

# NYLON TUBULAR SPACERS

## Nylon Spacers for Standard Screw Sizes

- Screw Spacers give users an extremely wide selection of tubular spacers for PCB support in almost any elevation
- Six basic ID/OD combinations with heights ranging from 1/16" (1.6mm) through 1.0" (25.4mm), are available from factory stock or within two weeks
- Such a broad selection permits the user to choose the most suitable sizes for strength, elevation and ease of assembly

### Material Specifications:

Natural Nylon, per ASTM D4066 PA225, UL Rated 94V-2

**Oxygen Rating Index:** Over 23%

### Standard Drawing Tolerances:

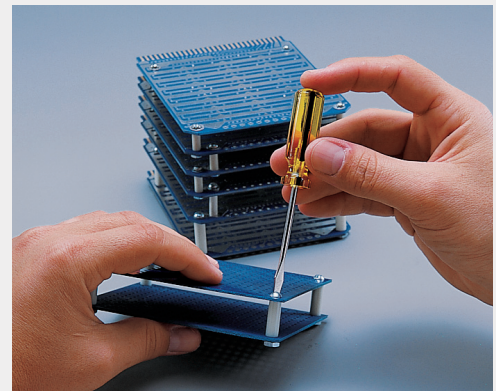
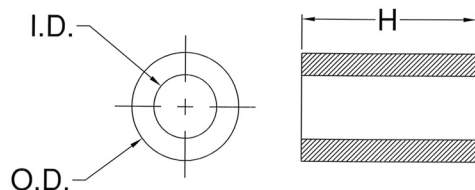
(unless otherwise indicated)

O.D.  $\pm .005$  (.13)

I.D.  $\pm .005$  (.13)

"H" Dim: 1/16-1/2 (1.6-12.7) is  $\pm .005$  (.13)

"H" Dim: 9/16-1.0 (14.3-25.4) is  $\pm .010$  (.25)



### 99XX Series

Color: Natural

| Series | Screw Size | I.D.       | O.D.       | "H" DIM.     | Dash No. | Price Code |
|--------|------------|------------|------------|--------------|----------|------------|
| 9913   | #2         | .091 (2.3) | .187 (4.7) | 1/16 (1.6)   | -062     | U          |
|        |            |            |            | 1/8 (3.2)    | -125     | U          |
|        |            |            |            | 3/16 (4.8)   | -187     | U          |
| 9910   | #2         | .091 (2.3) | .250 (6.4) | 1/4 (6.4)    | -250     | U          |
|        |            |            |            | 5/16 (7.9)   | -312     | U          |
|        |            |            |            | 3/8 (9.5)    | -375     | V          |
| 9908   | #4         | .125 (3.2) | .187 (4.7) | 7/16 (11.1)  | -437     | V          |
|        |            |            |            | 1/2 (12.7)   | -500     | V          |
|        |            |            |            | 9/16 (14.3)  | -562     | V          |
| 9911   | #4         | .125 (3.2) | .250 (6.4) | 5/8 (15.9)   | -625     | W          |
|        |            |            |            | 3/4 (19.1)   | -750     | W          |
|        |            |            |            | 13/16 (20.6) | -812     | X          |
| 9905   | #6         | .147 (3.7) | .250 (6.4) | 7/8 (22.2)   | -875     | X          |
|        |            |            |            | 15/16 (23.8) | -937     | X          |
|        |            |            |            | 1.0 (25.4)   | -1000    | X          |

### Examples:

9913-250 is for a #2 Screw, O.D. is .187 (4.7)  
Length is 1/4 (6.4), price code U.

9910-125 is for a #2 Screw, O.D. is .250 (6.4)  
Length is 1/8 (3.2), price code U.

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- Screw Spacers give users an extremely wide selection of tubular spacers for PCB support in almost any elevation
- Six basic ID/OD combinations with heights ranging from 1/16" (1.6mm) through 1.0" (25.4mm), are available from factory stock or within two weeks
- Such a broad selection permits the user to choose the most suitable sizes for strength, elevation and ease of assembly



### Material Specifications:

Natural Nylon, per ASTM D4066 PA225,  
UL Rated 94V-2

**Oxygen Rating Index:** Over 23%

### Standard Drawing Tolerances:

(unless otherwise indicated)

O.D.  $\pm .005$  (.13)

I.D.  $\pm .005$  (.13)

"H" Dim: 1/16-1/2 (1.6-12.7) is  $\pm .005$  (.13)

"H" Dim: 9/16-1.0 (14.3-25.4) is  $\pm .010$  (.25)

