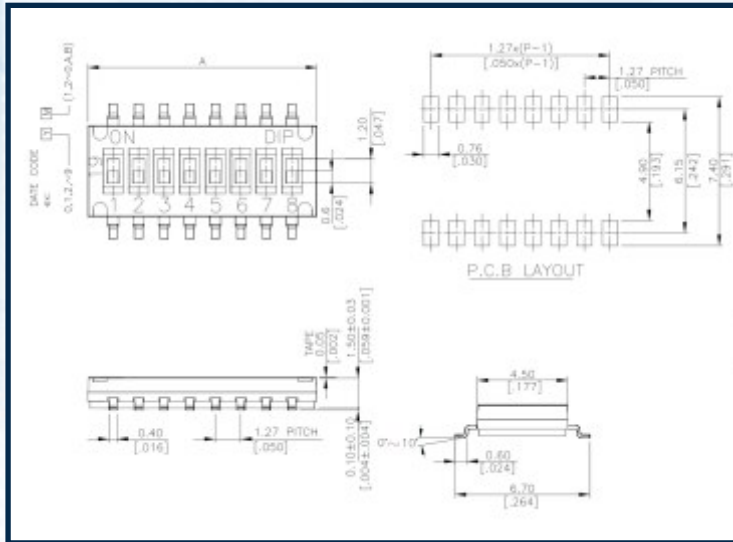
MATERIALS:

Base: Black PBT UL-94V0.
Terminals: Brass Ag plating.
Cover: Red PBT UL-94V0.
Lever: White PBT UL-94V0.

Options & information:

Number of contacts: 1-12.
Recessed actuator is available.
Suitable wave soldering process. Temperature of Max. 260 °C for 5 seconds.
Color: Red, Blue, Black.
Tube package.

HALF PITCH DIP SWITCH



P/N: SUI-1480-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 500 +/-50gf
 Travel: 0.6 +/-0.10mm
 Operation cycles: 1000 cycles min.
 H = 1.60mm

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -45/+80 °C

ELECTRICAL SPECIFICATIONS:

Contact form: 8 x Normally Open
 Maximum rating: 25mA/24VDC
 Contact resistance: 100m Ohm.
 Dielectric strength: 300VAC for 1 minute.

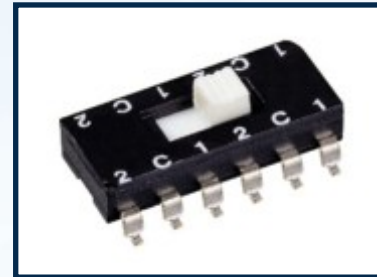
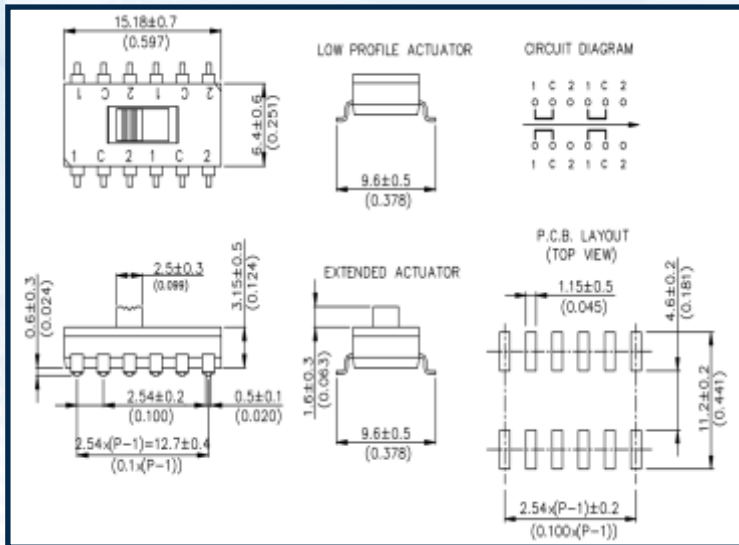
MATERIALS:

Base: Nylon Thermoplastic.
 Cover: Nylon Thermoplastic.
 Terminals: Brass Au plating.
 Contact: Alloy Copper, Gold plated.

Options & information:

2,4,6,8,10 Positions.
 Normally close contact form—Optional.
 Package: Tube or Reel.
 Reflow pick: > 255°C for 5 seconds.

SLIDE DIP SWITCH



P/N: SUC-1435-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 100gf (Min).
Operating cycles: 1000 cycles Min.
Low profile actuator.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -40/+85 °C.
Relative Humidity: 95%.

ELECTRICAL SPECIFICATIONS:

Contact form: N.O.
Maximum rating: 25mA/24VDC.
Contact resistance: 50m Ohm.
Dielectric strength: 500 VDC for 1 minute.

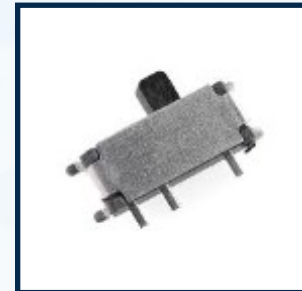
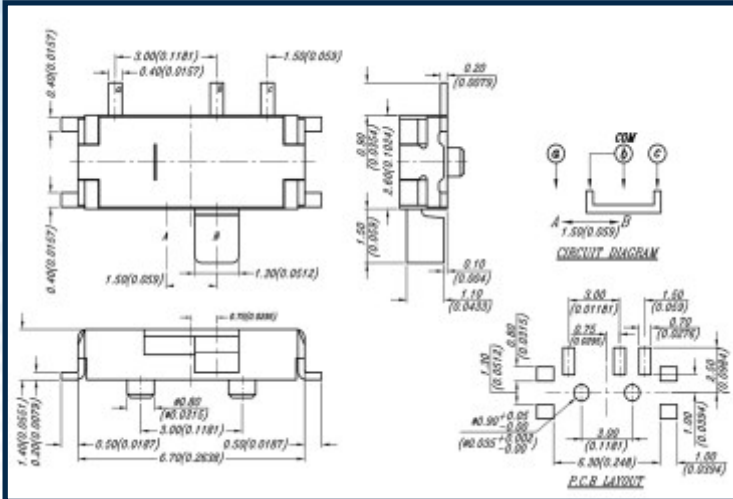
MATERIALS:

Housing: Plastic UL94V-0.
Contacts & Terminals: Gold or Tin plated.

Options & information:

Reflow soldering pick: 260 °C for 6 seconds (Max).
Through-Hole version available.
Low profile actuator provide with "Top tape".

SMT SLIDE SWITCH



P/N: SMI-1320-S000

MECHANICAL SPECIFICATIONS:

Operating Force: 200 +/-100gf.

Stop Strength: 1.0kgf (To "On"), 0.3kgf (To "Off").

Mechanical cycles: 10,000 min.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -20/+70 °C.

Vibration: In accordance with Method 201A of MIL-STD-202F.

Shock: In accordance with Method 213B condition A of MIL-STD-202F.

ELECTRICAL SPECIFICATIONS:

Electrical function: SPDT.

Power rating: 25mA/24VDC.

Contact resistance: 70m Ohm.

Insulation Resistance: 100M Ohm.

Options & information:

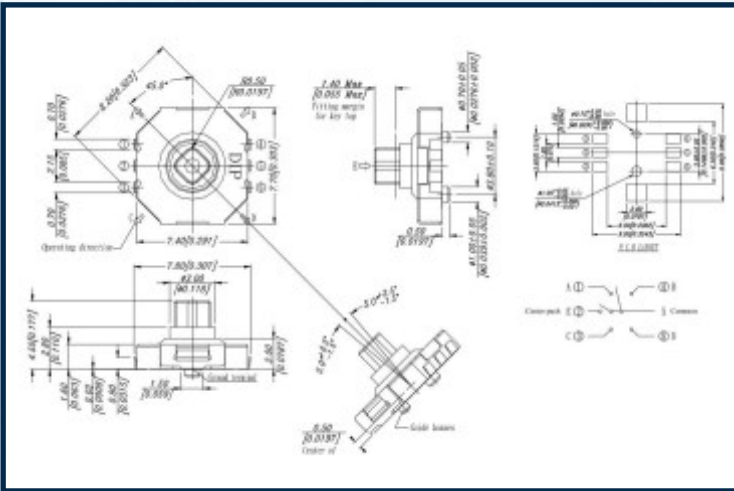
Electrical functions: SPDT & SP3T. (DPDT & SP4T—Optional).

Momentary function—optional.

Vertical lever—optional.

Package: Bag, Tube or Reel.

5-WAY PCB SWITCH



P/N: SVI-1430-S000

MECHANICAL SPECIFICATIONS:

Operation force: 4 directions-160gf, Center-320gf.

Stroke direction: 5° each side.

Operating cycles: 200,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+85 °C.

ELECTRICAL SPECIFICATIONS:

Contact form: 4 directions (N.O.) + push.

Maximum rating: 50mA/12VDC.

Contact resistance: 100m Ohm.

Dielectric strength: 25VAC for 1 minute.

MATERIALS:

Actuator: High-Temp Thermoplastic.

Cover: Silver, Nickel plated.

Contacts: Stainless with silver cladding.

Terminals: Brass, silver plated.

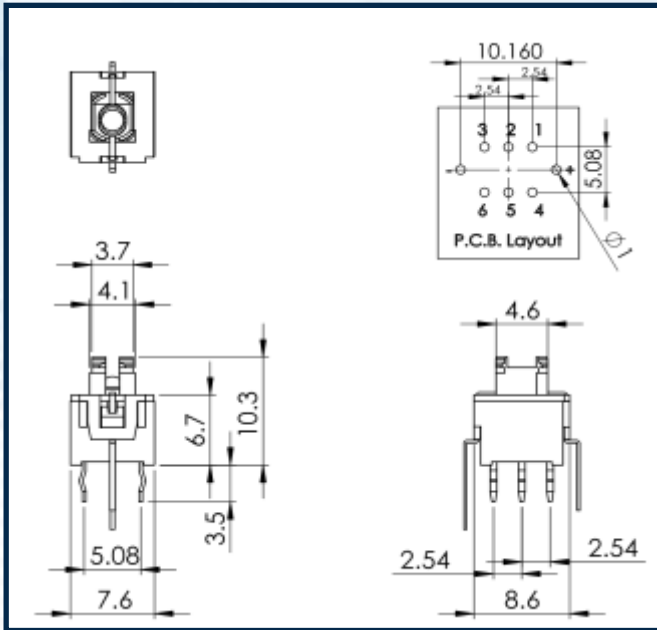
Options & information:

Reflow soldering pick: 250 °C for 5 seconds.

4-WAY (without push) - Optional.

“J-Band” or “Gull Wing” terminals.

ALTERNATE ILLUMINATED TACT



P/N: SVH-2355-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 250 +/-100gf

Travel: 1.50 +/-0.50mm

Operation cycles: 10,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -10/+70 °C

ELECTRICAL SPECIFICATIONS:

Contact form: 2 x Change-Over

Maximum rating: 100mA/30VDC.

Contact resistance: 50m Ohm.

Insulation resistance: 100M Ohm Min.

Led color: White.

MATERIALS:

Base: PA.

Terminals: Phosphor Bronze, Ag over Nickel plating.

Contact: Phosphor Bronze.

Spring: Piano wire.

