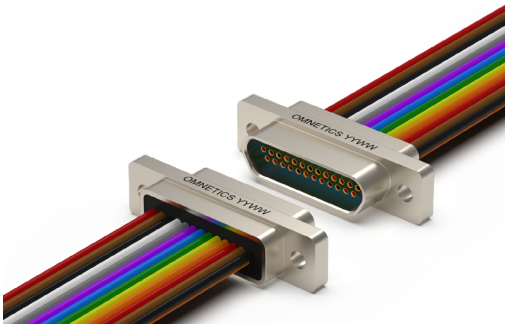
METAL SHELL MICRO-D DISCRETE LEADWIRE (TYPE WD)

Omnetics **Metal Shell Micro-D Discrete Leadwire** Connectors deliver exceptional performance under demanding conditions common to the military, medical, and aeronautics environments. These high-reliability connectors meet or exceed the rugged requirements of MIL-DTL-83513. They are available in two, three, or four contact rows. RoHS and overmolded versions are available upon request. These small form factor connectors feature reduced size and weight to meet SWaP goals in next-generation technologies.



Electro-Mechanical Specifications

TYPE	PERFORMANCE
Durability	> 2000 Mating Cycles min
Temperature	-55ºC to +125ºC (200 ºC w/HTE)
Current rating	3 Amps per contact per MIL-DTL-83513
Voltage Rating (DWV)	600 VAC RMS Sea Level
Insulation Resistance	5,000 Megohms @ 500 VDC
Shock	50 g's with no discontinuties > 1 microsecond
Vibration	20 g's with no discontinuties > 1 microsecond
Thermal Vacuum Outgassing	1.0% max TML, 0.1% max CVCM - NASA SP-R-0022
Contact Resistance	26 milliohms (65 mV) max @ 2.5 Amps per MIL-DTL-83513
Mating/Unmating Force	3 oz. (.85g) typical per contact

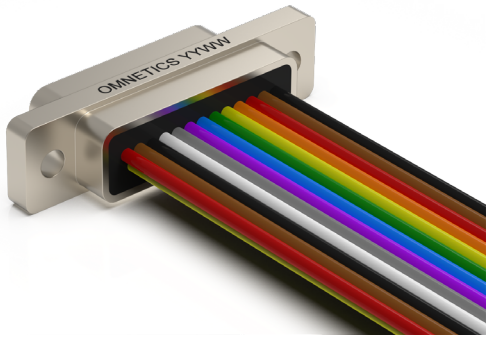
Material Specifications

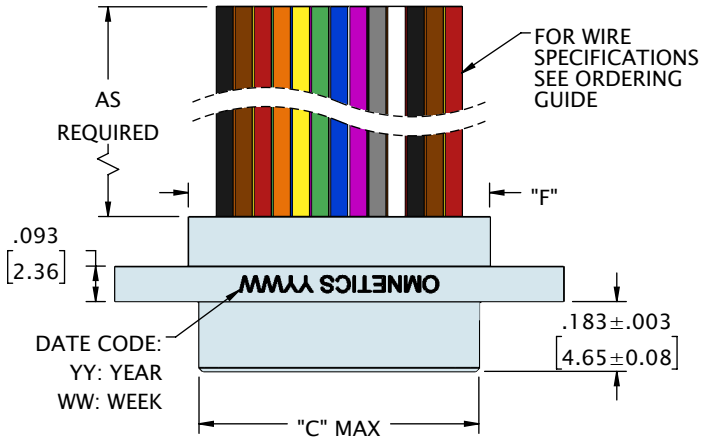
TYPE	PERFORMANCE
Contact	Copper Alloy Per MIL-DTL-83513
Contact Finish	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
Insulator	Thermoplastic per MIL-DTL-83513
Interfacial Seal	Silicone Elastomer per A-A-59588
Hardware	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

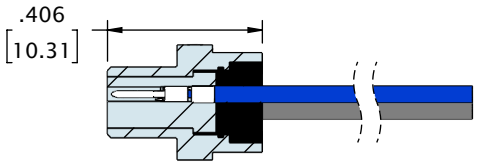
Shell Options

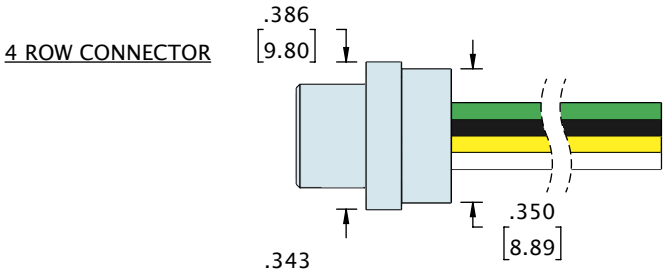
MATERIAL	FINISH
Aluminum 6061	Electroless Nickel per SAE-AMS-2404
Stainless Steel, 300 Series	Passivated per SAE-AMS-2700

