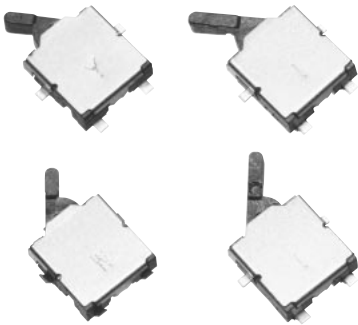


1HL Detector Switches

Japan

Type: **ESE18**

Detector switches that contribute to miniaturization, weight reduction, and expansion of the operation variety required for portable equipment.



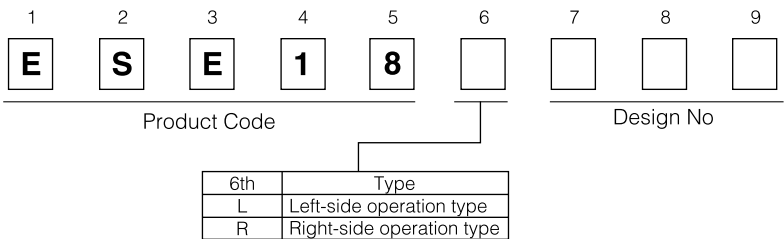
■ Features

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

■ Recommended Applications

- Mechanisms or the detection of media in portable equipment (e.g. MD/CD-ROM/DVD players, DSCs)
- Operation switches (input devices)

■ Explanation of Part Numbers



■ Major Specifications

Power Rating		50 μA 3 V dc to 10 mA 5 V dc
Contact Resistance		1 Ω max.
Insulation Resistance		100 MΩ max. (100 V dc)
Dielectric Withstanding Voltage		100 V ac for 1 minute
Operating Force		300 mN max.
Full Travel		1.5 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	ESE18L	5000 pcs. (Reel Pack)
	ESE18R	
Quantity/Carton	ESE18L	30000 pcs.
	ESE18R	

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Dimensions in mm (not to scale)

<p>No. 1</p> <p>Standard stroke type ESE18L J-bent terminals 1-pole 1-throw</p> <p>Normal Open with Boss ESE18LJ02 ESE18L11B</p> <p>Normal Open without Boss ESE18LJ01 ESE18L11A</p> <p>Normal closed with Boss ESE18L61B</p> <p>Normal closed without Boss ESE18L61A</p>	<p>Recommended PWB piercing Plan (Pitch tolerance: ±0.05)</p>
<p>No. 2</p> <p>Standard stroke type ESE18L Straight terminals 1-pole 1-throw</p> <p>Normal Open with Boss ESE18LF02 ESE18L11D</p> <p>Normal Open without Boss ESE18LF01 ESE18L11C</p> <p>Normal closed with Boss ESE18L61D</p> <p>Normal closed without Boss ESE18L61C</p>	<p>Recommended PWB piercing Plan (Pitch tolerance: ±0.05)</p>
<p>No. 3</p> <p>Standard stroke type ESE18R J-bent terminals 1-pole 1-throw</p> <p>Normal Open with Boss ESE18RJ02 ESE18R11B</p> <p>Normal Open without Boss ESE18RJ01 ESE18R11A</p> <p>Normal closed with Boss ESE18R61B</p> <p>Normal closed without Boss ESE18R61A</p>	<p>Recommended PWB piercing Plan (Pitch tolerance: ±0.05)</p>

■ Dimensions in mm (not to scale)