### mm Chart

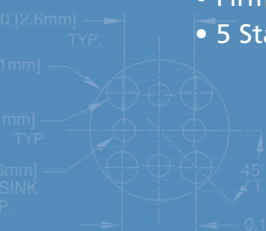
| Series     | 1mm<br>.039 | 2mm<br>.079 | 3mm<br>.118 | 4mm<br>.158 | 5mm<br>.197 | 6mm<br>.236 | 7mm<br>.276 | 8mm<br>.315 | 9mm<br>.354 | 10mm<br>.394 | 11mm<br>.433 | 12mm<br>.472 |
|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|
| 9905       | 9905-1mm    | 9905-2mm    | 9905-3mm    | 9905-4mm    | 9905-5mm    | 9905-6mm    | 9905-7mm    | 9905-8mm    | 9905-9mm    | 9905-10mm    | 9905-11mm    | 9905-12mm    |
| 9908       | 9908-1mm    | 9908-2mm    | 9908-3mm    | 9908-4mm    | 9908-5mm    | 9908-6mm    | 9908-7mm    | 9908-8mm    | 9908-9mm    | 9908-10mm    | 9908-11mm    | 9908-12mm    |
| 9910       | 9910-1mm    | 9910-2mm    | 9910-3mm    | 9910-4mm    | 9910-5mm    | 9910-6mm    | 9910-7mm    | 9910-8mm    | 9910-9mm    | 9910-10mm    | 9910-11mm    | 9910-12mm    |
| 9911       | 9911-1mm    | 9911-2mm    | 9911-3mm    | 9911-4mm    | 9911-5mm    | 9911-6mm    | 9911-7mm    | 9911-8mm    | 9911-9mm    | 9911-10mm    | 9911-11mm    | 9911-12mm    |
| 9912       | 9912-1mm    | 9912-2mm    | 9912-3mm    | 9912-4mm    | 9912-5mm    | 9912-6mm    | 9912-7mm    | 9912-8mm    | 9912-9mm    | 9912-10mm    | 9912-11mm    | 9912-12mm    |
| 9913       | 9913-1mm    | 9913-2mm    | 9913-3mm    | 9913-4mm    | 9913-5mm    | 9913-6mm    | 9913-7mm    | 9913-8mm    | 9913-9mm    | 9913-10mm    | 9913-11mm    | 9913-12mm    |
| Price Code | U           | U           | U           | U           | U           | U           | U           | V           | V           | V            | V            | V            |

| Series     | 13mm<br>.512 | 14mm<br>.551 | 15mm<br>.591 | 16mm<br>.630 | 17mm<br>.669 | 18mm<br>.709 |
|------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 9905       | 9905-13mm    | 9905-14mm    | 9905-15mm    | 9905-16mm    | 9905-17mm    | 9905-18mm    |
| 9908       | 9908-13mm    | 9908-14mm    | 9908-15mm    | 9908-16mm    | 9908-17mm    | 9908-18mm    |
| 9910       | 9910-13mm    | 9910-14mm    | 9910-15mm    | 9910-16mm    | 9910-17mm    | 9910-18mm    |
| 9911       | 9911-13mm    | 9911-14mm    | 9911-15mm    | 9911-16mm    | 9911-17mm    | 9911-18mm    |
| 9912       | 9912-13mm    | 9912-14mm    | 9912-15mm    | 9912-16mm    | 9912-17mm    | 9912-18mm    |
| 9913       | 9913-13mm    | 9913-14mm    | 9913-15mm    | 9913-16mm    | 9913-17mm    | 9913-18mm    |
| Price Code | V            | V            | W            | W            | W            | W            |

| Series     | 19mm<br>.748 | 20mm<br>.787 | 21mm<br>.827 | 22mm<br>.868 | 23mm<br>.906 | 24mm<br>.945 |
|------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 9905       | 9905-19mm    | 9905-20mm    | 9905-21mm    | 9905-22mm    | 9905-23mm    | 9905-24mm    |
| 9908       | 9908-19mm    | 9908-20mm    | 9908-21mm    | 9908-22mm    | 9908-23mm    | 9908-24mm    |
| 9910       | 9910-19mm    | 9910-20mm    | 9910-21mm    | 9910-22mm    | 9910-23mm    | 9910-24mm    |
| 9911       | 9911-19mm    | 9911-20mm    | 9911-21mm    | 9911-22mm    | 9911-23mm    | 9911-24mm    |
| 9912       | 9912-19mm    | 9912-20mm    | 9912-21mm    | 9912-22mm    | 9912-23mm    | 9912-24mm    |
| 9913       | 9913-19mm    | 9913-20mm    | 9913-21mm    | 9913-22mm    | 9913-23mm    | 9913-24mm    |
| Price Code | W            | X            | X            | X            | X            | X            |

# SELF-RETAINING PVC SCREW SPACERS

- Simple Pre-Assembly Convenience Saves Handling
- Firm Retention Assured
- 5 Standard Sizes in Lengths from .050" - 1.250" (.76 - 31.8) in .005" (.127) Increments



Ø.045 [Ø1.1mm]  
TYP.  
Ø.032 [Ø0.8mm]  
w/ Ø.060 C SINK  
for Side, TYP.