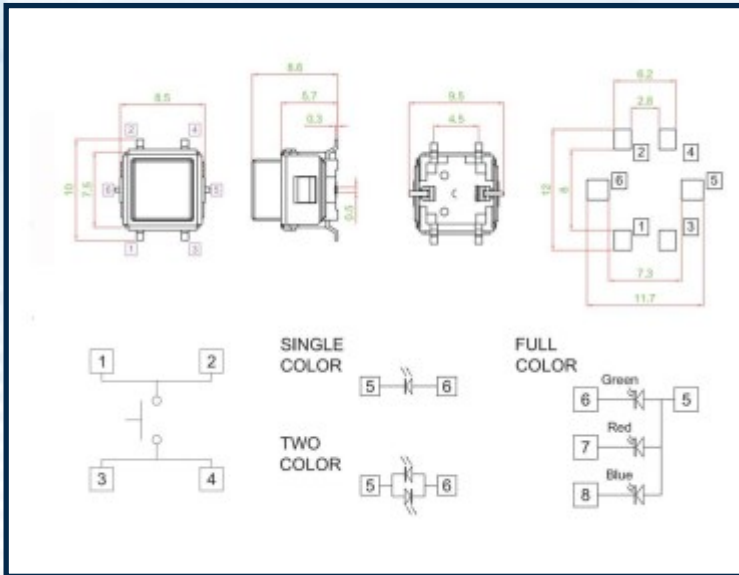
Options & information:

LED colors: Red, Yellow, Green, Blue, White.

4 different cap styles.

Momentary action (instead of alternate).

RGB LIGHTED SMT TACT-SWITCH



P/N: SFE-8520-S000

MECHANICAL SPECIFICATIONS:

Operating force: 300gf +/- 100

Travel: 0.4 +/- 0.1mm

Operation cycles: 500,000 cycles min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -45/+80 °C.

Water & dust protection: IP-67

ELECTRICAL SPECIFICATIONS:

Contact form: SPST.

Maximum rating: 12V/50mA.

Contact resistance: 100m Ohm.

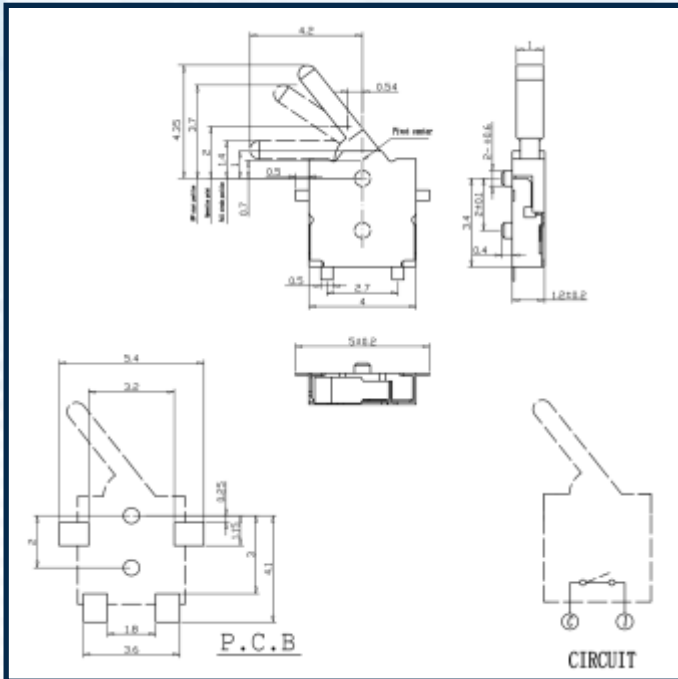
Dielectric strength: 500VAC for 1 minute.

Options & information:

LED colors: Blue, White, Green, Red, Yellow, Bicolor, RGB.

Terminal types: SMT or TH.

HORIZONTAL N.C DETECTOR SWITCH



P/N: SVE-4730-S029

MECHANICAL SPECIFICATIONS:

Actuation force: 20 +/-10gf

Operation cycles: 50,000 cycles Min.

Static strength: 3N for 1 minute.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -10/+60 °C.

Relative humidity: 90%.

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x Normally Close.

Maximum rating: 10mA/5VDC.

Contact resistance: 500m Ohm.

Dielectric strength: 100V AC (50-60 Hz) for 1 minute.

MATERIALS:

Button: PPA (Black).

Cover: SUS.

Terminals & Contacts: Phosphor Bronze, Ag plating.

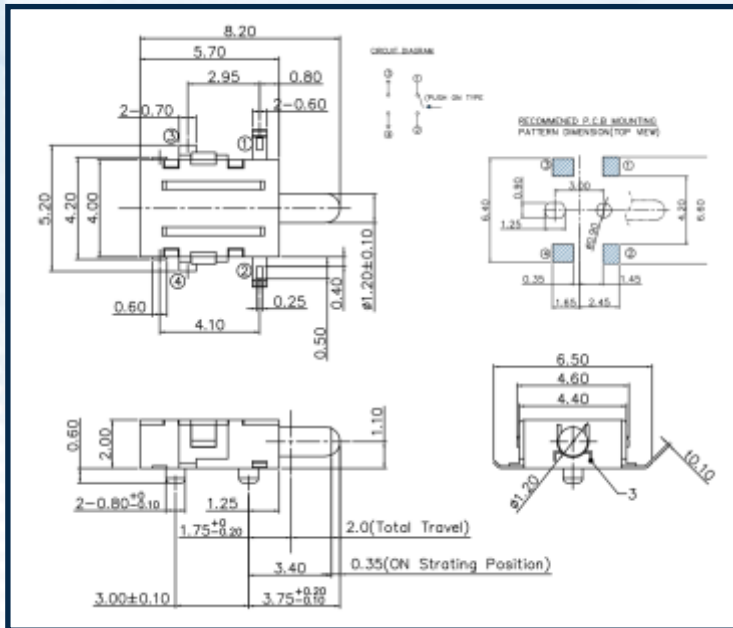
Housing: LCP.

Options & information:

Tape & Reel package.

General tolerance: +/-0.1mm for <6.00mm, +/-0/2 for <30mm.

RA SMT DETECTOR SWITCH



P/N: SDA-8375-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 50gf.

Operation cycles: 50,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -20/+70 °C

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x Normally Open

Maximum rating: 100mA/12VDC.

Contact resistance: 80m Ohm.

Insulation resistance: 100M Ohm Min.

MATERIALS:

Actuator: PA6T.

Cover: Phosphor Bronze, Ag plate.

Terminals: Phosphor Bronze, Ag over Nickel plating.

Contact: SUS Ag plating.

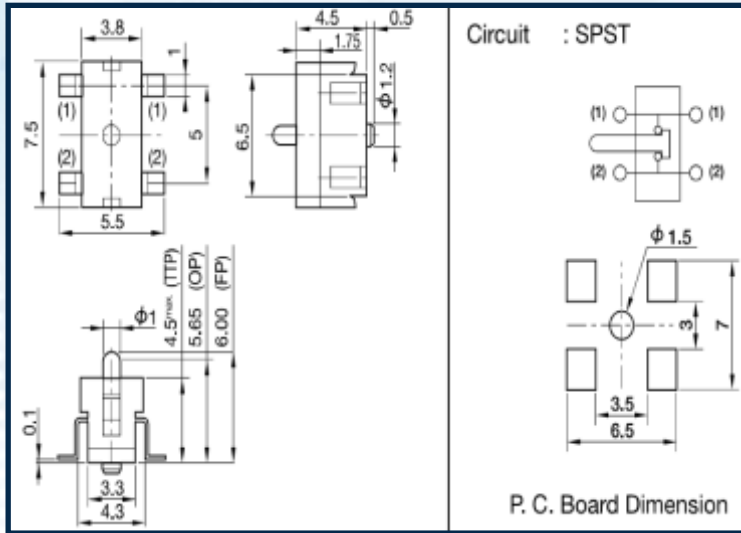
Base: : PA46

Options & information:

Tape & Reel package.

Different LCP color— Optional.

SMT NORMALLY-CLOSE DETECTOR



P/N: SDM-9235-S074

MECHANICAL SPECIFICATIONS:

Function: Momentary NC.

Operating force: 0.25 $\pm$ 0.15N

Operation cycles: 100,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -10/+70 °C.

ELECTRICAL SPECIFICATIONS:

Contact form: SPST.

Maximum rating: 5mA/5VDC.

Contact resistance: 300m Ohm.

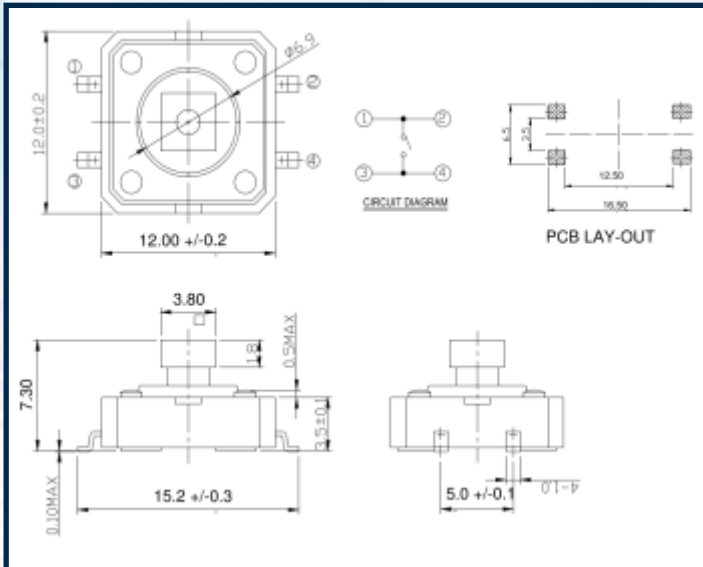
Insulation resistance: 100M Ω min.

Options & information:

Terminal types: SMT or TH.

Package: Tape & Reel, Bulk.

12X12mm SMT TACT SWITCH



P/N: SVE-4505-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 160 +/-30gf.
Travel: 0.35 +/-0.1mm.
Operation cycles: 100,000 Min.
Package: Tape & Reel.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -20/+70 °C.
Humidity: 45~85% RH.

ELECTRICAL SPECIFICATIONS:

Rating: 50mA/12VDC
Insulation resistance: > 100M Ohm.
Contact resistance: 100m Ohm.
Dielectric strength: AC 250 V (50Hz or 60Hz) for 1 minute..

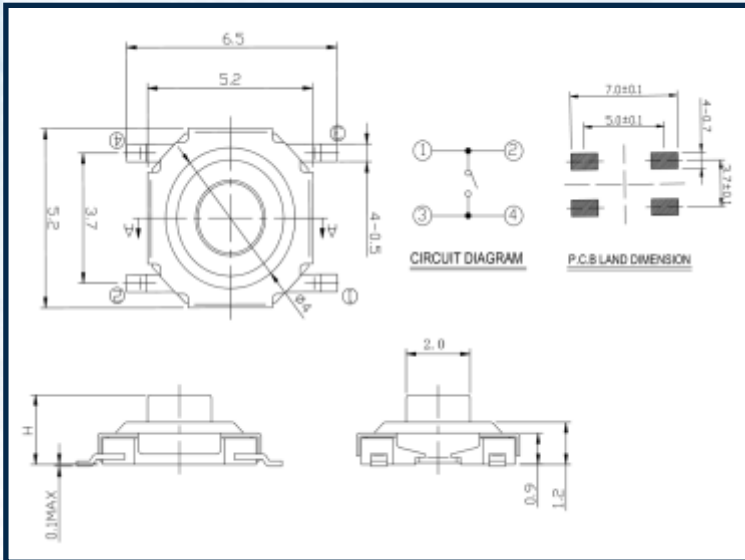
MATERIALS:

Contacts: Phosphor Bronze.
Base & stem: PA6T
Terminals: Brass Ag plating

Options & information:

Reflow soldering pick: 260 °C for 3 seconds.
Cap shapes: Round & Square.
Different actuator shape—Optional.
Through-Hole version—Optional.

