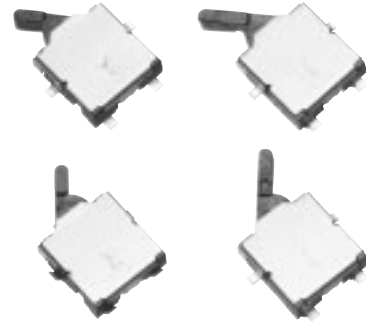


### 1HL Detector Switches

Type: **ESE18**



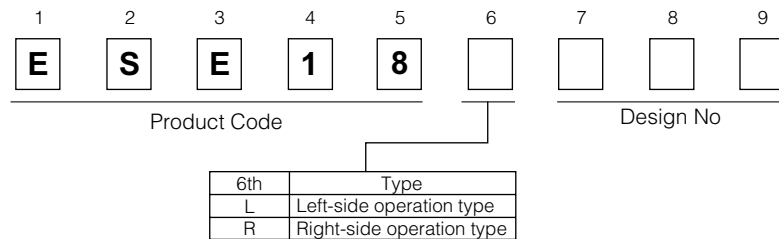
#### ■ Features

- Thin body: 1.2 mm
- Circuit type: Normally-open and normally-closed types are available.
- Travel: Standard stroke type: 1.5 mm  
Long stroke type: 2.15 mm
- Surface mounted type: Packed with embossed tape. Supports reflow soldering.

#### ■ Recommended Applications

- Detection of media in portable electronic equipment (Mobile phones/CD-ROM/DVD players, Digital still cameras)

