



**KF44 Series  
Right Angle PCB Mount  
.590" Footprint  
with Ferrite**

**Ordering Information**

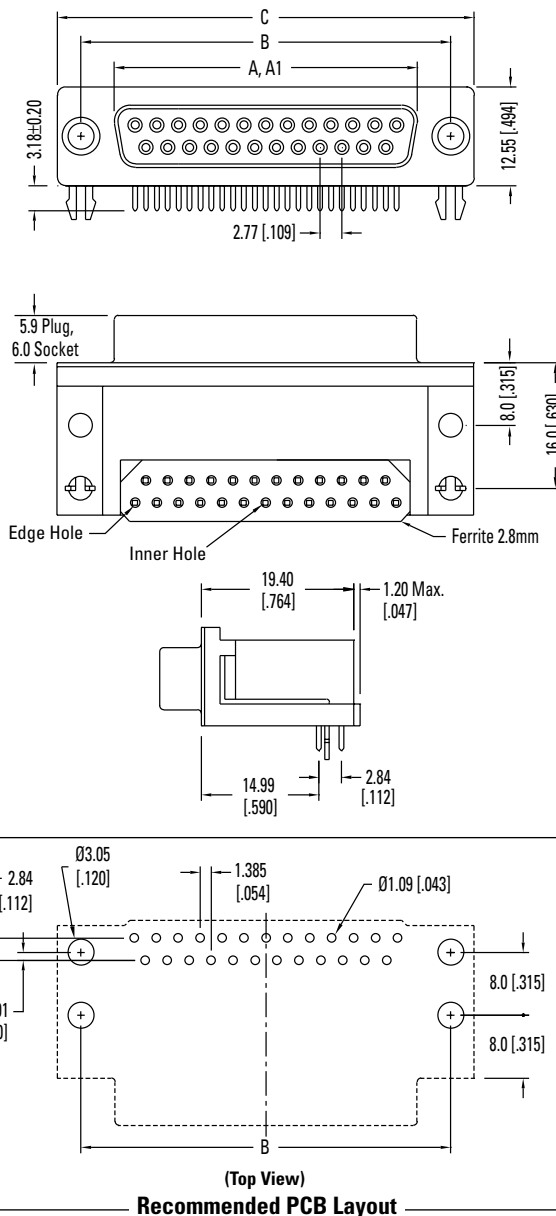
|  |            |                    |              |                  |                 |   |
|--|------------|--------------------|--------------|------------------|-----------------|---|
| KF44   | -          | B                  | 25           | S                | -               | P |
| Series   | Shell Size | Number of Contacts | Contact Type | Mounting Options | Plating Options |   |
| <b>Series</b>  |            |                    |              |                  |                 |   |
| KF44 - Kycon D-Subminiature Connector, Right Angle PCB Termination, .590 Footprint, with Ferrite |            |                    |              |                  |                 |   |
| <b>Shell Size</b>  |            |                    |              |                  |                 |   |
| E-9 Contacts   |            |                    |              |                  |                 |   |
| A-15 Contacts  |            |                    |              |                  |                 |   |
| B-25 Contacts  |            |                    |              |                  |                 |   |
| C-37 Contacts  |            |                    |              |                  |                 |   |
| <b>Number of Contacts</b>  |            |                    |              |                  |                 |   |
| 9, 15, 25, 37  |            |                    |              |                  |                 |   |
| <b>Contact Type</b>  |            |                    |              |                  |                 |   |
| P-Pin Contact (Plug)   |            |                    |              |                  |                 |   |
| S-Socket Contact (Receptacle)  |            |                    |              |                  |                 |   |
| <b>Mounting Options</b> (see page 36)  |            |                    |              |                  |                 |   |
| <b>Plating Options and Performance Specifications</b> (see page 4)                               |            |                    |              |                  |                 |   |

**Ferrite Specifications**

| Test Frequency | Edge Hole  | Inner Hole |
|----------------|------------|------------|
| 30 Mhz         | 17-27 Ohms | 22-30 Ohms |
| 50 Mhz         | 22-30 Ohms | 29-37 Ohms |
| 100 Mhz        | 29-34 Ohms | 35-40 Ohms |

**KF44 Series Dimensions**

Pictured with Board Lock Option, Dimensions in mm [In]



| Shell Size | A                        | AI                       | B                        | C                        |
|------------|--------------------------|--------------------------|--------------------------|--------------------------|
|            | $\pm .010$<br>$\pm 0.25$ | $\pm .010$<br>$\pm 0.25$ | $\pm .005$<br>$\pm 0.13$ | $\pm .015$<br>$\pm 0.38$ |
| 9 (E)      | .643<br>16.33            | .666<br>16.92            | .984<br>24.99            | 1.213<br>30.81           |
| 15 (A)     | .971<br>24.66            | .994<br>25.25            | 1.312<br>33.32           | 1.541<br>39.14           |
| 25 (B)     | 1.511<br>38.38           | 1.534<br>38.96           | 1.852<br>47.04           | 2.088<br>53.04           |
| 37 (C)     | 2.159<br>54.84           | 2.182<br>55.42           | 2.500<br>63.50           | 2.729<br>69.32           |