4X4 METAL TACT SWITCH



P/N: SVE-4730-S029

MECHANICAL SPECIFICATIONS:

Actuation force: 250 +/-50gf

Travel: 0.25 +/-0.10mm

Operation cycles: 100,000 cycles Min.

H = 1.50mm

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -20/+70 °C

Salt Spray Test: 5% NaCl for 48 hours

Shock Resistance: 80g in 6 directions.

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x Normally Open

Maximum rating: 50mA/12VDC.

Contact resistance: 100m Ohm.

Dielectric strength: 250V AC (50-60 Hz) for 10mS.

MATERIALS:

Base: LCP (Black).

Terminals: Brass Ag plating.

Contact: SUS Ag plating.

Cover: SUS.

Steam: Brass (Yellow).

Options & information:

4,000 pcs. per reel.

Suitable for reflow process with a peak of Max. 260 °C for 3 seconds.

Different stem colors are available.

J-band terminals is available (instead of Gull-Wing).



P/N: SVI-2352-S006

Actuation force: 250 +/-50gf
Travel: 0.13 +/-0.05mm
Operation cycles: 200,000 cycles min.
H = 1.70mm

Operating temperature range: -30/+85 °C

Vibration resistance: 10-55-10Hz in for 2 hours.

Shock Resistance: 80g in 6 directions.

Contact form: 1 x Normally Open

Maximum rating: 50mA/12VDC.

Contact resistance: 100m Ohm.

Dielectric strength: 250V AC (50-60 Hz) for 10mS.

Base: LCP .
Terminals: Phosphor Bronze Ag plating.
Contact: SUS Ag plating.
Cover: SUS.
Steam: LCP.

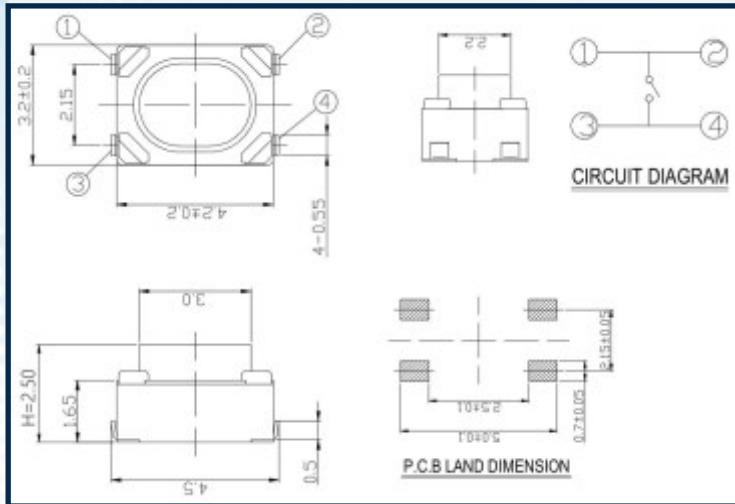
4,000 pcs. per reel.

Suitable for reflow process with a peak of Max. 260 °C for 3 seconds.

Different stem colors are available.

J-band terminals is available (instead of Gull-Wing).

ULTRA MINIATURE TACT SWITCH



P/N: SVE-4620-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 400gf +/-50

Travel: 0.20mm +/-0.10

Operation cycles: 100,000 cycles min.

Package: Tape & Reel.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -20/+70 °C

Relative humidity: 90%.

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x Normally Open

Maximum rating: 12V / 50mA

Contact resistance: 100m Ohm.

Dielectric strength: 250V AC (50-60 Hz) for 10mS.

MATERIALS:

Base: LCP (White).

Terminals: Phosphor Bronze Ag plating.

Contact: SUS Ag plating.

Cover: Brass XT plating.

Steam: Brass (Yellow)

Options & information:

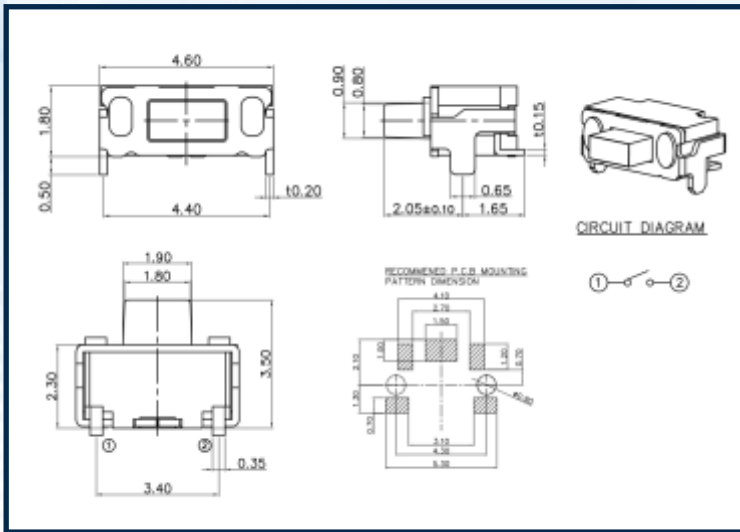
Tape & Reel package, 4000 pcs. per reel.

Reflow peak: Max. 260 °C for 3 seconds.

Different stem colors are available.

Available also with a actuating force of 180 & 250gf.

RA SMT TACT SWITCH



P/N: SVA-8322-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 160 +/-50gf

Travel: 0.20 +/-0.10mm

Operation cycles: 100,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -20/+70 °C

Salt Spray Test: 5% Nacl for 48 hours.

Shock Resistance: 80g.

ELECTRICAL SPECIFICATIONS:

Contact form: 1 x Normally Open

Maximum rating: 50mA/12VDC.

Contact resistance: 100m Ohm.

Insulation resistance: 100M Ohm Min.

MATERIALS:

Base: LCP (White).

Terminals: Phosphor Bronze, Ag over Nickel plating.

Contact: SUS Ag plating.

Cover: Phosphor Bronze, Ag plate.

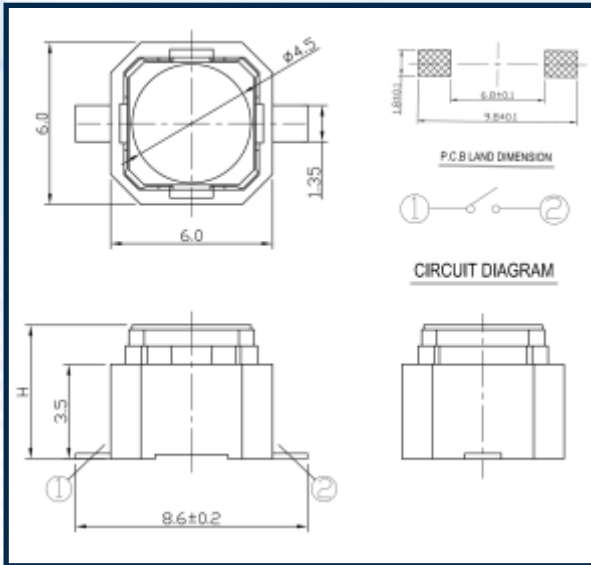
Steam: LCP (Black).

Options & information:

Tape & Reel package.

Different LCP color— Optional.

LONG TRAVEL SMT TACTILE PB



P/N: SVE-4344-S000

MECHANICAL SPECIFICATIONS:

"H" dimension: 5.0mm +/-0.2mm.

Travel: 1.3 +/-0.10mm.

Actuation force: 250 +/-50gf.

Operation cycles: 100,000 cycles Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -20/+70 °C.

Relative humidity: 90%

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ELECTRICAL SPECIFICATIONS:

Maximum rating: 50mA/12VDC

Contact resistance: 100m Ohm.

Insulation resistance: 100M Ohm Min.

Dielectric strength: AC 250 V (50Hz or 60Hz) for 1 minute.

MATERIALS:

Cover: LCP

Base: LCP

Contacts: Phosphor Bronze, Ag plated.

Terminals: Brass, Ag plated.

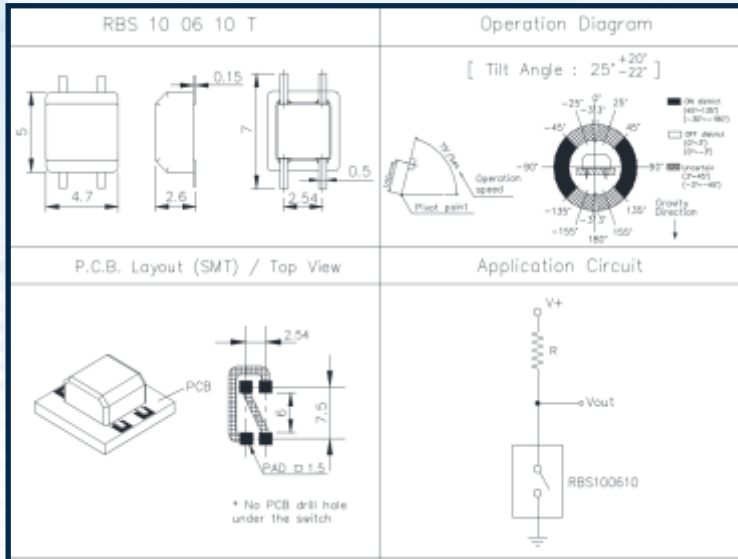
Options & information:

Reflow soldering pick: 260°C for 3 seconds.

Tape & Reel package.

Other terminal's shape & length—Optional.

MINI SMT TILT SWITCH



P/N: SSN-6360-S000

MECHANICAL SPECIFICATIONS:

Function: Tilt Detecting for 4 Directions in horizontal position.

Travel: 25°

Operation cycles: 100,000 cycles min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: $-25/+85^{\circ}\text{C}$.

Relative Humidity: $40^{\circ}\text{C} / 95\%$.

ELECTRICAL SPECIFICATIONS:

Maximum rating: 5V / 10mA.

Minimum rating: 3V / 1mA.

Contact resistance: 50m Ohm.

Dielectric strength: 50VDC for 1 minute.

