

**Connectors and Custom Cables
for Worldwide Applications**

MAXCONN EUROPE

Edlingerstrasse 3

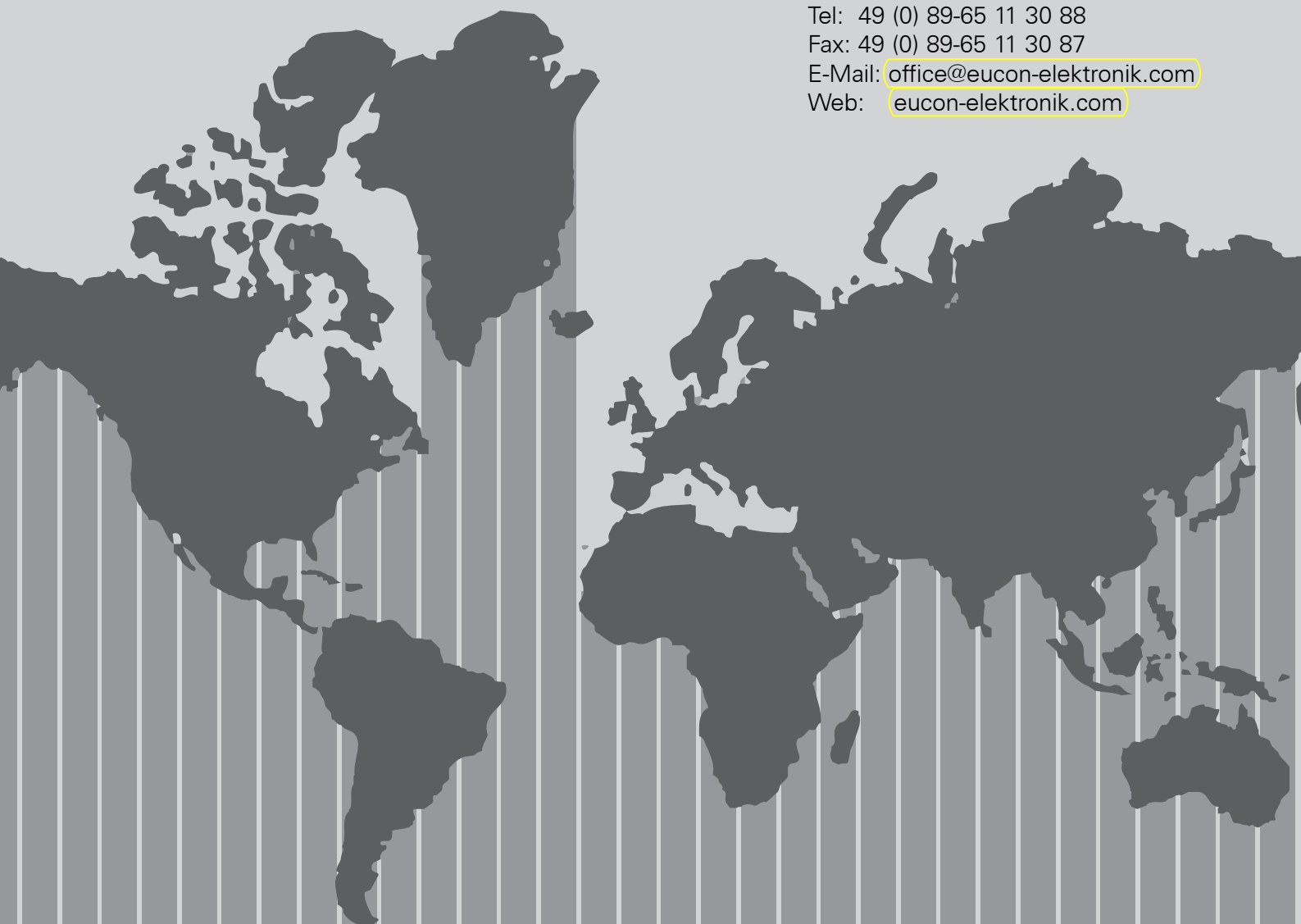
D-81543 Munich/München

Tel: 49 (0) 89-65 11 30 88

Fax: 49 (0) 89-65 11 30 87

E-Mail: office@eucon-elektronik.com

Web: eucon-elektronik.com



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Technology!"**



Maxconn Inc. USA
4255 Business Center Drive
Fremont, California 94538
Tel: 510-979-0979
Fax: 510-360-1599
E-mail:
maxconn@maxconn.com

Maxconn Cable & Connector Ltd.
Taiwan Branch
4th Floor, 3 Lane Si Wei, Chung Cheng
Road
Hsin Tien City
Taipei Hsein, Taiwan R.O.C.
Tel: 886-2-2218-8336
Fax: 886-2-2218-2370
E-mail: maxasia@maxconn.com

Maxconn Europe
Edlingerstrasse 3D-81543
Munchen Germany
Tel: 089-6-511-3088
Fax: 089-6-511-3087
E-mail:
maxeuro@maxconn.com



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4255 Business Center Drive, Fremont, CA 94538
Telephone: (510) 979-0979 | Fax: (510) 360-1599 | <http://www.maxconn.com>

MAXCONN, INC. - 2151 DEL FRANCO STREETo SAN JOSE, CALIFORNIA 95131 - 408-435-5050., FAX: 408-435-8377
MAXCONN EUROPE. - Edlingerstr. 3 - D-81543 Munich/München Tel: 49 (0) 89-65 11 30 88, Fax: 49 (0) 89-65 11 30 88
E-Mail: office@eucon-elektronik.com - Web: <http://www.eucon-elektronik.com>

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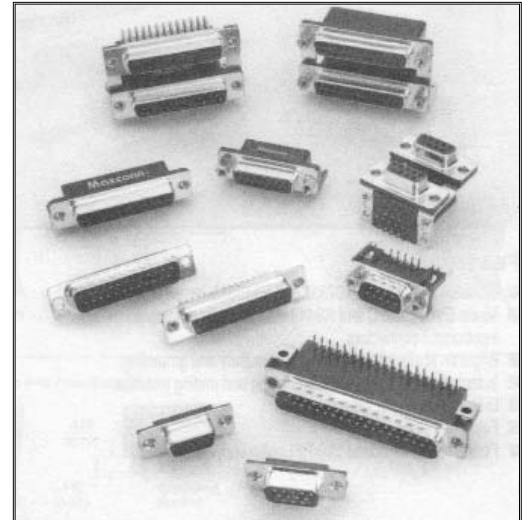
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D-Subminiature Connectors

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D-SUBMINIATURE CONNECTORS

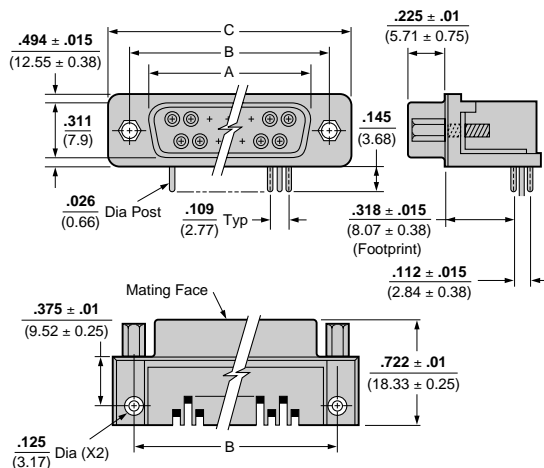
MRS Series Right Angle Termination .318 Footprint



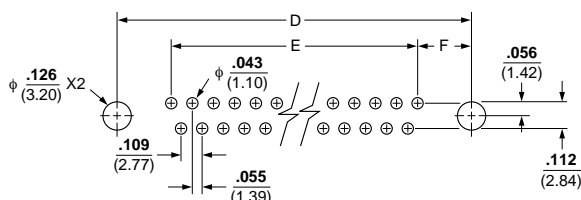
FEATURES

- UL, CSA recognized E107337 and E145613
- Meets EIA, RS232C and RS449 standards for data communication input/output connectors
- Bright tin shells for exceptional conductivity and grounding
- Indentations for exceptional grounding and mating retention
- D-shape connector for polarization
- Four shell sizes
- Ferrite option for added EMI/RFI noise suppression

DIMENSIONS



PCB LAYOUT



MAXCONN - (Back to Table of Contents)

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

Performance Specifications

Materials and Finish

Shell: Steel material, tin finish and indentations (dimples) on plug only

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material

Pin: Brass 0.040 (1.20) diameter

Socket: Phosphor bronze

Contact Finish: Gold flash over nickel on entire contact area with additional 5 microinch gold on mating end of pin for a length of 0.196 (5.00mm) minimum and 0.118 (3.00mm) minimum on the socket with tin plated leads

Riveted Insert: Brass material, nickel finish

Mechanical Characteristics

Contact Retention: Precision formed contact 10 lbs

Contact Separation Force: Four ounces, minimum

Contact Engagement Force: Nine ounces, maximum

Electrical Characteristics

Contact Current Rating: Precision formed contact 5.0 amps with 20 AWG wire

Contact Resistance: Precision formed contact 8 milliohms maximum

Contact Resistance: 1000 Vac minimum

Insulation Resistance: 5000 megohms minimum

Temperature Rating: -55° C to + 125° C

Number of Contact Positions	A	B	C	D	E	F
	0.010	0.005	0.015	0.005	0.005	0.005
	0.25	0.13	0.38	0.13	0.13	0.13
9 (E)	0.643	0.984	1.213	0.984	0.436	0.274
	16.33	24.99	30.81	24.99	11.08	6.96
15 (A)	0.971	1.312	1.541	1.312	0.763	0.274
	24.66	33.32	39.14	33.32	19.38	6.96
25 (B)	1.511	1.852	2.088	1.852	1.308	0.272
	38.38	47.04	53.04	47.04	33.22	6.91
37 (C)	2.159	2.500	2.729	2.500	1.963	0.269
	54.84	63.50	69.32	63.50	49.86	6.83

HOW TO ORDER

MRS - B F - 25 S - N - 15 - F					
Series					
Shell Size					
Shell Size	Number of Contacts	Precision Formed Contact			
E	9				
A	15				
B	25				
C	37				
No. of Positions					
	9, 15, 25, 37				
Contact Type					
	P - Male (plug) S - Female (socket)				
Blank - Without ferrite F - With ferrite					
Plating Options					
Blank - 8 microinch gold (Standard)					
15 - 15 microinch gold					
30 - 30 microinch gold					
Mounting Option					
	See Page 1-3				

MRS Series
Right Angle Termination .318 Footprint

Mounting Options

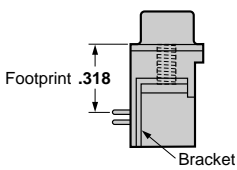
Option M

0.375 mounting flange hole dimension, with 0.130 diameter non-threaded mounting holes, and with riveted threaded inserts.

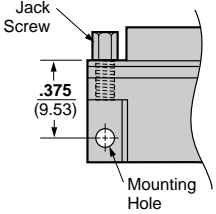
Option MJ

Includes Option M and with jack screws assembled to connector.

Option M



Option MJ



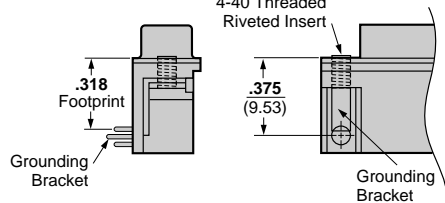
Option N

With grounding brackets (locking-type) and with riveted threaded inserts.

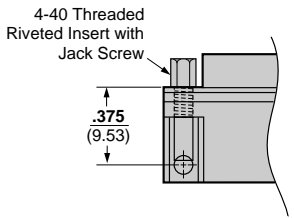
Option NJ

Includes Option N and with jack screws assembled to connector.

Option N



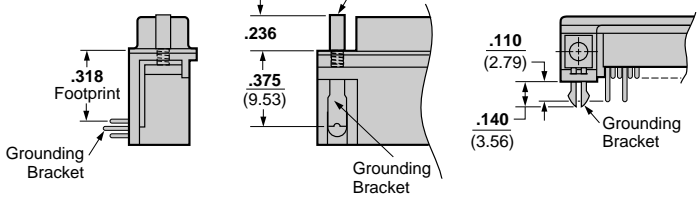
Option NJ



Option NS

With grounding brackets (locking-type) and with round 4-40 fixed standoff.

Option NS



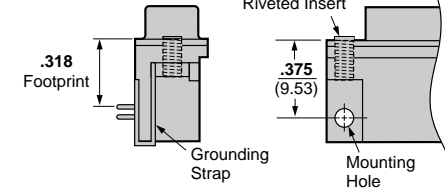
Option O

With grounding straps, with 0.125 diameter non-threaded mounting holes, and with riveted threaded inserts.

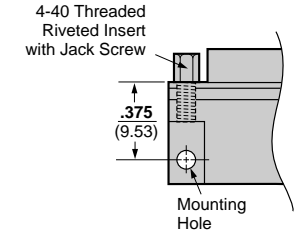
Option OJ

Includes Option O and with round 4-40 fixed standoff.

Option O



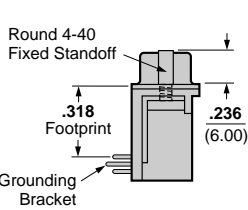
Option OJ



Option OS

With grounding straps, with 0.125 diameter non-threaded mounting holes, and with round 4-40 fixed standoff.

Option OS

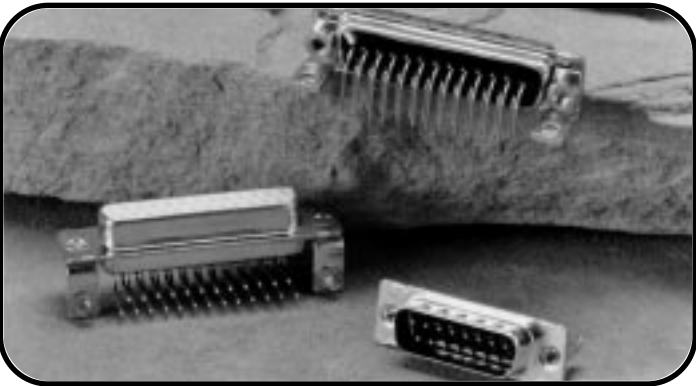


D-SUBMINIATURE CONNECTORS

MRSF Series

Right Angle Termination

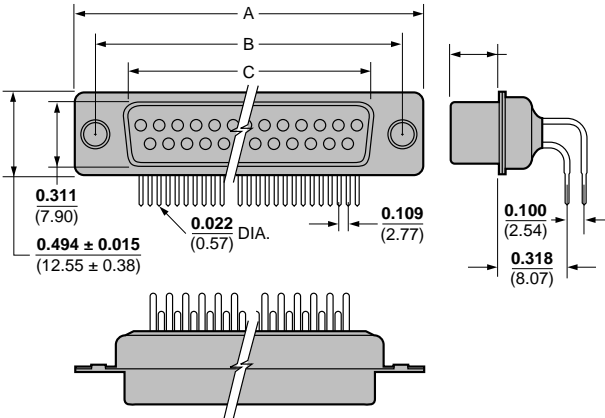
Filtered Capacitor Contact



FEATURES

- UL and CSA recognized E107337 and E145613
- Meets EIA, RS232C and RS449 standards for data communication input/output connectors
- Bright tin shells for exceptional conductivity and grounding
- Indentations for exceptional grounding and mating retention
- D-shape connector for polarization
- Four shell sizes
- Ferrite option for added EMI/RFI noise suppression

DIMENSIONS



MAXCONN - [\(Back to Table of Contents\)](#)

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

Performance Specifications

Materials and Finish

Shell: Steel material, tin finish and indentations (dimples) on plug only
Insert: PBT thermoplastic, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material

Pin: Copper alloy, gold plated
Socket: Copper alloy, gold plated

Contact Finish: Gold flash over nickel on entire contact, 30 microinch gold on mating end of pin for a length of 0.196 (5.00mm) minimum and 0.118 (3.00mm) minimum on the socket (standard)

Riveted Insert: Brass material, nickel finish

Bracket and Board Lock: Brass material, nickel finish

Mechanical Characteristics

Contact Retention: Precision formed contact 10 lbs

Contact Separation Force: Maximum 0.8N per pair of mating contacts

Contact Engagement Force: Maximum 0.8N per pair of mating contacts

Electrical Characteristics

Mating Cycles: 500 minimums

Contact Current Rating: 5.0 amps or 7.5 amps contact

Operating Voltage: 250V

Test Voltage Between Contacts: 1000 50/60 Hz, 1 min.

Resistance per Based Contact: ≤2.7m ohm/A (MIL-C-24308)

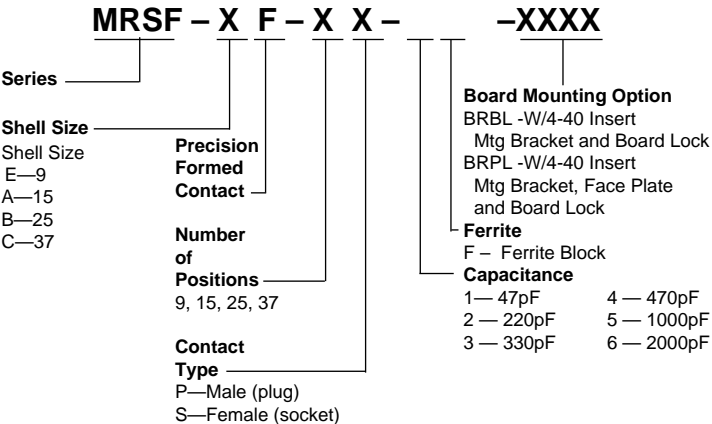
Test Voltage Between Shell and Contact : 1000 Vac 50/60 Hz minimum

Insulation Resistance: 5000 megohms minimum

Temperature Rating: -67° F to + 311° F

Number of Contact Positions	A	B	C	D	E	F
	0.015	0.005	0.010	0.005	0.005	0.005
	0.38	0.13	0.25	0.13	0.13	0.13
9 (E)	1.213	0.984	0.643	0.984	0.436	0.274
	30.81	24.99	16.33	24.99	11.08	6.96
15 (A)	1.541	1.312	0.971	1.312	0.763	0.274
	39.14	33.32	24.66	33.32	19.38	6.96
25 (B)	2.088	1.852	1.511	1.852	1.308	0.272
	53.04	47.04	38.38	47.04	33.32	6.91
37 (C)	2.729	2.500	2.159	2.500	1.963	0.269
	69.32	63.50	54.84	63.50	49.86	6.83

HOW TO ORDER



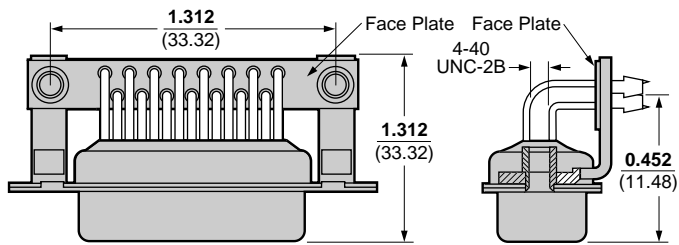
D-SUBMINIATURE CONNECTORS

MRSF Series
Right Angle Termination
Filtered Capacitor Contact

Options

Option BRPL Without Ferrite

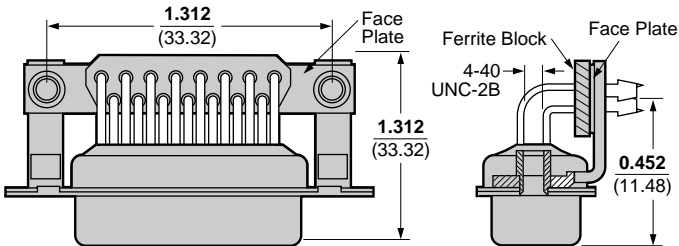
Shown with 4-40 insert, face plate, mounting bracket and board



MAXCONN - (Back to Table of Contents)

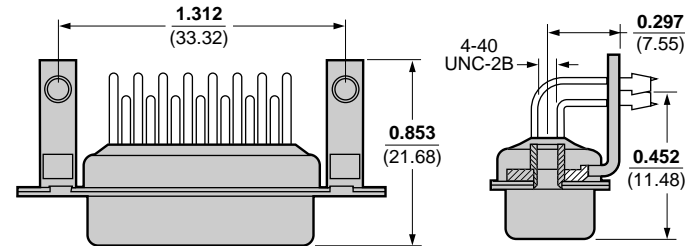
Option BRPL With Ferrite

Shown with 4-40 insert, face plate, mounting bracket and board

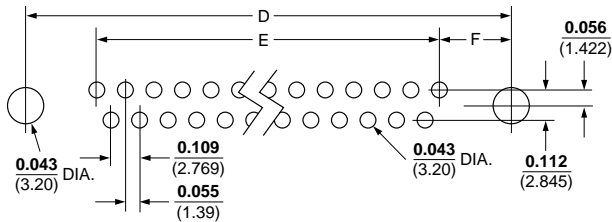


Option BRBL Type

Shown with 4-40 insert, mounting bracket and board



PCB LAYOUT (TOP VIEW)



D-SUBMINIATURE CONNECTORS

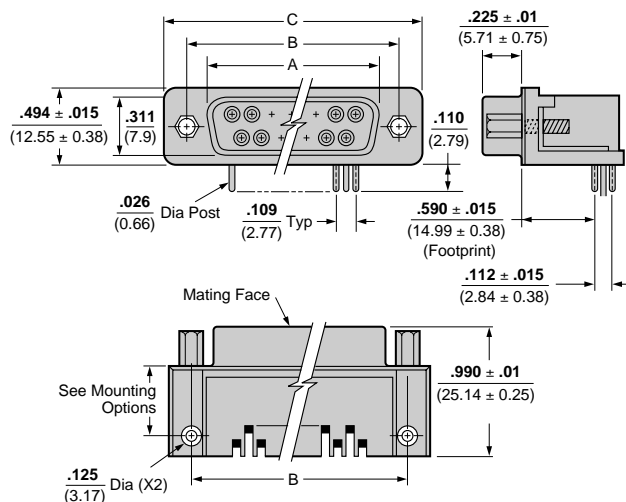
MRL Series Right Angle Termination .590 Footprint



FEATURES

- UL and CSA recognized E107337 and E145613
- Meets EIA, RS232C and RS449 standards for data communication input/output connectors
- Bright tin shells for exceptional conductivity and grounding
- Indentations for exceptional grounding and mating retention
- D-shape connector for polarization
- Four shell sizes

DIMENSIONS



PCB LAYOUT

Contact factory for PCB layout options.

MAXCONN - [\(Back to Table of Contents\)](#)

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

Performance Specifications

Materials and Finish

Shell: Steel material, tin finish and indentations (dimples) on plug only

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material

Pin: Brass 0.040 (1.20) diameter

Socket: Phosphor bronze

Contact Finish: Gold flash over nickel on entire contact area with additional 5 microinch gold on mating end of pin for a length of 0.196 (5.00mm) minimum and 0.118 (3.00mm) minimum on the socket

Riveted Insert: Brass material, nickel finish

Mechanical Characteristics

Contact Retention: Precision formed contact 10 lbs

Contact Separation Force: Four ounces, minimum

Contact Engagement Force: Nine ounces, maximum

Electrical Characteristics

Contact Current Rating: Precision formed contact 5.0 amps with 20 AWG wire

Contact Resistance: Precision formed contact 8 milliohms maximum

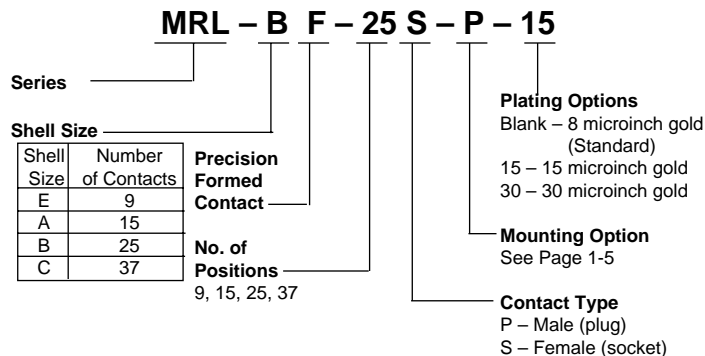
Contact Resistance: 1000 Vac minimum

Insulation Resistance: 5000 megohms minimum

Temperature Rating: -55° C to + 125° C

Number of Contact Positions	A	B	C	D	E	F
9 (E)	0.643 16.33	0.005 0.13	0.015 0.38	0.005 0.13	0.005 0.13	0.005 0.13
15 (A)	0.971 24.66	0.984 33.32	1.213 30.81	0.984 33.32	0.436 11.08	0.274 6.96
25 (B)	1.511 38.38	1.852 47.04	2.088 53.04	1.852 47.04	1.308 33.22	0.272 6.91
37 (C)	2.159 54.84	2.500 63.50	2.729 69.32	2.500 63.50	1.963 49.86	0.269 6.83

HOW TO ORDER



MRL Series
Right Angle Termination .590 Footprint

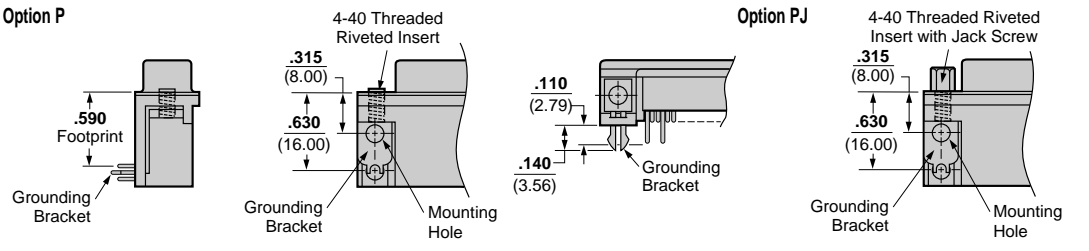
Mounting Options

Option P

With grounding brackets (locking type) and with riveted threaded inserts

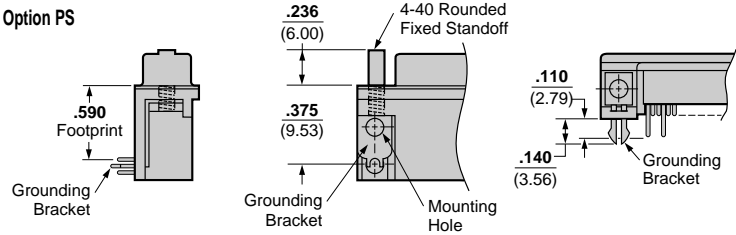
Option PJ

Includes Option P and with jack screws assembled to connector



Option P S

With grounding brackets (locking type) and with 4-40 fixed standoff.

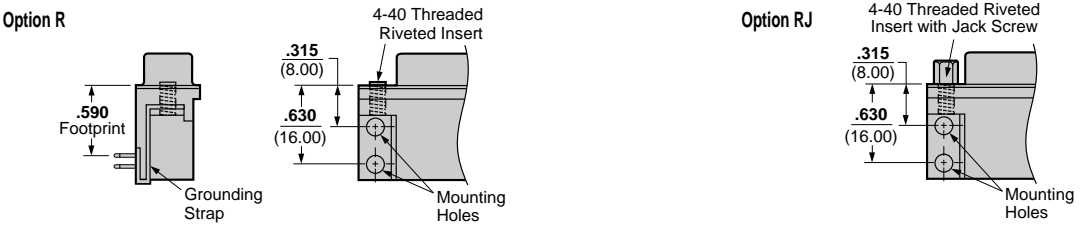


Option R

With 0.315 and 0.630 (combination) mounting flange holes, with grounding straps, with 0.125 diameter non-threaded holes, and with riveted threaded inserts.

Option RJ

Includes Option R and with jack screws assembled to connector.

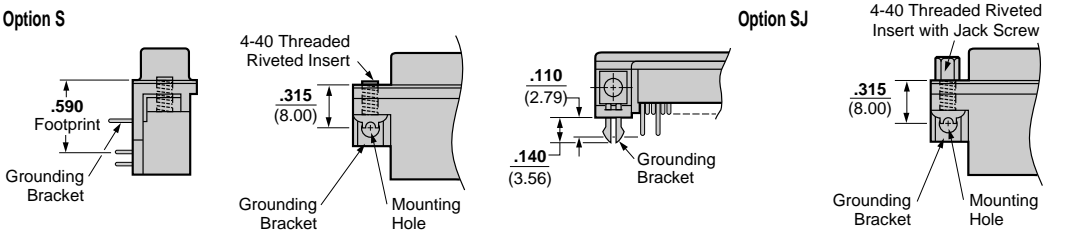


Option S

Short mounting flange with 0.315 mounting flange hole dimension, with grounding brackets (locking type) and with riveted threaded inserts

Option SJ

Includes Option S and with jack screws assembled to connector

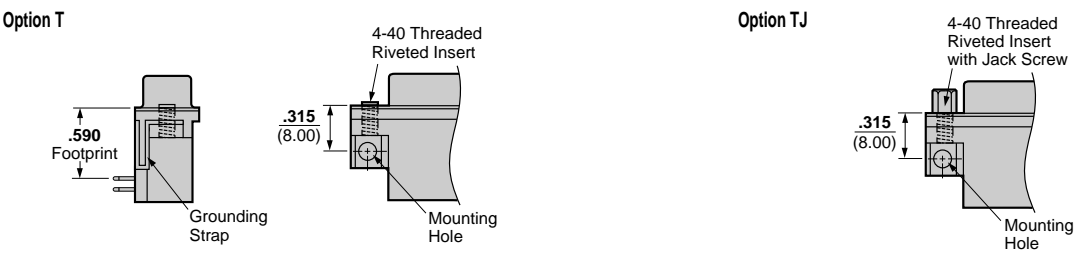


Option T

Short mounting flange with 0.315 mounting flange hole dimension, with grounding brackets (locking type) and with riveted threaded inserts.

Option TJ

Includes Option T and with jack screws assembled to connector.



D-SUBMINIATURE CONNECTORS

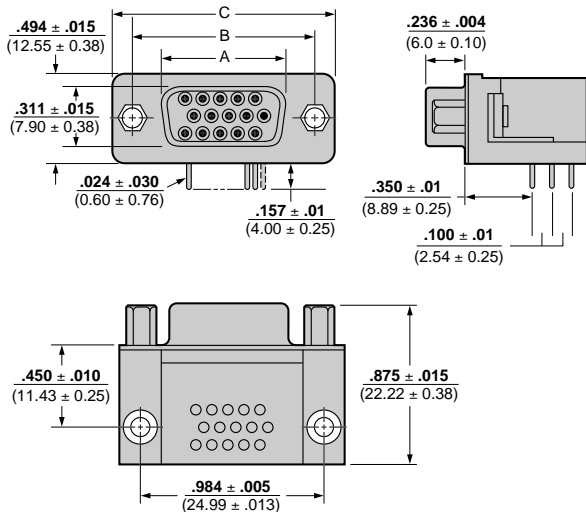
MRH Series
High-Density, Right Angle
Termination .350 Footprint



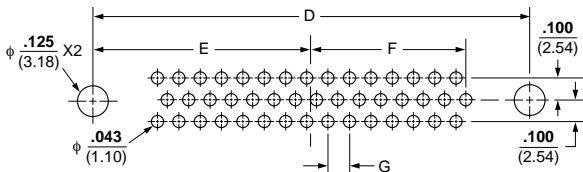
FEATURES

- UL and CSA recognized E107337 and E145613
- Meets EIA, RS232C and RS449 standards for data communication input/output connectors
- Bright tin shells for exceptional conductivity and grounding
- Indentations for exceptional grounding and mating retention
- D-shape connector for polarization
- Four shell sizes
- Ferrite option for added EMI/RFI noise suppression

DIMENSIONS



PCB LAYOUT (TOP VIEW)



MAXCONN - [\(Back to Table of Contents\)](#)

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

Performance Specifications

Materials and Finish

Shell: Steel material, tin finish and indentations (dimples) on plug only
Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material

Pin: Brass 0.040 (1.20) diameter
Socket: Phosphor bronze

Contact Finish: Gold flash over nickel on entire contact area with additional 5 microinch gold on mating end of pin for a length of 0.196 (5.00mm) minimum and 0.118 (3.00mm) minimum on the socket

Riveted Insert: Brass material, nickel finish

Mechanical Characteristics

Contact Retention: Precision formed contact 10 lbs

Contact Separation Force: Four ounces, minimum

Contact Engagement Force: Nine ounces, maximum

Electrical Characteristics

Contact Current Rating: 5.0 amps with 20 AWG wire

Contact Resistance: 8 milliohms maximum

Contact Resistance: 1000 Vac minimum

Insulation Resistance: 5000 megohms minimum

Temperature Rating: -55° C to + 125° C

DIMENSIONS – MALE

Number of Contact Positions	A 0.010 0.25	B 0.005 0.13	C 0.015 0.38	D 0.005 0.13	E 0.005 0.13	F 0.005 0.13	G 0.005 0.13
15 (E)	0.643 16.33	0.984 24.99	1.213 30.81	0.984 24.99	0.492 12.50	0.215 5.45	0.090 2.29
26 (A)	0.971 24.66	1.312 33.32	1.541 39.14	1.312 33.32	0.656 16.66	0.385 9.78	0.090 2.29
44 (B)	1.511 38.38	1.852 47.04	2.088 53.04	1.852 47.04	0.926 23.52	0.655 16.64	0.090 2.29
62 (C)	2.169 54.84	2.500 63.50	2.729 69.23	2.500 63.50	1.250 31.75	0.974 24.75	0.095 2.41

DIMENSIONS – FEMALE

Number of Contact Positions	A 0.010 0.25	B 0.005 0.13	C 0.015 0.38	D 0.005 0.13	E 0.005 0.13	F 0.005 0.13	G 0.005 0.13
15 (E)	0.656 18.92	0.984 24.99	1.213 30.81	0.984 24.99	0.492 12.50	0.215 5.45	0.090 2.29
26 (A)	0.994 25.25	1.312 33.32	1.541 39.14	1.312 33.32	0.656 16.66	0.385 9.78	0.090 2.29
44 (B)	1.543 38.95	1.850 47.04	2.088 53.04	1.852 47.04	0.926 23.52	0.655 16.64	0.090 2.29
62 (C)	2.182 55.42	2.500 63.50	2.729 69.23	2.500 63.50	1.250 31.75	0.974 24.75	0.095 2.41

MRH Series, High-Density
Right Angle Termination .350 Footprint

Mounting Options

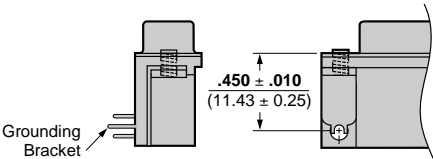
Option N

Grounding brackets (locking type)

Option NJ

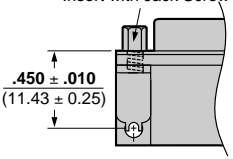
Includes option N and with jack screws assembled to connector.

Option N



Option NJ

4-40 Threaded Riveted Insert with Jack Screw



Special MRH Receptacle Connectors Available (15 position only)

Part Number	Description
MRH-EF-15S-N9B	With number 9 position blocked
MRH-EF-15S-NJ9B	With number 9 position blocked, and with jack screws
MRH-EF-15S-N9V	With number 9 position void
MRH-EF-15S-NJ9V	With number 9 position void, with jack screws
MRH-EF-15S-N9R	With number 9 position recessed (Industry standard blue color housing)
MRH-EF-15S-NJ9R	With number 9 position recessed, with jack screws (Industry standard blue color housing)

HOW TO ORDER

MRH – E F – 15 S – N – 15 – F

Series _____

Shell Size _____

Shell Size	Number of Contacts
E	15
A	26
B	44
C	62

Precision Formed Contact _____

Number of Positions _____
15, 26, 44, 62

Blank – Without Ferrite
F – With Ferrite
(Only available in 15 position)

Plating Options
Blank – 8 microinch gold (Standard)
15 – 15 microinch gold
30 – 30 microinch gold

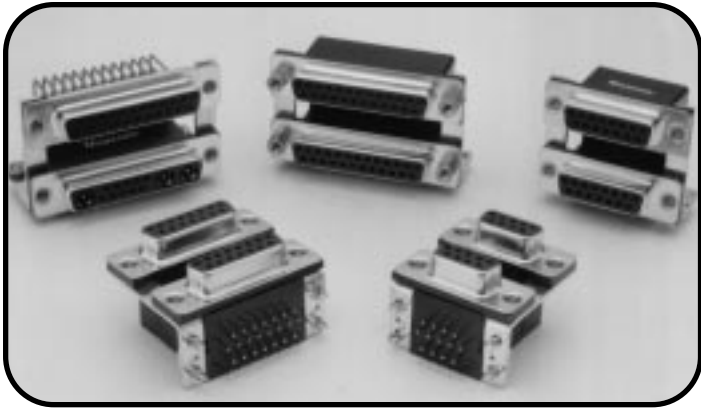
Mounting Option
N – Grounding brackets
NJ – Grounding brackets with jack screws

Contact Type
P – Male (plug)(15 and 26 only)
S – Female (socket)

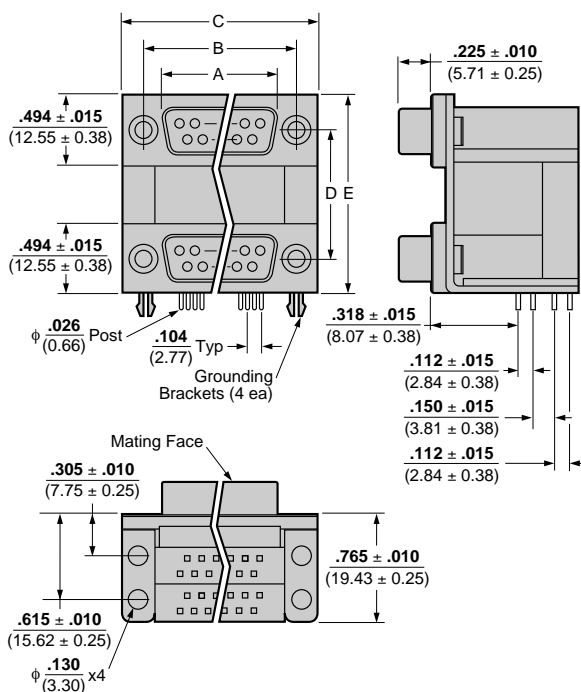
MST Series

Dual-Port Connectors

9/9, 15/15, 25/25, 37/37



- UL and CSA recognized E107337 and E145613
- Vertical dual port construction allows for space savings on the panel and printed circuit board
- Meets EIA, RS232C and RS449 standards for data communication input/output connection
- Three types of mounting options are available for exceptional grounding to the printed circuit board
- Available in 0.625, 0.750, and 0.900 heights
- Bright tin shell for exceptional conductivity and grounding
- Grounding indentations (dimples) on plug shell



UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

Materials and Finish

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Pin: Brass 0.040 (1.20) diameter
Socket: Phosphor bronze

Contact Finish: Gold flash over nickel on entire contact area with additional 5 microinch gold on mating end of pin for a length of 0.196 (5.00mm) minimum and 0.118 (3.00mm) minimum on the socket

Riveted Insert: Brass material, nickel finish

Mechanical Characteristics

Contact Retention: Precision formed contact 10 lbs

Contact Separation Force: Four ounces, minimum

Contact Engagement Force: Nine ounces, maximum

Electrical Characteristics

Contact Current Rating: Precision machined contact 5.0 amps with 20 AWG wire

Contact Resistance: Precision machined contact 8 milliohms maximum

Dielectric Withstanding Voltage: 1000 Vac minimum

Insulation Resistance: 5000 megohms minimum

Temperature Rating: -55° C to + 125° C

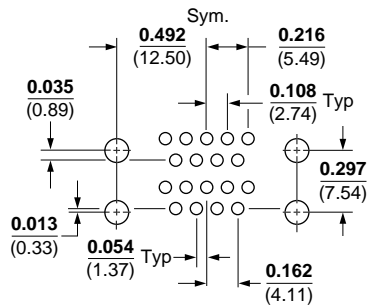
Number of Contact Positions (Shell Size)	A 0.010 0.25	B 0.005 0.13	C 0.015 0.38	D 0.010 0.25	E 0.015 0.38
9 (E)	0.643 16.33	0.984 24.99	1.230 30.81	0.625 15.88	1.119 28.42
15 (A)	0.971 24.66	1.312 33.32	1.541 39.41	0.750 19.05	1.244 31.60
25 (B)	1.511 38.38	1.852 47.04	2.088 53.04	0.900 22.86	1.394 35.41
37 (C)	2.159 54.84	2.500 63.50	2.729 69.32		

D-SUBMINIATURE CONNECTORS

MST Series
Dual-Port Connectors
9/9, 15/15, 25/25, 37/37

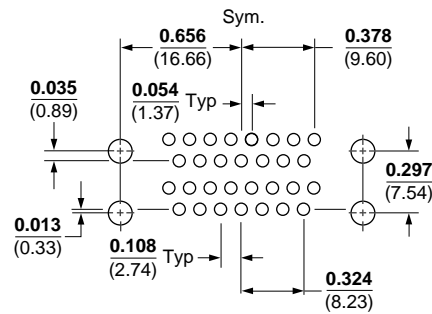
PC Board Layouts (Top View Standard Configurations)

PCB Layout - 9/9

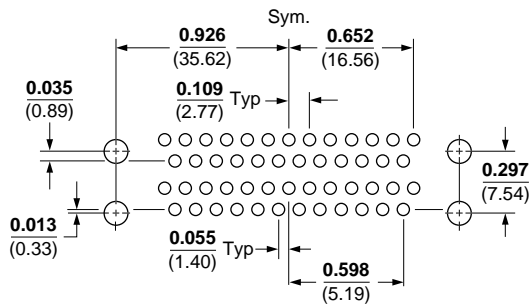


MAXCONN - [\(Back to Table of Contents\)](#)

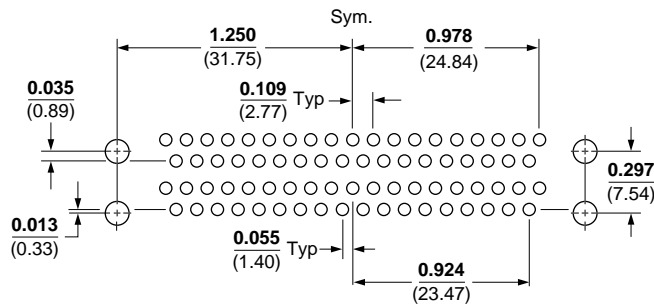
PCB Layout - 15/15



PCB Layout - 25/25



PCB Layout - 37/37



D-SUBMINIATURE CONNECTORS

MST Series Dual-Port Connectors

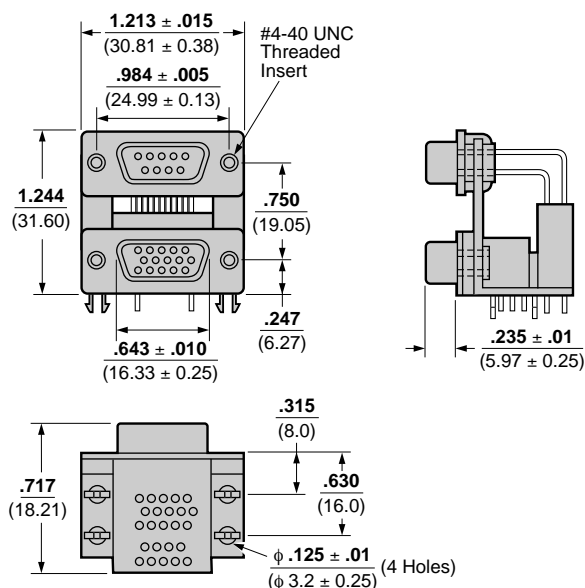
MAXCONN - (Back to Table of Contents)

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

Dimensions MST-9S/HD15S-BN

9 Position Female (Top)

15 Position Female High Density (Bottom)

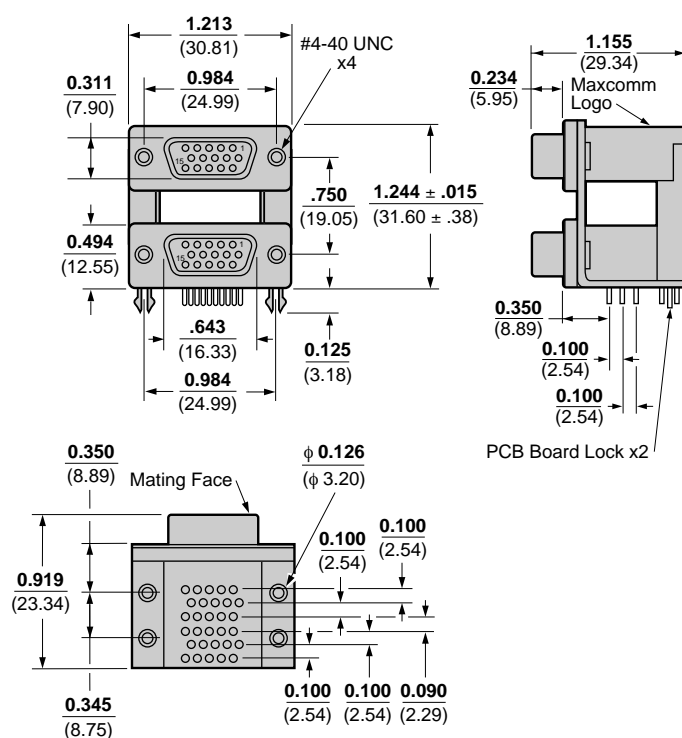


PCB LAYOUT - 9S/15SHD

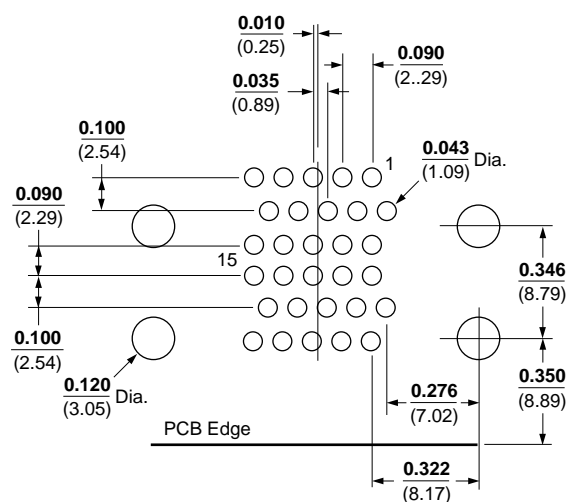
Dimensions MST-HD15S/HD15S-BN

15 Position Female High Density (Top)

15 Position Female High Density (Bottom)



PCB LAYOUT - 15SHD/15SHD



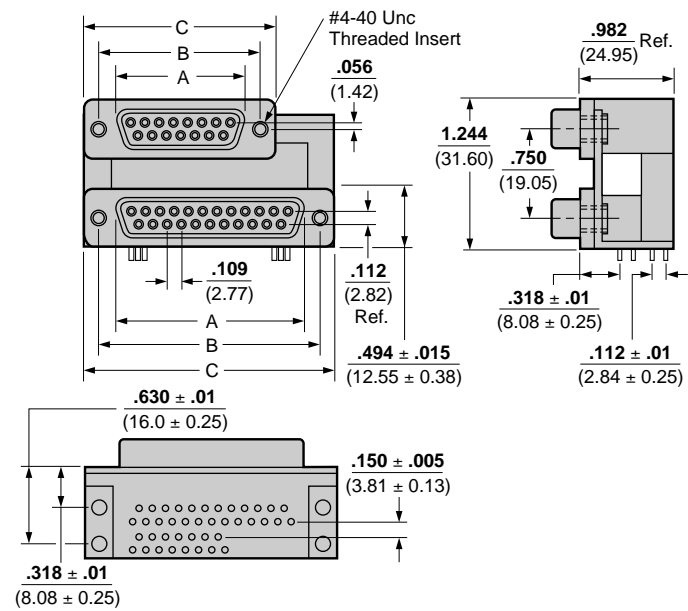
Note: Please contact the factory for any configuration not shown.

D-SUBMINIATURE CONNECTORS

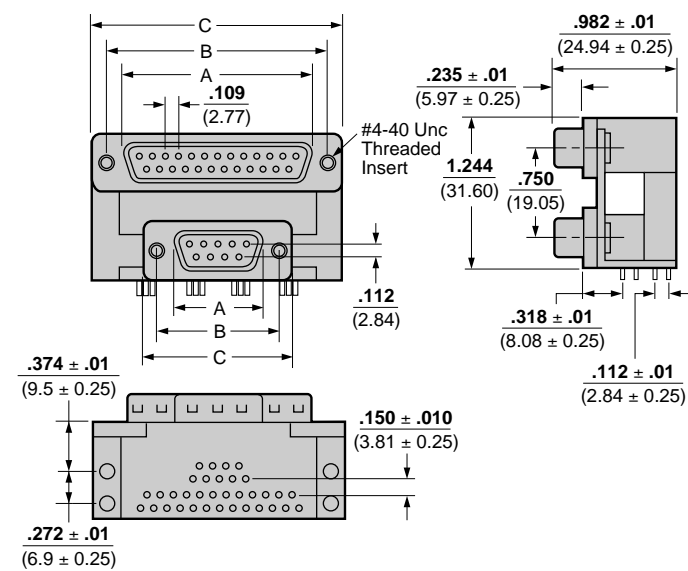
MST Series

Dual-Port Connectors

Dimensions MST-15X/25X-BN



Dimensions MST-25X/9X-BN

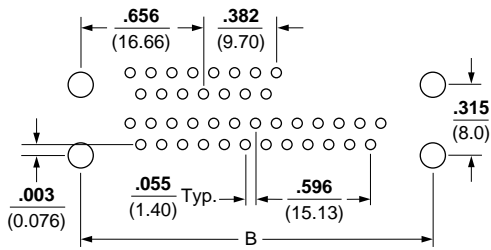


Note: Please contact the factory for any configuration not shown.

