









Key Switches

Product Selection Guide

Key Switches				
Series	K5G	K5A2	K6	K12
Size (mm) L x W x H	8,2 x 8 x 6	8,2 x 8 x 4,5	7,4 x 10,9 x 8,4	12 x 12 x 11
Poles/Throws	2 x SPST momentary	SPST momentary	SPST momentary	SPST 2 x SPST momentary
Maximum Load	30 V / 50 mA	30 V / 50 mA	30 V / 100 mA	30 V/100 mA
Operating Force	4 N/ 6.5 N	2 N; 4 N; 6 N	2 N; 3 N; 5 N	1,5 N; 2,5 N; 3,5 N; 5 N 3,5/7 N; 6/12 N
Travel (standard)	1 mm	0,8 mm	1,5 mm	1 mm, 1,5 mm, 2 mm
Life Cycle	30,000	50,000	200,000	1,000,000
Sealed				K12C only
Illumination			•	•
Termination	SMT	SMT	SMT/ Thru-hole	Thru-hole
Page Number	E-3	E-5	E-7	E-10

Key Switches				
Series	PVA	D6	KS	Digitast
Size (mm) L x W x H	9,2 x 10 x 13,5	12 x 11,4 x 14,5	12,4 x 12,4 x 9,9	17,1x12,3 x 14,3
Poles/Throws	DPST / DPDT momentary or push-on/push off	SPST momentary	SPST SPDT	SPDT momentary or push-on/push off
Maximum Load	32 V / 100 mA	32 V/100 mA*	50 V/25 mA	24 V / 10 mA
Operating Force	1,2 N; 1,7 N; 3,5 N	1,3 N		1,5 N
Travel (standard)	2,4 mm	0,8 mm	0,71 mm	3 mm
Life Cycle	100,000	250,000	100,000	5,000,000
Sealed				
Illumination				•
Termination	Thru-hole	Thru-hole	Thru-hole	Thru-hole
Page Number	E-16	E-19	E-23	E-26

* Maximum value are for voltage and current separately



Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

www.ck-components.com



K5G Series Snap Action Key Switch



Features/Benefits

- Double stroke version
- Excellent tactile feel
- Low profile
- Quiet actuation
- RoHS compliant

Typical Applications

- Automotive
 - Window lift
 - Sun-roof control
- Multi-function devices

Construction

FUNCTION: Momentary action
CONTACT ARRANGEMENT: 2 make contacts, SPST
TERMINALS: Gullwing type for SMT

Mechanical

OPERATING FORCE FIRST STROKE: 3.7 + 0,8 - 0,5N
OPERATING FORCE SECOND STROKE: 6.5 N + 0.8 - 0,5N
ELECTRICAL TRAVEL FIRST STROKE: 0,5 mm
ELECTRICAL TRAVEL SECOND STROKE: 0,85 mm
TOTAL TRAVEL: 1 mm
OPERATING LIFE: 30,000 actuations

Packaging

Switches are delivered on continuous tape, in reels of 500 pieces

NOTE: Specifications listed above are for switches with standard options.
For information on specific and custom switches, consult Customer Service Center.

Gold

Silver

Electrical

POWER MIN / MAX:	.02 VA / 1 VA	.02 VA / 1 VA
VOLTAGE MIN / MAX:	20 mVDC/50 VDC	20 mVDC/50 VDC
CURRENT MIN / MAX DC:	10µA / 100 mA	1 mA / 100 mA
CONTACT RESISTANCE:	≤ 100 mΩ	≤ 100 mΩ
INSULATION RESISTANCE:	≥ 1GΩ	≥ 1GΩ
BOUNCE TIME:	5 ms	5 ms

Environmental

OPERATING TEMPERATURE:	-40°C to +105°C	-40°C to +85°C
STORAGE TEMPERATURE:	-50°C to +125°C	-50°C to +95°C

Process

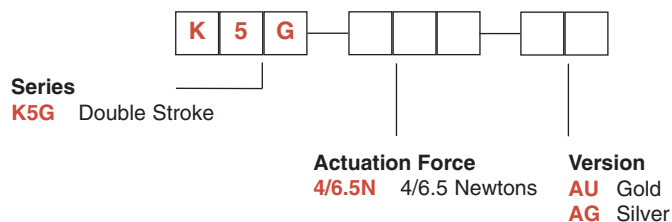
SOLDERING: Lead Free reflow compatible in accordance with CEI 60068-2-58 and Nr. 8GD000004

Materials

CONTACTS:	Au over Ni-layer	Ag on Ni-layer
SOLDERING PINS:	Au	Ag
HOUSING:	Thermoplastic UL 94 H-B	

How To Order

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.

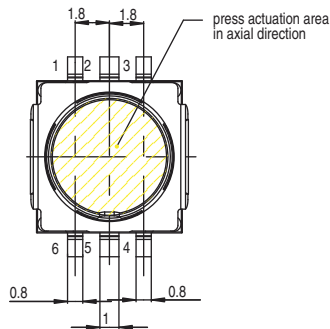
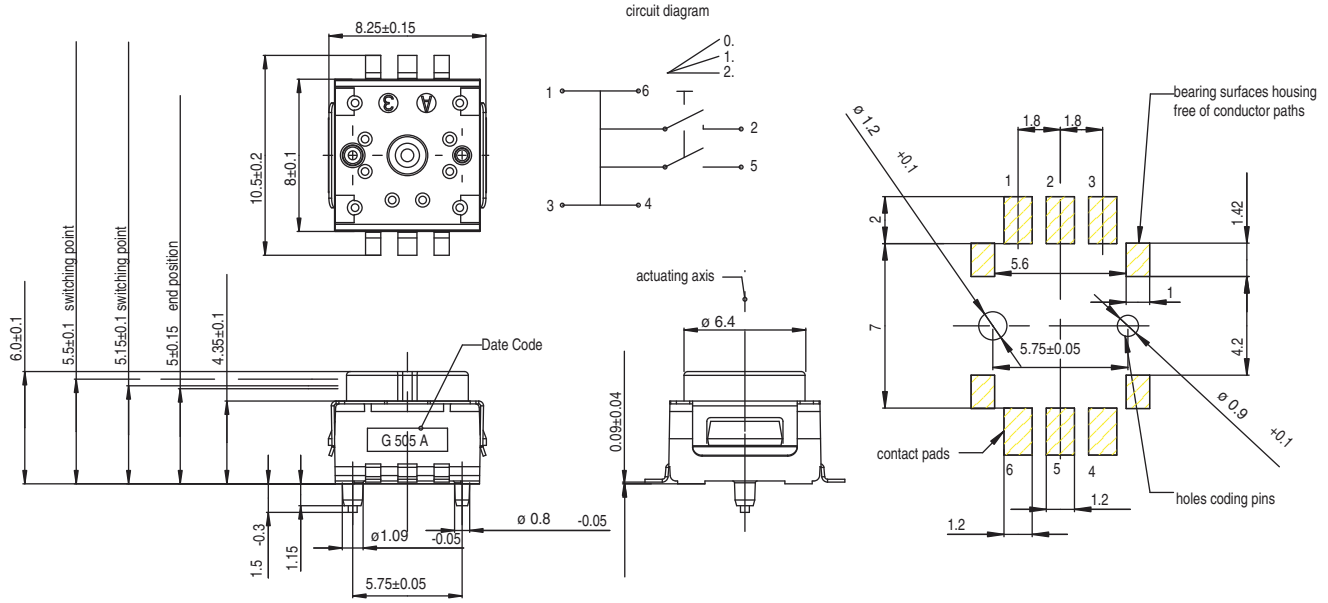


Key Switches

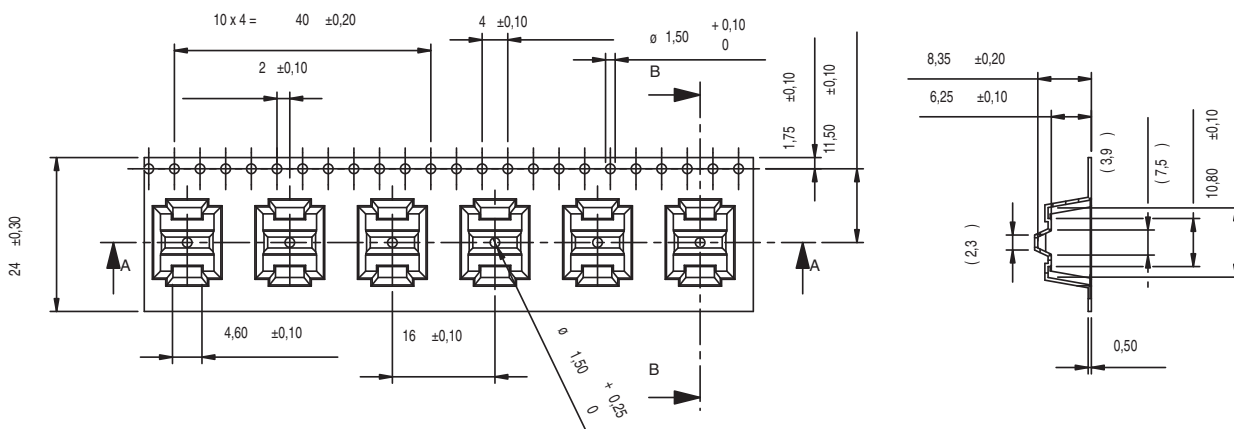
K5G Series Snap Action Key Switch

K5G DOUBLE STROKE VERSION

PCB LAYOUT, MOUNTING SIDE



Tape and Reel



Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

www.ck-components.com

K5A2 Series Snap Action Key Switch



Features/Benefits

- Quiet actuation
- Space Saving
- RoHS compliant

Typical Applications

- Automotive
- Computers and network equipment

Construction

FUNCTION: Momentary action
CONTACT ARRANGEMENT: Normally open
TERMINALS: Gullwing type for SMT

Mechanical

OPERATING FORCE: (6N version) 5,5 + 0,5 -1N
3,7 + 0,8N -0,5N
OPERATING LIFE: 50,000 operations
TOTAL TRAVEL: 0.8 mm +/- 0.2 mm
ELECTRICAL TRAVEL: 0,5 mm +/- 0.1 mm

Packaging

Switches are delivered on continuous tape, in reels of 600 pieces

Note: Specifications listed above are for switches with standard options.
For information on specific and custom switches, consult Customer Service Center.