#### ■ Explanation of Part Numbers



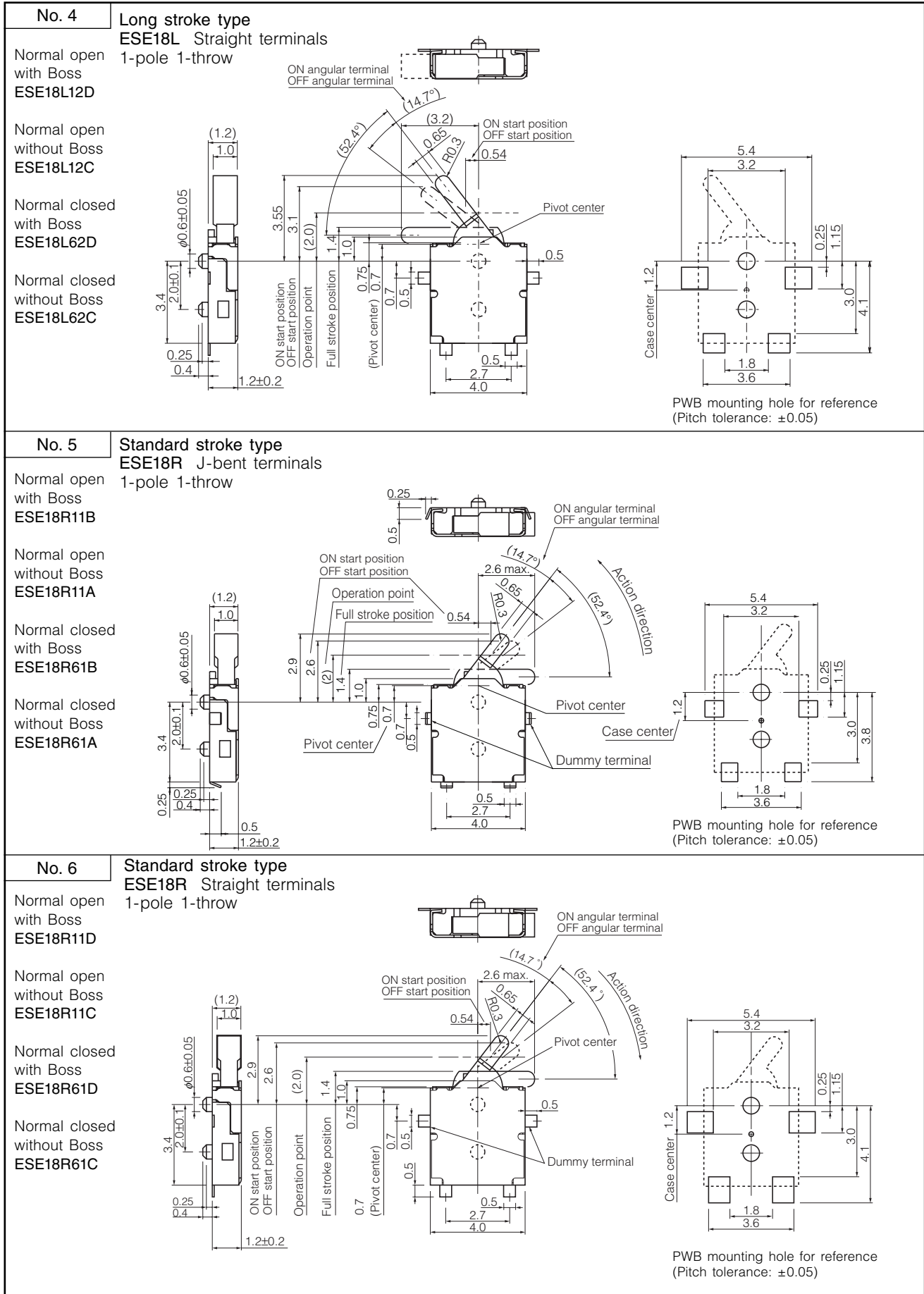
#### ■ Specifications

Rating	50 $\mu$ A 3 Vdc to 10 mA 5 Vdc (Resistive load)		
Contact Resistance	500 m $\Omega$ max.		
Insulation Resistance	100 M $\Omega$ min. (100 Vdc)		
Dielectric Withstanding Voltage	100 Vac for 1 minute		
Operating Force	300 mN max.		
Mounting Height	1.2 mm		
Poles and Throws	1-pole 1-throw		
Full Travel (Pushing distance)	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">                     · Standard stroke type                      With boss : 1.4 mm (1.5 mm)                      Without boss : 2.1 mm (1.5 mm)                 </td> <td style="width: 50%; border: none;">                     · Long stroke type                      With boss : 1.4 mm (2.15 mm)                      Without boss : 2.1 mm (2.15 mm)                 </td> </tr> </table>	· Standard stroke type With boss : 1.4 mm (1.5 mm) Without boss : 2.1 mm (1.5 mm)	· Long stroke type With boss : 1.4 mm (2.15 mm) Without boss : 2.1 mm (2.15 mm)
· Standard stroke type With boss : 1.4 mm (1.5 mm) Without boss : 2.1 mm (1.5 mm)	· Long stroke type With boss : 1.4 mm (2.15 mm) Without boss : 2.1 mm (2.15 mm)		
Operating Life	50000 cycles min.		
Temperature Range	-10 °C to +60 °C		
Heat Resistance	+70 °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	5000 pcs. Embossed Taping (Reel Pack)		
Quantity/Carton	30000 pcs.		