0.100 [2.6mm]  
TYP.

Ø.106 [2.7mm]  
TYP.

0.040 [1.0mm]  
0.035 [0.9mm]  
0.095 [2.4mm]  
TYP.

0.109 [2.8mm]  
TYP.

Ribbed inner-wall design assures a snug fit onto #4, #6 and #8 screws, or M3 and M4 metric screws enabling the spacers to remain pre-assembled during handling and assembly. The SRS Series provides a dependable solution for otherwise awkward assembly steps and lost assembly time.

## Material Specifications:

Gray Rigid PVC material, UL Rated 94V-0

**Oxygen Rating Index:** Over 45%

## Standard Drawing Tolerances:

(unless otherwise indicated)

O.D.  $\pm .005$  (.13)

I.D.  $\pm .005$  (.13)

"H" Dim: 1/16-1/2 (1.6-12.7) is  $\pm .005$  (.13)

"H" Dim: 9/16-1.0 (14.3-25.4) is  $\pm .010$  (.25)

## Ordering Information:

SRS X XXX

Length Expressed in Inches

(Must be even multiples of .005")

or whole millimeters (example: 2mm)

0.050 = 050

0.750 = 750

0.100 = 100

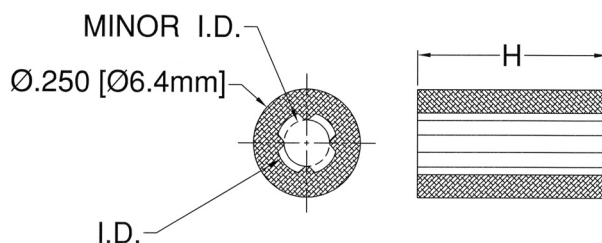
1.250 = 1.250

Series



| SRS Series |            | Color: Gray |            |                       |  |
|------------|------------|-------------|------------|-----------------------|--|
| Part No.   | Screw Size | Minor I.D.  | I.D.       | "H" DIM.              |  |
| SRS-1      | 4          | .107 (2.7)  | .142 (3.6) | .050-1.250 (1.3-31.8) |  |
| SRS-2      | 6 (M3.5)   | .131 (3.3)  | .174 (4.4) | .050-1.250 (1.3-31.8) |  |
| SRS-3      | 8          | .155 (3.9)  | .177 (4.5) | .050-1.250 (1.3-31.8) |  |
| SRS-4      | M3         | .113 (2.9)  | .144 (3.7) | .050-1.250 (1.3-31.8) |  |
| SRS-5      | M4         | .149 (3.9)  | .185 (4.7) | .050-1.250 (1.3-31.8) |  |

| "H" Dimension          | Price Code<br>SRS-1 thru SRS-5 |
|------------------------|--------------------------------|
| .050-.075 (1.3-1.9)    | W                              |
| .080-.150 (2.0-3.8)    | X                              |
| .155-.230 (4.0-5.8)    | X                              |
| .235-.310 (6.0-7.9)    | Y                              |
| .315-.380 (8.0-9.7)    | Z                              |
| .385-.495 (9.8-12.6)   | ZZ                             |
| .500-.750 (12.7-19.1)  | ZZZ                            |
| .755-1.250 (19.2-31.8) | ZZZZ                           |



Examples:

SRS-1-240 is price code Y

SRS-5-410 is price code ZZ

SRS-3-900 is price code ZZZZ

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Gray Rigid PVC material, UL Rated 94V-0

**Oxygen Rating Index:** Over 45%

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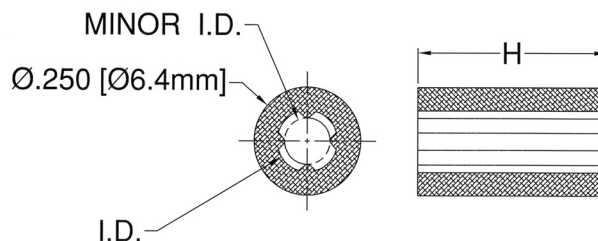
(unless otherwise indicated)

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I.D.  $\pm .005$  (.13)

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"H" Dim: 9/16-1.0 (14.3-25.4) is  $\pm .010$  (.25)



