

Trackball Miniature All-direction Scanning Switch

Features/Benefits

- 8 mm ball ergonomic design allows ease of use in all directions
- Positive tactile feedback
- Integrated lighting (up to 2 LEDs)
- Extensive lighting color choice
- Customized number of pulses per rotation
- ESD protected
- RoHS compliant
- IP54

Typical Applications

- Mobile phones
- Remote controls
- Navigation systems
- Keyboards, notebooks, PC mouse
- Cameras, camcorders
- PDA's
- Game controllers

NEW!



Construction

FUNCTION: All-direction scanning + select
CONTACT TYPE: Normally open
TERMINALS: Flex with 11 terminals

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

Physical Data

DIMENSIONS & LAYOUT: According to drawing on next page
MASS: 1.2g ± 0.1g

NOTE: For the latest information regarding RoHS compliance, please go to: www.ittcannon.com/rohs.

Note: Specifications listed above are for switches with standard options.
For information concerning design integration, please contact your local ITT representative.

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
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

Additional Data: Storage and handling environment

PACKAGING CONDITIONS: Standard ITT trays
TRANSPORT CONDITIONS: According to specification NF H00-060
STORAGE TEMPERATURE: -30°C to +85°C
SHEAR TEST (SWITCH/PCB): N/A

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
TB

Color of Ball
W White

Pulse Number
B 12

Dome Force
2 2.2N ± 25%

Flex
A

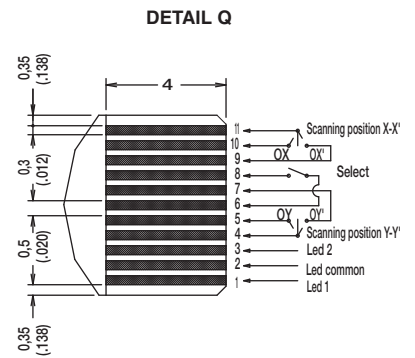
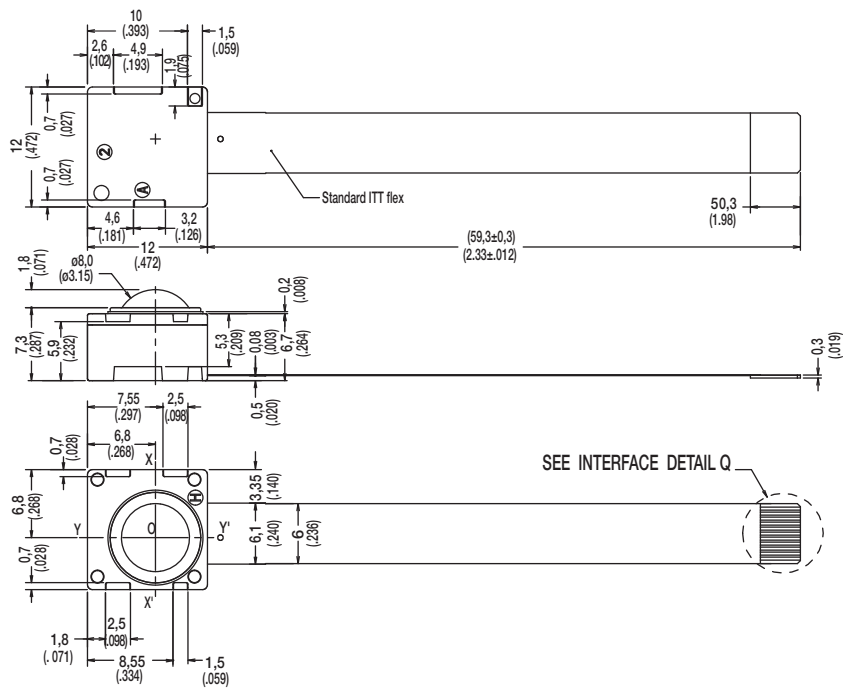
1st LED
For each LED, once the common wiring is defined (Cathode or Anode).

2nd LED

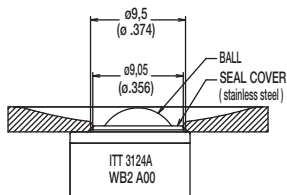
COMMON (has to be the same for both LEDs)		Code	Status
Anode 		0	No Led
		1	Green
		2	Orange
		3	Blue
		4	Red
Cathode 		O	No Led
		G	Green
		A	Orange
		B	Blue
		R	Red

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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.



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