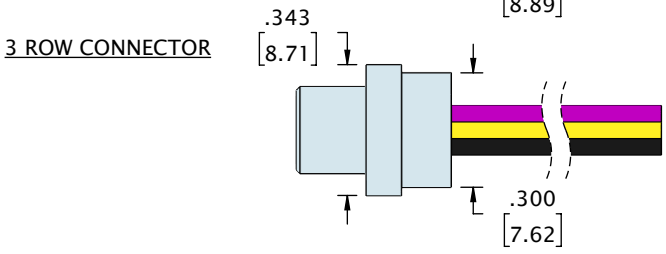
METAL SHELL MICRO-D DISCRETE LEADWIRE (TYPE WD)

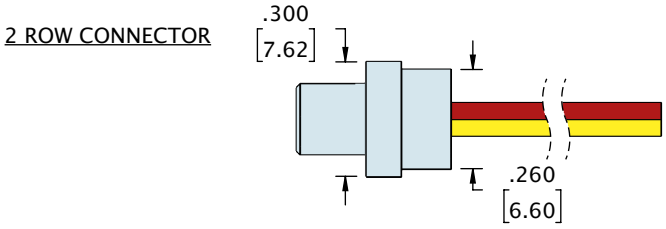


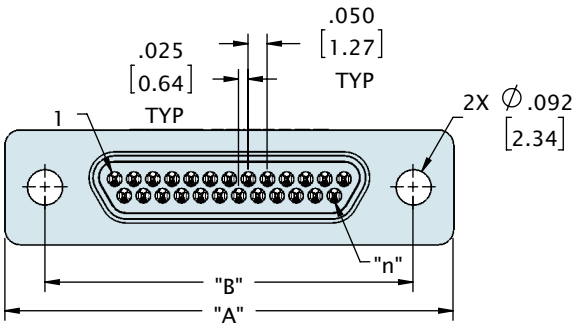












CONTACTS	ROWS	"A"	"B"	"C"	"F"
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15	2	.925 [23.50]	.715 [18.16]	.484 [12.29]	.540 [13.72]
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69	3	1.725 [43.82]	1.515 [38.48]	1.284 [32.61]	1.340 [34.04]
100	4	2.160 [54.86]	1.800 [45.72]	1.384 [35.15]	1.432 [36.37]

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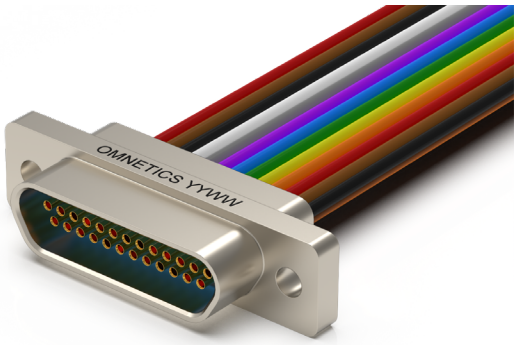
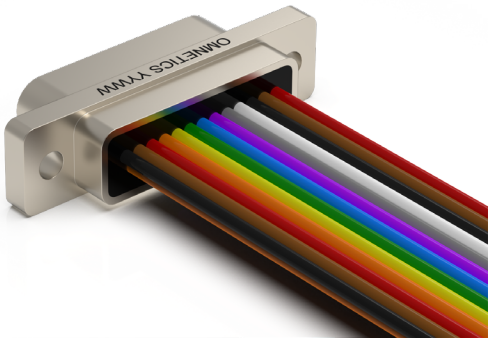
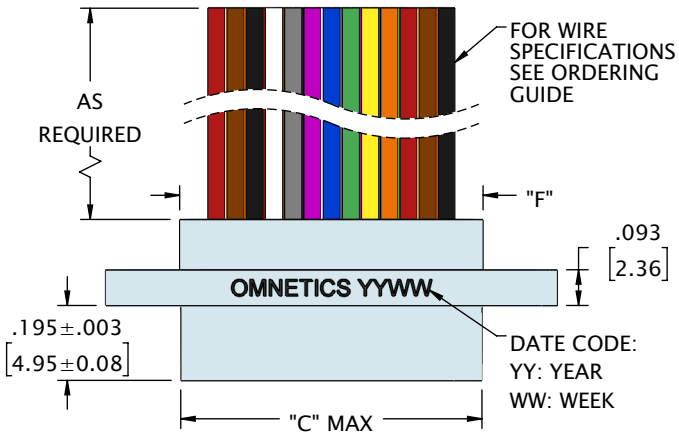
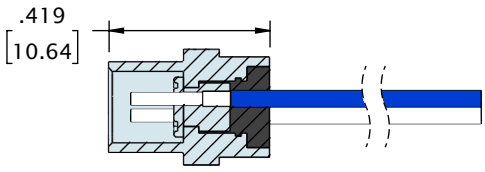
METAL SHELL MICRO-D DISCRETE LEADWIRE (TYPE WD)