Gold

Silver

Electrical

POWER MIN / MAX:	.02 VA / 1 VA	.02 VA / 1 VA
VOLTAGE MIN / MAX:	20 mVDC/50 VDC	20 mVDC/50 VDC
CURRENT MIN / MAX DC:	10µA / 100 mA	1 mA / 100 mA
CONTACT RESISTANCE:	≤ 100 mΩ	≤ 100 mΩ
INSULATION RESISTANCE:	≥ 1GΩ	≥ 1GΩ
BOUNCE TIME:	5 ms	5 ms

Environmental

OPERATING TEMPERATURE:	-40°C to +105°C	-40°C to +85°C
STORAGE TEMPERATURE:	-50°C to +125°C	-50°C to +95°C

Process

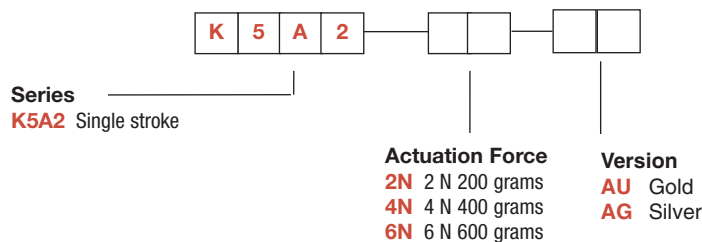
SOLDERING: Lead Free reflow compatible in accordance with CEI 60068-2-58 and Nr. 8GD000004

Materials

CONTACTS:	Au over Ni-layer	Ag on Ni-layer
SOLDERING PINS:	Au	Ag
HOUSING:	Thermoplastic UL 94 H-B	

How To Order

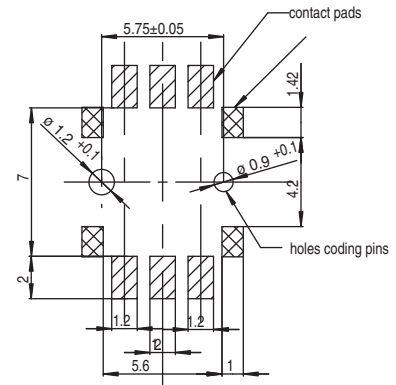
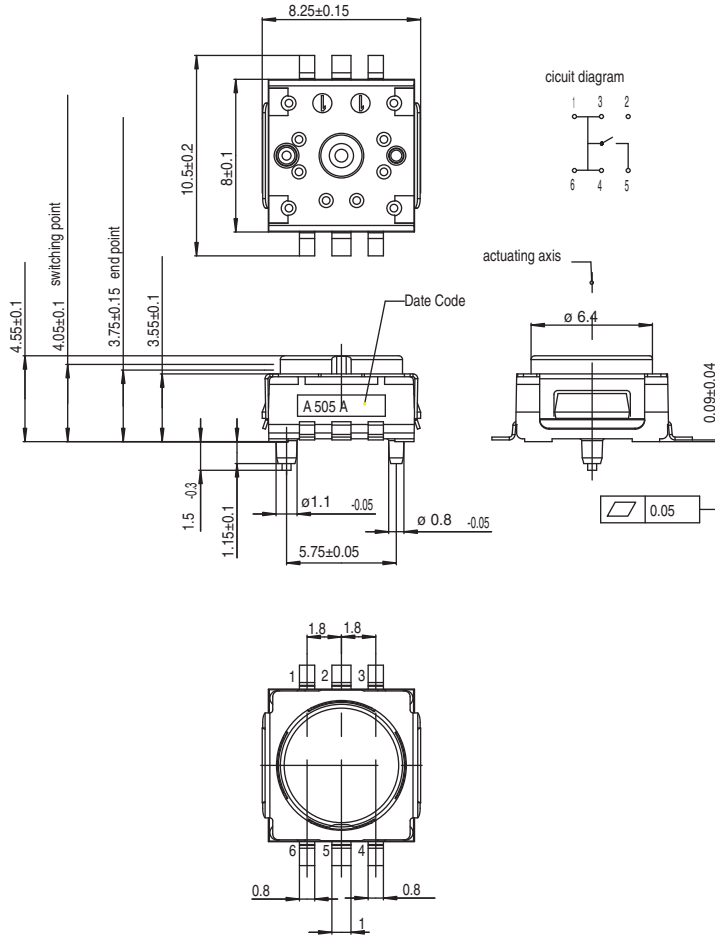
Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.



K5A2 Series Snap Action Key Switch

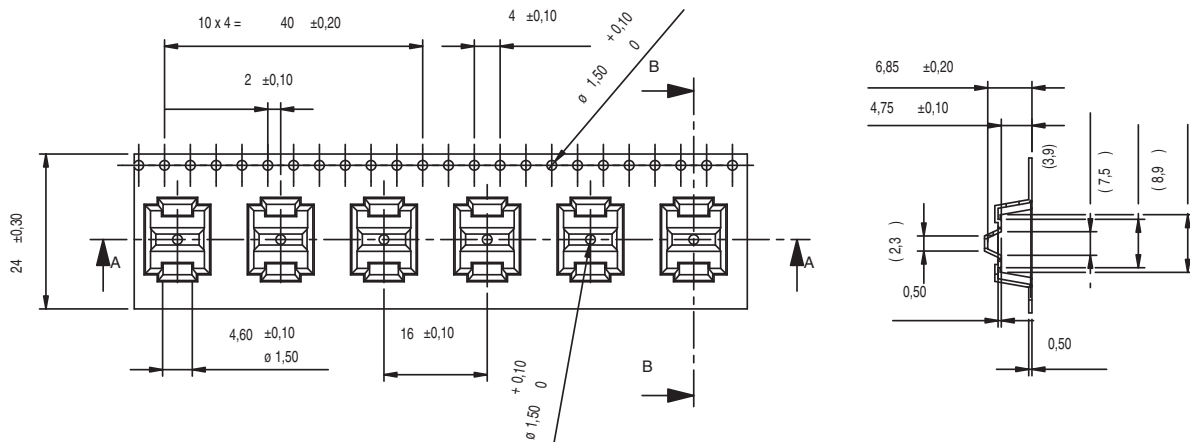
K5A2 SINGLE STROKE VERSION

PCB LAYOUT, MOUNTING SIDE



Key Switches

Tape and Reel



First Angle
Projection

Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

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Features/Benefits

- **Excellent tactile feel**
- **Wide variety of LED's, travel and actuation forces**
- **Designed for low-level switching**
- **Detector version available**
- **RoHS compliant**

Typical Applications

- **Automotive**
- **Industrial electronics**
- **Computers and network equipment**

Construction

FUNCTION: momentary action
 CONTACT ARRANGEMENT: 1 make contact = SPST, N.O.
 DISTANCE BETWEEN BUTTON CENTERS:
 min. 7,5 and 11,8 (0.295 and 0.465)
 TERMINALS: Snap-in pins, tinned
 MOUNTING: Soldered by PC pins, locating pins
 PC board thickness: 1,5 (0.0591)

Mechanical

TOTAL TRAVEL/SWITCHING TRAVEL: 1,5/0,9 (0.059/0.035)
 PROTECTION CLASS: IP 40 according to DIN/IEC 529

- 1) Voltage rise: 300 V/s
 2) According to DIN 41640; IEC 512-2
 3) Higher values upon request

Packaging

THT: bulk in boxes of 500 pieces
 SMT: bulk in boxes of 500 pieces
 reels of 500 pieces (with LED) or 750 pieces (without LED)

Electrical

SWITCHING POWER MIN./MAX.: 0.02 mW / 3 W DC
 SWITCHING VOLTAGE MIN./MAX.: 2 V DC / 30 V DC
 SWITCHING CURRENT MIN./MAX.: 10 µA / 100 mA DC
 DIELECTRIC STRENGTH (50 Hz)¹⁾²⁾: ≥ 300 V
 OPERATING LIFE: ≥ 2 x 10⁵ operations³⁾
 ≥ 1 X 10⁵ operations for SMT version
 CONTACT RESISTANCE: Initial ≤ 50 mΩ
 INSULATION RESISTANCE: ≥ 10¹⁰ Ω
 BOUNCE TIME: ≤ 1 ms
 Operating speed 100 mm/s (3.94/s)

Environmental

OPERATING TEMPERATURE: -40°C to 85°C.
 STORAGE TEMPERATURE: -40°C to 95°C.

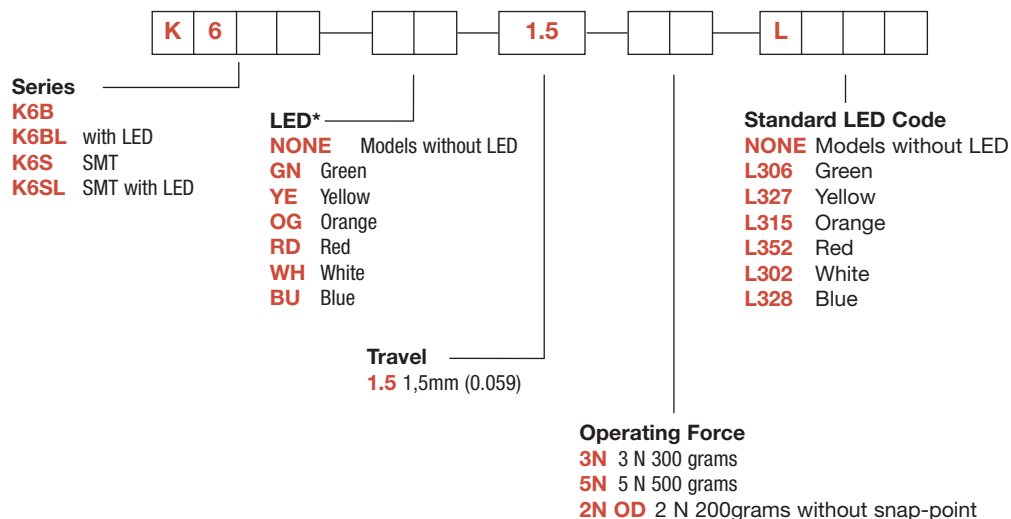
Process

SOLDERABILITY:
 THT: wave soldering, compatible with lead free soldering profile
 Hand soldering, 350°C for 3s
 SMT: not compatible with lead free reflow profile
 245°C for 5s

How To Order

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.

