

Sensor Switches

Tilt Switches

NR4 Series



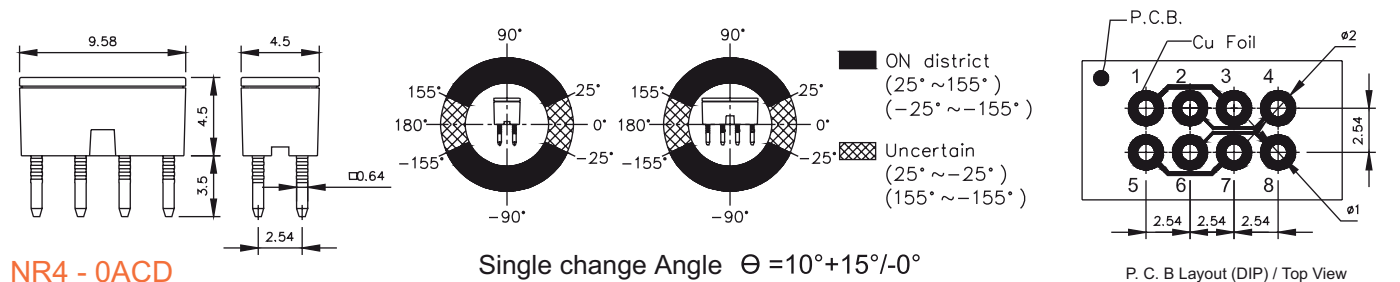
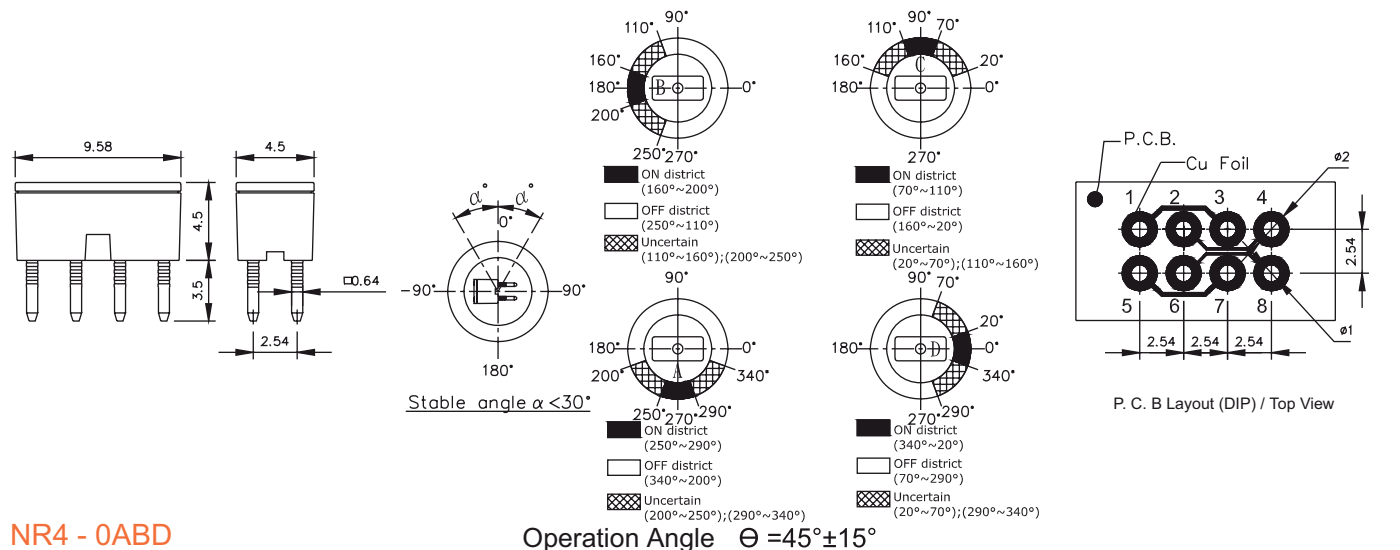
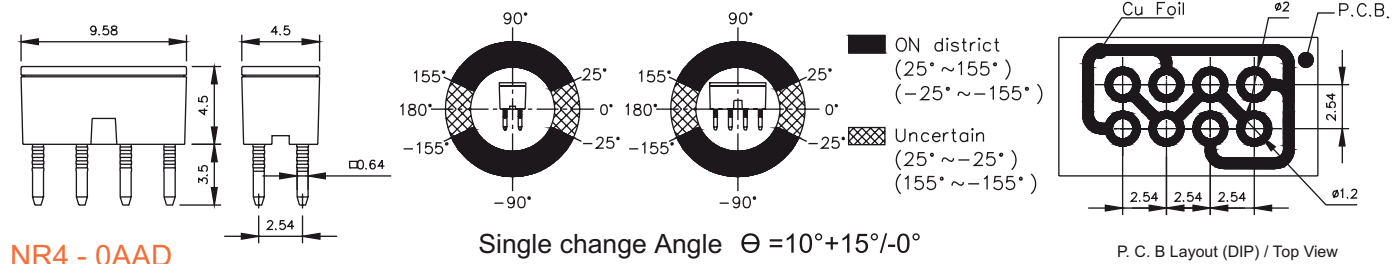
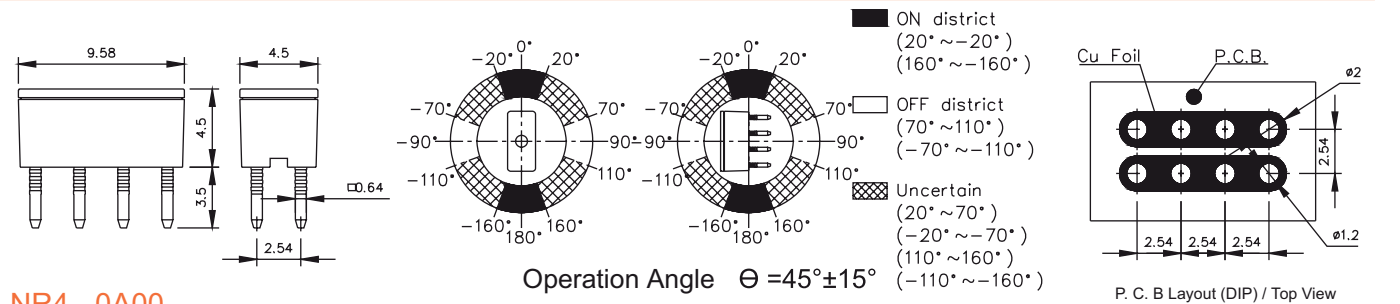
FUNCTION:

