

Trackball Miniature All-direction Navigation Switch

Features/Benefits

- 8 mm ball ergonomic design allows ease of use in all directions
- Positive tactile feedback
- Integrated lighting (up to 2 LEDs)
- ESD protected
- RoHS compliant
- IP54

Typical Applications

- Remote controls
- Navigation systems
- Keyboards, notebooks, PC mouse
- Game controllers



Construction

FUNCTION: All-direction scanning + select
 CONTACT TYPE: Normally open
 TERMINALS: Flex with 11 terminals 0.5 mm pitch, gold plated

Mechanical

SCANNING
 ROTATING FORCE: 0.35 N ± 0.1 N
 SELECT
 SELECTING FORCE: 2.2 N ± 25%
 TACTILE FEELING: ≥ 30%
 ELECTRICAL TRAVEL (Te): 0.24 mm ± 0.05 mm
 SIMULTANEITY (Tm - Te): ≤ 0.12 mm
 TOTAL TRAVEL: 0.33 mm ± 0.05 mm

Note: Specifications listed above are for switches with standard options.

Electrical (select function)

MAXIMUM POWER: 0.20 VA
 MIN./MAX. VOLTAGE.: 20 mVdc - 32 Vdc
 MIN./MAX. CURRENT: 1.0 mA - 50mA
 DIELECTRIC STRENGTH: > 200 Vrms
 CONTACT RESISTANCE: < 1000 mΩ
 BOUNCE TIME: ≤ 3ms
 CAPACITY: ≤ 5pF

Environmental

OPERATING TEMPERATURE: -30°C to +85°C
 STORAGE TEMPERATURE: -30°C to +85°C
 RELATIVE HUMIDITY: 90 to 95% HR
 According to NF EN 60068-2-30
 SCANNING OPERATING LIFE: 300,000 cycles in each 4 main directions
 SELECT OPERATING LIFE: ≥ 500,000 cycles
 VIBRATIONS: 10 to 500Hz - 5G - 23 min. per axis
 MECHANICAL SHOCKS: According to NF EN 60068-2-27
 OVERLOAD: 20 N

Packaging

Plastic trays of 40 pieces



Navigation

How To Order

To order, simply select desired option from each category and place in the appropriate box. For additional options not shown in catalog, consult our Customer Service Center.

COMMON
(has to be the same for both LEDs)

	Code	Status
Anode 	0	No Led
	1	Green
	2	Orange
	3	Blue
	4	Red
Cathode 	O	No Led
	G	Green
	A	Orange
	B	Blue
	R	Red

Designation
TB

Color of Ball
W White

Pulse Number
B 12

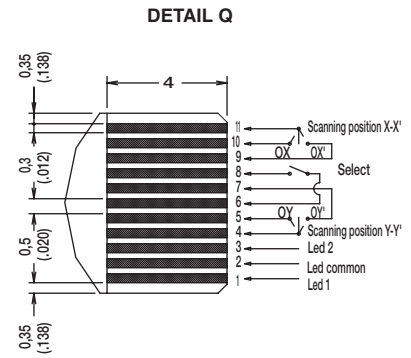
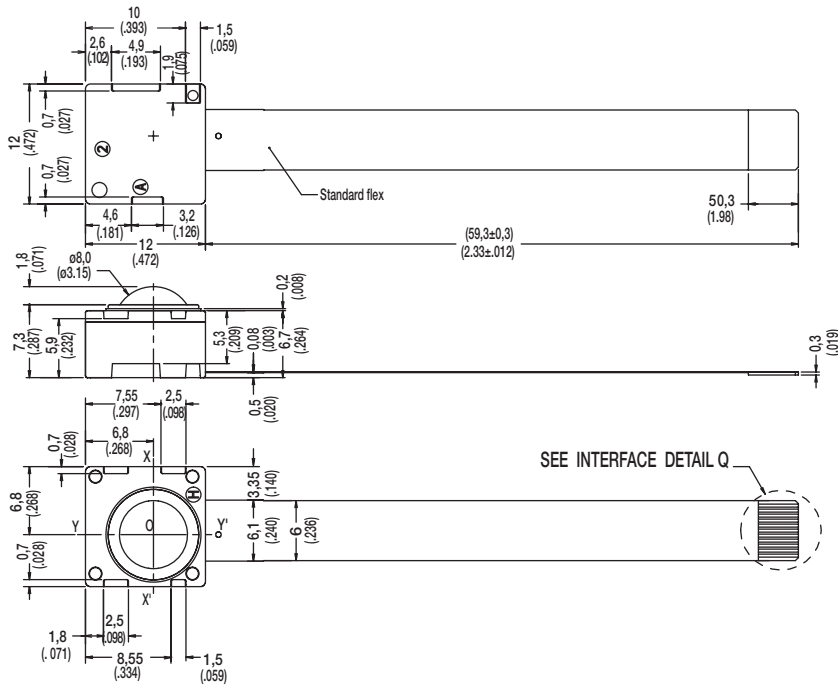
Dome Force
2 2.2N ± 25%

Flex
A

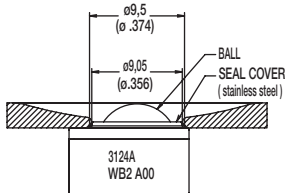
1st LED
For each LED, once the common wiring is defined (Cathode or Anode).

2nd LED

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INTEGRATION EXAMPLE



Each piece is date code printed:

1st Line: 3124A = 3 is Year, 124 is day in the year,

A is shift identification

2nd Line: WB2 A00 = Reference of the product.

Navigation



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

www.ck-components.com