

KF85 Series Vertical PCB Mount Low Profile with Ferrite High Frequency EMI/RFI Suppression

Ordering Information

KF85	- B	D	- 25	S	- K	
Series	Shell Size	Contact Construction	Number of Contacts	Contact Type	Mounting Options	Plating

Series

KF85-Kycon D-Subminiature Connector, Vertical PCB Termination with Ferrite

Shell Size

E-9 Contacts
A-15 Contacts
B-25 Contacts
C-37 Contacts

Contact Construction

D-Precision Formed

Number of Contacts

9, 15, 25, 37

Contact Type

P-Pin Contact (Plug)
S-Socket Contact (Receptacle)

Mounting Options

K-with Riveted Threaded (4-40) Bushings
KJ-with Riveted Threaded (4-40) Bushings and (4-40) Hex Jack Screws Installed
BR-with (4-40) Riveted Threaded Tin Plated Board Lock
BRJ-with (4-40) Riveted Threaded Tin Plated Board Lock and (4-40) Hex Jack Screws Installed
R-with Round Riveted Jack Screws

Hex Jack Screws JS-1055 Recommended for BR Option.
See page 38 for Dimensions.

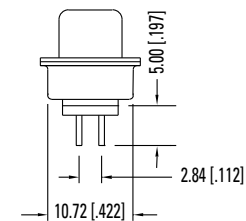
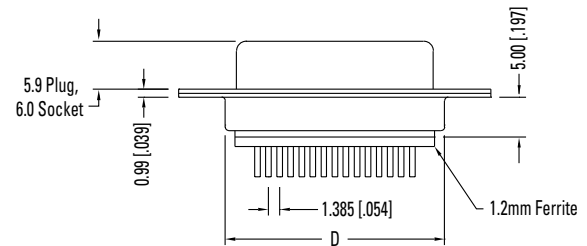
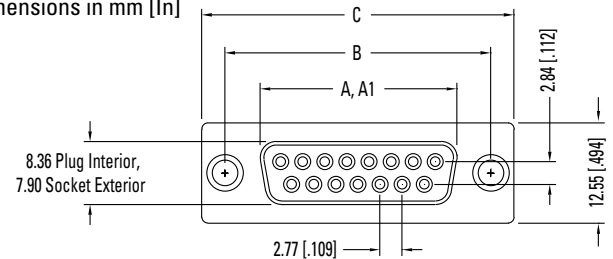
Plating Options and Performance Specifications (see page 4)

FERRITE D-SUBMINIATURE

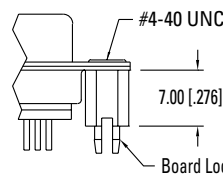
KF85 Series

KF85 Series Dimensions

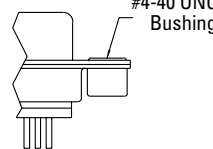
Dimensions in mm [In]



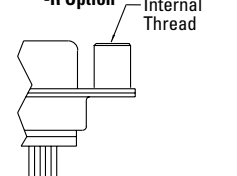
-BR Option



-K Option



-R Option



Ferrite Specifications

Test Frequency	Edge Hole	Inner Hole
30 Mhz	10-14 Ohms	13-17 Ohms
50 Mhz	12-18 Ohms	15-19 Ohms
100 Mhz	15-20 Ohms	19-24 Ohms

Number of Contacts (Shell Size)	Dimensions (Inch/mm)				
	A	A1	B	C	D
9 (E)	.643 16.33	.666 16.92	.984 24.99	1.213 30.81	.755 19.18
15 (A)	.971 24.66	.994 25.25	1.312 33.32	1.541 39.14	1.083 27.51
25 (B)	1.511 38.38	1.534 38.96	1.852 47.04	2.088 53.04	1.614 41.00
37 (C)	2.159 54.84	2.182 55.42	2.500 63.50	2.729 69.32	2.272 57.71

See K85 series for recommended PCB layout (page 13).

