

PCB Hardware

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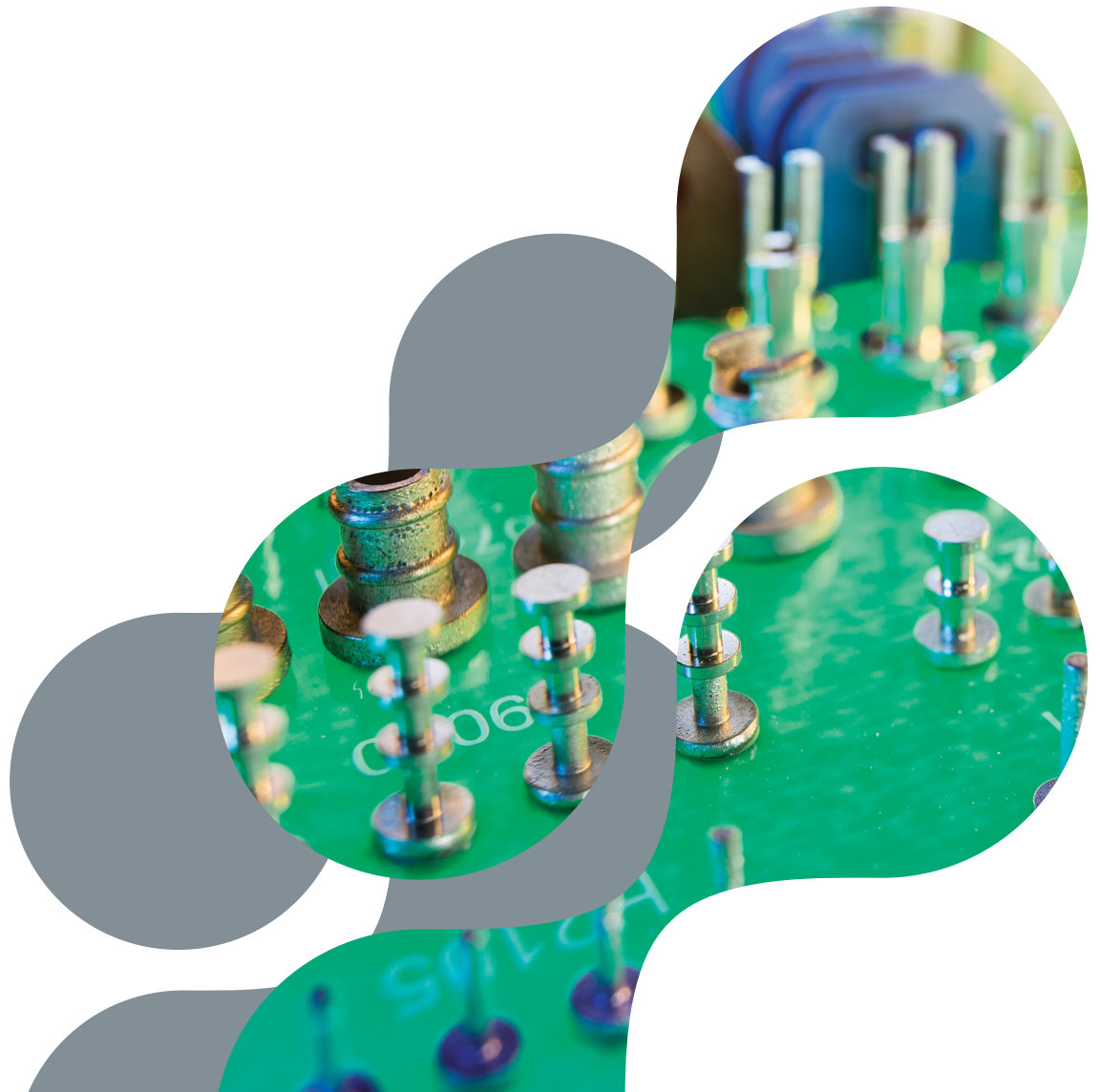
SMT Cable Clips

SMT Jumper Links

PCB Jumper Links

PCB Terminals, Turret Lugs

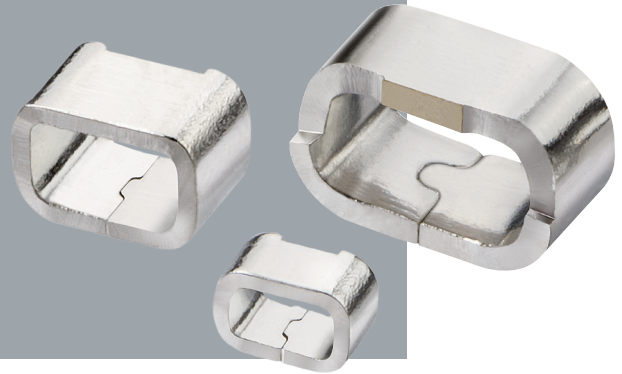
Spacers / Pillars / Standoffs



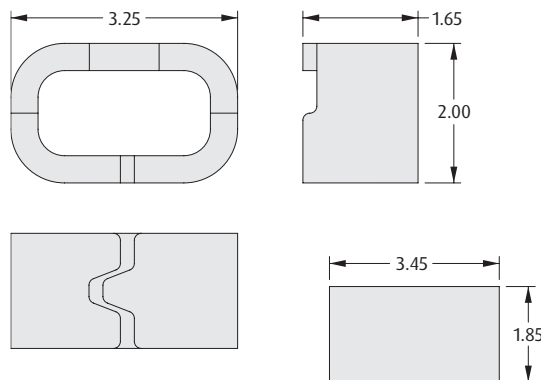
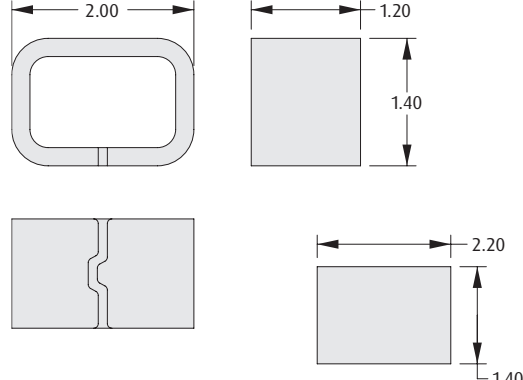
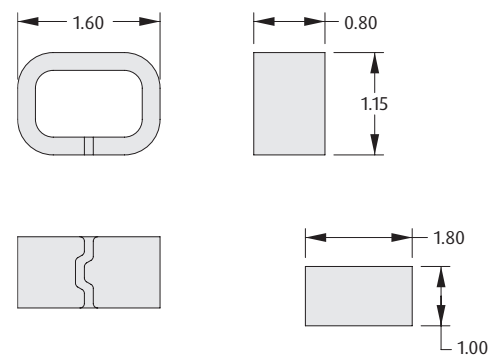
SMT Hardware

Test Points

- ❖ Ideal for use with standard probes, clips and hooks.
- ❖ Can be placed using industry standard equipment.
- ❖ Suitable for automatic or manual test.
- ❖ High speed placement.
- ❖ Industry standard tape and reel packaging.
- ❖ Strong and durable.