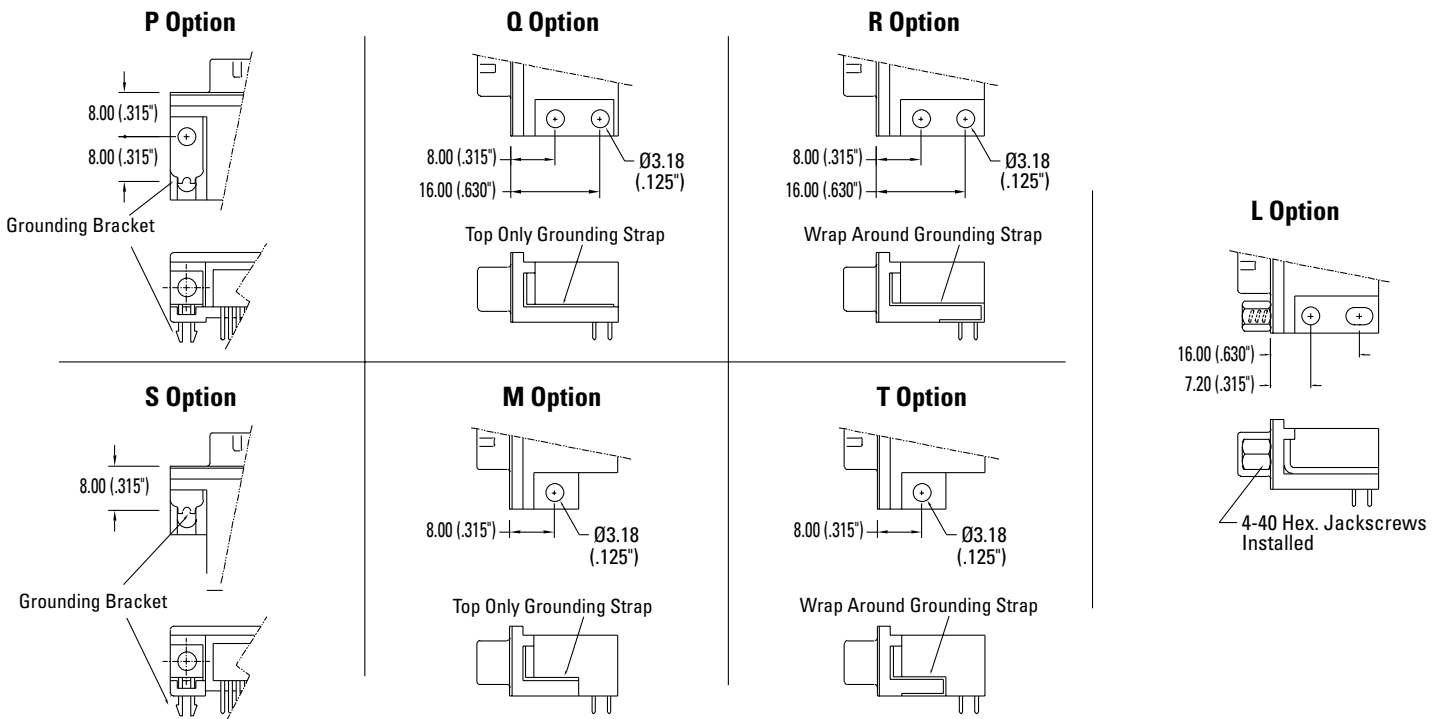
A = Exterior of Female Shell (S)  
AI = Interior of Male Shell (P)

