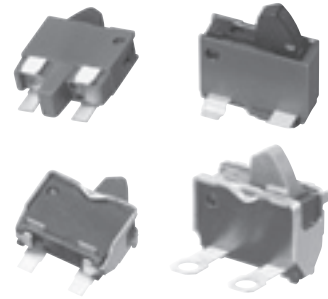


ESE22 Detector Switches

Type: **ESE22**



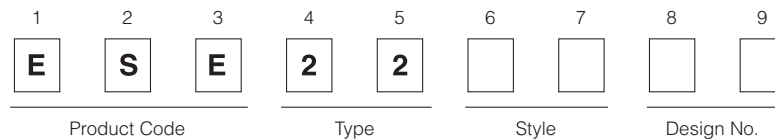
■ Features

- Can be operated with different actuation angles (horizontally and vertically)
- Reflow soldering
- Light operating force

■ Recommended Applications

- Detection of media in portable electronic equipment

■ Explanation of Part Numbers



■ Specifications

Rating	50 μ A 3 V DC to 10 mA 5 V DC (Resistive load)
Contact Resistance	500 m Ω max. (Initial)
Insulation Resistance	100 M Ω min. (at 100 V DC for 1 minute)
Dielectric Withstanding Voltage	100 V AC (50 Hz or 60 Hz) for 1 minute
Operating Force	290 mN max.
Mounting Height	<ul style="list-style-type: none"> · ESE22MV Type 4.1 mm · ESE22MH Type 2.1 mm · ESE22MH Type with Frame 2.85 mm
Poles and Throws	1-pole 1-throw
Full Travel (Pushing distance)	<ul style="list-style-type: none"> · ESE22MV Type 4.25 mm(2.05 mm) · ESE22MH Type 1.2 mm(2.0 mm) · ESE22MH Type with Frame 0.6 mm(2.0 mm)
Operating Life	50,000 cycles min.
Temperature Range	-10 °C to +70 °C (Standard), -40 °C to +85 °C (Automotive)
Heat Resistance	+80 °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	500 pcs. Polyethylene Bag (Bulk)
	<ul style="list-style-type: none"> · ESE22MV Type 1,000 pcs. Embossed Taping (Reel Pack) · ESE22MH Type with Frame 3,000 pcs. Embossed Taping (Reel Pack) · ESE22MH Type 4,000 pcs. Embossed Taping (Reel Pack)
	10,000 pcs. Polyethylene Bag (Bulk)
Quantity/Carton	10,000 pcs. Polyethylene Bag (Bulk)
	<ul style="list-style-type: none"> · ESE22MV Type 6,000 pcs. Embossed Taping (Reel Pack) · ESE22MH Type with Frame 18,000 pcs. Embossed Taping (Reel Pack) · ESE22MH Type 24,000 pcs. Embossed Taping (Reel Pack)
	10,000 pcs. Polyethylene Bag (Bulk)

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■ Dimensions in mm (not to scale)

Type	Part Numbers	H : boss	Packaging
	ESE22MH21	0.5	Polyethylene Bag (Bulk)
	ESE22MH27	1.0	Polyethylene Bag (Bulk)
	ESE22MH22	0.5	Embossed Taping (Reel Pack)
	ESE22MH27T	1.0	Embossed Taping (Reel Pack)

No. 1 1-pole 1-throw

Top view dimensions: 6.0 (total width), 3.5 (spacing), 1.7 (width), 5.3 (spacing), 2.5±0.1 (width), 2.2 (pitch), $\phi 1.1$ hole, $\phi 1.1^{+0.05}$ hole. Labels include: (The hole for flux prevention), PWB mounting hole for reference, ON starting position, Boss center, ON starting position standard, Vertical direction ON starting position, Full stroke position, Horizontal ON position measuring position.

Side view dimensions: 1.9 (height), 1.45 (width), 1.0 (width), 2.1 max. (width), 2.3 (height), 1.2 (height), 2.5 (width), 0.05 (gap), 2.7 (height), 0.7 (width), 2.1±0.05 hole.

Cross-section dimensions: 5.7 (width), 0.88 (width), 0.26 (width), 2.2 (width), 2.8 (width), 3.2 (width), 2.7 (height), 1.5 (width), 3.95 (width), 5.0 (width), 6.5 (width), 1.0 (width), 1.0 (width), 1.0 (width), 1.4 (width), 3.5 (width).