SMT HARDWARE

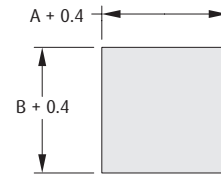
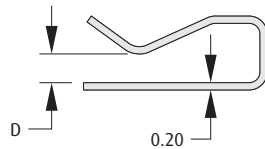
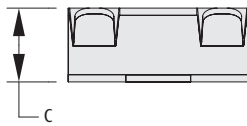
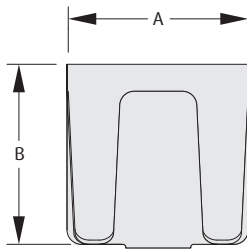
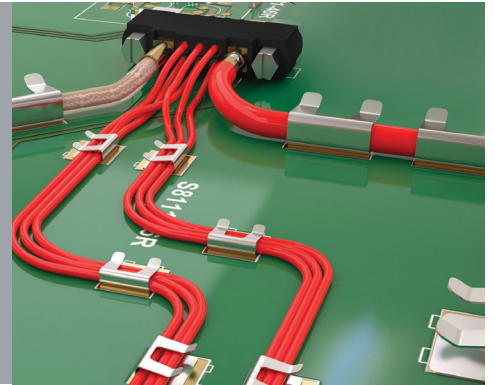
| | |
|---|---|
| <p>❖ Materials</p> <p>Material: Copper Alloy Finish: Tin</p> <p>❖ Packaging</p> <p>Format: Tape & Reel</p> <p>Reel quantity S1751-46R: 2,500 on a Ø330mm reel S2751-46R: 2,500 on a Ø178mm reel S2761-46R: 3,000 on a Ø178mm reel</p> | <p>2.00mm HIGH</p>  <p>Recommended PC Board Pattern</p> <p>ORDER CODE S1751-46R</p> |
| <p>1.40mm HIGH</p>  <p>Recommended PC Board Pattern</p> <p>ORDER CODE S2751-46R</p> | <p>1.15mm HIGH</p>  <p>Recommended PC Board Pattern</p> <p>ORDER CODE S2761-46R</p> |

All dimensions in mm.

SMT Hardware

Cable Management & Grounding Clips

- ❖ Suitable for use with insulated cables with outer diameters $\varnothing 0.9$ to $\varnothing 3$ mm and grounding braided coax cables.
- ❖ Cable clip can be soldered at same time as rest of board, reducing additional operation time required for mounting plastic clip types.
- ❖ Low profile & small footprint saves PCB space.



Recommended PC Board Pattern

Materials

Material: Copper Alloy
Finish: Tin

Packaging

Format: Tape & Reel
Reel quantity: $\varnothing 330$ mm reel, see table

HOW TO ORDER

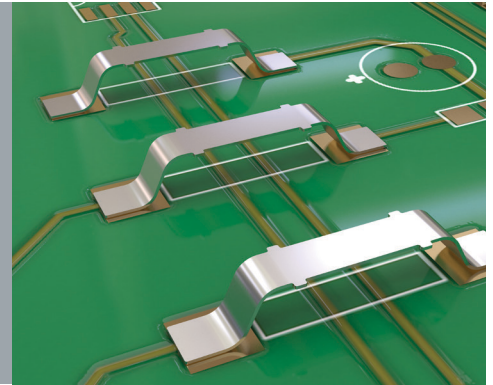
| PART NO. | A | B | C | D | COAX GROUNDING | CABLE RETENTION | REEL QUANTITY |
|------------------|-------|------|------|------|-----------------------|--|---------------|
| S8091-46R | 5.00 | 4.00 | 1.35 | 0.70 | $\varnothing 1.12$ mm | 2 x $\varnothing 0.9$ mm | 3,000 |
| S8101-46R | 5.00 | 4.00 | 1.50 | 0.80 | RG178, RG179, RG316 | 2 x $\varnothing 1.0$ mm | 3,000 |
| S8111-46R | 5.00 | 5.00 | 2.05 | 0.80 | RG174, RG179, RG316 | 3 x $\varnothing 1.0$ mm, 2 x $\varnothing 1.5$ mm | 1,500 |
| S8121-46R | 7.00 | 5.50 | 2.55 | 1.30 | n/a | 2 x $\varnothing 1.5$ mm, 1 x $\varnothing 2.0$ mm | 1,300 |
| S8131-46R | 10.00 | 8.00 | 3.55 | 1.80 | RG58 | 3 x $\varnothing 2.0$ mm, 1 x $\varnothing 3.0$ mm | 800 |

All dimensions in mm.

SMT Hardware

SMT Fixed Jumper Link

- Designed to link PCB tracks where through hole links are not possible.
- Typical applications include use on aluminium backplanes in power applications.
- High current.
- Small footprint.
- Low profile options available for space saving design.



