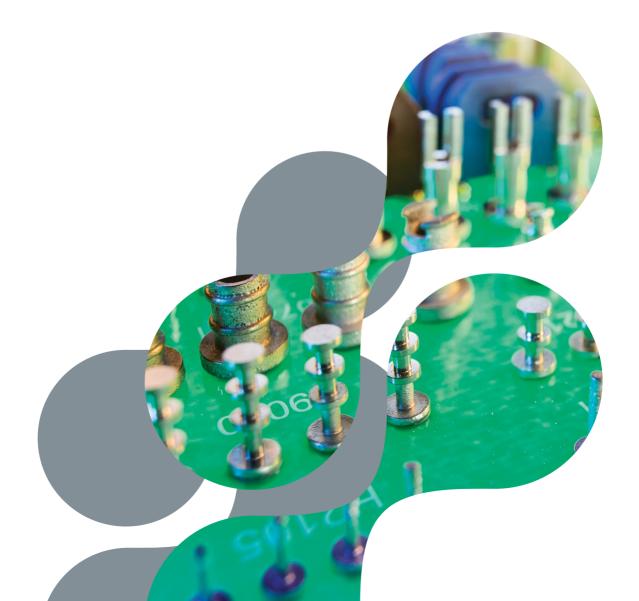
Contents

SMT Test Points
SMT Cable Clips
Coin Cell Holders
SMT Jumper Links
PCB Jumper Links
PCB Terminals, Turret Lugs
Spacers / Pillars / Standoffs



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.



⇒ Materials

Material: Copper Alloy

Finish: Tin

→ Packaging

Format: Tape & Reel

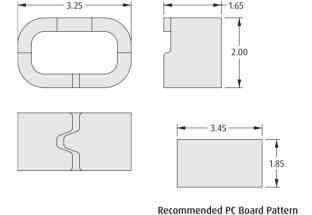
Reel quantity

 \$1751-46R:
 2,500 on a Ø330mm reel

 \$2751-46R:
 2,500 on a Ø178mm reel

 \$2761-46R:
 3,000 on a Ø178mm reel

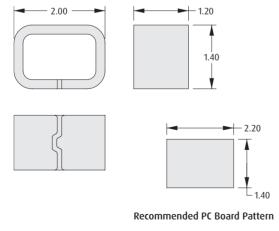
2.00mm HIGH



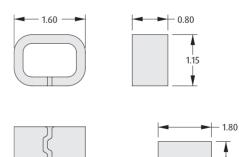
Recommended FC Board Fattern

ORDER CODE \$1751-46R

1.40mm HIGH



1.15mm HIGH





Recommended PC Board Pattern

ORDER CODE \$2761-46R

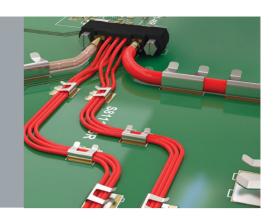
S2751-46R

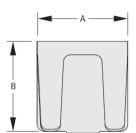
ORDER CODE

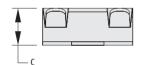


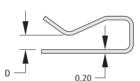
Cable Management & Grounding Clips

- ► Suitable for use with insulated cables with outer diameters Ø0.9 to Ø3mm 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.









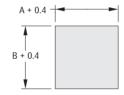
: Materials

Material: Copper Alloy Finish: Tin

: Packaging

Format: Tape & Reel

Reel quantity: Ø330mm reel, see table



Recommended PC Board Pattern

HOW TO ORDER

PART NO.	Α	В	C	D	COAX GROUNDING	CABLE RETENTION	REEL QUANTITY
S8091-46R	5.00	4.00	1.35	0.70	Ø1.12mm	2 x Ø0.9mm	3,000
S8101-46R	5.00	4.00	1.50	0.80	RG178, RG179, RG316	2 x Ø1.0mm	3,000
S8111-46R	5.00	5.00	2.05	0.80	RG174, RG179, RG316	3 x Ø1.0mm, 2 x Ø1.5mm	1,500
S8121-46R	7.00	5.50	2.55	1.30	n/a	2 x Ø1.5mm, 1 x Ø2.0mm	1,300
S8131-46R	10.00	8.00	3.55	1.80	RG58	3 x Ø2.0mm, 1 x Ø3.0mm	800



SMT Coin Cell Holder

Battery Retainer for Ø12mm Coin Cell

- **▶** Tape & reel packaged for auto-placement to PCB.
- ▶ Highly effective retention of coin cell batteries.
- **▶** Eliminates the need for soldered-in coin cells.
- Low profile design available with dual independant contact points for enhanced electrical reliability.
- ♣ Accommodates CR1220, CR1225 and similar coin cell batteries.

