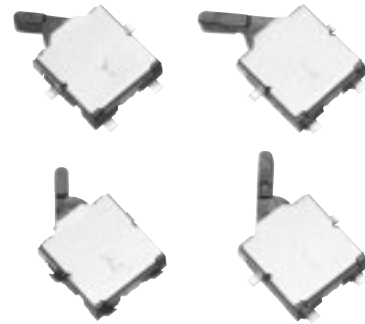


1HL Detector Switches

Type: **ESE18**



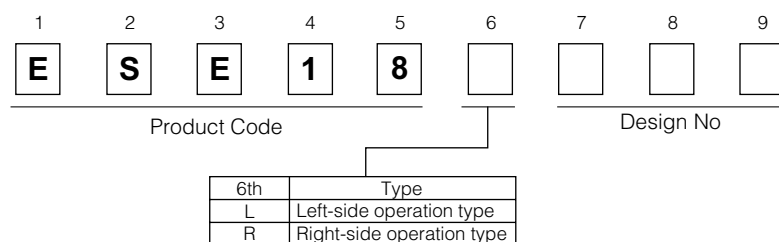
■ Features

- 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 μ A 3 Vdc to 10 mA 5 Vdc (Resistive load)	
Contact Resistance	500 m Ω max. (Initial)	
Insulation Resistance	100 M Ω 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)	· 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/Cartron	30000 pcs.	

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.

00 Oct. 2012

■ Dimensions in mm (not to scale)

No. 1 Normal open with Boss ESE18L11B Normal open without Boss ESE18L11A Normal closed with Boss ESE18L61B Normal closed without Boss ESE18L61A	Standard stroke type ESE18L J-bent terminals 1-pole 1-throw PWB mounting hole for reference (Pitch tolerance: ±0.05)
No. 2 Normal open with Boss ESE18L11D Normal open without Boss ESE18L11C Normal closed with Boss ESE18L61D Normal closed without Boss ESE18L61C	Standard stroke type ESE18L Straight terminals 1-pole 1-throw PWB mounting hole for reference (Pitch tolerance: ±0.05)
No. 3 Normal open with Boss ESE18L12B Normal open without Boss ESE18L12A Normal closed with Boss ESE18L62B Normal closed without Boss ESE18L62A	Long stroke type ESE18L J-bent terminals 1-pole 1-throw PWB mounting hole for reference (Pitch tolerance: ±0.05)

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■ Dimensions in mm (not to scale)

No. 4 Long stroke type ESE18L Straight terminals 1-pole 1-throw Normal open with Boss ESE18L12D Normal open without Boss ESE18L12C Normal closed with Boss ESE18L62D Normal closed without Boss ESE18L62C	ON angular terminal OFF angular terminal ON start position OFF start position Pivot center ON start position OFF start position Operation point Full stroke position (Pivot center) Case center PWB mounting hole for reference (Pitch tolerance: ±0.05)
No. 5 Standard stroke type ESE18R J-bent terminals 1-pole 1-throw Normal open with Boss ESE18R11B Normal open without Boss ESE18R11A Normal closed with Boss ESE18R61B Normal closed without Boss ESE18R61A	ON angular terminal OFF angular terminal ON start position OFF start position Operation point Full stroke position Pivot center Dummy terminal Case center PWB mounting hole for reference (Pitch tolerance: ±0.05)
No. 6 Standard stroke type ESE18R Straight terminals 1-pole 1-throw Normal open with Boss ESE18R11D Normal open without Boss ESE18R11C Normal closed with Boss ESE18R61D Normal closed without Boss ESE18R61C	ON angular terminal OFF angular terminal ON start position OFF start position Pivot center Dummy terminal Case center PWB mounting hole for reference (Pitch tolerance: ±0.05)

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■ Dimensions in mm (not to scale)

No. 7 Normal open with Boss ESE18R12B Normal open without Boss ESE18R12A Normal closed with Boss ESE18R62B Normal closed without Boss ESE18R62A	Long stroke type ESE18R J-bent terminals 1-pole 1-throw Technical drawing of ESE18R J-bent terminals. The drawing includes three views: a side view, a top view, and a PWB mounting hole reference view. The side view shows the terminal's profile with dimensions: 0.25, 0.5, 0.25, 0.4, 0.5, 1.2±0.2, 3.4, 2.0±0.1, and a hole diameter of $\phi 0.6 \pm 0.05$. The top view shows the terminal's footprint with dimensions: 1.0, 1.2, 3.55, 3.1, 2.0, 1.4, 1.0, 0.75, 0.7, 0.5, 0.54, 0.65, 0.3, 0.5, 2.7, 4.0, and angles of 14.7° and 52.4°. The PWB mounting hole reference view shows the terminal's position on a PWB with dimensions: 5.4, 3.2, 1.2, 0.25, 1.15, 3.0, 3.8, 1.8, and 3.6. Labels include: ON angular terminal, OFF angular terminal, ON start position, OFF start position, Operation point, Full stroke position, Pivot center, Case center, and Dummy terminal.
No. 8 Normal open with Boss ESE18R12D Normal open without Boss ESE18R12C Normal closed with Boss ESE18R62D Normal closed without Boss ESE18R62C	Long stroke type ESE18R Straight terminals 1-pole 1-throw Technical drawing of ESE18R straight terminals. The drawing includes three views: a side view, a top view, and a PWB mounting hole reference view. The side view shows the terminal's profile with dimensions: 0.25, 0.4, 0.5, 1.2±0.2, 3.4, 2.0±0.1, and a hole diameter of $\phi 0.6 \pm 0.05$. The top view shows the terminal's footprint with dimensions: 1.0, 1.2, 3.55, 3.1, 2.0, 1.4, 1.0, 0.75, 0.7, 0.5, 0.54, 0.65, 0.3, 0.5, 2.7, 4.0, and angles of 14.7° and 52.4°. The PWB mounting hole reference view shows the terminal's position on a PWB with dimensions: 5.4, 3.2, 1.2, 0.25, 1.15, 3.0, 4.1, 1.8, and 3.6. Labels include: ON angular terminal, OFF angular terminal, ON start position, OFF start position, Operation point, Full stroke position, Pivot center, Case center, and Dummy terminal.

■ Circuit Diagram

Normal open type
1-pole 1-throw (N . O)
Type ESE18L

Normal closed type
1-pole 1-throw (N . C)
Type ESE18L

Type ESE18R

Type ESE18R

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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