## mm Chart

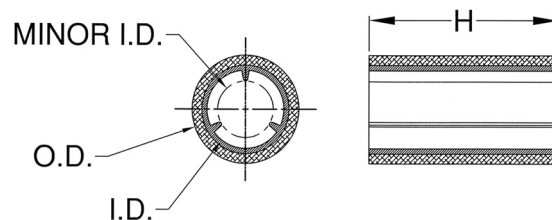
| Series     | Screw Size | 2mm<br>.079 | 3mm<br>.118 | 4mm<br>.158 | 5mm<br>.197 | 6mm<br>.236 | 7mm<br>.276 | 8mm<br>.315 |
|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| SRS-1      | 4          | SRS-1-2mm   | SRS-1-3mm   | SRS-1-4mm   | SRS-1-5mm   | SRS-1-6mm   | SRS-1-7mm   | SRS-1-8mm   |
| SRS-2      | 6 (M3.5)   | SRS-2-2mm   | SRS-2-3mm   | SRS-2-4mm   | SRS-2-5mm   | SRS-2-6mm   | SRS-2-7mm   | SRS-2-8mm   |
| SRS-3      | 8          | SRS-3-2mm   | SRS-3-3mm   | SRS-3-4mm   | SRS-3-5mm   | SRS-3-6mm   | SRS-3-7mm   | SRS-3-8mm   |
| SRS-4      | M3         | SRS-4-2mm   | SRS-4-3mm   | SRS-4-4mm   | SRS-4-5mm   | SRS-4-6mm   | SRS-4-7mm   | SRS-4-8mm   |
| SRS-5      | M4         | SRS-5-2mm   | SRS-5-3mm   | SRS-5-4mm   | SRS-5-5mm   | SRS-5-6mm   | SRS-5-7mm   | SRS-5-8mm   |
| Price Code |            | W           | W           | X           | X           | Y           | Y           | Z           |

| Series     | Screw Size | 9mm<br>.354 | 10mm<br>.394 | 11mm<br>.433 | 12mm<br>.472 | 13mm<br>.512 | 14mm<br>.551 | 15mm<br>.591 | 16mm<br>.630 |
|------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| SRS-1      | 4          | SRS-1-9mm   | SRS-1-10mm   | SRS-1-11mm   | SRS-1-12mm   | SRS-1-13mm   | SRS-1-14mm   | SRS-1-15mm   | SRS-1-16mm   |
| SRS-2      | 6 (M3.5)   | SRS-2-9mm   | SRS-2-10mm   | SRS-2-11mm   | SRS-2-12mm   | SRS-2-13mm   | SRS-2-14mm   | SRS-2-15mm   | SRS-2-16mm   |
| SRS-3      | 8          | SRS-3-9mm   | SRS-3-10mm   | SRS-3-11mm   | SRS-3-12mm   | SRS-3-13mm   | SRS-3-14mm   | SRS-3-15mm   | SRS-3-16mm   |
| SRS-4      | M3         | SRS-4-9mm   | SRS-4-10mm   | SRS-4-11mm   | SRS-4-12mm   | SRS-4-13mm   | SRS-4-14mm   | SRS-4-15mm   | SRS-4-16mm   |
| SRS-5      | M4         | SRS-5-9mm   | SRS-5-10mm   | SRS-5-11mm   | SRS-5-12mm   | SRS-5-13mm   | SRS-5-14mm   | SRS-5-15mm   | SRS-5-16mm   |
| Price Code |            | Z           | ZZ           | ZZ           | ZZ           | ZZZ          | ZZZ          | ZZZ          | ZZZ          |

| Series     | Screw Size | 17mm<br>.669 | 18mm<br>.709 | 19mm<br>.748 | 20mm<br>.787 | 21mm<br>.827 | 22mm<br>.868 | 23mm<br>.906 | 24mm<br>.945 |
|------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| SRS-1      | 4          | SRS-1-17mm   | SRS-1-18mm   | SRS-1-19mm   | SRS-1-20mm   | SRS-1-21mm   | SRS-1-22mm   | SRS-1-23mm   | SRS-1-24mm   |
| SRS-2      | 6 (M3.5)   | SRS-2-17mm   | SRS-2-18mm   | SRS-2-19mm   | SRS-2-20mm   | SRS-2-21mm   | SRS-2-22mm   | SRS-2-23mm   | SRS-2-24mm   |
| SRS-3      | 8          | SRS-3-17mm   | SRS-3-18mm   | SRS-3-19mm   | SRS-3-20mm   | SRS-3-21mm   | SRS-3-22mm   | SRS-3-23mm   | SRS-3-24mm   |
| SRS-4      | M3         | SRS-4-17mm   | SRS-4-18mm   | SRS-4-19mm   | SRS-4-20mm   | SRS-4-21mm   | SRS-4-22mm   | SRS-4-23mm   | SRS-4-24mm   |
| SRS-5      | M4         | SRS-5-17mm   | SRS-5-18mm   | SRS-5-19mm   | SRS-5-20mm   | SRS-5-21mm   | SRS-5-22mm   | SRS-5-23mm   | SRS-5-24mm   |
| Price Code |            | ZZZ          | ZZZ          | ZZZ          | ZZZZ         | ZZZZ         | ZZZZ         | ZZZZ         | ZZZZ         |