Options & information:

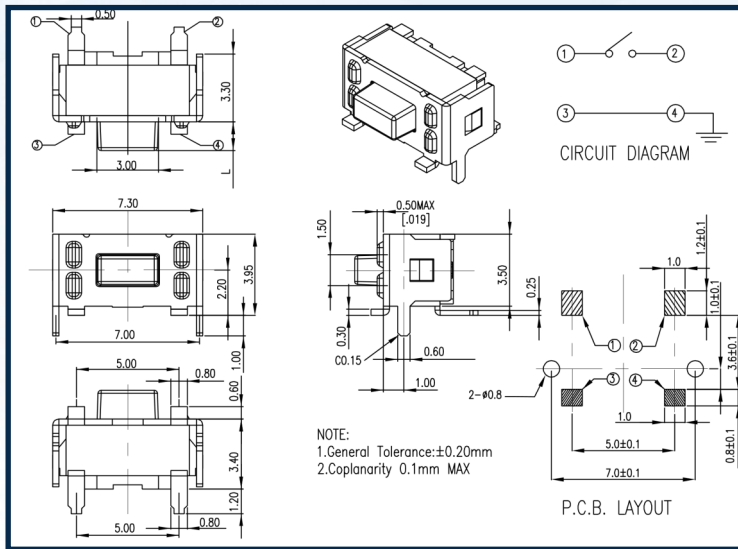
Tilt options: Single, dual or omni direction.

Contacts: NO or NC.

Terminals: SMT or TH.

Detecting angle options: between 5° - 45° .

SMT RA TACT SWITCH



P/N: SVI-1448-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 260gf.

TRAVEL: 0.25mm

Operating cycles: 50,000 cycles min.

"L" = 1.4mm

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+70 °C.

Vibration: accordance with Method 201A of MIL-STD-202F.

ELECTRICAL SPECIFICATIONS:

Electrical function: SPST

Maximum rating: 50mA/12VDC.

Contact resistance: 100m Ohm.

Dielectric strength: 250 V AC(50Hz or 60Hz) for 1 minute.

MATERIALS:

Housing: PA 9T UL94V-0.

Contacts Stainless-Steel, Silver plated.

Terminals: brass, Silver plated.

Options & information:

Package: Tape & Reel (900 pcs.)

Stem color: Red.

Reflow soldering pick: 255-260°C for 5-10 sec.

INPUT DEVICES



KEY-BOARD
JOYSTICK
TRACKBALL
FINGERPRINT READER
TOUCH-PAD
TOUCH SCREEN
MOUSE

ENN110123

SERIES

SCE	SFH	SJA	SJE	SJQ
SYD	SYI	SYR	SYT	



ENVIRONMENTAL SPECIFICATIONS:

The “Water & dust” protection, mentioned in this catalog, is according to the “IP-Level” table that you can find in the last page of this catalog. ADR offer a different protection level for some of the items.



ELECTRICAL SPECIFICATIONS:

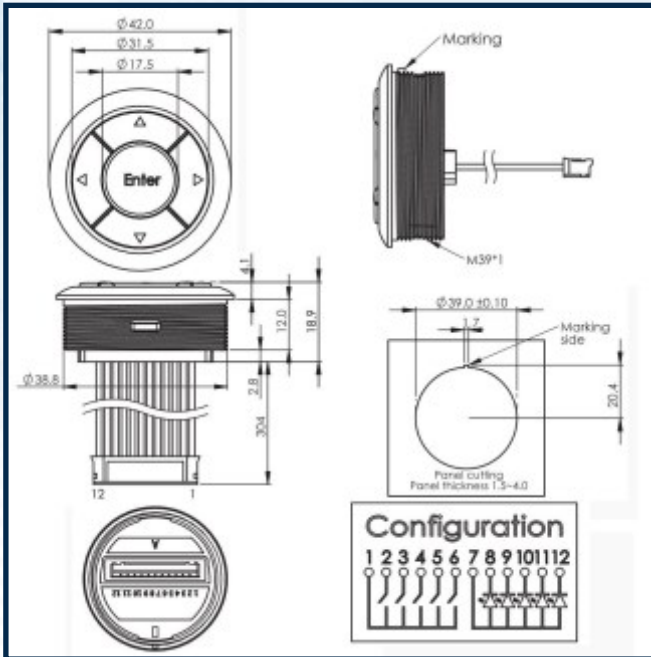
The electrical rating, mentioned in this catalog is for DC voltage.
For AC voltage rating ,
you may contact our engineering department.



MECHANICAL SPECIFICATIONS:

All mechanical dimensions in this catalog are in “mm”, unless otherwise stated.
“Operating cycle” means number of cycle under full load.

5-WAY ILLUMINATED NAVIGATOR



P/N: SFH-2340-S000

MECHANICAL SPECIFICATIONS:

Actuation force: 400gf +/- 100gf.

Travel: 0.50mm +/-0.30

Operation cycles: 200,000 cycles min.

Panel thickness: 1.5-4.00mm.

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: -25/+60 °C.

Water & Dust protection: IP-65.

ELECTRICAL SPECIFICATIONS:

Contact form: SP5T

Maximum rating: 50mA/12VDC

Contact resistance: 1.00 Ohm.

Dielectric strength: 250V AC (50-60 Hz) for 1 minute.

MATERIALS:

Housing: Aluminum.

Cap: PC.

Washer: NBR.

LED color: Yellow.

Options & information:

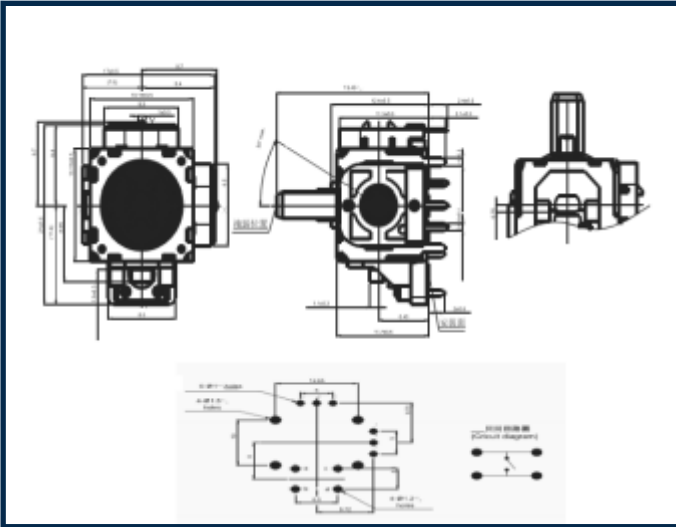
Relevant connector: JST SPH-002T-P0.5S or similar.

Metal nut & NBR washer are included.

Other led colors—Optional.

Special marking—Optional.

MINIATURE JOYSTICK - PCB ASSEMBLY



P/N: SJA-3275-S000

MECHANICAL SPECIFICATIONS:

Accuracy of Rest Position: $\pm 3^\circ$
 Operating Angle of Lever: 26° Max.
 Shape of lever operation: Circular.
 Operation force: $12 \pm 5\text{mN.m}$
 Life cycles: 1,000,000

ELECTRICAL SPECIFICATIONS:

Full resistance: $10\text{K}\Omega$
 Resistance tolerance: $\pm 20\%$.
 Resistance shape: Linear.
 Max. Operating Voltage: 5.0VDC .
 Electrical angle code: 60° .

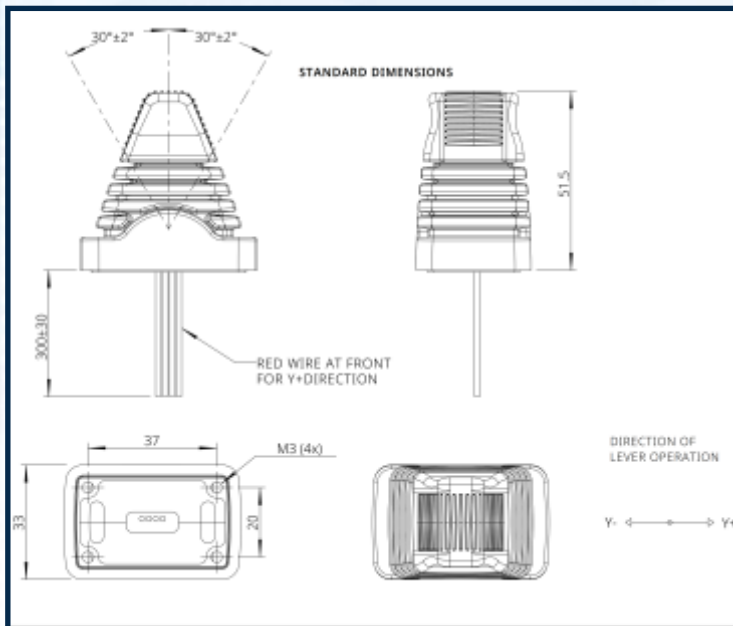
Options & information:

Additional Momentary pushbutton—Optional.
 Electrical angle code: 60° or 50° .

ENVIRONMENTAL SPECIFICATIONS:

Temperature range: $-10/+70^\circ\text{C}$.

IP67 1-EXIS JOYSTICK



P/N: SJE-1510-S000

MECHANICAL SPECIFICATIONS:

SJE-1510-S000

operating angle: 200N Max

Life cycle: 5,000,000

ESD: ±8kV (contact discharge), ±15kV (air discharge).

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -40/+85 °C.

Water & dust protection: IP67

EMC: 100V/m

ELECTRICAL SPECIFICATIONS:

Sensing type: Hall-effect

Applied voltage: 5VDC ±10%

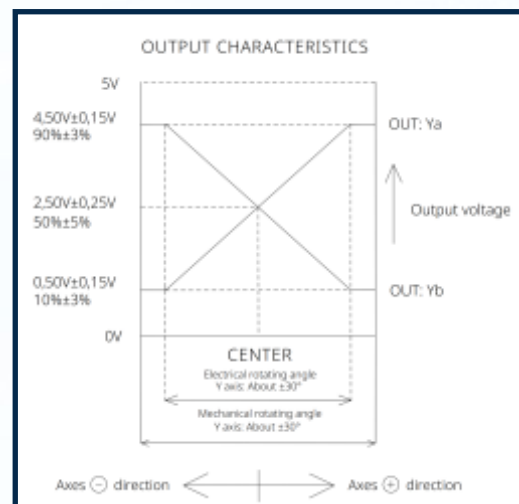
Current consumption: 17mA–22mA

Effective output: 10%–90% Vin, other ratios on request.

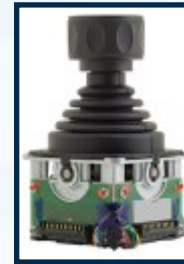
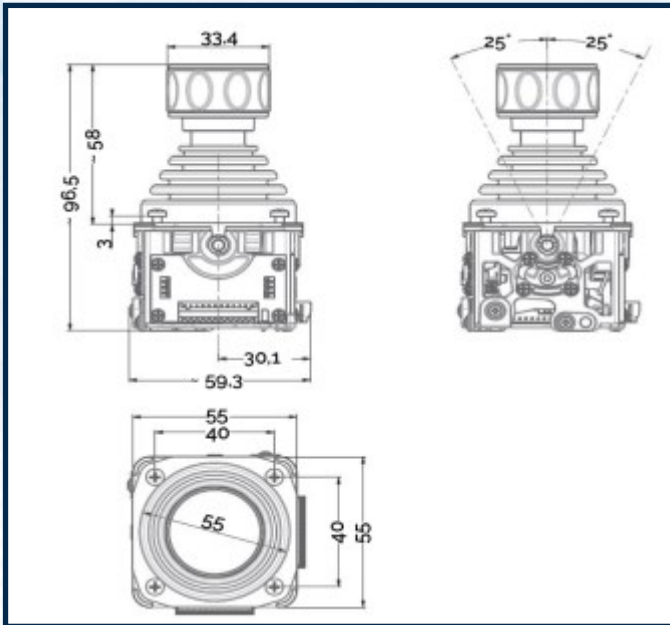
Options & information:

Different cover colors.