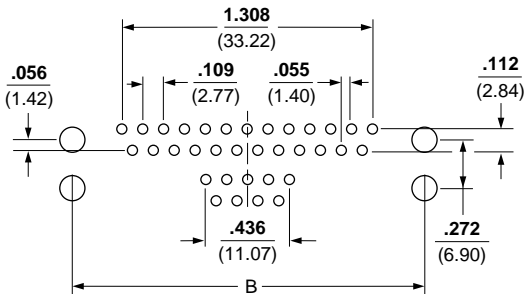
MAXCONN - (Back to Table of Contents)

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

PCB Layout - 15/25



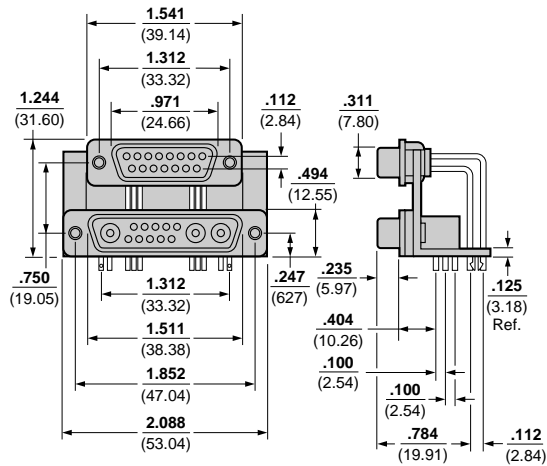
PCB Layout - 25/9



MST Series Dual-Port Connectors

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4,878,856, 4,818,239
4,857,017, 5,288,244

13W3 COAXIAL (BOTTOM)

[illegible]

Top View Dimensions:

- Overall Width: 1.852 ± 0.005 (47.04 \pm 0.13)
- Pin 1 to Pin 15 Distance: 1.511 ± 0.010 (38.38 \pm 0.25)
- Pin 1 to Pin 16 Distance: 0.311 (7.90)
- Pin 1 to Pin 17 Distance: 0.109 (2.77)
- Pin 1 to Pin 18 Distance: 0.329 (8.36)
- Pin 1 to Pin 19 Distance: 1.244 (31.60)
- Pin 1 to Pin 20 Distance: 0.666 (16.92)
- Pin 1 to Pin 21 Distance: 0.984 (24.99)
- Pin 1 to Pin 22 Distance: 2.401 ± 0.007 (60.98 \pm 0.19)
- Pin 1 to Pin 23 Distance: 0.643 (16.33)
- Pin 1 to Pin 24 Distance: 0.984 (24.99)
- Pin 1 to Pin 25 Distance: 0.125 (3.18)

Side View Dimensions:

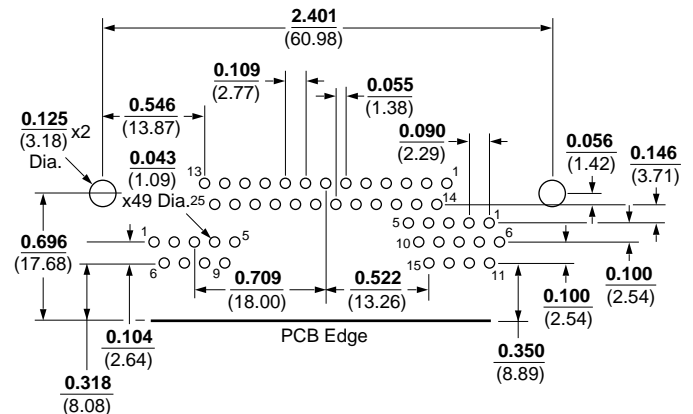
- Overall Height: 0.234 (5.95)
- Maxconn Logo Height: 7.50 (19.06)
- Pin 1 to Pin 15 Distance: 0.350 (8.89)
- Pin 1 to Pin 16 Distance: 0.100 (2.54)
- Pin 1 to Pin 17 Distance: 0.100 (2.54)

Mating Face Dimensions:

- Overall Width: 2.637 (66.98)
- Pin 1 to Pin 15 Distance: 0.374 (9.50)
- Pin 1 to Pin 16 Distance: 0.126 Dia. (3.20)
- Pin 1 to Pin 17 Distance: 0.090 (2.29)

Other Features:

- #4-40 Unc x6
- PC Board Lock x2



1-14

D-SUBMINIATURE CONNECTORS

MST Series
Right Angle Termination

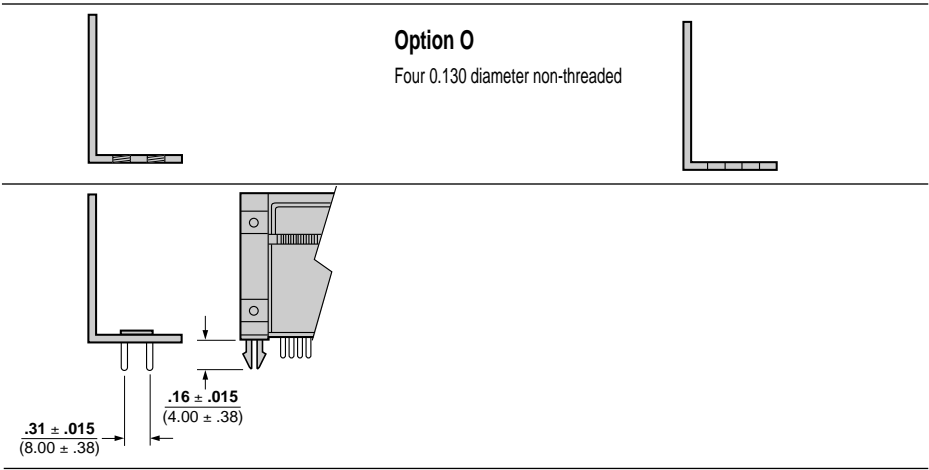
Mounting Options

Option K
Four threaded (4-40) mounting holes

MAXCONN - (Back to Table of Contents)

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

Option N
Four grounding brackets (locking type)



HOW TO ORDER

MST 25 P / 25 S — A N J 15

Series — MST

Number of Positions (Top) — 25
9, 15, 25, 37, HD15

Top Connector Gender — P — Plug
S — Socket

Number of Positions (Bottom) — 25
9, 15, 25, 37, HD15, 13W3

Bottom Connector Gender — S — Socket

Center to Center Dimension — A — 0.625
B — 0.750 (Most standard)
C — 0.900

Plating Option — 15

Jack Screw (4-40) — J — Four jack screws installed
Blank — Without jack screws

Mounting Options — N — Four grounding brackets
N2 — Two grounding brackets
O — Four 0.130 diameter non-threaded mounting holes
K — Four threaded (4-40) mounting holes

*Applies to standard configurations. Example: 9 over 9. All others are B — 0.750 footprint center to center dimensions.

PLATING OPTIONS

Designation	Plating Description
Blank	Gold flash over 100 microinch (min.) nickel on entire contact area with additional 5 microinch gold (making a total of 8 microinch gold) on mating end of pin for a length of 0.196 (5.0) min. and 0.118 (3.0) min. on the socket
15	100 microinch (min.) nickel on the entire contact area with 15 microinch gold on mating end of pin for a length of 0.196 (5.00mm) min. and 0.118 (3.00mm) min. on the socket. 150 microinch of bright tin-lead is plated on the termination end of the contact
30	100 microinch (min.) nickel on the entire contact area with 30 microinch gold on mating end of pin for a length of 0.196 (5.00mm) min. and 0.118 (3.00mm) min. on the socket. 150 microinch of bright tin-lead is plated on the termination end of the contact

Note: Please contact the factory for any configuration not shown.

D-SUBMINIATURE CONNECTORS

MSD Series Slimline Right-Angle .197 (5mm) Footprints



FEATURES

- Provides two optimum space saving footprints
- UL and CSA recognized E107337 and E145613
- Meets EIA, RS232C and RS449 standards for data communications input/output connectors
- Bright tin shells for exceptional conductivity and grounding
- Indentations for exceptional grounding and mating retention
- D-shape connector for polarization

MAXCONN - [\(Back to Table of Contents\)](#)

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

Performance Specifications

Materials and Finish

Shell: Steel material, tin finish and indentations (dimples)

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material:

Pin – Brass

Socket – Phosphor bronze

Contact Finish: Gold flash over nickel on entire contact area with additional 5 microinch gold on mating end of the contact

Riveted Insert: Brass material, nickel finish

Mechanical Characteristics

Contact Retention: Precision formed contact 10 lbs

Contact Separation Force: 1.0 kg, minimum (total connector)

Contact Engagement Force: 12.7 kg, maximum (total connector)

Electrical Characteristics

Contact Current Rating: 3.0 amps

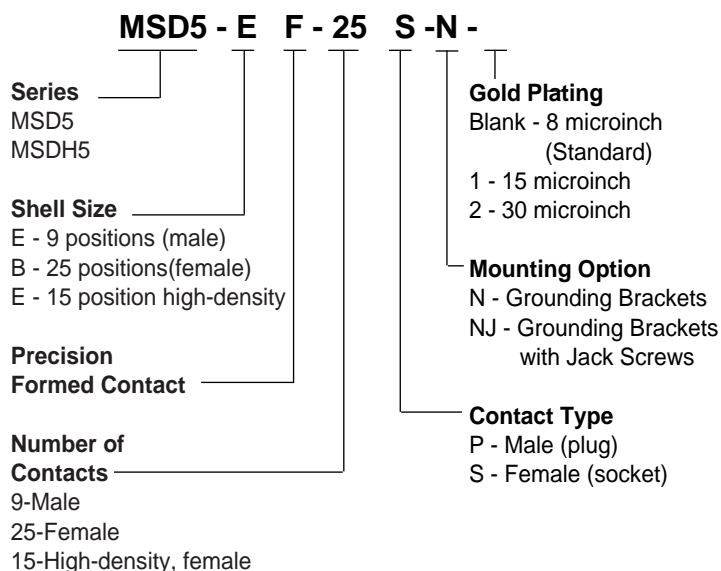
Contact Resistance: 20 milliohms maximum

Dielectric Withstanding Voltage: 500 Vac minimum (250 Vdc)

Insulation Resistance: 5000 megohms (5000Vdc) minimum

Temperature Rating: -55° C to + 125° C

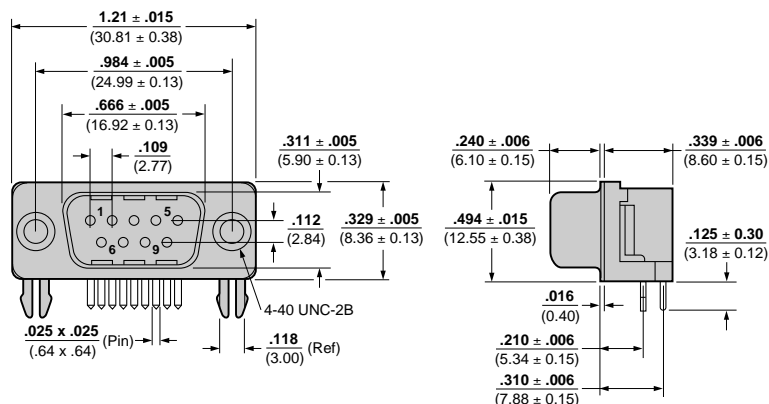
HOW TO ORDER



MSD Series Slimline Right-Angle .197 (5mm) Footprints

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

9 POSITION MALE



25 POSITION FEMALE

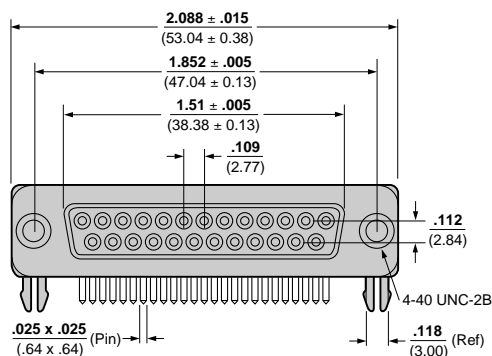


Figure 1: Dimensional drawing of the PCB layout. The drawing shows a top-down view of a PCB with various components and dimensions. Key dimensions include: a total width of 1.85 (47.04) for the main component area; a distance of 1.31 (33.3) from the left edge to the center of the first component; a distance of 0.270 (6.87) between the centers of the two main components; a distance of 0.310 (7.88) from the center of the second component to the right edge; and a distance of 0.210 (5.34) from the right edge to the center of the third component. The third component is dimensioned as 0.210 ± 0.005 (5.34 ± 0.15). Other dimensions include 0.125 (3.20) for the width of the first component, 0.109 (2.77) for the width of the bottom component, and 0.039 (1.0) for the width of the bottom component. The drawing also shows the 'Edge of PCB' and various mounting holes.

15 POSITION FEMALE

Technical drawings of the 16-pin connector showing top and side views with dimensions in inches and millimeters.

Top View Dimensions:

- Overall Width: $1.21 \pm .015$ (30.81 \pm 0.38)
- Distance from Left Edge to Pin 1: $.984 \pm .005$ (24.99 \pm 0.13)
- Distance between Pin 1 and Pin 12: $.643 \pm .005$ (16.33 \pm 0.13)
- Distance between Pin 12 and Pin 16: $.090$ (2.29)
- Distance from Pin 16 to Right Edge: 0.05 (1.98)
- Pin Pitch: 0.05 (1.98)
- Pin Diameter: $.010$ (0.25)
- Pin Spacing (Reference): $.118$ (3.00) (Ref)
- Pin Configuration: 4-40 UNC-2B
- Pin 1 Orientation: 125 x .025 (Pin) (64 x .64)

Side View Dimensions:

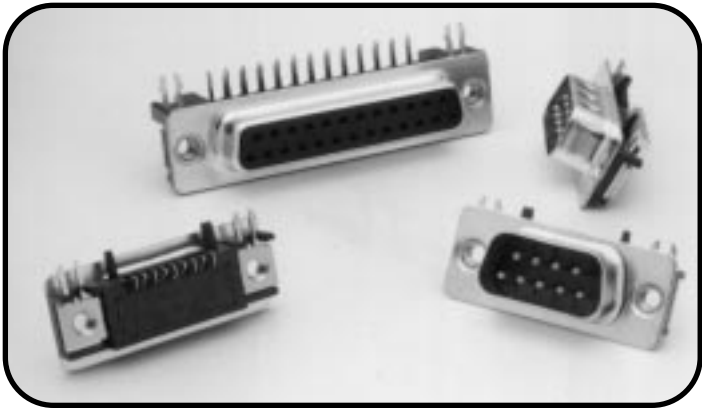
- Overall Height: $.232 \pm .006$ (5.90 \pm 0.15)
- Distance from Top Edge to Pin 1: $.339 \pm .006$ (8.60 \pm 0.15)
- Distance from Top Edge to Pin 16: $.494 \pm .015$ (12.55 \pm 0.38)
- Distance from Top Edge to Pin 12: $.311$ (7.90)
- Distance from Top Edge to Pin 16: $.125 \pm .030$ (3.18 \pm 0.12)
- Pin 16 Diameter: $.016$ (0.40)
- Pin 16 Spacing (Reference): $.135 \pm .006$ (3.435 \pm 0.15)
- Pin 16 Spacing (Reference): $.210 \pm .006$ (5.34 \pm 0.15)

Figure 1 is a detailed dimensional drawing of a PCB layout. It shows a rectangular board with various features and dimensions. The overall width is .983 (24.99). The layout includes several holes and features with specific dimensions and tolerances. Key dimensions include: .125 (3.20) x 2, .301 (7.66), .405 (10.31), .276 (7.02), .232 (5.90), .155 (3.95), .135 ± .006 (3.435 ± 0.15), .039 (1.0) x 15, .0098 (0.25), and .090 (2.29). The drawing also indicates the 'Edge of PCB' and shows a series of small circles representing holes.

D-SUBMINIATURE CONNECTORS

MSMD Series

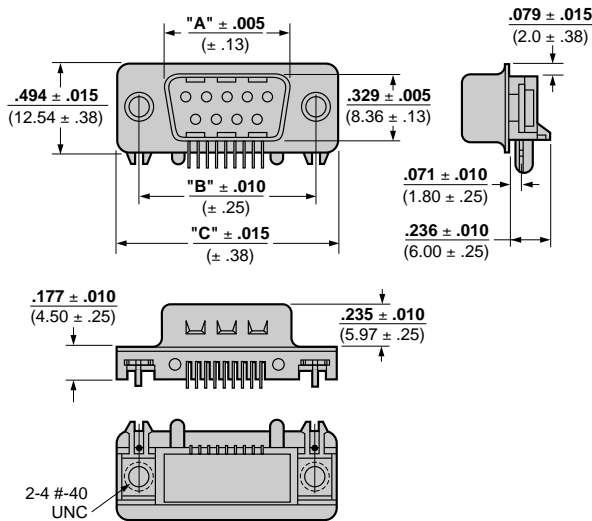
Surface Mount, Right Angle



FEATURES

- Meets EIA, RS232C and RS449 standards for data communications
- Bright tin shell for exceptional conductivity and grounding
- D-shape connector for polarization

DIMENSIONS



Number of Contact Positions	A	B	C	D
9	0.660 16.92	0.984 24.99	0.213 30.81	0.551 14.00
15	0.994 25.25	1.312 33.32	1.541 39.14	1.011 25.69
25	1.534 38.96	1.852 47.04	2.008 53.04	1.557 39.54

MAXCONN - (Back to Table of Contents)

UL, UL-DUXR, and CSA Recognized
 Patents Issued: 4.878.856, 4.818.239
 4.857.017, 5.288.244

Performance Specifications

Materials and Finish

- Shell:** Steel material, tin finish and indentations (dimples)
- Insert:** Thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated
- Contact Material:**
 - Pin – Brass
 - Socket – Phosphor bronze
- Contact Finish:** Gold flash over nickel on entire contact area with additional 5 microinch gold on mating end of the contact

Riveted Insert: Brass material, nickel finish

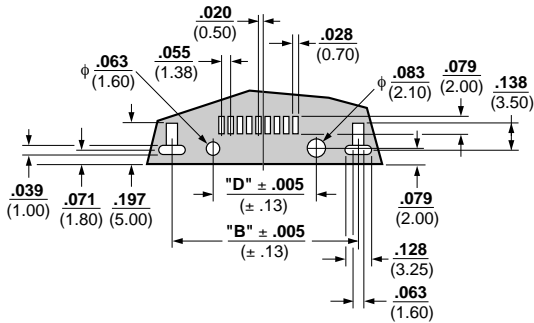
Mechanical Characteristics

- Contact Retention:** Precision formed contact 10 lbs
- Contact Separation Force:** 1.0 kg, minimum (total connector)
- Contact Engagement Force:** 12.7 kg, maximum (total connector)

Electrical Characteristics

- Contact Current Rating:** 3.0 amps
- Contact Resistance:** 20 milliohms maximum
- Dielectric Withstanding Voltage:** 500 Vac minimum (250 Vdc)
- Insulation Resistance:** 5000 megohms (5000Vdc) minimum
- Temperature Rating:** -55° C to + 125° C

PCB LAYOUT



HOW TO ORDER

MSMD – E

F – 9 P – N J –

Series

Shell Size

Precision Formed Contact

Number of Positions

Gold Plating

Mounting Option

Contact Type

Blank – 8 microinch
 15 – 15 microinch
 30 – 30 microinch

N – Grounding Bracket
 NJ – Grounding Bracket with Jack Screws

P – Male (plug)
 S – Female (socket)

D-SUBMINIATURE CONNECTORS
MSMDH Series
Surface Mount, High
Density, Right Angle



FEATURES

- Meets EIA, RS232C and RS449 standards for data communications
- Bright tin shell for exceptional conductivity and grounding
- D-shape connector for polarization

DIMENSIONS

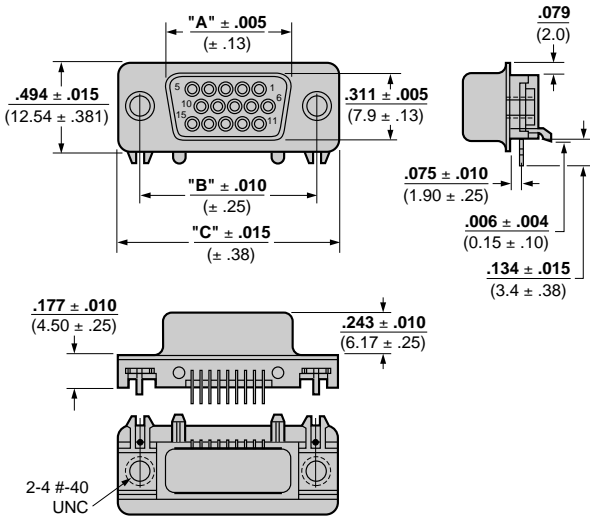


Table with 5 columns: Number of Contact Positions, A, B, C, D. Row 1: 15, 0.643, 0.984, 1.213, 0.630. Row 2: 16.33, 24.99, 30.81, 10.00.

MAXCONN - (Back to Table of Contents)

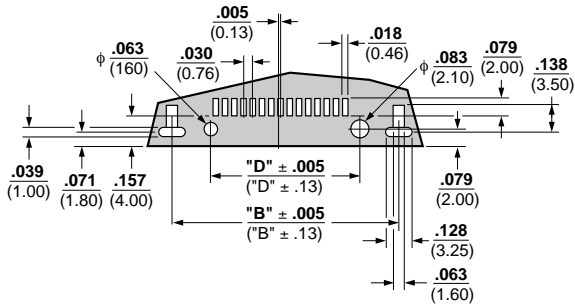
UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

Performance Specifications

Materials and Finish

- Shell: Steel material, tin finish and indentations (dimples)
- Insert: Thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated
- Contact Material: Pin - Brass, Socket - Phosphor bronze
- Contact Finish: Gold flash over nickel on entire contact area with additional 5 microinch gold on mating end of contact
- Riveted Insert: Brass material, nickel finish
- Mechanical Characteristics: Contact Retention: Precision formed contact 10 lbs, Contact Separation Force: 1.0 kg, minimum (total connector), Contact Engagement Force: 12.7 kg, maximum (total connector)
- Electrical Characteristics: Contact Current Rating: 3.0 amps, Contact Resistance: 20 milliohms maximum, Dielectric Withstanding Voltage: 500 Vac minimum (250 Vdc), Insulation Resistance: 5000 megohms (5000Vdc) minimum, Temperature Rating: -55° C to + 125° C

PCB LAYOUT



HOW TO ORDER

MSMDH - E F - 15 S - N -
Series
Shell Size E
Precision Formed Contact
Number of Positions 15
Contact Type S - Female (socket only)
Gold Plating
Blank - 8 microinch
15 - 15 microinch
30 - 30 microinch
Mounting Option
N - Grounding Bracket
NJ - Grounding Bracket with Jack Screws

D-SUBMINIATURE CONNECTORS

MD Series

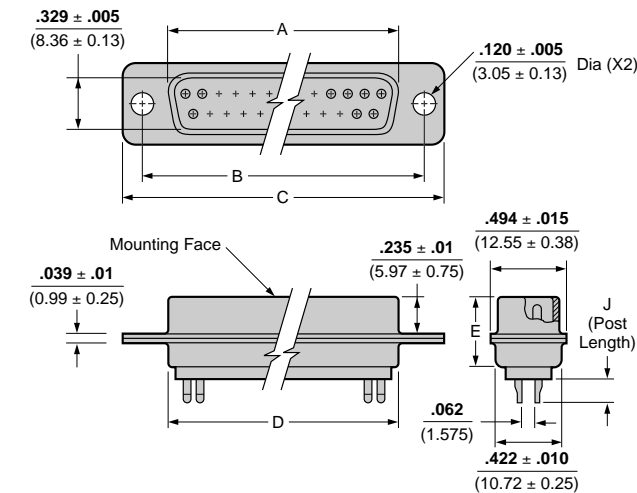
Vertical Pin and Solder Cup Termination



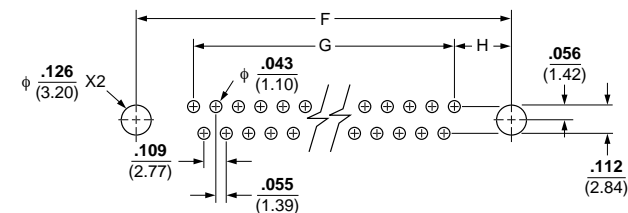
FEATURES

- UL and CSA recognized E107337 and E145613
- Meets EIA, RS232C and RS449 standards for data communication input/output connections
- Bright tin shells for exceptional conductivity and grounding
- Indentations for exceptional grounding and mating retention
- D-shape connector for polarization
- Four shell sizes
- Two types of contact termination, solder cup and vertical pin
- Accessories are available

DIMENSIONS



PCB LAYOUT



MAXCONN - (Back to Table of Contents)

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

Performance Specifications

Materials and Finish

Shell: Steel material, tin finish and indentations (dimples) on plug only
Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material

Pin: Brass 0.040 (1.20) diameter
Socket: Phosphor bronze

Contact Finish: Gold flash over nickel on entire contact area with additional 5 microinch gold on mating end of pin for a length of 0.196 (5.00mm) minimum and 0.118 (3.00mm) minimum on the socket

Mechanical Characteristics

Contact Retention: Precision formed contact 10 lbs

Contact Separation Force: Four ounces, minimum

Contact Engagement Force: Nine ounces, maximum

Electrical Characteristics

Contact Current Rating: Precision formed contact 5.0 amps with 20 AWG wire

Contact Resistance: Precision formed contact 8 milliohms maximum

Contact Resistance: 1000 Vac minimum

Insulation Resistance: 5000 megohms minimum

Temperature Rating: -55° C to + 125° C

Number of Contact Positions	A 0.010 0.25	B 0.005 0.13	C 0.015 0.38	D 0.010 0.25	E 0.015 0.38	F 0.005 0.13	G 0.005 0.13	H 0.005 0.13
9	0.666	0.984	1.213	0.759	0.426	0.984	0.436	0.274
(E)	16.92	24.99	30.81	19.28	10.828	24.99	11.08	6.96
15	0.994	1.312	1.541	1.083	0.426	1.312	0.763	0.274
(A)	25.25	33.32	39.14	27.51	10.81	33.32	19.39	6.96
25	1.535	1.852	2.088	1.625	0.429	1.852	1.309	0.272
(B)	38.96	47.04	53.04	41.30	10.90	47.04	33.24	5.40
37	2.182	2.500	2.729	2.272	0.429	2.501	1.963	0.269
(D)	55.42	63.50	69.32	55.71	10.90	63.50	49.86	6.82

Dimensions for post length (J):

Solder Cup: 0.125 (3.17)

P.C. Pin: 0.125 (3.17)

Pin Diameter: 0.025 (0.635)

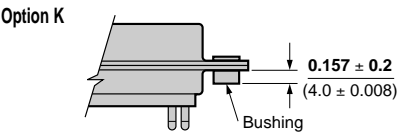
D-SUBMINIATURE CONNECTORS

MD Series
Vertical Pin and Solder Cup Termination

Mounting Options

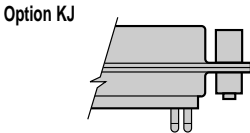
Option K

With #4-40 threaded riveted bushing



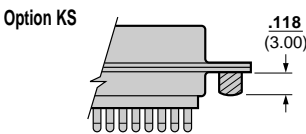
Option KJ

With #4-40 threaded riveted bushing and jack screws assembled to connector

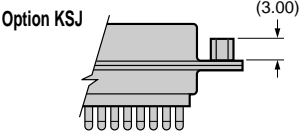


Option KS, KSJ, and KSJX

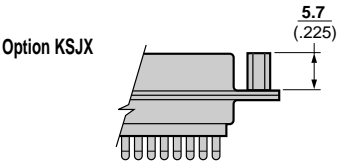
Standard fixed hex and fixed rounded standoff sizes 3.0(0.118), 4.0(0.157), 5.7(0.225), 6.0(0.236), 6.35(0.25), 6.5(0.256)



4-40 Fixed round standoff (Standard)



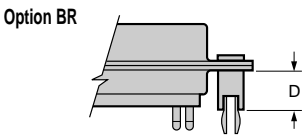
4-40 Fixed hex nut (Standard)



4-40 Fixed hex nut (Standard)

Option BR1, BR2

With #4-40 threaded riveted bushing, and PCB brackets

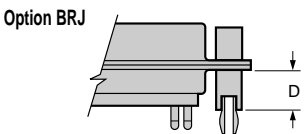


Dimensions

BR1 0.236 (6.00mm)
BR2 With ferrite

Option BRJ1, BRJ2

With #4-40 threaded riveted bushing, PCB brackets and jack screws assembled to connector



Dimensions

BRJ1 0.236 (6.00mm)
BRJ2 With ferrite

HOW TO ORDER

MD - E C - 25 P - K

Series MD

Shell Size E

Shell Size	Number of Contacts
E	9
A	15
B	25
C	37

Precision Formed Contact
A – Solder cup
C – Vertical pin

No. of Positions
9, 15, 25, 37

Mounting Option
(As shown above)

Contact Type
P – Male (plug)
S – Female (socket)

D-SUBMINIATURE CONNECTORS

MDH Series

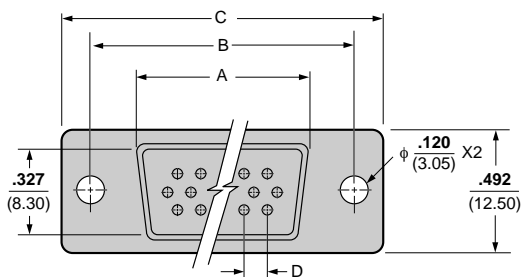
High Density Vertical Pin and Solder Cup Termination



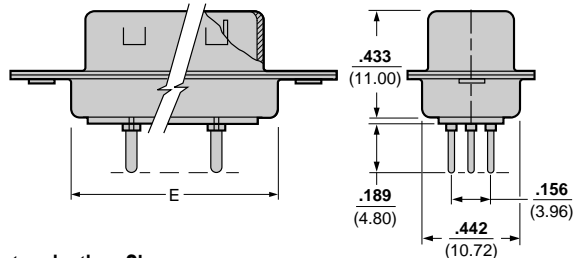
FEATURES

- UL and CSA recognized E107337 and E145613
- Meets EIA, RS232C and RS449 standards for data communication input/output connectors
- Bright tin shell for exceptional conductivity and grounding
- Indentations for exceptional grounding and mating retention
- D-shape connector for polarization
- Five shell sizes
- Two types of contact termination, solder cup and vertical

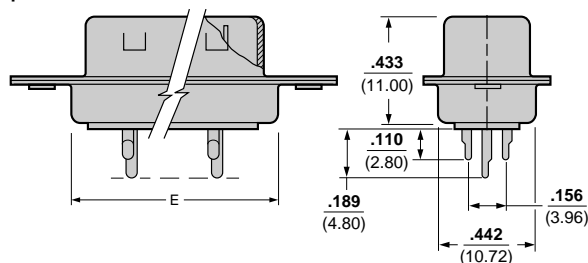
DIMENSIONS



Vertical pin termination: Shown



Solder clip termination: Shown



MAXCONN - (Back to Table of Contents)

UL, UL-DUXR, and CSA Recognized
 Patents Issued: 4.878.856, 4.818.239
 4.857.017, 5.288.244

Performance Specifications

Materials and Finish

Shell: Steel material, tin finish and indentations (dimples on plug only)

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material

Pin: Brass 0.040 (1.20) diameter

Socket: Phosphor bronze

Contact Finish: Gold flash over nickel on entire contact area with additional 5 microinch gold on mating end of pin for a length of 0.196 (5.00mm) minimum and 0.118 (3.00mm) minimum on the socket

Mechanical Characteristics

Contact Retention: Precision formed contact 10 lbs

Contact Separation Force: Four ounces, minimum

Contact Engagement Force: Nine ounces, maximum

Electrical Characteristics

Contact Current Rating: Precision formed contact 5.0 amps with 20 AWG wire

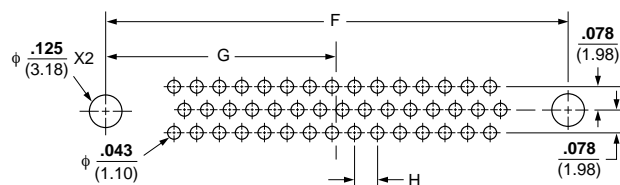
Contact Resistance: Precision formed contact 8 milliohms maximum

Dielectric Withstanding Voltage: 1000 Vac minimum

Insulation Resistance: 5000 megohms minimum

Temperature Rating: -55° C to + 125° C

PCB LAYOUT



Vertical pin termination recommended hole pattern

HOW TO ORDER

MDH - E C - 25 P - K

Series MDH

Shell Size E

Precision Formed Contact C

No. of Positions 25

Contact Type P

Mounting Option (See page 1-23)

Mounting Option K

Shell Size	Number of Contacts
E	15
A	26
B	44
C	62
D	78

Mounting Option
 (See page 1-23)
Contact Type
 P - Male (plug)
 S - Female (socket)

Precision Formed Contact
 A - Solder cup
 C - Vertical pin

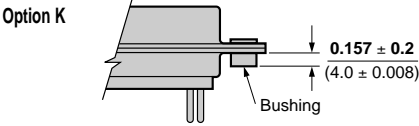
No. of Positions
 15, 26, 44, 62, 78

MDH Series
High-Density, Vertical Pin and
Solder Cup Termination

Mounting Options

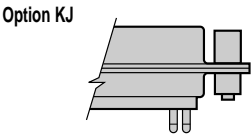
Option K

With riveted threaded 4-40 bushing



Option KJ

With #4-40 threaded riveted clinch nuts and
jack screws assembled to connector

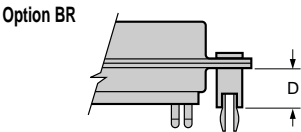


Option KS (Not Shown)

With #4-40 threaded round standoff on PCB
side

Option BR1, BR2

With #4-40 threaded riveted brackets

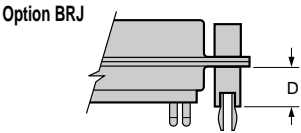


Dimensions

BR1 0.236 (6.00mm)
BR2 With ferrite

Option BRJ1, BRJ2

With #4-40 threaded riveted brackets and
jack screws assembled to connector



Dimensions

BRJ1 0.236 (6.00mm)
BRJ2 With ferrite

Number of Contact Positions	A	B	C	D	E	F	G	H
15 Male (E)	0.665 16.90	0.984 24.99	1.213 30.80	0.090 2.29	0.760 19.30	0.984 24.99	0.492 12.50	0.090 2.29
15 Female (E)	0.642 16.30	0.984 24.99	1.213 30.80	0.090 2.29	0.760 10.30	0.984 24.99	0.492 12.50	0.090 2.29
26 Male (A)	0.996 25.30	1.312 33.32	1.539 39.10	0.090 2.29	1.083 27.50	1.312 33.32	0.656 16.66	0.090 2.29
26 Female (A)	0.972 24.79	1.312 33.32	1.539 39.10	0.090 2.29	1.083 27.50	1.312 33.32	0.656 16.66	0.090 2.29
44 Male (B)	1.535 39.00	1.852 47.04	2.087 53.00	0.090 2.29	1.626 41.30	1.852 47.04	0.926 23.52	0.090 2.29
44 Female (B)	1.512 38.40	1.852 47.04	2.0870 53.00	0.090 2.29	1.626 41.30	1.852 47.04	0.926 23.52	0.090 2.29
62 Male (C)	2.181 55.40	2.500 63.50	2.728 69.30	0.095 2.41	2.272 57.70	2.500 63.50	1.250 31.75	0.095 2.41
62 Female (C)	2.157 54.80	2.500 63.500	2.728 69.30	0.095 2.41	2.272 57.70	2.500 63.50	1.250 31.75	0.095 2.41
78 Male (D)	2.406 61.12	2.406 61.12	2.638 67.00	0.089 2.41	2.178 55.32	2.406 61.12	1.203 30.56	0.089 2.41
78 Female (D)	2.406 61.12	2.406 61.12	2.638 67.00	0.089 2.41	2.178 55.32	2.406 61.12	1.203 30.56	0.089 2.41

D-SUBMINIATURE CONNECTORS

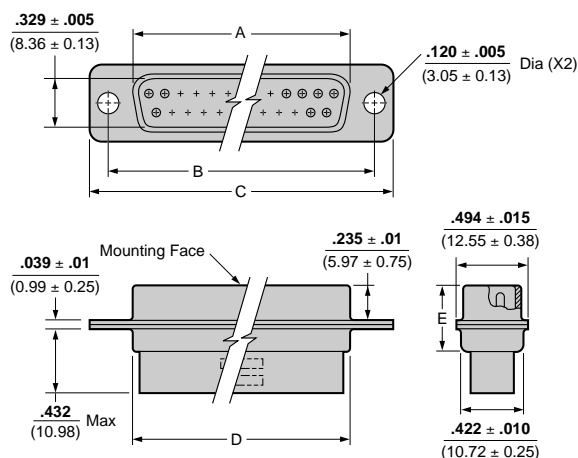
MC Series Housing for Crimp Contacts



FEATURES

- UL and CSA recognized E107337 and E145613
- Meets EIA, RS232C and RS449 standards for data communication input/output connections
- Bright tin shells for exceptional conductivity and grounding
- Indentations for exceptional grounding and mating retention
- D-shape connector for polarization
- Four shell sizes
- Crimp termination

DIMENSIONS



Number of Contact Positions	A	B	C	D	E
	0.010	0.005	0.015	0.010	0.015
	0.25	0.13	0.38	0.25	0.38
9 (E)	0.666	0.984	1.213	0.759	0.426
	16.923	24.99	30.81	19.28	10.82
15 (A)	0.994	1.312	1.541	1.083	0.426
	25.256	33.32	39.14	27.51	10.82
25 (B)	1.535	1.852	2.088	1.625	0.429
	38.96	47.04	53.041	41.30	10.90
37 (C)	2.182	2.50	2.729	2.272	0.429
	55.428	63.50	69.32	57.71	10.90

MAXCONN - [\(Back to Table of Contents\)](#)

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

Performance Specifications

Materials and Finish

Shell: Steel material, tin finish and indentations (dimples) on plug only

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material

Pin: Brass 0.040 (1.20) diameter

Socket: Phosphor bronze

Contact Finish:

Type A: Gold flash over 100 microinch nickel on entire contact area with additional 15 microinch gold on mating end of pin for a length of 0.196 (5.00mm) minimum and 0.118 (3.00mm) minimum on socket

Type B: Gold flash over 100 microinch nickel on entire contact area with additional 5 microinch gold on mating end of pin for a length of 0.196 (5.00mm) minimum and 0.118 (3.00mm) minimum on socket

Mechanical Characteristics

Contact Retention: Precision formed contact 10 lbs

Contact Separation Force: Four ounces, minimum

Contact Engagement Force: Nine ounces, maximum

Tensile Strength for Crimping Contact: With 24 AWG wire 10 pounds, for 26 AWG wire 7 pounds, and for 28 AWG wire 5 pounds

Electrical Characteristics

Contact Current Rating: Precision formed contact 5.0 amps with 20 AWG wire

Contact Resistance: Precision formed contact 8 milliohms maximum

Contact Withstanding Voltage: 1000 Vac minimum

Insulation Resistance: 5000 megohms minimum

Temperature Rating: -55° C to + 125° C

HOW TO ORDER

Series	MC - B	25	P - K	Mounting Option (See page 1-13)
Shell Size				Contact Type P - Male (plug) S - Female (socket)
Shell Size				No. of Positions 9, 15, 25, 37
Shell Size				

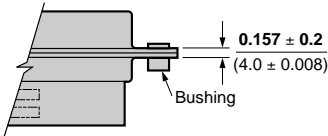
PIN SPECIFICATIONS

Wire Size Range	Ins. Dia.	Contact Finish	Strip Form Contact Pin	Loose Piece Contact No. Pin
AWG	(mm)	(Max.)		
28-24	0.08-0.2	0.04 1.02	A	MP-AT
		0.04 1.02	B	MP-BT

MC Series
Housing for Crimp Contacts

Mounting Options

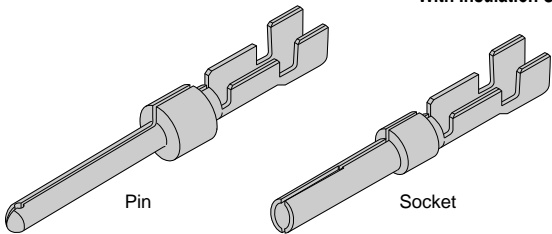
Option K
With 4-40 threaded riveted bushing



PACKAGING SPECIFICATIONS

Strip Form: 5,000 contacts per reel
Loose Piece: 1,000 per bag

With Insulation Support



D-SUBMINIATURE CONNECTORS

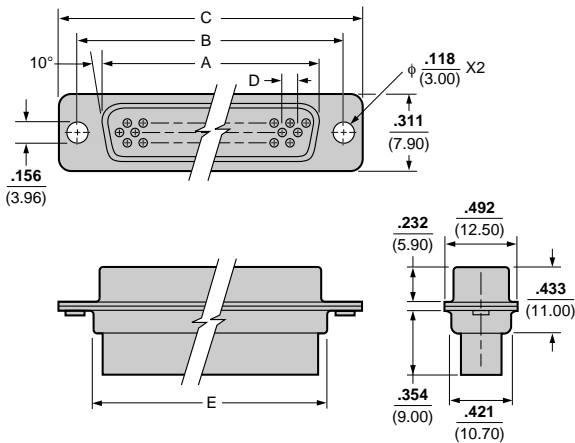
MCH Series
High Density Housing for
Crimp Contacts



FEATURES

- UL and CSA recognized E107337 and E145613
- Meets EIA, RS232C and RS449 standards for data communication input/output connections
- Bright tin shells for exceptional conductivity and grounding
- Indentations for exceptional grounding and mating retention
- D-shape connector for polarization
- Five shell sizes
- Crimp termination

DIMENSIONS



MAXCONN - [\(Back to Table of Contents\)](#)

UL, UL-DUXR, and CSA Recognized
Patents Issued: 4.878.856, 4.818.239
4.857.017, 5.288.244

Performance Specifications

Materials and Finish

Shell: Steel material, tin finish and indentations (dimples) on plug only
Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material

Pin: Brass 0.040 (1.20) diameter
Socket: Phosphor bronze

Plating Options:

- Type A Gold flash over 100 microinch nickel on entire contact area with additional 15 microinch gold on mating end of pin for a length of 0.196 (5.00mm) minimum and 0.118 (3.00mm) minimum on the socket.
- Type B Gold flash over 100 microinch nickel on entire contact area with additional 5 microinch gold on mating end of pin for a length of 0.196 (5.00mm) minimum and 0.118 (3.00mm) minimum on the socket.