- Unique Bi-Material Design, Patented
- Tight Fit with Low Insertion Force
- Works with #4 - #8 (M3-M4) Screw Sizes

CRS Spacers provide precise spacing of electro-mechanical assemblies and eliminate shakes and rattles associated with movement in high-vibration PC-board applications, such as large rack-mounted fan cooling trays and multiple trays found in telecommunications, industrial networks, and avionics applications.



CRS X XXX

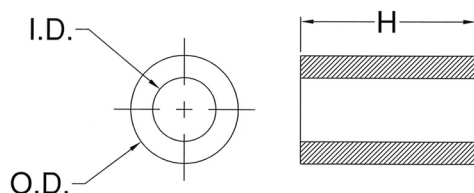
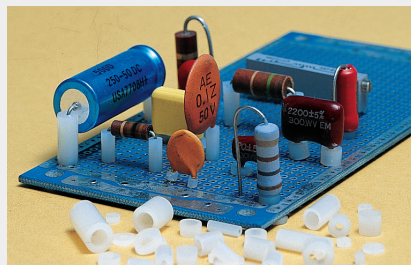
–Series

| "H" Dimension          | Price Code<br>CRS-1 thru CRS-4 |
|------------------------|--------------------------------|
| .050-.075 (1.25-1.9)   | W                              |
| .080-.150 (2.0-3.8)    | X                              |
| .155-.230 (4.0-5.8)    | X                              |
| .235-.310 (6.0-7.9)    | Y                              |
| .315-.380 (8.0-9.7)    | Z                              |
| .385-.495 (9.8-12.6)   | ZZ                             |
| .500-.750 (12.7-19.1)  | ZZZ                            |
| .755-1.250 (19.2-31.8) | ZZZZ                           |

# NYLON TUBULAR SPACERS

## Universal Spacers for Discrete Components

- 4,182 Standard Sizes for "just Right" Fit
- Makes Solder Filletting and Board Cleaning More Effective



Universal Spacers give users an extremely wide selection of tubular spacers for mounting PCB discrete devices in any lead pattern and elevation.

Seventeen basic I.D./O.D. combinations with heights ranging from .030" (.76) through 1.250" (31.8), in .005" (.13) increments are available from factory stock or within two weeks.

Such a broad selection permits the user to choose the most suitable sizes for strength, elevation and ease of assembly, as well as providing for proper filletting and cleaning.

### Ordering Information:

9XX XXX

Length Expressed in Inches  
(Must be even multiples of .005")  
or whole millimeters (example: 2mm)

0.030 = 030      0.750 = 750  
0.100 = 100      1.250 = 1.250

Series

### 900 Series

Color: Natural

| Series | "H" DIM.              | I.D.       | O.D.       | A55485/06<br>M38527/06 |
|--------|-----------------------|------------|------------|------------------------|
| 901    | .030-1.250 (.76-31.8) | .028 (.71) | .085 (2.2) | -029N                  |
| 902    | .030-1.250 (.76-31.8) | .032 (.81) | .125 (3.2) | -031N                  |
| 903    | .030-1.250 (.76-31.8) | .047 (1.2) | .156 (4.0) | -034N                  |
| 904    | .030-1.250 (.76-31.8) | .063 (1.6) | .187 (4.7) | -036N                  |
| 905    | .030-1.250 (.76-31.8) | .147 (3.7) | .250 (6.4) | -041N                  |
| 906    | .030-1.250 (.76-31.8) | .085 (2.2) | .148 (3.8) | -033N                  |
| 907    | .030-1.250 (.76-31.8) | .105 (2.7) | .167 (4.2) | -035N                  |
| 908    | .030-1.250 (.76-31.8) | .125 (3.2) | .187 (4.7) | -038N                  |
| 910    | .030-1.250 (.76-31.8) | .091 (2.3) | .250 (6.4) | -039N                  |
| 911    | .030-1.250 (.76-31.8) | .125 (3.2) | .250 (6.4) | -                      |
| 912    | .030-1.250 (.76-31.8) | .171 (4.3) | .250 (6.4) | -042N                  |
| 913    | .030-1.250 (.76-31.8) | .091 (2.3) | .187 (4.7) | -037N                  |
| 937    | .030-1.250 (.76-31.8) | .090 (2.3) | .125 (3.2) | -                      |
| 938    | .030-1.250 (.76-31.8) | .032 (.81) | .085 (2.2) | -030N                  |
| 939    | .030-1.250 (.76-31.8) | .047 (1.2) | .125 (3.2) | -032N                  |
| 940    | .030-1.250 (.76-31.8) | .063 (1.6) | .156 (4.0) | -                      |
| 941    | .030-1.250 (.76-31.8) | .135 (3.4) | .230 (5.8) | -                      |