A = Exterior of Female Shell (S)

A1 = Interior of Male Shell (P)



K85 Series Vertical PCB Mount and Soldercup

Ordering Information

K85	-	B		D	-	25		S	-	K		
Series		Shell Size		Contact Construction		Number of Contacts		Contact Type		Mounting Options		Plating Options

Series

K85-Kycon D-Subminiature Connector, Solder Cup or Vertical PCB Termination

Shell Size

E-9 Contacts
A-15 Contacts
B-25 Contacts
C-37 Contacts

Contact Construction

Designator	Contact Construction	Type of Termination
A	Precision Formed	Solder Cup
D	Precision Formed	Vertical Pin (PCB Mount)

Number of Contacts

9, 15, 25, 37

Contact Type

P-Pin Contact (Plug)
S-Socket Contact (Receptacle)

Mounting Options

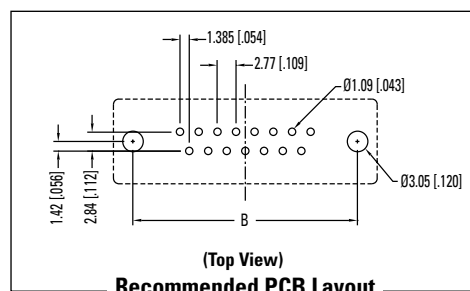
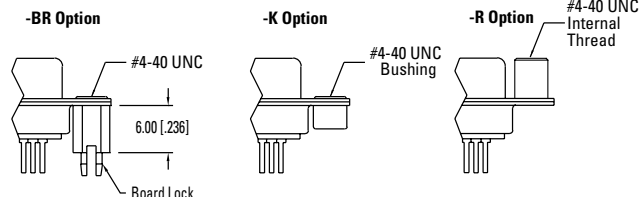
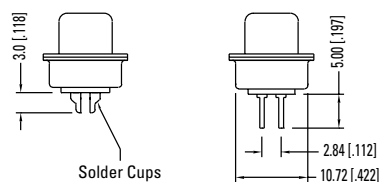
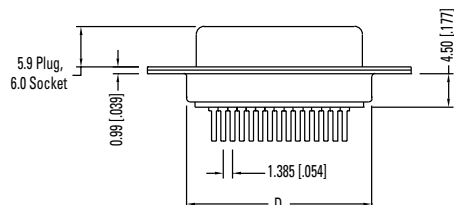
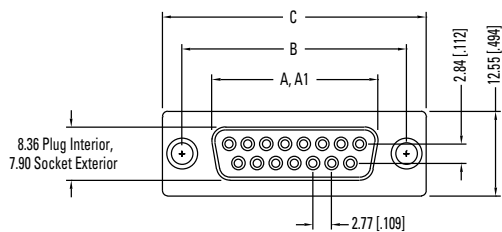
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BR-with (4-40) Riveted Threaded Tin Plated Board Lock
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R-with Round Riveted Jack Screws

Hex Jack Screws JS-1055 Recommended for BR Option.
(See page 38 for Dimensions).

Plating Options and Performance Specifications (see page 4)

K85 Series Dimensions

Dimensions in mm [In]



Number of Contacts (Shell Size)	Dimensions (Inch/mm)				
	A	A1	B	C	D
9 (E)	.643 16.33	.666 16.92	.984 24.99	1.213 30.81	.755 19.18
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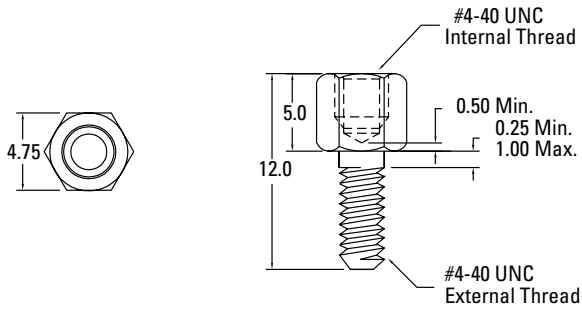
A = Exterior of Female Shell (S)
A1 = Interior of Male Shell (P)

D-Subminiature Hardware

Dimensions in mm

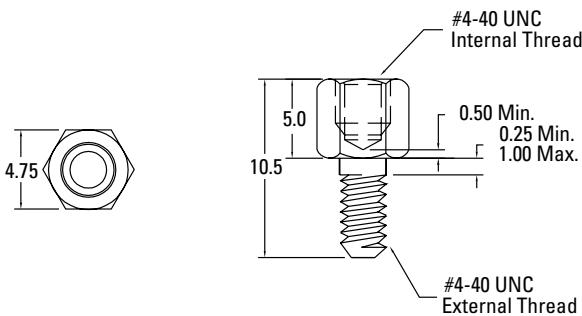
JS-1000

4-40 Female Hex. Jack Screw Bulk (500/Bag)