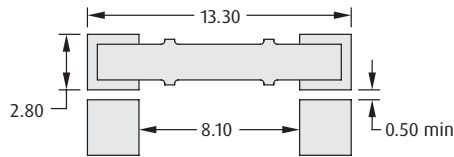
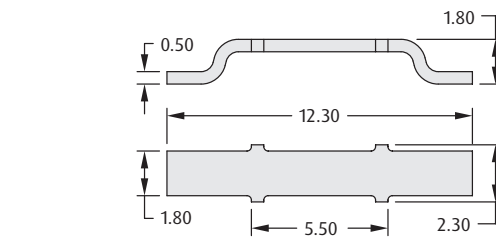
➤ Materials

Material: Copper Alloy (S1621, S1911)
Copper (S1731)
Finish: Tin

➤ Packaging

Format: Tape & Reel
Reel quantity
S1621-46R: 5,000 on a Ø330mm reel
S1731-46R: 2,500 on a Ø330mm reel
S1911-46R: 4,000 on a Ø330mm reel

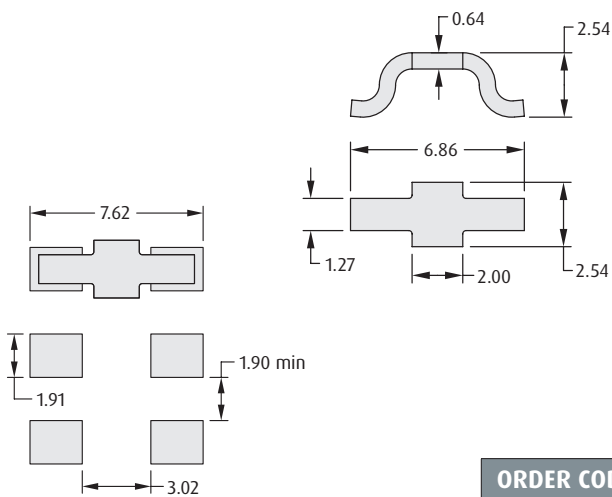
12.3mm LONG



Recommended PC Board Pattern

ORDER CODE
S1621-46R

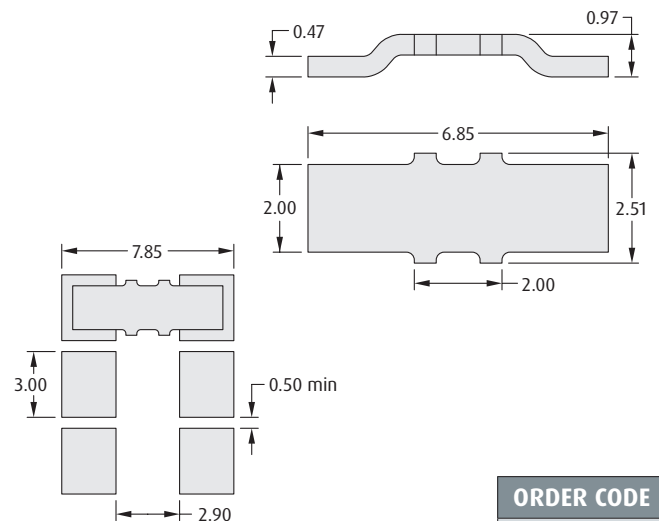
6.86mm LONG, 2.54mm HIGH



Recommended PC Board Pattern

ORDER CODE
S1731-46R

6.85mm LONG, 0.97mm HIGH



Recommended PC Board Pattern

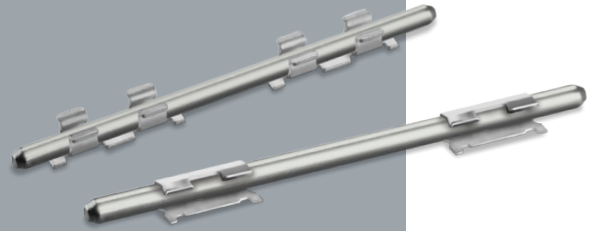
ORDER CODE
S1911-46R

All dimensions in mm.

SMT Hardware

Removable Jumper Link - SMT Clip and Bar

- ❖ Simple & effective method for connecting across LED arrays and PCBs.
- ❖ Vertical and horizontal configurations available.
- ❖ Connecting bars available in two lengths.
- ❖ SMT clips packaged in tape and reel to suit automated placement.
- ❖ Allows easy replacement of defective arrays and PCBs without the need to de-solder.
- ❖ SMT clips and bars ordered separately.



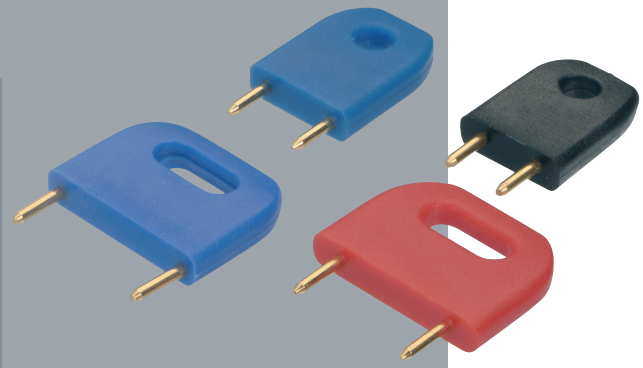
| VERTICAL CLIP | HORIZONTAL CLIP |
|---|---|
| ❖ Specification | ❖ Specification |
| <p>Material: Stainless Steel</p> <p>Finish: Tin</p> <p>Packaging format: Tape & Reel (10,000 on a Ø330mm reel)</p> | <p>Material: Stainless Steel</p> <p>Finish: Tin</p> <p>Packaging format: Tape & Reel (10,000 on a Ø330mm reel)</p> |
| | |
| <p>Recommended PC Board Pattern</p> | <p>Recommended PC Board Pattern</p> |
| ORDER CODE | ORDER CODE |
| S8071-46R | S8081-46R |
| 23mm LONG REMOVABLE BAR | 15mm LONG REMOVABLE BAR |
| ❖ Specification | ❖ Specification |
| <p>Material: Phosphor Bronze</p> <p>Finish: Tin</p> <p>Packaging format: Loose</p> | <p>Material: Phosphor Bronze</p> <p>Finish: Tin</p> <p>Packaging format: Loose</p> |
| | |
| ORDER CODE | ORDER CODE |
| S07-46 | S08-46 |

All dimensions in mm.

PCB Hardware

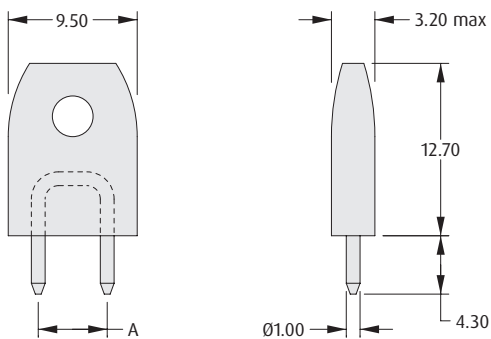
Ø1mm Shorting Link Plugs

- Choice of insulated or un-insulated links.
- Insulated links supplied in a variety of colours, with a high-performance gold finish.
- Un-insulated links can be soldered directly into the PCB for permanent linking.
- Can be used with individual PCB sockets for hardware programming applications.