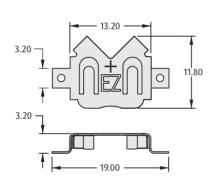


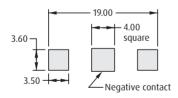
LOW PROFILE

→ Packaging

Format: Tape & Reel

Reel quantity: 1,000 on a Ø330mm reel Suitable for battery size: BR1225, CR1216, CR1220, CR1225





Recommended PC Board Pattern

STANDARD

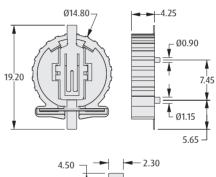
→ Packaging

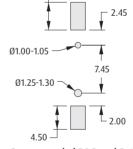
Format: Tape & Reel

Reel quantity: 500 on a Ø330mm reel

Suitable for battery size:

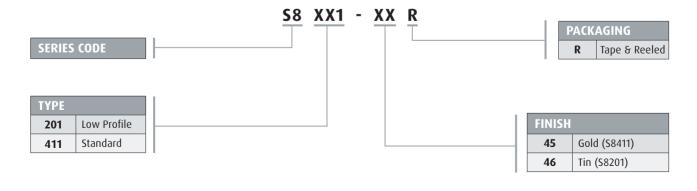
CR1220





Recommended PC Board Pattern

HOW TO ORDER



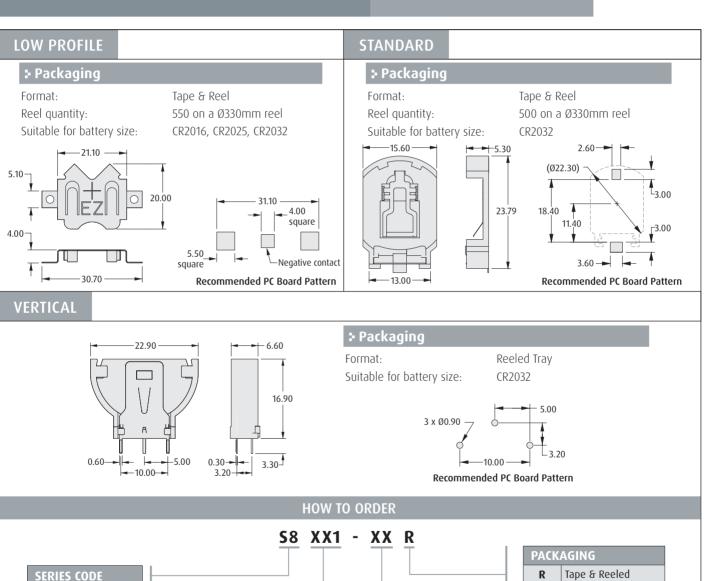


SMT Coin Cell Holder

Battery Retainer for Ø20mm Coin Cell

- ▶ Horizontal designs are tape & reel packaged for auto placement.
- ▶ Highly effective retention of coin cell batteries.
- **▶** Eliminates the need for soldered-in cells.
- ▶ Vertical mount minimises PCB real estate usage.
- Low profile design available with dual independent contact points for enhanced electrical reliability.
- ► Accomodates CR2032 and similar coin cell batteries.





All dimensions in mm.



Blank Reeled Tray (\$8401)

Gold (S8421)

Tin (\$8201, \$8401)