Mechanical Characteristics

Contact Retention: Precision formed contact 10 lbs
Contact Separation Force: Four ounces, minimum
Contact Engagement Force: Nine ounces, maximum

Electrical Characteristics

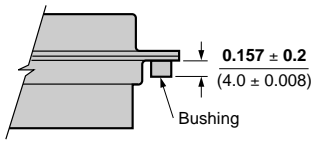
Contact Current Rating: 5.0 amps with 20 AWG wire
Contact Resistance: 8 milliohms maximum
Contact Resistance: 1000 Vac minimum
Insulation Resistance: 5000 megohms minimum
Temperature Rating: -55° C to +125° C

Number of Contact Positions	A	B	C	D	E
15 Male (E)	0.666 16.92	0.984 24.99	1.213 30.80	0.090 2.29	0.759 19.28
15 Female (E)	0.643 16.33	0.984 24.99	1.213 30.80	0.090 2.29	0.760 19.30
26 Male (A)	0.994 25.25	1.312 33.32	1.539 39.10	0.090 2.29	0.847 21.51
26 Female (A)	0.971 24.66	1.312 33.32	1.539 39.10	0.090 2.29	1.083 27.50
44 Male (B)	1.510 38.35	1.852 47.04	2.087 53.00	0.090 2.29	1.6.26 41.30
44 Female (B)	1.510 38.35	1.852 47.04	2.087 53.00	0.090 2.29	1.6.26 41.30
62 Male (C)	2.182 55.42	2.500 63.50	2.728 69.30	0.095 2.41	2.272 57.71
62 Female (C)	2.159 54.84	2.500 63.50	2.728 69.30	0.095 2.41	2.272 57.71
78 Male (D)	2.079 52.81	2.406 61.12	2.638 67.00	0.095 2.41	2.178 55.32
78 Female (D)	2.079 52.43	2.406 61.12	2.638 67.00	0.095 2.41	2.178 55.32

MCH Series
High-Density Housing for
Crimp Contacts

Mounting Options

Option K
With riveted threaded 4-40 bushing



HOW TO ORDER

MCH – A – 26 – P – K

Series

Shell Size

Shell Size	Number of Contacts
E	15
A	26
B	44
C	62
D	78

Mounting Option
(See option K above)

Contact Type
P – Plug
S – Socket

No. of Positions
15, 26, 44, 62, 78

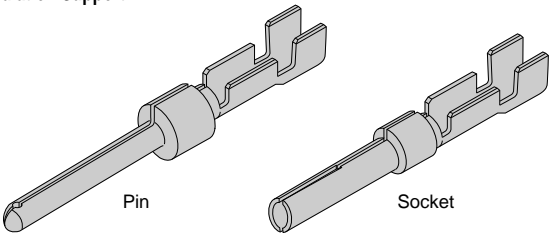
PIN SPECIFICATIONS

Wire Size Range		Ins. Dia. (Max.)	Contact Finish	Strip Form Contact		Loose Piece Contact No.	
AWG	(mm)			Pin	Socket	Pin	Socket
28-24	0.08-0.2	0.04 1.02	A	MPH-AT	MSH-AT	MPH-AL	MSH-AL
		0.04 1.02	B	MPH-BT	MSH-BT	MPH-BL	MSH-BL

Packaging Specifications

Strip Form: 5,000 contacts per reel
Loose Piece: 1,000 per bag

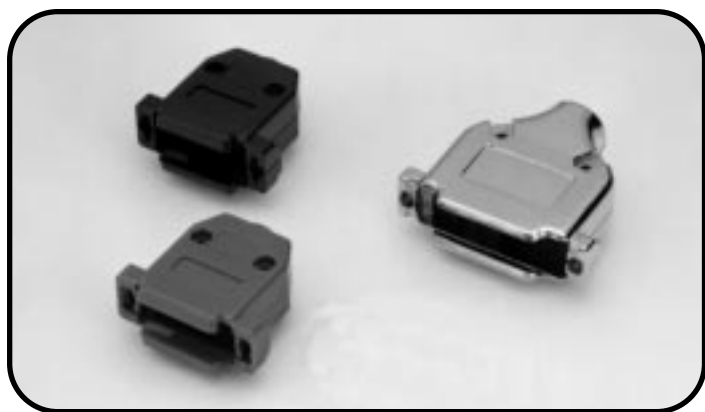
With Insulation Support



D-SUBMINIATURE HARDWARE

Hoods – Plastic, Metal

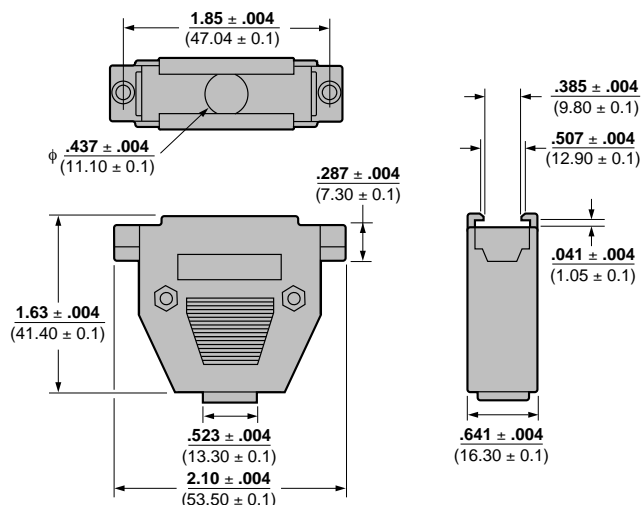
MAXCONN - [\(Back to Table of Contents\)](#)



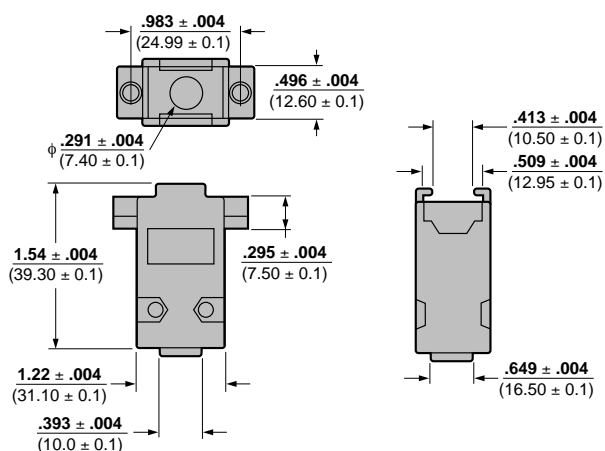
FEATURES

- Available in 9, 15, 25 and 37 positions
- Available in blue, ivory, black, medium grey and chrome
- Available in steel, nickel finish
- Supplied with saddle screws and washers

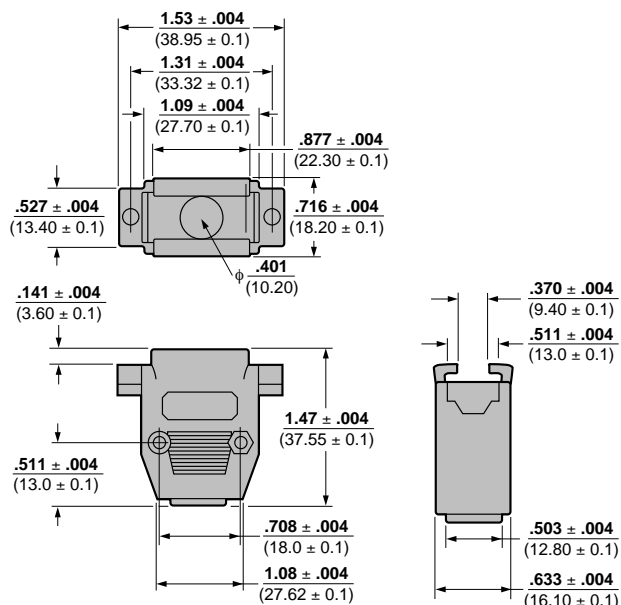
DIMENSIONS – 25 POSITIONS



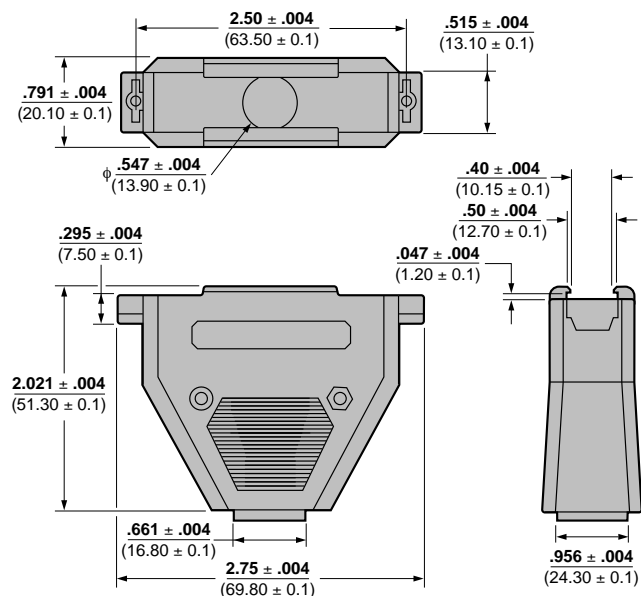
DIMENSIONS – 9 POSITIONS



DIMENSIONS – 15 POSITIONS



DIMENSIONS – 37 POSITIONS



HOW TO ORDER

HDM – 25

Series	Shell Size
HDM	ABS (UL 94V-0 rated) plastic, blue color
HDN	ABS (UL 94V-0 rated) plastic, ivory color
HDO	ABS (UL 94V-0 rated) plastic, black color
HDP	ABS (UL 94V-0 rated) plastic, medium grey color
HDC	ABS (UL 94V-0 rated) plastic, chrome color
HDCC	Steel material, nickel finish

D-SUBMINIATURE HARDWARE

Slide Lock Assembly

MAXCONN - [\(Back to Table of Contents\)](#)



Specifications

Slide Lock Assembly

Materials: Spring steel, 0.024 — 0.026 thick, tempered and heat treated to Rockwell RC44-46 specifications

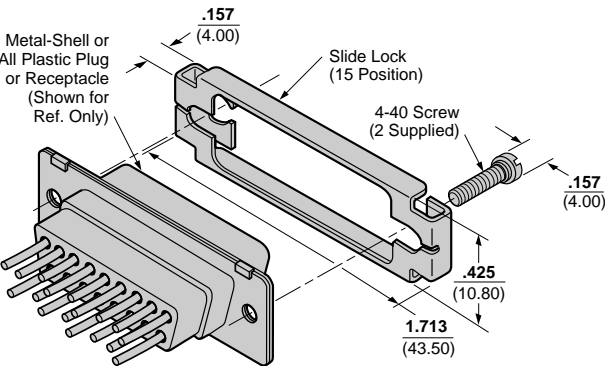
Finish: Nickel plated

4-40 Screw

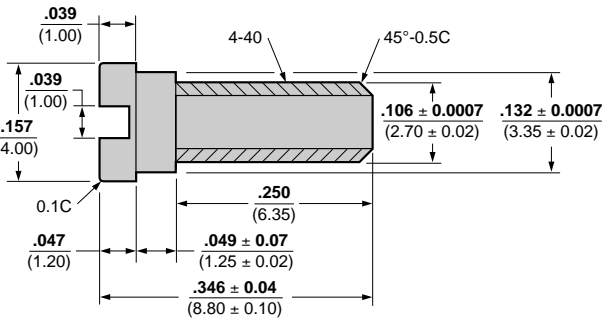
Material: Brass

Finish: None

DIMENSIONS



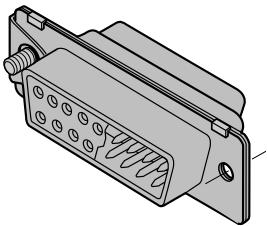
4-40 SCREW DIMENSIONS



PART NUMBER MDA51220-1

Accessories and Hardware

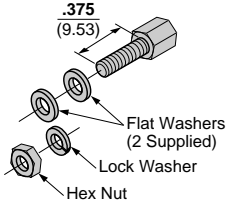
JACK SCREWS



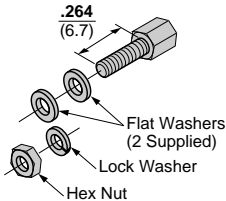
Bulk
P/N JS-40



Bulk
P/N JS-15



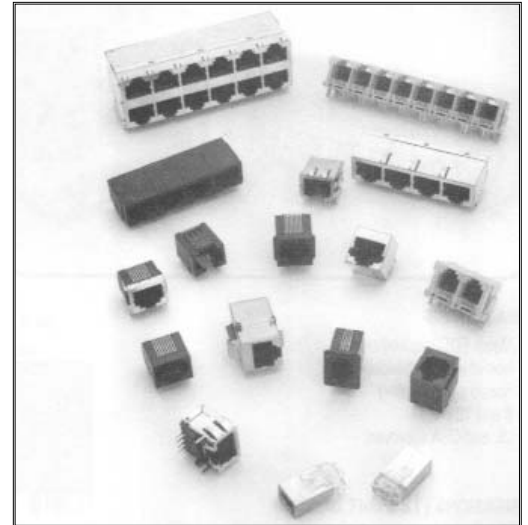
Kit
(2 Sets per Bag)
P/N MD20418-50



Kit
(2 Sets per Bag)
P/N MD20418-2

Modular Jack Connectors

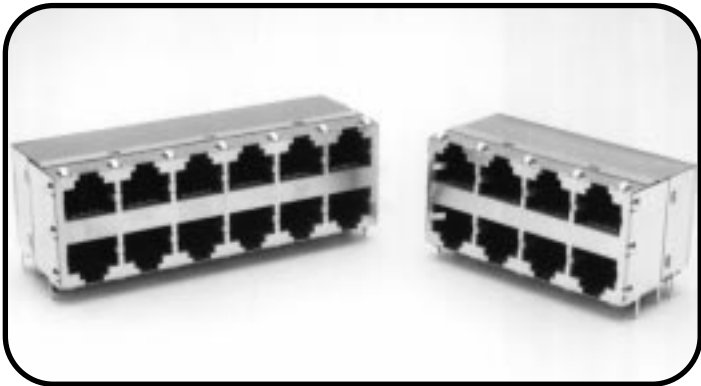
MJDS Series - Stacked Modular Jacks (27.80 mm) 8 to 12 Ports, Shielded and Non-Shielded	2-2
MJDS-LG5 Series - Stacked Modular Jacks 2 to 16 Ports, Shielded	2-4
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MJH Series - Low Profile (.498 Height) Non-Shielded, Partially Shielded	2-10
MJH-R Series - Single Cavity, Standard Height, Non-Shielded, Shielded	2-11
MJH-V Series - Vertical, Non-Shielded, Shielded	2-13
MJH-G Series - Non-Shielded, Shielded 2 to 12 Ports	2-14
MJL Series - Ultra-Low Profile, (.453 Height) Non-Shielded	2-16
MJL-G Series - Gang Ultra-Low Profile Height, Non-Shielded, Shielded	2-17
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MJH-C Series - RJII /RJ45 Combination, Low Profile, .543 High	2-22
MJA Series - Right Angle, PC Mount	2-23
MJB Series - Right Angle, PC Mount	2-24
MJG Series - 6 or 8 Position, Right Angle, Ganged, Non-Shielded	2-25
MJG Series - 6 or 8 Position, Vertical, Ganged, Non-Shielded	2-26
MJF Series - Right Angle, PC Mount	2-27
MJM Series - Right Angle, PC Mount	2-28
MJP Series - Vertical, PC Mount	2-29
MCJ-P Series - IDC Panel Jack	2-30
MJC-88 Series - Modular Jack Coupler Non-Shielded, Shielded	2-31
MP Series - Non-Shielded, Shielded	2-32
MP8B Series - Cable Boots with and without Latch Protectors	2-34
MP Series - Male Cable Assembly	2-35



MJDS Series

Stacked Modular Jacks (27.80mm)

8 to 12Ports, Shielded & Non-Shielded



FEATURES

- Meets FCC requirements
- Non-shielded, shielded
- Snapp peg mounting
- 8 and 12 ports
- UL and CSA approved

Performance Specifications

Materials and Finish

- Housing:** Glass filled polyester, Zytel FR50,UL 94V-0 rated, black
- Contacts:** 0.35mm phosphor bronze, gold plated, with tin leads, over nickel
- Shielding:** 0.25mm thickness copper alloy plated with 90 microinch tin

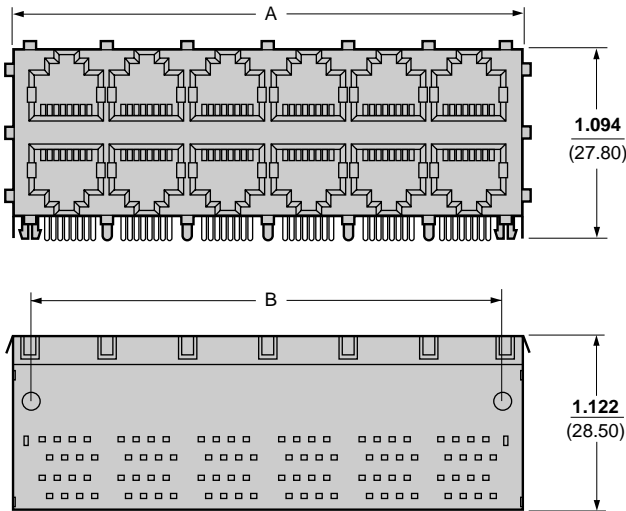
Mechanical Characteristics

Durability: 1000 mating cycles

Electrical Characteristics

- Current/Voltage:** 150Vac at 1.5 amps maximum at 25°C
- Dielectric Withstanding Voltage:** 1000 Vac RMS minimum, 60 Hz
- Insulation Resistance:** 500 megohms minimum
- Contact Resistance:** 30 milliohms maximum
- Operating Temperature:** -40° C to + 125° C

DIMENSIONS (12 PORT SHOWN)



No. of Ports and Style	A	B
8*	2.33	2.10
	59.12	53.34
12*	3.43	3.20
	87.12	81.28

* Also available in 25.3mm height (MJDS-LG5-Series)

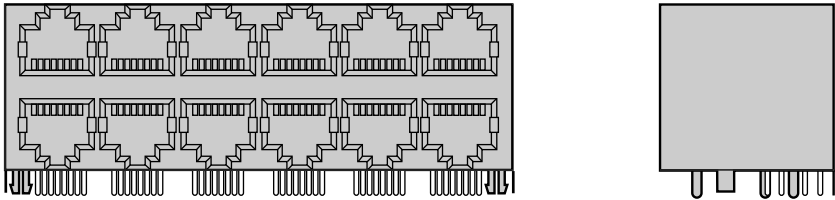
NOTE: Consult factory for recommended PCB layout.

MODULAR JACK CONNECTORS

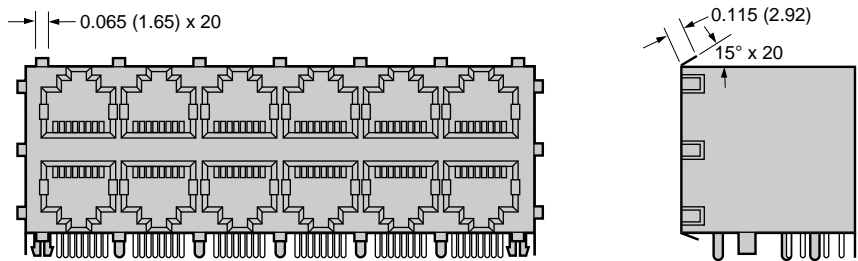
MAXCONN - [\(Back to Table of Contents\)](#)

MJDS Series
Stacked Modular Jacks
8 to 12 Ports, Shielded and Non-shielded

Grounding Tab Combinations (12 Ports Shown)



Shown with Panel Ground Option (PG4 Option)



HOW TO ORDER

MJDS - G - 8 8 - 2 - PG4 T - 30

Series
S – Shielded

Ganged
G – Standard 27.8mm height

Number of Positions
8

Number of Contacts
8

Number of Ports
8, 12

Contact Plating
Blank — 10 microinch gold
30 — 30 microinch gold (Std)
50 — 50 microinch gold

PCB Grounding Options
Blank — Standard one backside, three per side
T — Grounding pins between each port. (backside)
S — Between each port (middle row/backside)
X — No rear ground pin

Panel Grounding Option
Blank – Without grounding tabs
PG4 – Grounding flange (sides)
Grounding tabs (top/bottom)

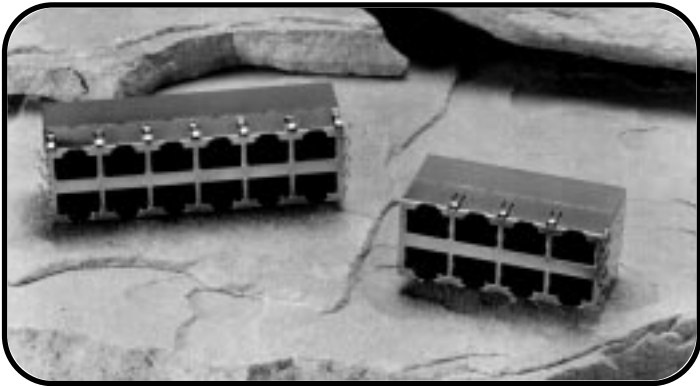
MODULAR JACK CONNECTORS

MJDS-LG5 Series

Stacked Modular Jacks

2 to 16 Ports, Shielded

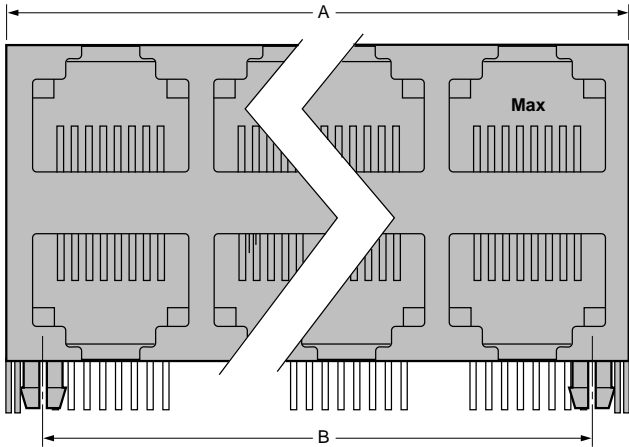
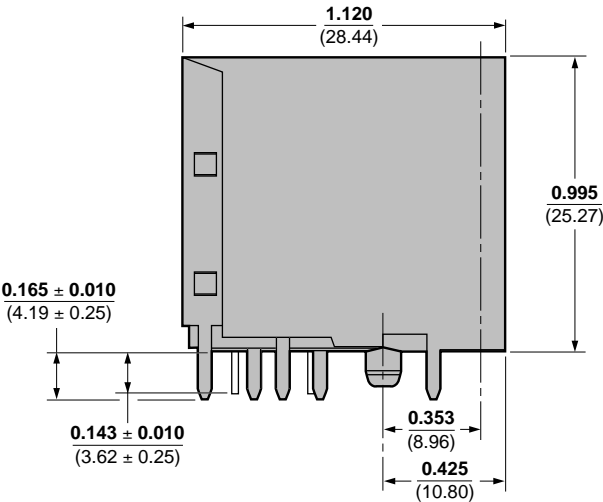
MAXCONN - [\(Back to Table of Contents\)](#)



FEATURES

- Low profile
- Meets FCC requirements
- Non-shielded, shielded
- Category 5E compliant
- Enhanced panel and ground shield options
- UL and CSA approved E107337 and E145613

DIMENSIONS



Description	No. of Ports and Style	A	B
2 x 1 Ports	2	0.680	0.450
		17.27	11.43
2 x 2 Ports	4	1.230	1.000
		31.24	25.40
2 x 3 Ports	6	1.780	1.550
		45.21	39.37
2 x 4 Ports	8	2.330	2.100
		59.18	53.34
2 x 6 Ports	12	3.430	3.200
		87.12	81.28
2 x 8 Ports	16	4.530	4.300
		115.06	109.22

NOTE: Consult factory for recommended PCB layout.

Performance Specifications

Materials and Finish

- Housing:** Glass filled polyester, Zytel FR50, UL 94V-0 rated, black
- Contacts:** 0.35mm phosphor bronze, gold plated with tin leads over nickel
- Shielding:** 0.25mm thickness copper alloy plated with 90 microinch tin

Mechanical Characteristics

Durability: 1000 mating cycles

Electrical Characteristics

- Current/Voltage:** 150 Vac at 1.5 amps maximum at 25°C
- Dielectric Withstanding Voltage:** 1000 Vac RMS minimum, 60 Hz
- Insulation Resistance:** 500 megohms minimum
- Contact Resistance:** 30 milliohms maximum
- Operating Temperature:** -40° C to + 125° C

MJDS Series Stacked Modular Jacks, 2 to 16 Port

Detail A
TF Type Tab

Technical drawing of a mechanical part. The main view shows a rectangular component with a circular feature on the right side. A dashed circle highlights a specific area on the right side of the component. A magnified detail view of this area is shown below the main view. The detail view shows a cross-section of the component with a curved surface. The dimensions for the detail view are:

- Vertical dimension: $\frac{0.039}{(1.00)}$
- Horizontal dimension: $\frac{0.118}{(3.00)}$ Max

MJDS - LG5-8 8 -X XXX X - 30

Panel Grounding Options	
Blank	Without grounding tabs
TF5	Forward grounding flang (sides)
GF5	Rearward grounding flang (1 piece)
GF8	Rearward grounding flang and forward bottom
GF9	Rearward grounding flang and rearward bottom

MODULAR JACK CONNECTORS

MJFS Series

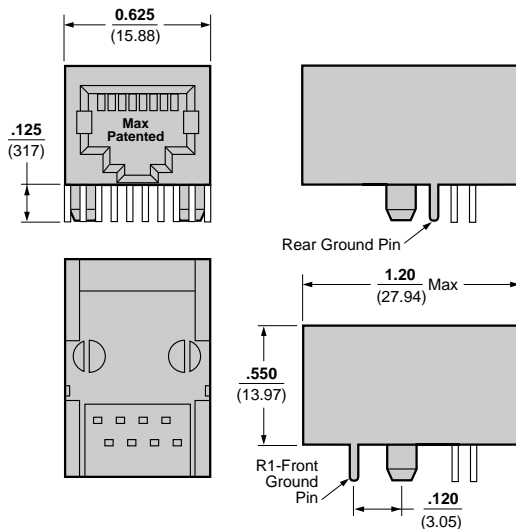
Filtered Transformer, Shielded, Standard PCB Footprint



FEATURES

- UL and CSA approved E107337 and E145613
- Meets FCC requirements
- Meets IEEE 802.3 requirements 10/100BaseT, and 100BaseT
- Space saving
- Optimized performance
- Standard PCB layout
- Drop in replacement for existing connector

DIMENSIONS



Notes:

*Consult factory for panel cutout, and further specifications. Custom designs welcomed.

** Request from factory a detailed filter diagram for each specific application. Also provide factory with the specific semiconductor needing the filtering and Maxconn can provide a specification which will match the recommendation given by the semiconductor manufacturer.

MAXCONN - (Back to Table of Contents)

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, high-temp., black

Contacts: 0.35mm Phosphor bronze (C5210)

Contact Plating: Palladium nickel 50 microinch

Shielding: 0.25mm thickness copper alloy plated with 90 microinch tin

Mechanical Characteristics

Durability: 1000 mating cycles

Electrical Characteristics

Current/Voltage: 150Vac at 1.5 amps maximum at 25°C

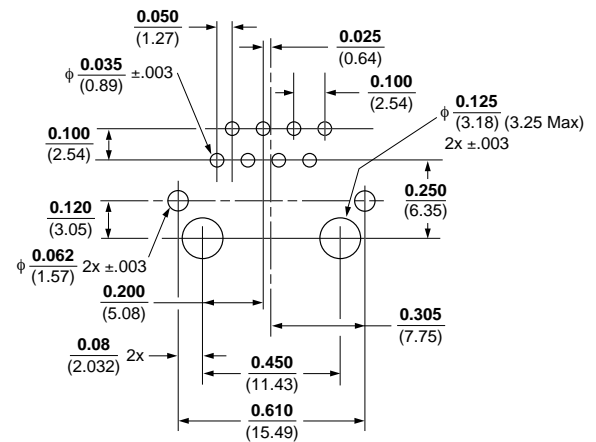
Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

Contact Resistance: 30 milliohms maximum

Insulation Resistance: 500 megohms minimum

Operating Temperature: -40°C to +125°C

PCB LAYOUT TOP VIEW



HOW TO ORDER

MJFS - R - 8 8 - - GF5 - XXF1

Series

Mounting

R – Right angle
R1 – Right angle
Front ground pin
G – Gand type

Number of Positions

6, 8

Number of Contacts

6, 8

Number of Ports

2, 4, 6, 8

Blank – Single port

Filter

XXF1 — ISDN
XXF2 — 10BaseT
XXF3 — 100BaseT
XXF4 — Token Ring

Grounding Tabs

Blank No grounding tabs
GF5 Ground Flange

MODULAR JACK CONNECTORS

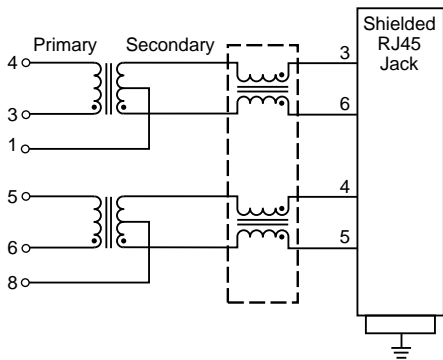
MJFS Series
Filtered Transformer, Shielded,
Standard PCB Footprint

ISDN Transformer Specifications (Design 3)

Electrical Specifications

- Isolation Voltage: 1000 Vrms
- Turns Ratio: 1:2CT $\pm 2\%$ (Pri:Sec)
- OCL: TX: 22mH minimum @ 10kHz, 0.1V
- CD: 180pF maximum (Pri)
- Cw/w: 100pF maximum (Pri/Sec) @ 100kHz 0.1V
- LL: (Sec): 11 μ H maximum @ 100kHz 0.1V (Pri Shorted)
- DCR: 2.4 $\pm 25\%$ ohms (Pri)
- DCR: 4.4 $\pm 25\%$ ohms (Sec)
- Idc: 1mA maximum
- Choke: OCL: 40 μ H typical

Schematic



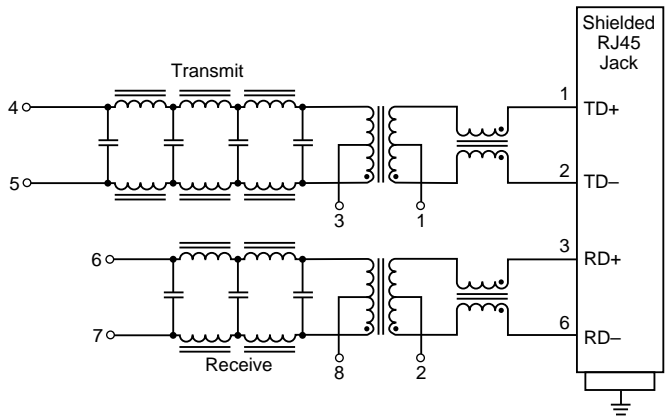
MAXCONN - (Back to Table of Contents)

10 Base-T Filtered Transformer Specifications (Design 4)

Electrical Specifications

- Isolation Voltage: 1500 Vrms
- Insertion Loss: (1 – 10MHz): -1dB maximum
- Attenuation at 30 MHz:
 - Transmit: 30dB minimum
 - Receive: 18dB minimum
- Return Loss: (1 – 10MHz): 15dB minimum
- Cutoff Frequency: 17MHz typical
- Cross Talk: (1 – 10MHz): -30dB minimum
- I/O Impedance: 100 ohms

Schematic



MODULAR JACK CONNECTORS

MJFS Series
Filtered Transformer, Shielded,
Standard PCB Footprint

100 Base Combo Filtered Transformer Specifications
(Design 6)

Electrical Specifications

Isolation Voltage: 1500 Vrms (Input to Output)

Turns Ratio: TX: 2:1 ($\pm 2\%$), RX: 1:1:1 ($\pm 2\%$)

OCL: TX: 140 μ H minimum, RX: 350 μ H minimum @ 100kHz, 100mV

Rise Time: (10 – 90%): 3.0ns typical

Insertion Loss: (1M – 125 MHz): -1.0dB maximum

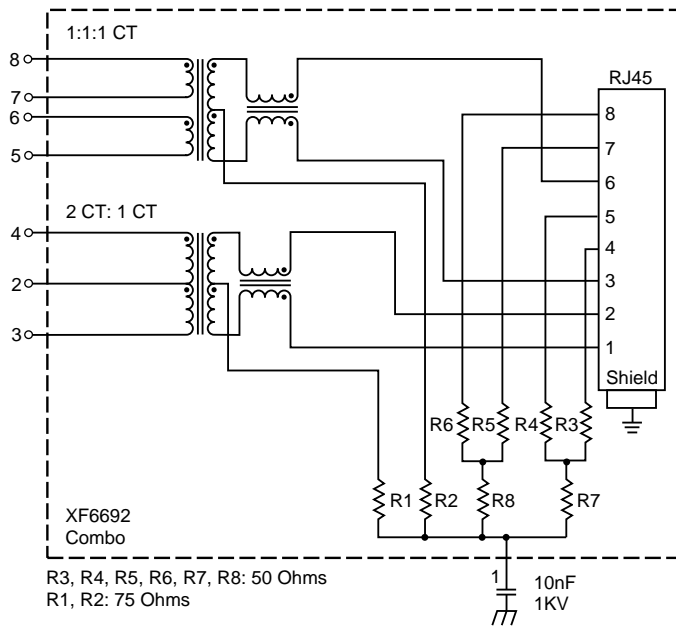
Return Loss:

100 kHz – 60 MHz	-15 dB minimum (Tx)/	-17 dB minimum Rx
60MHz – 100MHz	-11dB minimum Tx)/	-15dB minimum Rx)

Common Mode to Differential Mode Attenuation::

100 kHz – 60 MHz	-45 dB minimum (Tx)/	-40 dB minimum Rx
60MHz – 100MHz	-40dB minimum Tx)/	-35dB minimum Rx)

Schematic



MAXCONN - (Back to Table of Contents)

ATM 100 Base Filtered Transformer Specifications
(Design7)

Electrical Specifications

Isolation Voltage: 1500 Vrms

Rise Time: 2ns typical @ 10 – 90%

Insertion Loss: (0.1 – 125 MHz): -1.1dB maximum

Return Loss:

0.1 – 60 MHz	-15 dB (Tx)/	-17 dB Rx typical
60 – 125MHz	-11dB Tx)/	-15dB (Rx) typical

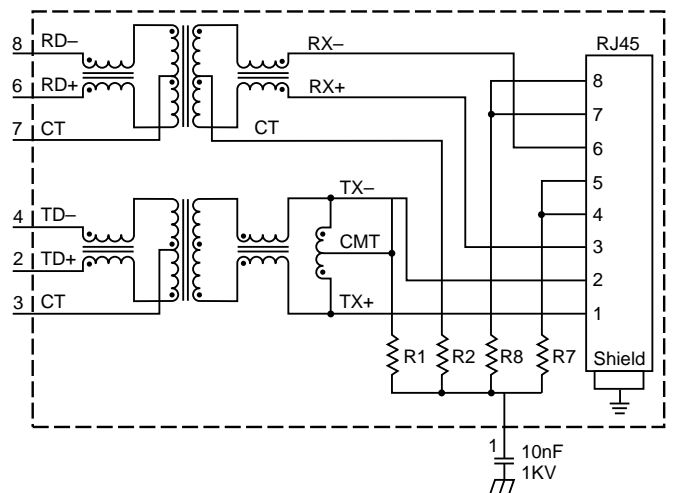
Cross Talk:

0.1 – 60 MHz	-40 dB minimum
60 – 125MHz	-38 dB minimum

Common Mode to Differential Mode Rejection:

100 kHz – 60 MHz	-45 dB minimum (Tx)/	-40 dB minimum Rx
60MHz – 100MHz	-40dB minimum Tx)/	-35dB minimum (Rx)

Schematic



MODULAR JACK CONNECTORS

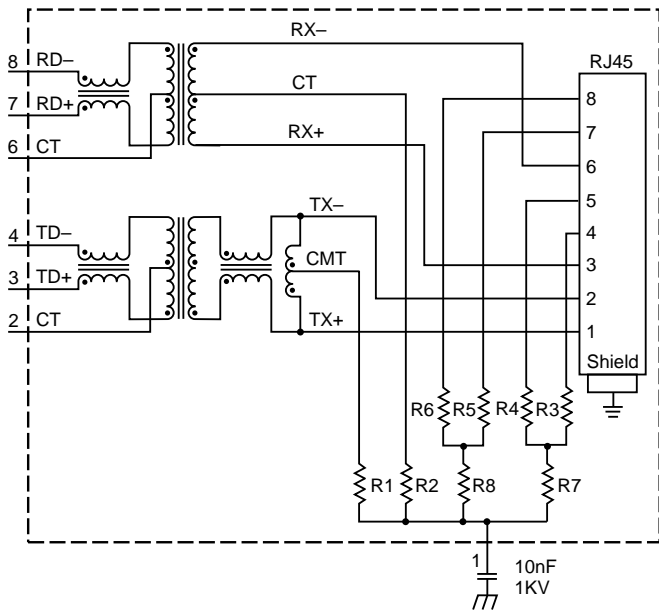
MJFS Series
Filtered Transformer, Shielded,
Standard PCB Footprint

ATM 100 Base Filtered Transformer Specifications
(Design 8)

Electrical Specifications

- Isolation Voltage: 1500 Vrms
- Rise Time: 2.5ns typical @ 10 – 90%
- Insertion Loss: (0.1 – 125MHz) -1.1dB maximum
- Return Loss: (0.1 – 60MHz) -15dB Tx/-17dB Rx typical
(60 – 125MHz) -11dB Tx/-15dB Rx typical
- Cross Talk: (0.1 – 60MHz) -40dB minimum
(60 – 125MHz) -38dB minimum
- Common Mode to Differential Mode Rejection:
(0.1 – 60MHz) -45dB Tx/-40dB Rx minimum
(60 – 125MHz) -40dB Tx/-35dB Rx minimum

Schematic



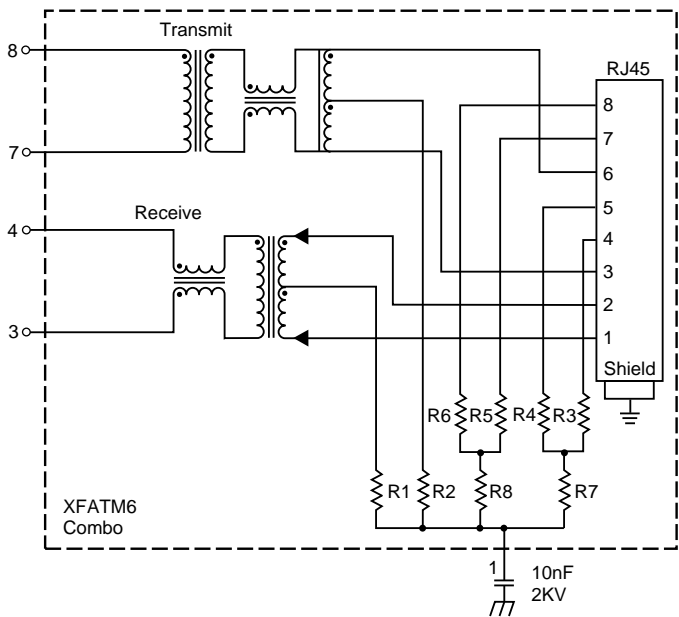
MAXCONN - (Back to Table of Contents)

10/100 Base TX Filtered Transformer Specifications
(Design 5)

Electrical Specifications

- Isolation Voltage: 2000 Vrms
- Turns Ratio: 1:1CT
- Pri/Sec DCR: 0.90 ohms maximum
- Rise Time/Fall Time: 4ns tmaximum
- Cw/w (Pri/Sec): 15pF maximum
- Leakage Inductance: (Pri): 0.4μH maximum
- Insertion Loss: (0.1 – 125MHz) -1.1dB maximum
- Return Loss: (0.1 – 60MHz) -18dB minimum
(60 – 125MHz) -12dB minimum
- Cross Talk: (0.1 – 125MHz) -38dB minimum

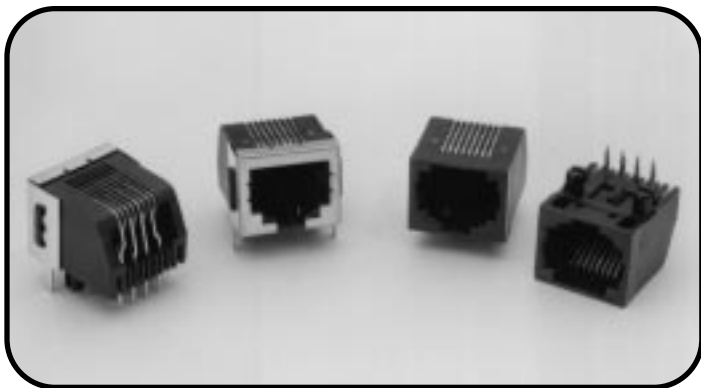
Schematic



MJH Series

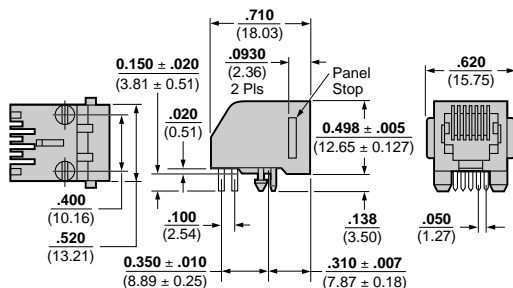
Low Profile (.498 Height)

Non-Shielded, Partially Shielded

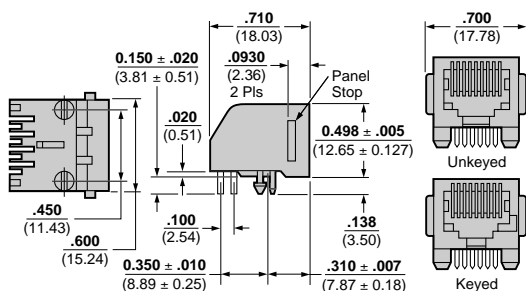


- Low profile (.498 Height)
- Meets FCC requirements
- UL and CSA approved E107337 and E145613
- 6 and 8 positions
- Non-shielded and partially shielded

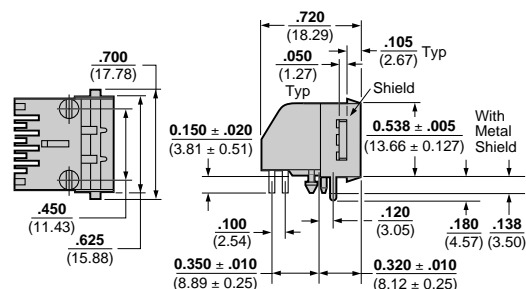
6 Positions — Shown with panel stops



8 Positions — Shown with panel stops



8 Positions — Shown with PC ground and shield



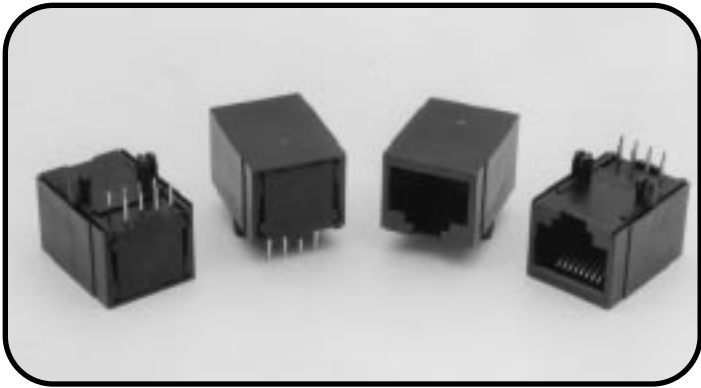
MJHS - 8 8 - P - 30

***NOTE:** Pin 1 is located to the extreme left of the latch looking inside of the cavity. Consult factory for recommended panel cutouts and PCB layout.

Blank — 10 microinch
gold (Std)
30 — 30 microinch
gold
50 — 30 microinch
gold

MODULAR JACK CONNECTORS

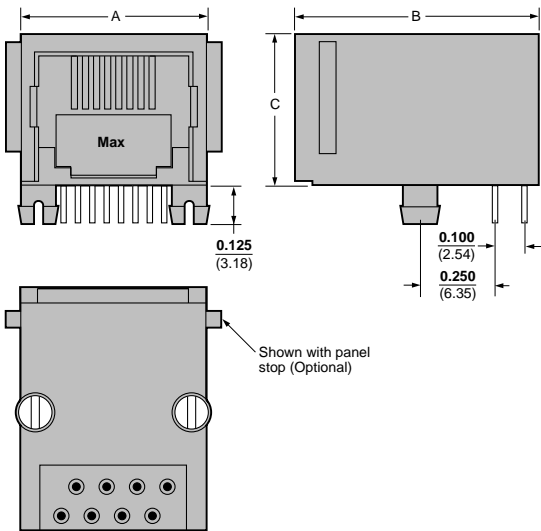
MJH-R Series
Single Cavity, Standard Height,
Non-Shielded, Shielded



FEATURES

- UL, UL-DUXR and UL-CSA approved E107337 and E145613
- Meets FCC requirements
- Low profile standard height
- Shielded and non-shielded

DIMENSIONS



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, Zytel FR50, UL 94V-0 rated, black

Contacts: 0.45mm Phosphor bronze, gold plated (round wire)

or

Contacts: 0.35mm Phosphor bronze, gold plated (flat wire)

Shielding: 0.25mm thickness copper alloy plated with 90 microinch tin over nickel

Mechanical Characteristics

Durability: 1000 mating cycles

Electrical Characteristics

Contact Current Rating: 125 V at 1.5 amps maximum

Contact Resistance: 30 milliohms maximum

Dielectric Withstanding Voltage: 1000 V RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

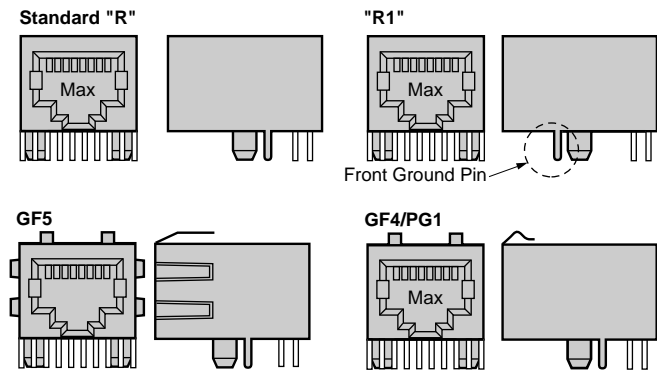
Operating Temperature : -40°C to +125°C

No. of Positions	No. of Contacts	Dimensions for Shielded Version				
		A	B	C	D	E
4	4	0.468	0.850	0.537	0.150	0.250
		11.88	21.60	13.63	3.81	6.35
6	6	0.545	0.850	0.537	0.250	0.350
		13.84	21.60	13.63	6.35	8.89
8	8	0.625	0.850	0.537	0.350	0.450
		15.88	21.60	13.63	8.89	11.43
Dimensions for non-shielded Version						
4	4	0.443	0.810	0.500	—	—
		11.26	20.54	12.70		
6	6	0.520	0.810	0.500	—	—
		13.21	20.54	12.70		
8	8	0.600	0.810	0.500	—	—
		15.24	20.54	12.70		

MODULAR JACK CONNECTORS

MJH-R Series
Single Cavity, Standard Height,
Non-Shielded, Shielded

PANEL GROUNDING OPTIONS



MAXCONN - [\(Back to Table of Contents\)](#)

HOW TO ORDER

MJH - R X - X X P - 30

Series
Blank—Unshielded
S—Shielded
Shielded only
(6 and 8 position)

Mounting
R—Right angle
R1*—Right angle ground
*Shielded version only

Category Type
Blank—CAT 3/4
51—Category DT
52—Category ST

Number of Positions
4, 6 or 8

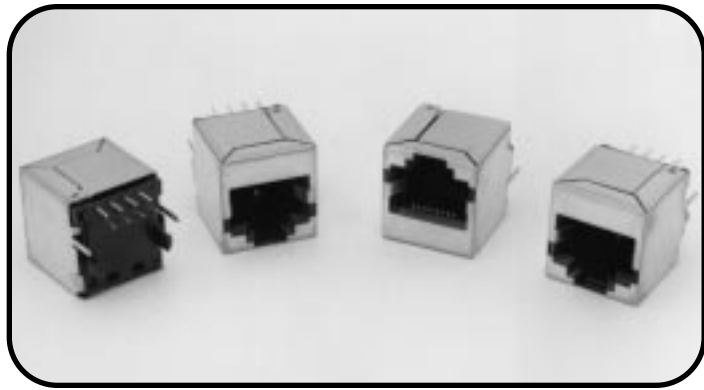
Number of Contacts
4, 6 or 8

Plating
Blank — 10 microinch gold
30 — 30 microinch gold
(Standard)
50 — 50 microinch gold

Options (Panel Mount)
Blank—Standard Option
P—With panel stop
(Non-shielded only)
PG1/GF4—See panel
grounding option
GF5—Standard panel
ground option

MODULAR JACK CONNECTORS

MJH-V Series Vertical, Non-Shielded, Shielded

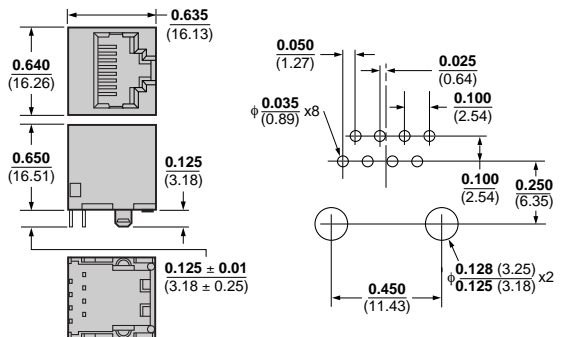


FEATURES

- UL and CSA approved E107337 and E145613
- Meets FCC requirements
- Shielded, non-shielded
- Category 5 next TSB 40

DIMENSIONS

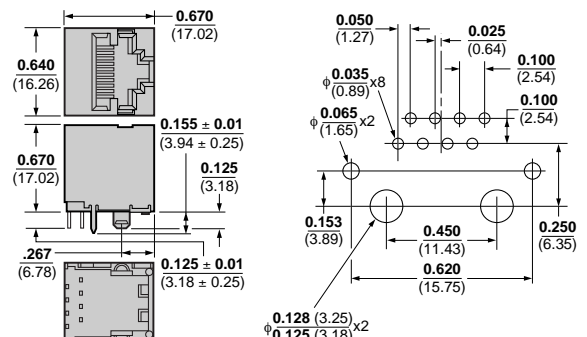
MJH-V Non-Shielded 8 Positions 8 Contacts



PCB LAYOUT TOP VIEW

DIMENSIONS

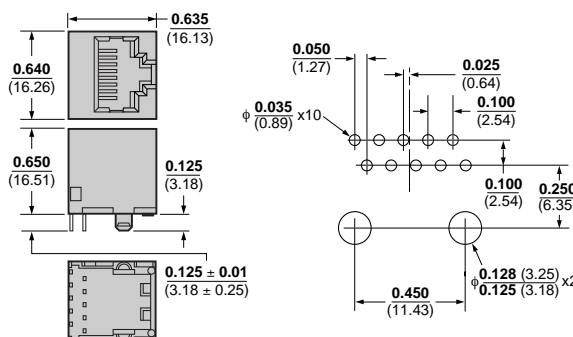
MJHS-V Shielded 8 Positions 8 Contacts



PCB LAYOUT TOP VIEW

DIMENSIONS

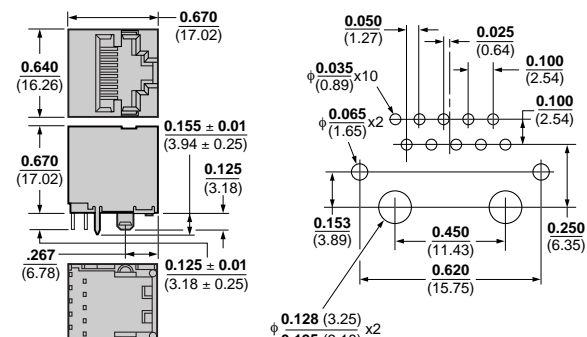
MJH-V Non-Shielded 8 Positions 10 Contacts



PCB LAYOUT TOP VIEW

DIMENSIONS

MJHS-V Shielded 8 Positions 10 Contacts



PCB LAYOUT TOP VIEW

*NOTE: Pin 1 is located to the extreme left of the latch looking inside of the cavity.
Consult factory for recommended panel cutouts.

MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, black

Shielding: 0.25mm thickness copper alloy plated with 90 microinch tin

Contacts: 0.35mm Phosphor bronze, gold plated

Mechanical Characteristics

Durability: 1000 mating cycles

Contact Engagement Force: 1.60 ounces, maximum

Electrical Characteristics

Current/Voltage: 150 Vac at 1.5 amps maximum, at 25°C

Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

Contact Resistance: 30 milliohms maximum

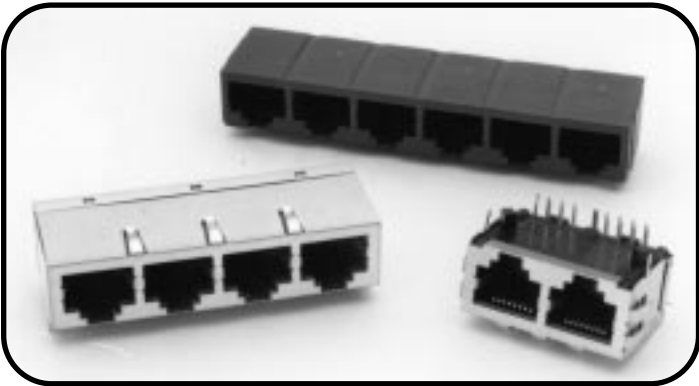
Operating Temperature: -40°C to + 125°C

MODULAR JACK CONNECTORS

MJH-G Series

Non-Shielded, Shielded

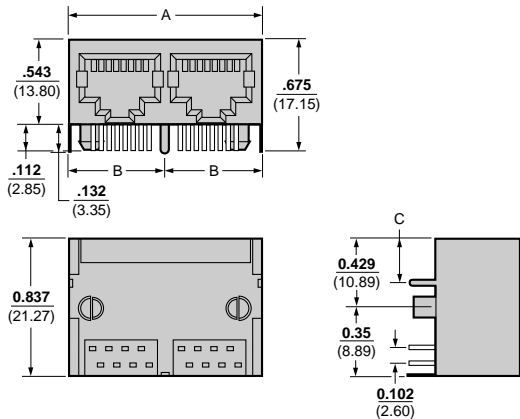
2 to 12 Ports



FEATURES

- Low Profile (.543 high)
- 2 thru 12 ports
- Shielded and non-shielded
- Meets FCC requirements
- Non-shielded, shielded
- 1000 mating cycles
- UL and CSA approved E107337 and E145613

DIMENSIONS



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, Zytel FR50, UL 94V-0 rated, black

Contacts: 0.35mm phosphor bronze (C5210)

Plating: Gold plated with tin leads over nickel

Shielding: 0.25mm thickness copper alloy plated with 90 microinch tin

Mechanical Characteristics

Durability: 1000 mating cycles

Electrical Characteristics

Current/Voltage: 150 Vac at 1.5 amps maximum, at 25°C

Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

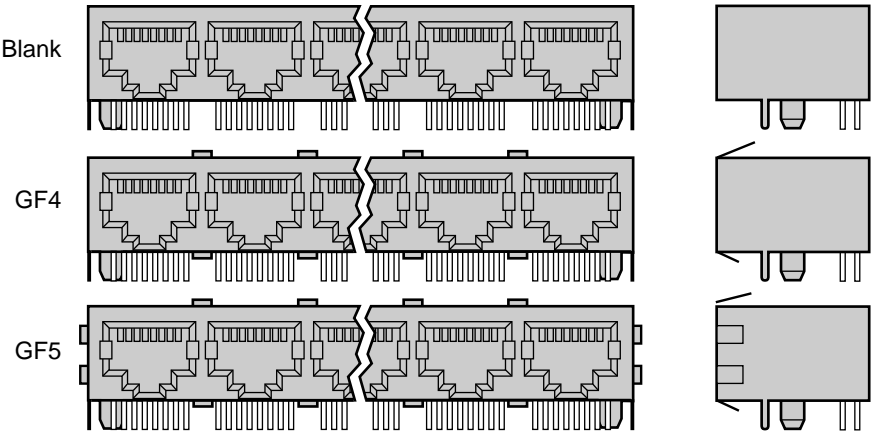
Contact Resistance: 30 milliohms maximum

Operating Temperature: -40°C to +125°C

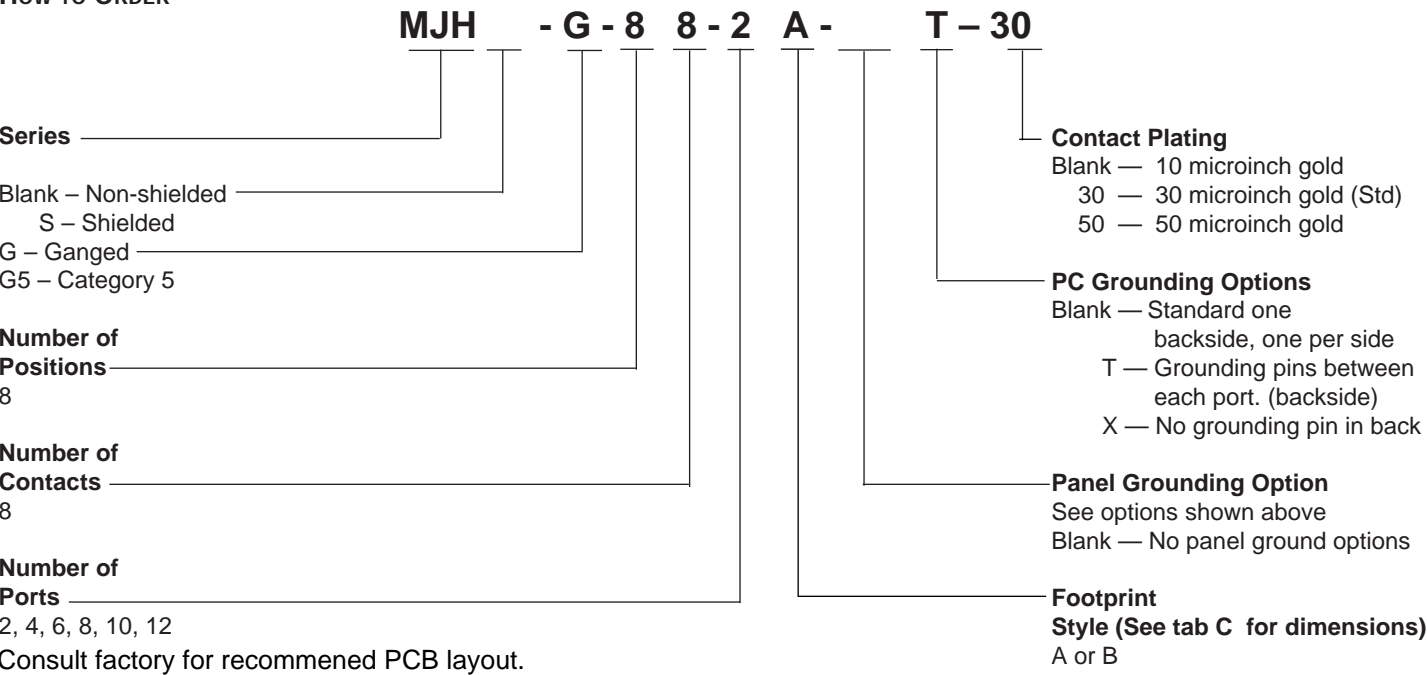
No. of Ports and Style	A		B	C	
	Non-Shielded	Shielded		Style A	Style B
2A, 2B	1.200	1.225	0.60	0.180	0.145
	30.48	31.12	15.24	4.57	3.68
4A, 4B	2.300	2.325	1.150	0.180	0.145
	58.42	59.06	29.21	4.57	3.68
5A, 5B	2.850	2.880	1.425	0.180	0.145
	72.39	73.03	36.195	4.57	3.68
6A, 6B	3.400	3.425	1.700	0.180	0.145
	86.36	87.00	43.18	4.57	3.68
8A, 8B	4.500	4.525	2.250	0.180	0.145
	114.30	114.94	57.15	4.57	3.68
10A, 10B	5.600	5.625	2.800	0.180	0.145
	142.24	142.88	71.12	4.57	3.68
12A, 12B	6.700	6.725	3.350	0.180	0.145
	170.18	170.82	85.09	4.57	3.68

MJH-G Series
Non-Shielded,Shielded
2 to 12 Ports

PANEL GROUND OPTIONS

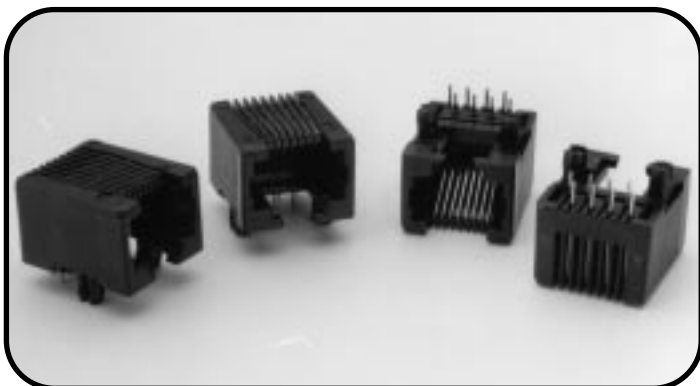


HOW TO ORDER



MODULAR JACK CONNECTORS

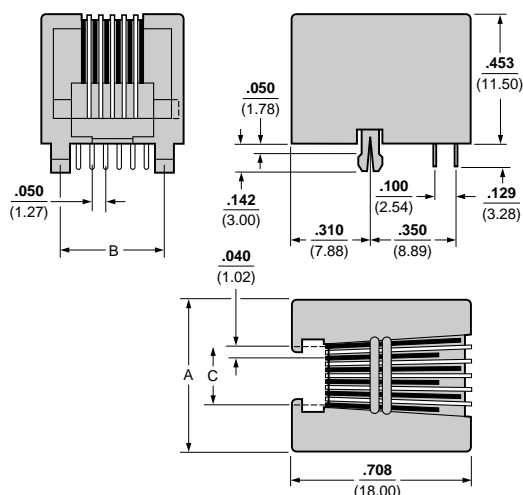
MJL Series Ultra-Low Profile, (.453 Height) Non-Shielded



FEATURES

- UL and CSA approved E107337 and E145613
- Meets FCC requirements
- Ultra-low profile
- Non-shielded

DIMENSIONS



No. of Positions	No. of Contacts	Dimensions		
		A	B	C
4	4	0.440	0.300	0.150
		11.18	7.62	3.81
6	6	0.520	0.400	0.250
		13.20	10.16	6.35
6	4	0.520	0.400	0.250
		13.20	10.16	6.35
6	2	0.520	0.400	0.250
		13.20	10.16	6.35
8	8	0.600	0.450	0.350
		15.24	11.43	8.89
8	6	0.600	0.450	0.250
		15.24	11.43	6.35

MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, black

Contacts: 0.45mm Phosphor bronze (round wire)

Contact Finish: Gold plated over nickel

Electrical Characteristics

Current/Voltage: 150 Vac at 1.5 amps maximum, at 25°C

Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

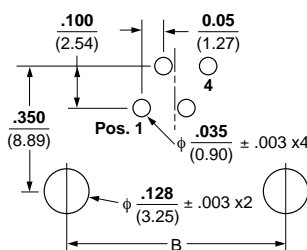
Insulation Resistance: 500 megohms minimum

Contact Resistance: 30 milliohms maximum

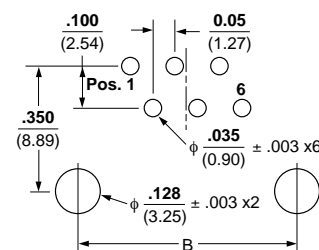
Operating Temperature: -55°C to +125°C

PCB LAYOUT

4 Positions Top View

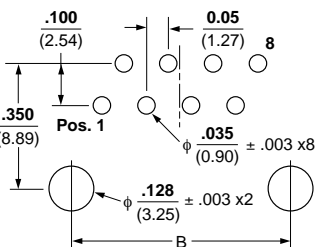


6 Positions Top View



PCB LAYOUT

8 Positions Top View



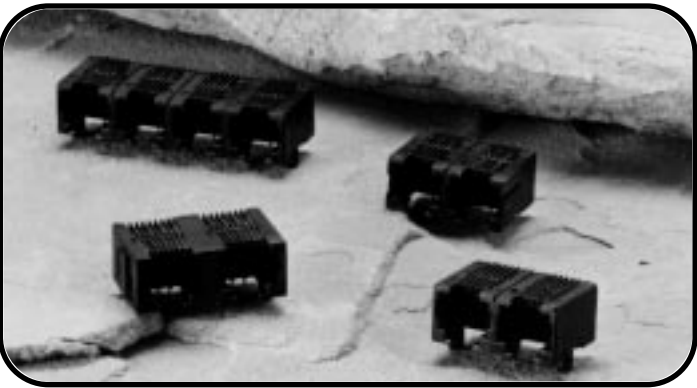
HOW TO ORDER

Series	MJL - 8 8 -	Contact Plating
		Blank — 10 microinch gold (Standard)
Number of Positions	4, 6, 8	30 — 30 microinch gold
Number of Contacts	2, 4, 6, 8	50 — 50 microinch gold

MODULAR JACK CONNECTORS

MJL-G Series

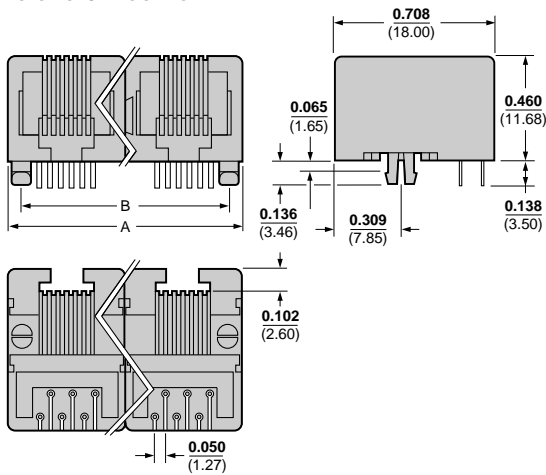
Gang Ultra-Low Profile Height, Non-Shielded, Shielded



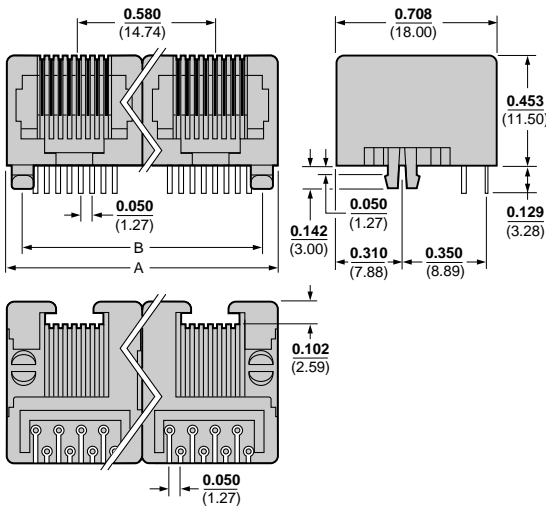
FEATURES

- UL and CSA approved E107337 and E145613
- Meets FCC requirements
- Ultra-low profile
- Optional shielding

DIMENSIONS 6-POSITION



DIMENSIONS 8-POSITION



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, black

Contacts: 0.45mm Phosphor bronze, round wire

Contacts Finish: Gold plated entire contact over nickel

Mechanical Characteristics

Durability: 1000 mating cycles

Electrical Characteristics

Contact Current Rating: 150 V at 1.5 amps maximum, at 25°C

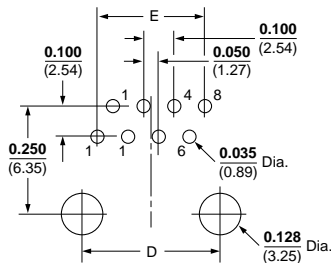
Contact Resistance: 30 milliohms maximum

Dielectric Withstanding Voltage: 1000 V RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

Operating Temperature: -55°C to +125°C

PCB Layout (Top View)



HOW TO ORDER

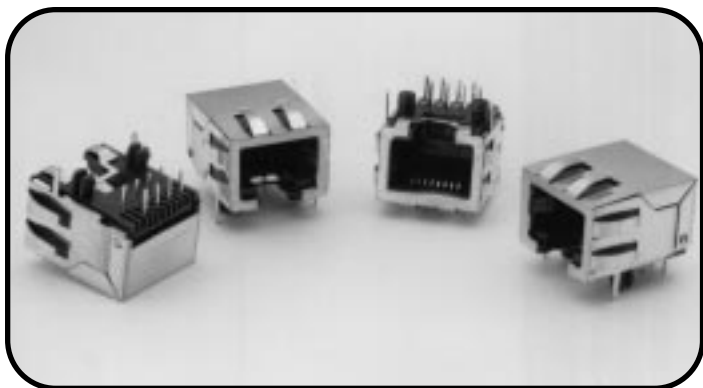
MJL * - G - XX - X - X

- Series** _____
- *Shielded** _____
- Ganded** _____
- Number of Positions** _____
6 or 8
- Number of Contacts** _____
4, 6 or 8
- Number of Ports** _____
2, 3, 4, 6 or 8
- Contact Plating** _____
Blank—10 microinch gold(Standard)
30—30 microinch gold
50—50 microinch gold

MODULAR JACK CONNECTORS

MJLS Series

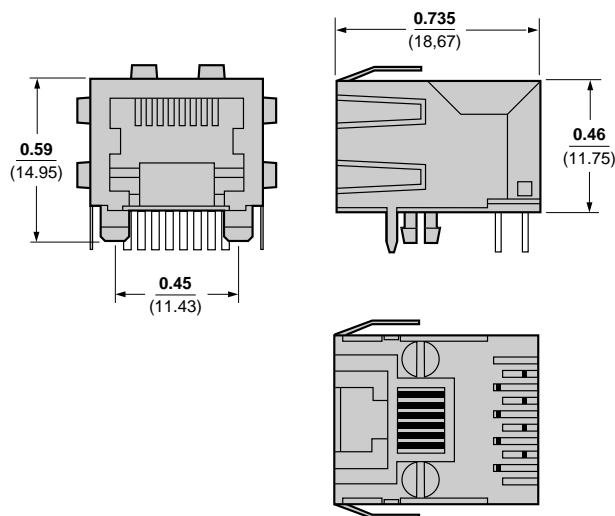
Ultra-Low Profile, (.460 Height) Shielded



FEATURES

- UL and CSA approved E107337 and E145613
- Fully shielded
- Enhanced grounding flange
- Available in 4, 6, 8 and 10 positions

DIMENSIONS



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, Zytel FR50, UL 94V-0 rated, black

Contacts: 0.35mm Phosphor bronze, gold plated with tin leads over nickel

Shielding: 0.25mm thickness copper alloy plated with 90 microinch tin

Mechanical Characteristics

Durability: 1000 mating cycles

Electrical Characteristics

Current/Voltage: 150 Vac at 1.5 amps maximum, at 25°C

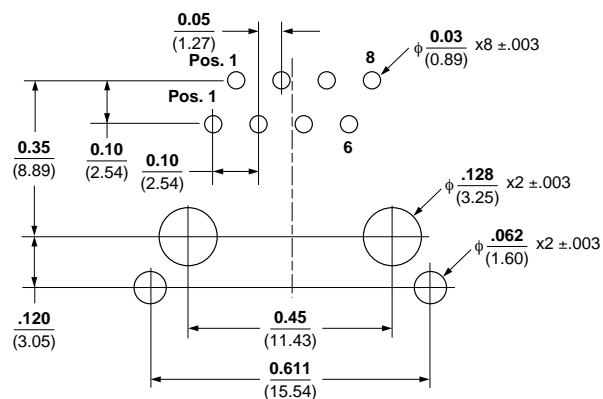
Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

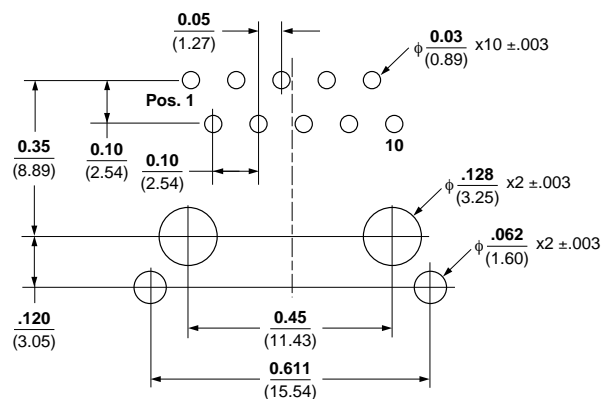
Contact Resistance: 30 milliohms maximum

Operating Temperature: -40°C to +125°C

PCB Layout — 6P6C and 8P8C Top View



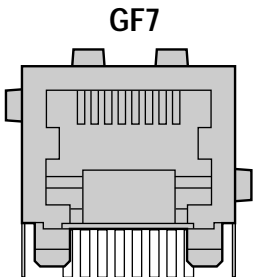
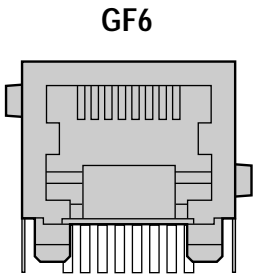
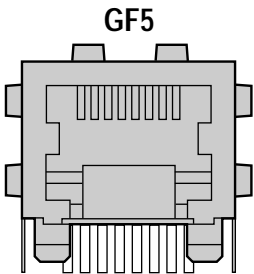
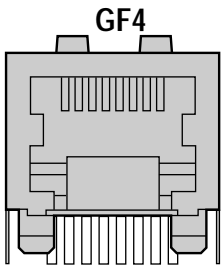
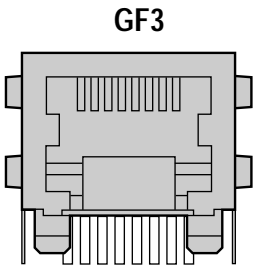
PCB Layout — 8P10C Top View



MODULAR JACK CONNECTORS

MJLS Series
Ultra-Low Profile (.460 hieght)
Fully Shielded with Enhanced
Ground Flanges

MAXCONN - [\(Back to Table of Contents\)](#)



HOW TO ORDER

MJLS - 8 8 GF3 -

Series — Shielded

Number of Positions — 4, 6, 8

Number of Contacts — 2, 4, 6, 8, 10

Panel Grounding Flange —

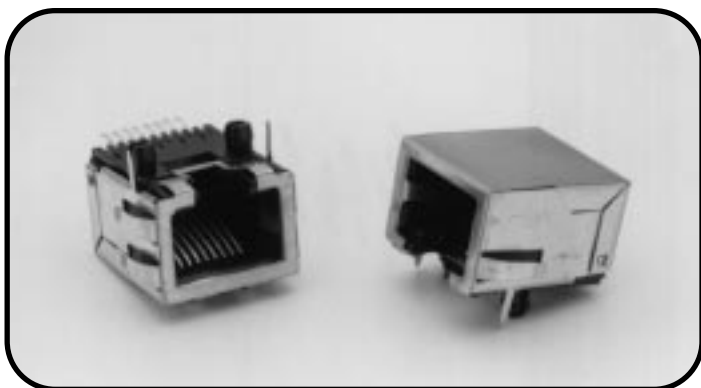
Plating (Gold)
Blank — 15 microinch
30 — 30 microinch (Std)
50 — 50 microinch

Blank No grounding flange
GF3 Ground tabs (2 both sides)
GF4 Ground tabs (2 per top, 0 sides)
GF5 Grounding (top/sides)
GF6 Ground tabs (1 top left, 1 bottom right)
GF7 Ground tabs (2 top, 1 top left, 1 bottom right)

MJLSS Series

Ultra-Low Profile, (.460 Height)

Surface Mount, Shielded, Non-Shielded



Performance Specifications

Materials and Finish

Housing: Glass filled polyester, Zytel FR50, UL 94V-0 rated, black

Contacts: 0.35mm Phosphor bronze, gold plated with tin leads over nickel

Shielding: 0.25mm thickness copper alloy plated with 90 microinch tin

Mechanical Characteristics

Durability: 1000 mating cycles

Electrical Characteristics

Current/Voltage: 150 Vac at 1.5 amps maximum at 25°C

Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

Contact Resistance: 30 milliohms maximum

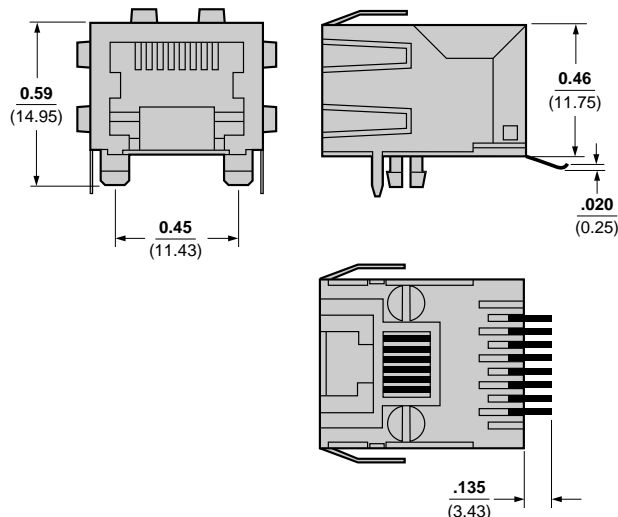
Operating Temperature: -40°C to +125°C

Melting Point: 250 to 260°C

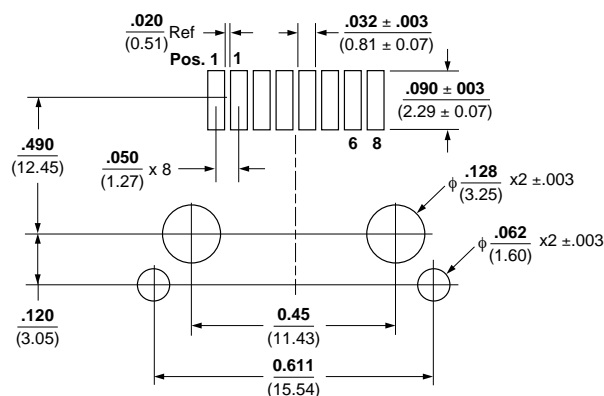
FEATURES

- UL and CSA approved E107337 and E145613
- Fully shielded
- Enhanced grounding flange
- Available in 4, 6, 8 or 10 contacts
- Surface mount
- High temperature plastic

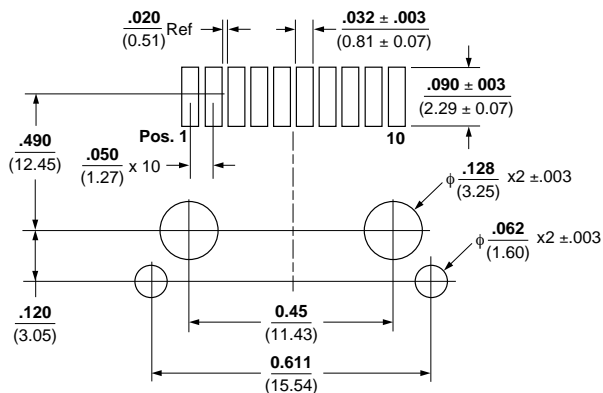
DIMENSIONS



PCB Layout — 6P6C and 8P8C Top View

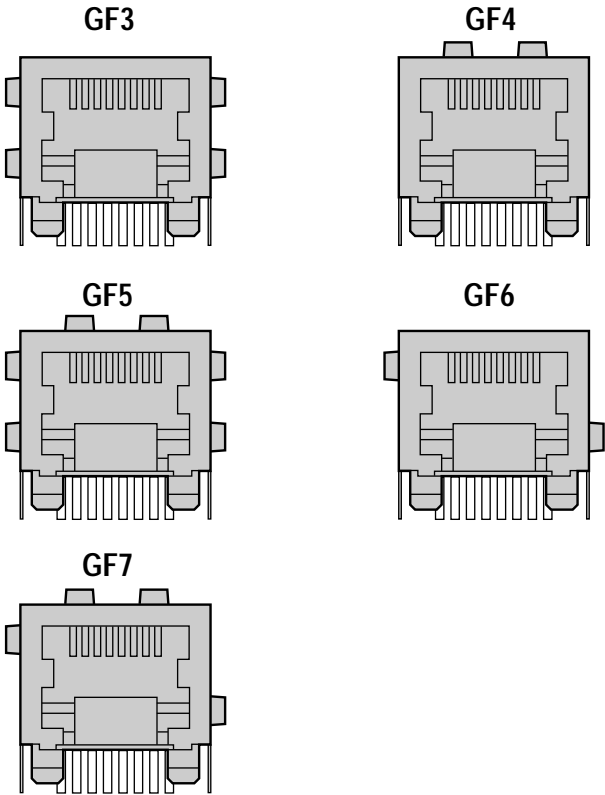


PCB Layout — 8P10C Top View



MODULAR JACK CONNECTORS

MJLSS Series
Ultra-Low Profile (.460 hieght)
Surface Mount
Fully Shielded and Non-shielded
with Enhanced Grounding Flanges



MAXCONN - (Back to Table of Contents)

HOW TO ORDER

MJLS - S - 8 8 - ST - GF3 - 30

Series
Shielded

SMT
S — Surface monut

Number of Positions
4, 6, 8

Number of Contacts
2, 4, 6, 8, 10

PCB Options
ST — Solder Tab
STP — Solder tab with PCB locator
Blank – Standard through hole pin

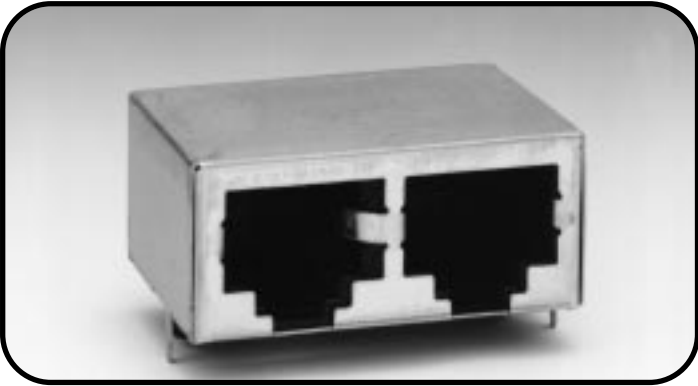
***Panel Grounding Flange**
Blank No grounding flange
GF3 Ground tabs (2 both sides)
GF4 Ground tabs (2 per top, 0 sides)
GF5 Grounding (top/sides)
GF6 Ground tabs (1 top left, 1 bottom right)
GF7 Ground tabs (2 top, 1 top left, 1 bottom right)

Plating (Gold)
Blank — 15 microinch
30 — 30 microinch (Standard)
50 — 50 microinch

*Panel grounding options only available in 8-position cavity.

MODULAR JACK CONNECTORS

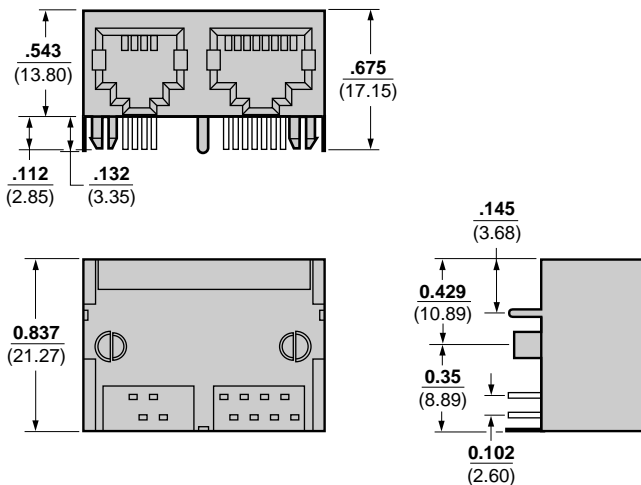
MJH-C Series RJ11/RJ45 Combination, Low Profile, .543 High



FEATURES

- Meets FCC and UL specifications
- Low profile .543 High
- Non-shielded, shielded
- 1000 mating cycles

DIMENSIONS



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, black

Contacts: 0.35mm Phosphor bronze, gold plated

Shielding: 0.25mm thickness copper alloy plated with 90 microinch tin

Mechanical Characteristics

Durability: 1000 mating cycles

Contact Engagement Force: 1.60 ounces, maximum

Electrical Characteristics

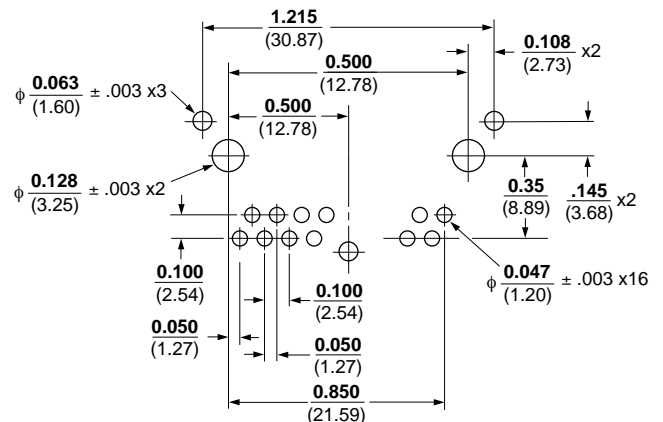
Current/Voltage: 150 Vac at 1.5 amps maximum at 25°C

Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

Temperature Rating: -55° C to +125° C

PCB Layout



HOW TO ORDER

MJH - C - 6 6 / 8 6 - 2B

Series

Blank – Non-Shielded
S – Shielded

Combination

Number of Positions

6

Number of Contacts

2, 4, 6

Positions

6

Plating

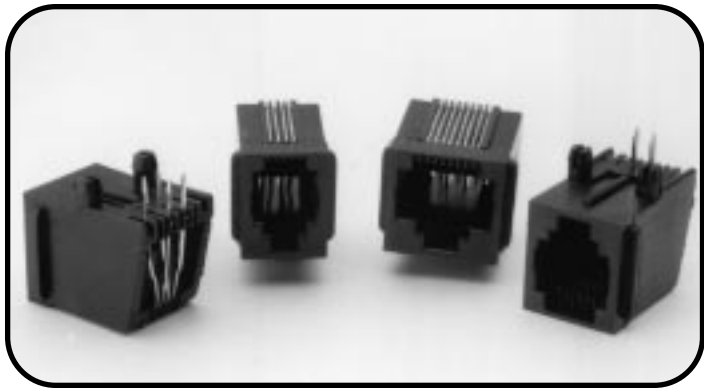
Blank – 10 microinch gold
30 – 30 microinch gold
50 – 50 microinch gold

2 Port

Contacts

6 or 8

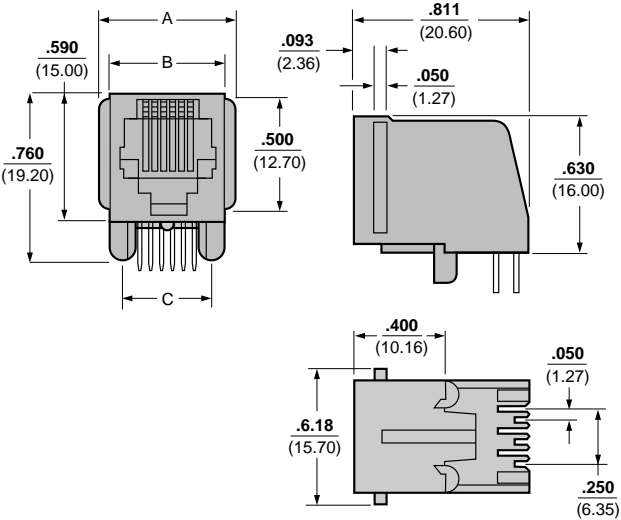
MODULAR JACK CONNECTORS
MJA Series
Right Angle, PC Mount



FEATURES

- UL and CSA approved E107337 and E145613
- Meets FCC requirements
- Non-shielded
- 4, 6 and 8 positions

DIMENSIONS



Positions	A	B	C	D
4	0.540	0.440	0.300	0.150
	13.70	11.18	7.62	3.81
6	0.618	0.520	0.400	0.250
	15.70	13.21	10.16	6.35
8	0.700	0.600	0.450	0.350
	17.78	15.24	11.43	8.89

MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, black

Contacts: 0.35mm Phosphor bronze, gold plated with tin leads

Electrical Characteristics

Current/Voltage: 150 Vac at 1.5 amps maximum at 25°C

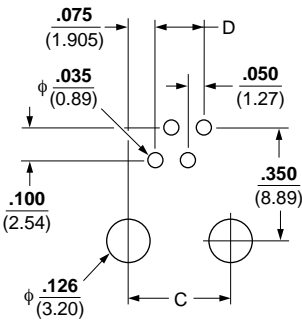
Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

Contact Resistance: 20 milliohms maximum

Operating Temperature: -55°C to +125°C

PCB LAYOUT TOP VIEW



HOW TO ORDER

MJA - 4 4 - 30

Series

Number of Positions

Number of Contacts

Contact Plating

Blank —6 microinch gold (Standard)

30 — 30 microinch gold

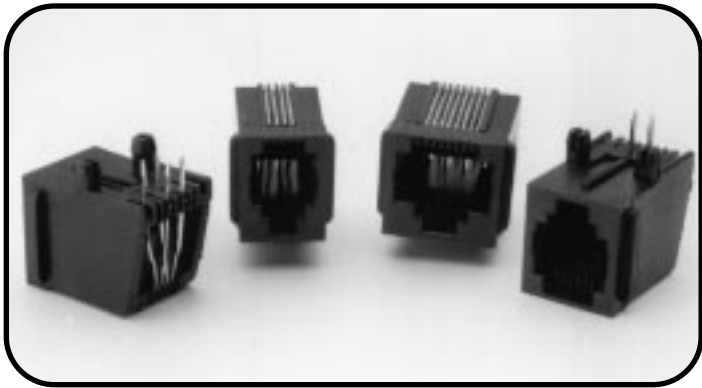
50 — 50 microinch gold

MODULAR JACK CONNECTORS

MJB Series

Right Angle, PC Mount

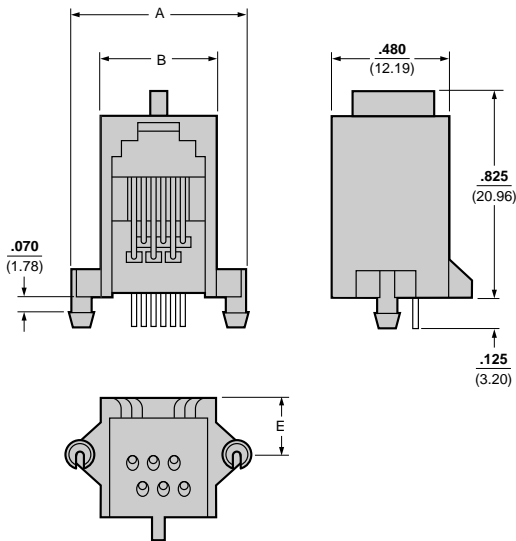
MAXCONN - [\(Back to Table of Contents\)](#)



FEATURES

- UL and CSA approved E107337 and E145613
- Meets FCC requirements
- Non-shielded
- 4, 6 and 8 positions

DIMENSIONS



Positions	A	B	C	D	E
4	0.730 18.54	0.480 12.19	0.625 15.88	0.120 3.06	0.225 5.72
6	0.730 18.54	0.480 12.19	0.625 15.88	0.200 5.08	0.225 5.77
8	0.730 18.54	0.630 16.00	0.630 16.00	0.280 7.12	0.315 8.00

Performance Specifications

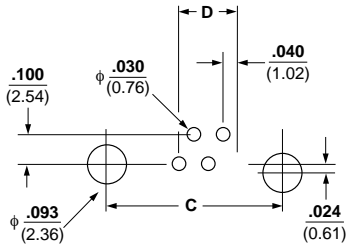
Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, black
Contacts: 0.45 mm Phosphor bronze, gold plated round wire

Electrical Characteristics

Current/Voltage: 150 Vac at 1.5 amps maximum at 25°C
Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz
Insulation Resistance: 500 megohms minimum
Contact Resistance: 20 milliohms maximum
Operating Temperature: -55°C to +125°C

PCB LAYOUT TOP VIEW



HOW TO ORDER

MJB - 4

4 - 30

Series

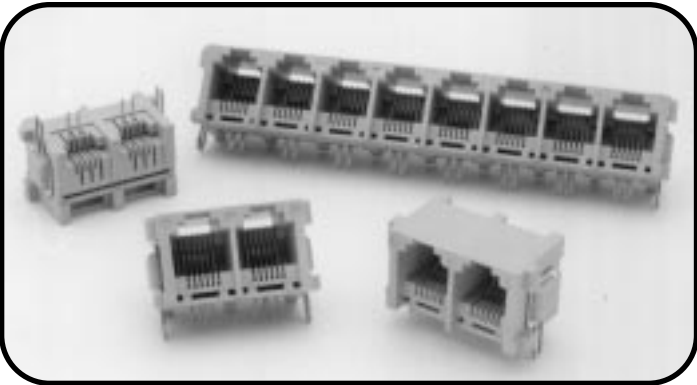
Number of Positions
4, 6, 8

Number of Contacts
2, 4, 6, 8

Contact Plating
Blank —6 microinch gold
(Standard)
30 — 30 microinch gold
50 — 50 microinch gold

MODULAR JACK CONNECTORS

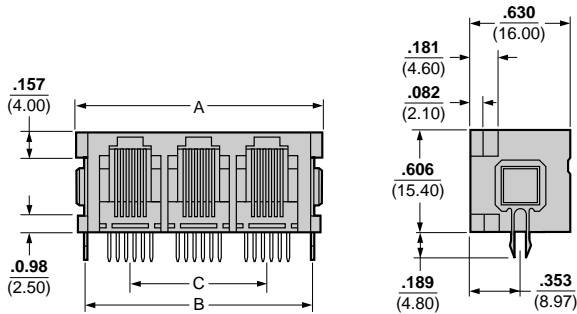
MJG Series
6 or 8 Position, Right Angle,
Ganged, Non-Shielded



FEATURES

- UL and CSA approved E107337 and E145613
- Meets FCC requirements

DIMENSIONS



6 Position Number of Ports							
Dimensions	2	3	4	5	6	7	8
A	1.110	1.543	1.9761	2.410	2.842	3.275	3.710
	28.20	39.20	50.20	61.20	72.20	83.20	94.20
B	0.992	1.425	1.860	2.290	2.724	3.157	3.590
	25.20	36.20	47.20	58.20	69.20	80.20	91.20
C	0.433	0.866	1.299	1.732	2.165	2.598	3.030
	11.00	22.00	33.00	44.00	55.00	66.00	77.00

8 Position Number of Ports			
Dimensions	1	2	3
A	0.759	1.271	1.783
	19.28	32.28	45.28
B	0.622	1.134	1.646
	15.80	28.80	41.80
C	0.512	1.024	1.535
	13.00	26.00	39.00

MAXCONN - (Back to Table of Contents)

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, gray

Contacts: 0.45 mm Phosphor bronze, gold plated, round wire

Mechanical

Mounting Bracket: Phosphor bronze, tin plated

Electrical Characteristics

Current/Voltage: 150 Vac at 1.5 amps maximum at 25°C

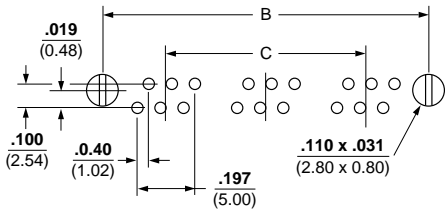
Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

Contact Resistance: 20 milliohms maximum

Operating Temperature: -55° C to + 125° C

PCB LAYOUT TOP VIEW



HOW TO ORDER

MJG - 6 4 - R

Series ————

Number of Positions ————

Number of Contacts ————

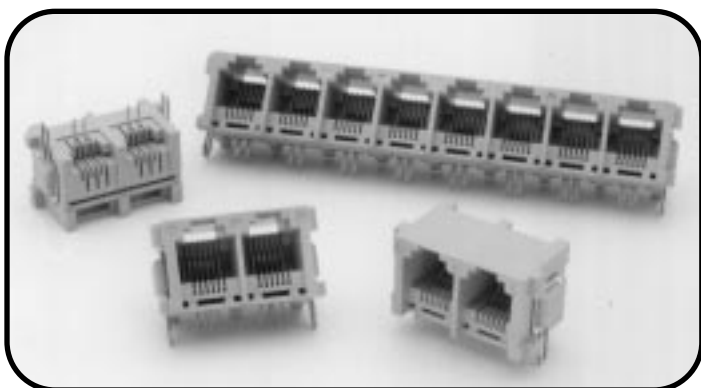
Configuration
R – Right angle

Number of Ports
Per Gang
6 Position, 2-8 Ports
8 Position, 1-4 Ports

MODULAR JACK CONNECTORS

MJG Series

6 or 8 Position, Vertical, Ganged, Non-Shielded



FEATURES

- UL and CSA approved E107337 and E145613
- Meets FCC requirements

MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, gray

Contacts: 0.45 mm Phosphor bronze, gold plated, round wire

Mechanical

Mounting Bracket: Phosphor bronze, tin plated

Electrical Characteristics

Current/Voltage: 150 Vac at 1.5 amps maximum at 25°C

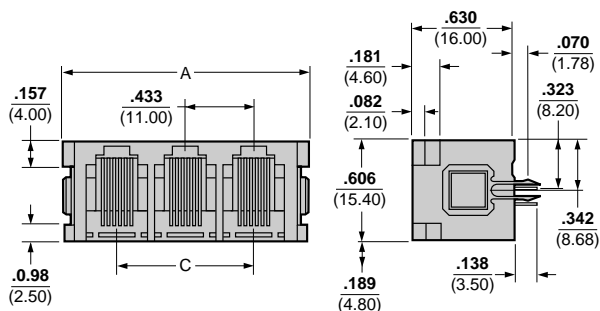
Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

Contact Resistance: 20 milliohms maximum

Operating Temperature: -55° C to + 125° C

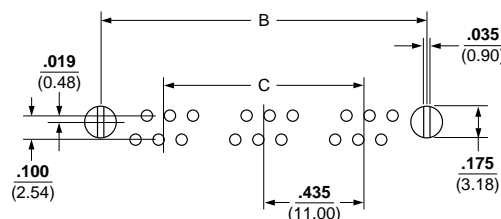
DIMENSIONS



6 Position Number of Ports							
Dimensions	2	3	4	5	6	7	8
A	1.110 28.20	1.543 39.20	1.976 50.20	2.410 61.20	2.842 72.20	3.275 83.20	3.710 94.20
B	0.992 25.20	1.425 36.20	1.860 47.20	2.290 58.20	2.724 69.20	3.157 80.20	3.590 91.20
C	0.433 11.00	0.866 22.00	1.299 33.00	1.732 44.00	2.165 55.00	2.598 66.00	3.030 77.00

8 Position Number of Ports				
Dimensions	1	2	3	4
A	0.759 19.28	1.271 32.28	1.783 45.28	2.294 58.28
B	0.622 15.80	1.134 28.80	1.646 41.80	2.157 54.80
C		0.512 13.00	1.024 26.00	1.535 39.00

PCB LAYOUT TOP VIEW



HOW TO ORDER

	MJG	6	4	-	-	V
Series						
Number of Positions 6 or 8						
Number of Contacts 2, 4, 6, 8						
Configuration V – Vertical						
Number of Ports Per Gang 6 Position, 2-8 Ports 8 Position, 1-4 Ports						

MODULAR JACK CONNECTORS

MJF Series

Right Angle, PC Mount

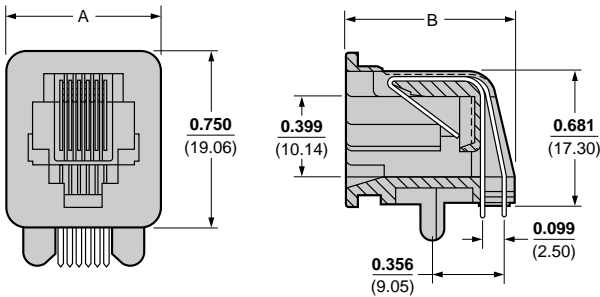
MAXCONN - [\(Back to Table of Contents\)](#)



FEATURES

- UL and CSA approved E107337 and 145613
- Meets FCC requirements
- Non-shielded

DIMENSIONS



Positions	A	B	C
4	0.570 14.48	0.810 20.57	0.288 7.31
6	0.650 16.51	0.810 20.57	0.388 9.85
8	0.730 18.54	0.810 20.57	0.488 12.39

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, black

Contacts: Phosphor bronze, gold plated

Electrical Characteristics

Current/Voltage: 150 Vac at 1.5 amps maximum at 25°C

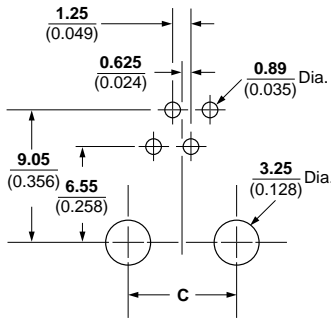
Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

Contact Resistance: 30 milliohms maximum

Operating Temperature: -55° C to + 125° C

PCB LAYOUT TOP VIEW



HOW TO ORDER

MJF - 4 4 - 30

Series ————

Number of Positions ————

Number of Contacts ————

Contact Plating
Blank —6 microinch gold
(Standard)
30 — 30 microinch gold
50 — 50 microinch gold

MODULAR JACK CONNECTORS

MJM Series

Right Angle, PC Mount

MAXCONN - (Back to Table of Contents)



Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, gray

Contacts: 0.45mm Phosphor bronze, gold plated, round wire

Mechanical Characteristics

Contact Engagement Force: 1.60 ounces, maximum

Electrical Characteristics

Current/Voltage: 150 Vac at 1.5 amps maximum at 25°C

Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

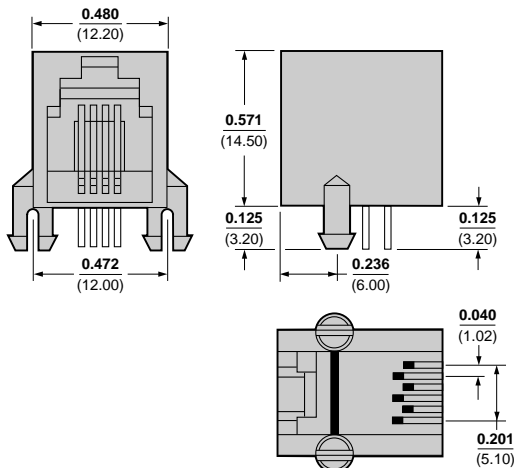
Operating Temperature: -55° C to + 125° C

FEATURES

- Meets FCC specifications
- UL, and CSA approved E107337 and E145613
- Top latch

