

K12 Series

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**
- **Joysticks**



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 or GO) 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 mA /100 mA
DIELECTRIC STRENGTH (50 Hz, 1 min): ≥ 500 V
OPERATING LIFE

For all K12 versions up to 6N with max. switching power: $\geq 10^6$
operations

For all K12/K12C versions from 7N to 20N with max. switching power:
please consult factory

For K12G & K12GO with max. switching power: $\geq 5 \times 10^4$ operations

CONTACT RESISTANCE: Initial ≤ 50 m Ω

INSULATION RESISTANCE: $\geq 10^{10}$ 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: 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	LED Color	Standard LED Code	Cap Color	Travel*	Operating Force***	Contact Arrangement
K12A No snap-in pegs	NONE No LED	NONE No LED	NONE version with LED, version C	1 1 mm (0.039)	1.5N OD 1.5 N without snap-point	NONE SPST NO (STD)
K12AL No snap-in pegs with central LED	GN Green	LV306 Green	BK Black cap – No LED	1.5 1.5 mm (0.059)	2.5N 2.5 N	1R SPST NC (Special request)
K12P With snap-in pegs	YE Yellow	LV327 Yellow	YE Yellow cap - No LED	2 2 mm (0.079)	3.5N 3.5 N	
K12PL With central LED	OG Orange	LV315 Orange	RD Red cap – No LED		5N 5 N	
K12C Sealed contact with rubber cap (IP 67)	RD Red	LV352 Red	GY Gray cap – No LED		3.5/7N** 3.5/7 N**	
K12GO Two-step switch	WH White	LV302 White			6/12N 6/12 N**	

* K12C – 1mm MAX

K12 with LED – 1.5 mm MAX

** K12G & K12GO version only

*** Additional operating force: 7N, 9N available on request



14 Jan 22



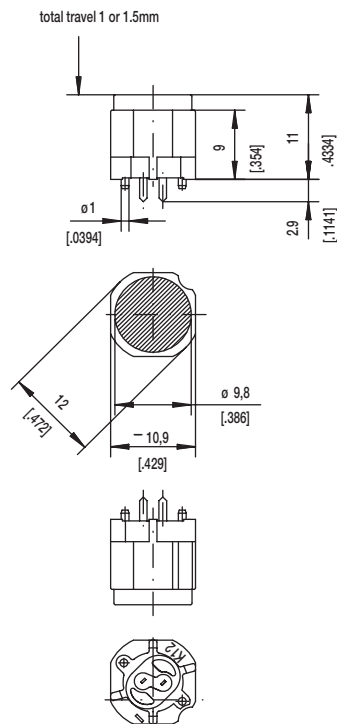
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Key Switches

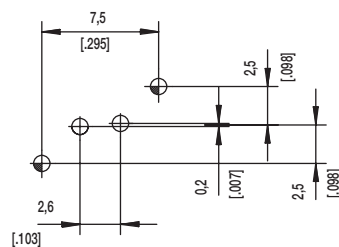
K12 Series High Performance Key Switches

SERIES

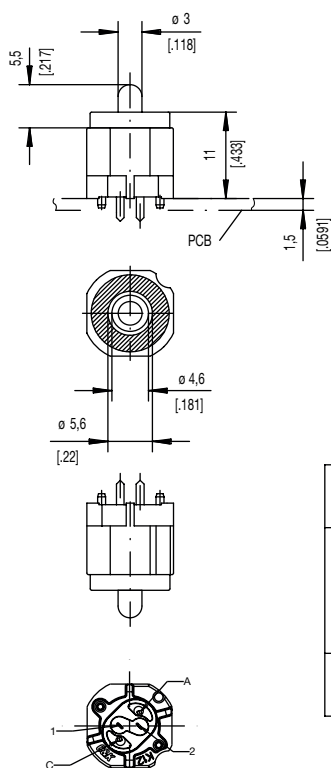
K12A without snap in



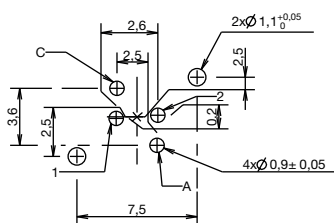
PCB LAYOUT, MOUNTING SIDE



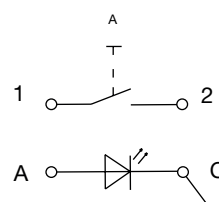
K12AL



PCB LAYOUT, MOUNTING SIDE



ELECTRICAL GRAPH



	1,1 ^{+0,05}	2x	2x	center hole		
	0,9 ±0,05		2x	LED	ø0,5 (.020)	Sn
		2x	2x	switch	0,7x0,2 (.028x.081)	Sn
Hole	ø	Without	with LED	Description	Terminal Section	Surface







First Angle
Projection





Dimensions are shown: mm
Specifications and dimensions subject to change

SERIES

[illegible]

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

[illegible]

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)	



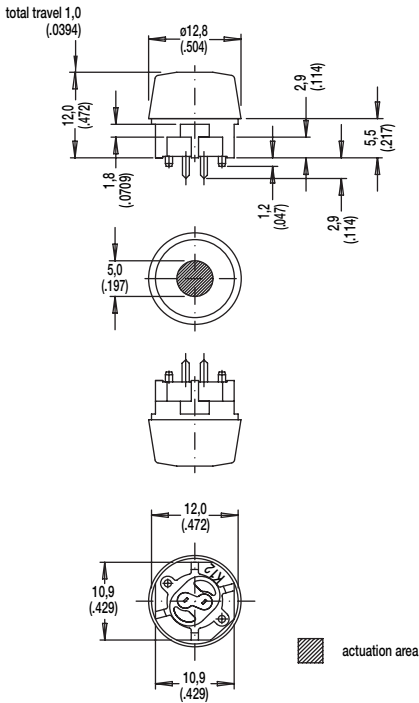
www.ckswitches.com

K12 Series

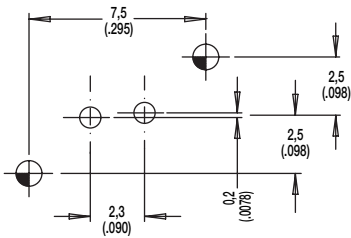
High Performance Key Switches

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K12C SEALED CONTACT WITH RUBBER CAP (IP 67)



