

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
 CONTACT ARRANGEMENT:
 1A (1 make contact = SPST) NO
 1R (1 break contact) NC by request
 2A (make contact) = 2 X SPST for K12GO
 DISTANCE BETWEEN BUTTON CENTERS:
 min. 11 (0.433) K12C = 13 (0.512)
 TERMINALS: PC pins, tinned
 MOUNTING: Locating pins; K12D, K12G and K12P additionally with snap-in housing

Electrical

SWITCHING POWER MIN./MAX.: 0.02mW/3 W
 SWITCHING VOLTAGE MIN./MAX.: 2 V DC / 30 V DC
 SWITCHING CURRENT MIN./MAX.: 10 μ A / 100 mA
 DIELECTRIC STRENGTH (50 Hz, 1 min): \geq 500 V
 OPERATING LIFE with max. switching power: \geq 10⁶ operations
 K12G & K12GO; operating life of second switch 5 x 10⁴ operations
 CONTACT RESISTANCE: Initial \leq 50 m Ω
 INSULATION RESISTANCE: \geq 10¹⁰ Ω
 BOUNCE TIME: \leq 1 ms
 Operating speed 400 mm/s (15.75/s)

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
 PROTECTION CLASS: K12C IP 67 (dust tight, protected against the effects of immersion in water; other versions IP 50)

Environmental

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

Process

SOLDERABILITY:
 Max. soldering time and temperature: 5 s at 260°C



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

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.



Series

- K12P** With snap-in pegs
- K12PL** With central LED
- K12D** Snap-in peg with LED holder
- K12DL** Snap-in pegs with LED
- K12C** Sealed contact with rubber cap (IP 67)
- K12GO** Twin contacts without side LED holder
- K12GOL**
- K12A**
- K12AL**
- K12G**
- K12GL**

Cap Color

- NONE** version with LED
- BK** Black cap - No LED

LED Color**

- NONE** No LED
- GN** Green
- YE** Yellow
- OR** 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 ***

LED Reference

- L306** Green
- L327** Yellow
- L315** Orange
- L352** Red
- L302** White
- L328** Blue

* K12P version only

** Additional LED colors available by request

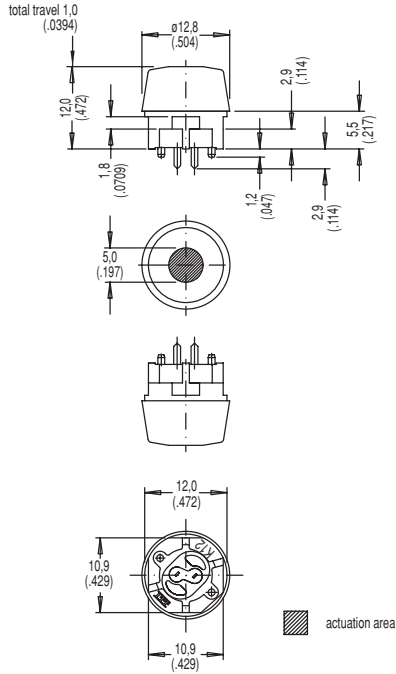
*** K12G & K12GO version only

K12 High Performance Key Switches

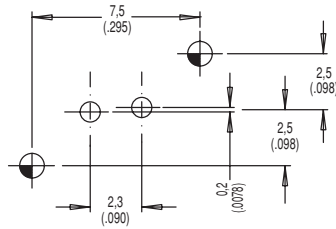
SERIES



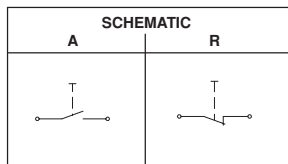
K12C Sealed contact with rubber cap (IP 67)



PCB LAYOUT,
MOUNTING SIDE



Key Switches



Hole	Ø	Without LED	With LED	Description	Terminal Section	Surface
	1,1 (.043)	2x	2x	center hole		
	0,9 (.035)		2x	LED	m0.5 (.0204)	Sn
		2x	2x	switch	0.7 x 0.2 (.0275 x .0787)	Sn

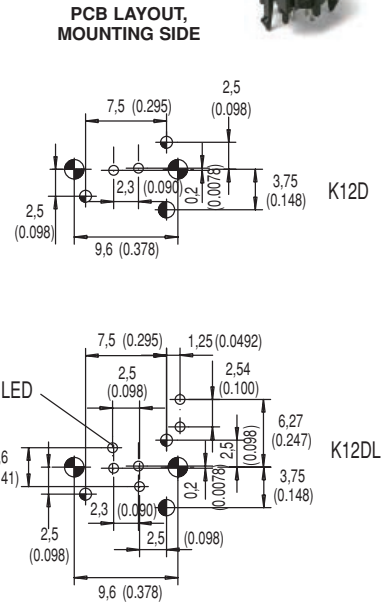
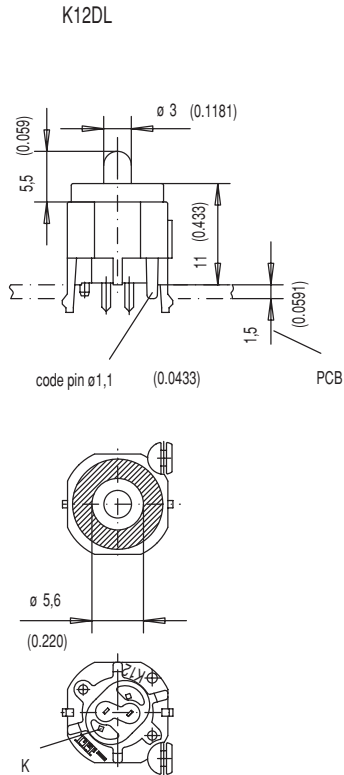
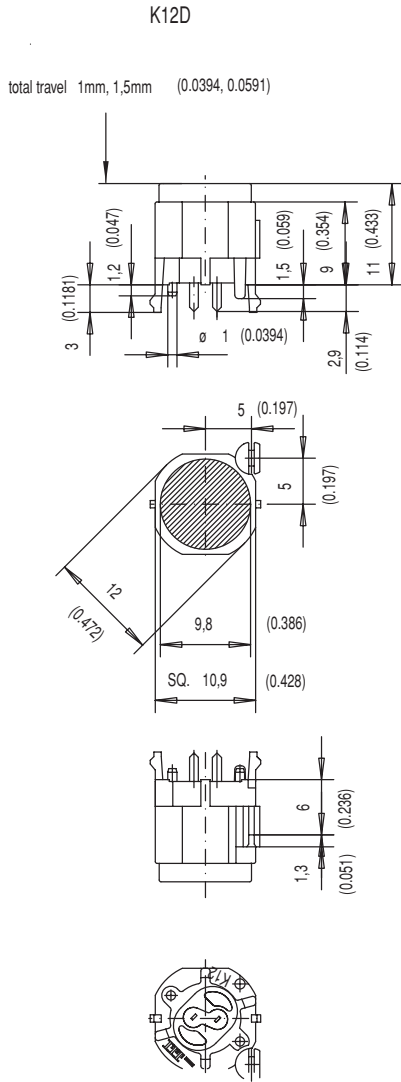


