ESE18 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**

<table>
<thead>
<tr>
<th>E</th>
<th>S</th>
<th>E</th>
<th>1</th>
<th>8</th>
<th></th>
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</thead>
<tbody>
<tr>
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<td></td>
<td></td>
<td></td>
<td>Design No</td>
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</table>

- **6th**: Type
  - L: Left-side operation type
  - R: Right-side operation type

**Specifications**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Rating</strong></td>
<td>50 μA 3 V DC to 10 mA 5 V DC (Resistive load)</td>
</tr>
<tr>
<td><strong>Contact Resistance</strong></td>
<td>500 mΩ max. (Initial)</td>
</tr>
<tr>
<td><strong>Insulation Resistance</strong></td>
<td>100 MΩ min. (at 100 V DC for 1 minute)</td>
</tr>
<tr>
<td><strong>Dielectric Withstanding Voltage</strong></td>
<td>100 V AC (50 Hz or 60 Hz) for 1 minute</td>
</tr>
<tr>
<td><strong>Operating Force</strong></td>
<td>300 mN max.</td>
</tr>
<tr>
<td><strong>Mounting Height</strong></td>
<td>1.2 mm</td>
</tr>
<tr>
<td><strong>Poles and Throws</strong></td>
<td>1-pole 1-throw</td>
</tr>
</tbody>
</table>
| **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** | 50,000 cycles min. |
| **Temperature Range** | −10 °C to +60 °C (Standard), −40 °C to +85 °C (Automotive) |
| **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** | 5,000 pcs. Embossed Taping (Reel Pack) |
| **Quantity/Carton** | 30,000 pcs. |

Design and specifications are 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
ESE18L11B

Normal open without Boss
ESE18L11A

Normal closed with Boss
ESE18L61B

Normal closed without Boss
ESE18L61A

No. 2 Standard stroke type
ESE18L  Straight terminals
1-pole 1-throw

Normal open with Boss
ESE18L11D

Normal open without Boss
ESE18L11C

Normal closed with Boss
ESE18L61D

Normal closed without Boss
ESE18L61C

No. 3 Long stroke type
ESE18L  J-bent terminals
1-pole 1-throw

Normal open with Boss
ESE18L12B

Normal open without Boss
ESE18L12A

Normal closed with Boss
ESE18L62B

Normal closed without Boss
ESE18L62A

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### Dimensions in mm (not to scale)

<table>
<thead>
<tr>
<th>No.</th>
<th>Type</th>
<th>Model</th>
<th>Normal Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Long stroke type</td>
<td>ESE18L</td>
<td>Normal open</td>
<td>1-pole 1-throw</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>with/without Boss</td>
<td>ESE18L12D/ESE18L62D</td>
</tr>
<tr>
<td>5</td>
<td>Standard stroke type</td>
<td>ESE18R</td>
<td>Normal open</td>
<td>1-pole 1-throw</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>with/without Boss</td>
<td>ESE18R11B/ESE18R61B</td>
</tr>
<tr>
<td>6</td>
<td>Standard stroke type</td>
<td>ESE18R</td>
<td>Normal open</td>
<td>1-pole 1-throw</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>with/without Boss</td>
<td>ESE18R11B/ESE18R61B</td>
</tr>
</tbody>
</table>

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Dimensions in mm (not to scale)

No. 7  Long stroke type  ESE18R  J-bent terminals
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
Normal open with Boss  ESE18R12D
Normal open without Boss  ESE18R12C
Normal closed with Boss  ESE18R62D
Normal closed without Boss  ESE18R62C

Circuit Diagram

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

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Detector Switches/ESE18

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

Standard stroke type
Long stroke type

Taping Reel

Embossed Carrier Taping

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