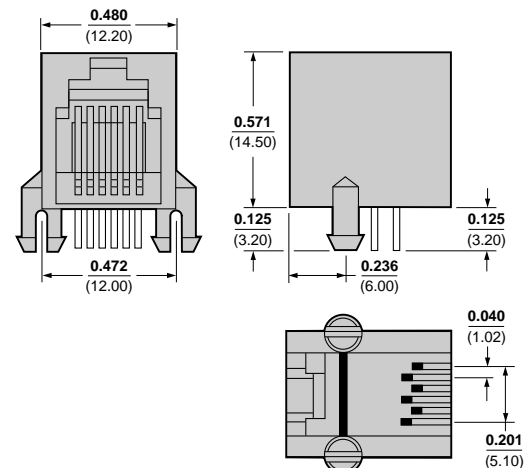
DIMENSIONS

MJM 6P4C (Shown)



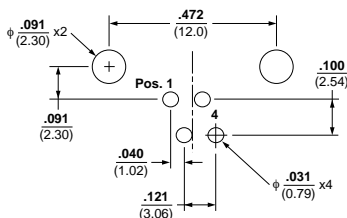
DIMENSIONS

MJM 6P6C (Shown)

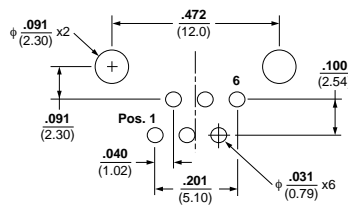


PCB Layout

6 Positions, 4 Contacts



6 Positions, 6 Contacts



HOW TO ORDER

	MJM - 8	8	F - 2
Series			
Number of Positions	4, 6, 8		
Number of Contacts	2, 4, 6, 8		
Contact Plating			1 — 10 microinch gold (Standard) 2 — 30 microinch gold 3 — 50 microinch gold
Cable			Blank — Without flange F — Flange

MJP Series
Vertical, PC Mount



Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, black
Contacts: 0.45 mm phosphor bronze, gold plated, round wire

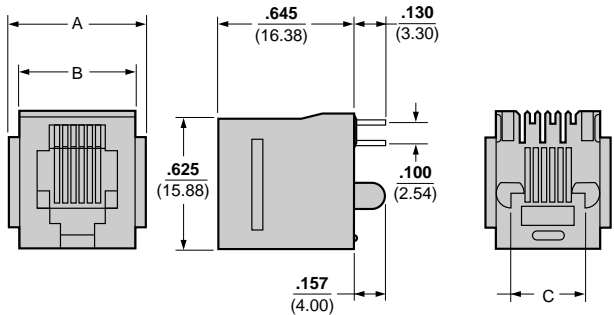
Electrical Characteristics

Current/Voltage: 150 Vac at 1.5 amps maximum at 25°C
Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz
Insulation Resistance: 500 megohms minimum
Contact Resistance: 20 milliohms maximum
Operating Temperature: -55°C to +125°C

FEATURES

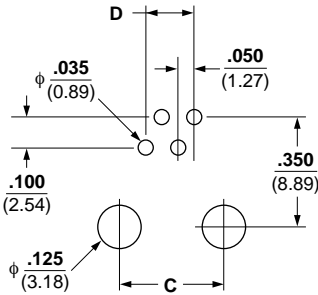
- UL and CSA approved E107337 and E145613
- Meets FCC requirements
- Non-shielded
- 4, 6 and 8 positions

DIMENSIONS



Positions	A	B	C	D
4	0.550	0.450	0.300	0.150
	13.97	11.43	7.62	3.81
6	0.630	0.530	0.400	0.250
	16.00	13.46	10.16	6.35
8	0.70	0.605	0.465	0.350
	17.84	15.36	11.80	8.89

PCB LAYOUT TOP VIEW



HOW TO ORDER

MJP - 4 4 - 30

Series — MJP

Number of Positions — 4, 6, 8

Number of Contacts — 2, 4, 6, 8

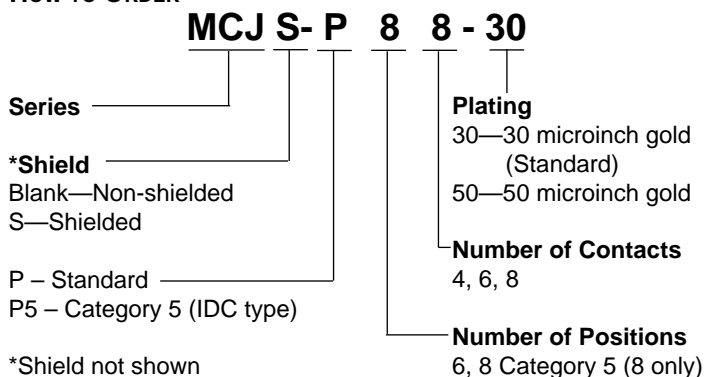
Contact Plating
Blank — 6 microinch gold (Standard)
30 — 30 microinch gold
50 — 50 microinch gold

MCJ-P Series IDC Panel Jack

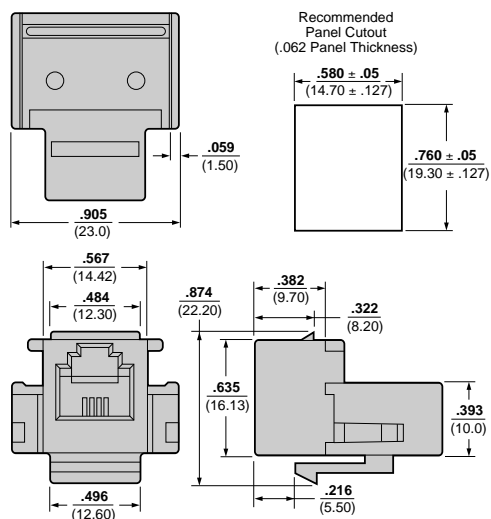
FEATURES

- Meets FCC specifications
- UL and CSA approved E107337 and E145613
- Meets Category 5 Next TSB 40

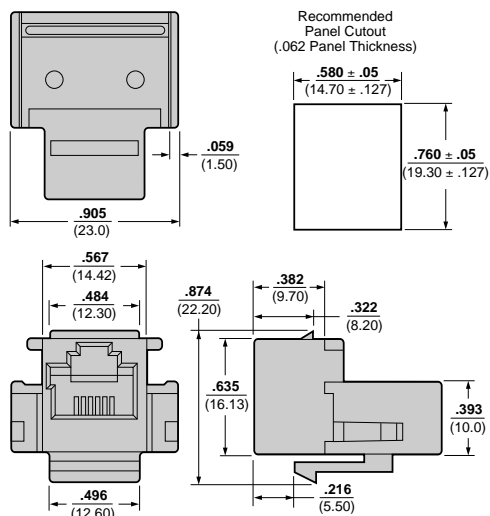
HOW TO ORDER



DIMENSIONS — 6 POSTION 4 CONTACT



DIMENSIONS — 6 POSTION 6 CONTACT



Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, black

Contacts: 0.35mm Phosphor bronze, gold plated

Mechanical Characteristics

Durability: 1000 mating cycles

Contact Engagement Force: 1.60 ounces, maximum

Electrical Characteristics

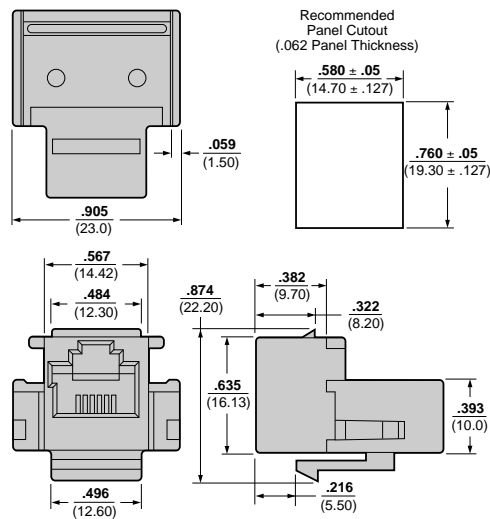
Current/Voltage: 150 Vac at 1.5 amps maximum at 25°C

Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

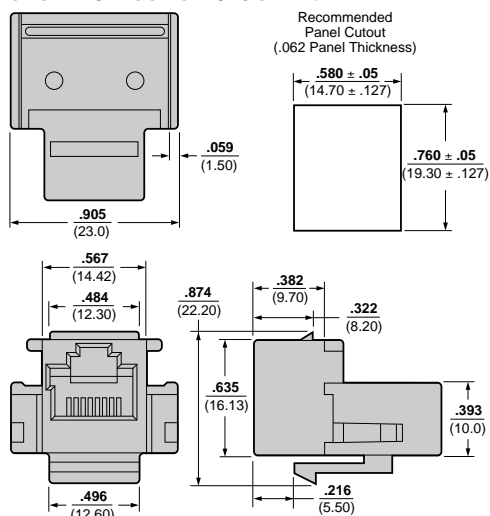
Insulation Resistance: 500 megohms minimum

Operating Temperature: -55° C to + 125° C

DIMENSIONS — 8 POSTION 6 CONTACT

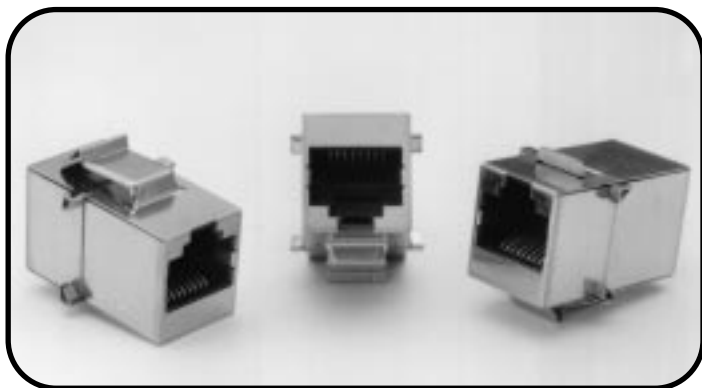


DIMENSIONS — 8 POSTION 8 CONTACT



MODULAR JACK COUPLERS

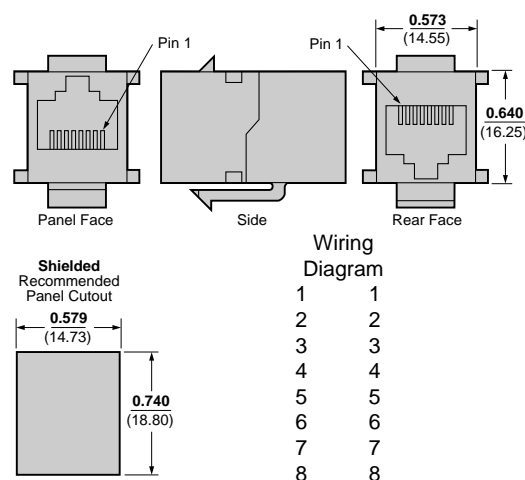
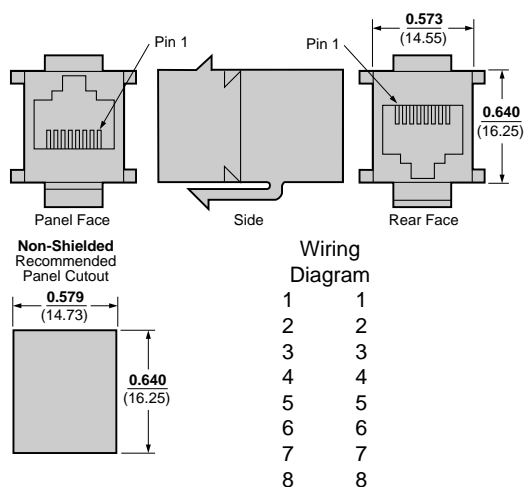
MJC-88 Series Modular Jack Coupler Non-Shielded, Shielded



FEATURES

- Meets FCC requirements
- Non-shielded, shielded
- 6 and 8 position cavity sizes
- UL and CSA approved E107337 and E145613

DIMENSIONS



MAXCONN - (Back to Table of Contents)

Performance Specifications

Materials and Finish

Housing: Glass filled polyester, UL 94V-0 rated, black

Contacts: 0.35mm phosphor bronze, gold plated

Shielding: 0.25mm thickness copper alloy plated with 90 microinch tin

Mechanical Characteristics

Durability: 1000 mating cycles

Electrical Characteristics

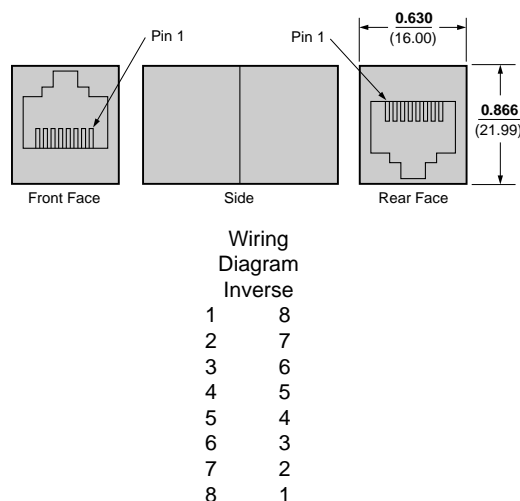
Current/Voltage: 150 Vac at 1.5 amps maximum at 25°C

Dielectric Withstanding Voltage: 1000 Vac RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

Contact Resistance: 30 milliohms maximum

Operating Temperature: -55°C to +125°C



HOW TO ORDER

MJC S - 88 - 1 - 0 - 30

Series

- NP** – Non-panel series (Inverse only)
- S** – Shielded (Panel mount only)

Number of Positions/Contacts
6P4C, 6P6C, 8P8C

Wiring

- Blank – 1 to 1
- 1 – Inverse (non-panel mount only)

Gold Plating

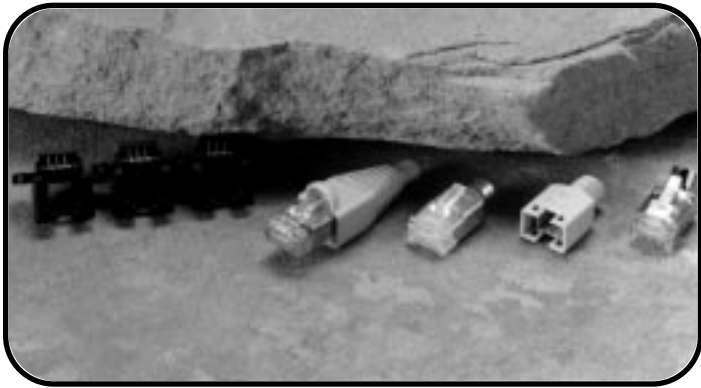
- Blank – 10 microinch
- 30 – 30 microinch (Standard)
- 50 – 50 microinch

Color (Non-shielded)

- 0 – Black
- 1 – Beige
- 2 – Red
- 4 – Yellow
- 5 – Green
- 9 – White

MODULAR PLUG CONNECTORS

MP Series Non-Shielded, Shielded



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Housing: Polycarbonate UL 94V-0 rated

Contacts: Phosphor bronze

Contact Finish: Gold plated

Mechanical Characteristics

Durability: 1,000 mating cycles

Electrical Characteristics

Current/Voltage: 150Vac at 1.5 Amps at 25°C

Dielectric Withstanding Voltage: 1,000 Vac RMS minimum, 60 Hz

Insulation Resistance: 500 megohms minimum

Contact Resistance: 30 milliohms maximum

Operating Temperature : -40° C to + 60° C

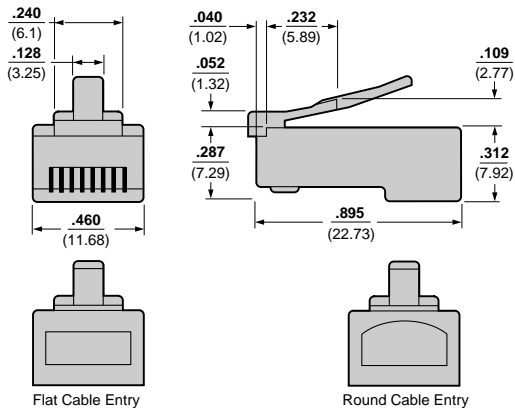
FEATURES

- UL and CSA approved E107337 and E145613
- Meets FCC requirements
- Flat and round cable
- Shielded 6P, 8P and 8P10C

DIMENSIONS

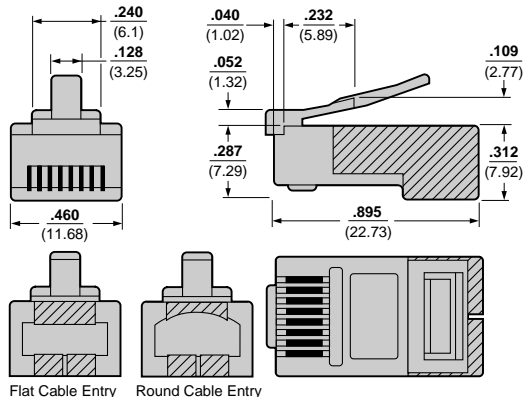
MP88 Non-Shielded

8 Positions, 8 Contacts



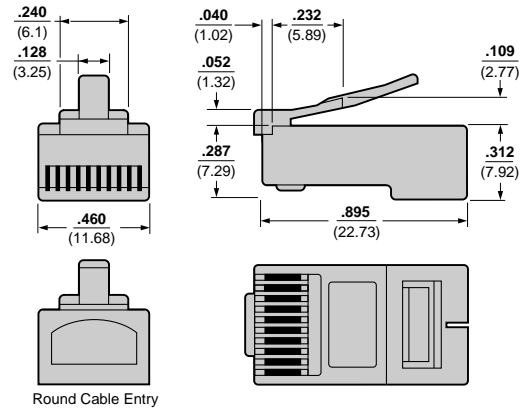
MPS88 Shielded

8 Positions, 8 Contacts



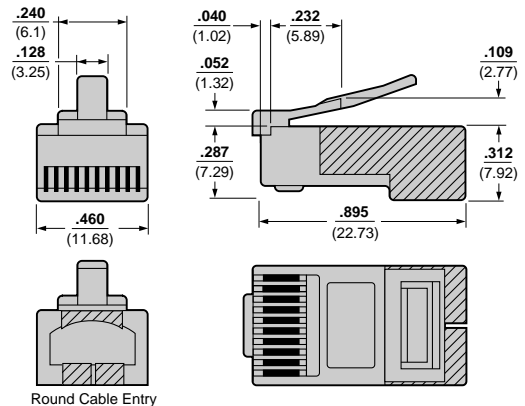
MP810 Non-Shielded

8 Positions, 10 Contacts



MPS810 Shielded

8 Positions, 10 Contacts

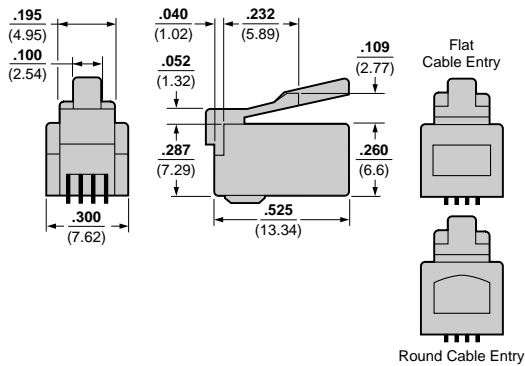


MODULAR PLUG CONNECTORS

MP Series
Non-Shielded, Shielded

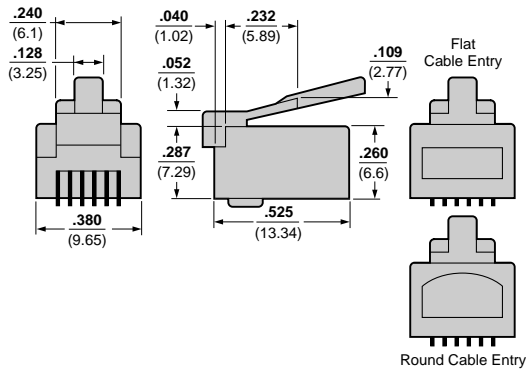
Dimensions

MP44 Non-Shielded
4 Positions, 4 Contacts



MAXCONN - (Back to Table of Contents)

MP66 Non-Shielded
6 Positions, 6 Contacts



HOW TO ORDER

MP - 8 8 F - 30

Series
Blank – Unshielded
S* – Shielded 6P and 8P only

Number of Positions
4, 6, 8

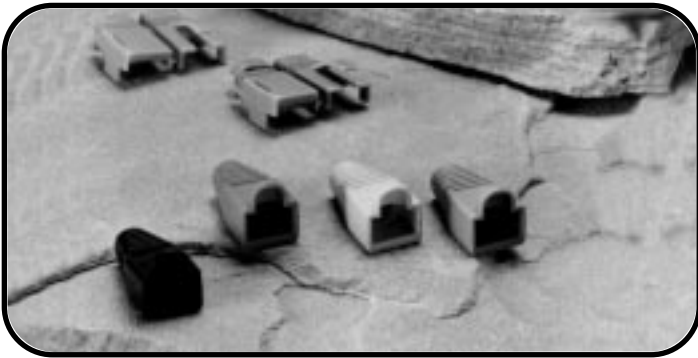
Number of Contacts
2, 4, 6, 8, 10*
*Available in 6P and 8P only

Contact Plating
Blank–10 microinch gold
30–30 microinch gold
50–50 microinch gold

Cable
F – Flat
R – Round

MP8B Series

Cable Boots with and without Latch Protectors



Performance Specifications

Materials and Finish

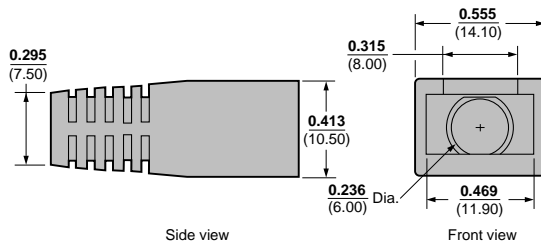
Dielectric Body: PVC thermoplastic, UL 94V-0 rated

FEATURES

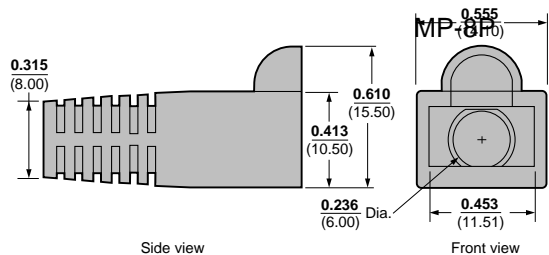
- UL and CSA approved E107337 and E145613
- RJ45 8-position cable boot
- With or without latch cover
- Strain relief options
- Various color code

DIMENSIONS

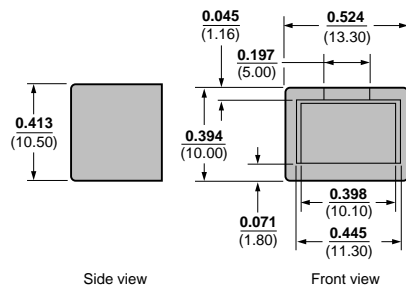
MP8B-SRF



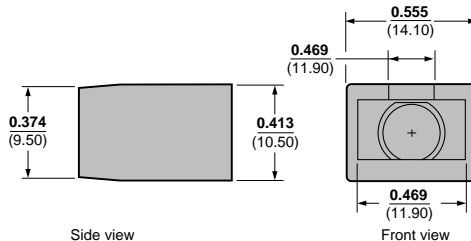
MP8B-SRF-T



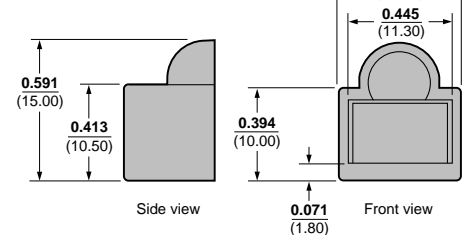
MP8B



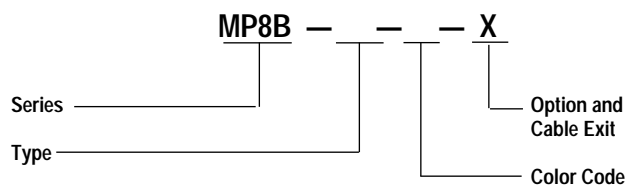
MP8B-SR



MP8B-T



How To ORDER



MP Series

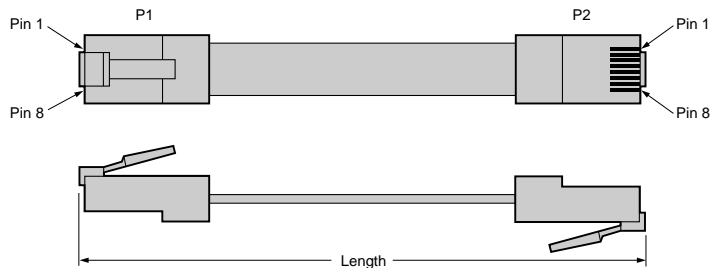
Male Cable Assembly



FEATURES

- Custom pin out
- Category 5
- UL and CSA approved

DIMENSIONS



Positions	Pin-Out Wiring Diagram	
	P1	P2
1	—	—
2	—	—
3	—	—
4	—	—
5	—	—
6	—	—
7	—	—
8	—	—
9	—	—
10	—	—

HOW TO ORDER

MP

-

4

2

F

-

-

1

-

0

Series

Blank – Unshielded

S – Shielded (8 position only)

Number of Positions

4, 6, 8

Contacts

2, 4, 6, 8, 10*

*Available 8P only

Cable

F – Flat cable

R – Round cable

R5 – Category 5

Color

Blank – Silver satin

0 – Black

1 – Beige

Length (Feet)

Wiring Diagram

1 – 1-1 (standard)

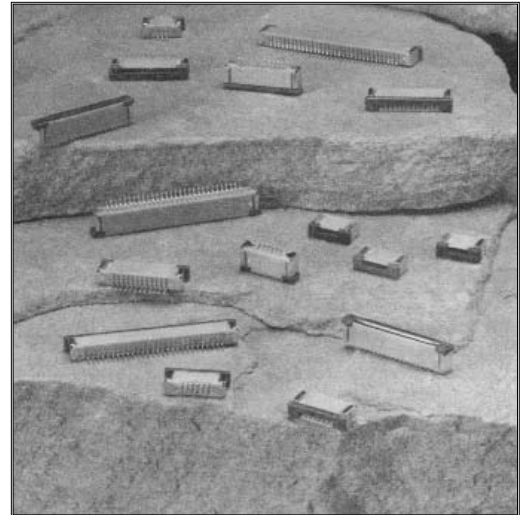
2 – 1-8

XX – Factory assigned

Flat Flex Circuit Connectors

MFPC Series - 1.00mm Right Angle Surface Mount,
Vertical Contact

3-2

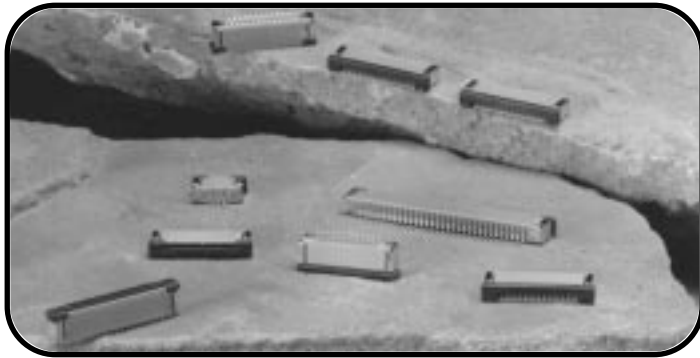


MFPC Series

1.00mm Right Angle

Surface Mount, Vertical

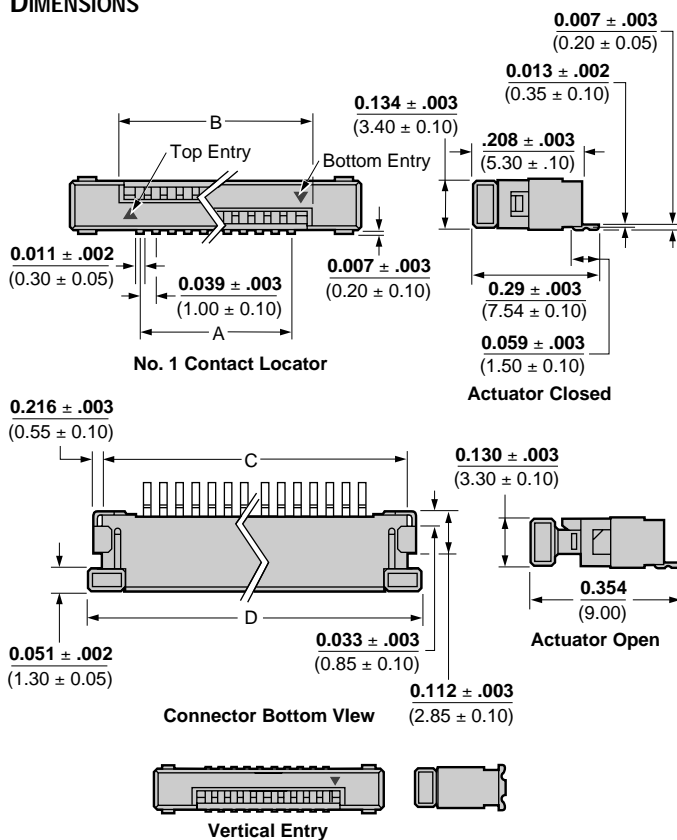
Contact



Features

- UL and CSA approved E107377 and E145613
- Low profile construction surface mount
- High temperature
- Top, Bottom and vertical mounted

DIMENSIONS



How To ORDER

MFPC - XX - X - X - X

Series _____

Number of Positions _____
3 - 32

Type _____
R - Right angle
v - Vertical

Type _____
X - Vertical entry
*T - Top entry
*B - Bottom entry
*Pertains to right angle type only

Plating _____
T - Tin plated

FLAT FLEX CIRCUIT CONNECTORS

MAXCONN - [\(Back to Table of Contents\)](#)

MFPC Series
1.00mm Right Angle, Surface Mount,
Vertical Contact

Number of Positions	Dimensions			
	A ±.0004 ±0.010	B ±.0006 ±0.015	C ±.0006 ±0.015	D ±.0006 ±0.015
3	0.078 2.00	0.161 4.10	0.307 7.80	0.385 9.80
4	0.118 3.00	0.200 5.10	0.346 8.80	0.425 10.80
5	0.157 4.00	0.240 6.10	0.385 9.80	0.464 11.80
6	0.197 5.00	0.279 7.10	0.425 10.80	0.504 12.80
7	0.236 6.00	0.319 8.10	0.464 11.80	0.504 13.80
8	0.275 7.00	0.358 9.10	0.504 12.80	0.583 14.80
9	0.315 8.00	0.397 10.10	0.543 13.80	0.622 15.80
10	0.354 9.00	0.437 11.10	0.583 14.80	0.661 16.80
11	0.393 10.00	0.476 12.10	0.622 15.80	0.700 17.80
12	0.433 11.00	0.515 13.10	0.661 16.80	0.740 18.80
13	0.472 12.00	0.555 14.10	0.700 17.80	0.779 19.80
14	0.512 13.00	0.594 15.10	0.740 18.80	0.818 20.80
15	0.551 14.00	0.633 16.10	0.779 19.80	0.858 21.80
16	0.590 15.00	0.673 17.10	0.818 20.80	0.897 22.80
17	0.629 16.00	0.712 18.10	0.858 21.80	0.937 23.80

Number of Positions	Dimensions			
	A ±.0004 ±0.010	B ±.0006 ±0.015	C ±.0006 ±0.015	D ±.0006 ±0.015
18	0.669 17.00	0.752 19.10	0.897 22.80	0.976 24.80
19	0.708 18.00	0.791 20.10	0.937 23.80	1.015 25.80
20	0.748 19.00	0.830 21.10	0.976 24.80	1.055 26.80
21	0.787 20.00	0.870 22.10	1.015 25.80	1.094 27.80
22	0.826 21.00	0.909 23.10	1.055 26.80	1.133 28.80
23	0.866 22.00	0.948 24.10	1.094 27.80	1.173 29.80
24	0.905 23.00	0.988 25.10	1.133 28.80	1.212 30.80
25	0.945 24.00	1.027 26.10	1.173 29.80	1.252 31.80
26	0.984 25.00	1.066 27.10	1.212 30.80	1.291 32.80
27	1.023 26.00	1.106 28.10	1.252 31.80	1.330 33.80
28	1.062 27.00	1.114 29.10	1.291 32.80	1.370 34.80
29	1.102 28.00	1.185 30.10	1.330 33.80	1.409 35.80
30	1.141 29.00	1.224 31.10	1.370 34.80	1.448 36.80
31	1.181 30.00	1.263 32.10	1.409 35.80	1.488 37.80
32	1.220 31.00	1.303 33.10	1.448 36.80	1.527 38.80

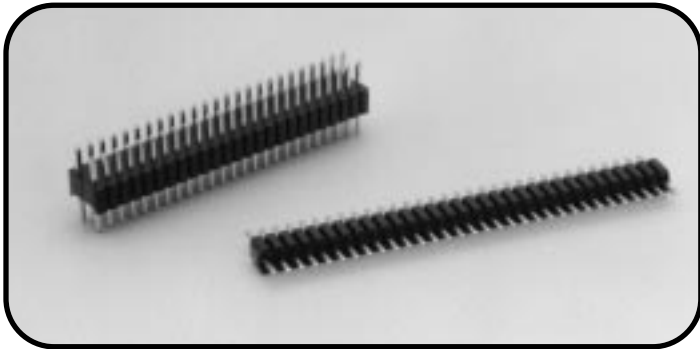
Headers

5210, 5220 Series - 0.05 (1.27 mm) Centers, Single and Dual Row	7-2
5S210, 5S220 Series - 0.05 (1.27 mm) Centers, Surface Mount, Single and Dual Row	7-3
5410, 5420 Series - 0.05 (1.27 mm) Centers Single and Dual Row	7-4
5S410, 5S420 Series - 0.05 (1.27 mm) Centers, Surface Mount, Single and Dual Row	7-5
2M210, 2M220 Series - 0.079 (2 mm) Centers Single and Dual Row	7-6
2MS220 Series - 0.079 (2mm) Centers, Surface Mount, Dual Row	7-7
2M21013S, 2M22013S Series - 0.079 (2mm) Centers Single and Dual Row	7-8
2M410, 2M420 Series - 0.079 (2 mm) Centers Single and Dual Row	7-9
2MS420 Series - 0.079 (2 mm) Surface Mount, Dual Row, 6 to 60 Positions	7-10
210, 220, 230 Series - 0.1 (2.54 mm) Centers Single, Dual and Three Row	7-11
21013S, 220BS Series - 0.1 (2.54 mm) Centers Single and Dual Row	7-13
410, 420 Series - 0.1 (2.54 mm.) Centers Single and Dual Row	7-14
EH Series - 0.1 (2.54 mm.) Centers Dual Row	7-15
SH Series - 0.1 (2.54 mm) Centers Dual Row	7-16
320 Series - 0.1 (2.54 mm) Centers Dual Row	7-17
S100, S200, S300 Series - 0.1 (2.54 mm) Centers	7-18
S9 Series - 0.1 (2.54 mm) Centers	7-19



HEADERS

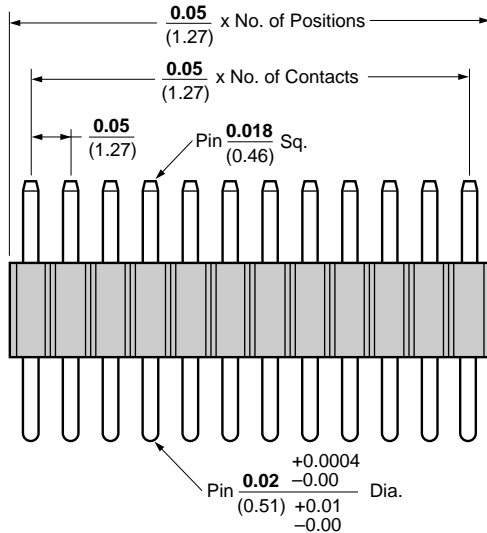
5210, 5220 Series 0.05 (1.27mm) Centers, Single and Dual Row



FEATURES

- Stack headers end-to-end or side-to-side without loss of positions
- Easy breakaway to required size
- Tin or three types of gold plating options
- Single row, 1-32 positions
- Dual row, 2-80 positions

DIMENSIONS — SINGLE AND DUAL ROW



MAXCONN - [\(Back to Table of Contents\)](#)

PERFORMANCE SPECIFICATIONS

Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass

Contact Finish: 1 – Tin: 100 microinch tin over 70 microinch copper
 Gold: 2 – 10 microinch gold over 50 microinch nickel
 3 – 15 microinch gold over 50 microinch nickel
 4 – 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 3 amps

Contact Resistance: 10 milliohms maximum

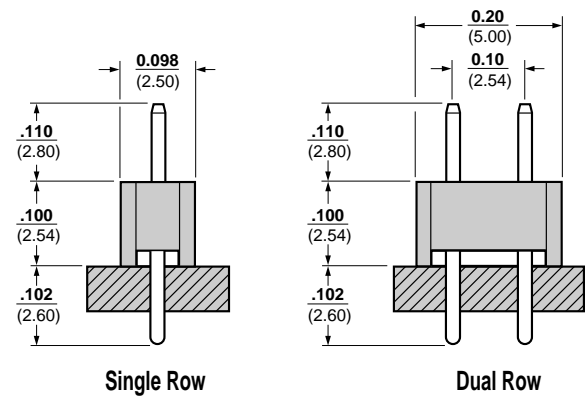
Dielectric Withstanding Voltage: 1000Vrms

Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to + 125° C

Mechanical Characteristics

Pin Push-Out Force: 3 lbs



HOW TO ORDER

5210 **V** — **B** **40** — **2**

Series
 5210- Single Row
 5220- Dual Row

Pin Type
 V – Vertical Pins

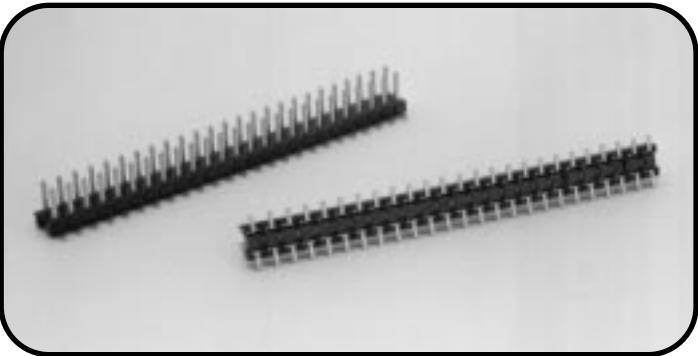
Material
 Brass

Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

Number of Contacts Per Row
 1-32, Single Row
 2-40, Dual Row

HEADERS

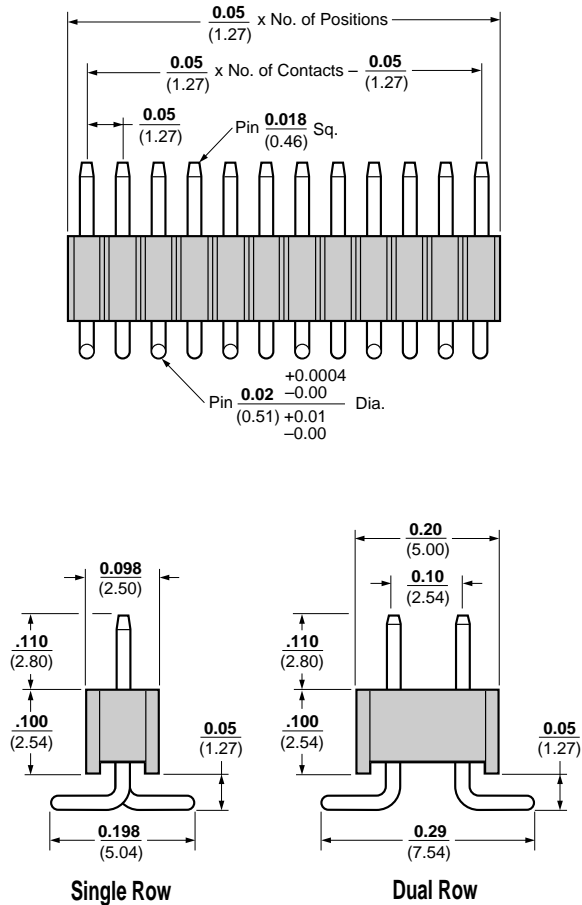
5S210, 5S220 Series
0.05 (1.27mm) Centers, Surface
Mount, Single and Dual Row



FEATURES

- Ideal for board stacking applications
- Notches for easy breakaway
- Single row, 1 to 32 positions
- Dual row, 2 to 80 positions

DIMENSIONS – SINGLE AND DUAL ROW



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications
Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass

Contact Finish: 1 – Tin: 100 microinch tin over 70 microinch copper
Gold: 2 – 10 microinch gold over 50 microinch nickel
3 – 15 microinch gold over 50 microinch nickel
4 – 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 3 amps

Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 1000Vrms

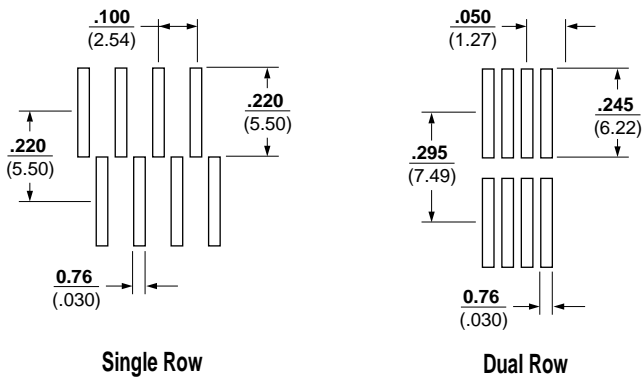
Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to + 125° C

Mechanical Characteristics

Pin Push-Out Force: 3 lbs

PCB LAYOUT — RECOMMENDED



How To ORDER

5S210 - 32 - V - 2

Series
5S210 – Single row
5S220 – Dual row

Number of Contacts
Per Row
1 to 32 Single Row
2 to 40 Dual Row

Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

Connector Type
V – Vertical

HEADERS

MAXCONN - [\(Back to Table of Contents\)](#)

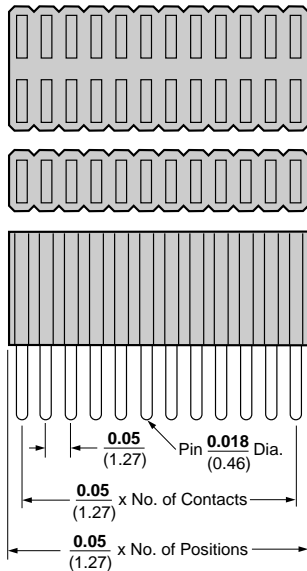
5410, 5420 Series 0.05 (1.27mm) Centers Single and Dual Row



FEATURES

- Low profile and high density is suitable for devices which require small and light internal parts
- High reliability contact structure provides normal-force after repeated cycles
- Mating with 1.27mm pitch 0.46mm square pin headers
- Single row 2 to 50 positions
- Dual row 4 to 100 positions

DIMENSIONS – SINGLE AND DUAL ROW



Performance Specifications Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Phosphor bronze

Contact Finish: 1 – Tin: 100 microinch tin over 70 microinch copper
2 – 10 microinch gold over 50 microinch nickel
3 – 15 microinch gold over 50 microinch nickel
4 – 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 3 amps

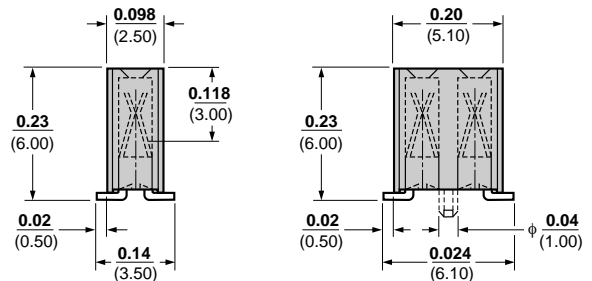
Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 1000 Vdc minimum

Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to + 125° C

Pin Push-Out Force: 3 lbs



Single Row

Dual Row

How To ORDER

Series **5410 - 40 - 2**
5410 Single Row
5420 Dual Row

Number of Contacts Per Row
5410 – 2 to 50 Single Row
5420 – 4 to 100 Dual Row

Code	Plating Options
1	100 microinch tin
2	10 microinch gold (Standard)
3	15 microinch gold
4	30 microinch gold

HEADERS

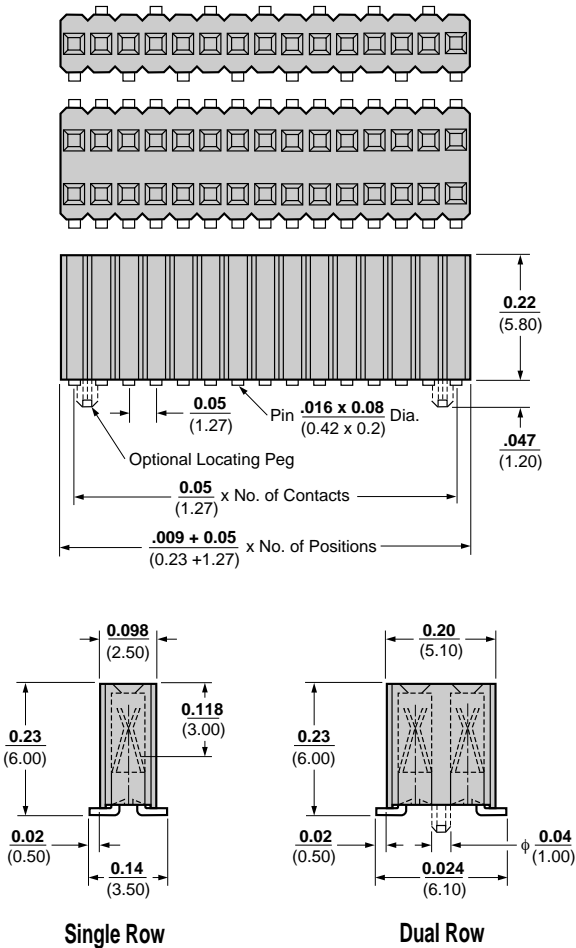
5S410, 5S420 Series
0.05 (1.27mm) Centers, Surface
Mount, Single and Dual Row



FEATURES

- Low profile: 6.0mm height
- Dual beam phosphor bronze contacts
- Designed for board to board small spacing interconnection
- Mating with 1.27mm pitch 0.46mm square headers
- Single row – 4 to 50 positions
- Dual row – 8 to 60 positions

DIMENSIONS – SINGLE AND DUAL ROW



MAXCONN - (Back to Table of Contents)

Performance Specifications
Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Phosphor bronze

Contact Finish: 1 – Tin: 100 microinch tin over 70 microinch copper
Gold: 2 – 10 microinch gold over 50 microinch nickel
3 – 15 microinch gold over 50 microinch nickel
4 – 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 3 amps

Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 1000 Vdc minimum

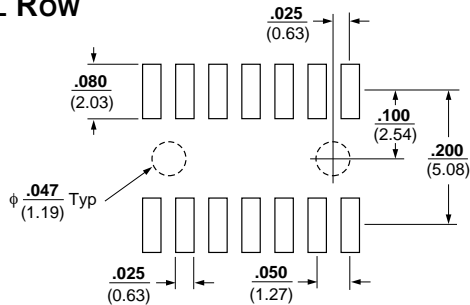
Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to + 125° C

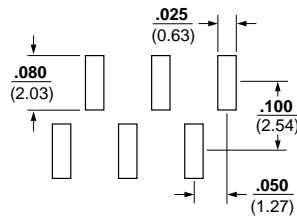
Pin Push-Out Force: 3 lbs

PCB LAYOUT – RECOMMENDED

DUAL ROW



SINGLE ROW



How To ORDER

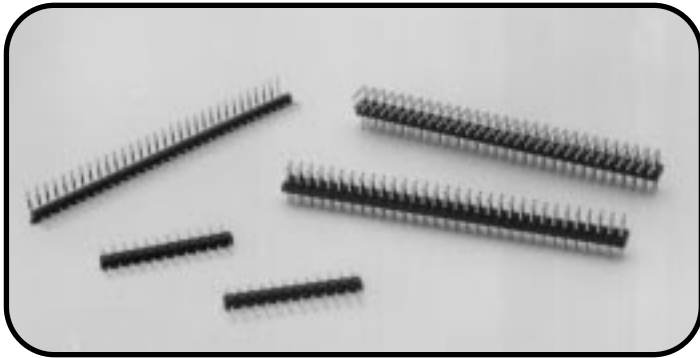
Series **5S410 - 40 - 2**
5S410 Single Row
5S420 Dual Row
Blank – Without Peg
L – With Peg
Number of Contacts
Per Row
5410 – 4 to 50 Single Row
5420 – 8 to 60 Dual Row

Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

2M210, 2M220 Series

0.079 (2mm) Centers

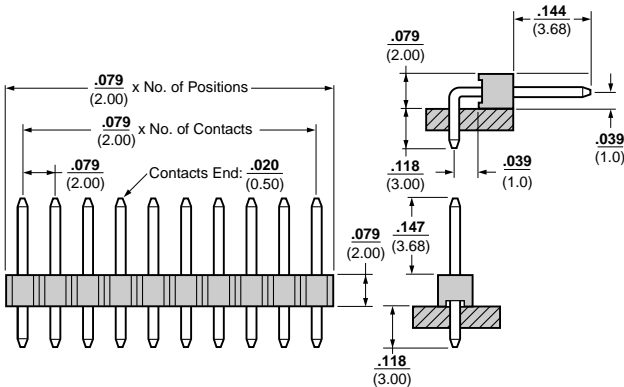
Single and Dual Row



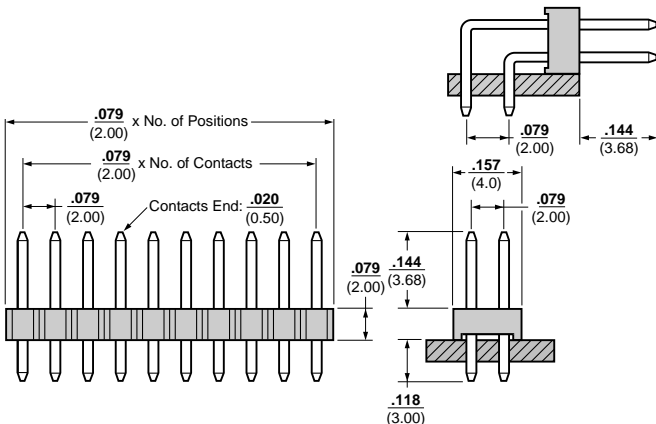
FEATURES

- 0.020 (0.50mm) square contact post
- 0.079 (2mm) centers between post spacing
- Stack headers end to end or side to side without loss of positions
- Mates with 0.079 x 0.079 grid female connector
- Single row from 1 to 40 positions
- Dual row from 2 to 40 positions
- Any pin can be void of gold plating option
- Tin or three types of gold plating options
- Any pin length available to 3.5 inches maximum

DIMENSIONS — SINGLE ROW



DIMENSIONS — DUAL ROW



Performance Specifications

Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass

Contact Finish: Tin: 100 microinch tin over 70 microinch copper

Gold: (A) 10 microinch gold over 50 microinch nickel

(B) 15 microinch gold over 50 microinch nickel

(C) 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 3 amps

Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 1000Vrms

Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to +125° C

Mechanical Characteristics

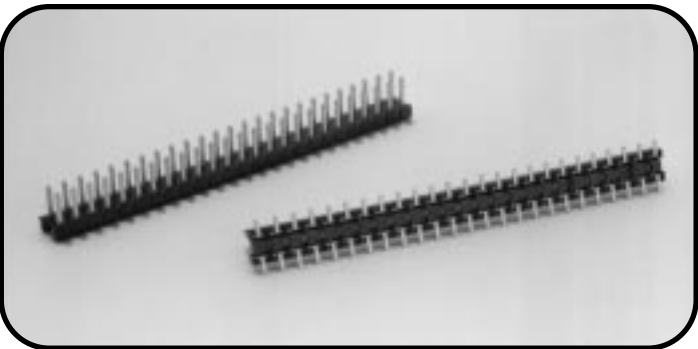
Pin Push-Out Force: 3 lbs

HOW TO ORDER

2M210 V - B 10 A - 2			
Series			
2M210 – Single row			
2M220 – Dual row			
Type of Pins			
V – Vertical pins			
R – Right angle pins			
B – Brass			
Number of			
Contacts per Row			
2M210 – 40 maximum			
2M220 – 40 per row			
		Code	Plating Options
		1	100 microinch tin
		2	10 microinch gold
		3	15 microinch gold
		4	30 microinch gold
Configuration	Code	Dimensions	
		A	B
Vertical	A	0.118	0.145
Right Angle	C	0.149	0.295
Vertical/Rt Angle	X	Any pin length available to 3.5 inches maximum (upon request)	

MALE HEADERS

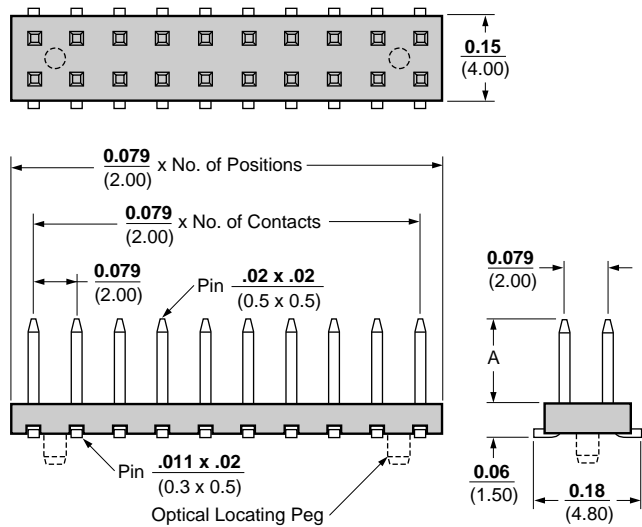
2MS220 Series
0.079 (2mm) Centers,
Surface Mount, Dual Row



FEATURES

- 0.02 (0.50mm) square contact post
- 0.079 (2mm) centers between post spacing
- Stack headers end to end or side to side without loss of positions
- Mates with 0.079 x 0.079 grid female connector
- Dual row from 4 to 50 positions per row
- Any pin can be void of polarization
- Tin or three types of gold plating options
- Any pin length to 3.5 inches maximum

DIMENSIONS



MAXCONN - (Back to Table of Contents)

PERFORMANCE SPECIFICATIONS

Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass

Contact Finish: Tin: 100 microinch tin over 70 microinch copper

Gold: (A) 10 microinch gold over 50 microinch copper

(B) 15 microinch gold over 50 microinch copper

(C) 30 microinch gold over 50 microinch copper

Electrical Characteristics

Contact Current Rating: 3 amps

Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 1000Vrms

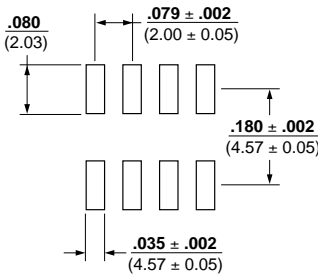
Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to + 125° C

Mechanical Characteristics

Pin Push-Out Force: 3 lbs

PCB LAYOUT



How To ORDER

2MS220 V - B - 40 A - 2

Series

Type of Pins

V - Vertical Pins

B - Brass

Number of Contacts per Row

Pin Length

(0.157 inches)

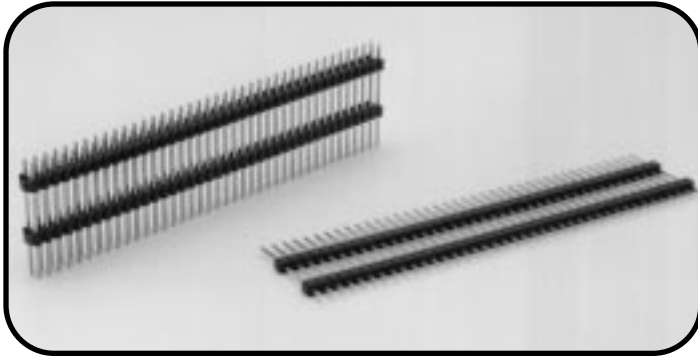
Blank - Without Locating Peg
L - With Locating Peg

Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

2M210BS, 2M220BS Series

0.079 (2mm) Centers

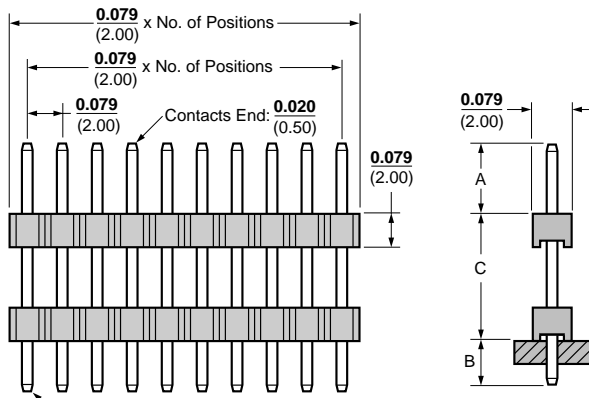
Single and Dual Row



FEATURES

- 0.020 (0.50mm) square contact post
- 0.079 (2mm) centers between post spacing
- Single row from 2 to 40 positions
- Dual row from 4 to 80 positions
- Tin or three types of gold plating options
- Side and end stackable (on unbroken edges)
- Notches for easy breakage
- Maintains dimension between two PC boards
- Standoffs facilitate post soldering clean

DIMENSIONS – 2M210BS SINGLE ROW



Performance Specifications

Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass

Contact Finish: Tin: 100 microinch tin over 70 microinch copper

- Gold:
- (A) 10 microinch gold over 50 microinch nickel
 - (B) 15 microinch gold over 50 microinch nickel
 - (C) 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 1 amp

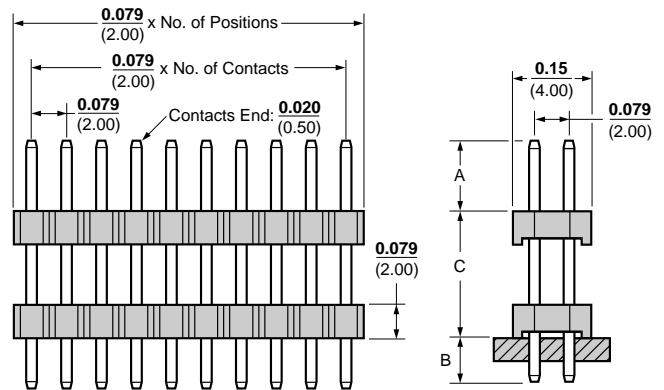
Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 630Vdc minimum

Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to + 125° C

DIMENSIONS – 2M220BS DUAL ROW



How To ORDER

2M210BS - V - B 40 - .XXX - .XXX - .XXX - 2

Series
2M210BS – Single Row
2M220BS – Double Row

Contacts
V – Vertical

Contacts
B – Brass

Number of Contacts
Per Row

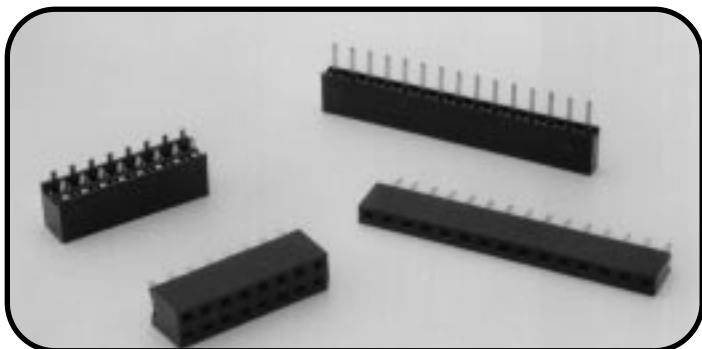
Dimension B
Dimension A
Dimension C

Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

2M410, 2M420 Series

0.079 (2mm) Centers

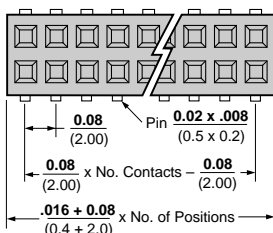
Single and Dual Row



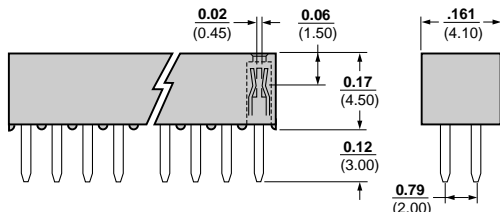
FEATURES

- Low profile: 4.3mm height
- Designed for parallel and vertical board stacking
- Mating with 2.0mm grid, dual row male header
- 4-80 positions

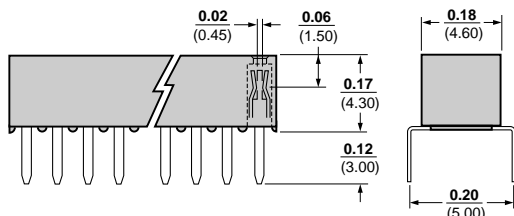
DIMENSIONS – 2M420 DUAL ROW



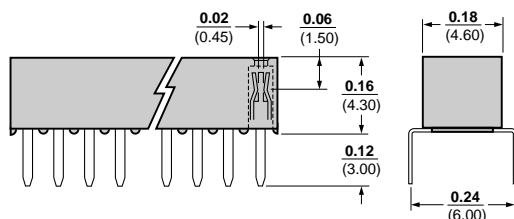
DIMENSIONS – 2M420 TOP ENTRY



DIMENSIONS – 2M421 TOP/BOTTOM ENTRY



DIMENSIONS – 2M422 TOP/BOTTOM ENTRY



Performance Specifications

Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Phosphor bronze

Contact Finish: Tin: 100 microinch tin over 70 microinch copper

- Gold:
- (A) 10 microinch gold over 50 microinch nickel
 - (B) 15 microinch gold over 50 microinch nickel
 - (C) 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 3 amps

Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 1000Vdc minimum

Insulation Resistance: 5,000 megohms minimum

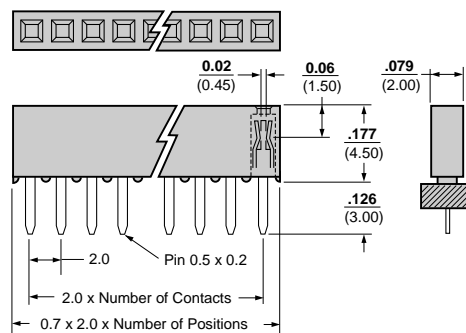
Temperature Rating: -55° C to +125° C

Mechanical Characteristics

Pin Push-Out Force: 3 lbs

DIMENSIONS – SINGLE ROW

2M410 – TOP ENTRY



How To ORDER

2M410 - 10 - 2

Series

- 2M410 – Single row top entry
- 2M420 – Dual row top entry
2mm between rows
- 2M421 – Dual row top/bottom entry
5mm between rows
- 2M422 – Dual row top/bottom entry
6mm between rows

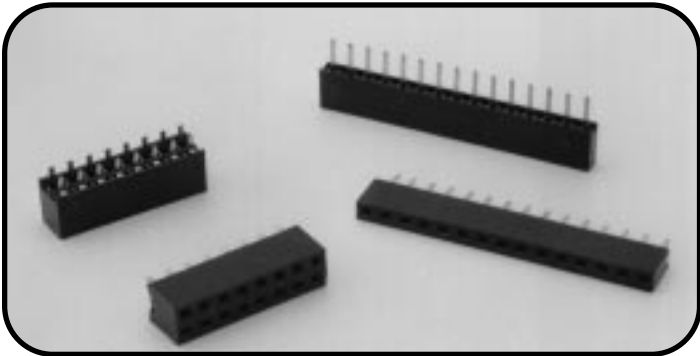
Number of Contacts per Row

- Single – 2 to 40
- Dual – 4 to 80

Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

HEADERS

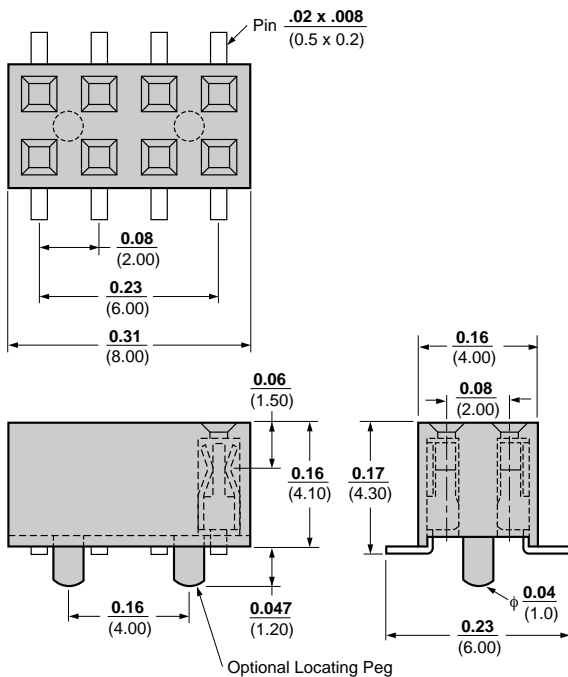
2MS420 Series 0.079 (2mm) Surface Mount, Dual Row, 6 to 60 Positions



FEATURES

- Low profile: 4.1mm height
- Dual beam phosphor bronze contacts
- Designed for board to board small spacing interconnection
- Mating with 1.27mm pitch 0.46mm square headers

DIMENSIONS



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Phosphor Bronze

Contact Finish:

- 1 Tin: 100 microinch tin over 70 microinch copper
- 2 – 10 microinch gold over 50 microinch nickel
- 3 – 15 microinch gold over 50 microinch nickel
- 4 – 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 3 amps

Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 1000Vrms

Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to + 125° C

Mechanical Characteristics

Pin Push-Out Force: 3 lbs

HOW TO ORDER

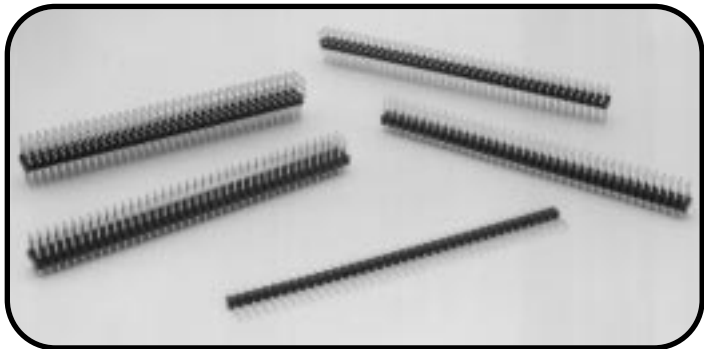
Series 2MS420 - 60 - 1 Blank – Without Locating Peg
L – With Locating Peg

Number of
Contacts
6 to 60

Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

HEADERS

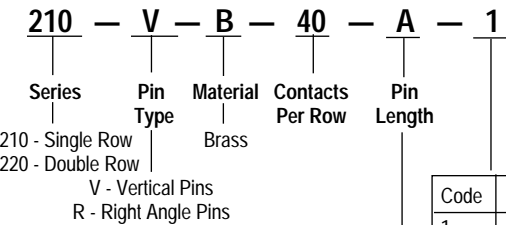
210, 220, 230 Series
0.1 (2.54mm) Centers
Single, Dual and Three Row



FEATURES

- 0.025 (0.635) square contact post
- 0.100 (2.54) centers between post spacing
- Stack headers end-to-end or side-to-side without loss of positions
- Mates with 0.100 x 0.100 grid female connector
- Available in five options: single, dual, and three rows with vertical or right angle configurations
- Easy breakaway to required size
- Single row from 1 to 40 positions
- Dual row from 2 to 40 positions per row
- Three rows from 3 to 40 positions per row
- Any pin can be void for polarization
- Tin or three types of gold plating options
- Any pin length available to 3.5 inches maximum

HOW TO ORDER — 210, 220 SERIES



Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

Configuration	Code	Dimensions	
		A	B
Vertical	A	0.100	0.220
Vertical	B	0.149	0.295
Right Angle	C	0.149	0.295
Vertical/Rt Angle	X	Any pin length available to 3.5 inches maximum (upon request)	

MAXCONN - (Back to Table of Contents)

Performance Specifications
Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass

Contact Finish: Tin: 100 microinch tin over 70 microinch copper
Gold: (A) 10 microinch gold over 50 microinch nickel
(B) 15 microinch gold over 50 microinch nickel
(C) 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 3 amps

Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 1000Vrms

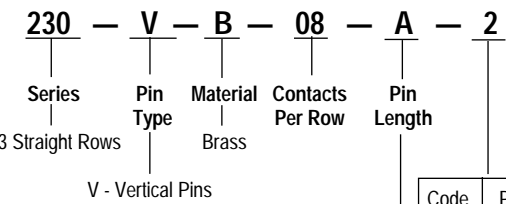
Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to + 125° C

Mechanical Characteristics

Pin Push-Out Force: 3 lbs

HOW TO ORDER — 230 SERIES



Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

Configuration	Code	Dimensions	
		A	B
Vertical	C	0.120	0.230

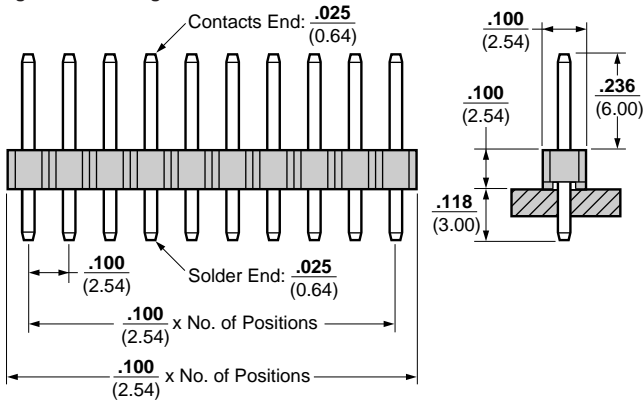
HEADERS

210, 220, 230 Series
0.1 (2.54mm) Centers
Single, Dual and Three Row

Mounting Options

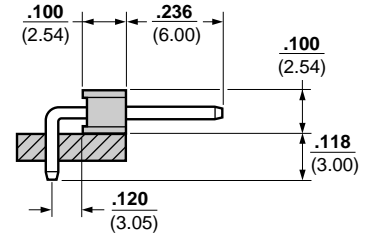
210V Series

Single Row, Straight



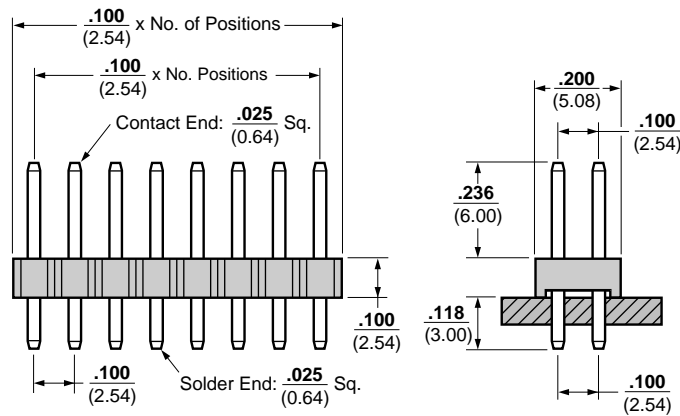
210R Series

Single Row, Right Angle



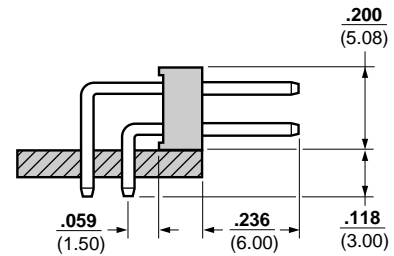
220V Series

Dual Row, Straight



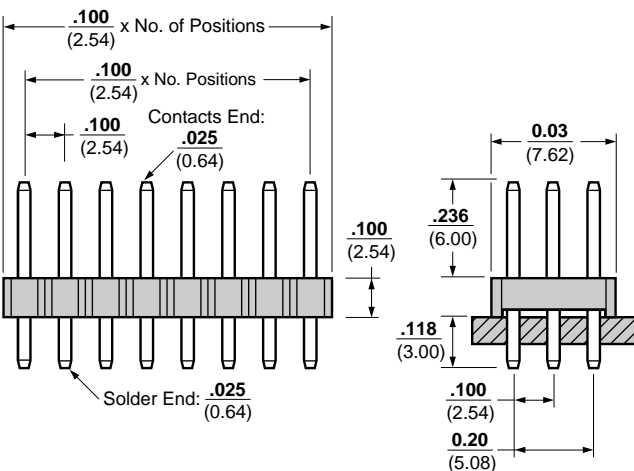
220R Series

Dual Row, Right Angle



230 Series

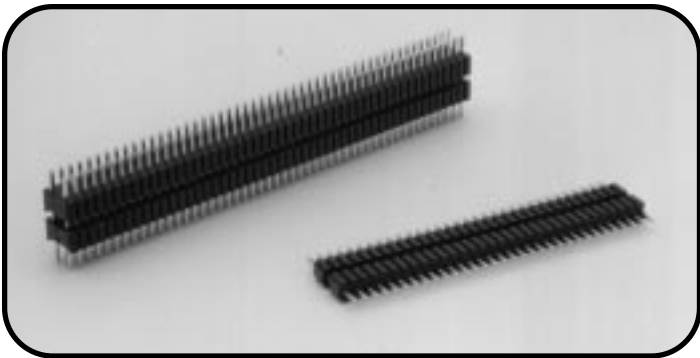
Three Row, Straight



MAXCONN - [\(Back to Table of Contents\)](#)

HEADERS

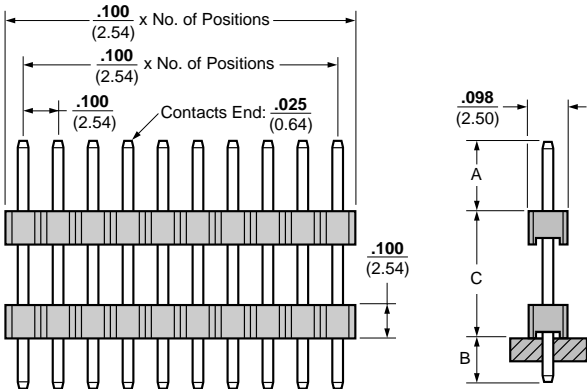
210BS, 220BS Series
0.1 (2.54mm) Centers
Single and Dual Row



FEATURES

- 0.025 (0.635) square contact post
- 0.100 (2.54) centers between post spacing
- Single row from 2 to 40 positions
- Dual row from 4 to 80 positions
- Tin or three types of gold plating options
- Side and end stackable (on unbroken edges)
- Notches for easy breakage
- Maintains dimension between two PC boards
- Standoffs facilitate post soldering cleaning

DIMENSIONS – 210BS (SINGLE ROW)



MAXCONN - (Back to Table of Contents)

Performance Specifications
Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass

Contact Finish: Tin: 100 microinch tin over 70 microinch copper

- Gold:
- (A) 10 microinch gold over 50 microinch nickel
 - (B) 15 microinch gold over 50 microinch nickel
 - (C) 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 1 amp

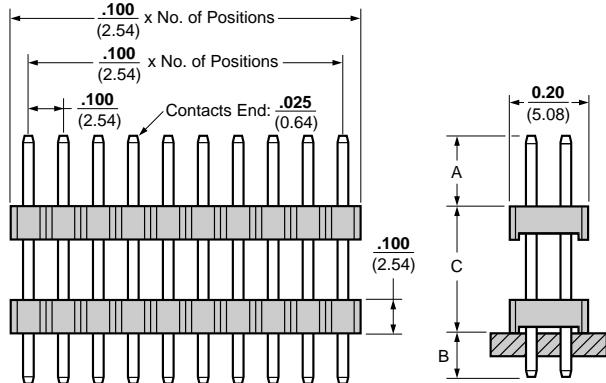
Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 500 Vdc minimum

Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to + 125° C

DIMENSIONS – 220BS (DUAL ROW)



HOW TO ORDER

210BS - V - B 40 - .XXX - .XXX - .XXX - 2

Series
210BS – Single Row
220BS – Dual Row

Contacts
V – Vertical

Contacts
B – Brass

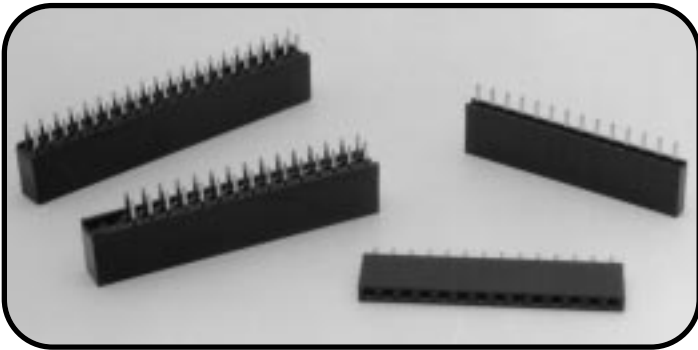
Number of Contacts
Per Row

Dimension B
Dimension A
Dimension C

Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

HEADERS

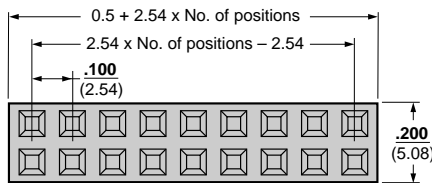
410, 420 Series 0.1 (2.54mm) Centers Single and Dual Row



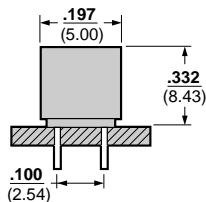
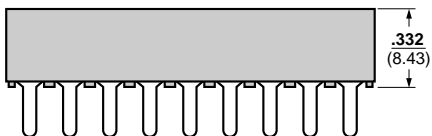
FEATURES

- Mates with 0.025 (0.635mm) square contact post
- Available in four options: single or dual rows, with straight tails
- Single row from 4 to 86 positions
- Dual row from 4 to 40 positions
- 0.100 x 0.100 grid

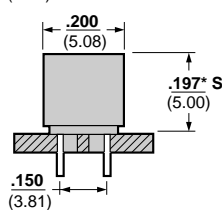
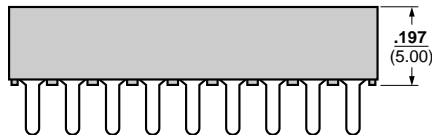
DIMENSIONS – 420 DUAL ROW



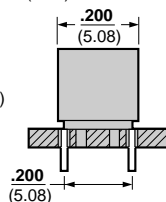
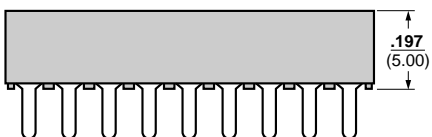
420 – TOP ENTRY



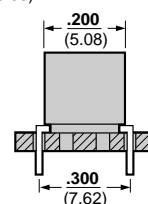
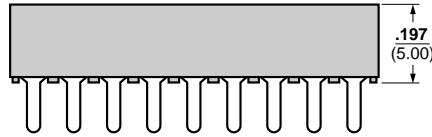
421 – TOP/BOTTOM ENTRY



422 – TOP/BOTTOM ENTRY



423 – TOP/BOTTOM ENTRY



MAXCONN - [\(Back to Table of Contents\)](#)

PERFORMANCE SPECIFICATIONS

Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Phosphor bronze

Contact Finish: 1 – Tin: 100 microinch tin over 70 microinch copper
2 – 10 microinch gold over 50 microinch nickel
3 – 15 microinch gold over 50 microinch nickel
4 – 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 3 amps

Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 1000Vdc minimum

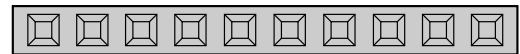
Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to +125° C

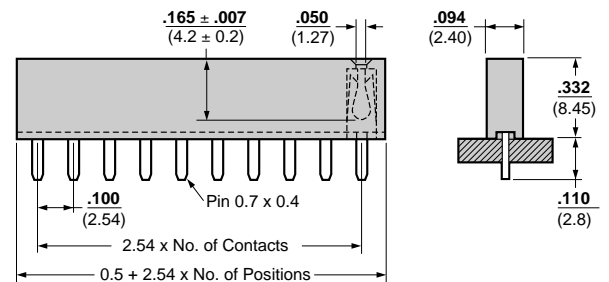
Mechanical Characteristics

Pin Push-Out Force: 3 lbs

DIMENSIONS – 410 SINGLE ROW



410 – TOP ENTRY



HOW TO ORDER

Series **410 - 40 - 1**

410 – Single row top entry
420 – Dual row top entry
2.54mm between rows
421 – Dual row top/bottom entry
3.81mm between rows
422 – Dual row top/bottom entry
5.08mm between rows
423 – Dual row top/bottom entry
7.62mm between rows

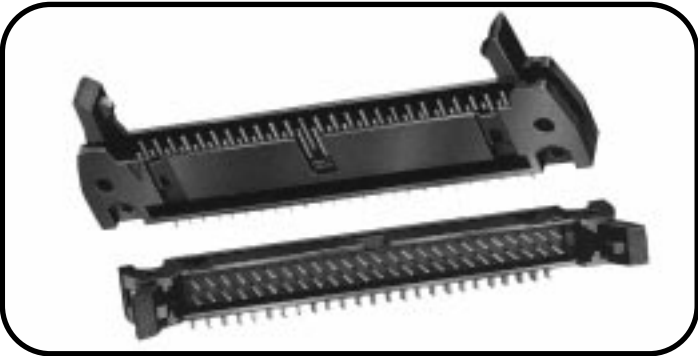
Number of Contacts per Row

Single – 2 to 40
Dual – 4 to 80

Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

HEADERS

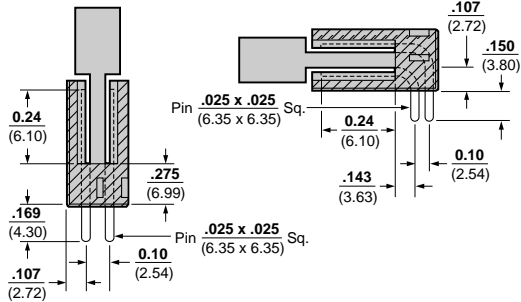
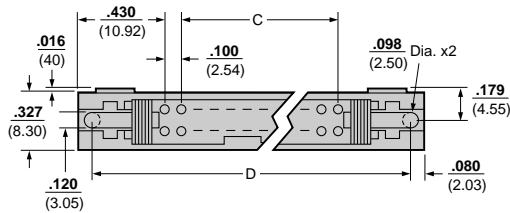
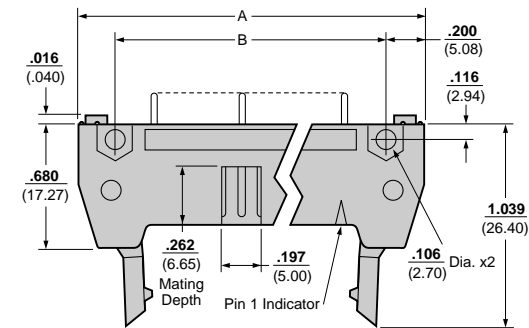
EH Series
0.1 (2.54mm) Centers
Dual Row



FEATURES

- Fully shrouded construction for added pin protection
- Available in 10, 14, 16, 20, 26, 34, 40, 50, and 64 positions
- Available in vertical or right angle mounting configurations
- Optional latches are available
- Mates with .100 x .100 grid female connector
- Tin or three types of gold plating options

DIMENSIONS



Side View
Vertical

Side View
Right Angle

MAXCONN - (Back to Table of Contents)

Performance Specifications
Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass

Contact Finish: Tin: 100 microinch tin over 70 microinch copper
Gold: (A) 10 microinch gold over 50 microinch nickel
(B) 15 microinch gold over 50 microinch nickel
(C) 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 3 amps

Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 1000 VDC MINIMUM

Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to + 125° C

Mechanical Characteristics

Pin Push-Out Force: 14 lbs

Number of Contacts	Header Dimension			
	A	B	C	D
10	1.26 32.00	0.86 21.84	0.40 10.16	0.10 27.94
12	1.36 34.54	0.96 24.38	0.50 12.70	1.22 30.84
14	1.46 37.08	1.06 26.92	0.60 15.24	1.30 33.02
16	1.56 39.62	1.16 29.46	0.70 17.78	1.40 35.56
20	1.76 44.70	1.36 34.54	0.90 22.86	1/59 40.46
24	1.96 49.78	1.56 39.62	1.10 27.94	1.80 45.72
26	2.06 52.32	1.66 42.16	1.20 30.48	1.90 48.26
30	2.26 57.40	1.86 47.24	1.40 35.56	2.10 53.34
34	2.46 62.48	2.06 52.32	1.60 40.64	2.30 58.42
40	2.76 70.10	2.36 59.94	1.90 48.26	2.60 66.04
50	3.26 82.80	2.86 72.64	2.40 60.96	3.10 78.74
56	3.56 90.42	3.16 80.26	2.70 68.58	3.28 83.36
60	3.76 95.50	3.36 85.34	2.90 73.66	3.60 91.44
64	3.96 100.58	3.56 90.42	3.10 78.74	3.80 96.52

How To ORDER

EH - V - 10 - L - 2

Series
EH

Pins

V – Vertical pins
R – Right angle pins

Number of
Positions
10 to 64

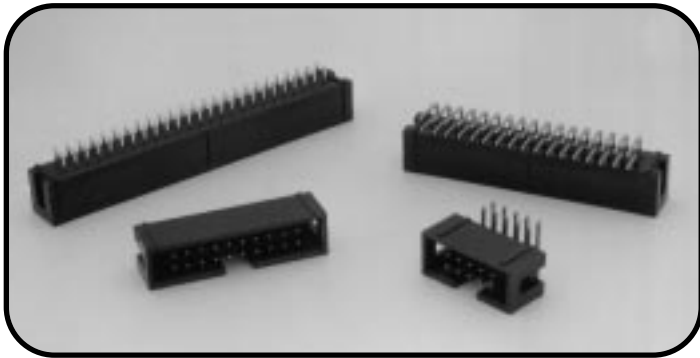
Ejector Latch

Blank – Without latch
L – With latch

Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

HEADERS

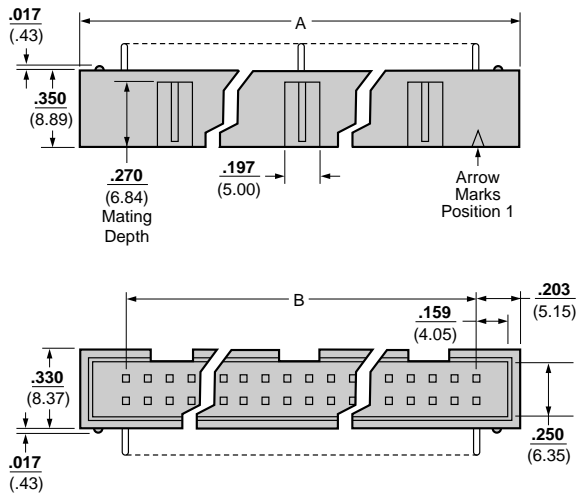
SH Series 0.1 (2.54mm) Centers Dual Row



FEATURES

- Fully shrouded construction for added pin protection
- Available in 10, 14, 16, 20, 26, 34, 40, 50, 60, 64 positions
- Available in vertical or right angle mounting configurations
- Low profile
- Mates with .100 x .100 grid female connector
- Tin or three types of gold plating options

DIMENSIONS



No. of Pins	Header Dimensions	
	A	B
10	0.80 20.30	0.40 10.16
12	0.90 22.84	0.50 12.70
14	1.00 25.38	0.60 15.24
16	1.10 27.92	0.70 17.78
20	1.30 33.00	0.90 22.86
24	1.50 38.08	1.10 27.94
26	1.60 40.62	1.20 30.48
30	1.80 45.70	1.40 35.56

No. of Pins	Header Dimensions	
	A	B
34	2.00 50.78	1.60 40.64
40	2.30 58.40	1.90 48.26
44	2.50 63.48	2.10 53.34
50	2.80 71.10	2.40 60.96
56	3.10 78.72	2.70 68.58
60	3.30 83.80	2.90 73.66
64	3.50 88.88	3.10 78.74

MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass

Contact Finish: Tin: 100 microinch tin over 70 microinch copper

- Gold:
- (A) 10 microinch gold over 50 microinch nickel
 - (B) 15 microinch gold over 50 microinch nickel
 - (C) 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 3 amps

Contact Resistance: 10 milliohms maximum

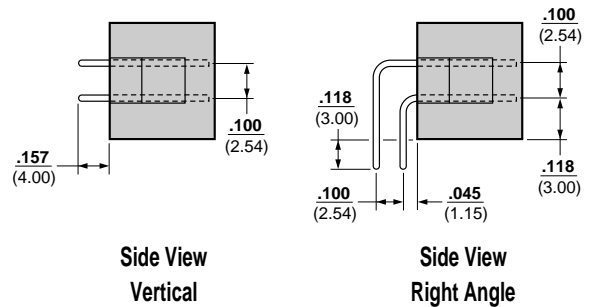
Dielectric Withstanding Voltage: 1000Vac

Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to + 125° C

Mechanical Characteristics

Pin Push-Out Force: 14 lbs

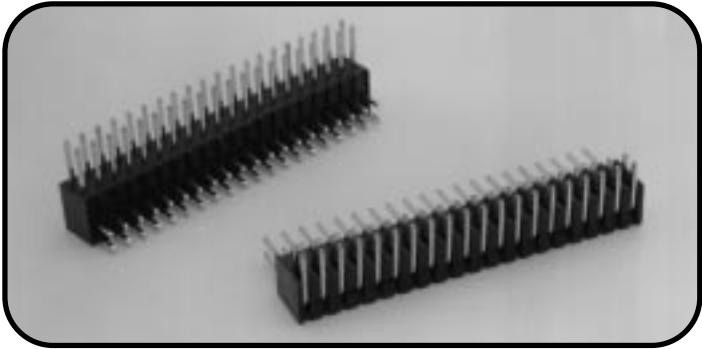


HOW TO ORDER

SH - V - 10 - 1	
Series	
Pin Style	
V - Vertical pins	
R - Right angle pins	
Number of Positions	
10 to 64	
(See table)	
Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

HEADERS

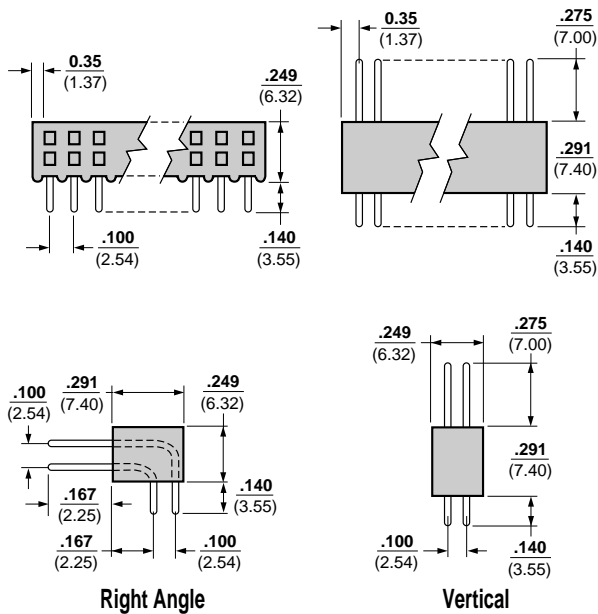
320 Series
0.1 (2.54mm) Centers
Dual Row



FEATURES

- Large plastic body for added mechanical stability and strength
- 0.025 (0.635mm) square contact post
- 0.100 (2.54mm) centers between post spacing
- Mates with 0.100 x 0.100 grid female connector
- Available in dual rows with vertical or right angle configuration
- Tin or three types of gold plating options
- Dual row from 2 to 80 positions

DIMENSIONS



MAXCONN - (Back to Table of Contents)

Performance Specifications
Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass

Contact Finish: Tin: 100 microinch tin over 70 microinch copper
Gold: (A) 10 microinch gold over 50 microinch nickel
(B) 15 microinch gold over 50 microinch nickel
(C) 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 3 amps

Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 1000Vrms

Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to + 125° C

Mechanical Characteristics

Pin Push-Out Force: 14 lbs

HOW TO ORDER

320 — V — B — 40 — 1

Series — 320 — Dual Row

Pin Type — V — Vertical Pins
R — Right Angle Pins

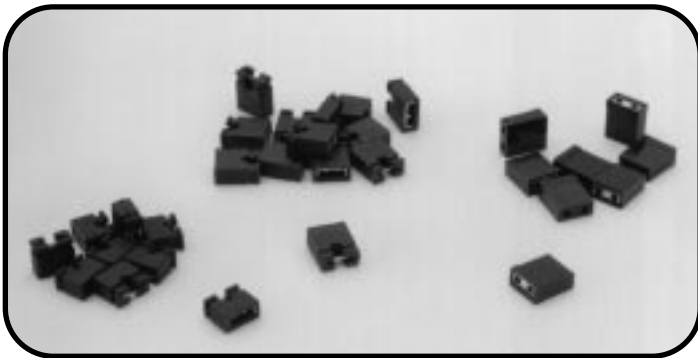
Material — B — Brass

Number of — 40 —
Contacts Per Row

Code	Plating Options
1	100 microinch tin
2	10 microinch gold
3	15 microinch gold
4	30 microinch gold

S100, S200, S300 Series

0.1 (2.54mm) Centers

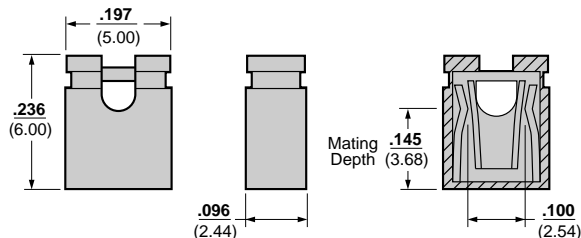


FEATURES

- Low or high insertion force is available
- Low or high profile is available
- Black or blue colors (other colors are available upon request)
- Mate with 0.025 (0.635) square contact post on 0.100 centers
- Unique dual leaf contact gives balanced forces and low resistance
- Chamfered entry for mating alignment
- Fully stackable side to side or end to end without loss of positions
- Tin of three types of gold plating options
- Open top to accommodate mating with long contact post

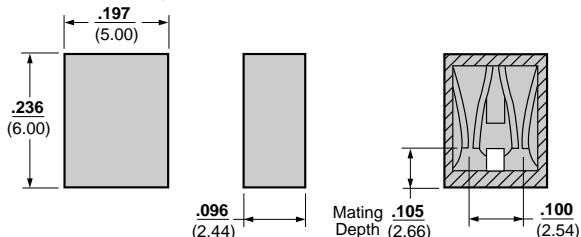
DIMENSIONS — S100 SERIES

HIGH PROFILE, LOW INSERTION FORCE



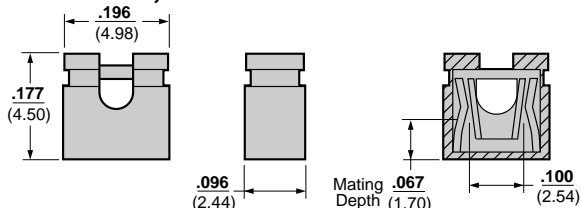
S200 SERIES

HIGH PROFILE, HIGH INSERTION FORCE



S300 SERIES

LOW PROFILE, LOW INSERTION FORCE



PERFORMANCE SPECIFICATIONS

Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Phosfor Bronze

Contact Finish: Tin: 100 microinch tin over 70 microinch copper

Gold: (A) 10 microinch gold over 50 microinch nickel

(B) 15 microinch gold over 50 microinch nickel

(C) 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 2 amps

Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 630Vdc minimum

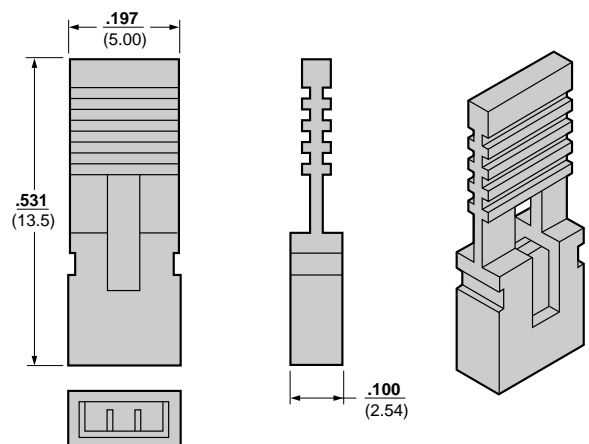
Insulation Resistance: 5,000 megohms minimum

Temperature Rating: -55° C to +125° C

Mechanical Characteristics

Series	Nominal Contact Separation Force	Nominal Contact Engagement Force
S100	4 ounce	4 ounce
S200	5 ounce	7 ounce
S300	4 ounce	4 ounce

S100 -T SERIES



How To ORDER

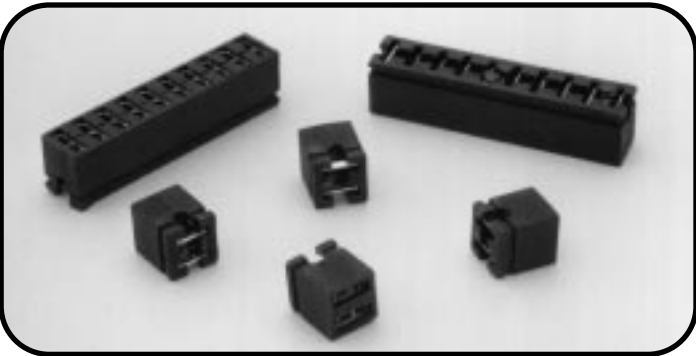
Series	Code	Plating Options
S100	1	100 microinch tin
S200	2	10 microinch gold
S300	3	15 microinch gold
	4	30 microinch gold