Flying leads length can be up to 200cm.



3-AXIS JOYSTICK



P/N: SJC-2770-S000

MECHANICAL SPECIFICATIONS:

Detent angle: xy axes—25°, z axes—30°
 Lever breakouts torque/force xy axes: minimum 0,14 Nm / > 2 N
 Lever operating torque/force xy axes: maximum 0,35 Nm / > 6 N
 Maximum allowable torque xy axes: 1,5 Nm
 Maximum allowable force xy axes: 200 N
 Detent 3 stps: Zero-0°, Stps1 ±7.2°, Stps2 ±14.4° Steps3 ± 21.6°

ELECTRICAL SPECIFICATIONS:

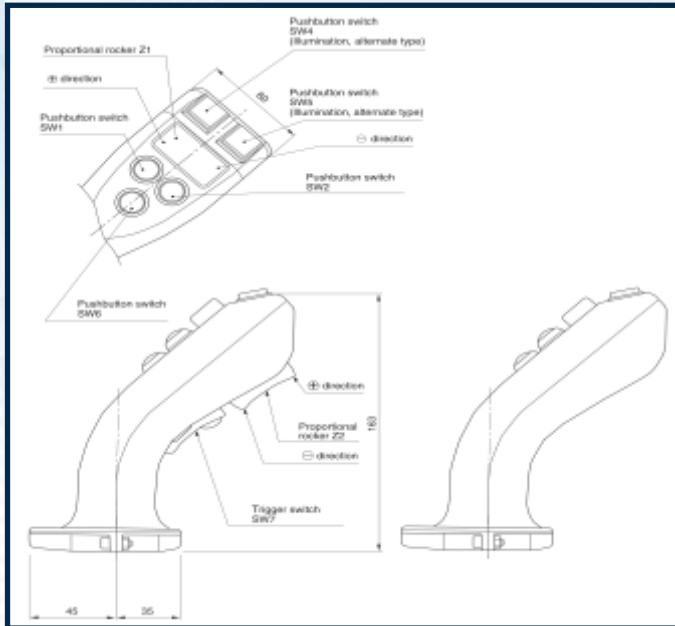
Total track resistance for axis: 5 kΩ ±20%
 Linearity (wiper open circuit): ± 2%
 Electrical range: ± 23° (100% output)
 Center tap position: 48-52%
 Maximum voltage: 30 Vdc
 Maximum wiper current: 3 mA

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -40 °C ÷ +70 °C..
 Storage temperature: -40 °C ÷ +85 °C.
 Sinusoidal vibration: 4 g 200-500 Hz.
 Shock: 25 g 6 ms 1000 bumps.
 Broad-band vibration: 1-3 m²/s³ 10-200 Hz.
 Protection degree: IP66.

Options & information: Friction (position hold), Color knob or panel, Coulisse type.

FULL-SIZE WATERPROOF GRIP



P/N: SJE-1610-S000

TRIGGER SWITCH:

Operation cycles: Min. 1,000,000

Power rating: 100 mA/30VDC

PROPORTIONA ROCKER:

Sensor technology: Potentiometer

Mechanical travel: $\sim \pm 17^\circ$ from center

Resistance value: $10\text{ k}\Omega \pm 15\%$

Independent linearity tolerance: $\pm 3\%$

PUSHBUTTONS:

Mechanical cycles: Min. 1,000,000 (Momentary).

Mechanical cycles: Min. 200,000 (Illuminated Alternate).

Power rating: 100 mA/50VDC (Momentary).

Power rating: 5A/30VDC (Illuminated Alternate).

PROPORTIONA ROCKER (OPTIONAL):

Sensor technology: Hall effect

Mechanical travel: $\sim \pm 17^\circ$ from center

Current consumption: $\sim 0.7\text{ mA}$ per output

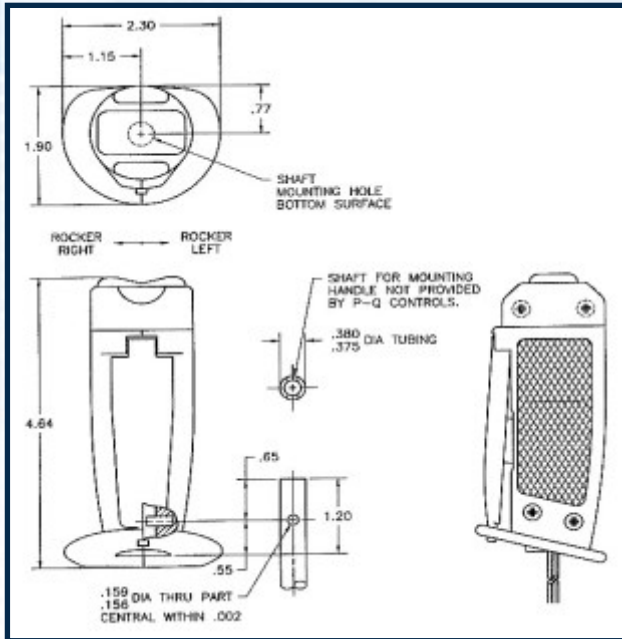
EMC: 100 V/m.

Options & information:

Other types of switches—on request.

This grip can be mounted on specific joysticks.

ALUMINUM "SHOOTER" GRIP



P/N: SJQ-5410-S000

GENERAL SPECIFICATIONS:

Case material: Aluminum

Button & handle function: Momentary.

Resistant to Weather and Corrosion.

Suitable for many kind of Joysticks.

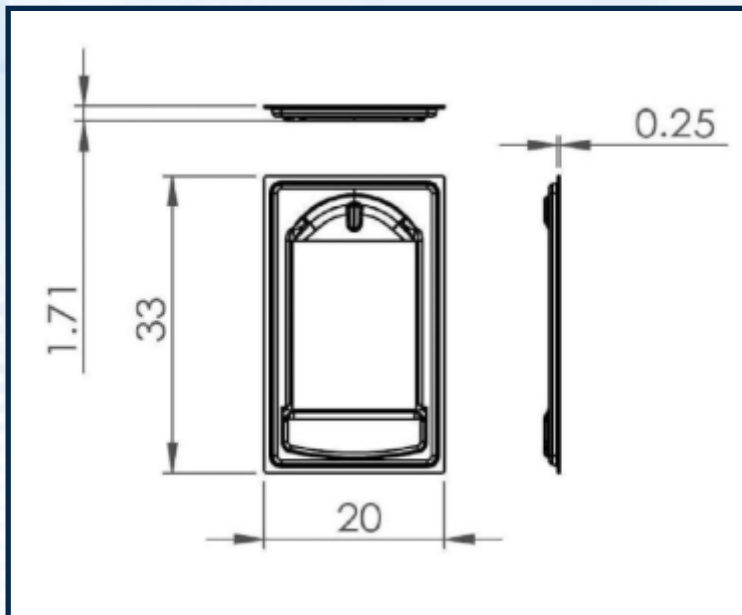
Options & information:

3 buttons on a grip, in a different colors.

Glass reinforced nylon case (instead of aluminum).

A complete product of a grip and a joystick assembled is available.



FINGER PRINT READER**P/N: SYT-5276-S000****SPECIFICATIONS:**

Technology: Capacitive.

Resolution: 508 dpi.

Scanning Speed: 30 FPS.

Interface: UART/ TTL.

OS: Windows® 7 & above.

Gray level: 8 bits/pixel, max 256 gray scales.

Verification speed: 1:1, 80ms / 1:N 250ms.

Electrical rating: 60mA/3VDC (Matching).

Operating Temperature: -20/+80 °C.

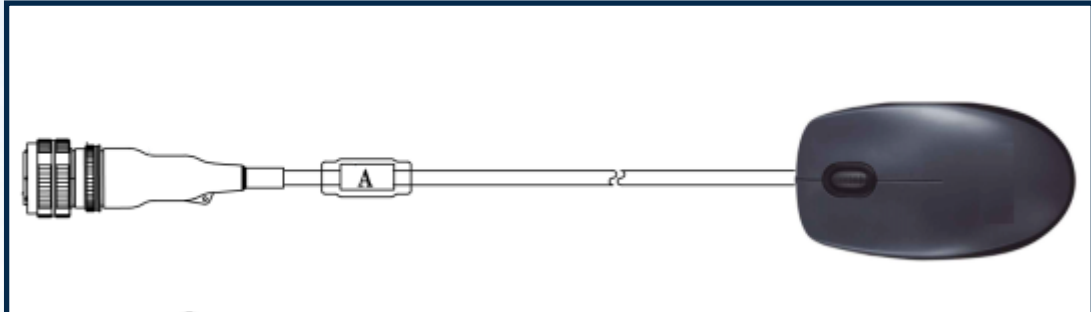
FRR: 1/100. FAR: 1/100,000

Template Capacity: 1,000

Options & information:

USB Interface—Optional.

MOUSE FOR HARSH ENVIRONMENT



P/N: SYD-4315-S000

SPECIFICATIONS:

Tracking Method: Optical Sensor.

Resolution: 1000 dpi.

Buttons: 4 buttons (Right, and Left Mouse Click, Magnetic Scroll Wheel and Middle Button).

Switch Lifecycle: 3,000,000 Min.

Electrical rating: 0.5A/5VDC Max.

OS: Windows® 7 & above, Mac® OS X 10.6.

Scroll Wheel color: Yellow.

Interface: D38999/26WB35PN Connector.

Cable Length: 175cm +/-10cm

Mouse dimension: 115 x 62 x 36 mm.

Mouse weight: 90gr.

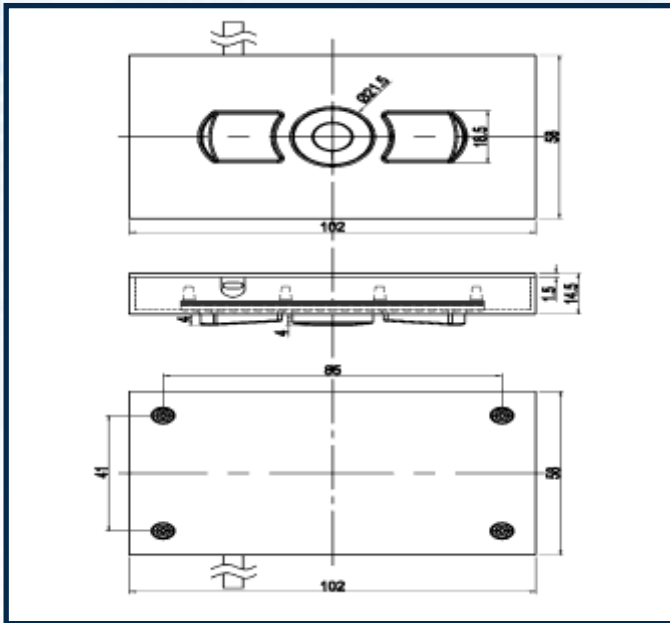
Options & information:

The mouse housing has a waterproof design and it made of antimicrobial material.

Interface can be changed upon request.

Other colors of the housing & scroll wheel—Optional.

INDUSTRIAL IP-67 MOUSE



P/N: SJE-6290-S000

MECHANICAL SPECIFICATIONS:

Keys: 2 keys + 1 Hula Point button.