1. 45° Tilt Detecting within a 360° radius
2. Rotation Detecting
3. Slight Vibration Detecting

APPLICATIONS:

1. Smart Meter Protection
2. Home appliance tilt-off function (For Normal Close and Normal Open, just change layout design.)
3. Automotive devices
4. Visual devices
5. Information devices
6. Communication settings

Dimensions/ Operation/ P.C.B. Layout (Unit:mm,Tolerance: ±0.25mm)



All specifications are restricted to QA test criteria.
 DRW: D. L. JIN, CHK: D. F. LEE, APP: H. Z. QIU, DC: 2009-04-29, UPD: 2025-05-20.

GENERAL SPECIFICATIONS

FEATURES:

1. No electricity consumption during detection status.
2. Housing made of high insulation plastic material, free from electric conduction and rust problem.
3. Gold-plated ball and terminals, low possibility of oxidization.
4. All plastic materials subject to industrial purpose, resist high temperature and meet fireproof function.
5. Simple ON and OFF signals, easy for design.
6. RoHS and REACH compliance, an ideal substitute for mercury switch.
7. A more economical tilt and rotation detection option than IC design solution.
8. Functionally compatible to optical sensor switch, however a more economical solution.

MATERIAL:

1. Housing: Polyamide + Glass-Fiber, UL 94HB
2. Cover: Polyamide + Glass-Fiber, UL 94HB
3. Terminal: Copper Alloy, Gold Plated over Nickel
4. Ball: Copper Alloy, Gold Plated over Nickel

ELECTRICAL CHARACTERISTICS:

1. Contact Rating: 10mA, 5VDC
2. Contact Resistance: 10Ω max.
3. Insulation Resistance: 1000M Ω min. at 100VDC
4. Differential Angle: Refer to the drawing
5. Dielectric Strength: 100 VDC min. for 1 minute
6. Capacitance: 5pF max
7. Switching type:
Normal Close -> NR4 - 0A00, NR4 - 0ABD
Normal Open -> NR4 - 0AAD, NR4 - 0ACD

MECHANICAL CHARACTERISTICS:

1. Temperature Range: Operating: -25°C to +85°C ;
Storage : -40°C to +85°C
2. Pull Force of Terminal: 500 gf for 1 minute
3. Operation Life: 100,000 Cycles
4. Humidity: 95% RH, 40°C for 96 hrs.
6. Solder ability : After flux 260±5°C for 5±0.5 seconds 95% coverage

» NOTE

1. Suggestion for Application : Application in occasions that require vibration functions, adding design of "ON DELAY" is recommended. For great vibration, Optical type products are recommended.
2. Suggestion Contact Rating: 5 mA.
3. For the continued product improvement as one of the company policy, specifications may change or update without notice. The latest information can be obtained through our sales offices. Normally, all products are supplied under our standard conditions.

» PRECAUTIONS FOR USE

1. If the products is intended to be used for other endurance equipments requiring higher safety and reliability such as life support system, space and aviations devices, disaster and safety system, it's necessary to make verification of conformity or contact us for the details before using.
2. Don't try to clean the switch with a solvent or similar substance after the soldering Prozess.
3. The switch might be damaged if using the water-soluble flux.
4. The switch might be apart if the so ldering condition over specification.
5. Don't use the switch in the environment with high humidity or other bedewing possibility, as it may cause leaking among the terminals.
6. It might catch fire if the rating exceeds the specifications. Never use the switch beyond the Rating.

» PACKAGE

	Part Number	Package	Quantity	Total
1.	NR4-XXXX	PE Bag	500 pcs	500 pcs
		Inner Box	10 Bags	5,000 pcs
		Carton	3 Boxes	15,000 pcs