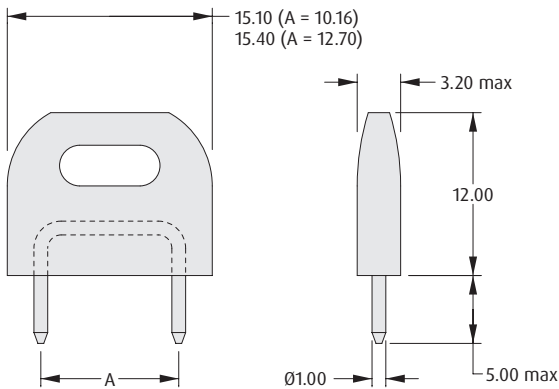


INSULATED

Style 1



Style 2



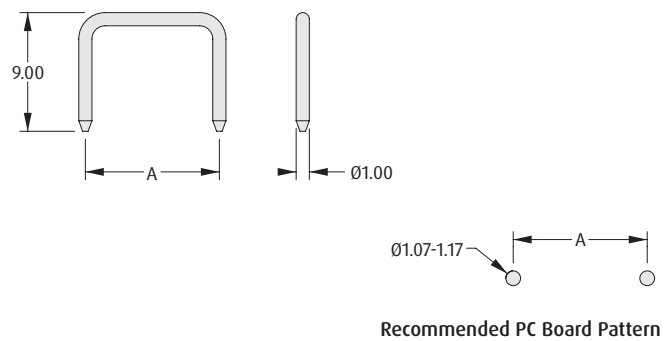
Materials

Moulding: PBT UL94V-0
 Contact: Brass
 Finish
 Insulated: Gold
 Un-insulated: See order code

Electrical

Current rating: 10A at 20°C

UN-INSULATED



HOW TO ORDER

D308 X - XX

SERIES CODE

| PITCH (A) | STYLE |
|-----------|-----------|
| 6 | 5.08mm 1 |
| 7 | 6.35mm 1 |
| 8 | 10.16mm 2 |
| 9 | 12.70mm 2 |

COLOUR

| | |
|----|-------|
| 97 | Blue |
| 98 | Black |
| 99 | Red |

HOW TO ORDER

D308 X - XX

SERIES CODE

| PITCH (A) | |
|-----------|---------|
| 0 | 5.08mm |
| 1 | 6.35mm |
| 2 | 10.16mm |

FINISH

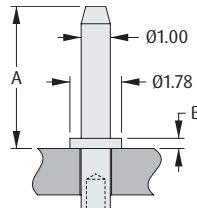
| | |
|----|------|
| 05 | Gold |
| 46 | Tin |

All dimensions in mm.

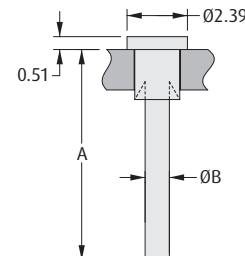
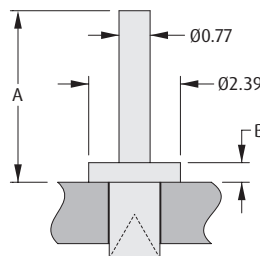
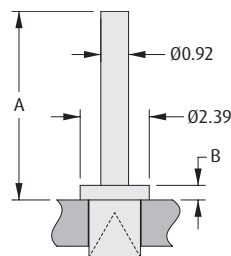
PCB Hardware

Turned Terminals

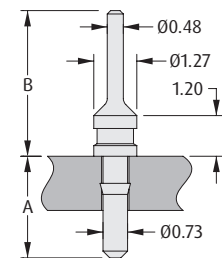
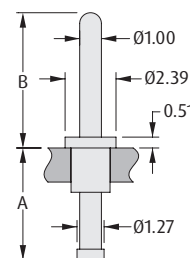
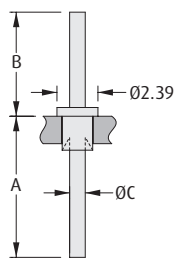
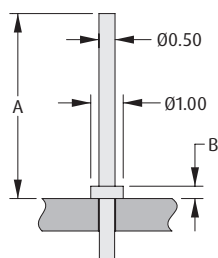
- Material: Brass with tin plating - also available in gold plating for the 1mm chamfered terminal pins (H217x series).
- Retention by swaging feature available.
- For swaging tool, change order code prefix to Z, and suffix to 00 (example Z2174-00).
- Suitable for a variety of PCB thicknesses from 1mm to 3.2mm.



| ORDER CODE (TIN) | H2174-01 | H2175-01 | H2173-01 | H2176-01 | H2170-01 | H2171-01 |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| ORDER CODE (GOLD) | H2174-05 | H2175-05 | H2173-05 | H2176-05 | H2170-05 | H2171-05 |
| A | 4.32mm | 4.90mm | 8.13mm | 9.53mm | 13.21mm | 19.56mm |
| B | 0.51mm | 0.35mm | 0.51mm | 0.51mm | 0.51mm | 0.51mm |
| PANEL THICKNESS | 1.60mm | 1.60mm | 1.60mm | 1.60mm | 1.60mm | 1.60mm |
| MOUNTING HOLE | Ø1.04 - 1.14mm | Ø1.04 - 1.14mm | Ø1.04 - 1.14mm | Ø1.04 - 1.14mm | Ø1.04 - 1.14mm | Ø1.04 - 1.14mm |



| ORDER CODE | H2101A01 | H2103A01 | H2105A01 | H2106A01 | H2101B01 | H2105B01 |
|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| A | 6.53mm | 6.53mm | 4.47mm | 4.47mm | 8.39mm | 6.37mm |
| B | 0.51mm | 0.51mm | 0.51mm | 0.51mm | Ø0.93mm | Ø0.77mm |
| PANEL THICKNESS | 1.60mm | 3.20mm | 1.60mm | 2.40mm | 1.60mm | 1.60mm |
| MOUNTING HOLE | Ø1.79 - 1.87mm | Ø1.79 - 1.87mm | Ø1.33 - 1.41mm | Ø1.33 - 1.41mm | Ø1.79 - 1.87mm | Ø1.33 - 1.41mm |