### Mounting Options K44, KF44

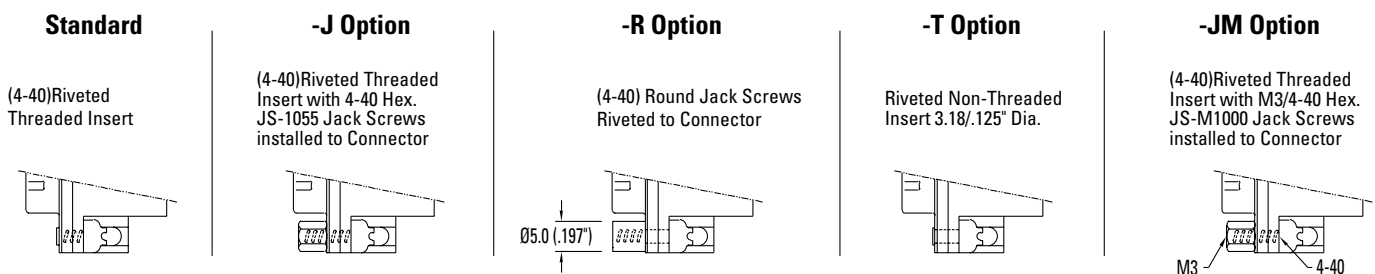
| Front Panel Mounting Options                                     | PCB Mounting Options  |   |   |  |  |   |   |
|--|---|---|---|--|--|---|---|
|  | Both .125" Diameter and Oblong Non-Threaded Mounting Holes and 4-40 Hex. Jack Screws Assembled to Connector | Board Locks and .125" Diameter Mounting Holes | Top Only Grounding Straps with Non-Threaded .125" Diameter Mounting Holes | Wrap Around Grounding Straps with Non-Threaded .125" Diameter Mounting Holes | Short Mounting Flange with Board Locks | Short Mounting Flange Top Only Grounding Straps with Non-Threaded .125" Diameter Mounting Holes | Short Mounting Flange with Wrap Around Grounding Straps with Non-Threaded .125" Diameter Mounting Holes |
| Riveted Threaded Inserts   | <b>Not Available</b>  | <b>P</b>                                      | <b>Q</b>  | <b>R</b>   | <b>S</b>                               | <b>M</b>  | <b>T</b>  |
| Riveted Threaded Inserts with 4-40 Hex. Jack Screws Installed    | <b>L*</b>   | <b>PJ</b>                                     | <b>QJ</b>   | <b>RJ</b>  | <b>SJ</b>                              | <b>MJ</b>   | <b>TJ</b>   |
| 4-40 Round Jackscrews Riveted to Connector                       | <b>Not Available</b>  | <b>PR</b>                                     | <b>QR</b>   | <b>RR</b>  | <b>SR</b>                              | <b>MR</b>   | <b>TR</b>   |
| Non-Threaded Riveted Inserts                                     | <b>Not Available</b>  | <b>PT</b>                                     | <b>QT</b>   | <b>RT</b>  | <b>ST</b>                              | <b>MT</b>   | <b>TT</b>   |
| Riveted Threaded Inserts with M3/4-40 Hex. Jack Screws Installed | <b>Not Available</b>  | <b>PJM</b>                                    | <b>QJM</b>  | <b>RJM</b>   | <b>SJM</b>                             | <b>MJM</b>  | <b>TJM</b>  |

\*Removal of jack screws will cause disassembly of L option part. Dimensions in mm [In]

### PC Board Mounting Options



### Front Panel Mounting Options



*KYCON continues its leadership in D-Subminiature connectors by offering a complete line of sizes and options.*

**PC99 Colors Available:**

- HD15: Blue
- DB15: Gold
- DB25: Burgundy
- DB09: Teal



## D-SUBMINIATURE CONNECTORS

### Performance Specifications

#### Materials and Finish

**Shell**

Steel Material, Tin Finish, and Indentations (Dimples) on Plug Only

**Insert**

Standard: PBT Thermoplastic, Black Color, 30% Glass Filled, 94V-0 Rated  
 Reflow Compatible: High Temperature Thermoplastic, Black Color, 30% Glass Filled, 94V-0 Rated

**Contact Material**

Pin: Brass .040 (1.02) Diameter Standard; .030 (0.76) Diameter High Density  
 Socket: Phosphor Bronze (Precision Formed Contact)  
 Brass (Precision Machined Contact)

**Contact Finish-Standard**

Gold Flash Over 0.0001 (0.00254) Nickel on Mating End of Contacts  
 Tin/Lead Over Nickel or Gold Flash Over Nickel on Solder Tails

**Riveted Insert**

Brass Material, Nickel Finish

#### Mechanical Characteristics

**Contact Retention**

Precision Machined Contact 10 Lbs, Precision Formed Contact 10 Lbs

**Contact Extraction Force**

Typ. 4 Oz.

**Contact Insertion Force**

Typ. 9 Oz.