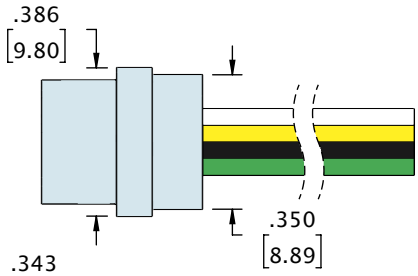




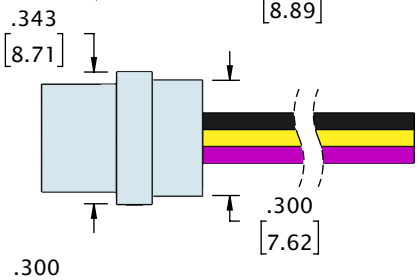




4 ROW CONNECTOR



3 ROW CONNECTOR



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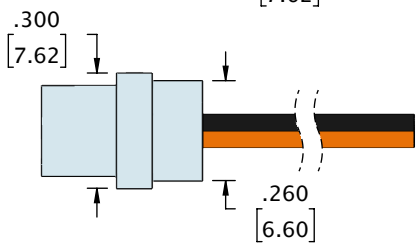

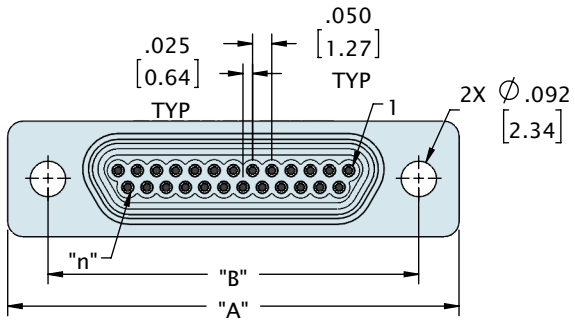

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METAL SHELL MICRO-D DISCRETE LEADWIRE (TYPE WD)

ORDERING GUIDE

1	**Series**	**MMDP** Metal Micro-D Pin **MMDS** Metal Micro-D Socket
2	**Number of Contacts**	**009** **015** **021** **025** **031** **037** **051*** **069** **100** * Use **512** for Two Rows 051 and **513** for Three Rows 051
3	**Termination Type**	**WD** Discrete Leadwire
4	**Wire AWG**	**4** 24 AWG **6** 26 AWG (STD) **8** 28 AWG **0** 30 AWG
5	**Wire Type**	**Q** Nema HP3 (STD) **R** M22759/11 **S** M22759/33 **X** Other
6	**Wire Length (inches)**	**18.0** 18.00 (STD) **XX.X** Custom length
7	**Color Scheme**	**1** 10 Repeating **2** Blue **3** White **4** Non Repeating **5** Yellow
8	**Shell Material & Finish**	**N** Aluminum Shell, Electroless Nickel Plated **CD** Aluminium Shell, Cadmium Plated **B** Aluminium Shell, Black Anodized **P** Stainless Steel Shell, Passivated
9	**Hardware**	**00** None, Ø .092 Hole **01** Fixed Jack-posts (MMDS - STD) **02** Jackscrews, STD Length, Hex (MMDP - STD) **03** Jackscrews, STD Length, Slotted **04** Jackscrews, Long Length, Hex **05** Jackscrews, Long Length, Slotted **06** Float Mount, Front Mounted **07** Float Mount, Rear Mounted **08** Non-Removable **YY** Non Standard Hardware
10	**Common Options**	**PA** Panel Mount Rear, O-Ring **PB** Panel Mount, Rear **BS1** 45 Degree Round Entry, Micro-D Backshell **IBS** Integrated Backshell **BS2** Straight Oval Entry, Micro-D Backshell **BSY** Custom Backshell **BS3** 90 Degree Oval Entry, Micro-D Backshell **HT** High Temp Epoxy **BS4** 45 Degree Elliptical Entry, Micro-D Backshell **RH** RoHS Compliant **BS5** Straight Elliptical Entry, Split Micro-D Backshell **BS6** 45 Degree Round Entry, Split Micro-D Backshell
11	**Shield / Jacket**	**D** Slip On Metal Braid **E** Machine Braid **F** Flexo Braid **J** Nomex Braid **ST** Shrink Tube
12	**Mod Codes**	**M10** Keyed **M30** Ground Spring **M50** Space Grade Micro-D, SPT1 **M53** Space Grade Micro-D, SPT2
13	**Special Instructions**	**YYY** Describe anything that is not covered in standard options