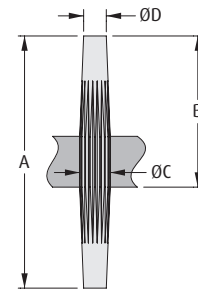
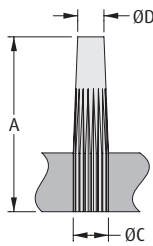
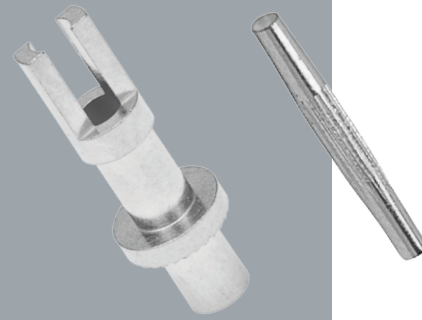
| ORDER CODE | H3108-01 | H2101-01 | H2105-01 | H9051-01 | H2475-01 |
|-----------------|----------------|----------------|----------------|----------------|----------------|
| A | 5.70mm | 8.23mm | 5.05mm | 5.26mm | 3.00mm |
| B | 0.38mm | 6.07mm | 4.48mm | 6.35mm | 4.30mm |
| C | - | Ø0.87mm | Ø0.77mm | - | - |
| PANEL THICKNESS | 1.00mm | 1.60mm | 1.60mm | 1.60mm | 1.60mm |
| MOUNTING HOLE | Ø0.50 - 0.55mm | Ø1.79 - 1.87mm | Ø1.33 - 1.41mm | Ø1.83 - 1.88mm | Ø0.77 - 0.85mm |

All dimensions in mm.

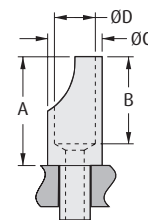
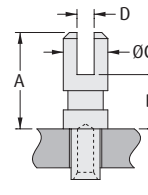
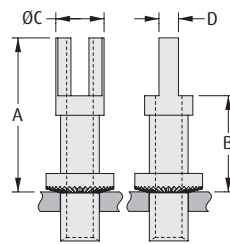
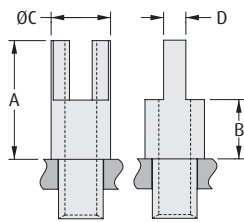
PCB Hardware

Turned Terminals

- Material: Brass with tin plating.
- Retention by swaging feature available.
- For swaging tool, change order code prefix to Z, and suffix to 00 (example Z2051-00).
- Suitable for a variety of PCB thicknesses from 1.6mm to 3.2mm.



| ORDER CODE | H2088-01 | H2085-01 | H2081-01 | H2089-01 | H2087-01 | H2083-01 |
|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| A | 7.14mm | 7.14mm | 9.53mm | 11.91mm | 11.91mm | 15.88mm |
| B | - | - | - | 7.14mm | 7.14mm | 9.52mm |
| C | Ø1.13mm | Ø1.43mm | Ø1.68mm | Ø1.13mm | Ø1.43mm | Ø1.68mm |
| D | Ø0.76mm | Ø1.12mm | Ø1.22mm | Ø0.76mm | Ø1.12mm | Ø1.22mm |
| PANEL THICKNESS | 2.40mm | 2.40mm | 2.40mm | 2.40mm | 2.40mm | 2.40mm |
| MOUNTING HOLE | Ø1.00 - 1.05mm | Ø1.30 - 1.35mm | Ø1.55 - 1.60mm | Ø1.00 - 1.05mm | Ø1.30 - 1.35mm | Ø1.55 - 1.60mm |



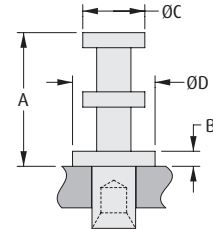
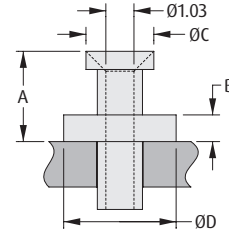
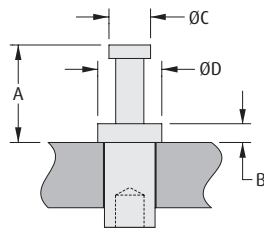
| ORDER CODE | H2051-01 | H2055-01 | H2039-01 | H9023-01 | H9026-01 |
|-----------------|----------------|----------------|----------------|----------------|----------------|
| A | 4.78mm | 6.35mm | 12.65mm | 3.96mm | 6.35mm |
| B | 2.39mm | 3.17mm | 7.90mm | 2.23mm | 5.08mm |
| C | Ø3.18mm | Ø3.18mm | Ø3.90mm | Ø1.83mm | Ø3.18mm |
| D | 0.73mm | 1.13mm | 1.54mm | 0.71mm | Ø2.39mm |
| THROUGH HOLE | Ø1.06mm | Ø1.74mm | Ø2.22mm | - | Ø1.13mm |
| PANEL THICKNESS | 1.60mm | 2.40mm | 3.20mm | 1.60mm | 2.40mm |
| MOUNTING HOLE | Ø1.60 - 1.68mm | Ø2.40 - 2.48mm | Ø3.19 - 3.27mm | Ø1.28 - 1.38mm | Ø1.84 - 1.92mm |

All dimensions in mm.

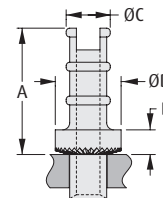
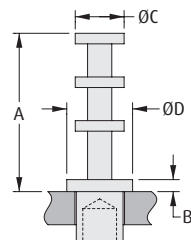
PCB Hardware

Turned Terminals

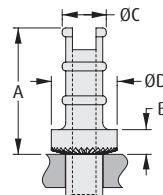
- Material: Brass with tin plating.
- Retention by swaging feature available.
- For swaging tool, change order code prefix to Z, and suffix to 00 (example Z9001-00).
- Suitable for a variety of PCB thicknesses from 1.6mm to 3.2mm.