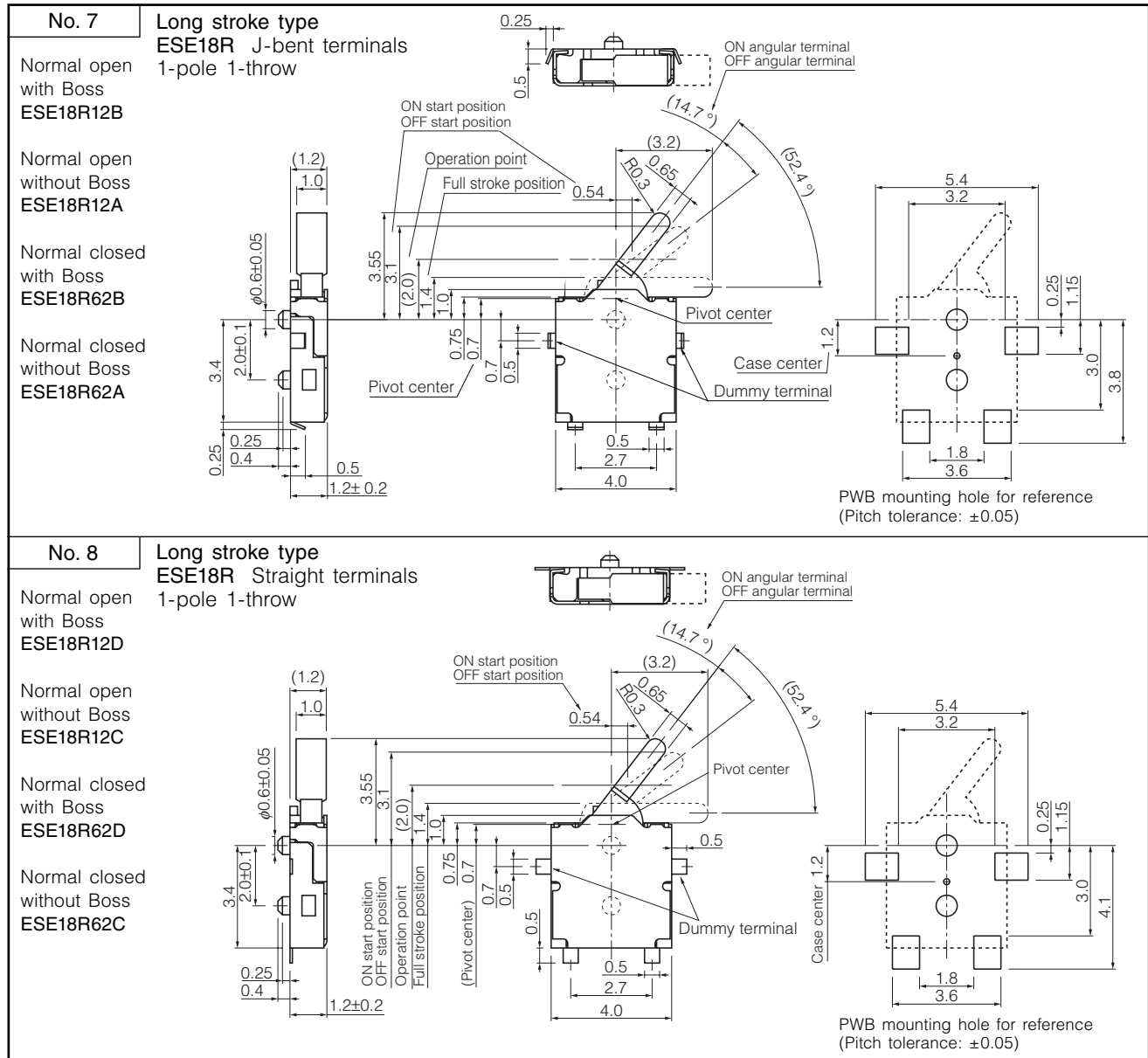
### ■ Dimensions in mm (not to scale)