Note: Some of the configurations may not be available or could require some development.



* Additional LED colors available by request.

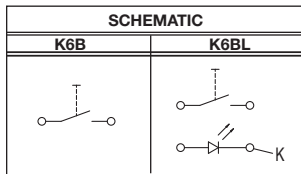
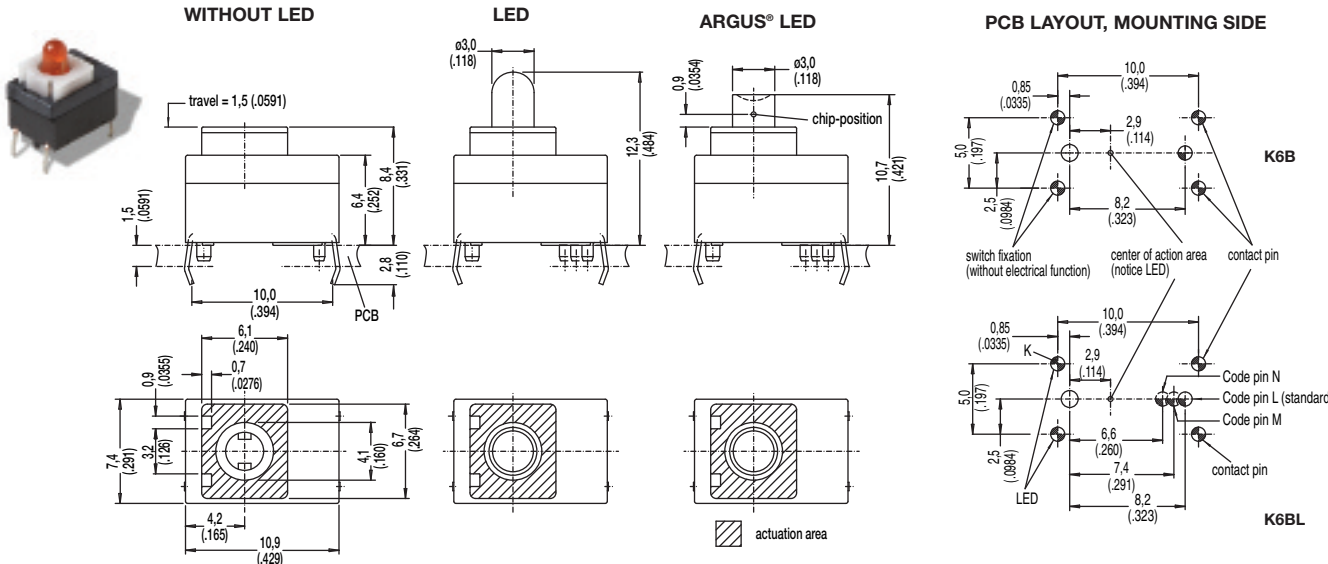


K6 Miniature Key Switches

SERIES

K6B WITHOUT LED

K6BL WITH LED



Hole	Ø	Without LED	With LED	Description	Terminal Section	Surface
	1,2+0,1 (.0471+.00349)	1x	1x	center hole		
	0,9+0,1 (.0354+.00349)	1x	1x	code (L,M,N)		
	1,0+0,1 (.0354+.00349)	4x	2x	LED switch	0,6 x 0,3 (.0236 x .0118)	SnPb

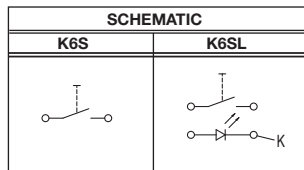
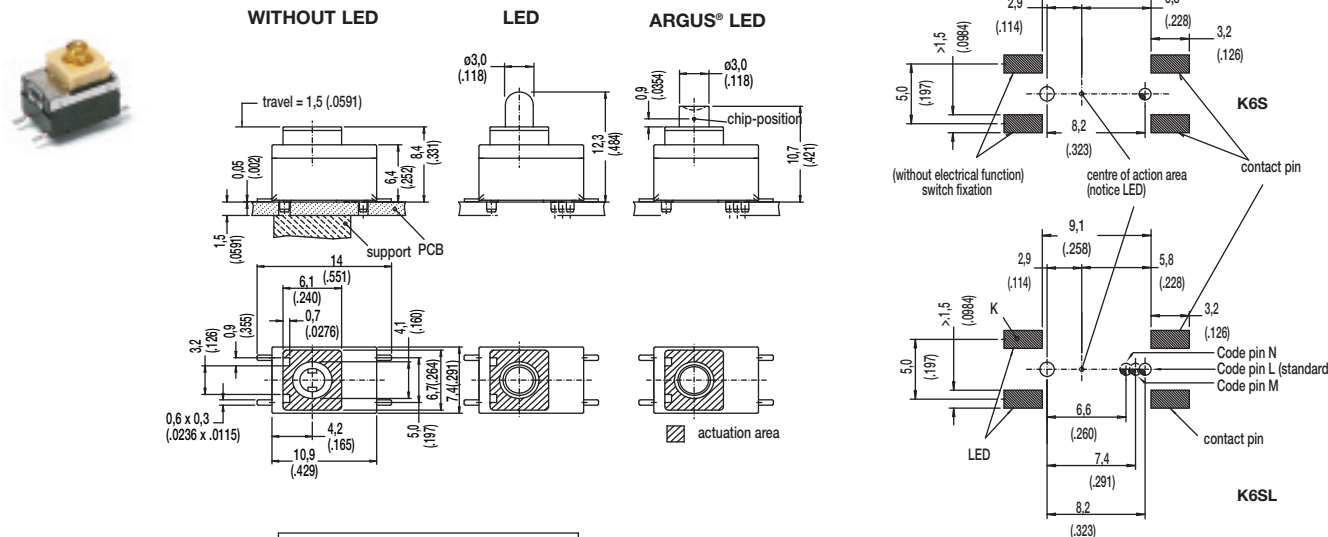


K6S WITHOUT LED

K6SL WITH LED



Key Switches



Hole	Ø	Without LED	With LED	Description
	1,2+0,1 (.0471+.00349)	1x	1x	center hole
	0,9+0,1 (.0354+.00349)	1x	1x	code (L,M,N)



Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

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LED

OPTION CODE	COLOR
NONE	Models without LED
GN	Green
YE	Yellow
OG	Orange
RD	Red
WH	White
BU	Blue

STANDARD LED CODE	COLOR
NONE	Models without LED
L306	Green
L327	Yellow
L315	Orange
L352	Red
L302	White
L328	Blue

Additional LED colors available by request

TRAVEL

1.5 1.5 MM

OPERATING FORCE

OPTION CODE	OPERATING FORCE
3N	3 N, 300 g
5N	5 N, 500 g
2N OD	2 N, 200g without snap-point



K12

High Performance Key Switches

Features/Benefits

- Excellent tactile feel
- Wide choice of LED colors, travel and actuator forces
- High reliability / long life
- Sealed version available
- Designed for low-level switching
- Double stroke version available
- Detector version available

Typical Applications

- Automotive
- Off-road transportation
- Industrial electronics
- Computers & network equipment



Construction:

FUNCTION: momentary
 DISTANCE BETWEEN BUTTON CENTERS:
 min. 11 (0.433) K12C = 13 (0.512)
 TERMINALS: PC pins, tinned
 MOUNTING: Locating pins; K12G and K12P additionally
 with snap-in housing

Mechanical

TOTAL TRAVEL: 1 mm, 1.5 mm, 2 mm
 SWITCHING TRAVEL: 0,6 mm*
 OPERATING FORCE: 1.5 N OD without snap-point as detector
 switch, 2.5 N, 3.5 N, 5 N, 3.5/7 N, 6/12 N. Additional
 operating force 7N, 9N and 20N, available on request.
 PROTECTION CLASS: K12C IP 67 (dust tight, protected against
 the effects of immersion in water; other versions IP 40)

* Additional switching travel (with pre-travel) available by request.

Packaging

Bulk in boxes of 250 pieces (version C, GO or GOL) or
 300 pieces (version A, AL, P or PL)

Electrical

SWITCHING POWER MIN./MAX.: 0.02mW/3 W
 SWITCHING VOLTAGE MIN./MAX.: 2 V DC / 30 V DC
 SWITCHING CURRENT MIN./MAX.: 10 µA / 100 mA
 DIELECTRIC STRENGTH (50 Hz, 1 min): ≥ 500 V
 OPERATING LIFE with max. switching power: ≥ 10⁶ operations
 K12G & K12GO; operating life of second switch 5 x 10⁴ operations,
 operating life K12C and version with more than 6N (7N, 9N 20N)
 please consult factory.
 CONTACT RESISTANCE: Initial ≤ 50 mΩ
 INSULATION RESISTANCE: ≥ 10¹⁰ Ω
 BOUNCE TIME: ≤ 1 ms
 Operating speed 400 mm/s (15.75/s)

Environmental

OPERATING TEMPERATURE: -40°C to 85°C.
 STORAGE TEMPERATURE: -40°C to 95°C.

Process

SOLDERABILITY:
 Wave soldering, compatible with lead free soldering profile
 Hand soldering, 350°C

How To Order

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select
 desired option from each category and place it in the appropriate box.

Note: Some of the configurations may not be available or could require some development.