| ORDER CODE | H9001-01 | H9004-01 | H2061-01 | H2121-01 |
|-----------------|----------------|----------------|----------------|----------------|
| A | 2.39mm | 4.74mm | 3.18mm | 5.15mm |
| B | 0.46mm | 1.19mm | 0.94mm | 0.58mm |
| C | Ø1.02mm | Ø1.91mm | Ø2.33mm | Ø2.39mm |
| D | Ø1.57mm | Ø3.18mm | Ø4.03mm | Ø3.18mm |
| PANEL THICKNESS | 1.60mm | 1.60mm | 1.60mm | 1.60mm |
| MOUNTING HOLE | Ø1.25 - 1.33mm | Ø2.01 - 2.09mm | Ø1.60 - 1.68mm | Ø1.69 - 1.74mm |



| ORDER CODE | H9020-01 | H9021-01 | H2072-01 | H2072Z01 | H2072ZL1 |
|-----------------|----------------|----------------|----------------|----------------|----------------|
| A | 7.65mm | 7.65mm | 6.29mm | 6.52mm | 6.52mm |
| B | 0.58mm | 0.58mm | 1.01mm | 1.24mm | 1.24mm |
| C | Ø2.36mm | Ø2.36mm | Ø3.25mm | Ø2.54mm | Ø2.54mm |
| D | Ø3.18mm | Ø3.18mm | Ø3.96mm | Ø3.96mm | Ø3.96mm |
| PANEL THICKNESS | 1.60mm | 2.40mm | 1.60mm | 1.60mm | 2.40mm |
| MOUNTING HOLE | Ø2.35 - 2.45mm | Ø2.35 - 2.45mm | Ø2.17 - 2.27mm | Ø2.01 - 2.11mm | Ø2.01 - 2.11mm |



| ORDER CODE | H2074Z01 | H2071ZS1 | H2071Z01 | H2073Z01 |
|-----------------|----------------|----------------|----------------|----------------|
| A | 8.74mm | 9.12mm | 9.12mm | 9.12mm |
| B | 1.60mm | 1.78mm | 1.78mm | 1.78mm |
| C | Ø4.57mm | Ø3.18mm | Ø3.18mm | Ø3.18mm |
| D | Ø6.35mm | Ø4.75mm | Ø4.75mm | Ø4.75mm |
| PANEL THICKNESS | 3.20mm | 1.60mm | 2.40mm | 3.20mm |
| MOUNTING HOLE | Ø3.93 - 4.03mm | Ø2.68 - 2.78mm | Ø2.68 - 2.78mm | Ø2.68 - 2.78mm |

All dimensions in mm.

Metric Spacers

Clearance Spacers

- Standard lengths available from 3 to 30mm.
- Brass spacers: base material is free-machining brass, with nickel plating.
- Aluminium spacers: supplied with a clear passivation finish to prevent oxidation.
- Plastic material: Nylon 66 UL94V-2.



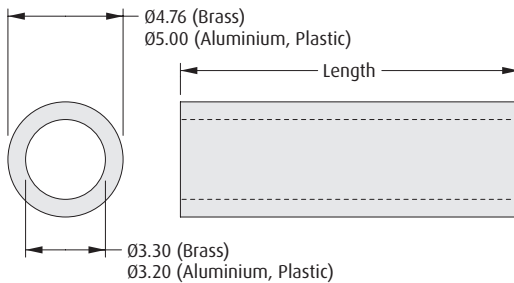
CLEARANCE FOR M3 THREAD

Materials

Base material: Brass, Aluminium or Plastic

Finish

Brass: Nickel
Aluminium: Clear Passivate



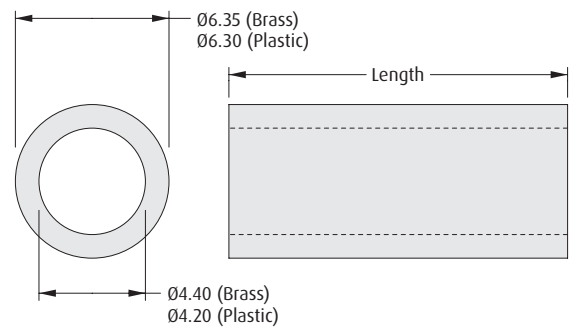
CLEARANCE FOR M4 THREAD

Materials

Base material: Brass or Plastic

Finish

Brass: Nickel



HOW TO ORDER

R30 - 6 XX XX XX

SERIES CODE

MATERIAL

| | |
|----|-----------|
| 01 | Brass |
| 20 | Aluminium |
| 70 | Plastic |

LENGTH (mm)

| | |
|--------------------------|------------------|
| 03 to 16, 18, 20, 25, 30 | Brass, Aluminium |
| 03 to 16, 18, 20, 25 | Plastic |

FINISH

| | |
|----|------------------------------|
| 02 | Nickel (Brass only) |
| 14 | Passivation (Aluminium only) |
| 94 | White (Plastic only) |

HOW TO ORDER

R40 - 6 XX XX XX

SERIES CODE

MATERIAL

| | |
|----|---------|
| 00 | Brass |
| 71 | Plastic |

LENGTH (mm)

| | |
|--------------------------------|---------|
| 03 to 16, 18, 20, 25, 30 | Brass |
| 03, 05 to 08, 10 to 12, 15, 18 | Plastic |

FINISH

| | |
|----|----------------------|
| 02 | Nickel (Brass only) |
| 94 | White (Plastic only) |

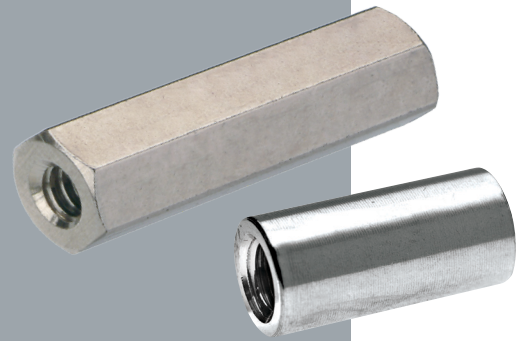
All dimensions in mm.