| "H" Dimension          | Price Code for<br>901, 902, 937, 938, 939 | Price Code for<br>903, 904, 905, 906, 907, 908<br>910, 911, 912, 913, 940, 941 |
|------------------------|-------------------------------------------|--------------------------------------------------------------------------------|
| .030-.075 (.76-1.9)    | U                                         | W                                                                              |
| .080-.150 (2.0-3.8)    | V                                         | W                                                                              |
| .155-.230 (4.0-5.8)    | W                                         | X                                                                              |
| .235-.310 (6.0-7.9)    | X                                         | Y                                                                              |
| .315-.380 (8.0-9.7)    | Y                                         | Z                                                                              |
| .385-.495 (9.8-12.6)   | Z                                         | ZZ                                                                             |
| .500-.750 (12.7-19.1)  | ZZ                                        | ZZZ                                                                            |
| .755-1.250 (19.2-31.8) | ZZZZ                                      | ZZZZ                                                                           |

### Examples:

901-050 is price code U      902-100 is price code V  
903-120 is price code W      901-250 is price code X

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### Material Specifications:

Natural Nylon, per ASTM D4066 PA225 UL Rated 94V-2

**Oxygen Rating Index:** Over 23%

### Standard Drawing Tolerances:

O.D.  $\pm .005$  (.13)

I.D.  $\pm .005$  (.13)

"H" Dim: .030 - .500 (.76 - 12.7) is  $\pm .005$  (.13)

"H" Dim: .505 - .750 (12.8 - 19.1) is  $\pm .008$  (.20)

"H" Dim: .755 - 1.250 (19.2 - 31.8) is  $\pm .015$  (.38)



### mm Chart

1mm thru 12mm

| Series     | 1mm<br>.039 | 2mm<br>.079 | 3mm<br>.118 | 4mm<br>.158 | 5mm<br>.197 | 6mm<br>.236 | 7mm<br>.276 | 8mm<br>.315 | 9mm<br>.354 | 10mm<br>.394 | 11mm<br>.433 | 12mm<br>.472 |
|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|
| 901        | 901-1mm     | 901-2mm     | 901-3mm     | 901-4mm     | 901-5mm     | 901-6mm     | 901-7mm     | 901-8mm     | 901-9mm     | 901-10mm     | 901-11mm     | 901-12mm     |
| 902        | 902-1mm     | 902-2mm     | 902-3mm     | 902-4mm     | 902-5mm     | 902-6mm     | 902-7mm     | 902-8mm     | 902-9mm     | 902-10mm     | 902-11mm     | 902-12mm     |
| 937        | 937-1mm     | 937-2mm     | 937-3mm     | 937-4mm     | 937-5mm     | 937-6mm     | 937-7mm     | 937-8mm     | 937-9mm     | 937-10mm     | 937-11mm     | 937-12mm     |
| 938        | 938-1mm     | 938-2mm     | 938-3mm     | 938-4mm     | 938-5mm     | 938-6mm     | 938-7mm     | 938-8mm     | 938-9mm     | 938-10mm     | 938-11mm     | 938-12mm     |
| 939        | 939-1mm     | 939-2mm     | 939-3mm     | 939-4mm     | 939-5mm     | 939-6mm     | 939-7mm     | 939-8mm     | 939-9mm     | 939-10mm     | 939-11mm     | 939-12mm     |
| Price Code | U           | V           | V           | W           | W           | X           | X           | Y           | Y           | Z            | Z            | Z            |