<p><b>No. 1</b></p> <p><b>Standard stroke type</b> ESE18L J-bent terminals 1-pole 1-throw</p> <p>Normal open with Boss ESE18L11B</p> <p>Normal open without Boss ESE18L11A</p> <p>Normal closed with Boss ESE18L61B</p> <p>Normal closed without Boss ESE18L61A</p>	<p>ON angular terminal OFF angular terminal</p> <p>Operation point Full stroke position</p> <p>Action direction (52.4°) (14.7°)</p> <p>2.6 max. 0.65 R0.3 0.54</p> <p>ON start position OFF start position</p> <p>Pivot center Case center Dummy terminal</p> <p>PWB mounting hole for reference (Pitch tolerance: ±0.05)</p>
<p><b>No. 2</b></p> <p><b>Standard stroke type</b> ESE18L Straight terminals 1-pole 1-throw</p> <p>Normal open with Boss ESE18L11D</p> <p>Normal open without Boss ESE18L11C</p> <p>Normal closed with Boss ESE18L61D</p> <p>Normal closed without Boss ESE18L61C</p>	<p>ON angular terminal OFF angular terminal</p> <p>Operation point Full stroke position</p> <p>Action direction (52.4°) (14.7°)</p> <p>2.6 max. 0.65 R0.3 0.54</p> <p>ON start position OFF start position</p> <p>Pivot center Case center Dummy terminal</p> <p>PWB mounting hole for reference (Pitch tolerance: ±0.05)</p>
<p><b>No. 3</b></p> <p><b>Long stroke type</b> ESE18L J-bent terminals 1-pole 1-throw</p> <p>Normal open with Boss ESE18L12B</p> <p>Normal open without Boss ESE18L12A</p> <p>Normal closed with Boss ESE18L62B</p> <p>Normal closed without Boss ESE18L62A</p>	<p>ON angular terminal OFF angular terminal</p> <p>Operation point Full stroke position</p> <p>Action direction (52.4°) (14.7°)</p> <p>3.2 0.65 R0.3 0.54</p> <p>ON start position OFF start position</p> <p>Pivot center Case center Dummy terminal</p> <p>PWB mounting hole for reference (Pitch tolerance: ±0.05)</p>

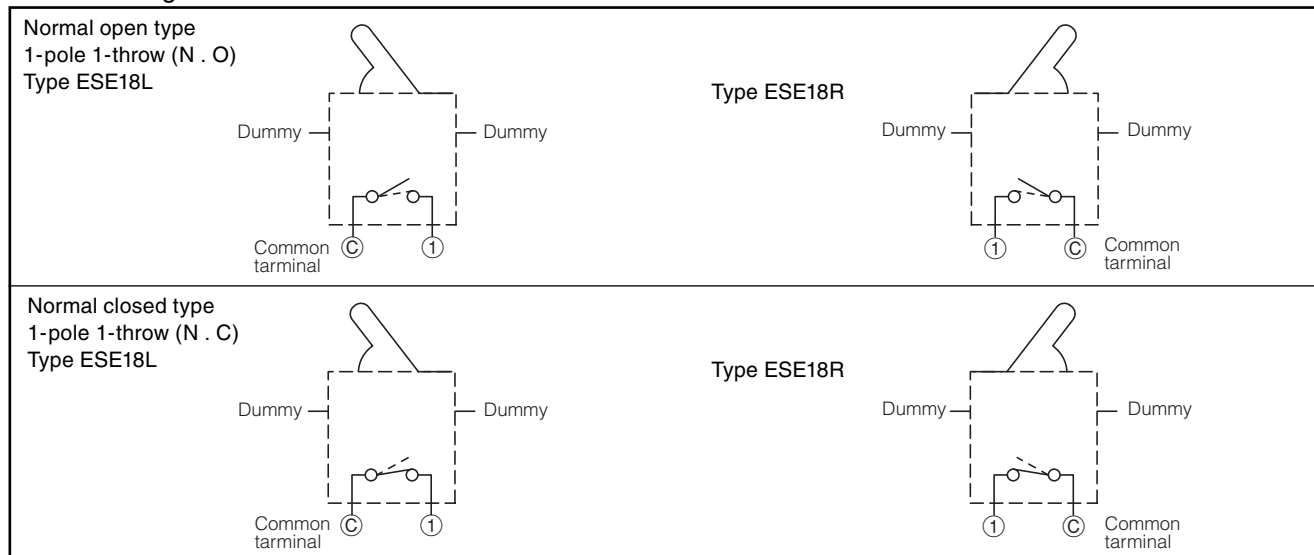
■ Dimensions in mm (not to scale)



## ■ Dimensions in mm (not to scale)



## ■ Circuit Diagram



■ Packaging Specifications  
 Standard Reel Dimensions in mm (not to scale)