Metric Spacers

SPACERS

Threaded Female Spacers

- Available in a variety of standard body lengths.
- Brass spacers: base material is free-machining brass, with nickel plating.
- Plastic material: Nylon 66 UL94V-2.
- Longer thread lengths may not be threaded through the complete length, but have female threads at both ends.



| HEXAGONAL | CIRCULAR |
|--|---|
| <p>Materials</p> <p>Base material: Brass or Plastic</p> <p>Finish: Nickel</p> | <p>Materials</p> <p>Base material: Brass</p> <p>Finish: Nickel</p> |
| | |

HOW TO ORDER

RXX - XXX XX XX

| SERIES CODE | |
|----------------|-------------------------------|
| R25-100 | Hexagonal, Brass, M2.5 Thread |
| R30-100 | Hexagonal, Brass, M3 Thread |
| R30-101 | Hexagonal, Brass, M3 Thread |
| R30-161 | Hexagonal, Plastic, M3 Thread |
| R30-500 | Circular, Brass, M3 Thread |
| R40-100 | Hexagonal, Brass, M4 Thread |

| FINISH | |
|-----------|----------------------|
| 00 | White (Plastic only) |
| 02 | Nickel (Brass only) |

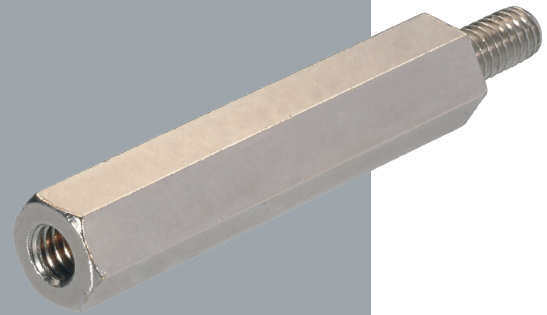
| LENGTH (mm) | |
|-----------------------------|------------------|
| 06 to 16, 18, 20, 25 | R30-161, R40-100 |
| 04 to 16, 18, 20, 25 | Other |

All dimensions in mm.

Metric Spacers

Threaded Male Pillars

- Available in a choice of thread sizes, with a variety of standard body lengths.
- Base material is free-machining Brass, with nickel plating.



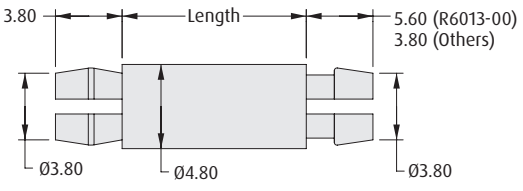
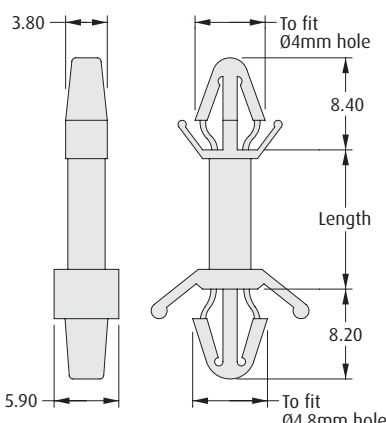
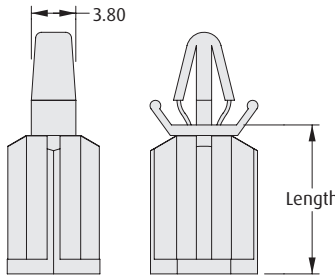
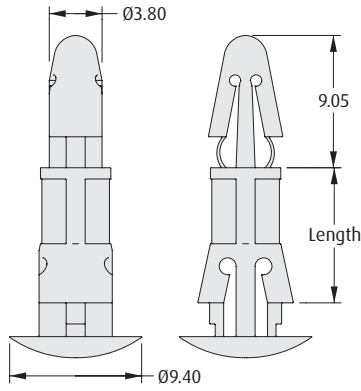
| MALE/MALE | MALE/FEMALE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|-------------|---------|-------------|---------|---------------------|---------|---------------------|---------|-----------|------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|--|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HOW TO ORDER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R30 - 400 XX 02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>SERIES CODE</p> <p>LENGTH (mm) 04 to 16, 18, 20, 25, 30, 35, 40</p> <p>FINISH 02 Nickel</p> | <p>Thread sizes are the same both ends for all standard spacers.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HOW TO ORDER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RXX - 30X XX 02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">SERIES CODE</th> </tr> </thead> <tbody> <tr> <td>R25-300</td> <td>M2.5 Thread</td> </tr> <tr> <td>R30-300</td> <td>M3 Thread, 6mm Stud</td> </tr> <tr> <td>R30-301</td> <td>M3 Thread, 8mm Stud</td> </tr> <tr> <td>R40-300</td> <td>M4 Thread</td> </tr> </tbody> </table> | SERIES CODE | | R25-300 | M2.5 Thread | R30-300 | M3 Thread, 6mm Stud | R30-301 | M3 Thread, 8mm Stud | R40-300 | M4 Thread | <p>FINISH 02 Nickel</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SERIES CODE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R25-300 | M2.5 Thread | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R30-300 | M3 Thread, 6mm Stud | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R30-301 | M3 Thread, 8mm Stud | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R40-300 | M4 Thread | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="2"></th> <th colspan="16">LENGTH (mm)</th> <th colspan="2"></th> </tr> <tr> <th colspan="2"></th> <th>03</th><th>04</th><th>05</th><th>06</th><th>07</th><th>08</th><th>09</th><th>10</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>18</th><th>20</th><th>25</th><th>30</th><th>35</th><th>40</th> <th colspan="2"></th> </tr> </thead> <tbody> <tr> <th rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">THREAD LENGTH</th> <th>1.9</th> <td>1.9</td><td>2.5</td><td>2.5</td><td>3.5</td><td>4.5</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>R25-300</td> </tr> <tr> <th>2.0</th> <td>2.0</td><td>2.5</td><td>3.0</td><td>4.5</td><td>5.5</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>6.0</td><td>R30-300</td> </tr> <tr> <th>2.5</th> <td>2.5</td><td>3.0</td><td>4.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>5.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>R30-301</td> </tr> <tr> <th>3.0</th> <td>3.0</td><td>3.5</td><td>4.5</td><td>5.5</td><td>6.5</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>8.0</td><td>R40-300</td> </tr> </tbody> </table> | | | | LENGTH (mm) | | | | | | | | | | | | | | | | | | | | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 18 | 20 | 25 | 30 | 35 | 40 | | | THREAD LENGTH | 1.9 | 1.9 | 2.5 | 2.5 | 3.5 | 4.5 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | R25-300 | 2.0 | 2.0 | 2.5 | 3.0 | 4.5 | 5.5 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | R30-300 | 2.5 | 2.5 | 3.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | R30-301 | 3.0 | 3.0 | 3.5 | 4.5 | 5.5 | 6.5 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | R40-300 |
| | | LENGTH (mm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 18 | 20 | 25 | 30 | 35 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| THREAD LENGTH | 1.9 | 1.9 | 2.5 | 2.5 | 3.5 | 4.5 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | R25-300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2.0 | 2.0 | 2.5 | 3.0 | 4.5 | 5.5 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | R30-300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2.5 | 2.5 | 3.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | R30-301 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3.0 | 3.0 | 3.5 | 4.5 | 5.5 | 6.5 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | R40-300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

All dimensions in mm.