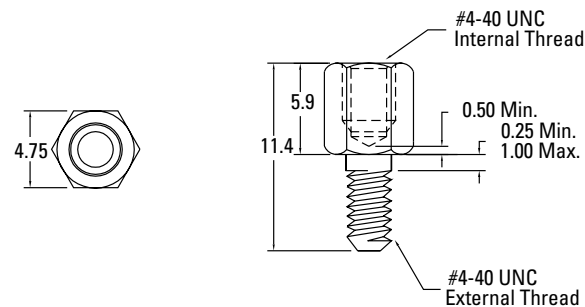
JS-1055

4-40 Female Hex. Jack Screw Bulk (500/Bag)



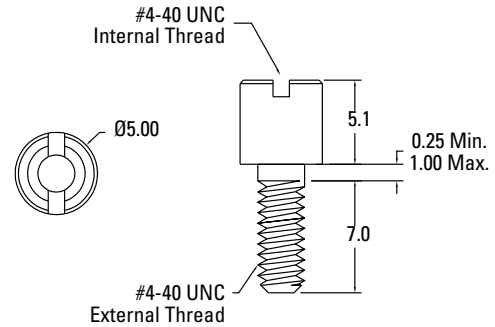
JS-1055-5.9

4-40 Female Hex. Jack Screw Bulk (500/Bag)



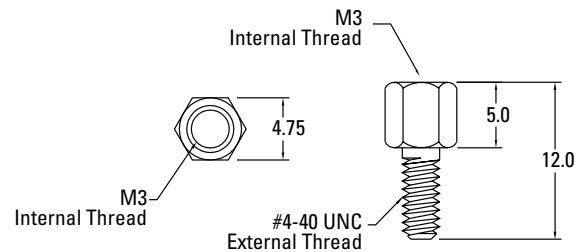
JS-2000

4-40 Female Round Jack Screw Slotted Bulk (500/Bag)



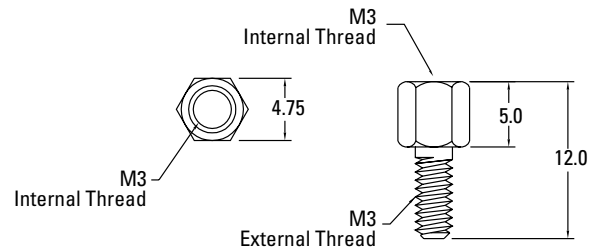
JS-M3131

4-40 External, M3 Metric Internal Thread Jack Screw Bulk (500/Bag)



JS-M3131M

M3 External, M3 Metric Internal Thread Jack Screw Bulk (500/Bag)



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

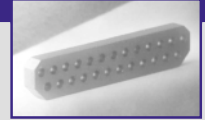


FERRITE D-SUBMINIATURE CONNECTORS

Directory

Right Angle

KF22 - 0.318" footprint	28
KF44 - 0.590" footprint	29
KF66 - High Density 0.350" footprint	30
KF42 - Dual Port	31



Vertical

KF85 - Low Profile	32
KF86 - High Density	33
KF88 - High Profile	34



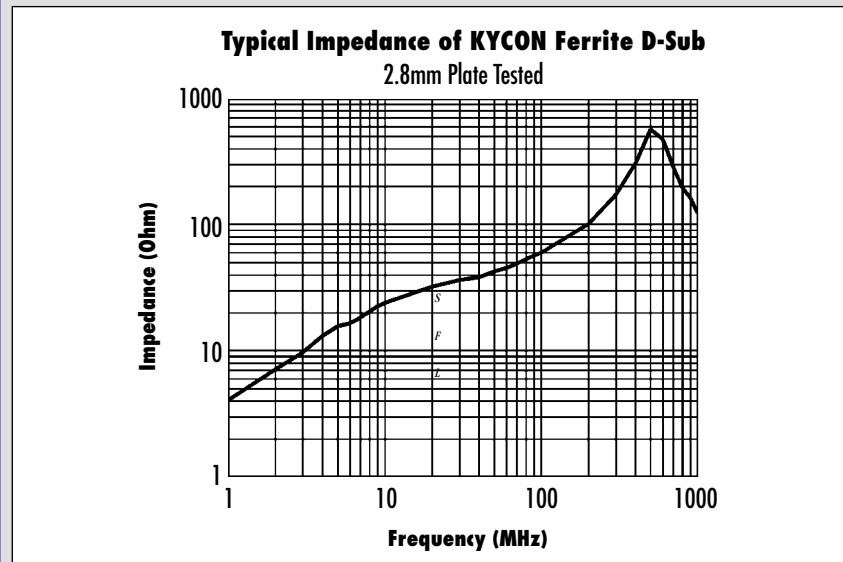
Technical Information:

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