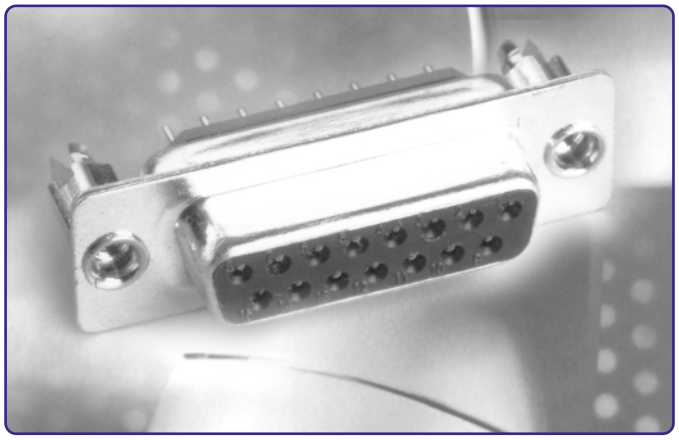
FERRITE D-SUBMINIATURE

KF85 Series



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)

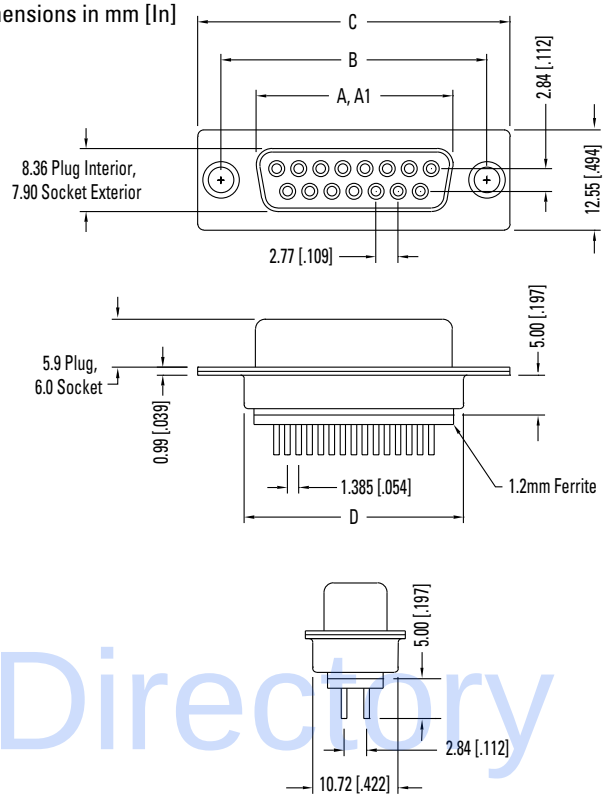
Mounting Options
K-with Riveted Threaded (4-40) Bushings
KJ-with Riveted Threaded (4-40) Bushings and (4-40) Hex Jack Screws Installed
BR-with (4-40) Riveted Threaded Tin Plated Board Lock
BRJ-with (4-40) Riveted Threaded Tin Plated Board Lock and (4-40) Hex Jack Screws Installed
R-with Round Riveted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

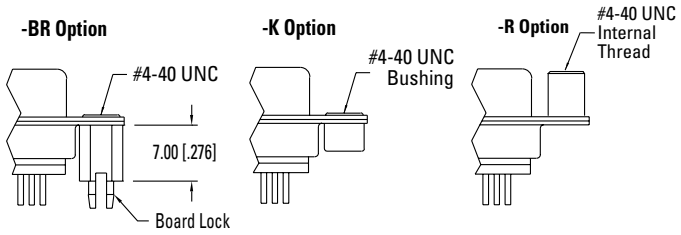
Hex Jack Screws JS-1055 Recommended for BR Option.
See page 38 for Dimensions .

