

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: $0.35 \text{ N} \pm 0.1 \text{ N}$
SELECT
SELECTING FORCE: $2.2 \text{ N} \pm 25\%$
TACTILE FEELING: $\geq 30\%$
ELECTRICAL TRAVEL (T_e): $0.24 \text{ mm} \pm 0.05 \text{ mm}$
SIMULTANEITY ($T_m - T_e$): $\leq 0.12 \text{ mm}$
TOTAL TRAVEL: $0.33 \text{ mm} \pm 0.05 \text{ mm}$

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: $> 200 \text{ Vrms}$
CONTACT RESISTANCE: $< 1000 \text{ m}\Omega$
BOUNCE TIME: $\leq 3\text{ms}$
CAPACITY: $\leq 5\text{pF}$

Environmental

OPERATING TEMPERATURE: -30°C to $+85^\circ\text{C}$
STORAGE TEMPERATURE: -30°C to $+85^\circ\text{C}$
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: $\geq 500,000$ 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.

Designation **T B**

Color of Ball **W** White

Pulse Number **B** 12

Dome Force **2** $2.2\text{N} \pm 25\%$

Flex **A**

1st LED

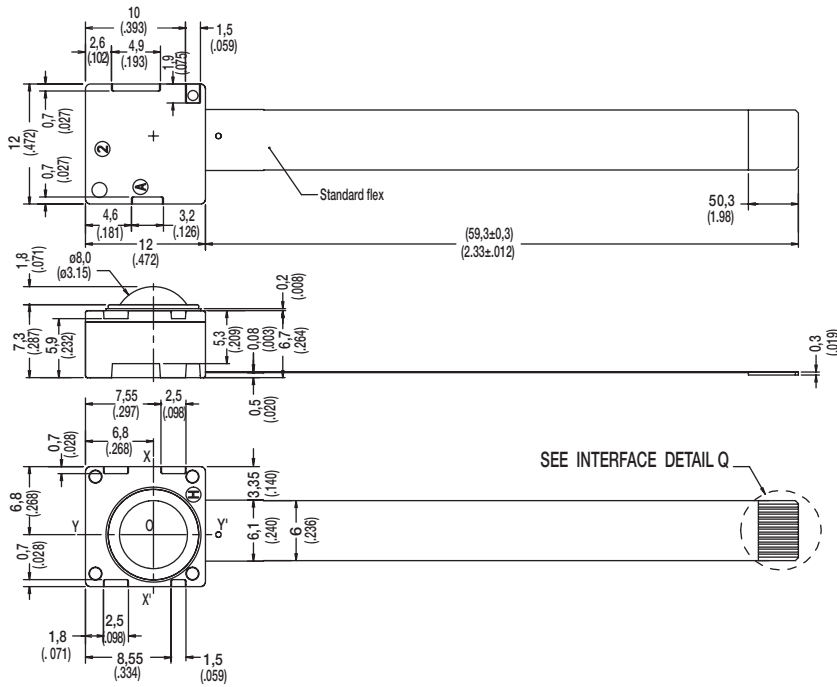
2nd LED

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

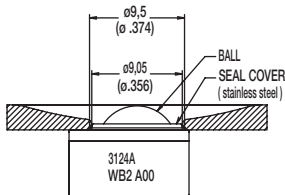
COMMON (has to be the same for both LEDs)	Code	Status
Anode	0	No Led
	1	Green
	2	Orange
	3	Blue
	4	Red
Cathode	O	No Led
	G	Green
	A	Orange
	B	Blue
	R	Red

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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.