Part Numbers	Packaging
ESE22MH21	Polyethylene Bag (Bulk)
ESE22MH27	Polyethylene Bag (Bulk)
ESE22MH22	Embossed Taping (Reel Pack)
ESE22MH27T	Embossed Taping (Reel Pack)

Type	Part Numbers	H : boss	Packaging
	ESE22MH23	0.5	Polyethylene Bag (Bulk)
	ESE22MH28	1.0	Polyethylene Bag (Bulk)
	ESE22MH24	0.5	Embossed Taping (Reel Pack)
	ESE22MH28T	1.0	Embossed Taping (Reel Pack)

No. 2 1-pole 1-throw

Top view dimensions: 6.0 (total width), 3.5 (spacing), 1.7 (width), 5.3 (spacing), 2.5±0.1 (width), 2.2 (pitch), $2\phi 1.1^{+0.05}$ hole, $\phi 1.1$ hole. Labels include: (The hole for flux prevention), PWB mounting hole for reference, Boss center, ON starting position standard, ON starting position.

Side view dimensions: 1.9 (height), 1.45 (width), 1.0 (width), 2.1 max. (width), 2.3 (height), 1.2 (height), 2.5 (width), 0.05 (gap), 2.7 (height), 0.7 (width), 2.1±0.05 hole.

Cross-section dimensions: 5.7 (width), 0.88 (width), 0.26 (width), 2.2 (width), 2.8 (width), 3.2 (width), 2.7 (height), 1.5 (width), 3.95 (width), 5.0 (width), 6.5 (width), 1.0 (width), 1.0 (width), 1.0 (width), 1.4 (width), 3.5 (width).

Part Numbers	Packaging
ESE22MH23	Polyethylene Bag (Bulk)
ESE22MH28	Polyethylene Bag (Bulk)
ESE22MH24	Embossed Taping (Reel Pack)
ESE22MH28T	Embossed Taping (Reel Pack)

Type	Part Numbers	Packaging
	ESE22MV21	Polyethylene Bag (Bulk)
	ESE22MV21T	Embossed Taping (Reel Pack)

No. 3 1-pole 1-throw

Top view dimensions: 4.0 (width), 1.4 (width), 1.5 (width), 2.4 (width), 1.5 (width), 3.5 (width), $\phi 1.1^{+0.1}$ hole, $\phi 1.3^{+0.1}$ hole. Labels include: Operating direction, PWB mounting hole for reference (View from A direction, SCL=1/2).

Side view dimensions: 5.7±0.1 (width), 1.0 (width), 1.9±0.1 (height), 3.8 (width), 1.0 (width).

Cross-section dimensions: 1.0±0.1 (width), 0.45 (width), 0.13 max. (width), 3.4 (width), 4.4 (width), 5.85 (height), 5.1 (height), 4.25 (height), 3.1 (width), 1.95 (width), 4.0 (width), 4.1 (width), 5.9±0.3 (width), 6.3±0.3 (width), 1.0 (width), $\phi 0.7$ hole, R0.3, R4.5, ON starting position, ON starting position, 0.2, 0.88, R0.1, R0.25, CO.2.

Part Numbers	Packaging
ESE22MV21	Polyethylene Bag (Bulk)
ESE22MV21T	Embossed Taping (Reel Pack)

Type	Part Numbers	Packaging
	ESE22MH51	Polyethylene Bag (Bulk)
	ESE22MH52	Embossed Taping (Reel Pack)