K12 High Performance Key Switches

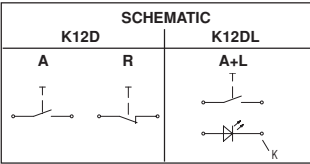
SERIES



K12D
K12DL



actuation area

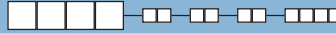


Hole	Ø	Without LED	With LED	Description	Terminal Section	Surface
	1,7 (.069)	2x	2x	snap-in		
	1,6 (.062)	1x	1x	coding hole (L,M,N)		
	1,1 (.043)	2x	2x	center hole		
	0,9 (.035)		2x	LED	m0.5 (.020)	Sn
		2x	2x	switch	0.7 x 0.2 (.028 x .081)	Sn



K12 High Performance Key Switches

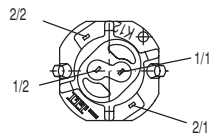
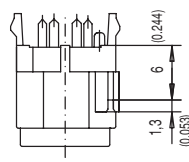
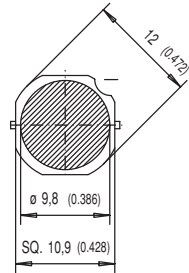
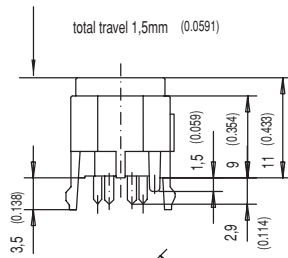
SERIES



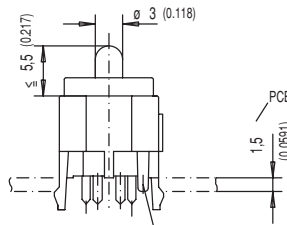
K12GO
K12GOL



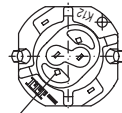
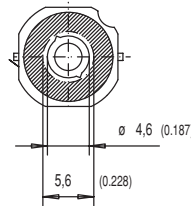
K12GO



K12GOL



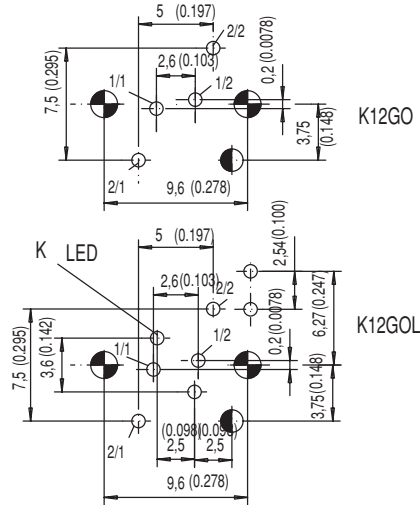
code pin $\varnothing 1,1$ (0.043)



K (LED)

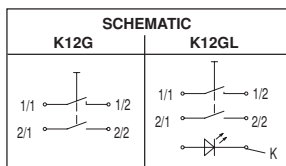
actuation area

PCB LAYOUT,
MOUNTING SIDE



D

Key Switches



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 shown in: mm (inch)
Dimensions subject to change

K12 High Performance Key Switches

CAP COLOR

OPTION CODE	COLOR
NONE	Version with LED
BK	Black

LED COLOR

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

LED REFERENCE

OPTION CODE	COLOR
L306	Green
L327	Yellow
L315	Orange
L352	Red
L302	White
L328	Blue



D

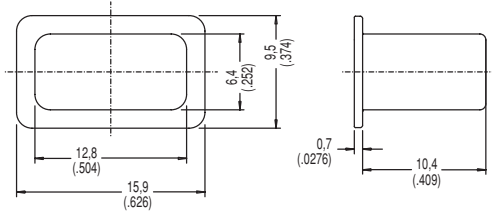
Key Switches

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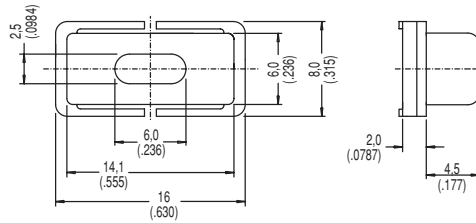
BUTTONS AVAILABLE

Buttons must be ordered separately. Shipped in bulk.

K12KA BK



K12KB BK



Key Switches