FINISH

45

46

TYPE

211

401

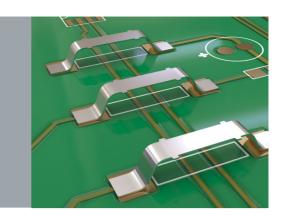
421

Low Profile Vertical

Standard

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

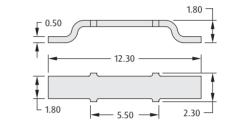
Reel quantity

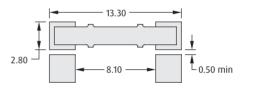
 \$1621-46R:
 5,000 on a Ø330mm reel

 \$1731-46R:
 2,500 on a Ø330mm reel

 \$1911-46R:
 4,000 on a Ø330mm reel

12.3mm LONG





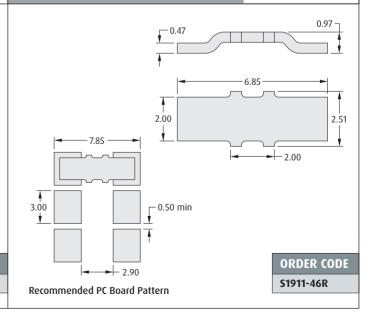
Recommended PC Board Pattern

ORDER CODE \$1621-46R

6.86mm LONG, 2.54mm HIGH

7.62 1.27 1.90 min ORDER CODE \$1731-46R

6.85mm LONG, 0.97mm HIGH





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.



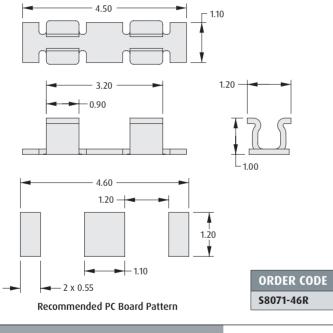
VERTICAL CLIP

Specification

Material: Stainless Steel

Finish: Tin

Packaging format: Tape & Reel (10,000 on a Ø330mm reel)



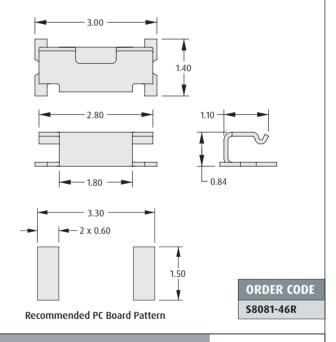
HORIZONTAL CLIP

: Specification

Material: Stainless Steel

Finish: Tin

Packaging format: Tape & Reel (10,000 on a Ø330mm reel)

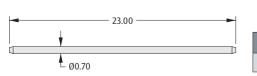


23mm LONG REMOVABLE BAR

⇒ Specification

Material: Phosphor Bronze

Finish: Tin
Packaging format: Loose



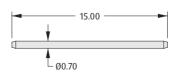
ORDER CODE S07-46

15mm LONG REMOVABLE BAR

⇒ Specification

Material: Phosphor Bronze

Finish: Tin Packaging format: Loose

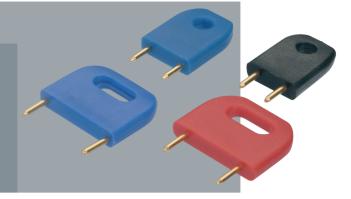


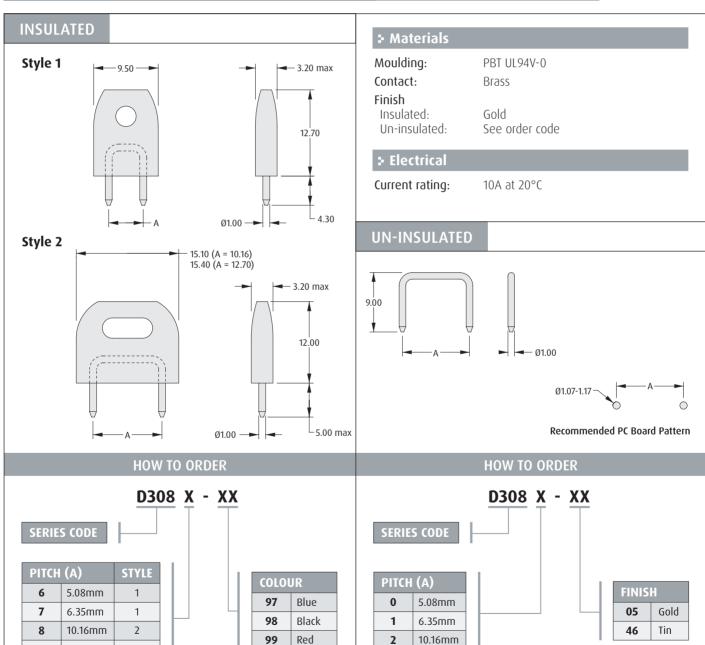
ORDER CODE



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.





All dimensions in mm.