Plating Options and Performance Specifications (see page 4)

KF85 Series Dimensions

Dimensions in mm [In]





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

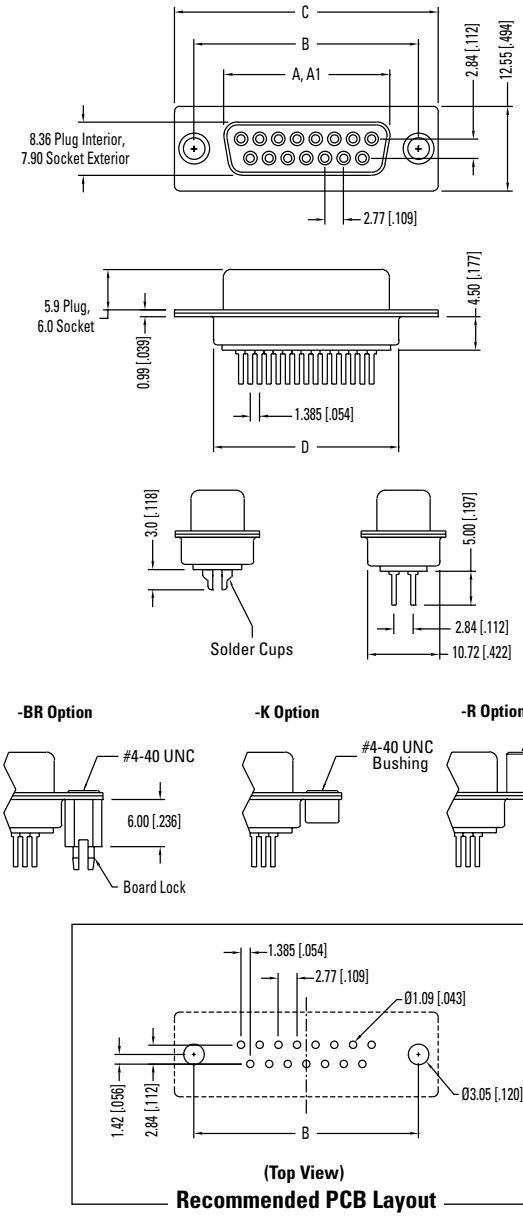
Contact Type
P-Pin Contact (Plug)
S-Socket Contact (Receptacle)

Mounting Options
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)

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
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

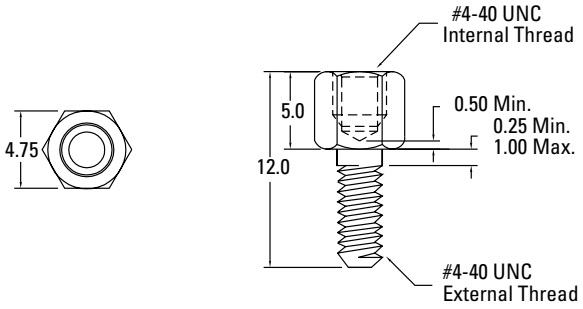
A = Exterior of Female Shell (S)
A1 = Interior of Male Shell (P)