Series

- K12A** No snap-in pegs
- K12AL** No snap-in pegs with central LED
- K12P** With snap-in pegs
- K12PL** With central LED
- K12C** Sealed contact with rubber cap (IP 67)
- K12GO** Two-step switch
- K12GOL** K12GO with central LED

Cap Color

- NONE** version with LED, version C
- BK** Black cap - No LED
- YE** Yellow cap - No LED
- RD** Red cap - No LED
- GY** Gray cap - No LED

LED Color

- NONE** No LED
- GN** Green
- YE** Yellow
- OG** Orange
- RD** Red
- WH** White
- BU** Blue

Travel*

- 1** 1 mm (0.039)
- 1.5** 1.5 mm (0.059)
- 2** 2 mm (0.079)

Operating Force***

- 1.5N OD** 1.5 N without
snap-point
- 2.5N** 2.5 N
- 3.5N** 3.5 N
- 5N** 5 N
- 3.5/7N** 3.5/7 N**
- 6/12N** 6/12 N**

Standard LED Code

- NONE** No LED
- L306** Green
- L327** Yellow
- L315** Orange
- L352** Red
- L302** White
- L328** Blue

Contact Arrangement

- NONE** SPST NO (STD)
- 1R** SPST NC
(Special request)

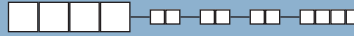
* K12C - 1mm MAX
 K12 with LED - 1.5 mm MAX
 ** K12G & K12GO version only
 *** Additional operating force: 7N, 9N available on request



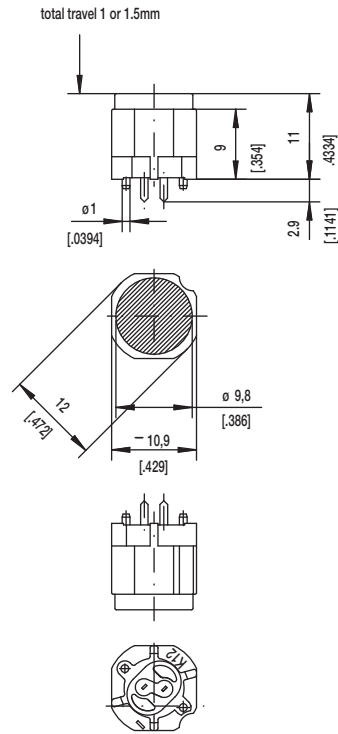
Dimensions are shown: mm (inch)
 Specifications and dimensions subject to change

K12 High Performance Key Switches

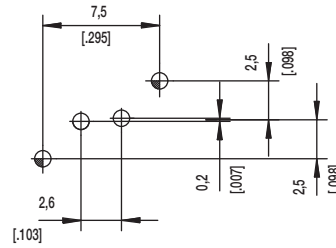
SERIES



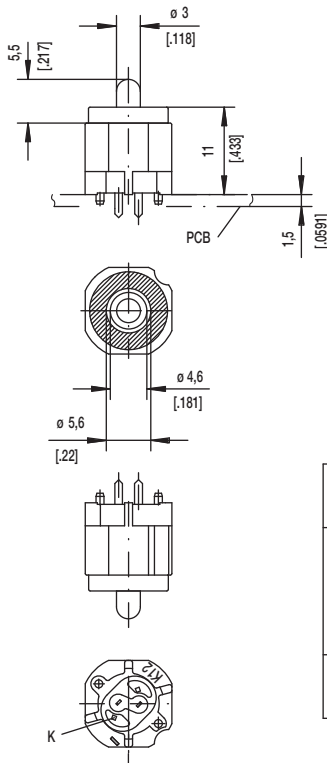
K12A without snap in



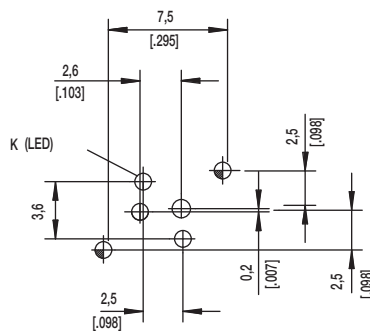
PCB LAYOUT, MOUNTING SIDE



K12AL

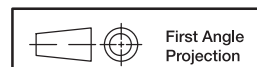


PCB LAYOUT, MOUNTING SIDE



\ominus	$1,1^{+0,05}$	2x	2x	center hole		
\oplus	$0,9 \pm 0,05$		2x	LED	$\varnothing 0,5 (.020)$	Sn
		2x	2x	switch	$0,7 \times 0,2 (.028 \times .081)$	Sn
Hole	\varnothing	Without	with LED	Discription	Terminal Section	Surface

C&K



Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

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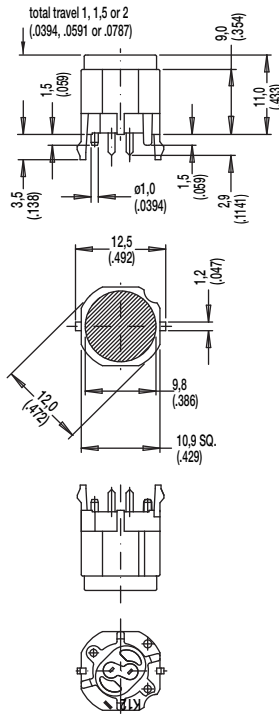


Key Switches

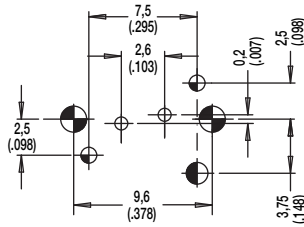
K12 High Performance Key Switches

SERIES

K12P with snap in



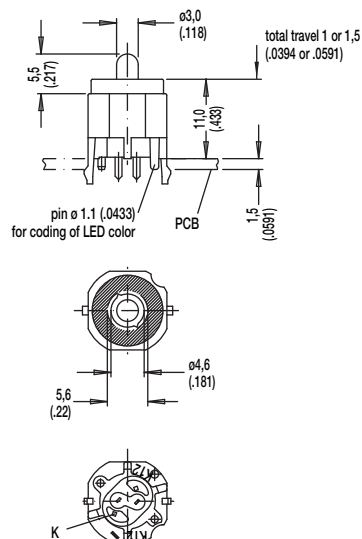
PCB LAYOUT, MOUNTING SIDE



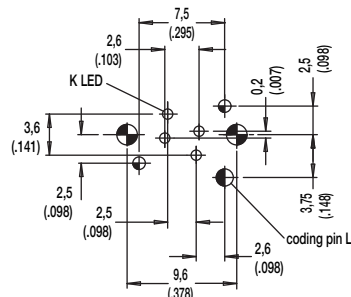
center of actuation area (notice LED)

Hole	Ø	Without LED	Description	Terminal Section	Surface
	1,7 (.069)	2x	snap-in		
	1,6 (.062)	1x	coding hole (L,M,N)		
	1,1 (.043)	2x	center hole		Sn
	0,9 (.035)	2x	switch	0.7 x 0.2 (.028 x .081)	Sn

K12PL



PCB LAYOUT, MOUNTING SIDE



center of actuation area (notice LED)

Hole	Ø	Without LED	Description	Terminal Section	Surface
	1,7 (.069)	2x	snap-in		
	1,6 (.062)	1x	coding hole (L,M,N)		
	1,1 (.043)	2x	center hole		Sn
	0,9 (.035)	2x	LED	m0.5 (.020)	Sn
		2x	switch	0.7 x 0.2 (.028 x .081)	



First Angle Projection



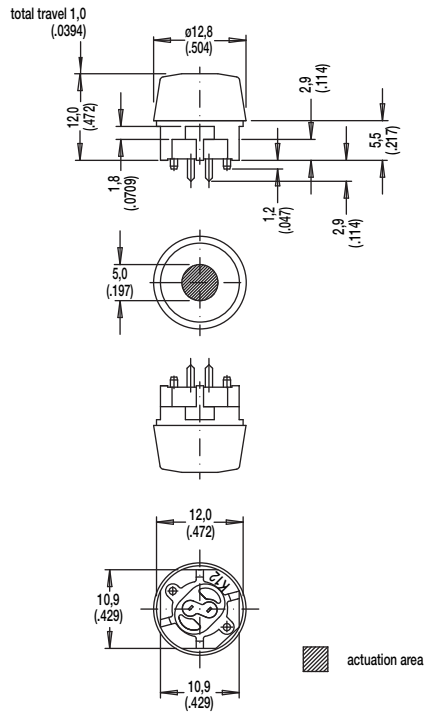
Dimensions are shown: mm (inch)
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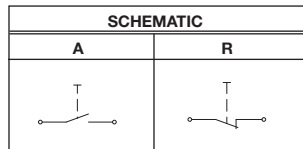
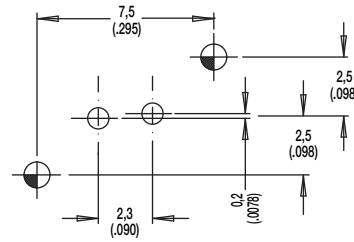
K12 High Performance Key Switches

SERIES

K12C SEALED CONTACT WITH RUBBER CAP (IP 67)



PCB LAYOUT, MOUNTING SIDE



Hole	Ø	Without LED	Description	Terminal Section	Surface
	1,1 (.043)	2x	center hole		
	0,9 (.035)	2x	switch	0.7 x 0.2(.0275 x .0787)	Sn



Key Switches



Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

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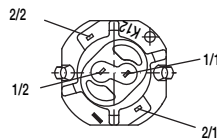
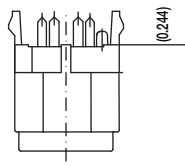
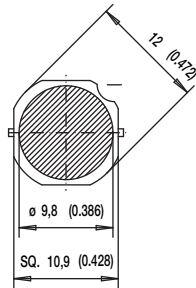
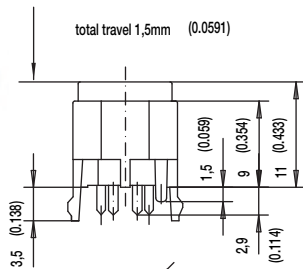
K12 High Performance Key Switches

SERIES

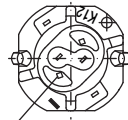
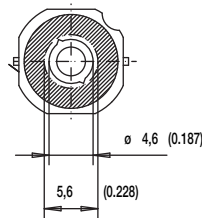
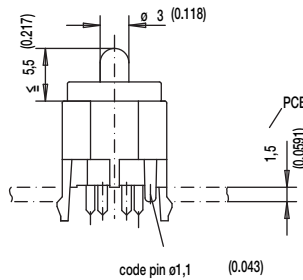
K12GO
K12GOL



K12GO



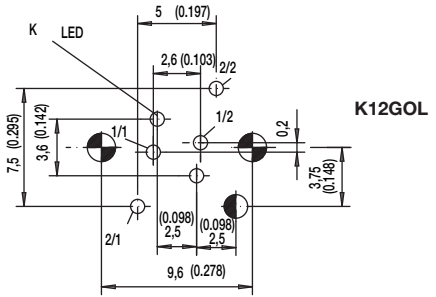
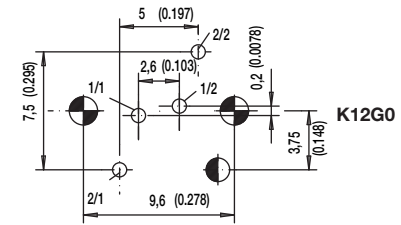
K12GOL