PCB LAYOUT, MOUNTING SIDE



SCHEMATIC	
A	R

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

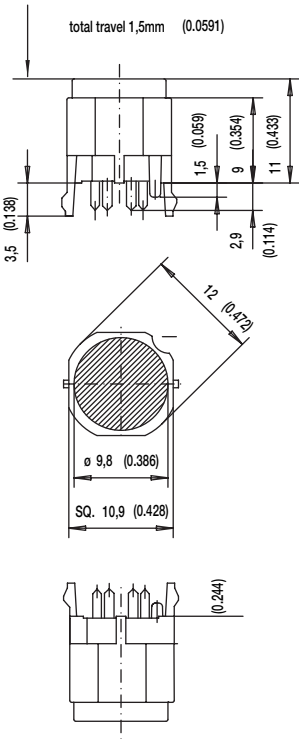


K12 Series

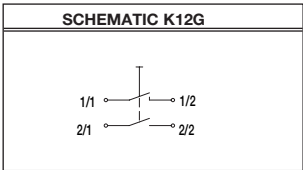
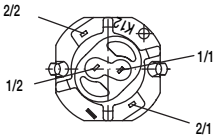
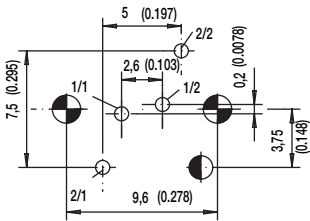
High Performance Key Switches




SERIES 

K12GO



PCB LAYOUT, MOUNTING SIDE



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



Dimensions are shown: mm
Specifications and dimensions subject to change

High Performance Key Switches

A diagram of a linked list structure. It consists of a sequence of nodes connected by arrows. The first node is a small rectangle divided into two equal halves. The second node is a larger rectangle, also divided into two equal halves. The third node is a small rectangle divided into two equal halves. The fourth node is a small rectangle divided into two equal halves. The fifth node is a small rectangle divided into two equal halves. The sixth node is a small rectangle divided into two equal halves. The seventh node is a small rectangle divided into two equal halves. The eighth node is a small rectangle divided into two equal halves. The ninth node is a small rectangle divided into two equal halves. The tenth node is a small rectangle divided into two equal halves. The eleventh node is a small rectangle divided into two equal halves. The twelfth node is a small rectangle divided into two equal halves. The thirteenth node is a small rectangle divided into two equal halves. The fourteenth node is a small rectangle divided into two equal halves. The fifteenth node is a small rectangle divided into two equal halves. The sixteenth node is a small rectangle divided into two equal halves. The seventeenth node is a small rectangle divided into two equal halves. The eighteenth node is a small rectangle divided into two equal halves. The nineteenth node is a small rectangle divided into two equal halves. The twentieth node is a small rectangle divided into two equal halves. The diagram shows a sequence of nodes connected by arrows, with the first two nodes being larger than the others.

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

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

STANDARD LED CODE	COLOR
NONE	Models without LED
LV306	Green
LV327	Yellow
LV315	Orange
LV352	Red
LV302	White

1 1 mm
1.5 1.5 mm
2 2 mm



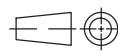
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Key Switches

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

CONTACT ARRANGEMENT OPTION

1R SPST NC (SPECIAL REQUEST FOR NORMALLY CLOSED OPTION)



First Angle
Projection

Dimensions are shown: mm
Specifications and dimensions subject to change

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

C&K Switches:

[K12GO NT 1.5 3.5-7N](#) [K12C 1 5N](#) [K12P BK 1 5N](#) [K12ABK21.5N](#) [K12ABK22.5N](#) [K12ABK23.5N](#) [K12ALBU15NL328](#)
[K12ALGN1.55NL306](#) [K12ALWH1.55NL302](#) [K12G0BK248.5N.5130CN](#) [K12G0LGN1.5612NL306](#)
[K12G0LWH1.5612NL302](#) [K12PBK1.52.5N](#) [K12PL0G1.55NL315](#) [K12PL0G11.5N0DL315](#) [K12PLBU12.5NL328](#)
[K12PLGN1.52.5NL306](#) [K12PLGN1.55NL306](#) [K12PLRD1.55NL352](#) [K12PLWH15NL302](#) [K12AGN1.52.5N](#)
[K12AGY1.52.5N](#) [K12AH11.5N](#) [K12AH12.5N](#) [K12AH1.52.5N](#) [K12AK11.5N](#) [K12AK12.5N](#) [K12AK1.51.5N](#)
[K12AK1.55N](#) [K12ALGN15NL306](#) [K12ALRD15NL352](#) [K12ALYE15NL327](#) [K12DLYE12.5NL327](#) [K12G0BK2612N.5](#)
[K12PD](#) [K12PL0G15NL315](#) [K12C12.5N](#) [K12DL YE 1 5N L327](#) [K12KKK BK](#) [K12D BK 1 5N](#) [K12P BK 1 3.5N](#) [K12PO](#)
[BK 2 6N .8 200CN](#) [K12PL YE 1.5 5N L327](#) [K12P0BK24N.8](#) [K12G0LYE1.5612NL327](#) [K12G0NT1.53.57N](#)
[K12DBK15N](#)