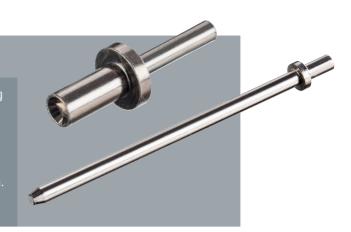
9

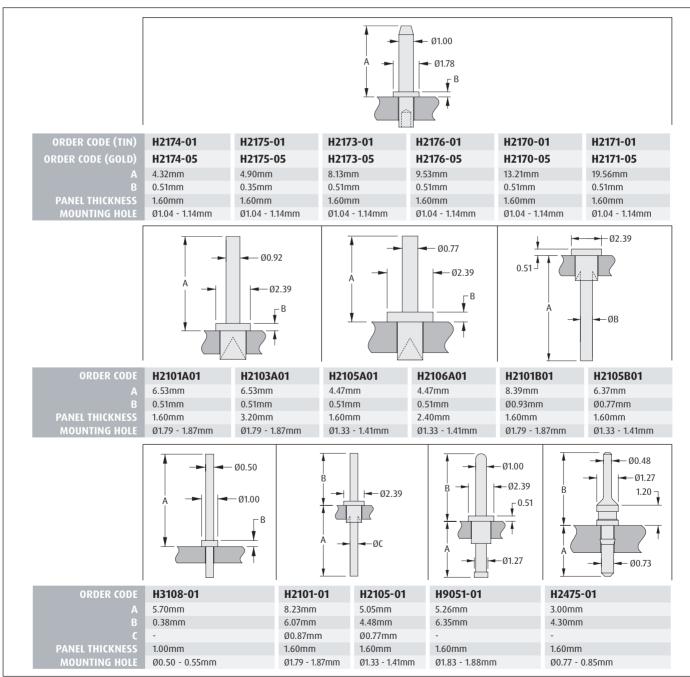
12.70mm



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.



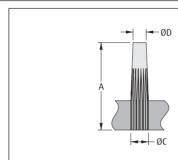


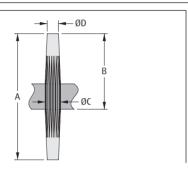


Turned Terminals

- ► 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.







ı	ORDER CODE
ı	
ı	
ı	
ı	
ı	PANEL THICKNESS
	MOUNTING HOLE

H2088-01
7.14mm
-
Ø1.13mm
Ø0.76mm
2.40mm
Ø1.00 - 1.05mm

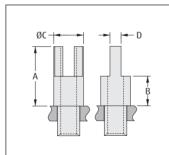
H2085-01
7.14mm
-
Ø1.43mm
Ø1.12mm
2.40mm
Ø1.30 - 1.35mm

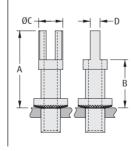
H2081-01	H
9.53mm	1
-	7
Ø1.68mm	Q
Ø1.22mm	Q
2.40mm	2
Ø1.55 - 1.60mm	Q

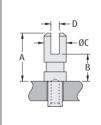
H2089-01	HZ
11.91mm	11.
7.14mm	7.1
Ø1.13mm	Ø1
Ø0.76mm	Ø1
2.40mm	2.4
Ø1.00 - 1.05mm	Ø1

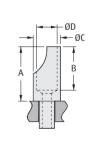
H2087-01
11.91mm
7.14mm
Ø1.43mm
Ø1.12mm
2.40mm
Ø1.30 - 1.35mm

H2083-01
15.88mm
9.52mm
Ø1.68mm
Ø1.22mm
2.40mm
Ø1.55 - 1.60mm









ORDER CODE
Α
В
С
D
THROUGH HOLE
PANEL THICKNESS
MOUNTING HOLE

H2051-01
4.78mm
2.39mm
Ø3.18mm
0.73mm
Ø1.06mm
1.60mm
Ø1.60 - 1.68mm

6.35mm
3.17mm
Ø3.18mm
1.13mm
Ø1.74mm
2.40mm
Ø2.40 - 2.48mm

H2055-01

H2039-01
12.65mm
7.90mm
Ø3.90mm
1.54mm
Ø2.22mm
3.20mm
Ø3.19 - 3.27mm

H9023-01
3.96mm
2.23mm
Ø1.83mm
0.71mm
-
1.60mm
Ø1 28 - 1 38mm

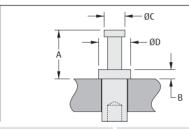
H9026-01	
6.35mm	
5.08mm	
Ø3.18mm	
Ø2.39mm	
Ø1.13mm	
2.40mm	
Ø1.84 - 1.92mm	

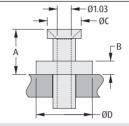


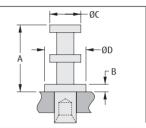
Turned Terminals

- ► 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.