K (LED)

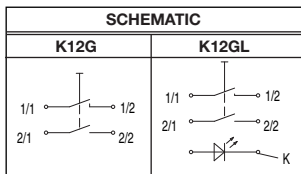
actuation area

PCB LAYOUT, MOUNTING SIDE



Type K12G and K12GL

see drawing: 844-9001-601 or 844-900-1601 with LED holder by side



Hole	Ø	Without LED	With LED	Description	Terminal Section	Surface
	1,7 (.069)	2x	2x	snap-in		
	1,6 (.062)	1x	1x	code		
	0,9 (.035)		2x	2 LED		Sn
			2x	LED	m0.5 (.020)	Sn
			2x	switch 2	0.7 x 0.3 (.028 x .012)	Sn
		2x	2x	switch 1	0.7 x 0.2 (.028 x .081)	Sn



Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

www.ck-components.com



Key Switches



K12 High Performance Key Switches

CAP COLOR

OPTION CODE	COLOR
NONE	Version with LED
BK	Black - no LED
YE	Yellow - no LED
RD	Red - no LED
GY	Gray - no LED

LED COLOR

OPTION CODE	COLOR
NONE	Models without LED
GN	Green
YE	Yellow
OG	Orange
RD	Red
WH	White
BU	Blue

STANDARD LED CODE	COLOR
NONE	Models without LED
L306	Green
L327	Yellow
L315	Orange
L352	Red
L302	White
L328	Blue

TRAVEL

- 1** 1 mm
- 1.5** 1.5 mm
- 2** 2 mm

OPERATING FORCE

OPTION CODE	OPERATING FORCE
1.5N OD	1.5 N, 150g without snap-point
2.5N	2.5 N, 250g
3.5N	3.5 N, 350g
5N	5 N, 500g
3.5/7N	3.5/7 N, 350/700g
6/12N	6/12 N, 600-1200g



Key Switches



Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

www.ck-components.com

PVA

Short Stroke Key Switches

Features/Benefits

- Compact design
- Short stroke to latch
- Wide variety of actuator heights and styles
- Adapted for medium power applications
- RoHS compliant and compatible

Typical Applications

- Automotive (air conditioning, lighting)
- Video, remote controls
- Electronic games



Construction

FUNCTION: Momentary, Push-Push
 CONTACT ARRANGEMENT:¹
 PVA1: 2 make contacts (DPST)
 PVA2: 2 change over contacts (DPDT)
 SWITCHING MODE: Non-shorting
 TERMINALS: PC pins²

Mechanical

TOTAL TRAVEL / LATCHING TRAVEL:
 OA: 2,4± 0,2 (0.094 ± 0.008)
 EE: 2,4± 0,2 (0.094 ± 0.008) / 1,5 (0.059)
 OPERATING FORCE: 1.2 ± .25 (120 grams);
 1.7 ± .25 (170 grams); 3.5 ± .25 (350 grams)

Process

SOLDERABILITY:
 Wave soldering, compatible with lead free soldering profile
 Hand soldering, 350°C for 3 seconds

Note: Specifications listed above are for switches with standard options.
 For information on specific and custom switches, consult Customer Service Center.

Electrical

SWITCHING POWER MAX.: 3 W DC
 SWITCHING VOLTAGE MAX.: 32 V DC
 SWITCHING CURRENT MAX.: 100 mA DC*
 DIELECTRIC STRENGTH (50 Hz / 1 min):
 1000 V between open contacts, PVA2: 750 V
 OPERATING LIFE:
 OA (momentary): ≥ 1 x 10⁵ operations
 EE (push-push): ≥ 1 x 10⁵ operations
 CONTACT RESISTANCE: Initial ≤ 100 mΩ
 After life: 150 mΩ
 INSULATION RESISTANCE: ≥ 10¹⁰ Ω
 BOUNCE TIME: ≤ 3 ms

Environmental

OPERATING TEMPERATURE: -40°C to 85°C.³

- 1) Other contact arrangements available by request
 2) "Snap-in" contacts on request, Version SNA with pins bent inside (standard)
 3) With button +70°C
 * By 13,8 VDC, the PVA supports a peak current of 500 mA and a continuous current of 200 mA.

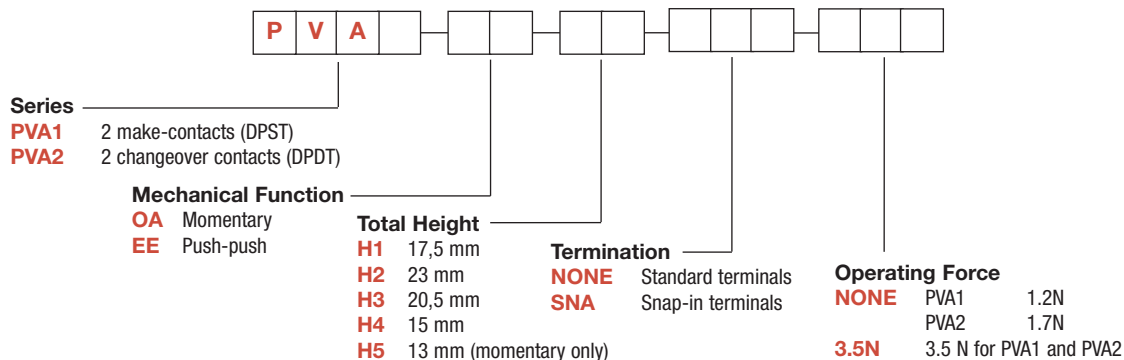


Key Switches

How To Order

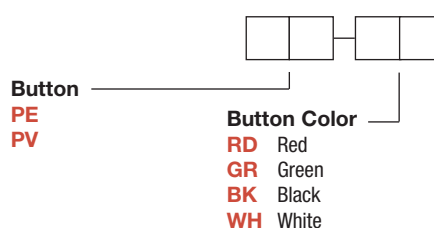
Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box. **Some of the configurations may not be available or could require some development.**

Switch



Button

Buttons must be ordered separately.
 Shipped in bulk.

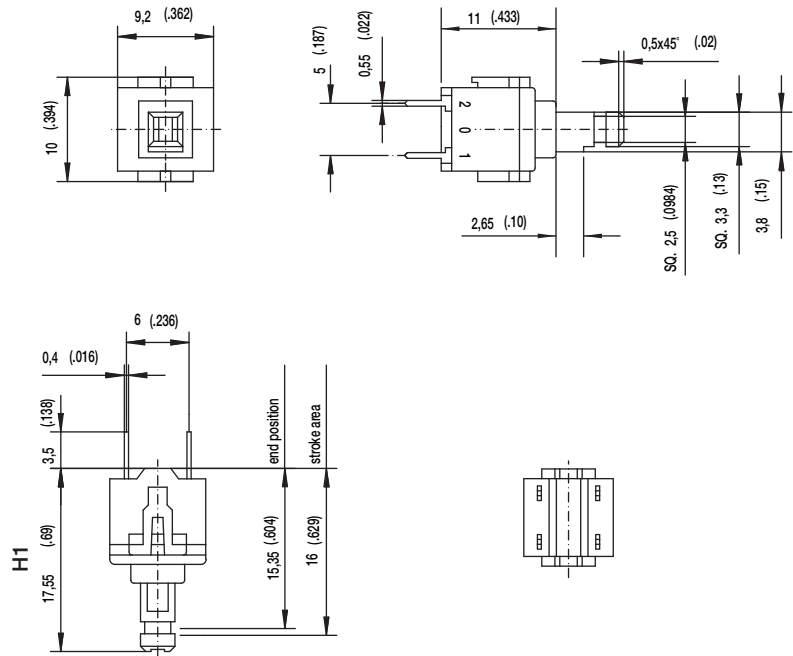
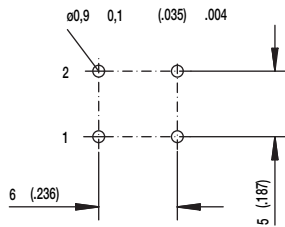


Dimensions are shown: mm (inch)
 Specifications and dimensions subject to change

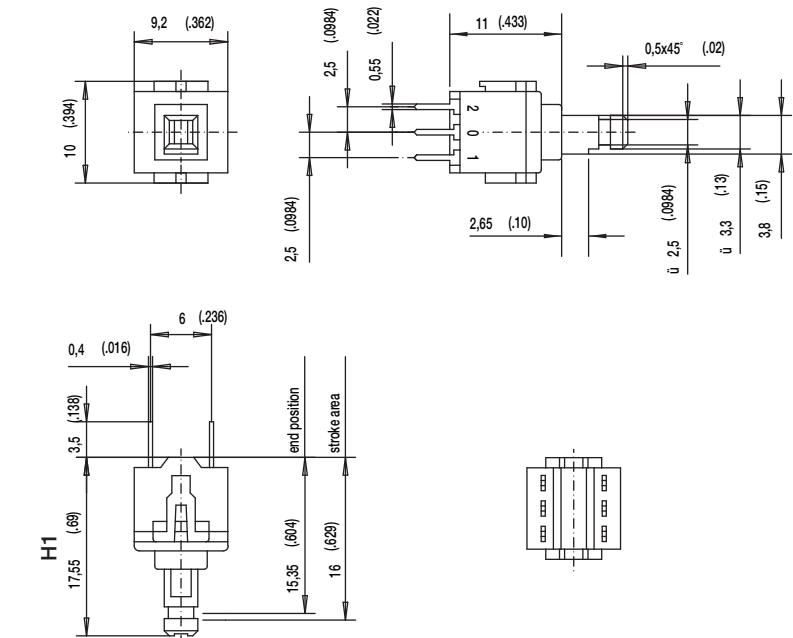
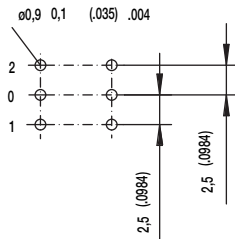
PVA Short Stroke Key Switches