<p>No. 4</p> <p>Standard stroke type ESE18R Straight terminals 1-pole 1-throw</p> <p>Normal Open with Boss ESE18RF02 ESE18R11D</p> <p>Normal Open without Boss ESE18RF01 ESE18R11C</p> <p>Normal closed with Boss ESE18R61D</p> <p>Normal closed without Boss ESE18R61C</p>	<p>ON angular terminal OFF angular terminal</p> <p>ON start position OFF start position</p> <p>2.6 max.</p> <p>0.65</p> <p>R0.3</p> <p>0.54</p> <p>(14.7°)</p> <p>(52.4°)</p> <p>Action direction</p> <p>Pivot center</p> <p>Dummy terminal</p> <p>Mfg. No. (Marking direction is arbitrary)</p> <p>Case center 1.2</p> <p>5.4</p> <p>3.2</p> <p>0.25</p> <p>1.15</p> <p>3.0</p> <p>4.1</p> <p>1.8</p> <p>3.6</p> <p>Recommended PWB piercing Plan (Pitch tolerance: ± 0.05)</p>
<p>No. 5</p> <p>Long stroke type 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>ON start position OFF start position</p> <p>0.25</p> <p>0.5</p> <p>(14.7°)</p> <p>(52.4°)</p> <p>3.2</p> <p>0.65</p> <p>R0.3</p> <p>0.54</p> <p>Pivot center</p> <p>Mfg. No. (Marking direction is arbitrary)</p> <p>Case center 1.2</p> <p>5.4</p> <p>3.2</p> <p>0.25</p> <p>1.15</p> <p>3.0</p> <p>3.8</p> <p>1.8</p> <p>3.6</p> <p>Recommended PWB piercing Plan (Pitch tolerance: ± 0.05)</p>
<p>No. 6</p> <p>Long stroke type ESE18L Straight terminals 1-pole 1-throw</p> <p>Normal Open with Boss ESE18L12D</p> <p>Normal Open without Boss ESE18L12C</p> <p>Normal closed with Boss ESE18L62D</p> <p>Normal closed without Boss ESE18L62C</p>	<p>ON angular terminal OFF angular terminal</p> <p>ON start position OFF start position</p> <p>(14.7°)</p> <p>(52.4°)</p> <p>3.2</p> <p>0.65</p> <p>R0.3</p> <p>0.54</p> <p>Pivot center</p> <p>Mfg. No. (Marking direction is arbitrary)</p> <p>Case center 1.2</p> <p>5.4</p> <p>3.2</p> <p>0.25</p> <p>1.15</p> <p>3.0</p> <p>4.1</p> <p>1.8</p> <p>3.6</p> <p>Recommended PWB piercing Plan (Pitch tolerance: ± 0.05)</p>

■ Dimensions in mm (not to scale)

No. 7

Long stroke type

ESE18R J-bent terminals

1-pole 1-throw

Normal Open with Boss

ESE18R12B

Normal Open without Boss

ESE18R12A

Normal closed with Boss

ESE18R62B

Normal closed without Boss

ESE18R62A

No. 8

Long stroke type

ESE18R Straight terminals

1-pole 1-throw

Normal Open with Boss

ESE18R12D

Normal Open without Boss

ESE18R12C

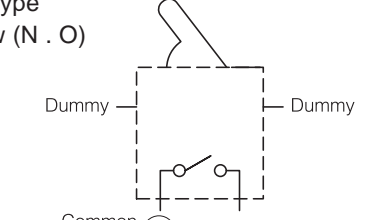
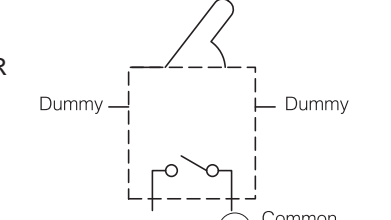
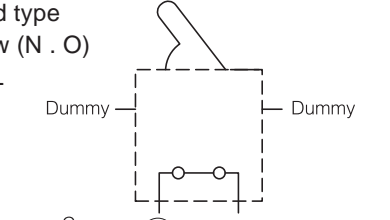
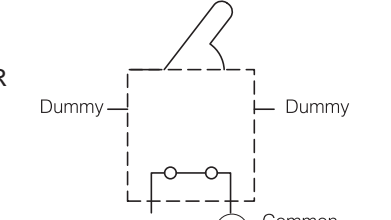
Normal closed with Boss

ESE18R62D

Normal closed without Boss

ESE18R62C

■ Circuit Diagram

<p>Normal Open type 1-pole 1-throw (N . O) Type ESE18L</p> 	<p>Type ESE18R</p> 
<p>Normal Closed type 1-pole 1-throw (N . C) Type ESE18L</p> 	<p>Type ESE18R</p> 

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■ Packaging Specifications

Standard Reel Dimensions in mm (not to scale)

Standard stroke type

Long stroke type

Taping Reel

Embossed Carrier Taping