METAL SHELL MICRO-D SOLDER CUP (TYPE SS)

Omnetics **Metal Shell Micro-D Solder Cup** Connectors simplify connections for designs that require soldering. These connectors are well-suited for high-reliability board to wire I/O and wire-to-wire applications. They serve critical technologies in the military, medical, and aeronautics industries. They provide exceptional performance even under conditions that include shock and vibration. These connectors meet or exceed the rugged requirements of MIL-DTL-83513 and are available in two, three, or four rows.

Electro-Mechanical Specifications

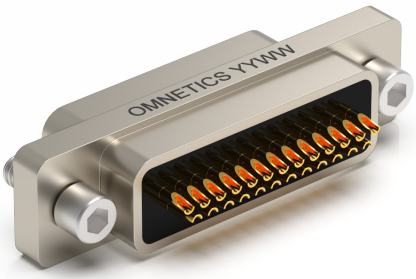
TYPE	PERFORMANCE
Durability	> 2000 Mating Cycles min
Temperature	-55ºC to +125ºC (200 ºC w/HTE)
Current rating	3 Amps per contact per MIL-DTL-83513
Voltage Rating (DWV)	600 VAC RMS Sea Level
Insulation Resistance	5,000 Megohms @ 500 VDC
Shock	50 g's with no discontinuties > 1 microsecond
Vibration	20 g's with no discontinuties > 1 microsecond
Thermal Vacuum Outgassing	1.0% max TML, 0.1% max CVCM - NASA SP-R-0022
Contact Resistance	26 milliohms (65 mV) max @ 2.5 Amps per MIL-DTL-83513
Mating/Unmating Force	3 oz. (.85g) typical per contact

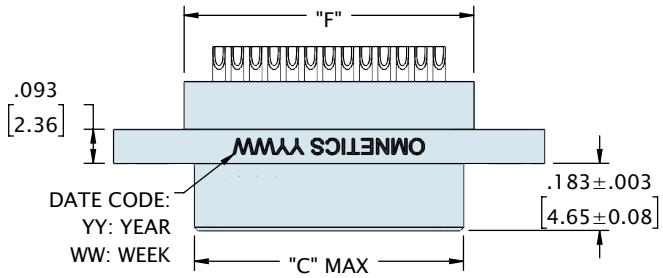
Material Specifications

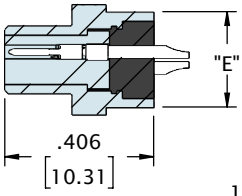
TYPE	PERFORMANCE
Contact	Copper Alloy Per MIL-DTL-83513
Contact Finish	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
Insulator	Thermoplastic per MIL-DTL-83513
Interfacial Seal	Silicone Elastomer per A-A-59588
Hardware	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

Shell Options

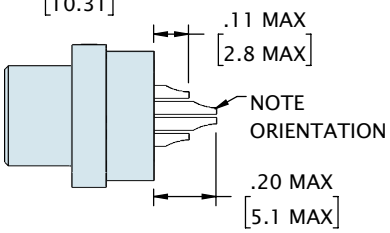
MATERIAL	FINISH
Aluminum 6061	Electroless Nickel per SAE-AMS-2404
Stainless Steel, 300 Series	Passivated per SAE-AMS-2700