| Series     | 1mm<br>.039 | 2mm<br>.079 | 3mm<br>.118 | 4mm<br>.158 | 5mm<br>.197 | 6mm<br>.236 | 7mm<br>.276 | 8mm<br>.315 | 9mm<br>.354 | 10mm<br>.394 | 11mm<br>.433 | 12mm<br>.472 |
|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|
| 903        | 903-1mm     | 903-2mm     | 903-3mm     | 903-4mm     | 903-5mm     | 903-6mm     | 903-7mm     | 903-8mm     | 903-9mm     | 903-10mm     | 903-11mm     | 903-12mm     |
| 904        | 904-1mm     | 904-2mm     | 904-3mm     | 904-4mm     | 904-5mm     | 904-6mm     | 904-7mm     | 904-8mm     | 904-9mm     | 904-10mm     | 904-11mm     | 904-12mm     |
| 905        | 905-1mm     | 905-2mm     | 905-3mm     | 905-4mm     | 905-5mm     | 905-6mm     | 905-7mm     | 905-8mm     | 905-9mm     | 905-10mm     | 905-11mm     | 905-12mm     |
| 906        | 906-1mm     | 906-2mm     | 906-3mm     | 906-4mm     | 906-5mm     | 906-6mm     | 906-7mm     | 906-8mm     | 906-9mm     | 906-10mm     | 906-11mm     | 906-12mm     |
| 907        | 907-1mm     | 907-2mm     | 907-3mm     | 907-4mm     | 907-5mm     | 907-6mm     | 907-7mm     | 907-8mm     | 907-9mm     | 907-10mm     | 907-11mm     | 907-12mm     |
| 908        | 908-1mm     | 908-2mm     | 908-3mm     | 908-4mm     | 908-5mm     | 908-6mm     | 908-7mm     | 908-8mm     | 908-9mm     | 908-10mm     | 908-11mm     | 908-12mm     |
| 910        | 910-1mm     | 910-2mm     | 910-3mm     | 910-4mm     | 910-5mm     | 910-6mm     | 910-7mm     | 910-8mm     | 910-9mm     | 910-10mm     | 910-11mm     | 910-12mm     |
| 911        | 911-1mm     | 911-2mm     | 911-3mm     | 911-4mm     | 911-5mm     | 911-6mm     | 911-7mm     | 911-8mm     | 911-9mm     | 911-10mm     | 911-11mm     | 911-12mm     |
| 912        | 912-1mm     | 912-2mm     | 912-3mm     | 912-4mm     | 912-5mm     | 912-6mm     | 912-7mm     | 912-8mm     | 912-9mm     | 912-10mm     | 912-11mm     | 912-12mm     |
| 913        | 913-1mm     | 913-2mm     | 913-3mm     | 913-4mm     | 913-5mm     | 913-6mm     | 913-7mm     | 913-8mm     | 913-9mm     | 913-10mm     | 913-11mm     | 913-12mm     |
| 940        | 940-1mm     | 940-2mm     | 940-3mm     | 940-4mm     | 940-5mm     | 940-6mm     | 940-7mm     | 940-8mm     | 940-9mm     | 940-10mm     | 940-11mm     | 940-12mm     |
| 941        | 941-1mm     | 941-2mm     | 941-3mm     | 941-4mm     | 941-5mm     | 941-6mm     | 941-7mm     | 941-8mm     | 941-9mm     | 941-10mm     | 941-11mm     | 941-12mm     |
| Price Code | W           | W           | W           | X           | X           | Y           | Y           | Z           | Z           | ZZ           | ZZ           | ZZ           |

# NYLON TUBULAR SPACERS

## Universal Spacers for Discrete Components

- 4,182 Standard Sizes for "just Right" Fit
- Makes Solder Filletting and Board Cleaning More Effective



### Material Specifications:

Natural Nylon, per ASTM D4066 PA225 UL Rated 94V-2

**Oxygen Rating Index:** Over 23%

### Standard Drawing Tolerances:

O.D.  $\pm .005$  (.13)

I.D.  $\pm .005$  (.13)

"H" Dim: .030 - .500 (.76 - 12.7) is  $\pm .005$  (.13)

"H" Dim: .505 - .750 (12.8 - 19.1) is  $\pm .008$  (.20)

"H" Dim: .755 - 1.250 (19.2 - 31.8) is  $\pm .015$  (.38)