Operation cycles: 5,000,000 cycles Min.

MTBF: >20000H Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -20/+60 °C.

Water & dust protection: IP-67

Salt spray: IEC 60512-6 for 96H

ELECTRICAL SPECIFICATIONS:

Maximum rating: 15mA/5VDC.

Interface: PS/2, USB connection with 2.0M cable.

MATERIALS:

Housing: Stainless-steel.

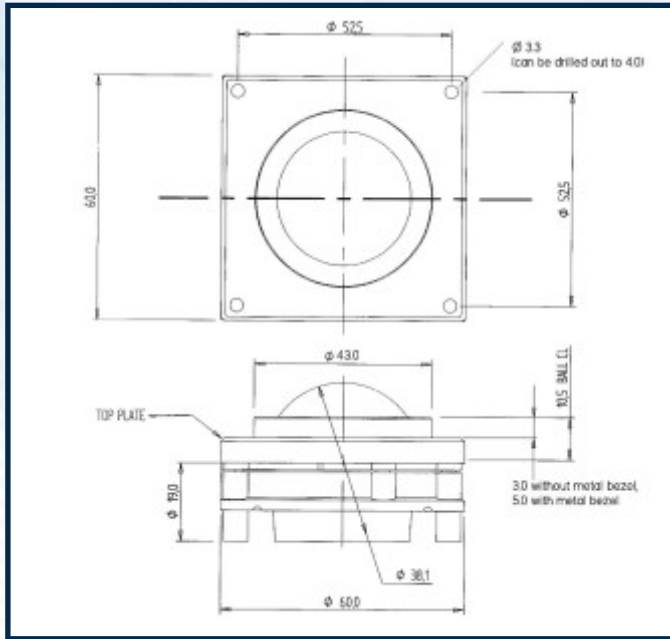
Buttons: Silicone coat with rubber keys, Tactile feel.

Options & information:

OS: All Windows, Linux, Unix, Mac OSX.

The rubber keys can be purchased separately.

38mm TRACKBALL



P/N: SYR-4200-S000

MECHANICAL SPECIFICATIONS:

Tracking force: 50 gf

Ball speed: 250 RPM MAX.

Weight: 105gr.

MTBF: 250,000 hours. (10 million ball revolutions Min.)

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: 0+70 °C

Relative humidity: 95%

Vibration: 5G, sinusoidal, 2-5kHz

Shock Resistance: 80g in all directions.

ELECTRICAL SPECIFICATIONS:

Voltage: 5.0VDC +/-10%

Current: 5mA (quadrature), 15mA (protocol).

Button pullup resistors: 7k Ohm nominal.

Z1, Z2 pullup resistors: 33k Ohm nominal.

MATERIALS:

Body: PC/ABS.

Bezel: Black anodized aluminum

Shaft: Stainless 303.

Steam: Brass (Yellow).

Options & information:

Durable 38mm phenolic resin, polyester or stainless steel ball.

IP65 (NEMA 4) and IP40 (NEMA 2) sealing options.

Phase Quadrature, USB, PS2, Microsoft and Mouse Systems serial protocols from a single unit.

Z-axis inputs for scroll wheel operation.

Five button support.



Configuration:

The range boasts many features which may be selected using an 8-way DIP Switch located on the circuit board. Table 1 shows the function of each switch, and the remainder of this section describes each feature in detail:

DIP Sw	Function	Off	On
1	Orientation 1	See Table 2	See Table 2
2	Orientation 2	See Table 2	See Table 2
3	Drag-Lock	Off	On
4	Delayed Latch/ Serial Protocol	Off Microsoft	On Mouse Systems
5	Protocol	USB/PS2	Serial
6	Unused		
7	Serial select	USB/PS2	Serial
8	Serial select	USB/PS2	Serial

Button Latches

There are two button latching options provided by the unit- drag-lock and delayed latch. Drag-lock reconfigures the middle button as a latching version of the left button. Press the middle button once to engage the left button, which then leaves the user free to move the cursor around the screen without needing to continually press any buttons. Once the user has completed the movement, pressing any button momentarily releases the left button. This feature is engaged by turning on DIP3.

Delayed latch operation allows the left button to be latched after pressing the left button for > 0.8

seconds, if DIP4 is on and the unit is in either USB or PS/2 protocols. It is permissible to engage both drag-lock and delayed latch simultaneously by turning on both DIP3 and DIP4.

Orientation

The purpose of the orientation DIP Switch settings is to allow the unit to be mounted in one of four positions to suit the application. In particular, the positioning of the connectors can be selected to suit the layout of the wiring harnesses etc.

Orientation 1 (DIP1)	Orientation 2 (DIP2)	Unit orientation (when viewed from top)
Off	Off	Host Connector at 6 o'clock
On	Off	Host Connector at 12 o'clock
Off	On	Host Connector at 9 o'clock
On	On	Host Connector at 3 o'clock

Connection details (JST Connector).

Connection to the unit is afforded by means of three latching JST connectors:

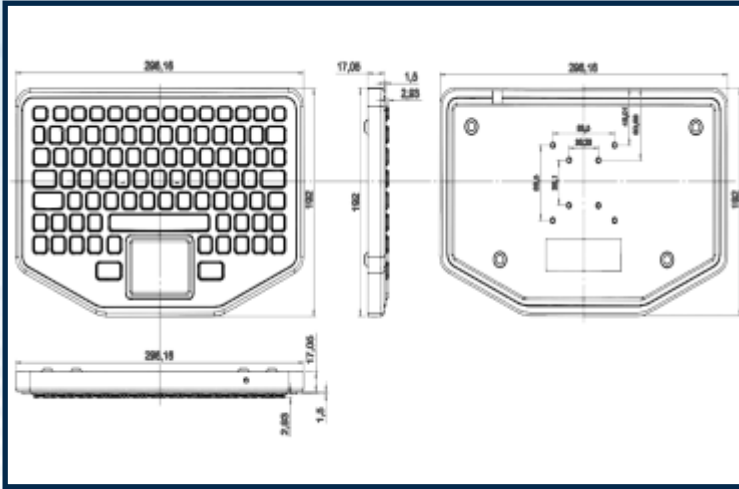
J1 is the output connector for Quadrature, USB and PS/2 protocols (10-way).

J2 is the button and scroll wheel (Z-axis) connector (10-way).

J3 is the optional RS232 output connection for Serial protocol where provided (6-way).

Pin	J1 Function	J2 Function	J3 Function
1	X1 output	Z-axis power (5V)	Tx
2	X2 output	Z1 input	Rx
3	Y1 output	Z2 input	DTR
4	Y2 output	Z-axis return [†]	RTS
5	DRAIN [‡]	Button 5	0V
6	TEST [§]	Button 4	+5V*
7	+5V	Button 1 (L)	
8	D-/DATA	Button 2 (M)	
9	D+/CLK	Button 3 (R)	
10	0V	0V	

IP-67 MILITARY KEYBOARD



P/N: SCE-6325-S000

MECHANICAL SPECIFICATIONS:

89 keys + Touchpad.
 Operating force: 1.2N+/-0.1N for square keys.
 Operating force: : 2N+/-0.1N for Rectangular key.
 Operation cycles: 5,000,000 cycles Min.
 VESA mount

ELECTRICAL SPECIFICATIONS:

Maximum rating: 300mA/5VDC.
 Contact resistance: 300m Ohm.
 Insulation resistance: 100MΩ min.
 PS/2, USB connection with 2.0M cable.

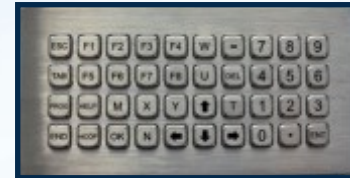
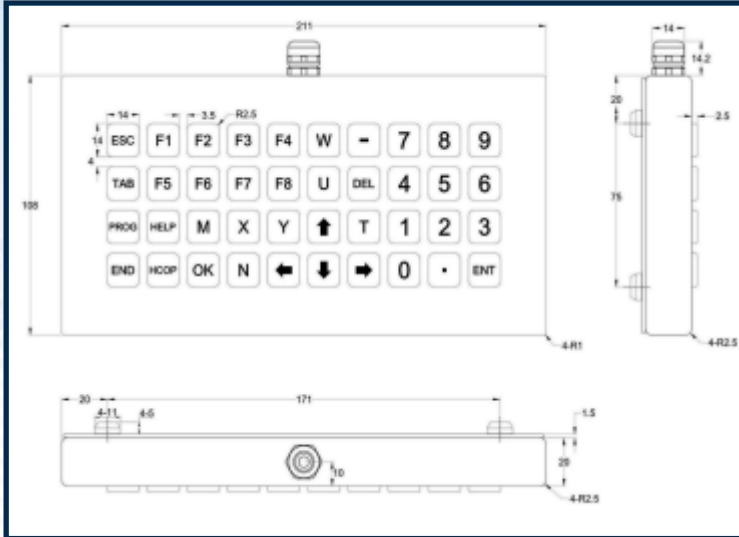
ENVIRONMENTAL SPECIFICATIONS:

compliance with MIL-STD-810F & MIL-STD-461E.
 Operating temperature:-40 to +85 °C.
 Salt spray: 96h, IEC60512-6.
 Water & Dust protection: IP-67.

Options & information:

OS: All Windows, Linux, Unix, Mac OSX.
 NVIS-compliant red adjustable backlighting—optional.
 ABS Polycarbonate Case.

COMPACT STAINLESS-STEEL KEYBOARD



P/N: SCE-6350-S000

MECHANICAL SPECIFICATIONS:

40 keys.

Operating force: 1.2N+/-0.1N for square keys.

Key Travel: 2.0mm.

Operation cycles: 5,000,000 cycles min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -20/+60 °C.

Water & dust protection: IP-68

Salt spray: IEC 60512-6 96H

ELECTRICAL SPECIFICATIONS:

Maximum rating: 30mA/5VDC.

Contact resistance: 30m Ohm.

PS/2, USB connection with 2.0M cable.

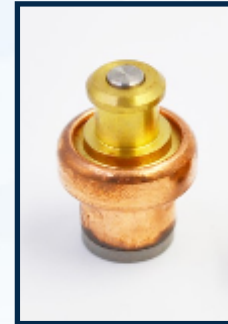
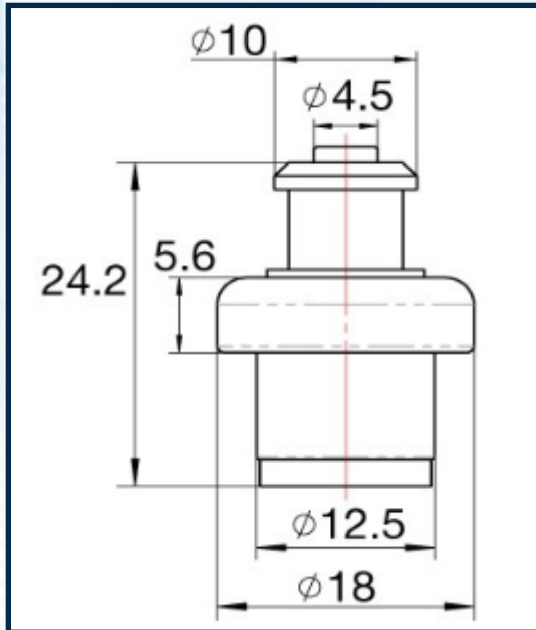
Options & information:

OS: All Windows, Linux, Unix, Mac OSX.

