

# "GullWing Chip" Sockets

Screw-, Fast-, QuickLock & ClamShell Type



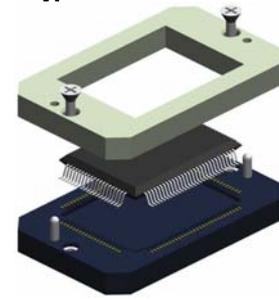
GullWing sockets are available for any GullWing type chips (QFP, PQFP, SOIC, SO etc.) and lead pattern. The sockets are available for any pin-out and tip-to-tip dimension as of 0.50mm pitch upwards. The SMT socket is simply placed and reflowed onto the PCB in the same way as the chip and it only requires a small amount of additional board space. The standard locking system is the ScrewLock design, but QuickLock and ClamShell locking systems are also available.

We aim to solve your requirements - many different terminals and configurations are available.

Your custom sets our standards!

**Please note, we will always request the chip data to ensure we offer a compatible socket.**

## ScrewLock Type



**SMT style**

**PCB Pad Layout**

Pitch

solder pad

- Ø 0,50mm/.020" if pitch 1,27mm
- Ø 0,50mm/.020" if pitch 1,00mm
- Ø 0,40mm/.016" if pitch 0,80mm
- Ø 0,35mm/.014" if pitch 0,75mm
- Ø 0,35mm/.014" if pitch 0,65mm
- Ø 0,30mm/.012" if pitch 0,50mm

**Soldertail style**

**PCB Hole Layout**

Pitch

solder hole

**Soldertail dimension:**

- Ø 0,29mm/.011" if pitch 1,27mm
- Ø 0,29mm/.011" if pitch 1,00mm
- Ø 0,29mm/.011" if pitch 0,80mm
- Ø 0,27mm/.010" if pitch 0,75mm
- Ø 0,27mm/.010" if pitch 0,65mm
- Ø 0,27mm/.010" if pitch 0,50mm

**PCB solder hole:**

- Ø 0,50mm/.020" if pitch 1,27mm
- Ø 0,50mm/.020" if pitch 1,00mm
- Ø 0,40mm/.016" if pitch 0,80mm
- Ø 0,35mm/.014" if pitch 0,75mm
- Ø 0,35mm/.014" if pitch 0,65mm
- Ø 0,35mm/.014" if pitch 0,50mm

**Solderless Compression style**

Retention frame

Gullwing Device

Socket body

PC-Board

Assembly board

Pitch

solder pad

You may request any specific socket dimension from [info@e-tec.com](mailto:info@e-tec.com)

- gold plated pads Ø 0,60mm/.024" if pitch 1,27mm
- gold plated pads Ø 0,60mm/.024" if pitch 1,00mm
- gold plated pads Ø 0,50mm/.020" if pitch 0,80mm
- gold plated pads Ø 0,45mm/.018" if pitch 0,75mm
- gold plated pads Ø 0,40mm/.016" if pitch 0,65mm
- gold plated pads Ø 0,35mm/.012" if pitch 0,50mm

Quick Lock Type	FastLock Type	ClamShell Type
<b>without lever for low leadcount chips</b>	<b>with lever for high leadcount chips</b>	<b>adapted to low and high leadcount chips</b>
		<b>with center screw for high leadcount chips</b>

**Specifications**

**Mechanical data**

- Contact life: 10.000 cycles min.
- Retention System life: 1.000 cycles min.
- ScrewLock: 10.000 cycles min.
- ClamShell, Fast- & QuickLock: as per IEC 60068-2-58
- Solderability: 40 grams max.
- Individual contact force: 40 grams max.

**Material**

- Insulator: (RoHS compliant) High temp plastic or epoxy FR4
- Terminal: (RoHS compliant) Brass
- Contact: (RoHS compliant) BeCu

**Electrical data**

- Contact resistance: < 100 mΩ
- Current rating: 500 mA max.
- Insulation resistance at 500V DC: 100 MΩ if 0.50 to 0.80mm pitch, 500 MΩ 1.00mm pitch upwards
- Breakdown voltage at 60 Hz: 500V min.
- Capacitance: < 1 pF
- Inductance: < 2 nH

**Operating temperature**

- 55°C to +125°C ; 260°C for 60 sec.

**Recommendations:**  
 Solder paste – Please use a solder paste w/o any silver!  
 Solder profile – Please refer to our website [www.e-tec.com](http://www.e-tec.com)

E-tec solderless sockets are adapted to a standard PCB thickness of 1.60mm. For a different PCB thickness, please inform E-tec first!  
 The SMT sockets are mounted with straight SMT pins (not bent legs), which are adapted to round PCB pads. For rectangular PCB pads, please ensure that the round socket pins will be surface mountable, since E-tec cannot offer any guarantee in such instances.  
 For SMT sockets in general, E-tec recommends the use of locating pegs, which can be soldered to the PCB for added mechanical strength.

## How to order

QF X x x x x - x x x x - x x x x x x L ← optional for locating pegs

**Retention Type**

- W** = ScrewLock
- F** = FastLock
- Q** = QuickLock
- C** = ClamShell

**Nbr of contacts**

*depends on leadcount of chip*

**Pitch**

<b>05</b> = 0,50mm	<b>08</b> = 0,80mm
<b>63</b> = 0,635mm	<b>10</b> = 1,00mm
<b>06</b> = 0,65mm	<b>12</b> = 1,27mm
<b>07</b> = 0,75mm	<i>others on request</i>

**Grid Code** | **Config Code**

*will be given by the factory after receipt of the chip datasheet*

**Plating**

- 95** = tin/gold (tin leadfree)
- 55** = gold only for solderless Compression Type

## Contact Type

- 30** = standard SMT... („A“ = 0,80mm if 1,27mm pitch or 1,00mm pitch, 0.60 if 0,80mm pitch; 0.40mm if <0.80mm pitch )
- 29** = raised SMT... („A“ = 3,20mm if 1,27mm pitch or 1,00mm pitch; 2,80mm if 0,80mm pitch, 2.30mm if <0.80mm pitch )
- 28** = special raised SMT - only for 1,27, 1.00 & 0.80mm pitch..... („A“ = 4,50mm )
- 70** = standard solder tail..... („A“ = 2,80 if 1.27mm pitch, 1.00mm or 0.80mm pitch; 2,30mm if <0.80mm pitch)
- 90 & 91** = compression type (see page 8 for more details)