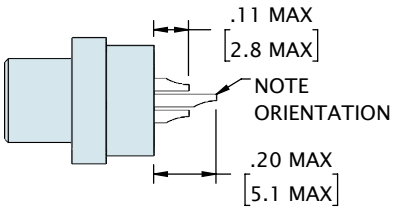


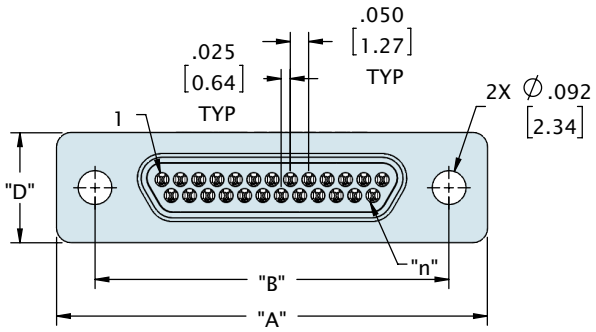


4 ROW CONNECTOR

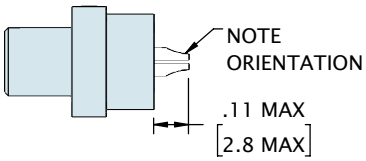


3 ROW CONNECTOR





2 ROW CONNECTOR



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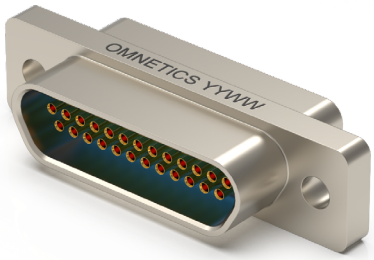
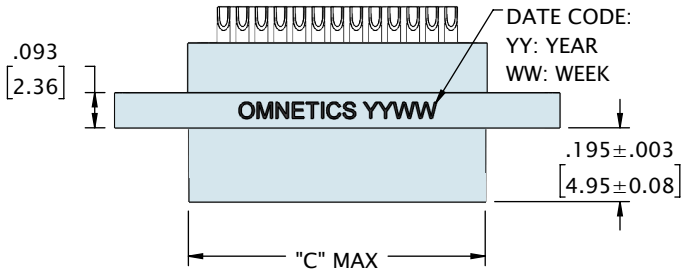
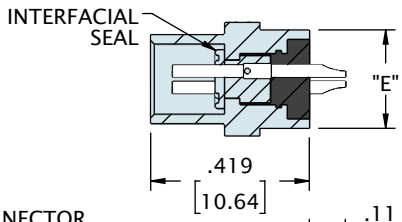
METAL SHELL MICRO-D SOLDER CUP (TYPE SS)







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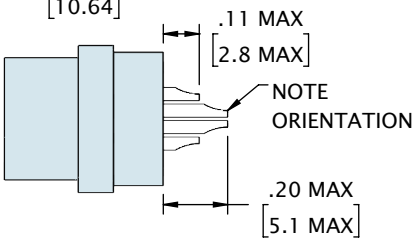

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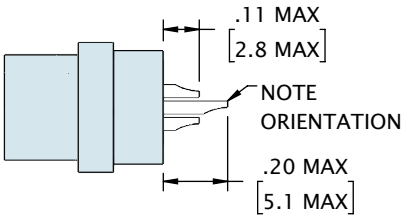

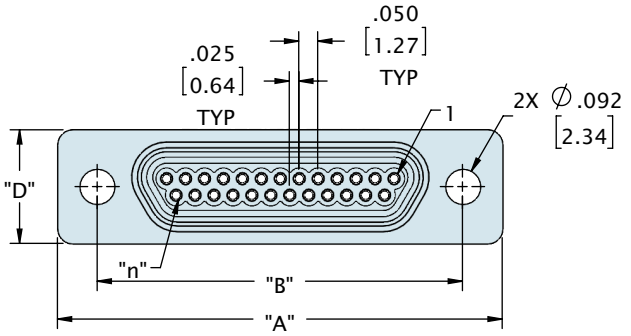

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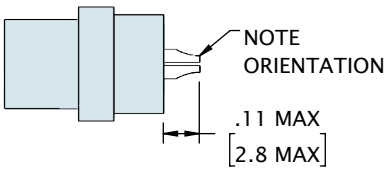