Specific laser engraved and etched legends and raised dots—Optional.

SUS304 brushed stainless steel Case.

THERMOELECTRIC ACTUATOR



P/N: SQK-8711-S000

MECHANICAL SPECIFICATIONS:

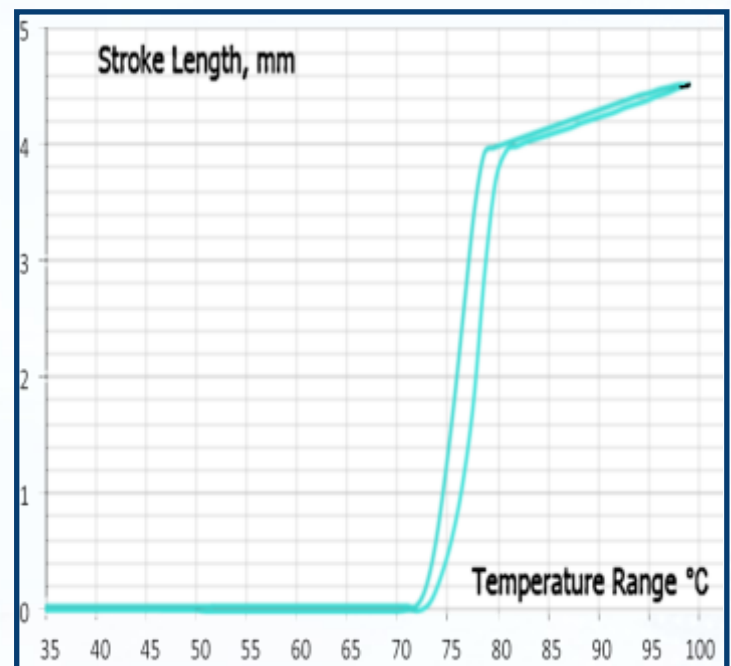
Stroke: 3.8mm

Min. load: 45N

Max. load: 140n

ELECTRICAL SPECIFICATIONS:

Voltage: 24VDC

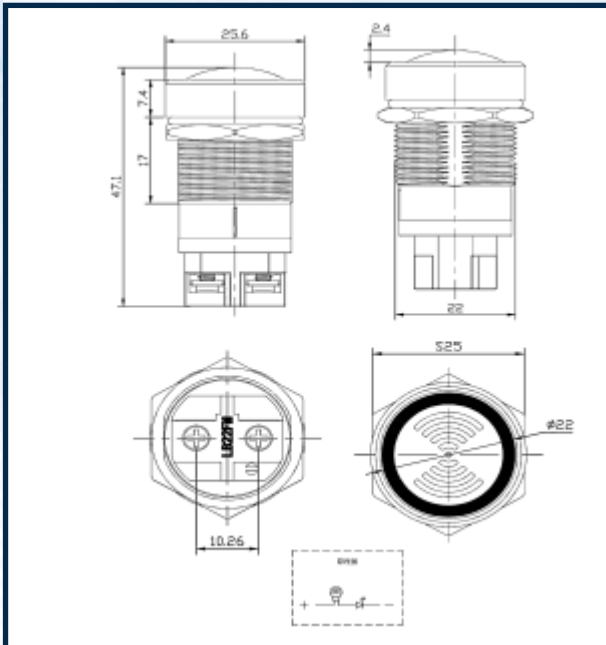


Options & information:

Different stroke length.

Different working voltage.

IP-65 BUZZER 22MM



P/N: SOK-7228-S125

MECHANICAL SPECIFICATIONS:

Nut torque: 0.8-1.2N.m

Continues work life: 1000 hours Min.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -40/+80 °C

Water & Dust protection: IP65

ELECTRICAL SPECIFICATIONS:

Power rating: 60mA/220 VAC.

Loudness: 70-100db.

Dielectric strength: 3,000VAC 50HZ Min.

Illumination: Red

MATERIALS:

shell: PC UL-94-V2.

Housing: Stainless Steel.

Terminals: screws.

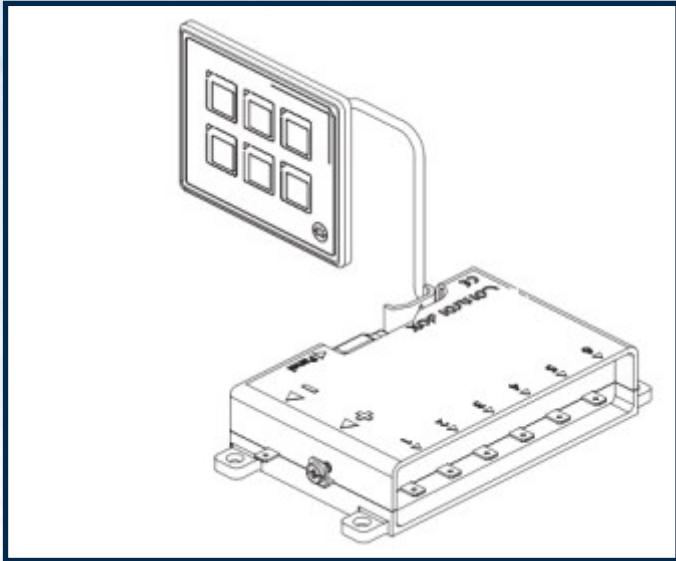
O-Ring: NBR

Options & information:

5, 12 or 24 VDC.

ESD protection to 8KV.

Silicon O-Ring.

IP67 MARINE KEYBOARD**P/N: SCG-5577-S000****MECHANICAL SPECIFICATIONS:**

Key type: 6 PET membrane Illuminated keys.

Panel size: 75x90mm

Control box size: 136x90x32mm

Contact form: Momentary or On-Off (Programable)

ENVIRONMENTAL SPECIFICATIONS:

Water & Dust protection: IP-67.

ELECTRICAL SPECIFICATIONS:

Switch Rating: 10A / 12VDC (Cumulative 35A)

Voltage: 9-15 or, 11-30 VDC.

Built-in resettable fuse.

USB connection between panel to control box.

INSTALATION:

15mm diameter hole for the comm cable between panel to controller.

Power terminal are 4M

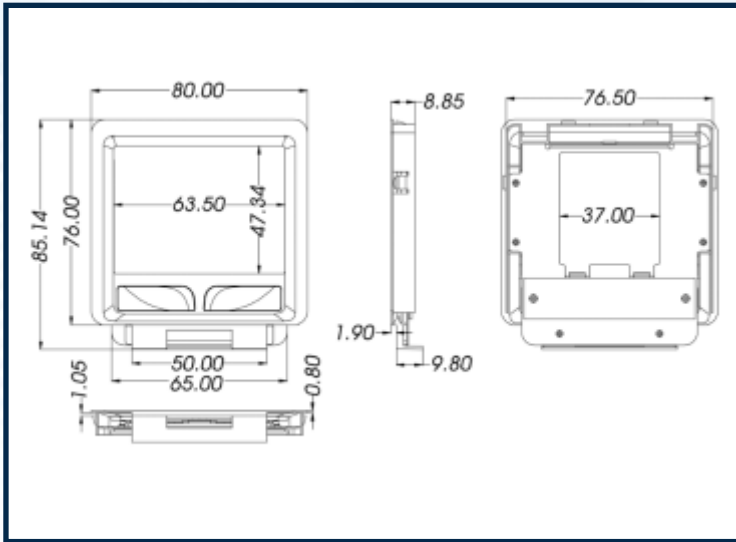
Load terminals are .250 quick-connect tabs.

Options & information:

Designed for marine applications

Similar product with 10 keys is available.

CAPACITIVE TOUCH-PAD WITH 2 BUTTONS



P/N: SYI-9220-S000

MECHANICAL SPECIFICATIONS:

Sensor Area: 65 +/- 0.2 x 49 +/- 0.2 mm
 Module Dimension: 76 x 80 x 8.85mm
 Weight: 50g (with metal plate & plastic frame).

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: 5+50 °C

ELECTRICAL SPECIFICATIONS:

Rating: 3.4mA / 5.0VDC.
 Voltage Fluctuation: <= 100mA
 Voltage Rise Time: <= 1ms
 ESD protection: Contact +/- 4KV, Non-contact +/- 8KV.

Options & information:

Interface: PS/2. (USB available upon request).
 Resolution: 300 dpi.
 Displacement Magnification: 1 to 1.27
 Fastest Speed: 117 cm/s.

INDICATORS



REAR MOUNT
LARGE DIAMETER
SMALL DIAMETER
BI-COLOR & RGB
HIGH BRIGHTNESS
WATER & DUST PROTECTED
METAL & PLASTIC HOUSING

ENN110123

SERIES

SLI	SLO			



ENVIRONMENTAL SPECIFICATIONS:

The “Water & dust” protection, mentioned in this catalog, is according to the “IP-Level” table that you can find in the last page of this catalog. ADR offer a different protection level for some of the items.



ELECTRICAL SPECIFICATIONS:

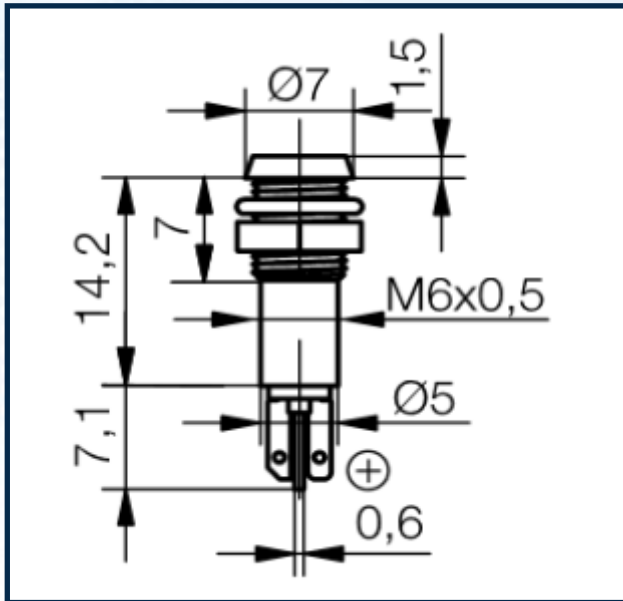
The electrical rating, mentioned in this catalog is for DC voltage.
For AC voltage rating , you may contact our engineering department.



MECHANICAL SPECIFICATIONS:

All mechanical dimensions in this catalog are in “mm”, unless otherwise stated.
“Operating cycle” means number of cycle under full load.

6.0mm LED INDICATOR IP67



P/N: SLI-5421-S000

MECHANICAL SPECIFICATIONS:

2x tab terminal 2,8x0.5 mm.

O-Ring & Hex-nut included.

Panel Cut-out: 6.0 +0.2mm.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -40/+85 °C

Water & dust protection: IP67.

ELECTRICAL SPECIFICATIONS:

If: 20mA

Vf: 12/14 DC/AC

LED Color: Red

Brightness: 40 mcd (for the red color)

MATERIALS:

Housing: Brass, black chromium plated.

Cover: PC.

O-Ring: NBR-70.

Options & information:

24/28 Volt—Optional.