D-Subminiature Hardware

Dimensions in mm

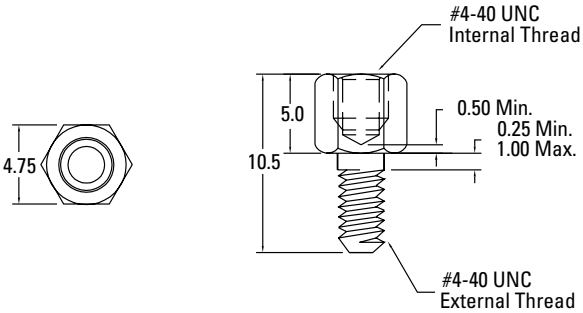
JS-1000

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



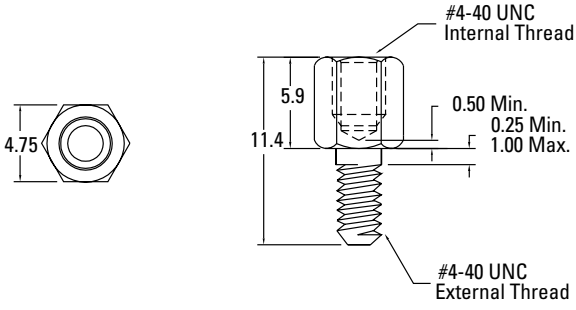
JS-1055

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



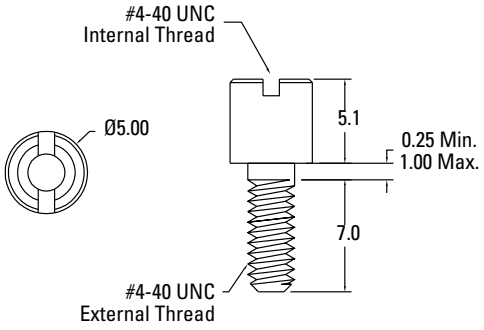
JS-1055-5.9

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



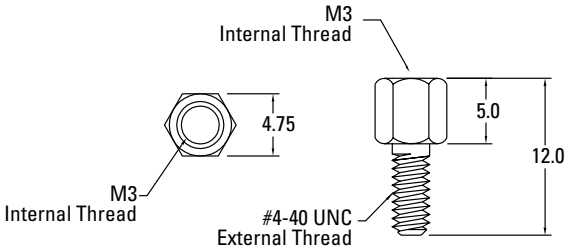
JS-2000

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



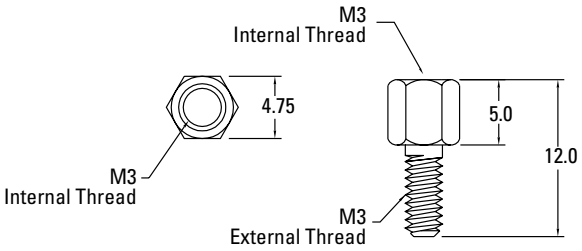
JS-M3131

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)



D-SUBMINIATURE CONNECTORS

Performance Specifications

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

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

LEADERSHIP *in* *Connector Design*

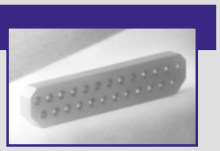
KYCON

FERRITE D-SUBMINIATURE CONNECTORS

Directory

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

Right Angle



Vertical

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

C US LR78160

CE

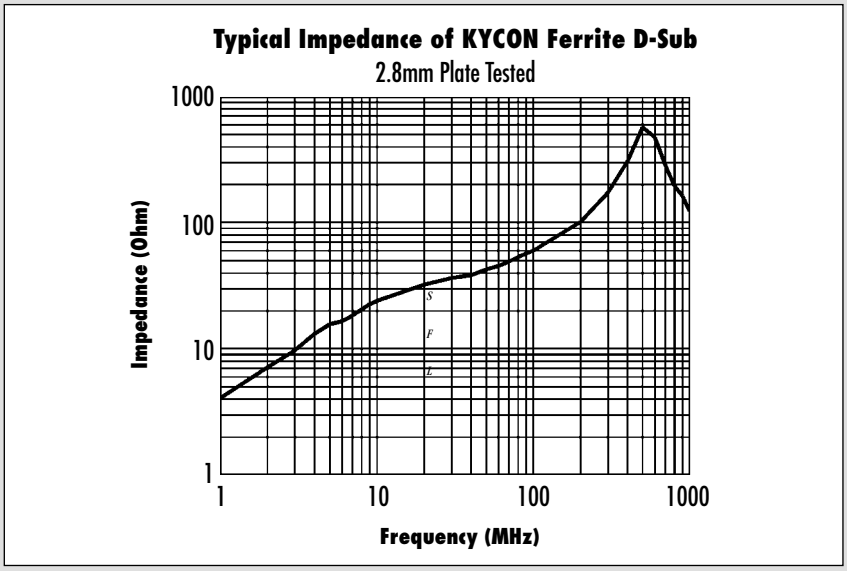
Technical Information:

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.

$$Attenuation = 20 \log_{10} \frac{[Z_S + Z_F + Z_L]}{[Z_S + Z_L]} \; dB$$

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