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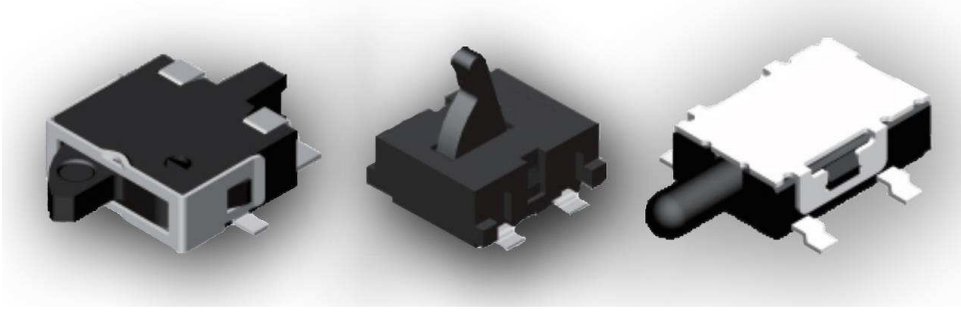
Applications

- Automotive
- Instrumentation
- White goods
- Telecommunications

Benefits

- RoHS Compliant
- Halogen and Lead Free
- Sharp detection feeling
- Compact Size

JJ Series – Detector Switches



TE Connectivity is pleased to introduce its JJ Series of Detector Switches, suitable for a wide variety of applications given their several presentations ranging from horizontal or vertical actuated options as well as Gull-winged, J-leaded and Through-Hole mounting possibilities.

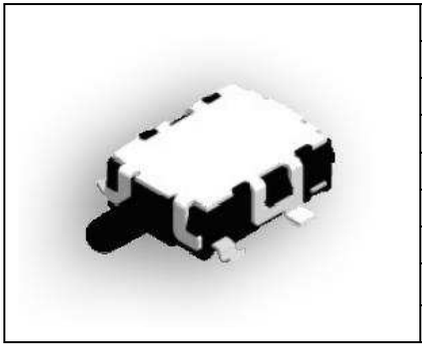
The Detector Switches will be offered in a wide range of sizes giving the possibility for countless applications going from automotive to telecommunications.

JJ Series – Family Classification

Series	Body Size
JJA	3.5x2.8 mm
JJB	3.5x2.98 mm
JJC	3.5x3.3 mm
JJD	4.2x3.6 mm
JJE	4.7x3.5 mm
JJF	4.7x3.8 mm
JJG	5.7x4.0 mm (High-Rating)
JJH	5.7x4.0 mm (Standard-Rating)
JJI	5.0x4.4 mm
JJJ	6.0x4.85 mm / 5.5x4.7 mm
JJK	6.3x3.0 mm
JJL	6.5x3.9 mm
JJM	5.7x4.0 mm
JJN	5.7x4.0 mm (Wedge)
JJO	10.0x3.8 mm
JJP	10.6x10.0 mm

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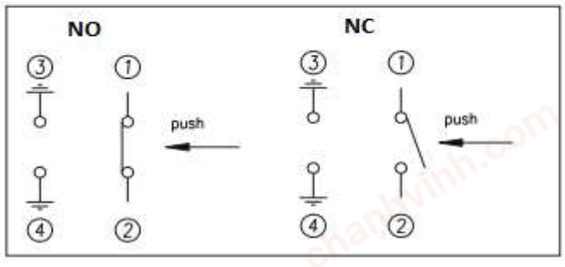
JJH Family – *5.7x4.0 mm (Standard-Rating)*