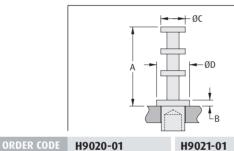


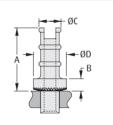
ORDER CODE	Н
	2.
	0.
	Ø1
	Ø1
PANEL THICKNESS	1.0
MOUNTING HOLE	Ø-

9001-01	H9004-
39mm	4.74mm
16mm	1.19mm
.02mm	Ø1.91mm
.57mm	Ø3.18mm
0mm	1.60mm
.25 - 1.33mm	Ø2.01 - 2.



H2121-01
5.15mm
0.58mm
Ø2.39mm
Ø3.18mm
1.60mm
Ø1.69 - 1.74mm





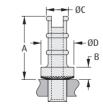
PANEL THICKNESS
MOUNTING HOLE

H9020-01	H9021-01
7.65mm	7.65mm
0.58mm	0.58mm
Ø2.36mm	Ø2.36mm
Ø3.18mm	Ø3.18mm
1.60mm	2.40mm
Ø2.35 - 2.45mm	Ø2.35 - 2.45mm

H2072-01	
6.29mm	
1.01mm	
Ø3.25mm	
Ø3.96mm	
1.60mm	
Ø2.17 - 2.27mm	

H2072Z01	
6.52mm	
1.24mm	
Ø2.54mm	
Ø3.96mm	
1.60mm	
Ø2.01 - 2.11mm	

H2072ZL1
6.52mm
1.24mm
Ø2.54mm
Ø3.96mm
2.40mm
Ø2.01 - 2.11mm



ORDER CODE	H2074Z01	H2071ZS1	H2071Z01	H2073Z01
Α	8.74mm	9.12mm	9.12mm	9.12mm
В	1.60mm	1.78mm	1.78mm	1.78mm
С	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



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 M4 THREAD CLEARANCE FOR M3 THREAD → Materials → Materials Base material: Brass, Aluminium or Plastic Base material: Brass or Plastic Finish Finish Brass: Nickel Brass: Nickel Aluminium: Clear Passivate Ø6.35 (Brass) Ø6.30 (Plastic) Ø4.76 (Brass) Ø5.00 (Aluminium, Plastic) Length Length Ø3.30 (Brass) Ø4.40 (Brass) Ø3.20 (Aluminium, Plastic) Ø4.20 (Plastic) **HOW TO ORDER HOW TO ORDER** R30 - 6 XX XX XX R40 - 6 XX XX XX **SERIES CODE SERIES CODE** MATERIAL MATERIAL 01 Brass 00 Brass Aluminium 20 Plastic Plastic LENGTH (mm) LENGTH (mm) 03 to 16, 18, 20, 25, 30 Brass, Aluminium 03 to 16, 18, 20, 25, 30 Brass 03 to 16, 18, 20, 25 Plastic 03, 05 to 08, 10 to 12, 15, 18 Plastic

All dimensions in mm.

FINISH

02

14

94

Nickel (Brass only)

White (Plastic only)

Passivation (Aluminium only)



FINISH

Nickel (Brass only)

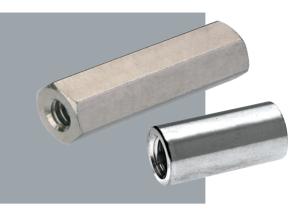
White (Plastic only)

02

Metric 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.