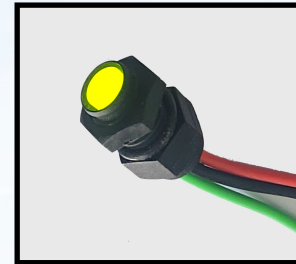
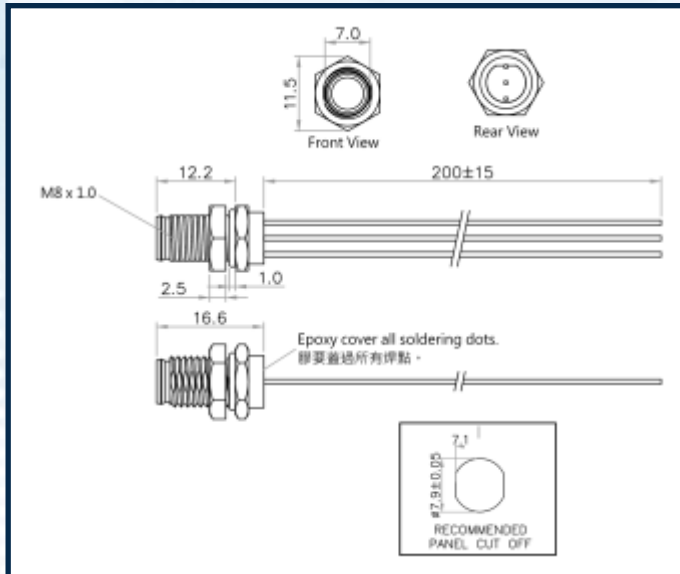
Nickel chromium plated—Optional.

Colors: Blue, White, Red, Green, Yellow.

Viewing angle: 40°.

ADR indicators line includes diameter range of 6-30mm, Metal or plastic housing.

REAR MOUNT 3-COLORS LED



P/N: SLO-4260-S021

MECHANICAL SPECIFICATIONS:

Wires: UL1007 22AWG.

LED type: Kingbright L-489SUR

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -40/+85 °C

Water & dust protection: IP68.

ELECTRICAL SPECIFICATIONS:

If: 20mA

Vf: 2.0Volt

Brightness: Red 80 cd/m² . Green 40 cd/m²

MATERIALS:

Housing: Nylon + GF.

Hex nut: Nylon + GF.

O-Ring: Viton.

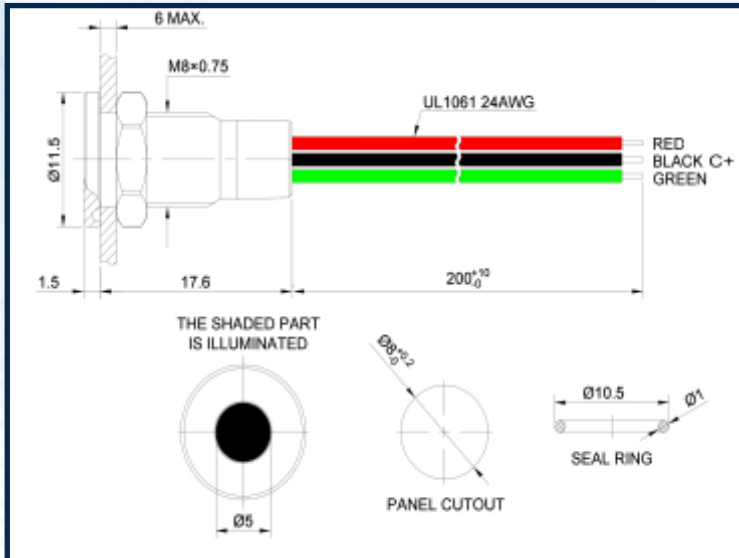
Options & information:

Terminals for PCB—Optional.

Different thread length—Optional

Different let color—Optional.

11.5MM FLAT SHPE INDICATOR



P/N: SLN-2242-S000

MECHANICAL SPECIFICATIONS:

Nut torque: 0.2-0.8N.m

Seal shape: round slot in housing

Operation life: 100,000 hours.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -40/+85 °C

Water & Dust protection: IP67

ELECTRICAL SPECIFICATIONS:

Rated current: 11mA RED, 5mA GREEN

Voltage: 2.8V

MATERIALS:

Bushing: Brass, Black paint plated.

Case: PA

Head cover: EP

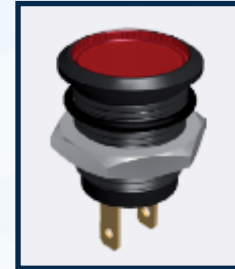
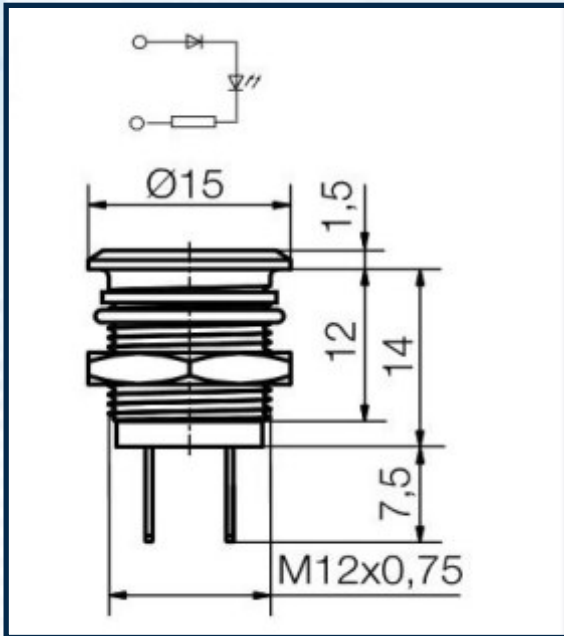
Options & information:

D-Shape housing.

Different colors.

Wires length is customized.

12mm LED INDICATOR IP67



P/N: SLI-5440-S000

MECHANICAL SPECIFICATIONS:

2x tab terminal 2,8x0.5 mm.

O-Ring & Hex-nut included.

Panel Cut-out: 12.0 +0.2mm.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -40/+85 °C

Water & dust protection: IP67.

ELECTRICAL SPECIFICATIONS:

If: 20mA

Vf: 12/14 DC/AC .

Color: Red.

Brightness: Red 230 cdm.

MATERIALS:

Housing: PC.

Cover: PC.

O-Ring: NBR-70.

Options & information:

24/28 Volt—Optional.

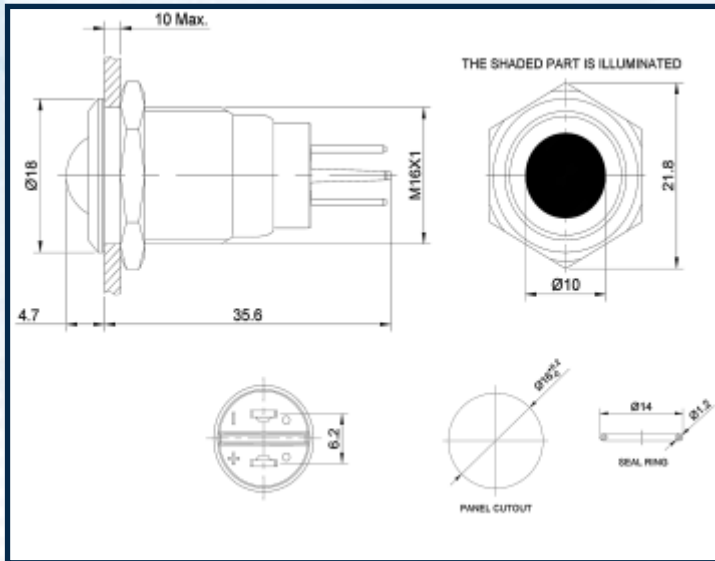
Viewing angle: 160° .

Colors: Blue, White, Red, Green, Yellow.

Wire terminals—Optional.

ADR indicators line includes diameter range of 6-30mm, Metal or plastic housing.

16MM IP-67 INDICATOR



P/N: SLN-2222-S000

MECHANICAL SPECIFICATIONS:

Solder-lug terminals

Life duration: 100,000 hours.

ENVIRONMENTAL SPECIFICATIONS:

Operating temperature range: -25/+55 °C

Water & Dust protection: IP67

ELECTRICAL SPECIFICATIONS:

Contact form: Resistor in series to the diode.

Maximum rating: 4.4mA/5VDC.

Insulation resistance: 100MΩ/500VDC.

Dielectric strength: 1,500V RMS 50HZ Min.

MATERIALS:

Housing: Stainless Steel.

Body: PBT

Lamp cap: PC

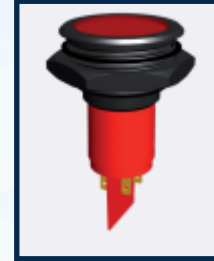
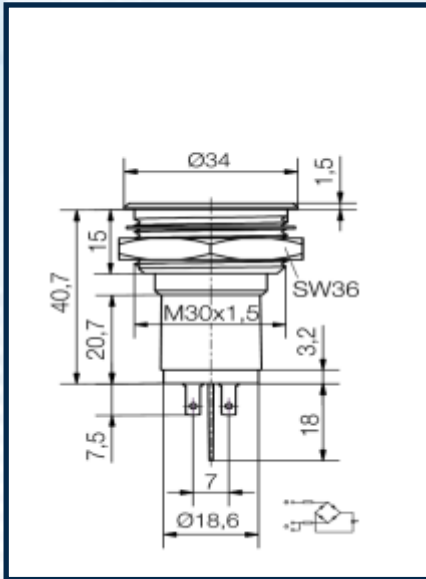
Options & information:

Different lighting colors & voltage.

Flat front shape

Different terminals.

30mm WATERPROOF LED INDICATOR



P/N: SLI-5465-S000

MECHANICAL SPECIFICATIONS:

Panel cut-out: 30.00 +0.5mm.

Ground connection is equipped with a double contact.

Terminals: 3x tab 2,8x0.8 mm.

Housing color: Black.

ENVIRONMENTAL SPECIFICATIONS:

Water & dust protection: IP67.

ELECTRICAL SPECIFICATIONS:

Voltage: 24/28VDC.

Brightness: 0.7 lm for 24V.

Color: Red

Viewing angle: 160 Degree.

MATERIALS:

Housing: Brass chromium plated.

Cover lens: PC

Sealing ring: NBR

Nut: PA 6.6

Options & information:

LED Colors: White, Blue, Red, Green, Yellow.

230VAC—Optional .

Hosing colors: Black, Silver.

Product includes O-ring & Hex-nut.



IP-LEVEL TABLE

ACCORDING TO IEC-60529

1st Digit Protection against ingress of Solid objects		2nd Digit Protection against ingress of Liquids	
No protection	0 	0	No protection
Protection against objects > 50mm (eg. hands)	1 	1	Protection against dripping water
Protection against objects > 12mm (eg. fingers)	2 	2	Protection against dripping water when tilted up to 15° from vertical
Protection against objects > 2.5mm (eg. tools/wires)	3 	3	Protection against spraying water when tilted up to 60° from vertical
Protection against objects > 1mm (eg. small tools)	4 	4	Protection against splashing water
Protection against dust, limited ingress	5 	5	Protection against low pressure water jets from any direction
Totally protection against dust	6 	6	Protection against high pressure water jets and heavy seas
		7	Protection against the effects of immersion up to 1m
		8	Protection against submersion