SERIES

PVA1 (DPST)



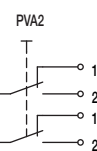
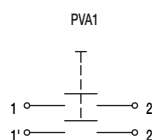
PVA2 (DPDT)



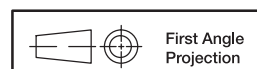
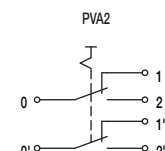
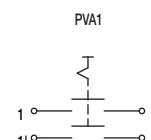
MECHANICAL FUNCTION

OPTION CODE	FUNCTION
OA	Momentary
EE	Push-Push

OA



EE



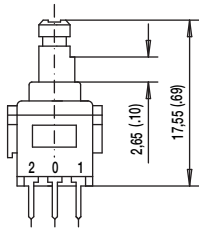
Dimensions are shown: mm (inch)
Specifications and dimensions subject to change



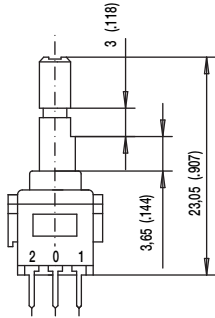
PVA Short Stroke Key Switches

TOTAL HEIGHT

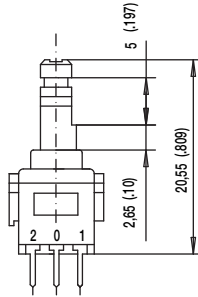
H1 17,5 MM



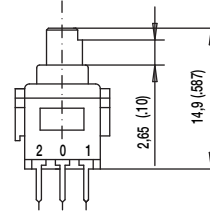
H2 23 MM



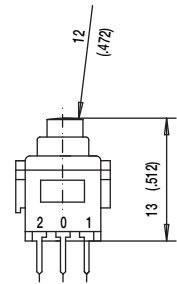
H3 20,5 MM



H4 15 MM

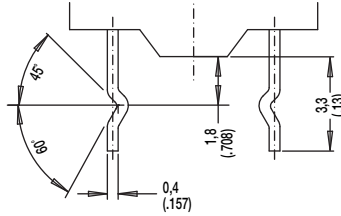
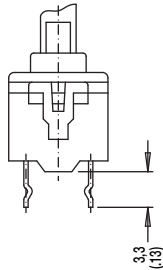


H5 13 MM
(MOMENTARY ONLY)



TERMINATION

SNA



OPERATING FORCE

NONE PVA1 1.2 N
PVA2 1.7 N

3.5N 3.5 NEWTONS PVA1 & PVA2

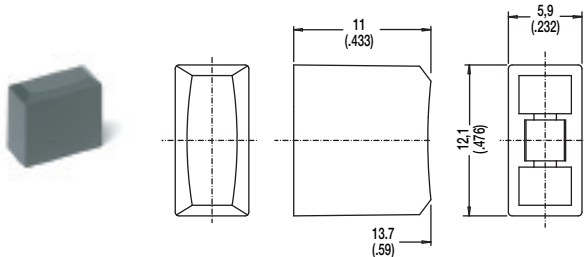


Key Switches

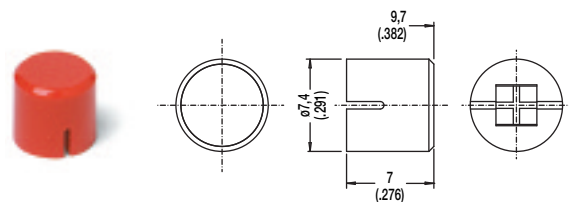
BUTTONS

BUTTONS MUST BE ORDERED SEPARATELY. SHIPPED IN BULK.

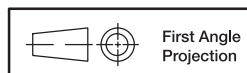
PE



PV



OPTION CODE	COLOR
RD	Red
GY	Gray
BK	Black
WH	White



Dimensions are shown: mm (inch)
Specifications and dimensions subject to change



www.ck-components.com



Features/Benefits

- Easy X, Y coding on single side PCB
- Positive tactile feedback
- High temperature
- Wide variety of colors & styles
- RoHS compliant and compatible

Typical Applications

- Video
- Electronic games
- Appliances

Construction

FUNCTION: momentary
 CONTACT ARRANGEMENT: 1 make contact (SPST), NO
 DISTANCE BETWEEN BUTTON CENTERS, MIN.: 12,7 (0.500)
 TERMINALS: PC pins

Electrical

SWITCHING POWER MAX.: 3 VA
 SWITCHING VOLTAGE MAX.: 32 V DC
 SWITCHING CURRENT MAX.: 100 mA DC
 DIELECTRIC STRENGTH (50 Hz / 1 min): 250 V
 OPERATING LIFE with max. switching power: (2,5x10⁵ operations)
 CONTACT RESISTANCE: ≤100 mΩ
 INSULATION RESISTANCE: ≥10⁸ Ω
 BOUNCE TIME: ≤10 ms

Packaging

The D6 switches are delivered in boxes containing 10 trays with 250 pieces each: Total 2,500 pieces per box.
 The D6 buttons are delivered in bulk with 2500 pieces per box.

Mechanical

SWITCHING TRAVEL:
 Version F1: 0.2mm ≤ Te ≤ 1.0 mm
 Version F2: 0.3mm ≤ Te ≤ 1.1 mm
 OPERATING FORCE:
 Version F1: 0.8N ≤ Fa ≤ 1.8N
 Version F2: 2.0N ≤ Fa ≤ 3.5N

Environmental

OPERATING TEMPERATURE: -20°C to 85°C.

Process

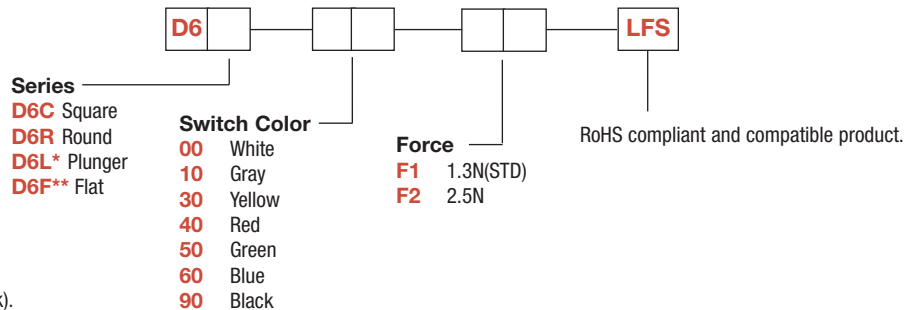
SOLDERABILITY:

Wave soldering, compatible with lead free soldering profile
 Hand soldering, 350°C for 3 seconds

How To Order

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.

Switch



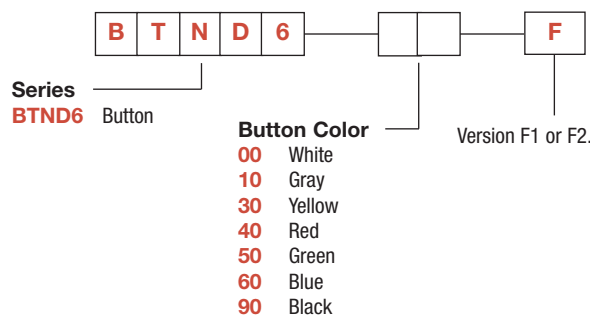
*Available only in color 90 (black).

** Available only in color 90 (black) and 00 (white).

Button

Buttons can be ordered separately.
 Shipped in bulk.

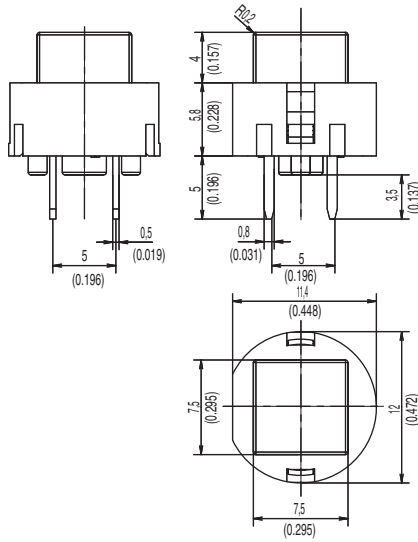
D6 button for use with D6C only.



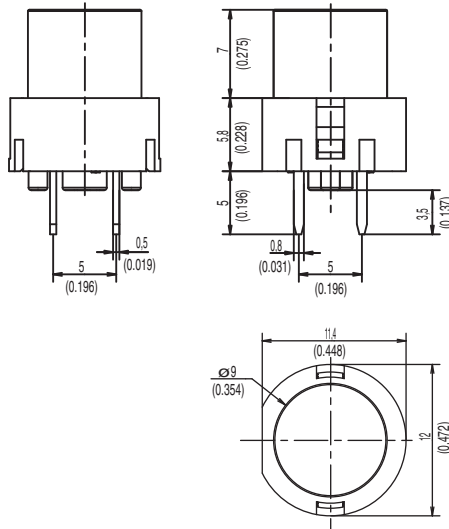
D6 SPST Momentary Key Switches

SERIES 

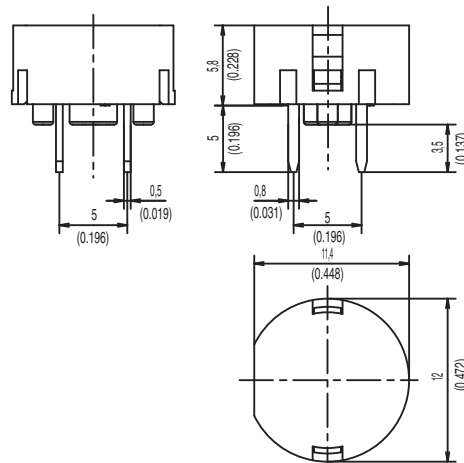
D6C



D6R



D6F



Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

www.ck-components.com



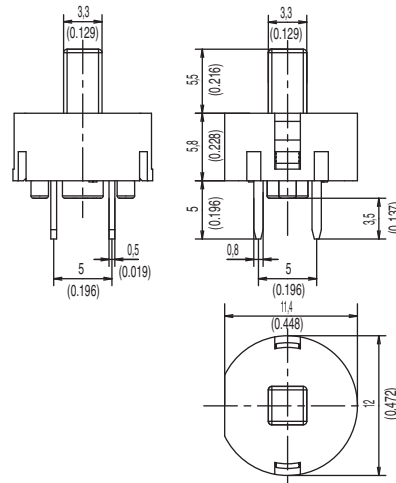
Key Switches



SPST Momentary Key Switches

SERIES 

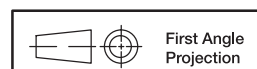
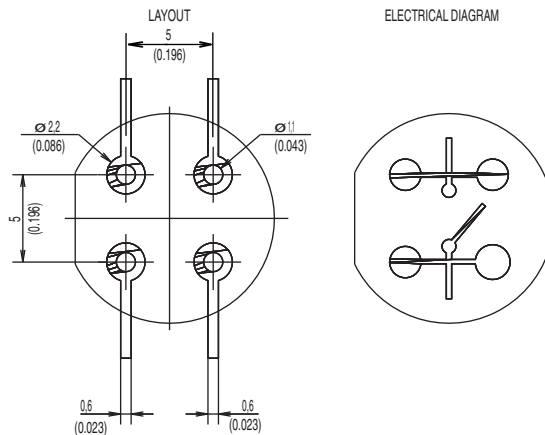
D6L ONLY AVAILABLE IN BLACK