Locking Spacers

SPACERS

❖ For further product information, please consult the applicable Technical Drawing online.

| LOW PROFILE SELF-LOCK SPACERS | RIGID SELF-LOCK SPACERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------------------|--------|----------|-----|----------|-----|----------|------|----------|------|----------|------|----------|------|---|------------|--------|----------|-----|----------|-----|----------|-----|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|
| <ul style="list-style-type: none"> ❖ Material: Nylon 6/6 UL94V-2. ❖ Spacer design uses minimum board area. ❖ Recommended PC board thickness 1.60mm. ❖ Recommended hole size Ø4.00mm.  <table border="1" data-bbox="548 829 803 1092"> <thead> <tr> <th>ORDER CODE</th> <th>LENGTH</th> </tr> </thead> <tbody> <tr><td>R6003-00</td><td>3.2</td></tr> <tr><td>R6006-00</td><td>6.3</td></tr> <tr><td>R6008-00</td><td>8.0</td></tr> <tr><td>R6009-00</td><td>9.5</td></tr> <tr><td>R6010-00</td><td>10.5</td></tr> <tr><td>R6013-00</td><td>12.7</td></tr> </tbody> </table> | ORDER CODE | LENGTH | R6003-00 | 3.2 | R6006-00 | 6.3 | R6008-00 | 8.0 | R6009-00 | 9.5 | R6010-00 | 10.5 | R6013-00 | 12.7 | <ul style="list-style-type: none"> ❖ Material: Nylon 6/6 UL94V-2. ❖ Spacers have wide ribs with locking fingers to provide a secure, rigid fit with extra stability. ❖ Recommended PC board thickness 1.60mm.  <table border="1" data-bbox="1247 682 1502 1092"> <thead> <tr> <th>ORDER CODE</th> <th>LENGTH</th> </tr> </thead> <tbody> <tr><td>R6405-00</td><td>4.8</td></tr> <tr><td>R6406-00</td><td>6.4</td></tr> <tr><td>R6410-00</td><td>9.6</td></tr> <tr><td>R6413-00</td><td>12.7</td></tr> <tr><td>R6416-00</td><td>15.9</td></tr> <tr><td>R6419-00</td><td>19.1</td></tr> <tr><td>R6422-00</td><td>22.2</td></tr> <tr><td>R6425-00</td><td>25.4</td></tr> <tr><td>R6428-00</td><td>28.5</td></tr> <tr><td>R6435-00</td><td>35.0</td></tr> </tbody> </table> | ORDER CODE | LENGTH | R6405-00 | 4.8 | R6406-00 | 6.4 | R6410-00 | 9.6 | R6413-00 | 12.7 | R6416-00 | 15.9 | R6419-00 | 19.1 | R6422-00 | 22.2 | R6425-00 | 25.4 | R6428-00 | 28.5 | R6435-00 | 35.0 |
| ORDER CODE | LENGTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6003-00 | 3.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6006-00 | 6.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6008-00 | 8.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6009-00 | 9.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6010-00 | 10.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6013-00 | 12.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ORDER CODE | LENGTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6405-00 | 4.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6406-00 | 6.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6410-00 | 9.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6413-00 | 12.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6416-00 | 15.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6419-00 | 19.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6422-00 | 22.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6425-00 | 25.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6428-00 | 28.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6435-00 | 35.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <h3>SCREW FIXING SELF-LOCK SPACERS</h3> <ul style="list-style-type: none"> ❖ Material: Nylon 6/6 UL94V-2. ❖ Fit spacer to underside of upper board, then attach lower board to bottom of spacer with No. 6 (1/8") screw. ❖ Recommended hole sizes: Ø4.00mm (upper board), Ø3.60mm (lower board). ❖ Recommended PC board thickness 2.00mm (upper board).  <table border="1" data-bbox="548 1627 803 1890"> <thead> <tr> <th>ORDER CODE</th> <th>LENGTH</th> </tr> </thead> <tbody> <tr><td>R6505-00</td><td>4.9</td></tr> <tr><td>R6510-00</td><td>9.6</td></tr> <tr><td>R6513-00</td><td>12.7</td></tr> <tr><td>R6519-00</td><td>19.1</td></tr> <tr><td>R6528-00</td><td>28.5</td></tr> <tr><td>R6535-00</td><td>35.0</td></tr> </tbody> </table> | ORDER CODE | LENGTH | R6505-00 | 4.9 | R6510-00 | 9.6 | R6513-00 | 12.7 | R6519-00 | 19.1 | R6528-00 | 28.5 | R6535-00 | 35.0 | <h3>REVERSE LOCK SPACERS</h3> <ul style="list-style-type: none"> ❖ Material: Nylon 6/6 UL94V-2. ❖ Fit spacers from underside of board. ❖ Recommended PC board thickness 0.50 - 1.80mm. ❖ Recommended hole sizes: Ø4.00mm (upper board), Ø5.50mm (lower board).  <table border="1" data-bbox="1247 1627 1502 1890"> <thead> <tr> <th>ORDER CODE</th> <th>LENGTH</th> </tr> </thead> <tbody> <tr><td>R6706-00</td><td>6.1</td></tr> <tr><td>R6708-00</td><td>8.0</td></tr> <tr><td>R6710-00</td><td>9.8</td></tr> <tr><td>R6712-00</td><td>12.0</td></tr> <tr><td>R6714-00</td><td>14.0</td></tr> <tr><td>R6718-00</td><td>18.0</td></tr> </tbody> </table> | ORDER CODE | LENGTH | R6706-00 | 6.1 | R6708-00 | 8.0 | R6710-00 | 9.8 | R6712-00 | 12.0 | R6714-00 | 14.0 | R6718-00 | 18.0 | | | | | | | | |
| ORDER CODE | LENGTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6505-00 | 4.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6510-00 | 9.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6513-00 | 12.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6519-00 | 19.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6528-00 | 28.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6535-00 | 35.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ORDER CODE | LENGTH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6706-00 | 6.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6708-00 | 8.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6710-00 | 9.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6712-00 | 12.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6714-00 | 14.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R6718-00 | 18.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

All dimensions in mm.