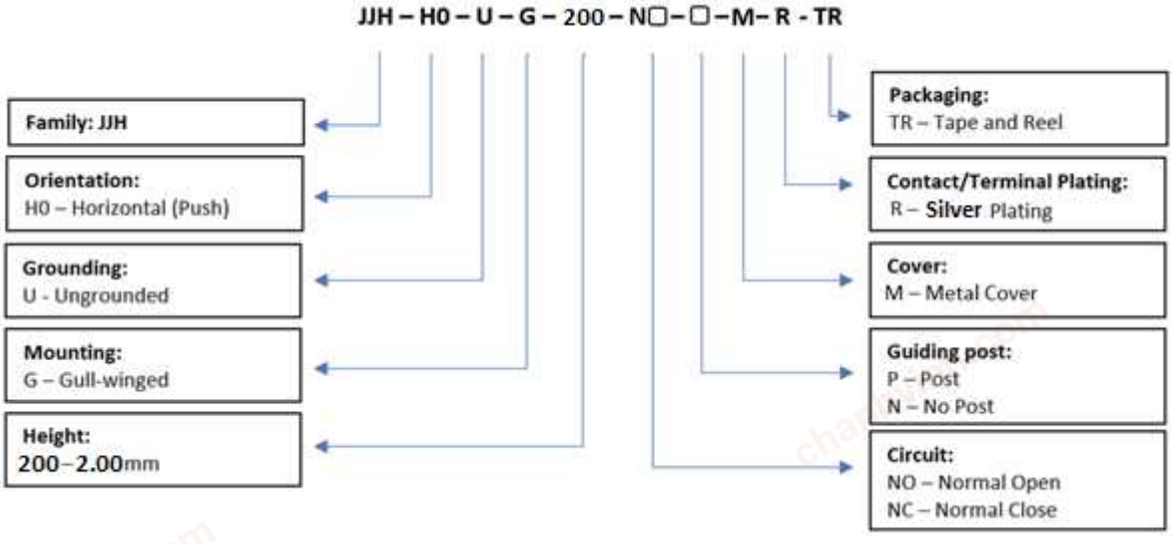
Contact Rating	10mA, 5VDC
Contact Resistance	1Ω Max.
Insulation Resistance	100MΩ Min. 100VDC
Dielectric Strength	100VAC/1 minute
Operating Force	150gF Max.
Travel	2.0mm
Operating Life	100,000 cycles
Operating Temperature	-40˚C to 85˚C
Storage Temperature	-40˚C to 85˚C

Features	Applications
• Easy orientation offered by guiding post. • Ultra-low profile with 2.0mm. • NO and NC circuit availability.	• Notebooks. • Detection of car audio mechanisms. • Smoke detectors. • Industrial application.

Circuit

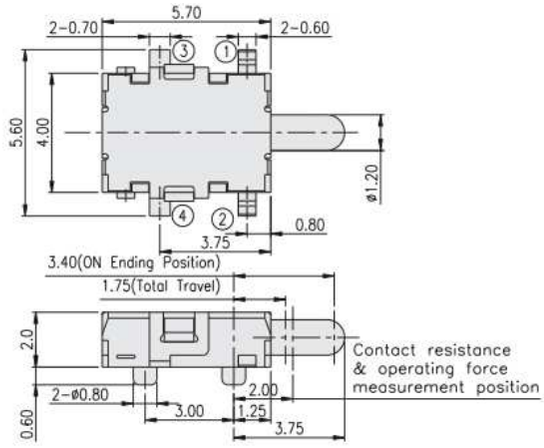


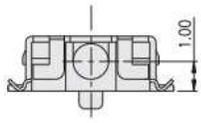
How To Order

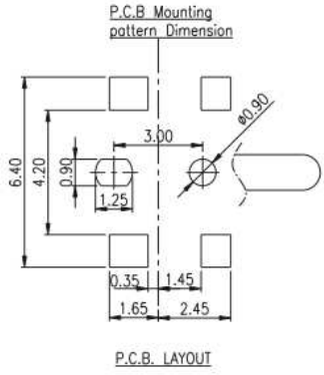


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Diagrams







PN List

Smart PN	Orientation	Grounding	Mounting	Height	Circuit	Guiding Post	Cover	Plating	Packaging	MOQ	TE PN
JJHH0UG200NCPMRTR	Horizontal (Push)	Ungrounded	Gull-winged	2.00mm	NC	Post	Metal	Silver	Tape and Reel	3,000	2331390-1
JJHH0UG200NCNMRTR	Horizontal (Push)	Ungrounded	Gull-winged	2.00mm	NC	No Post	Metal	Silver	Tape and Reel	3,000	2331391-1
JJHH0UG200NOPMRTR	Horizontal (Push)	Ungrounded	Gull-winged	2.00mm	NO	Post	Metal	Silver	Tape and Reel	3,000	2331392-1
JJHH0UG200NONMRTR	Horizontal (Push)	Ungrounded	Gull-winged	2.00mm	NO	No Post	Metal	Silver	Tape and Reel	3,000	2331393-1

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1. Style

"Detector Switches" are mainly used as signal switches of electric devices, with the general requirements of mechanical and electrical characteristic.