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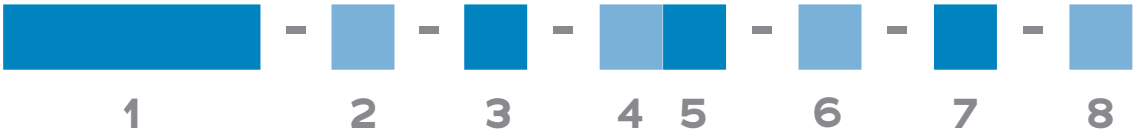

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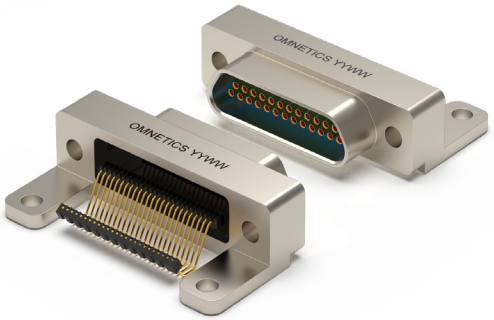
2 Number of Contacts	**009** **015** **021** **025** **031** **037** **051*** **069** **100** * Use **512** for Two Rows 051 and **513** for Three Rows 051	
3 Termination Type	**SS** Soldercup	
4 Shell Material & Finish	**N** Aluminum Shell, Electroless Nickel Plated	**CD** Aluminium Shell, Cadmium Plated
	B Aluminium Shell, Black Anodized	**P** Stainless Steel Shell, Passivated
5 Hardware	**OO** None, Ø .092 Hole	**O1** Fixed Jack-posts (MMDS - STD)
	O2 Jackscrews, STD Length, Hex (MMDP - STD)	**O3** Jackscrews, STD Length, Slotted
	O4 Jackscrews, Long Length, Hex	**O5** Jackscrews, Long Length, Slotted
	O6 Float Mount, Front Mounted	**O7** Float Mount, Rear Mounted
	O8 Non-Removable	**YY** Non Standard Hardware
6 Common Options	**PA** Panel Mount Rear, O-Ring	**PB** Panel Mount, Rear
	BS1 45 Degree Round Entry, Micro-D Backshell	**BSY** Custom Backshell
	BS2 Straight Oval Entry, Micro-D Backshell	**HT** High Temp Epoxy
	BS3 90 Degree Oval Entry, Micro-D Backshell	**RH** RoHS Compliant
	BS4 45 Degree Elliptical Entry, Micro-D Backshell	
	BS5 Straight Elliptical Entry, Split Micro-D Backshell	
	BS6 45 Degree Round Entry, Split Micro-D Backshell	
7 Mod Codes	**M10** Keyed	**M30** Ground Spring
	M50 Space Grade Micro-D, SPT1	**M53** Space Grade Micro-D, SPT2
8 Special Instructions	**YYY** Describe anything that is not covered in standard options	

METAL SHELL MICRO-D HORIZONTAL SURFACE MOUNT (TYPE HO)

Omnetics **Micro-D Horizontal Surface Mount** Connectors are an excellent choice for high-reliability applications in which a secure connection is needed directly on the board. These connectors are selected by designers of military, medical, and aerospace equipment and are used in devices such as guidance systems, optics, and on-board equipment. They are built to meet or exceed the rugged requirements of MIL-DTL-83513 and feature Omnetics' innovative one-piece flex pin design to protect the integrity of the system even under shock and vibration. Shell options include aluminum with nickel plating, stainless steel, and aluminum with cadmium plating.



Electro-Mechanical Specifications

TYPE	PERFORMANCE
Durability	> 2000 Mating Cycles min
Temperature	-55ºC to +125ºC (200 ºC w/HTE)
Current rating	3 Amps per contact per MIL-DTL-83513
Voltage Rating (DWV)	600 VAC RMS Sea Level
Insulation Resistance	5,000 Megohms @ 500 VDC
Shock	50 g's with no discontinuties > 1 microsecond
Vibration	20 g's with no discontinuties > 1 microsecond
Thermal Vacuum Outgassing	1.0% max TML, 0.1% max CVCM - NASA SP-R-0022
Contact Resistance	26 milliohms (65 mV) max @ 2.5 Amps per MIL-DTL-83513
Mating/Unmating Force	3 oz. (.85g) typical per contact