Color	Blank	T
0 - Black		
6 - Blue		

Tabs	Blank	T
Blank - Without tab		
T - With tab		

HEADERS

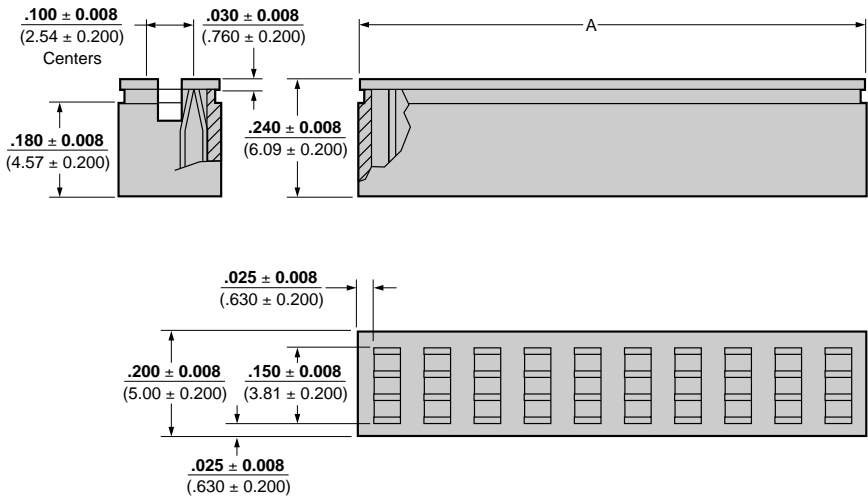
S9 Series
0.1 (2.54mm) Centers



FEATURES

- Two to ten positions
- Mates with 0.025 (0.635) square contact post on 0.100 centers
- Unique dual leaf contact gives balanced forces and low resistance
- Fully stackable side to side or end to end without loss of positions
- Tin or three types of gold plating options
- Open top to accommodate mating with long contact post

DIMENSIONS



No. of Shunts	Dimensions A
2	0.300
3	0.400
4	0.500
5	0.600
6	0.700
7	0.800
8	0.900
9	1.000
10	1.100

MAXCONN - (Back to Table of Contents)

Performance Specifications
Materials and Finish

Dielectric Body: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Phosphor bronze

Contact Finish: Tin: 100 microinch tin over 70 microinch copper
Gold: (A) 10 microinch gold over 50 microinch nickel
(B) 15 microinch gold over 50 microinch nickel
(C) 30 microinch gold over 50 microinch nickel

Electrical Characteristics

Contact Current Rating: 2 amps

Contact Resistance: 10 milliohms maximum

Dielectric Withstanding Voltage: 630Vdc minimum

Insulation Resistance: 5,000 megohms minimum

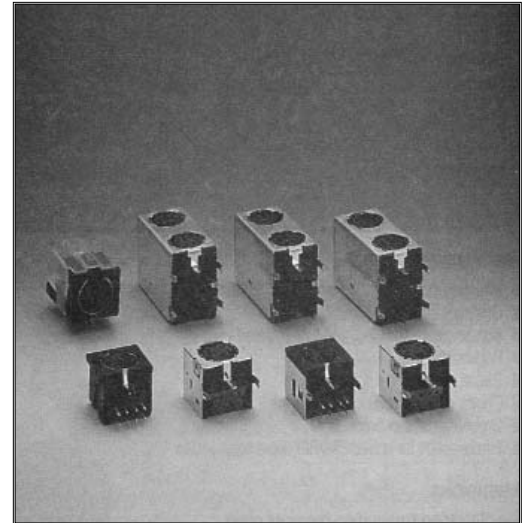
Temperature Rating: -55° C to + 125° C

HOW TO ORDER

	S9	08	0 - 2											
Series														
S9														
Number of Shunts														
2 to 10														
Color														
0 – Black														
				<table><tr><th>Code</th><th>Plating Options</th></tr><tr><td>1</td><td>100 microinch tin</td></tr><tr><td>2</td><td>10 microinch gold</td></tr><tr><td>3</td><td>15 microinch gold</td></tr><tr><td>4</td><td>30 microinch gold</td></tr></table>	Code	Plating Options	1	100 microinch tin	2	10 microinch gold	3	15 microinch gold	4	30 microinch gold
Code	Plating Options													
1	100 microinch tin													
2	10 microinch gold													
3	15 microinch gold													
4	30 microinch gold													

Mini DIN Connectors

MMDF Series - Circular Non-Shielded, Shielded, and Fully Shielded	9-2
MMDS Series - Circular, Shielded and Fully Shielded with Switch	9-4
MMDV Series - Circular Connectors Vertical Type, 3 to 8 Contacts	9-5
MMDV Series - Circular Connectors Vertical Type, 9 Contacts	9-6
MMDM Series - Shielded Male Plug	9-7
MMDFS Series - Stacked, 4 Positions, Top and Bottom	9-8
MMDFS Series - Stacked, 6 Positions, Top and Bottom	9-9
MMDFS Series - Stacked, 8 Positions, Top and Bottom	9-10



MMDF Series

Circular Non-Shielded, Shielded, and Fully Shielded

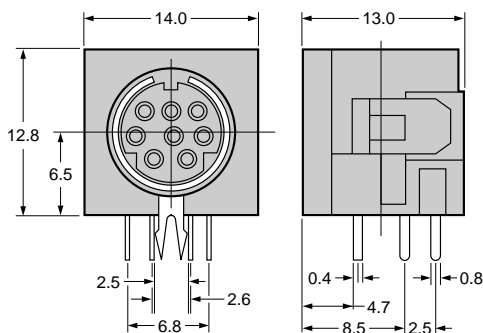


FEATURES

- Miniature size
- One shell size, 3 to 9 positions
- Non-shielded, shielded, and fully shielded
- Polarization key
- Switch option (consult factory)
- Choice of colors: black, platinum* pearl white*
- Grounding tabs or brackets
- Ferrite option for added EMI/RFI noise suppression

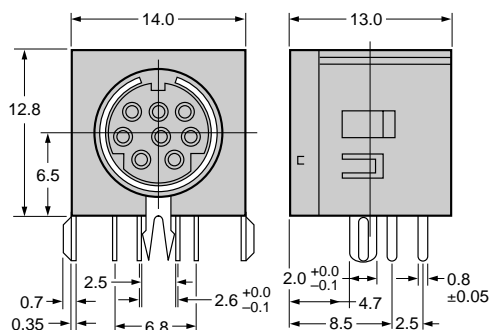
DIMENSIONS

Non-Shielded (grounding brackets only)



DIMENSIONS

Shielded Four Sides(grounding brackets only)



Performance Specifications

Materials and Finish

Shield (outer): Steel, nickel finish

Shield (inner): Phosphor bronze, nickel finish

Insert: PBT thermoplastic, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Phosphor bronze

Contact Finish: Standard 50 microinch silver over 100 microinch copper

Optional: 10, 15, or 30 microinch gold over 50 microinch nickel

Grounding Bracket/Tab: Phosphor bronze, nickel finish

Mechanical Characteristics

Contact Separation Force: 1.35 ounces, minimum

Contact Engagement Force: 1.60 ounces, maximum

Electrical Characteristics

Contact Current Rating: 1 amp, 100 Vac, 2 amp 12 Vdc

Contact Resistance: 30 milliohms maximum

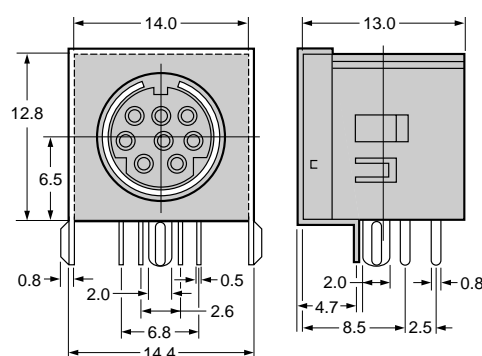
Dielectric Withstanding Voltage: 250 Vdc minimum for one minute, 5000 megohms min.

Insulation Resistance: 50 megohms minimum

Temperature Rating: -55° C to + 125° C

DIMENSIONS

Fully Shielded Five Sides(grounding tab only)



HOW TO ORDER

MMDF - 8 S N B - F 1

Series

Number of Positions

3, 4, 5, 6,
7, 8, 9**

S — Shielded (4 sides)

FS — Fully Shielded (5 sides)

N — Grounding Bracket

0 — Grounding Tab

Plating

1 — 50 microinch Silver
2 — 10 microinch Gold
3 — 15 microinch Gold
4 — 30 microinch Gold

Ferrite

Blank — Without ferrite
F — With ferrite

Color

B — Black (Standard)
A — Platinum* (Apple Computer)
I — Pearl white* (IBM)

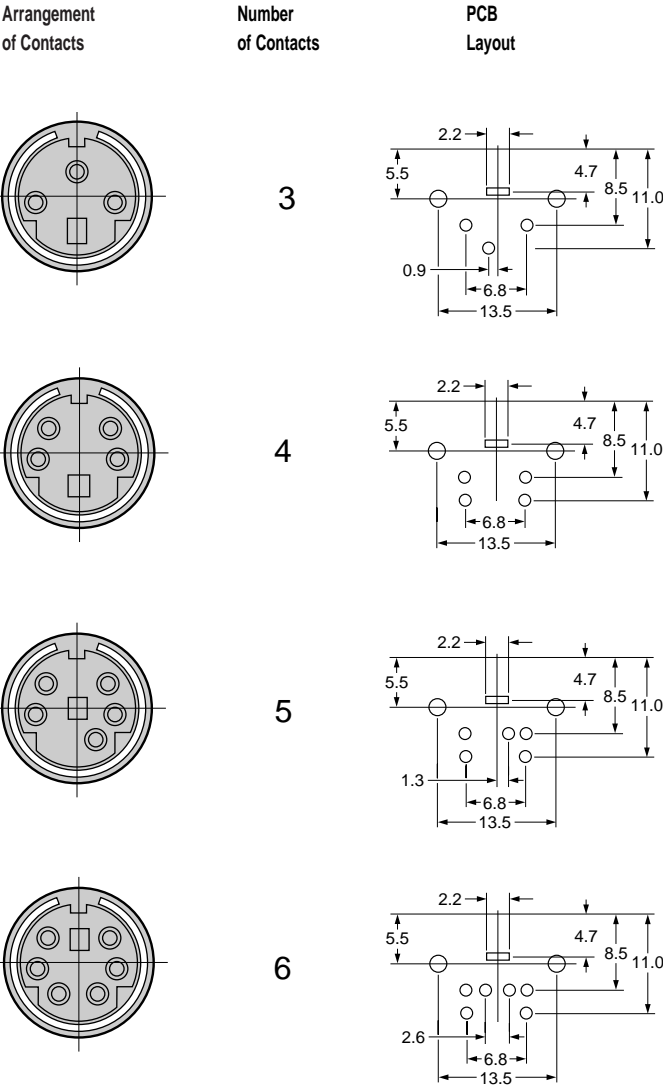
* 5,000 piece minimum order.

** 9 position available fully shielded with grounding tab only.

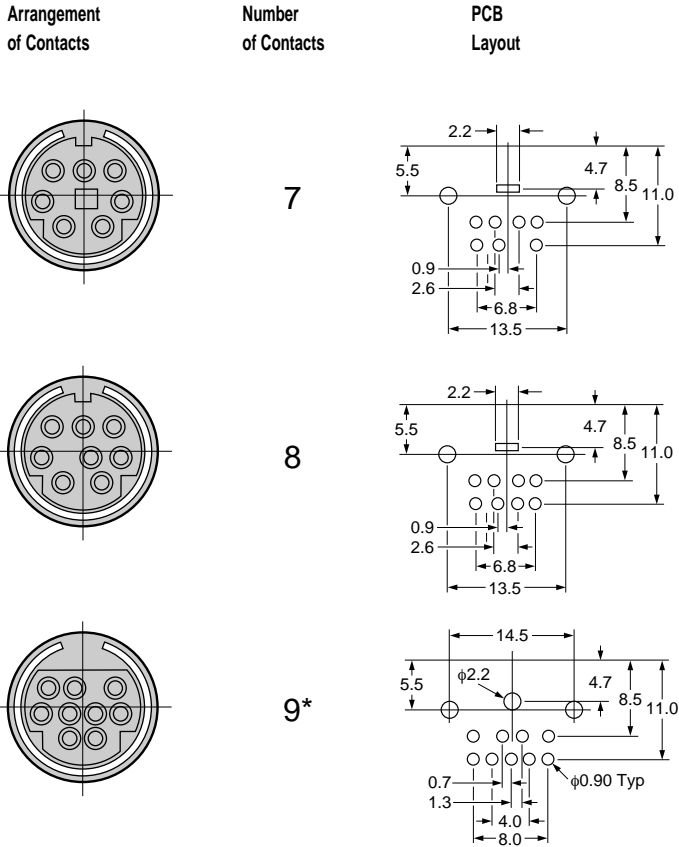
MINI-DIN CONNECTORS

MMDF Series
Circular Non-Shielded, Shielded,
and Fully Shielded

Dimensions



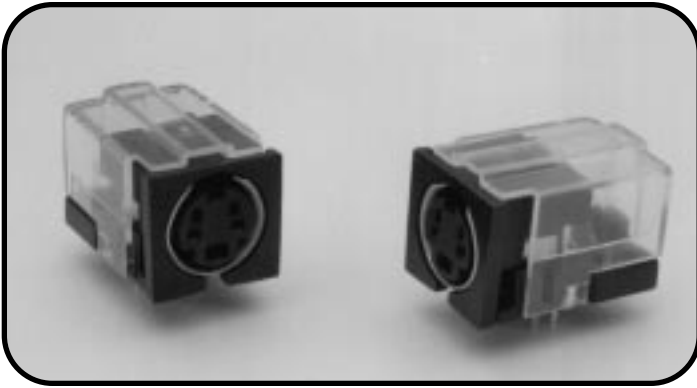
MAXCONN - (Back to Table of Contents)



* 9 position available fully shielded with grounding tab only.

MINI-DIN CONNECTORS

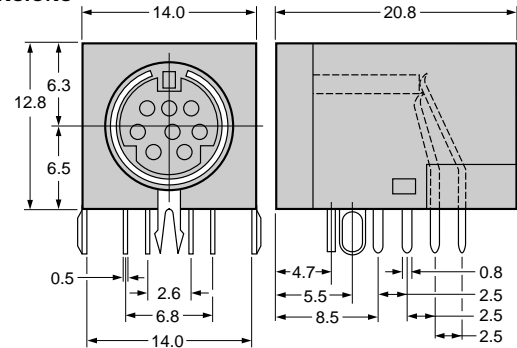
MMDS Series Circular, Shielded and Fully Shielded with Switch



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications
Same as MMDF Series

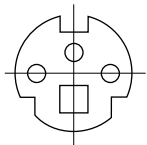
DIMENSIONS



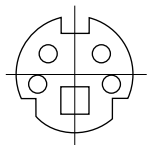
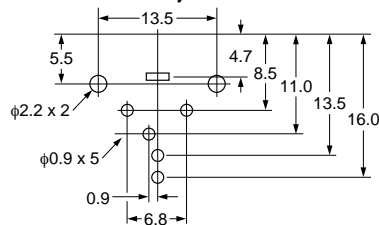
Arrangement
of Contacts

Number
of Contacts

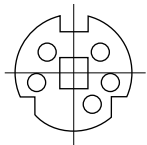
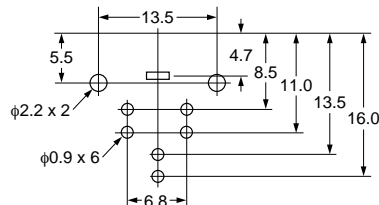
PCB
Layout



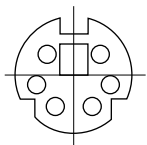
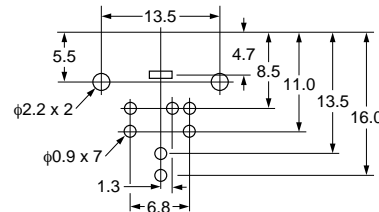
3



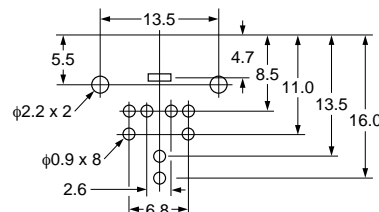
4



5



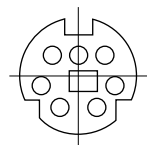
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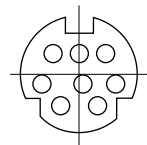
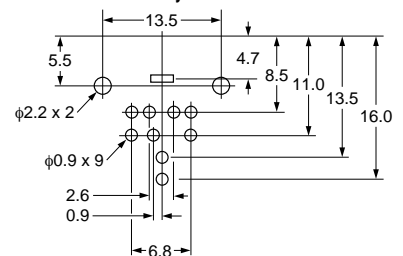
Arrangement
of Contacts

Number
of Contacts

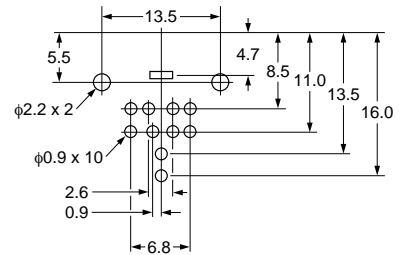
PCB
Layout



7



8



HOW TO ORDER

MMDS - 8 S B - 1

Series

Number of
Positions

3, 4, 5,
6, 7, 8

S — Shielded

F — Fully Shielded

Plating

1 — 50 microinch Silver
2 — 10 microinch Gold
3 — 15 microinch gold
4 — 30 microinch gold

Color

B — Black (Standard)
A — Platinum* (Apple Computer)
I — Pearl white* (IBM)

* 5,000 piece minimum order

** 9 position not available

MINI-DIN CONNECTORS

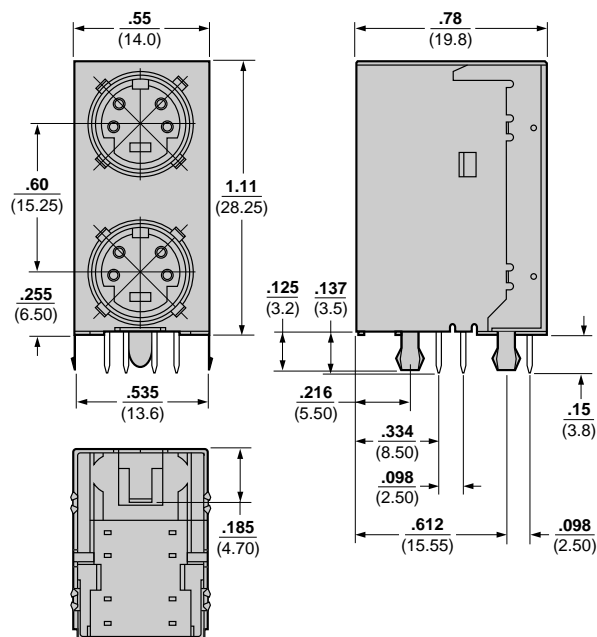
MMDFS Series Stacked, 4 Positions, Top and Bottom



FEATURES

- Vertical dual-port construction allows for space saving on the panel and printed circuit board
- 4, 6, 8-positions available

DIMENSIONS



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Shield (outer): Steel, nickel finish

Shield (inner): Phosphor bronze, nickel finish

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass 0.020 (0.508mm) diameter phosphor bronze

Contact Finish: 10 microinch gold over 50 microinch nickel

Mechanical Characteristics

Contact Separation Force: 1.35 ounces, minimum per contact

Contact Engagement Force: 1.60 ounces, maximum per contact

Electrical Characteristics

Contact Current Rating: 1 amp

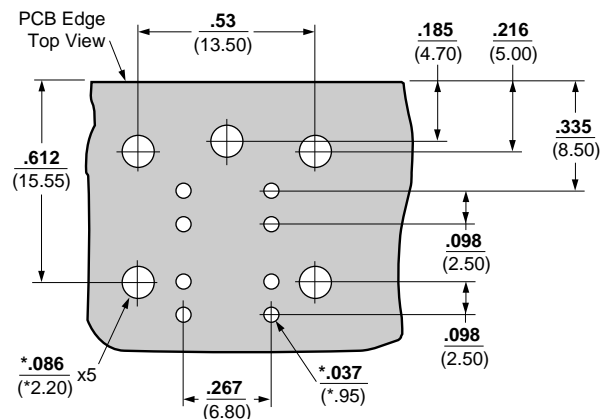
Contact Resistance: 30 milliohms maximum

Dielectric Withstanding Voltage: 500 Vac

Insulation Resistance: 1000 megohms minimum

Temperature Rating: -25° C to +85° C

PCB LAYOUT



HOW TO ORDER

MMDFS - 4 / 4 S O B - 2

Series

Number of Positions – Top
4, 6, 8

Number of Positions – Bottom
4, 6, 8

Shielded

O — Grounding Tab

Plating

2 — 10 microinch gold

Color

B — Black

MINI-DIN CONNECTORS

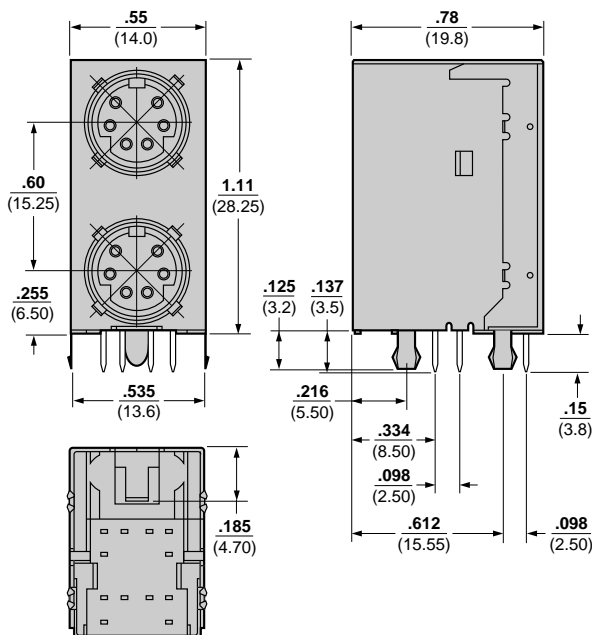
MMDFS Series Stacked, 6 Positions, Top and Bottom



FEATURES

- Vertical dual-port construction allows for space saving on the panel and printed circuit board
- 4, 6, 8-positions available

DIMENSIONS



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Shield (outer): Steel, nickel finish

Shield (inner): Phosphor bronze, nickel finish

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass 0.020 (0.508mm) diameter phosphor bronze

Contact Finish: 10 microinch gold over 50 microinch nickel

Mechanical Characteristics

Contact Separation Force: 1.35 ounces, minimum per contact

Contact Engagement Force: 1.60 ounces, maximum per contact

Electrical Characteristics

Contact Current Rating: 1 amp

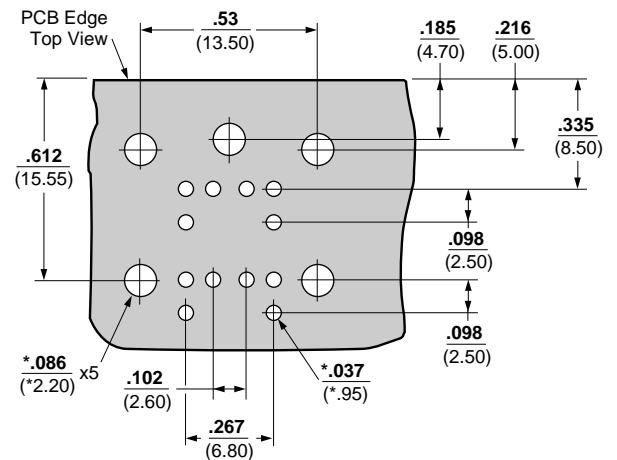
Contact Resistance: 30 milliohms maximum

Dielectric Withstanding Voltage: 500 Vac

Insulation Resistance: 1000 megohms minimum

Temperature Rating: -25° C to + 85° C

PCB LAYOUT



HOW TO ORDER

MMDFS - 6 / 6 S O B - 2

Series

Number of
Positions – Top
4, 6, 8

Number of
Positions – Bottom
4, 6, 8

Shielded

O — Grounding Tab

Plating

2 — 10 microinch gold

Color

B — Black

MINI-DIN CONNECTORS

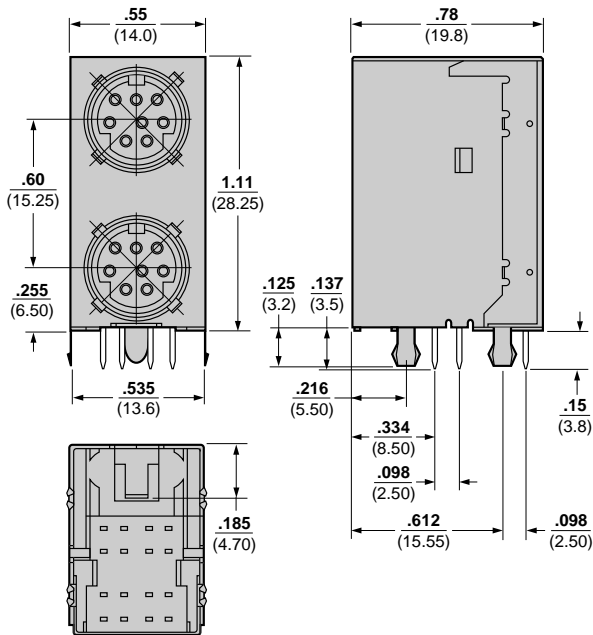
MMDFS Series Stacked, 8 Positions, Top and Bottom



FEATURES

- Vertical dual-port construction allows for space saving on the panel and printed circuit board
- 4, 6, 8-positions available

DIMENSIONS



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Shield (outer): Steel, nickel finish

Shield (inner): Phosphor bronze, nickel finish

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass 0.020 (0.508mm) diameter phosphor bronze

Contact Finish: 10 microinch gold over 50 microinch nickel

Mechanical Characteristics

Contact Separation Force: 1.35 ounces, minimum per contact

Contact Engagement Force: 1.60 ounces, maximum per contact

Electrical Characteristics

Contact Current Rating: 1 amp

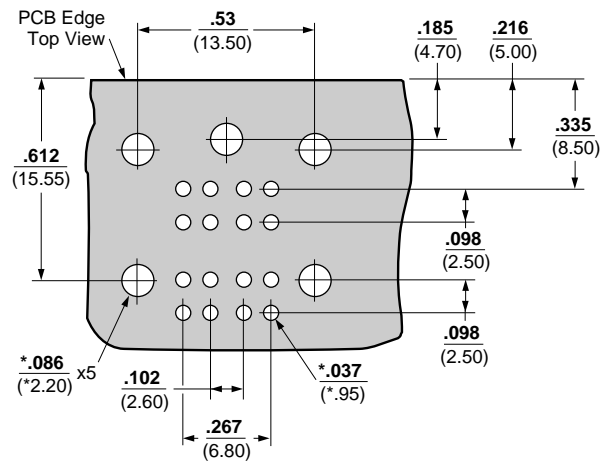
Contact Resistance: 30 milliohms maximum

Dielectric Withstanding Voltage: 500 Vac

Insulation Resistance: 1000 megohms minimum

Temperature Rating: -25° C to + 85° C

PCB LAYOUT



HOW TO ORDER

MMDFS - 8 / 8 S O B - 2

Series

Number of Positions – Top
4, 6, 8

Number of Positions – Bottom
4, 6, 8

Shielded

O — Grounding Tab

Plating

2 — 10 microinch gold

Color

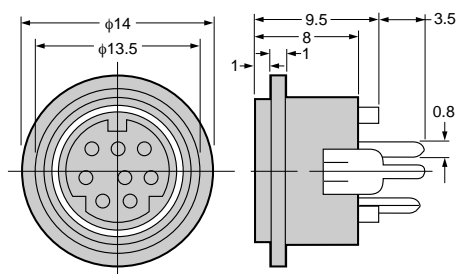
B — Black

MINI-DIN CONNECTORS

MMDV Series Circular Connectors Vertical Type, 3 to 8 Contacts



DIMENSIONS— 3 TO 8 CONTACTS



MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Shield/Shield: Steel, nickel finish

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Phosphor bronze

Contact Finish: Plated silver 30 microinch over 50 microinch nickel

Mechanical Characteristics

Contact Separation Force: 0.9 Kg to 3 Kg

Contact Engagement Force: 4.5 Kg maximum

Electrical Characteristics

Contact Current Rating: 100 Vac, 1 amp maximum or 12Vdc, 2 amp maximum

Contact Resistance: 30 milliohms maximum

Dielectric Withstanding Voltage: 250 Vac/1 minute

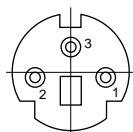
Insulation Resistance: 50 megohms minimum at 250 Vdc

Temperature Rating: -25° C to +85° C

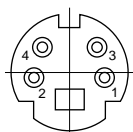
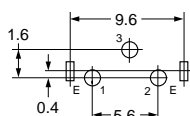
Arrangement of Contacts

Number of Contacts

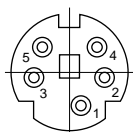
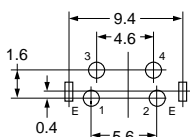
PCB Layout



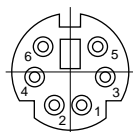
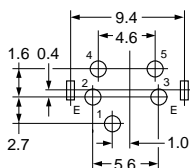
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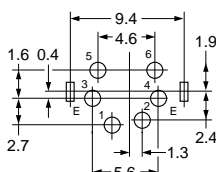
4



5



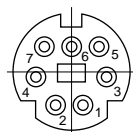
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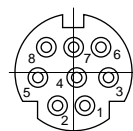
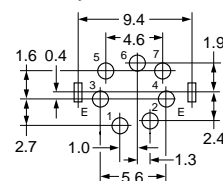
Arrangement of Contacts

Number of Contacts

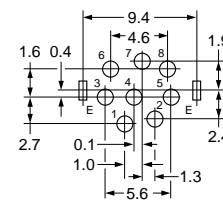
PCB Layout



7



8



HOW TO ORDER

MMDV - 8

Series

Number of
Positions

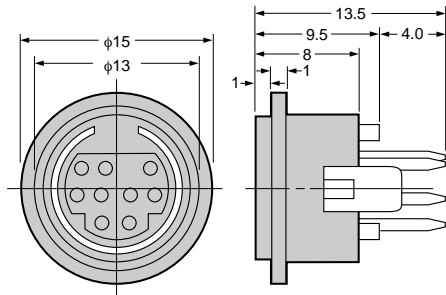
3, 4, 5,
6, 7, 8

MINI-DIN CONNECTORS

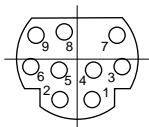
MMDV Series
Circular Connectors
Vertical Type, 9 Contacts



DIMENSIONS— 9 CONTACTS



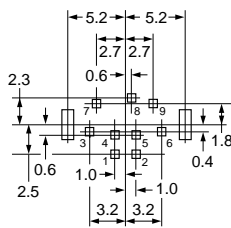
Arrangement
of Contacts



Number
of Contacts

9

PCB
Layout



PART NUMBER: MMDV-9

MAXCONN - [\(Back to Table of Contents\)](#)

Performance Specifications

Materials and Finish

Shield/Shield: Steel, nickel finish

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Phosphor bronze

Contact Finish: Plated silver 30 microinch over 50 microinch nickel

Mechanical Characteristics

Contact Separation Force: 0.9 Kg to 3 Kg

Contact Engagement Force: 4.5 Kg maximum

Electrical Characteristics

Contact Current Rating: 100 Vac, 1 amp maximum or 12Vdc, 2 amp maximum

Contact Resistance: 30 milliohms maximum

Dielectric Withstanding Voltage: 250 Vac/1 minute

Insulation Resistance: 50 megohms minimum at 250 Vdc

Temperature Rating: -25° C to + 85° C

MINI-DIN CONNECTORS

MMDM Series

Shielded Male Plug

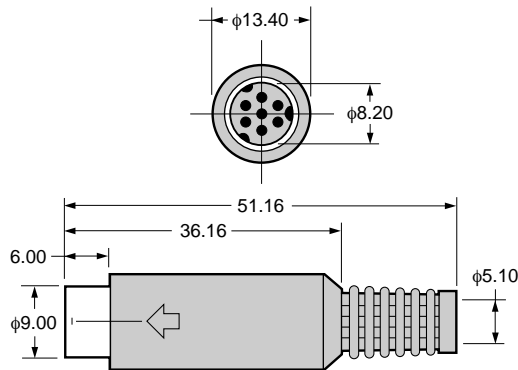
MAXCONN - [\(Back to Table of Contents\)](#)



FEATURES

- Male — Shielded
- Polarizing key

DIMENSIONS



Performance Specifications

Materials and Finish

Shield/Shield: Steel, nickel finish

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Brass

Contact Finish: Plated silver 30 microinch over 50 microinch nickel

Mechanical Characteristics

Contact Separation Force: 1.35 ounces, minimum per contact

Contact Engagement Force: 1.60 ounces, maximum per contact

Electrical Characteristics

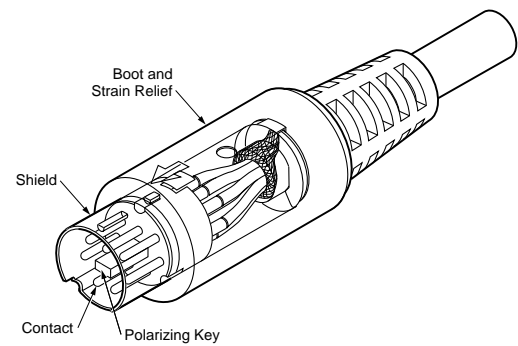
Contact Current Rating: 1 amp

Contact Resistance: 30 milliohms maximum

Dielectric Withstanding Voltage: 500 Vac

Insulation Resistance: 1000 megohms minimum

Temperature Rating: -25° C to + 85° C



HOW TO ORDER

MMDM - 8 - S - B - 1

Series

Number of Positions

3, 4, 5,
6, 7, 8

S — Shielded

Plating

1 — 50 microinch Silver
2 — 10 microinch Gold

Color

B — Black (Standard)
A — Platinum* (Apple Computer)
I — Pearl white* (IBM)

* 5,000 piece minimum order

Arrangement of Contacts	Number of Contacts	Arrangement of Contacts	Number of Contacts
	3		7
	4		8
	5		
	6		

BNC Connectors

MBNC Series - Right Angle, Vertical, Surface Mount Receptical with Terminating Resistors and Filtering Capacitors	10-2
MBNC Series - Right Angle, Vertical, Terminators, and Filtered Board Level Connectors	10-5
MBNC-AT Series - Auto-Termination SMT Compatible PCB Mount Double Female Connector	10-6
MNF Series - Right Angle, F-Connector PCB Mount Receptical	10-8
MBNC Series - BNC Connector Right Angle PCB Mount Receptical	10-9
MBNC Series - BNC Connector Right Angle PCB Mount Receptical with LED Indicator	10-10
MNF Series - F-Connector, Right Angle, PCB Mount Receptical	10-11
MNF Series - F-Connector, Right Angle, PCB Mount Receptical with LED	10-12



MBNC Series

Right Angle, Vertical, Surface Mount Receptical with Terminating Resistors and Filtering Capacitors



FEATURES

- UL and CSA approved E107337 and E145613
- 50 and 75 ohm impedance
- 9400pF filtered option
- Terminating resistors

HOW TO ORDER

	MBNC	-	-	-
Series				
MBNC – Single				
MSBNC – Stacked				
Filtered				
Blank – Non-Filtered				
F – Filtered				
R – Right Angle				
V – Vertical				
Insulator				
B – Black				
W – White				
M – All metal				
PCB Mounting				
Blank – Through hole				
S – SMT				
Plating				
1 – Tin plated				
2 – Gold plated (Standard)				
Options				
Blank – 50 ohms				
75 – 75 ohms				

Performance Specifications

Materials and Finish

Metal Housing: 100 microinch minimum nickel plating over zinc alloy

Contact: Contact area 1---200 microinch tin/lead plating over
50 microinch nickel plating overall

Plastic Insulator: PBT UL94V-0 rated black or white

Contact Insulator: Polypropylene

Mounting Post: Tin plating over brass

Grounding Terminal: Tin plating over copper wire

Electrical Characteristics

Impedance: 75 ohm

Frequency Range: 50 ohms 0–1 GHz

75 ohms 0–4 GHz

Operating Voltage: 500 Volts RMS

Contact Resistance: 3.0 mohms maximum (gold)

Dielectric Withstanding Voltage: 1500 Volts RMS

Insulation Resistance: 5000 Megohms minimum

Mechanical Characteristics

Durability: 500 cycles/mated/unmated

Ceramic Capacitor: 4700PF @ 10% x 2 (9400PF)

Resistive Value: 1/2 Watt 5% 50, 75, and 93 ohms

Operating Temperature: -40° C to +85° C

Environmental Characteristics

Temperature Range: -50°C to +85°C

Thermal Shock-Mill-Std: 1344, Method 1033, Condition A

Salt Spray-Mill-Std: 1344, Method 1001, Condition B

Physical Shock-Mill-Std: 1344, Method 2004, Condition G

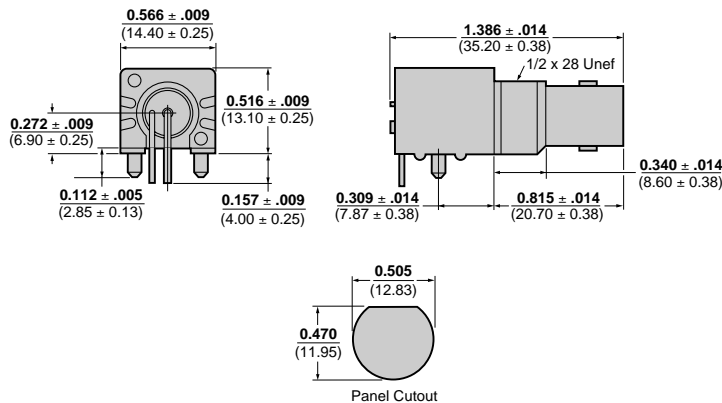
Humidity-Mill-Std: 1344, Method 1002, Procedure B Type 2

MBNC-RW-1

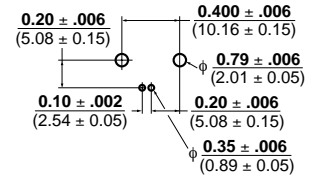
50 ohm, Right Angle, Low Profile

.516 Height, Thru Hole (White body) (Black optional)

DIMENSIONS



PCB LAYOUT

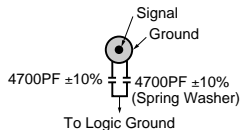
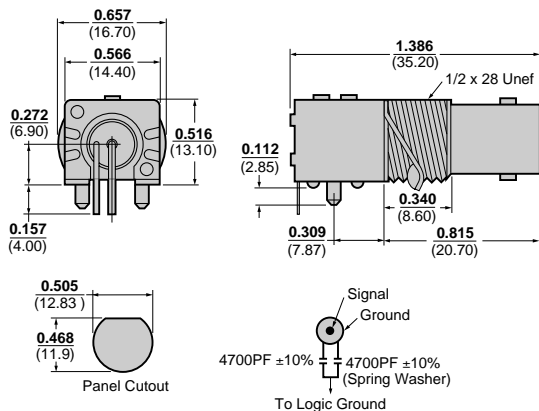


MBNCF-RB-2

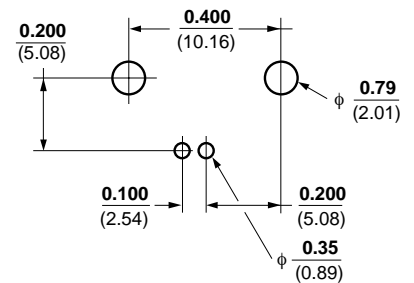
50 ohm, Right Angle, Filtered

9400pf, .516 Height, Thru Hole (Black body standard)

DIMENSIONS



PCB LAYOUT

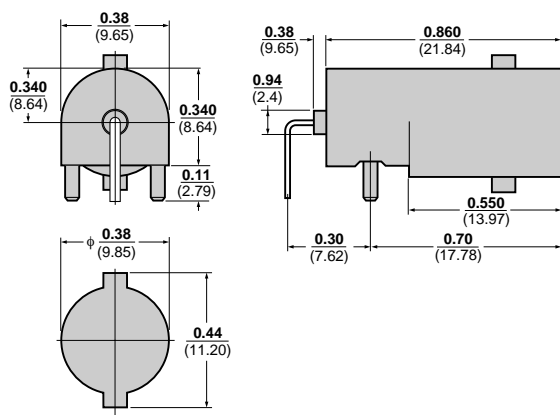


MBNC-R-1

50 ohm, Right Angle, Low Profile

.340 Height, Non-Insulated, Thru Hole

DIMENSIONS



MBNCF-RBS-1
50 ohm, Filtered 9400pf
.515 Height, Surface Mount (Black body)

Technical drawings of the 4700PF ±10% capacitor showing various views and dimensions.

Top View: Dimensions include 0.638 (16.20), 0.571 (14.50), 0.018 (0.47), 0.452 (11.5), 0.100 (2.54), and 0.491 (12.48).

Side View: Dimensions include 0.128 (3.25), 1.49 (37.87), 0.023 (0.6), 0.197 (5.0), 0.138 (3.50), 0.340 (8.6), 0.815 (20.70), and 1/2 x 28 Unef.

Bottom View: Dimensions include 0.280 (7.11), 0.018 (0.47), 0.187 (4.77), 0.400 (10.16), and Recommended PCB Thick 0.06 ± 0.03 (1.60 ± 0.10).

End View: Dimensions include 0.505 (12.83), 0.468 (11.9), and Panel Cutout.

Assembly Details: #2-56T. Self-Tapping Screw, Ground Contact, Signal Contact, Recommended PCB Thick 0.06 ± 0.03 (1.60 ± 0.10), 4700PF ±10%, 4700PF ±10% (Spring Washer), To Logic Ground, and Panel Cutout.

MBNC-RBS-1
50 ohm, Right Angle
.515 Height, Surface Mount (Black body)

#2-56T Self-Tapping Screw

Ground Contact

Signal Contact

Recommended 0.06 ± 0.003
PCB Thick
(1.60 \pm 0.10)

0.571
(14.50)

0.018
(0.47)

0.452
(11.5)

0.100
(2.54)

0.491
(12.48)

0.128
(3.25)

0.018
(0.47)

1.49
(37.87)

0.197
(5.0)

0.340
(8.6)

0.138
(3.50)

0.815
(20.70)

$1/2 \times 28 \text{ UNF}$

0.225
(5.73)

Recommended PCB Thick 0.06 ± 0.003
(1.60 \pm 0.10)

0.018
(0.47)

0.164
(4.17)

0.400
(10.16)

0.703
(17.88)

0.505
(12.83)

0.468
(11.9)

Panel Cutout

MBNC-T1 Series

50, 75, 93 ohm Adapter 'T', F-M-F

MBNC-TFF-1

BNC CONNECTORS

MBNC Series
Right Angle, Vertical,
Terminators, and Filtered
Board Level Connectors

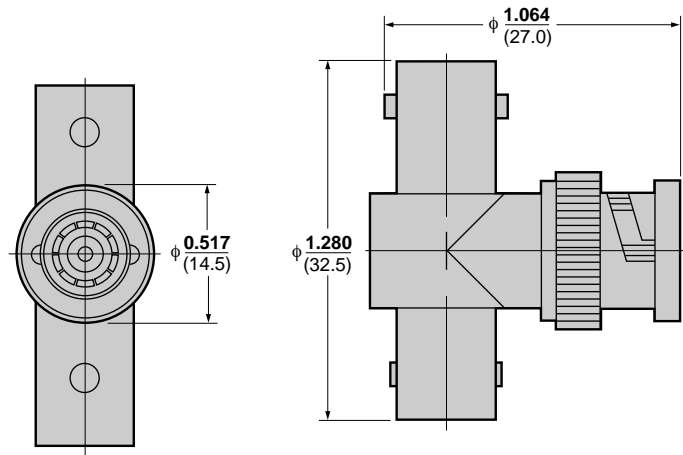


FEATURES

- UL and CSA approved E107337 and E145613
- 50 and 75 ohm impedance
- 9400pF filtered option
- Terminating resistors

MBNC-T-2
50 ohm ‘T’, F-M-F Adapter

DIMENSIONS



MAXCONN - (Back to Table of Contents)

Performance Specifications
Materials and Finish

Housing/Shield: Nickel plated brass 100 microinch Insulator

Outer Body: Glass filled polyester UL90V-0

Inner Insulator: Polypropylene

Contact

Female Contact: Phosphor bronze, gold plated

Grounding Terminal: Nickel plated brass

Electrical Characteristics

Normal Impedance: 50 ohm

Insulation Resistance: 5000 Megohms minimum

Dielectric Withstanding Voltage: 1500 Vrms

Operating Voltage: 500 minimum

Contact resistance: 3.0 mohms maximum

Mechanical Characteristics

Durability: 500 mating cycles

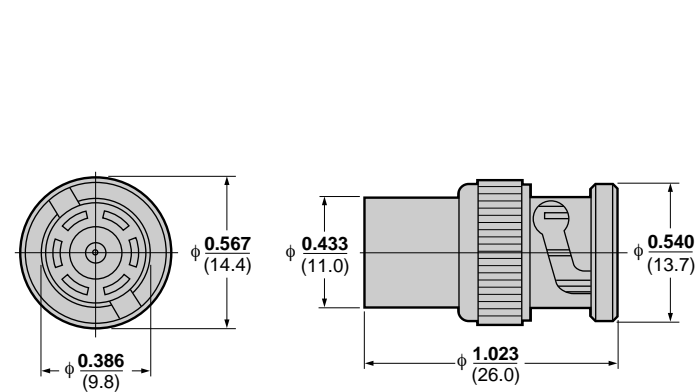
Ceramic Capacitor: 4700PF @ 10% x 2 (9400PF)

Resistor Value: 1.2 Watt 5% 50, 75, Or 93 ohms

Operating Temperature: -40° C to + 125° C

MBNC-2TT1 – 50 ohm
1/2 Watt 5% 75 ohm
93 ohm

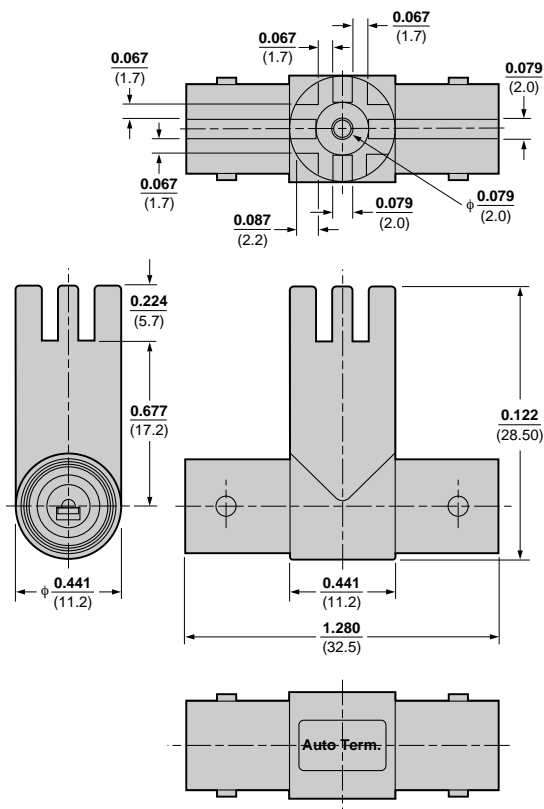
DIMENSIONS



MBNC-AT Series Auto-Termination SMT Compatible PCB Mount Double Female Connector



DIMENSIONS



Performance Specifications

Materials and Finish

Body: 100μ inch minimum nickel plating over zinc alloy

Female Insulator: Polypropylene UL 94HB

Retention Insulator: Teflon

Male Contact: Gold plating over brass

Female Contact: Gold plating over high strength copper

Retention Washer: Gold plating over copper wire

Thick Film Chip Resistors: 50 ohms ±1/4 Watt (max. over load voltage -400Vdc)

Retention Washer: Nickel plating over copper strip

Retention Cover: Nickel plating over Zinc alloy

Electrical Characteristics

Normal Impedance: 50 ohms

Frequency Range: 0~1GHz

Operating Voltage: 500 Vrms

Contact Resistance: 3.0 milliohms maximum

Dielectric Withstanding Voltage: 500 Vrms

Insulation Resistance: 5000 Megohms minimum

Ceramic Resistor: Thick film chip resistors: 50 ohms ±5%, 1.4 Watt

Voltage Rating

$E = \sqrt{PR}$

E=Voltage Rating (V)

P=Power Rating at 70°C (W)

R=Standard Resistance Values (Ω)

Mechanical Characteristics

Mating/Unmating: 500 cycles

Environmental Characteristics

Temperature Rating: -55° C to + 85° C

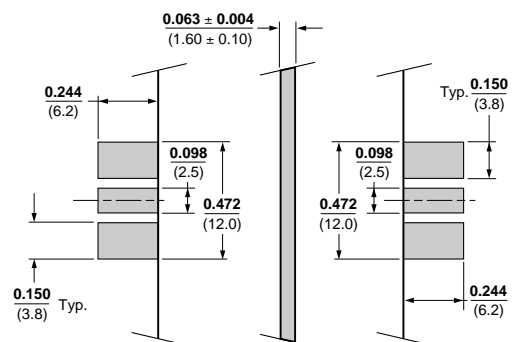
Thermal Shock: MIL-STD-1344, Method 1003, Cond. A

