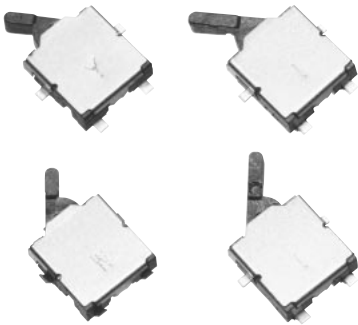


1HL Detector Switches

Japan

Type: **ESE18**

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



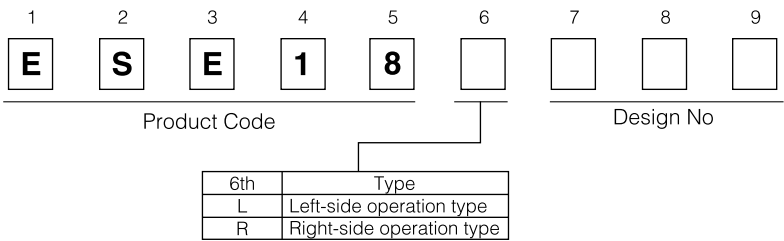
■ Features

- 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 μ A 3 V dc to 10 mA 5 V dc
Contact Resistance		1 Ω max.
Insulation Resistance		100 M Ω 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 $^{\circ}$ C to +60 $^{\circ}$ C
Heat Resistance		+70 $^{\circ}$ C for 96 hours
Low Temperature Resistance		-25 $^{\circ}$ C for 96 hours
Humidity Resistance		+40 $^{\circ}$ 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.

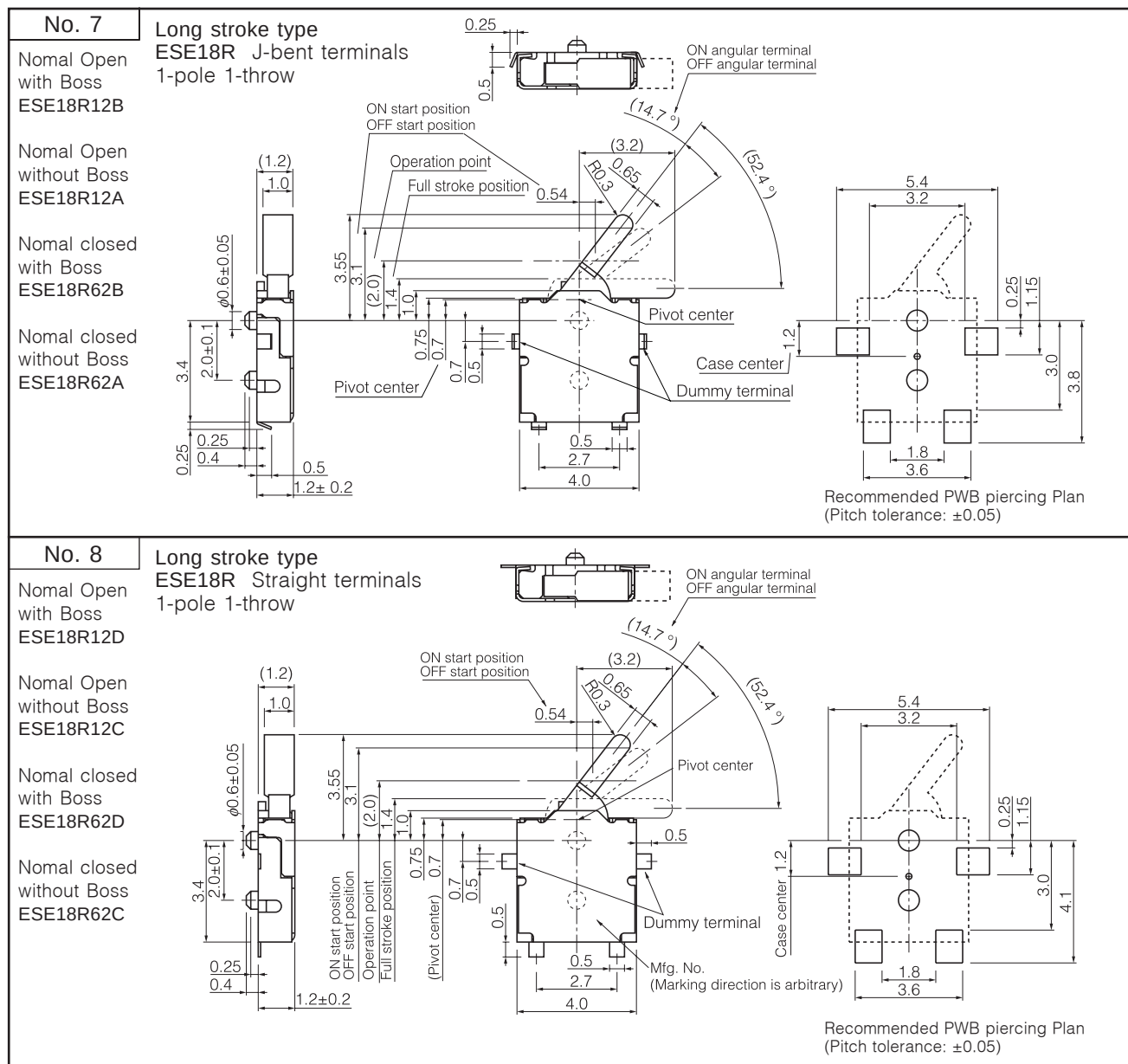
■ Dimensions in mm (not to scale)

