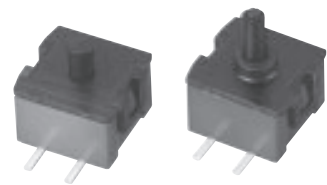


2NV Detector Switches

Type: **ESE21**



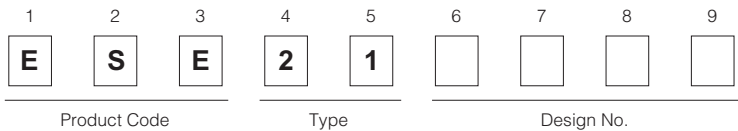
■ Features

- External dimensions : 3.4 mm×3.8 mm, Height 2.3 mm
- Light operating force
- Reflow soldering

■ Recommended Applications

- Detection of media in portable electronic equipment
- Detection of flaps (of folded body) for cellular phones

■ Explanation of Part Numbers



■ Specifications

Rating	50 μA 3 Vdc to 10 mA 5 Vdc (Resistive load)
Contact Resistance	500 mΩ max.
Insulation Resistance	100 MΩ min. (100 Vdc)
Dielectric Withstanding Voltage	100 Vac for 1 minute
Operating Force	300 mN max.
Mounting Height	2.3 mm
Poles and Throws	1-pole 1-throw
Full Travel (Pushing distance)	· N.O : Height=3.8 mm 2.3 mm (1.5 mm) · N.C : Height=3.6 mm 2.3 mm (1.3 mm) · N.O : Height=4.8 mm 3.3 mm (1.5 mm)
Operating Life	50000 cycles min.
Temperature Range	-10 °C to +60 °C
Heat Resistance	+80 °C for 96 hours
Low Temperature Resistance	-25 °C for 96 hours
Humidity Resistance	+40 °C 90 % to 95 % RH for 96 hours
Minimum Quantity/Packing Unit	2000 pcs. Embossed Taping (Reel Pack)
Quantity/Carton	12000 pcs.

Type A N.O (H=3.8)		Part Numbers		Boss		Packaging		Type C N.O (H=4.8)		Part Numbers		Boss		Packaging	
Type B N.C (H=3.6)	ESE2121AT	Without Boss	Embossed Taping (Reel pack)	ESE2131AT	Without Boss	Embossed Taping (Reel pack)	ESE2131BT	With Boss							
	ESE2121BT	With Boss			ESE2131BT			With Boss							
ESE2161AT	Without Boss	ESE2161BT		With Boss	ESE2161AT		Without Boss	ESE2161BT	With Boss						
ESE2161BT	With Boss	ESE2161BT		With Boss	ESE2161AT		Without Boss	ESE2161BT	With Boss						

No. 1

without Boss
1-pole 1-throw

Full travel
ON starting position

	H	H0
Type A	3.8 mm	3.5 mm
Type B	3.6 mm	3.3 mm

No. 2

with Boss
1-pole 1-throw

Full travel
ON starting position

	H	H0
Type A	3.8 mm	3.5 mm
Type B	3.6 mm	3.3 mm

1-pole 1-throw (N . O)

1-pole 1-throw (N . C)

Taping Reel

Front view: A circle with a diameter of $\phi 380.0 \pm 2.0$. Inside, three smaller circles are arranged in a triangular pattern. A dashed circle indicates the mounting hole pattern.

Side view: Shows the thickness of the reel with dimensions 16.4, 2.0, and 2.0.

Embossed Carrier Taping

Top view: A detailed view of the carrier tape showing the drawing direction and various sections.

Dimensions and Labels:

- Carrier tape**: The main body of the tape.
- Pilot holes**: Holes used for alignment during assembly.
- Leading portion 400 mm min.**: The length of the tape before the components are loaded.
- Non-packed portion (160 mm min.)**: The length of the tape before the components are loaded.
- Packed portion**: The section where components are loaded onto the tape.
- Non-packed portion (100 mm min.)**: The length of the tape after the components are loaded.
- Cover tape**: The protective layer on the top of the tape.
- END**: The end of the tape.
- TOP**: The top surface of the tape.
- Dimensions**:
 - $P = 8.0 \pm 0.1$: Pitch between components.
 - 4.0 ± 0.1 : Width of the component.
 - 2.0 ± 0.1 : Width of the carrier tape.
 - $\phi 1.5 \pm 0.1$: Diameter of the pilot hole.
 - 7.5 ± 0.1 : Thickness of the carrier tape.
 - 1.75 ± 0.1 : Thickness of the cover tape.
 - 16.0 ± 0.3 : Total thickness of the tape.
 - 13.5 : Thickness of the cover tape.