No. 4 1-pole 1-throw
With Frame Type

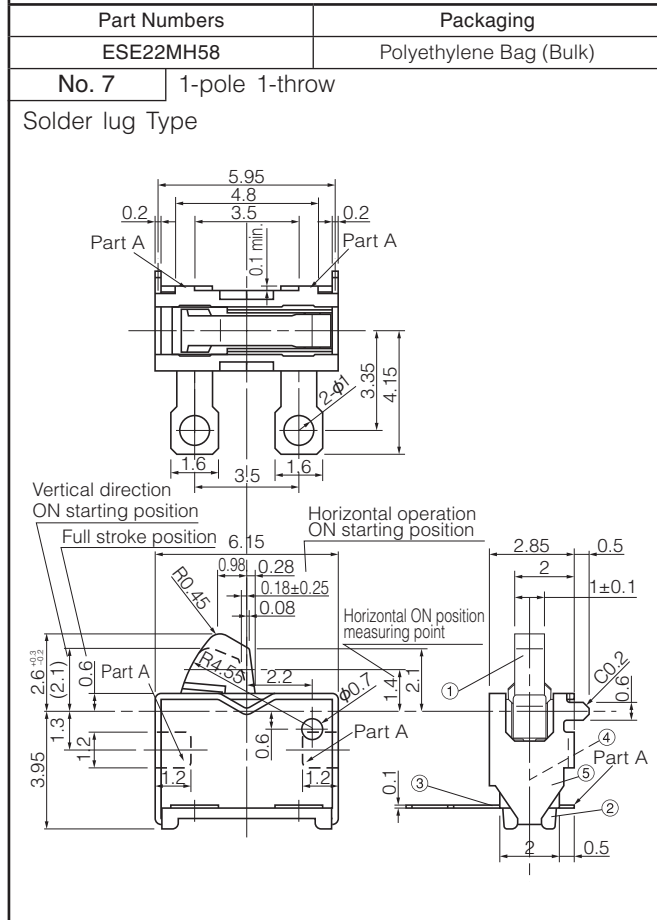
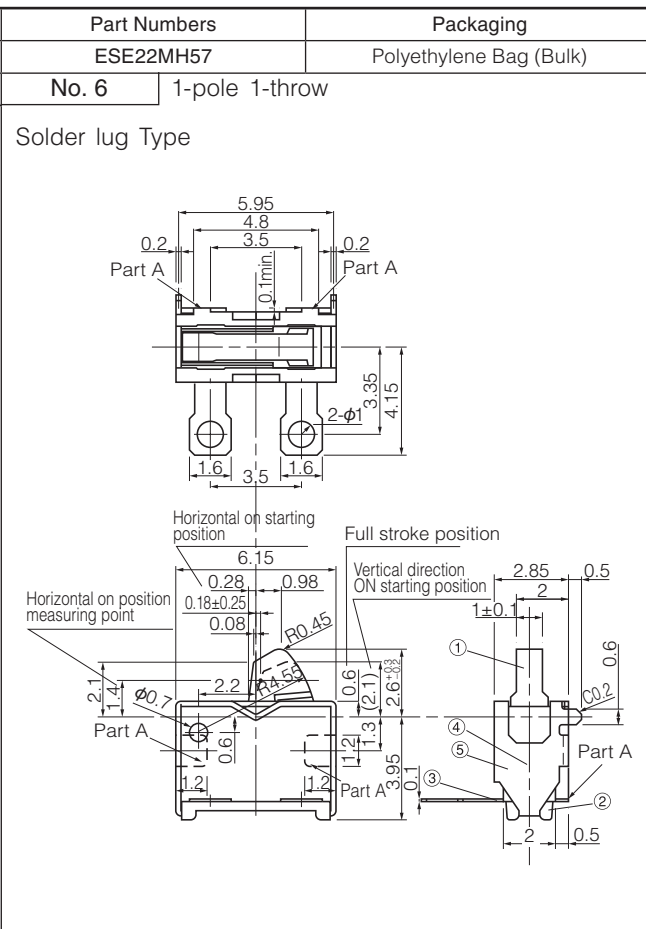
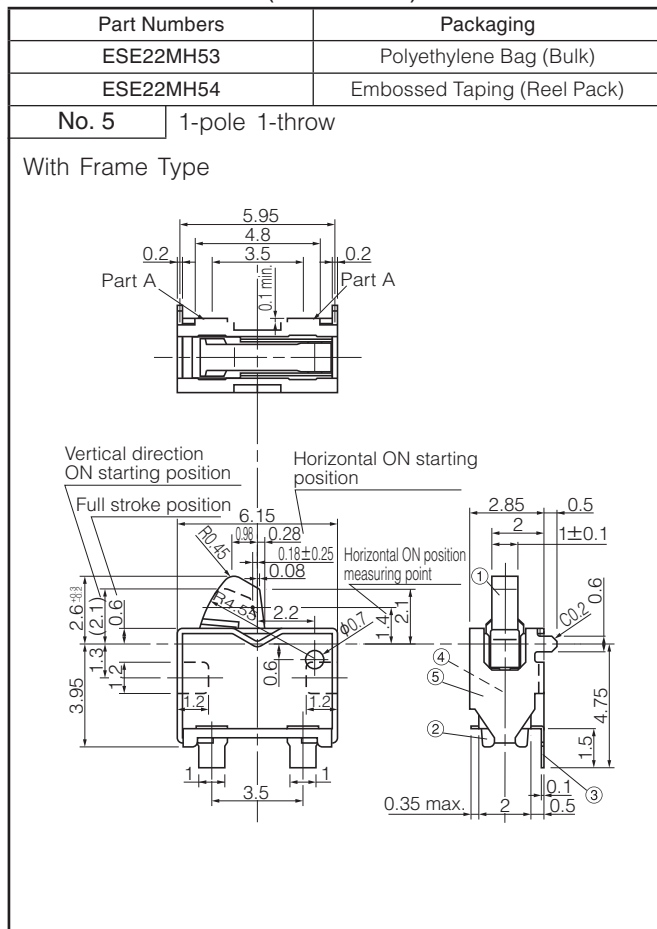
Top view dimensions: 5.95 (width), 1.6 (width), 3.5 (width), 1.6 (width), 5.95 (width), $2\phi 1.1^{+0.05}$ hole, 2.0 (width), 2.95 (width), 1.4 (width), 1.4 (width), 3.5 (width), PWB mounting hole for reference (Tolerance: ±0.05) (Scale: 1/2).