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

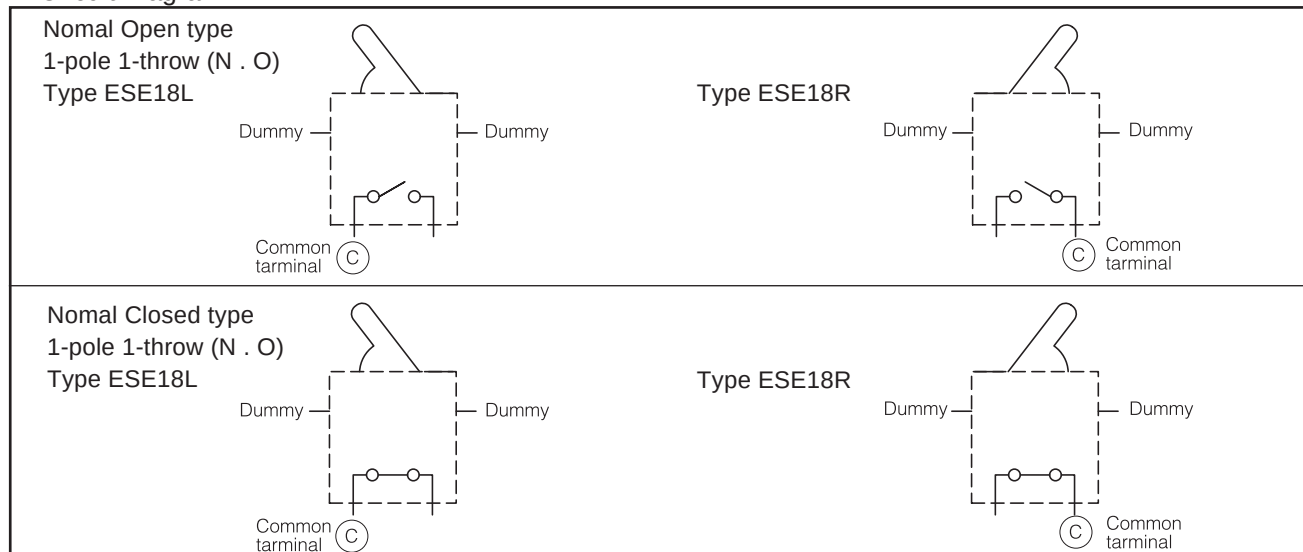
■ Dimensions in mm (not to scale)

No. 4 Standard stroke type ESE18R Straight terminals 1-pole 1-throw Nomal Open with Boss ESE18RF02 ESE18R11D Nomal Open without Boss ESE18RF01 ESE18R11C Nomal closed with Boss ESE18R61D Nomal closed without Boss ESE18R61C	ON angular terminal OFF angular terminal ON start position OFF start position 2.6 max. 0.65 R0.3 0.54 (14.7°) (52.4°) Action direction Pivot center 0.5 0.7 0.5 0.75 1.0 1.4 (2.0) 2.6 2.9 1.2 0.6±0.05 2.0±0.1 3.4 0.25 0.4 1.2±0.2 ON start position OFF start position Operation point Full stroke position (Pivot center) 0.7 0.5 0.5 2.7 4.0 0.5 Dummy terminal Mfg. No. (Marking direction is arbitrary) Case center 1.2 5.4 3.2 0.25 1.15 3.0 4.1 1.8 3.6 Recommended PWB piercing Plan (Pitch tolerance: ±0.05)
No. 5 Long stroke type ESE18L J-bent terminals 1-pole 1-throw Nomal Open with Boss ESE18L12B Nomal Open without Boss ESE18L12A Nomal closed with Boss ESE18L62B Nomal closed without Boss ESE18L62A	ON angular terminal OFF angular terminal ON start position OFF start position 0.25 0.5 (14.7°) (52.4°) 0.65 R0.3 0.54 3.2 Pivot center 3.55 3.1 (2.0) 1.4 1.0 0.75 0.7 0.5 0.5 1.2±0.2 ON start position OFF start position Operation point Full stroke position (Pivot center) 0.7 0.5 0.5 2.7 4.0 0.5 Mfg. No. (Marking direction is arbitrary) Case center 1.2 5.4 3.2 0.25 1.15 3.0 3.8 1.8 3.6 Recommended PWB piercing Plan (Pitch tolerance: ±0.05)
No. 6 Long stroke type ESE18L Straight terminals 1-pole 1-throw Nomal Open with Boss ESE18L12D Nomal Open without Boss ESE18L12C Nomal closed with Boss ESE18L62D Nomal closed without Boss ESE18L62C	ON angular terminal OFF angular terminal ON start position OFF start position 0.25 0.5 (14.7°) (52.4°) 0.65 R0.3 0.54 3.2 Pivot center 3.55 3.1 (2.0) 1.4 1.0 0.75 0.7 0.5 0.5 1.2±0.2 ON start position OFF start position Operation point Full stroke position (Pivot center) 0.7 0.5 0.5 2.7 4.0 0.5 Mfg. No. (Marking direction is arbitrary) Case center 1.2 5.4 3.2 0.25 1.15 3.0 4.1 1.8 3.6 Recommended PWB piercing Plan (Pitch tolerance: ±0.05)

■ Dimensions in mm (not to scale)



■ Circuit Diagram



Standard Reel Dimensions in mm (not to scale)

Long stroke type

Embossed Carrier Taping