SWITCH COLORS 

OPTION CODE	SWITCH COLOR
00	WHITE
10	GRAY
30	YELLOW
40	RED
50	GREEN
60	BLUE
90	BLACK

PCB LAYOUT



Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

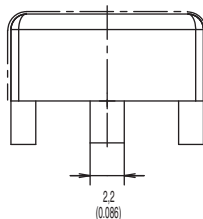
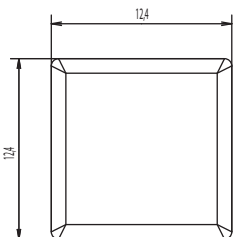
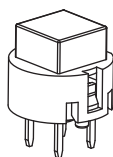
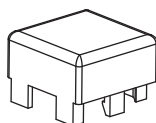
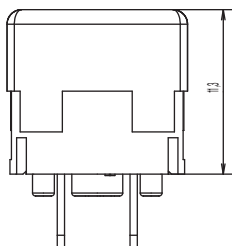


D6 SPST Momentary Key Switches

BUTTON AVAILABLE

BTND6 Buttons must be ordered separately. Shipped in bulk.

NOTE: Only compatible with D6C.



OPTION CODE	BUTTON COLOR
00	WHITE
10	GRAY
30	YELLOW
40	RED
50	GREEN
60	BLUE
90	BLACK



Key Switches



First Angle
Projection

Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

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Features/Benefits

- Positive tactile feel
- Variety of cap colors
- LED support available
- SPST and SPDT configurations
- RoHS compliant

Typical Applications

- Telecommunications
- Industrial
- Instrumentation

Specifications

CONTACT RATING: Q contact material: 25mA @ 50V AC .or DC max.
 ELECTRICAL LIFE: 100,000 actuations.
 CONTACT RESISTANCE: Below 100 mΩ initial @ 2-4 V DC, 100 mA
 INSULATION RESISTANCE: 10⁹ Ω min.
 DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level.
 OPERATING TEMPERATURE: -30°C to 65°C.
 SOLDERABILITY: Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).

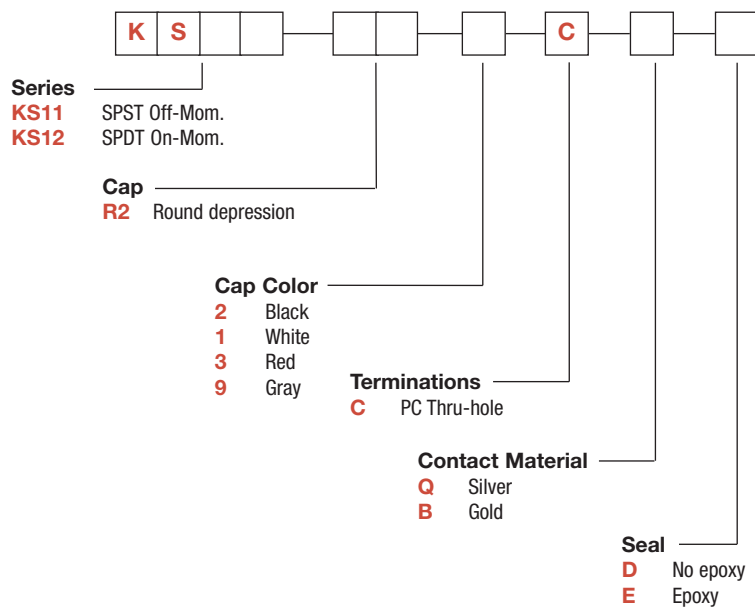
Note: Specifications and materials listed above are for switches with standard options.
 For information on specific and custom switches, consult Customer Service Center.

Materials

CASE: Glass filled nylon (UL 94V-0).
 ACTUATOR: Nylon 6/6 or ABS, matte finish, black standard.
 MOVABLE CONTACT: Q contact material: Stainless steel, silver plated.
 STATIONARY CONTACTS AND TERMINALS: Q contact material: copper alloy, silver plated.
 TERMINAL SEAL: Epoxy

How To Order

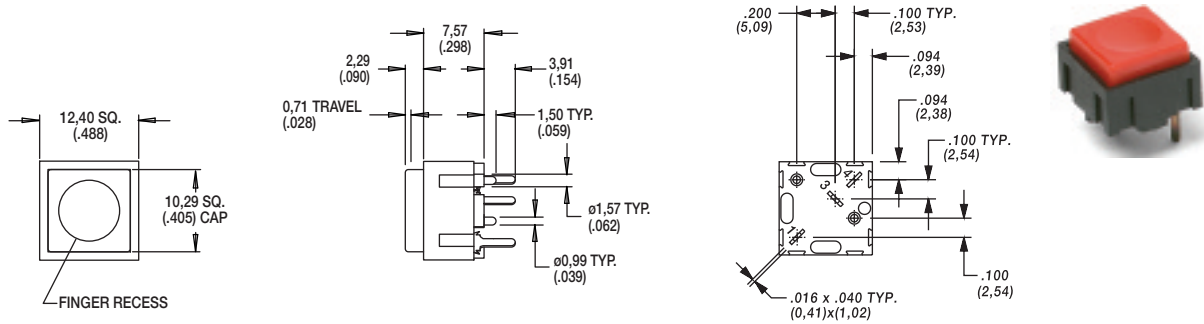
Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.



KS Single Pole Key Switches

SERIES

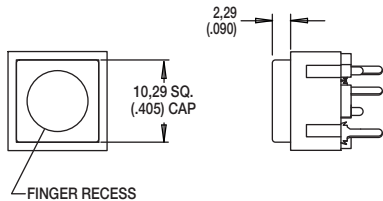
KS11 / KS12



NO. POLES	MODEL NO.	SWITCH FUNCTION		CONNECTED TERMINALS		SCHEMATIC
		POS. 1	POS. 2	POS. 1	POS. 2	
SP	KS11	OFF	MOM.	OPEN	1-3	SPST
	KS12	ON	MOM.	1-4	1-3	SPDT

CAP

R2 CAP WITH ROUND DEPRESSION



OPTION CODE	CAP COLOR
2	BLACK
1	WHITE
3	RED
9	GRAY



Key Switches



Third Angle Projection

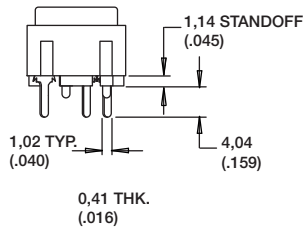
Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change



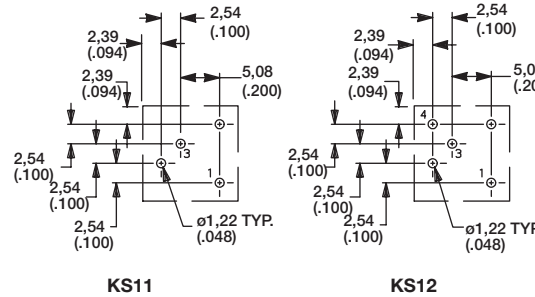
www.ck-components.com

TERMINATION

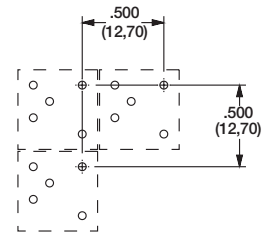
C PC THRU-HOLE



PC MOUNTING



MULTIPLE SWITCH SPACING



CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
Q	SILVER ²	SILVER ²	POWER	25 mA MAX. @ 50 V AC OR DC MAX.
B	GOLD ¹	GOLD ¹	LOW LEVEL/DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.

1) MOVABLE CONTACT: Stainless steel, with gold plate over nickel plate.
STATIONARY CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.

2) MOVABLE CONTACT: Stainless steel, silver plated.
STATIONARY CONTACTS & ALL TERMINALS: Copper alloy, silver plated.

NOTE: Any models supplied with Q or B contact material are RoHS compliant.