Salt Spray: MIL-STD-1344, Method 1001, Cond. B

Physical Shock: MIL-STD-1344, Method 2004, Cond. G

Humidity: MIL-STD-1344, Method 1002, Cond. B (type 2)

PCB LAYOUT



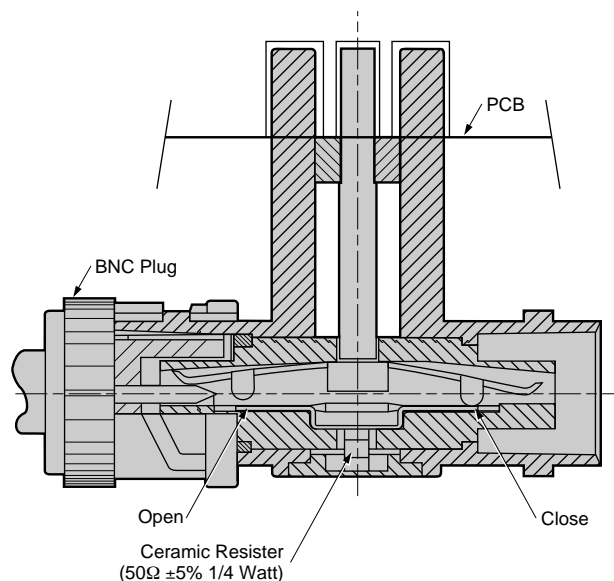
BNC CONNECTORS

MBNC-AT Series

Auto-Termination, SMT-Compatible

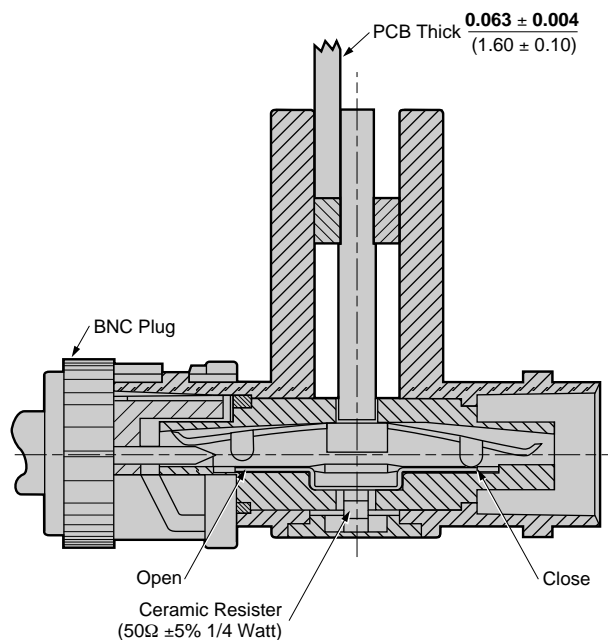
PCB Mount Double Female Connector

USED HORIZONTAL



MAXCONN - [\(Back to Table of Contents\)](#)

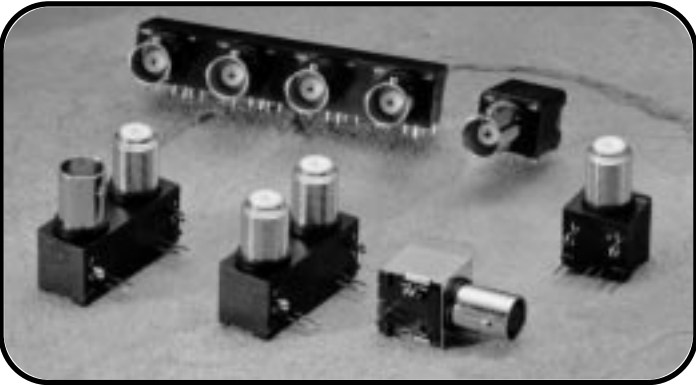
USED VERTICAL



MBNC Series

BNC Connector Right Angle

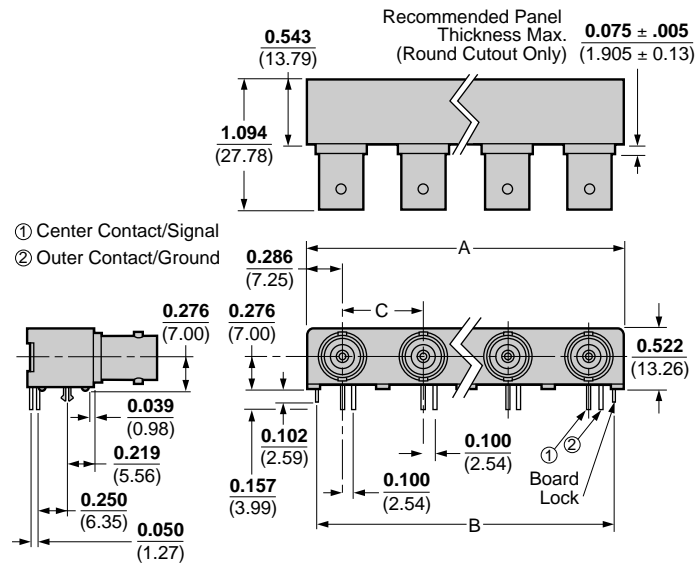
PCB Mount Receptical



FEATURES

- UL and CSA approved E107337 and E145613
- Low profile
- Space saving
- High frequency

DIMENSIONS



Performance Specifications

Materials and Finish

Contact: Contact area 100–200 microinch tin/lead plating over 50 microinch nickle plating overall

Ground Terminal: Tin plating over copper wire

Threaded Body: 100 microinch minimum nickel plating over zinc alloy

Insulator: Polypropylene UL 94HB

Housing: PBT (UL 94V-O)

Mounting Post: Tin plating over brass

Electrical Characteristics

Normal Impedance: Non-constant

Frequency Range: 0–2GHz

Operating Voltage: 250 Vrms

Contact Resistance: 3.0 milliohms maximum (gold)

Dielectric Withstanding Voltage: 1500 Vrms

Insulation Resistance: 5000 Megohms minimum

Mechanical Characteristics

Durability: 500 cycles/mated/unmated

Contact Separation Force: 1.0 kg minimum (total connector)

Contact Enganement Force: 1.27 kg maximum (total connector)

Environmental Characteristics

Temperature Rating: -55° C to + 85° C

Thermal Shock: MIL-STD-1344, Method 1003, Cond. A

Salt Spray: MIL-STD-1344, Method 1001, Cond. B

Physical Shock: MIL-STD-1344, Method 2004, Cond. G

Hunidity: MIL-STD-1344, Method 1002, Cond. B (type 2)

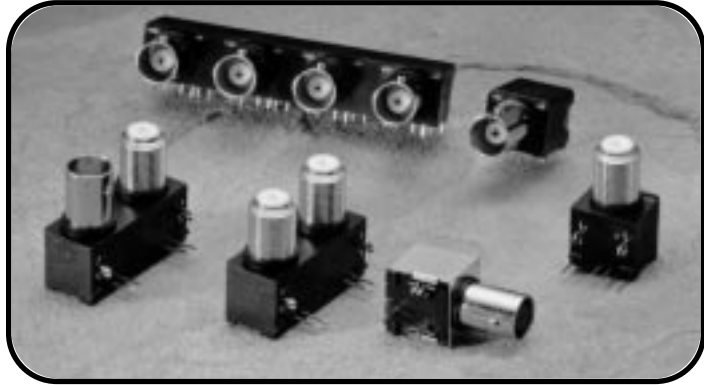
Ports	A	B	C
1	0.571 14.50	0.400 10.16	—
2	1.272 32.31	1.10 27.97	0.701 17.81
4	2.67 68.89	2.50 63.53	0.701 17.81

MBNC Series

BNC Connector Right Angle

PCB Mount Receptical

With LED Indicator



- UL and CSA approved E107337 and E145613
- Low profile
- Space saving
- High frequency
- Optional LED

Recommended Panel Thickness Max. (Round Cutout Only)

0.543 (13.79)

0.075 ± .005 (1.905 ± 0.13)

1.094 (27.78)

0.286 (7.25)

A

LED2 (Yellow Color)

LED1 (Green Color)

0.276 (7.00)

C

0.522 (13.26)

0.102 (2.59)

0.100 (2.54)

1

2

3

Board Lock

0.157 (3.99)

0.100 (2.54)

B

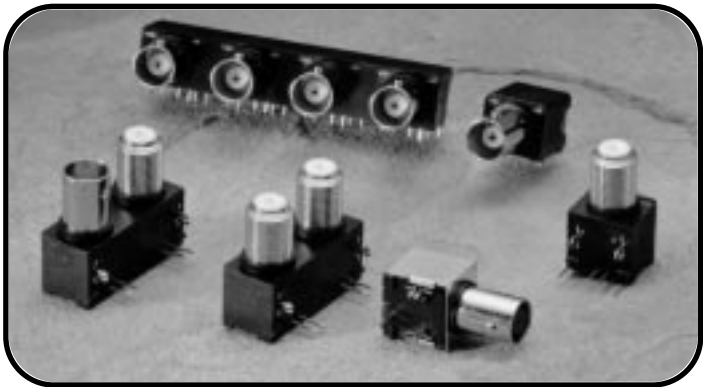
Viewing Angle: $2\theta 1/2: 110^\circ$

Ports	A	B	C
1	0.571 14.50	0.400 10.16	— —
2	1.272 32.31	1.10 27.97	0.701 17.81
4	2.67 68.89	2.50 63.53	0.701 17.81

MNF Series

Right Angle, F-Connector

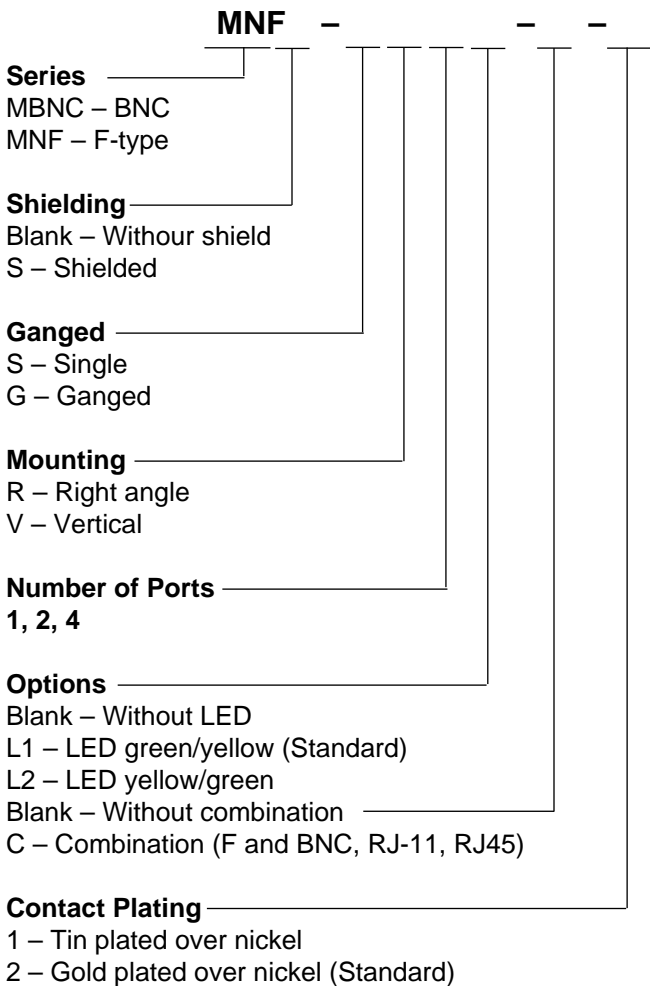
PCB Mount Receptical



FEATURES

- UL and CSA approved E107337 and E145613
- 50 and 75 ohm impedance
- 9400pF filtered option
- Terminating resistors

HOW TO ORDER



Performance Specifications

Materials and Finish

- Contact:** Contact area 100–200 microinch tin/lead plating over 50 microinch nickle plating overall
- Ground Terminal:** Tin plating over copper wire
- Threaded Body:** 100 microinch minimum nickel plating over zinc alloy
- Insulator:** Polypropylene UL 94HB
- Housing:** PBT (UL 94V-O)
- Mounting Post:** Tin plating over brass
- Electrical Characteristics

- Normal Impedance:** Non-constant
- Frequency Range:** 0~2GHz
- Operating Voltage:** 250 Vrms
- Contact Resistance:** 3.0 milliohms maximum (gold)
- Dielectric Withstanding Voltage:** 1500 Vrms
- Insulation Resistance:** 5000 Megohms minimum
- Mechanical Characteristics
- Durability:** 500 cycles/mated/unmated
- Contact Separation Force:** 1.0 kg minimum (total connector)
- Contact Enganement Force:** 1.27 kg maximum (total connector)

Environmental Characteristics

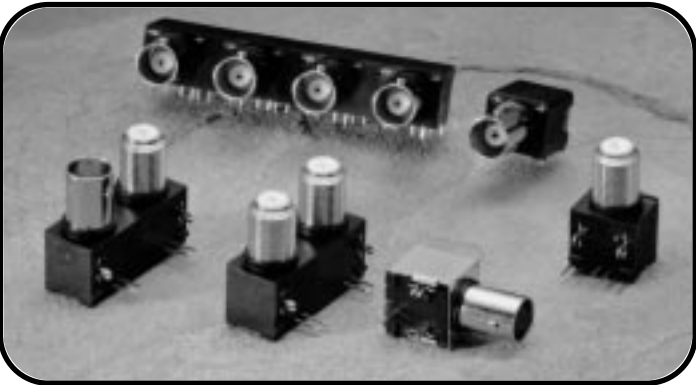
- Temperature Rating:** -55° C to + 85° C
- Thermal Shock:** MIL-STD-1344, Method 1003, Cond. A
- Salt Spray:** MIL-STD-1344, Method 1001, Cond. B
- Physical Shock:** MIL-STD-1344, Method 2004, Cond. G
- Hunidity:** MIL-STD-1344, Method 1002, Cond. B (type 2)

Optional LED Characteristics

- LED:** Yellow LED: GaASP/GaP
Green LED: GaP
- Luninous Intensity(mcd):**
The maximum for 10mA is 1.25 Vs
The minimum for 10mA is 0.5 Vs
- Wavelength (nm):**
LED1 green: 565 nm
LED2 yellow: 590 nm
- Viewing Angle:** 2ø1/2: 110°

MNF Series

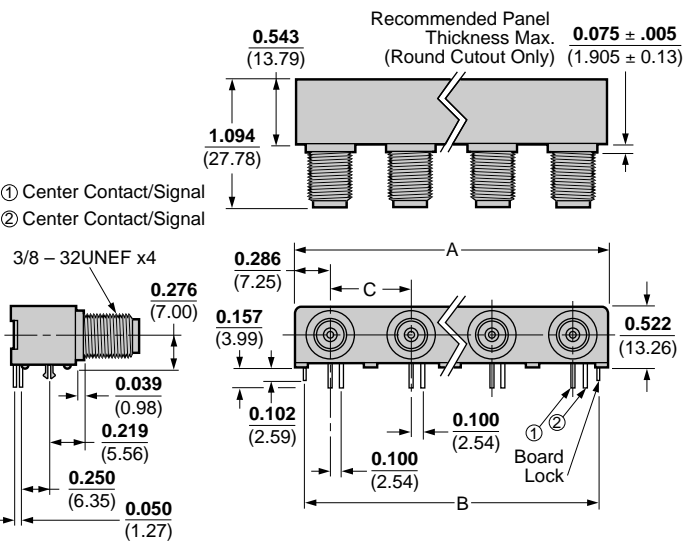
F-Connector, Right Angle, PCB Mount Receptical



FEATURES

- UL and CSA approved E107337 and E145613
- Low profile
- Space saving
- High frequency
- Optional LED

DIMENSIONS



Performance Specifications

Materials and Finish

- Contact:** Contact area 100–200 microinch tin/lead plating over 50 microinch nickle plating overall
- Ground Terminal:** Tin plating over copper wire
- Threaded Body:** 100 microinch minimum nickel plating over zinc alloy
- Insulator:** Polypropylene UL 94HB
- Housing:** PBT (UL 94V-O)
- Mounting Post:** Tin plating over brass
- Electrical Characteristics**
- Normal Impedance:** Non-constant
- Frequency Range:** 0~2GHz
- Operating Voltage:** 250 Vrms
- Contact Resistance:** 3.0 milliohms maximum (gold)
- Dielectric Withstanding Voltage:** 1500 Vrms
- Insulation Resistance:** 5000 Megohms minimum

Mechanical Characteristics

- Durability:** 500 cycles/mated/unmated
- Contact Separation Force:** 1.0 kg minimum (total connector)
- Contact Enganement Force:** 1.27 kg maximum (total connector)

Envionmental Characteristics

- Temperature Rating:** -55° C to + 85° C
- Thermal Shock:** MIL-STD-1344, Method 1003, Cond. A
- Salt Spray:** MIL-STD-1344, Method 1001, Cond. B
- Physical Shock:** MIL-STD-1344, Method 2004, Cond. G
- Hunidity:** MIL-STD-1344, Method 1002, Cond. B (type 2)

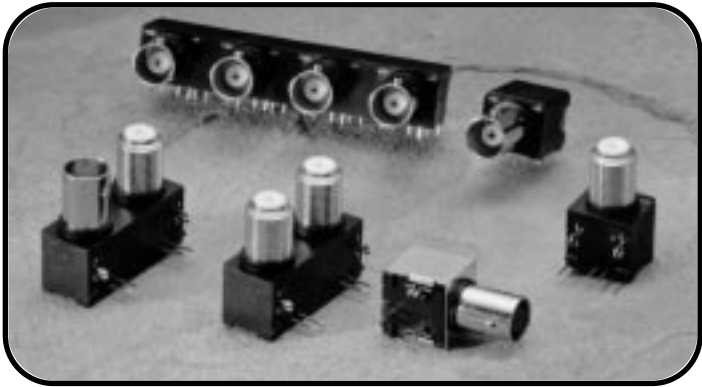
Optional LED Characteristics

- LED:** Yellow LED: GaASP/GaP
Green LED: GaP
- Luninous Intensity(mcd):**
The maximum for 10mA is 1.25 Vs
The minimum for 10mA is 0.5 Vs
- Wavelength (nm):**
LED1 green: 565 nm
LED2 yellow: 590 nm
- Viewing Angle:** 201/2: 110°

Ports	A	B	C
1	0.571 14.50	0.400 10.16	— —
2	1.272 32.31	1.10 27.97	0.701 17.81
4	2.67 68.89	2.50 63.53	0.701 17.81

BNC CONNECTORS

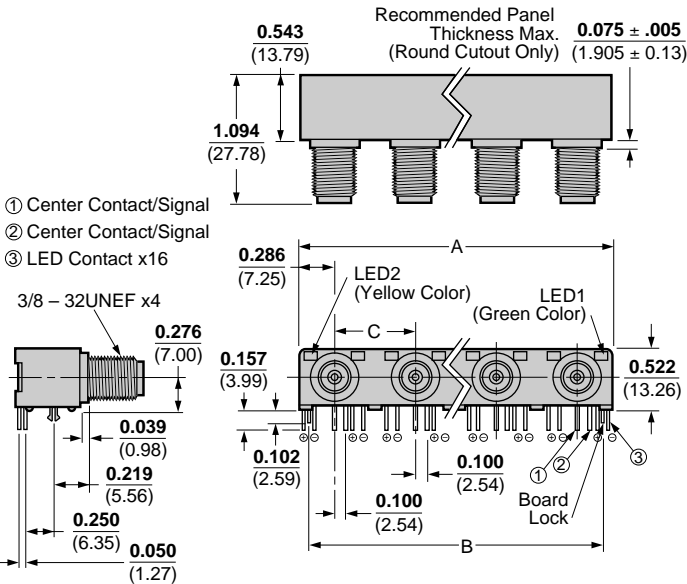
MNF Series
F-Connector, Right Angle,
PCB Mount Receptical
with LED



FEATURES

- UL and CSA approved E107337 and E145613
- Low profile
- Space saving
- High frequency
- Optional LED

DIMENSIONS



MAXCONN - (Back to Table of Contents)

Performance Specifications
Materials and Finish

Contact: Contact area 100–200 microinch tin/lead plating over 50 microinch
nickle plating overall

Ground Terminal: Tin plating over copper wire

Threaded Body: 100 microinch minimum nickel plating over zinc alloy

Insulator: Polypropylene UL 94HB

Housing: PBT (UL 94V-O)

Mounting Post: Tin plating over brass

Electrical Characteristics

Normal Impedance: Non-constant

Frequency Range: 0~2GHz

Operating Voltage: 250 Vrms

Contact Resistance: 3.0 milliohms maximum (gold)

Dielectric Withstanding Voltage: 1500 Vrms

Insulation Resistance: 5000 Megohms minimum

Mechanical Characteristics

Durability: 500 cycles/mated/unmated

Contact Separation Force: 1.0 kg minimum (total connector)

Contact Enganement Force: 1.27 kg maximum (total connector)

Environmental Characteristics

Temperature Rating: -55° C to + 85° C

Thermal Shock: MIL-STD-1344, Method 1003, Cond. A

Salt Spray: MIL-STD-1344, Method 1001, Cond. B

Physical Shock: MIL-STD-1344, Method 2004, Cond. G

Hunidity: MIL-STD-1344, Method 1002, Cond. B (type 2)

Optional LED Characteristics

LED: Yellow LED: GaASP/GaP

Green LED: GaP

Luninous Intensity(mcd):

The maximum for 10mA is 1.25 Vs

The minimum for 10mA is 0.5 Vs

Wavelength (nm):

LED1 green: 565 nm

LED2 yellow: 590 nm

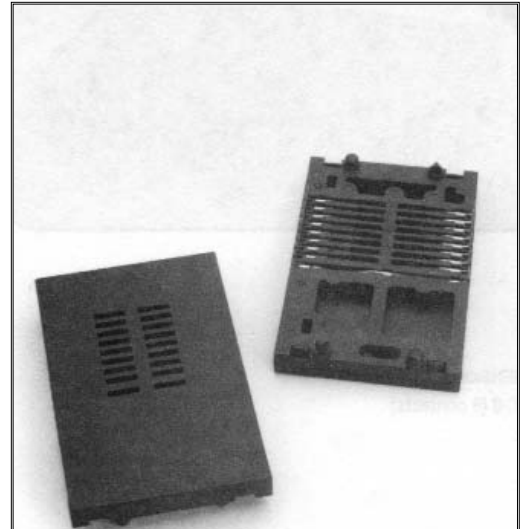
Viewing Angle: 2θ1/2: 110°

Ports	A	B	C
1	0.571 14.50	0.400 10.16	— —
2	1.272 32.31	1.10 27.97	0.701 17.81
4	2.67 68.89	2.50 63.53	0.701 17.81

Smart Card Connector

MSC Series - Excepts ISO 7818 IC Card

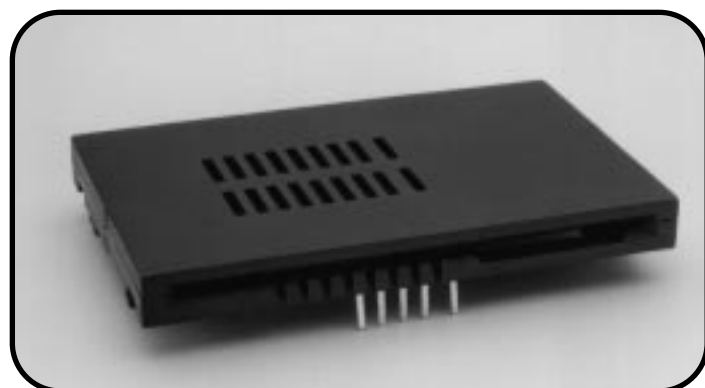
11-2



SMART CARD CONNECTOR

MSC Series Excepts ISO 7818 IC Card

MAXCONN - [\(Back to Table of Contents\)](#)



Performance Specifications

Materials and Finish

Insert: PBT thermoplastic, black color, 30% glass filled, self-extinguishing, 94V-0 rated

Contact Material: Phosphor bronze

Contact Finish: 30 microinch gold over nickel

Mechanical Characteristics

Card Separation Force: 102 grams minimum

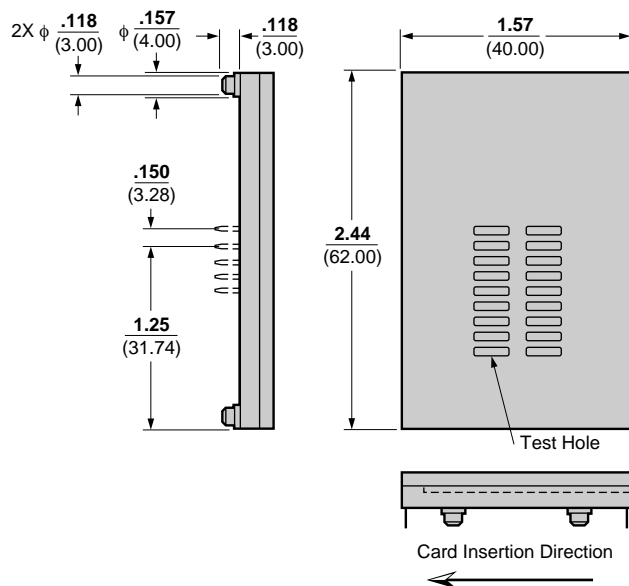
Card Engagement Force: 511 grams maximum

Electrical Characteristics

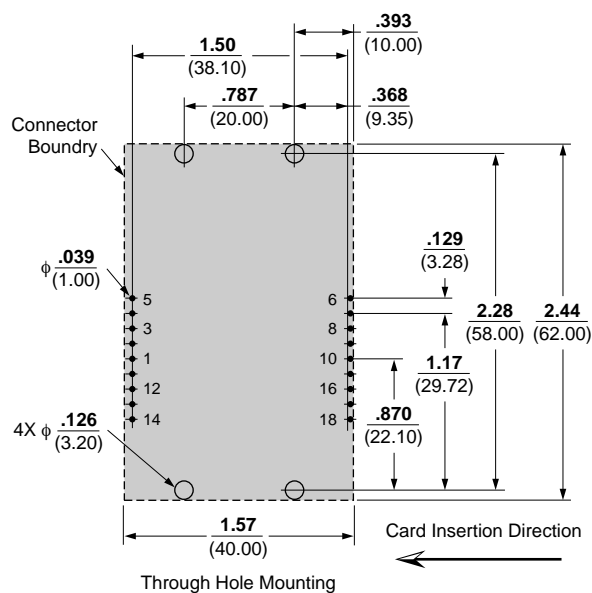
Temperature Rating: -40° C to + 100°C

DIMENSIONS

MSC-8 (8 contacts)



PCB LAYOUT



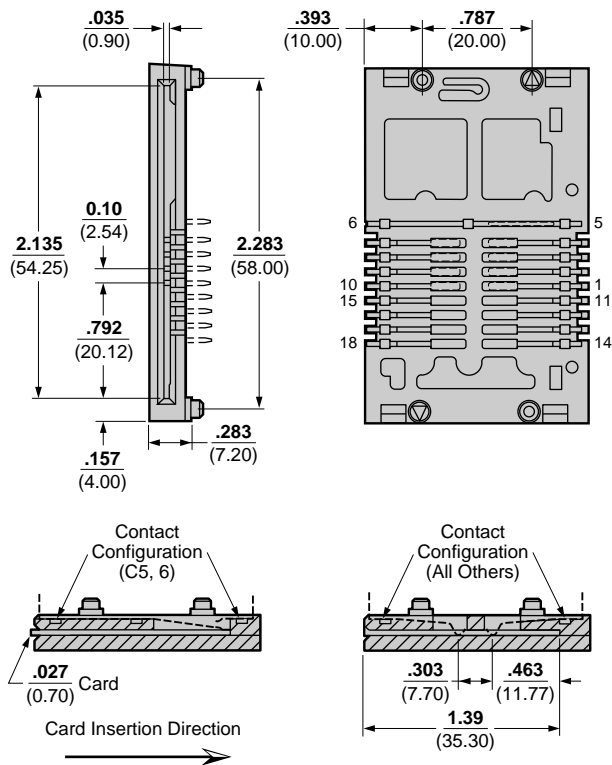
SMART CARD CONNECTOR

MSC Series
Excepts ISO 7818 IC Card

MAXCONN - [\(Back to Table of Contents\)](#)

DIMENSIONS

MSC-16 (16 contacts)



CARD INSERTION SPECIFICATION

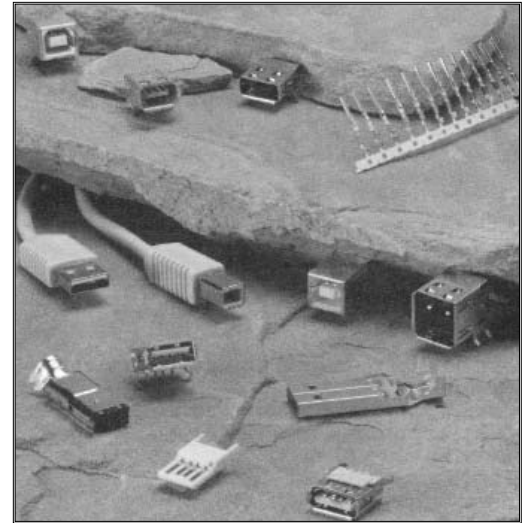
- Card Insertion End to Contact Center: 11.7mm
- Contact Point Species: 7.7mm
- Card Insertion Depth: 35.5mm
- Card Thickness: 1.0mm Maximum

Universal Serial Bus

MUSB Series - Right Angle Termination,
Single and Stacked
MIEEE-P1394 Series - Fire Wire Connector

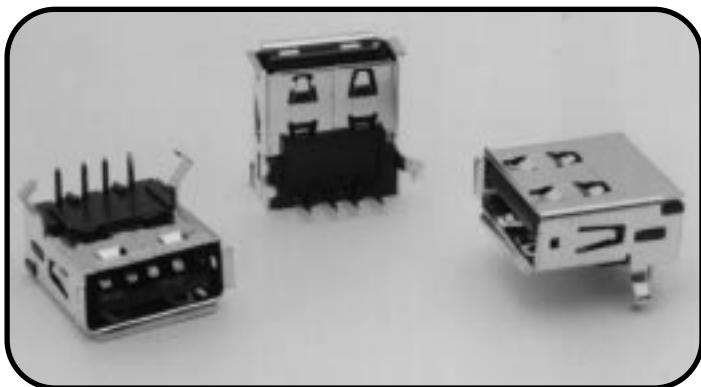
12-2

12-5



MUSB SERIES

Right Angle Termination, Single and Stacked



Performance Specifications

Materials and Finish

Shell: Tin plated, copper alloy

Insert: PBT type D202G30, self-extinguishing, 94V-0 rated, black color

Contact Material: Phosphor bronze

Contact Finish: Palladium nickel

Electrical Characteristics

Contact Current Rating: 1 Amp 100Vac, 2 Amp 12Vdc

Contact Resistance: 30 milliohms maximum

Dielectric Withstanding Voltage: 750 Vac for one minute

Insulation Resistance: 1000 megohms minimum

Mechanical Characteristics

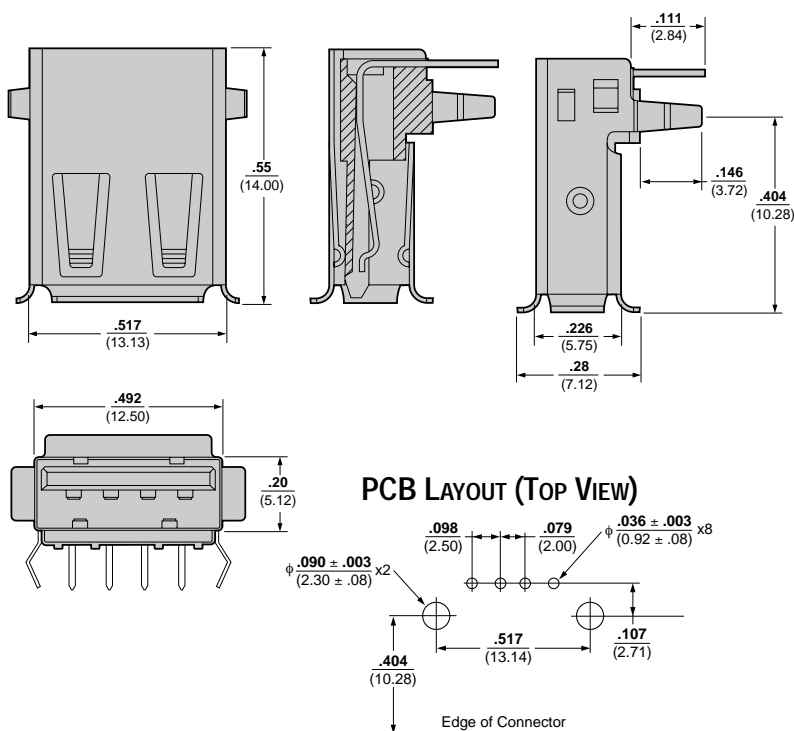
Temperature Rating: -40° C to + 245° C

FEATURES

- Plug and play technology
- Hot pluggable
- Single 4, 8-position connectors
- Consolidates serial ports and parallel ports, keyboard ports, mouse ports, and game ports
- Compatible with asynchronous and isochronous data transfer methods
- Compatible with Windows '95 operating system
- Standard feature in new PC chipsets
- Eliminates the need for terminators
- UL and CSA approved E107337 and E145613

MUSB-4R-P

DIMENSIONS – SINGLE TYPE A



HOW TO ORDER

MUSB – 4X – X – X – HT

Series

**Number of
Contacts**
4, *8

Termination Type
R—Right angle
V—Vertical
S—SMT

Type
Blank—Standard USB Type A
B — USB Type B

Plating
P—Palladium nickel

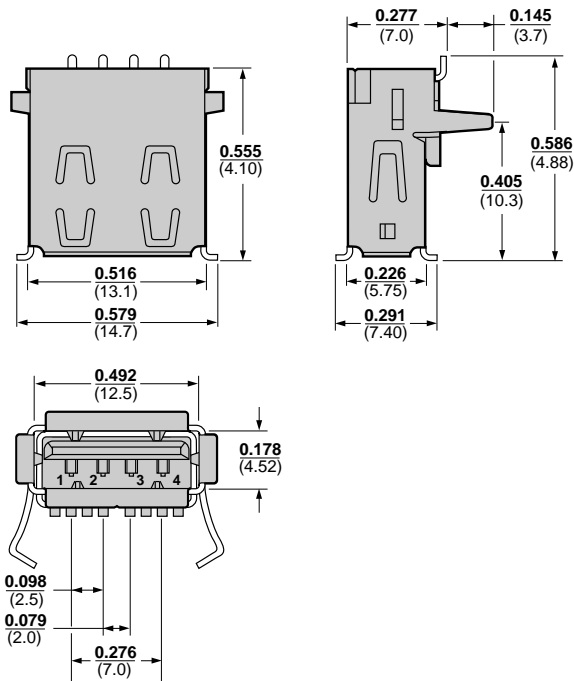
High-Temperature

*8P right angle only

UNIVERSAL SERIAL BUSS

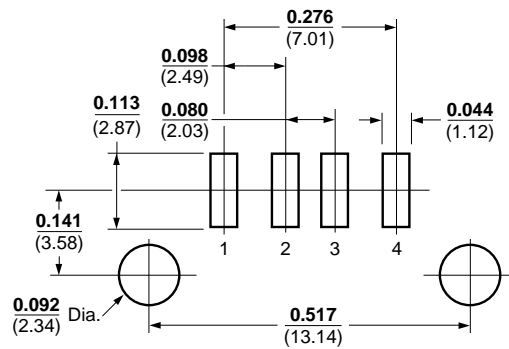
MUSB-4R-S
Right Angle Termination,
Single, Surface Mount

DIMENSIONS – SINGLE TYPE A



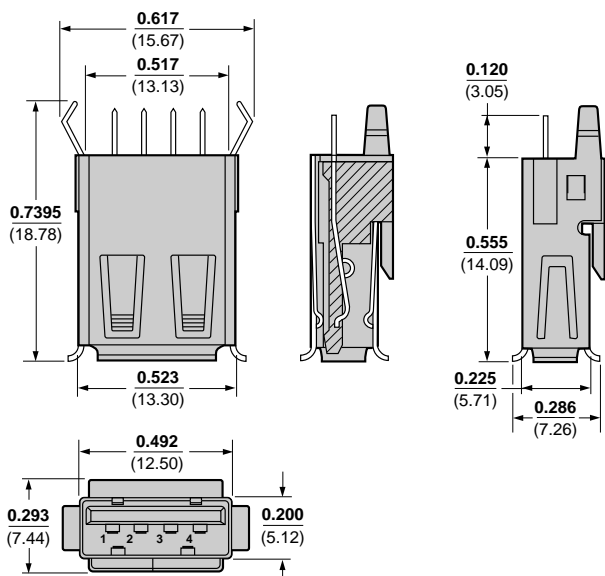
MAXCONN - [\(Back to Table of Contents\)](#)

PCB LAYOUT (TOP VIEW)

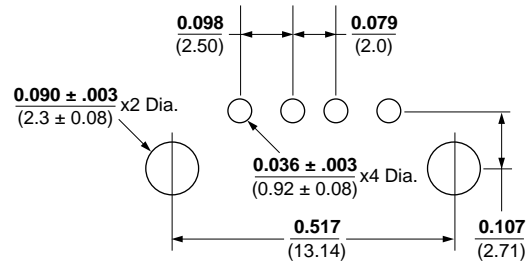


MUSB-4V
Vertical Termination,
Single Vertical PCB Mount

DIMENSIONS – VERTICAL TYPE A



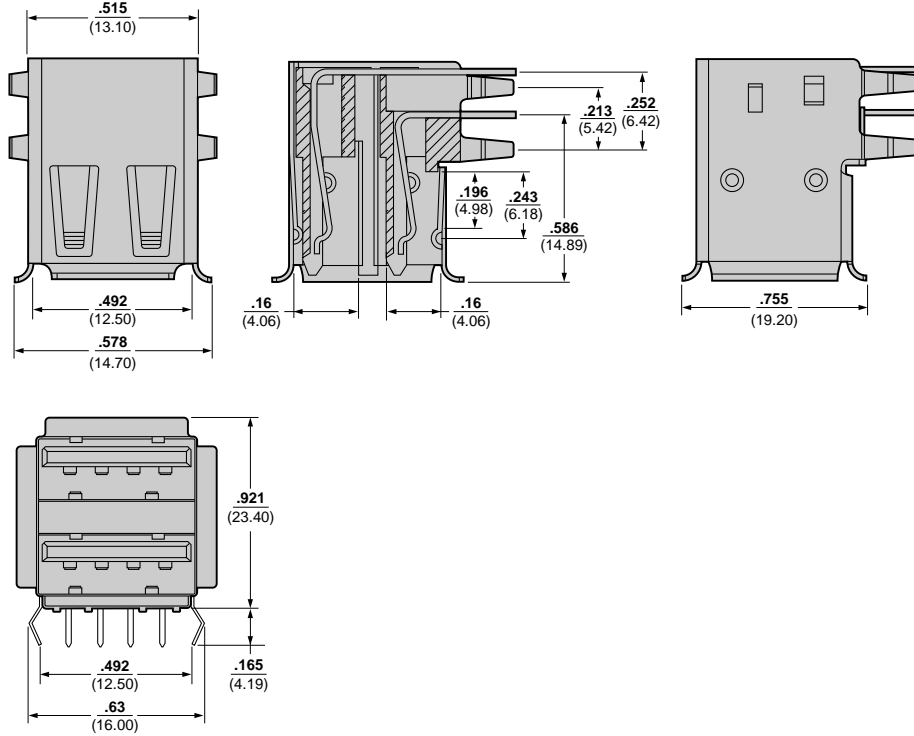
PCB LAYOUT (TOP VIEW)



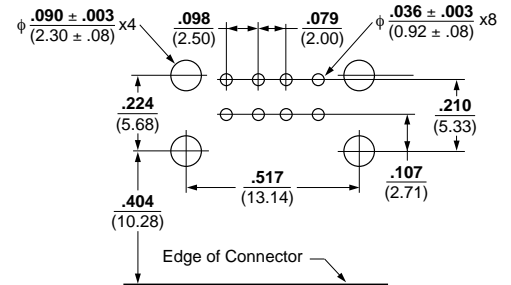
MUSB-8R-P

Right Angle Termination,
Single, Stacked PCB Mount

DIMENSIONS – STACKED TYPE A



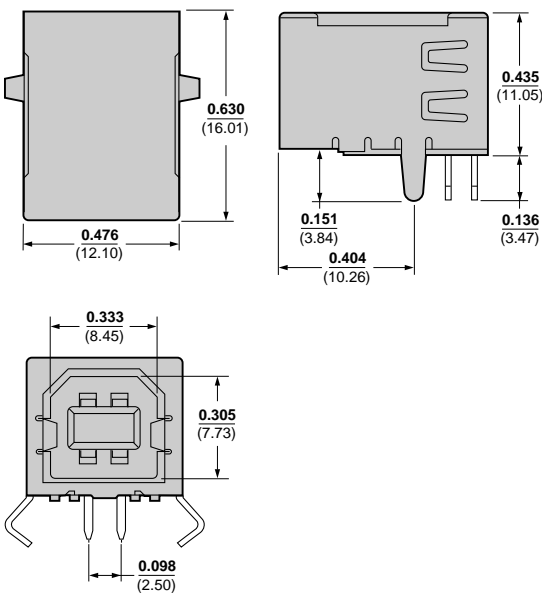
PCB LAYOUT (TOP VIEW)



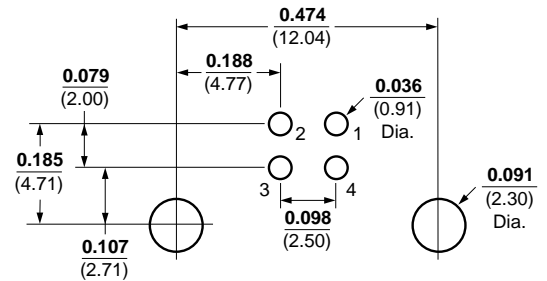
MUSB-4R-B

Right Angle Termination, Type A
Single PCB Mount

DIMENSIONS – SINGLE TYPE B

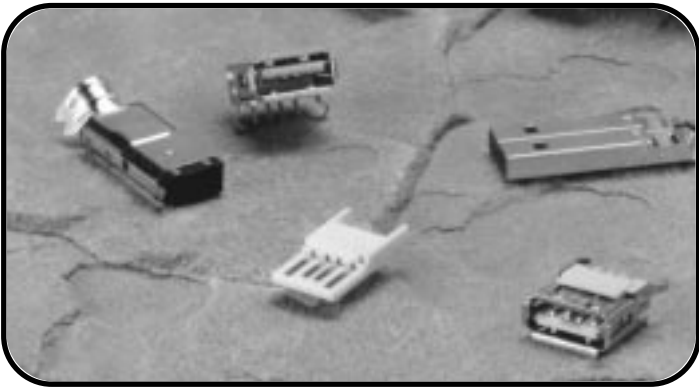


PCB LAYOUT (TOP VIEW)



MIEEE-P1394 SERIES

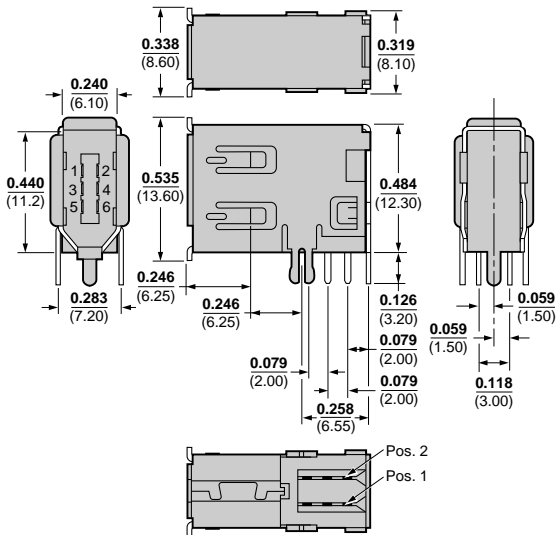
Fire Wire Connector



FEATURES

- Compliance with TA1394, IEEE, and JEDEC standards
- UL and CSA approved
- Hot pluggable
- Fast data 100 Mbps – 1Gbps
- Through hole or surface mount
- UL and CSA approved E107337 and E145613

DIMENSIONS – SINGLE, SIDE RIGHT ANGLE



Performance Specifications

Materials and Finish

- Shell:** Phosphor bronze 100 microinch, tin plated over 40 microinch minimum nickel
- Housing:** PBT UL 94V-0 type D202G30, black color
- Contact Material:** Brass, selective gold flash over palladium nickel with tin leads
- Contact Finish:** 1.05 microinch minimum, gold flash over 0.75 microinch minimum palladium in mating area over 1.25 microinch minimum nickel

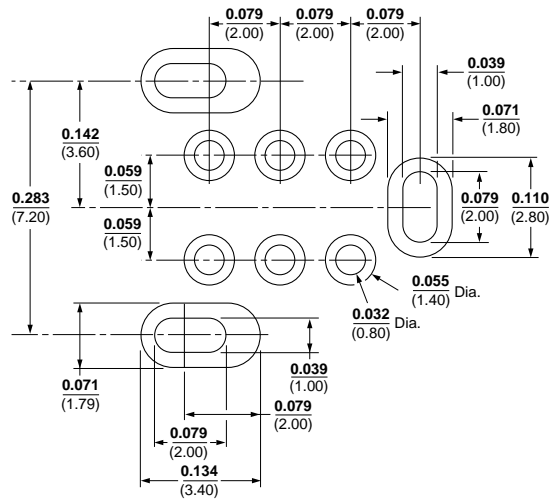
Electrical Characteristics

- Contact Current Rating:** 1 Amp 100Vac, 2 Amp 12Vdc
- Contact Resistance:** 30 milliohms maximum
- Dielectric Withstanding Voltage:** 750 Vac for one minute
- Insulation Resistance:** 1000 megohms minimum

Mechanical Characteristics

- Temperature Rating:** -40° C to + 245° C ± 5° C

PCB LAYOUT (TOP VIEW)



HOW TO ORDER

MIEEE – P1394 – 6 – XX X – P

Series

Number of Contacts

- 6—Single
12—Dual row (side by side)

Termination Type

- Blank—Through hole
SR—Side right angle
R—Right angle
V—Vertical

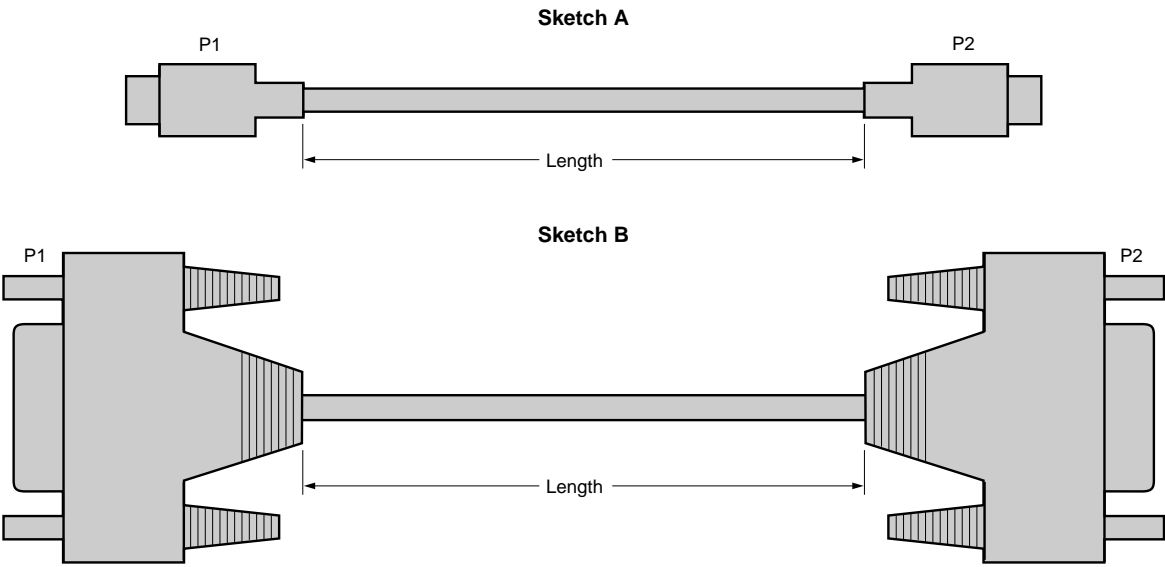
PCB Termination

- Blank—Through-hole
S—Surface mount

Plating

- P—Palladium
nickel

CUSTOM CABLES
MCBL Series



Sketch C
Make your own sketch and use list below
for connector and cable type requirements.

Form fields for specifying cable details: Sketch A (P1, P2, Gender, Pin Out), Sketch B (Connector Type, Positions, M/F, P2, M/F, Pin Out), Cable Specifications (Straight/Coiled, Length, UL Approved, Number Conductors, Paired, Shielded, Color, Comments).