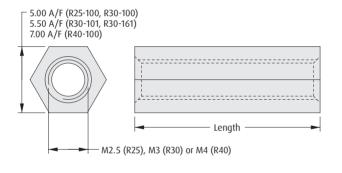
HEXAGONAL

: Materials

Base material: Brass or Plastic

Finish

Brass: Nickel



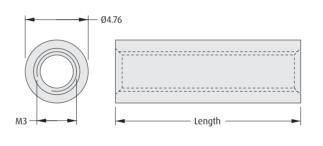
CIRCULAR

: Materials

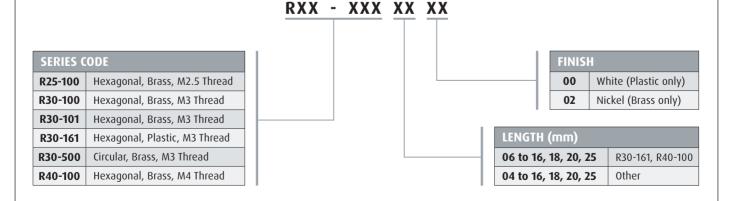
Base material: Brass

Finish

Brass: Nickel



HOW TO ORDER



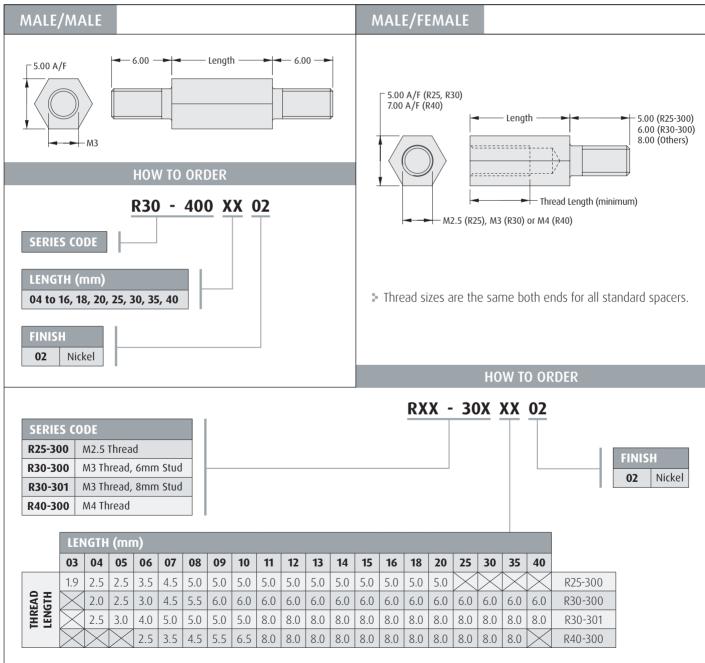


Metric Spacers

Threaded Male Pillars

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





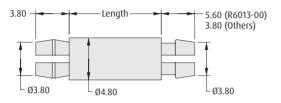


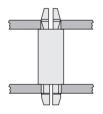
Locking Spacers

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

LOW PROFILE SELF-LOCK SPACERS

- Material: Nylon 6/6 UL94V-2.
- Spacer design uses minimum board area.
- ▶ Recommended PC board thickness 1.60mm.
- Recommended hole size Ø4.00mm.

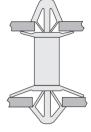


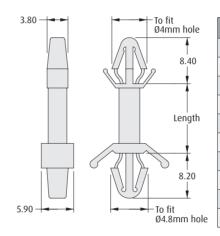


ORDER CODE	LENGTH
R6003-00	3.2
R6006-00	6.3
R6008-00	8.0
R6009-00	9.5
R6010-00	10.5
R6013-00	12.7

RIGID SELF-LOCK SPACERS

- 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.

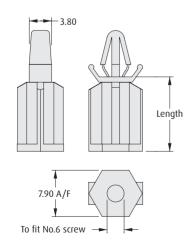




ORDER CODE	LENGTH
R6405-00	4.8
R6406-00	6.4
R6410-00	9.6
R6413-00	12.7
R6416-00	15.9
R6419-00	19.1
R6422-00	22.2
R6425-00	25.4
R6428-00	28.5
R6435-00	35.0

SCREW FIXING SELF-LOCK SPACERS

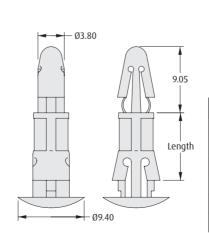
- Material: Nylon 6/6 UL94V-2.
- ► Fit spacer to underside of upper board, then attach lower board to bottom of spacer with No. 6 (1/8") screw.
- Recommended hole sizes: Ø4.00mm (upper board), Ø3.60mm (lower board).
- Recommended PC board thickness 2.00mm (upper board).

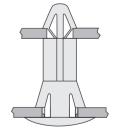


ORDER CODE	LENGTH
R6505-00	4.9
R6510-00	9.6
R6513-00	12.7
R6519-00	19.1
R6528-00	28.5
R6535-00	35.0

REVERSE LOCK SPACERS

- 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).





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



Notes