SEAL

D NO EPOXY SEAL

E EPOXY SEAL



DIGITAST

Microminiature SPDT, Key Switches



Features/Benefits

- High reliability/long life
- Designed for low level switching
- Ready to implement on PCB
- Latching function available
- Several button options
- RoHS compliant and compatible

Typical Applications

- Medical
- Instrumentation
- Industrial electronics
- Audio electronics

Construction

FUNCTION: momentary or push-push
 CONTACT ARRANGEMENT: 1 change over contact SPDT, NO
 MODE OF SWITCHING: Non-shorting
 DISTANCE BETWEEN BUTTON CENTERS:
 HORIZONTAL MINIMUM: 12,7 (0.500) or 17,78 (0.700)
 VERTICAL MINIMUM: 17,78 (0.700)
 TERMINALS: PC pins
 MOUNTING: Soldering, centering pins

Mechanical

TOTAL TRAVEL: ≤ 3 (.0018)
 SWITCHING TRAVEL: 1,5 (0.0591)
 LATCHING TRAVEL: 1,8 (0.0709)
 OPERATING FORCE: 1.5 +/- 0.5 N (150 +/- 50 grams)

Process

SOLDERABILITY:
 Wave soldering, compatible with lead free soldering profile
 Hand soldering, 350°C for 3 seconds

Electrical

SWITCHING POWER MAX.: 240 mW DC
 SWITCHING VOLTAGE MAX.: 24 V DC
 SWITCHING CURRENT MAX.: 10 mA DC
 CARRYING CURRENT AT 20°C (push-push version): 100 mA
 DIELECTRIC STRENGTH (50 Hz, 1 min): 500 V
 OPERATING LIFE with or without max. switching power
 Momentary: $\geq 5 \times 10^6$ operations
 Push-push: $\geq 5 \times 10^5$ operations
 CONTACT RESISTANCE: Initial ≤ 50 m Ω
 After 5×10^6 operations: ≤ 100 m Ω
 INSULATION RESISTANCE: $\geq 10^{10}$ Ω
 CAPACITANCE at f= 10 kHz: ≤ 0.8 pF
 BOUNCE TIME: ≤ 2.5 ms
 Operating speed 400 mm/s (15.75/s)

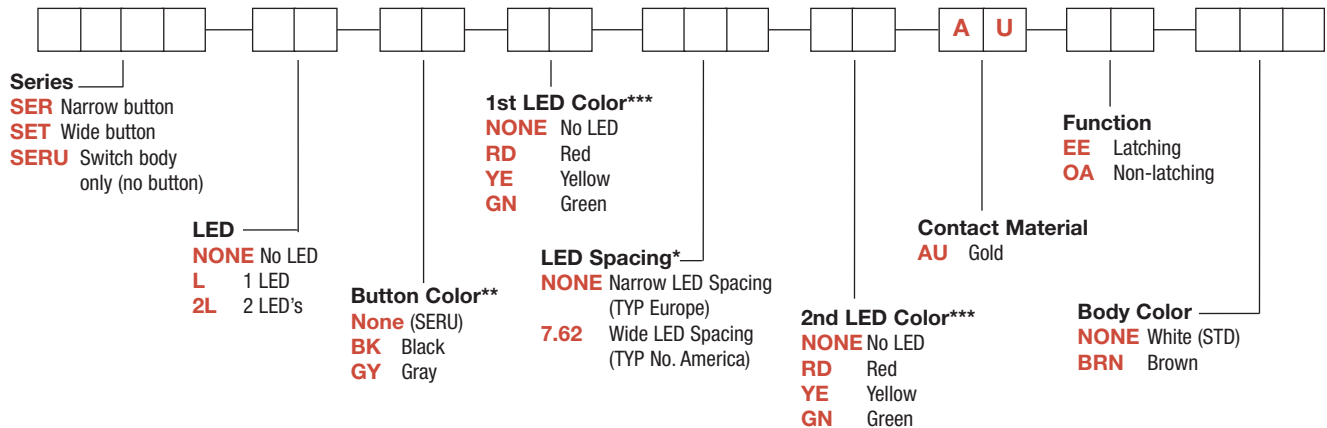
Environmental

OPERATING TEMPERATURE: -25°C to 85°C.

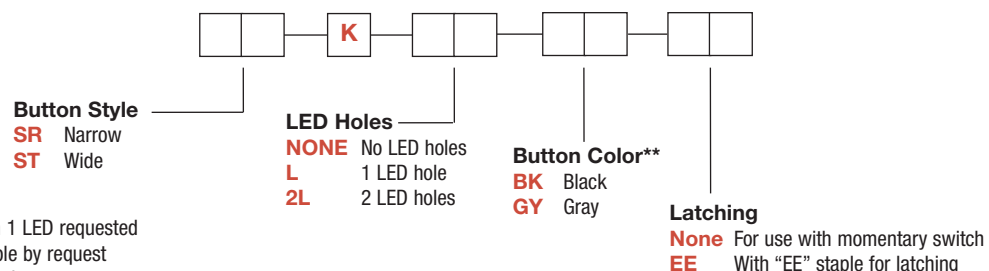
How To Order

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box. **Some of the configurations may not be available or could require some development.**

Switch



Button



* LED spacing only applies when 1 LED requested
 ** Additional button colors available by request
 *** Additional LED colors available by request

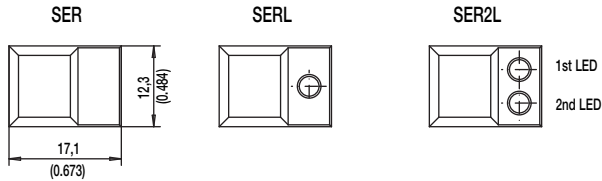
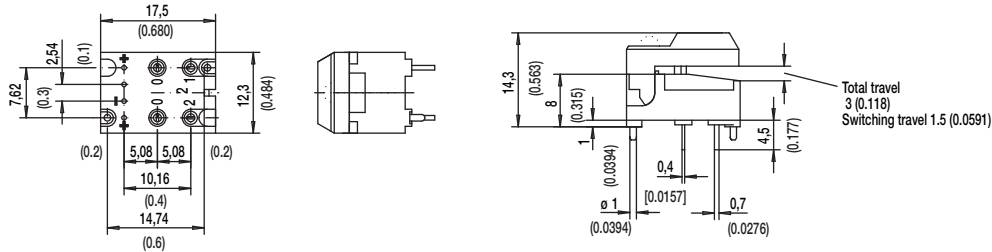


Dimensions are shown: mm (inch)
 Specifications and dimensions subject to change

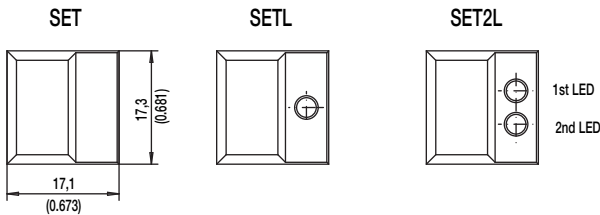
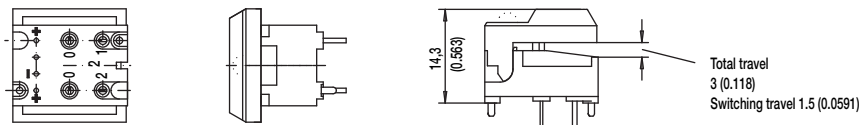
DIGITAST Microminiature SPDT, Key Switches

DESIGNATION

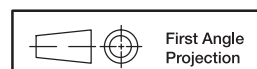
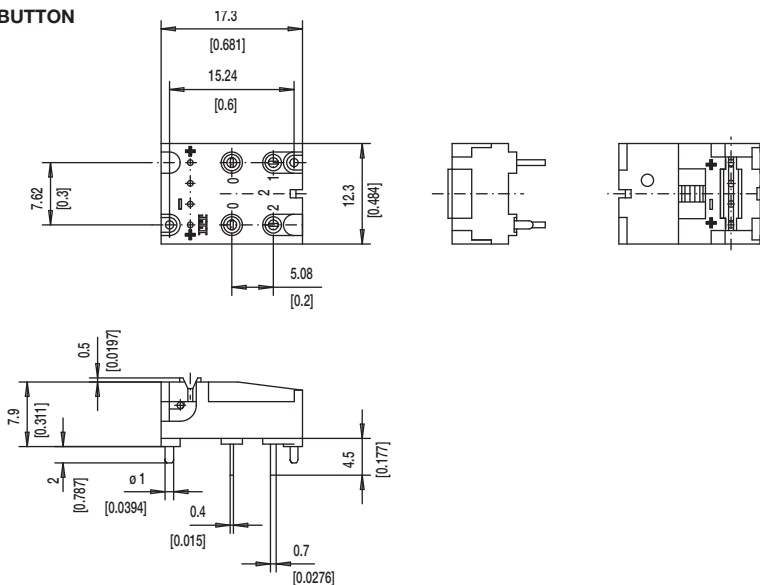
SER NARROW BUTTON



SET WIDE BUTTON



SERU NO BUTTON



Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

www.ck-components.com



Key Switches

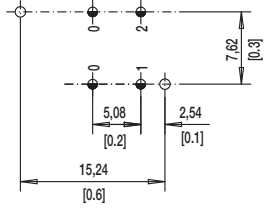


DIGITAST

Microminiature SPDT, Key Switches

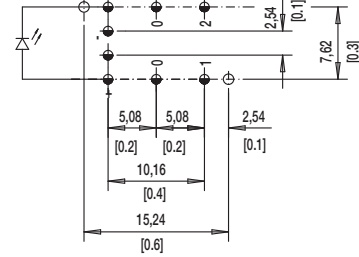
LED

NONE NO LED

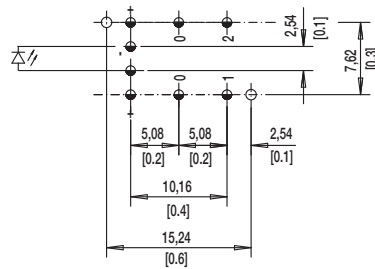


L 1 LEDs

7.62 mm Spacing (TYP No. America)

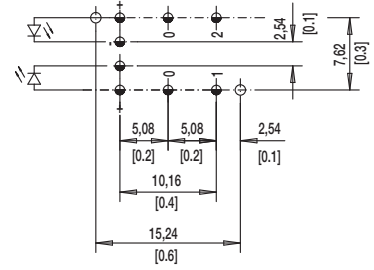


NARROW SPACING (TYP EUROPE)



TOP VIEW OF PCB

2L 2 LEDs



⌀ 1.0±0.1 (0.0394±0.00349)

⌀ 1.1±0.05 (0.0433±0.00197)

BUTTON COLOR

BK BLACK

GY GRAY

Other button colors available by request [red (RD), green (GN), white (WH), yellow (YE), blue (BU), orange (OG)].

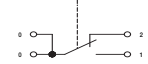
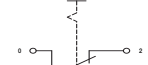
LED COLOR

OPTION CODE	COLOR
NONE	Models without LED
RD	Red
GN	Green
YE	Yellow

CONTACT MATERIAL

OPTION CODE	MATERIAL
AU	Gold

FUNCTION

OPTION CODE	COLOR	SCHEMATIC
OA	Momentary	
EE	Push-Push	



Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

www.ck-components.com



Key Switches