Side view dimensions: 5.95 (width), 4.8 (width), 3.5 (width), 0.2 (width), 0.1 (width), 0.2 (width), 0.15 (width), 0.28 (width), 0.98 (width), 0.18±0.25 (width), 0.08 (width), R0.45, R0.53, Full stroke position, Vertical direction ON starting position, 2.1 (width), 1.4 (width), 0.6 (width), 1.2 (width), 1.3 (width), 2.6 (width), 3.95 (width), 1 (width), 3.5 (width).

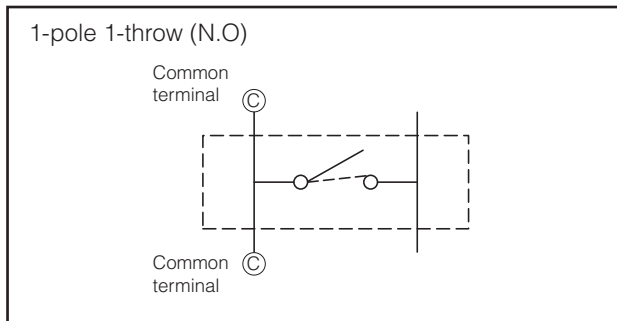
Cross-section dimensions: 2.85 (width), 0.5 (width), 2 (width), 1±0.1 (width), 0.6 (width), 1.5 (width), 4.75 (width), 0.35 max. (width), 0.1 (width), 0.5 (width), 1.5 (width), 0.2 (width), 1.5 (width), 0.6 (width), 0.5 (width), Center of on start position in case of horizontal operation, 0.2 (width), Part A, Part A, Horizontal ON starting position, Horizontal ON position measuring point.

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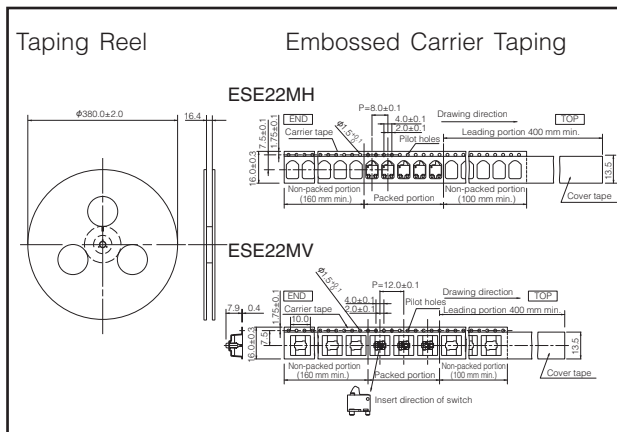
■ Dimensions in mm (not to scale)



■ Circuit Diagram



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



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