**Durability**

1,000 Insertion Cycles Min (With Standard Plating)

**Operating Temperature Rating**

-55°C to +125°C

#### Electrical Characteristics

**Contact Current Rating**

Precision Machined Contact 7.6 Amps  
 Precision Formed Contact 5.0 Amps (Except K99 Series)

**Contact Resistance**

Precision Machined Contact 5 Milliohms Max  
 Precision Formed Contact 8 Milliohms Max

**Dielectric Withstanding Voltage**

1000 V AC Min for 1 Minute

**Insulation Resistance**

5000 Megohms Min

#### Processing Characteristics

**Soldering Temperature Rating**

High Temperature Plastic: 230°C for 30 Seconds, 260°C for 10 Seconds

#### Plating Options

| Designator | Plating Description   |
|------------|---|
| Standard   | Gold Flash over Nickel on Contacts. Gold Flash over Nickel or Tin/Lead over Nickel on Solder Tails. |
| 15         | 15µ" Gold over Nickel on Mating End of Contacts. Tin/Lead over Nickel on Solder Tails.              |
| 30         | 30µ" Gold over Nickel on Mating End of Contacts. Tin/Lead over Nickel on Solder Tails.              |

**KYCON continues its leadership in Ferrite D-Subs by offering a complete line of styles, sizes, and pin configurations.**

**Features:**

- Applications include Computer Peripherals, Data Processing, Telecommunications, Industrial Controls, and Local Area Networks
- High performance ferrite filter with superior high frequency attenuation characteristics
- Minimal effect on fundamental waveforms
- EMI/RFI noise suppression in data communication lines
- Cost effective way to meet FCC and VDE Class B requirements
- Does not require any more board space than a standard D-Sub
- No need to redesign board layout to accommodate separate filter placement
- UL Recognized File No. E140125



**FERRITE D-SUBMINIATURE CONNECTORS**

*Directory*

**Right Angle**

|   |           |
|---|-----------|
| <b>KF22 - 0.318" footprint</b>              | <b>28</b> |
| <b>KF44 - 0.590" footprint</b>              | <b>29</b> |
| <b>KF66 - High Density 0.350" footprint</b> | <b>30</b> |
| <b>KF42 - Dual Port</b>                     | <b>31</b> |



**Vertical**

|                            |           |
|----------------------------|-----------|
| <b>KF85 - Low Profile</b>  | <b>32</b> |
| <b>KF86 - High Density</b> | <b>33</b> |
| <b>KF88 - High Profile</b> | <b>34</b> |



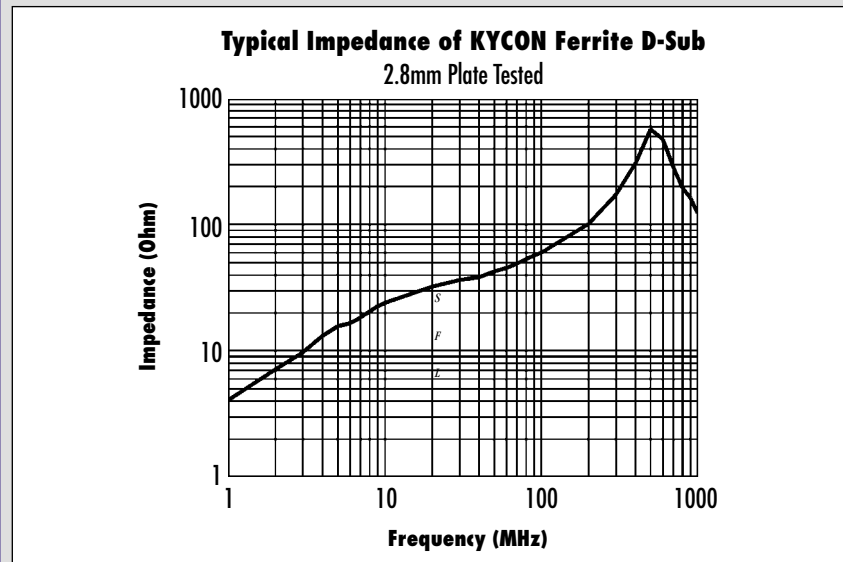
**Technical Information:**

Ferrite filters provide an easy and efficient way of reducing both radiated and conducted interference. KYCON uses a medium permeability nickel zinc ferrite material that is most effective at attenuating frequencies above 30MHz.

$$Attenuation = 20 \log_{10} \frac{[Z_s + Z_f + Z_L]}{[Z_s + Z_L]} \text{ dB}$$

Where  $Z_s$  = Source Impedance  
 $Z_f$  = Ferrite Impedance  
 $Z_L$  = Load Impedance

With the above impedance values calculated at the interference frequency.



The above chart is typical performance data for a 2.8mm thick ferrite plate at room temperature. Impedance will be reduced by increased temperature (down approx. 15% at 100°C at 25MHz) and by increased DC bias (down approx. 15% at 1 amp at 25MHz). Also, impedance varies with ferrite thickness. Please contact our technical support for data specific to your application.

KYCON Tech Support: **1-888-KYCON-22**  
 or E-mail: sales@kycon.com

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