1.1 Operating Temperature Range: -40℃ to 85℃

1.2 Storage Temperature Range: -40℃ to 85℃

1.3 The shelf life of product is within 6 months.

2. Current Range: 10mA, 5 VDC

3. Type of Actuation: Momentary

4. Test Sequence:

	Item	Description	Test Conditions	Requirements
Appearance	1	Visual Examination	Physical inspection without applying any external forces.	There shall be no defects that affect the serviceability of the product.
Electric Performance	2	Contact Resistance	Actuate the switch and measure contact resistance using a micro-Ohmmeter.	1Ω Max.
	3	Insulation Resistance	Measurements shall be made at 100 VDC potential between terminals and cover.	100MΩ Min.
	4	Dielectric Withstanding Voltage	100 VAC (50Hz or 60Hz) shall be applied across terminals and cover for 1 minute	There shall be no breakdown or flashover

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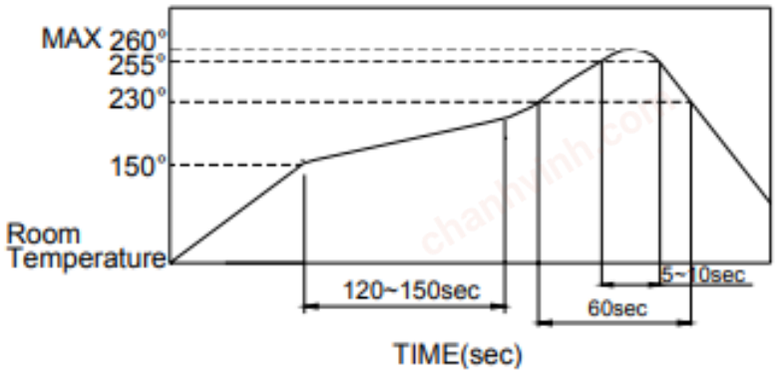
Mechanical Performance	5	Operating Force	As the specification shows operating force is measured	150gF Max. (1.5N Max.)
	6	Contact (On) point	----------	As the specification shows ON start position
	7	Stop Strength	1) Operation direction: 0.5KgF static operation force applies on the center of the actuator for 15 seconds. 2) Non-operation direction: 0.1KgF static operation force applies on any direction for 15 seconds.	1) As shown in item 2 to 7.
	8	Solder Heat Resistance	(See chart below)	1) Shall be free from pronounced backlash and falling-off or breakage terminals 2) As shown in item 2 to 7
	9	Vibration	Test per Method 201A of MIL-STD-202F 1) Swing distance=1.5mm 2) Frequency: 10-55-10Hz in 1-min/cycle. 3) Direction: 3 vertical directions including the directions of operation 4) Test time: 2 hours each direction	1) As shown in item 2 to 7.
	10	Shock	Test per Method 213B condition A of MIL-STD-202F 1) Acceleration; 50G 2) Action time:11±1m seconds 3) Testing Direction: 6 sides 4) Test Cycle: 3 times in each direction	1) As shown in item 2 to 8.
	11	Operating Life	Tested as follows: 1) 1mA,5 VDC resistive load 2) Apply a static load in the direction of operation equal to the operating force to the center of the stem. 3) Rate of Operation: 15 operations per minute. 4) Cycle of Operation: 100,000 cycles Min.	1) As shown in item 4 to 5 2) Insulation Resistance: 100MΩ Min. 3) Contact Resistance: 10Ω Max.

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Weather-Proof	12	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made: 1) Temperature: -40±2℃ 2) Time: 96 hours	1) As shown in item 2 to 7.
	13	Heat Resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made: 1) Temperature:85±2℃ 2) Time: 96 hours	
	14	Humidity Resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made: 1) Temperature:40±2℃ 2) Relative Humidity: 90~95% 3) Time: 96 hours	1) As shown in item 4~7 2) Insulation resistance: 2) Insulation Resistance: 10MΩ Min.

5. Soldering Conditions:

■ Recommended Soldering Profile for the JJH Series



■ The temperatures defined above are the temperatures measured on the surface of the Printed Circuit Board. There are cases where the printed circuit board's temperature differs greatly from the temperature of the switch. Critical note: the switch's surface temperature must not exceed 260℃.

■ Manual Soldering

Soldering Temperature: 350℃ Max.
Continuous Soldering Time: 5 second Max.

■ Precautions in Handling

1. Care must be taken to ensure excess flux on the top surface of the printed circuit board does not adhere to the switch.
2. Do not wash the switch.

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■ Recommended storage conditions:

Store the products in the original packaging material. After opening the package, the remaining products must be stored in the appropriate moisture-proof & airtight environment.

Do not store the switch in the following environment or it may affect performance and solderability:

1. temperatures below -10° C to 40°C & humidity at 85% (min)

2. environment with corrosive gas

3. storage over 6 months

4. place in direct sunlight