## mm Chart 13mm thru 24mm

| Series     | 13mm<br>.512 | 14mm<br>.551 | 15mm<br>.591 | 16mm<br>.630 | 17mm<br>.669 | 18mm<br>.709 | 19mm<br>.748 | 20mm<br>.787 | 21mm<br>.827 | 22mm<br>.866 | 23mm<br>.906 | 24mm<br>.945 |
|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 901        | 901-13mm     | 901-14mm     | 901-15mm     | 901-16mm     | 901-17mm     | 901-18mm     | 901-19mm     | 901-20mm     | 901-21mm     | 901-22mm     | 901-23mm     | 901-24mm     |
| 902        | 902-13mm     | 902-14mm     | 902-15mm     | 902-16mm     | 902-17mm     | 902-18mm     | 902-19mm     | 902-20mm     | 902-21mm     | 902-22mm     | 902-23mm     | 902-24mm     |
| 937        | 937-13mm     | 937-14mm     | 937-15mm     | 937-16mm     | 937-17mm     | 937-18mm     | 937-19mm     | 937-20mm     | 937-21mm     | 937-22mm     | 937-23mm     | 937-24mm     |
| 938        | 938-13mm     | 938-14mm     | 938-15mm     | 938-16mm     | 938-17mm     | 938-18mm     | 938-19mm     | 938-20mm     | 938-21mm     | 938-22mm     | 938-23mm     | 938-24mm     |
| 939        | 939-13mm     | 939-14mm     | 939-15mm     | 939-16mm     | 939-17mm     | 939-18mm     | 939-19mm     | 939-20mm     | 939-21mm     | 939-22mm     | 939-23mm     | 939-24mm     |
| Price Code | ZZ           | ZZ           | ZZ           | ZZ           | ZZ           | ZZ           | ZZ           | ZZZZ         | ZZZZ         | ZZZZ         | ZZZZ         | ZZZZ         |

| Series     | 13mm<br>.512 | 14mm<br>.551 | 15mm<br>.591 | 16mm<br>.630 | 17mm<br>.669 | 18mm<br>.709 | 19mm<br>.748 | 20mm<br>.787 | 21mm<br>.827 | 22mm<br>.866 | 23mm<br>.906 | 24mm<br>.945 |
|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 903        | 903-13mm     | 903-14mm     | 903-15mm     | 903-16mm     | 903-17mm     | 903-18mm     | 903-19mm     | 903-20mm     | 903-21mm     | 903-22mm     | 903-23mm     | 903-24mm     |
| 904        | 904-13mm     | 904-14mm     | 904-15mm     | 904-16mm     | 904-17mm     | 904-18mm     | 904-19mm     | 904-20mm     | 904-21mm     | 904-22mm     | 904-23mm     | 904-24mm     |
| 905        | 905-13mm     | 905-14mm     | 905-15mm     | 905-16mm     | 905-17mm     | 905-18mm     | 905-19mm     | 905-20mm     | 905-21mm     | 905-22mm     | 905-23mm     | 905-24mm     |
| 906        | 906-13mm     | 906-14mm     | 906-15mm     | 906-16mm     | 906-17mm     | 906-18mm     | 906-19mm     | 906-20mm     | 906-21mm     | 906-22mm     | 906-23mm     | 906-24mm     |
| 907        | 907-13mm     | 907-14mm     | 907-15mm     | 907-16mm     | 907-17mm     | 907-18mm     | 907-19mm     | 907-20mm     | 907-21mm     | 907-22mm     | 907-23mm     | 907-24mm     |
| 908        | 908-13mm     | 908-14mm     | 908-15mm     | 908-16mm     | 908-17mm     | 908-18mm     | 908-19mm     | 908-20mm     | 908-21mm     | 908-22mm     | 908-23mm     | 908-24mm     |
| 910        | 910-13mm     | 910-14mm     | 910-15mm     | 910-16mm     | 910-17mm     | 910-18mm     | 910-19mm     | 910-20mm     | 910-21mm     | 910-22mm     | 910-23mm     | 910-24mm     |
| 911        | 911-13mm     | 911-14mm     | 911-15mm     | 911-16mm     | 911-17mm     | 911-18mm     | 911-19mm     | 911-20mm     | 911-21mm     | 911-22mm     | 911-23mm     | 911-24mm     |
| 912        | 912-13mm     | 912-14mm     | 912-15mm     | 912-16mm     | 912-17mm     | 912-18mm     | 912-19mm     | 912-20mm     | 912-21mm     | 912-22mm     | 912-23mm     | 912-24mm     |
| 913        | 913-13mm     | 913-14mm     | 913-15mm     | 913-16mm     | 913-17mm     | 913-18mm     | 913-19mm     | 913-20mm     | 913-21mm     | 913-22mm     | 913-23mm     | 913-24mm     |
| 940        | 940-13mm     | 940-14mm     | 940-15mm     | 940-16mm     | 940-17mm     | 940-18mm     | 940-19mm     | 940-20mm     | 940-21mm     | 940-22mm     | 940-23mm     | 940-24mm     |
| 941        | 941-13mm     | 941-14mm     | 941-15mm     | 941-16mm     | 941-17mm     | 941-18mm     | 941-19mm     | 941-20mm     | 941-21mm     | 941-22mm     | 941-23mm     | 941-24mm     |
| Price Code | ZZZ          | ZZZ          | ZZZ          | ZZZ          | ZZZ          | ZZZ          | ZZZ          | ZZZZ         | ZZZZ         | ZZZZ         | ZZZZ         | ZZZZ         |

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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