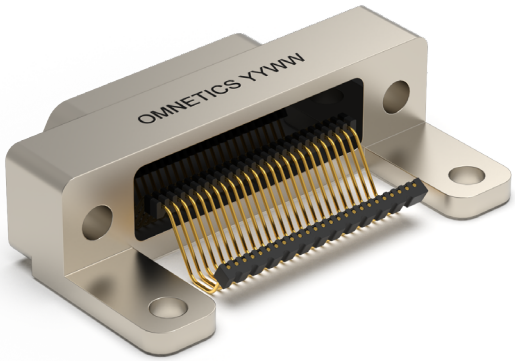
Material Specifications

TYPE	PERFORMANCE
Contact	Copper Alloy Per MIL-DTL-83513
Contact Finish	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
Insulator	Thermoplastic per MIL-DTL-83513
Interfacial Seal	Silicone Elastomer per A-A-59588
Hardware	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

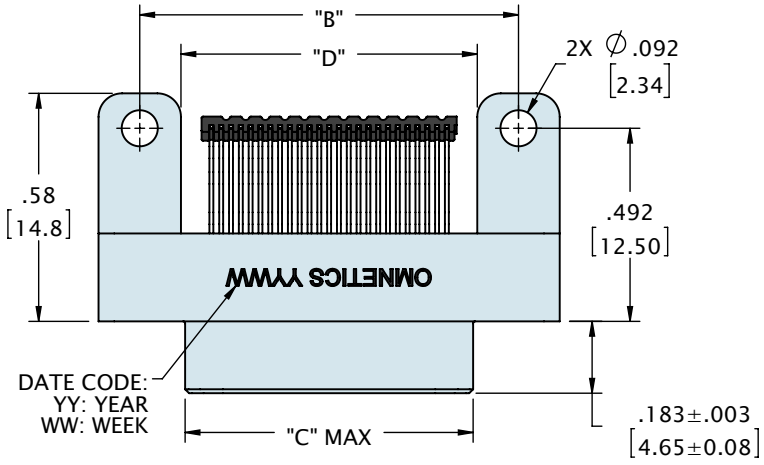
Shell Options

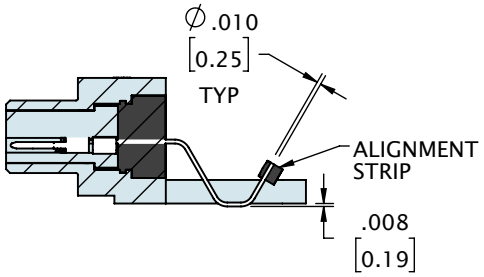
MATERIAL	FINISH
Aluminum 6061	Electroless Nickel per SAE-AMS-2404
Stainless Steel, 300 Series	Passivated per SAE-AMS-2700

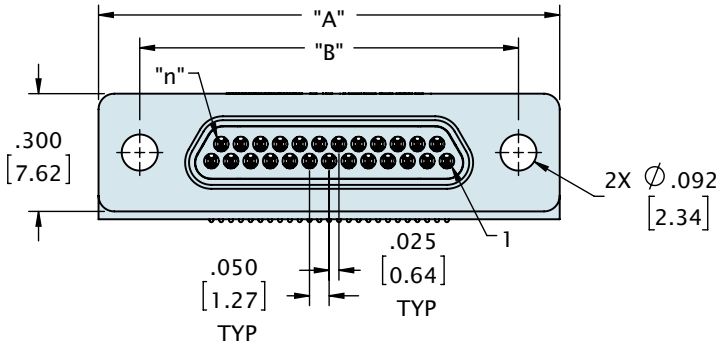
METAL SHELL MICRO-D HORIZONTAL SURFACE MOUNT (TYPE HO)

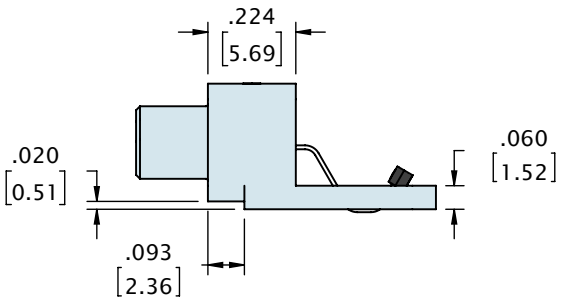


See page 158 for recommended board layout





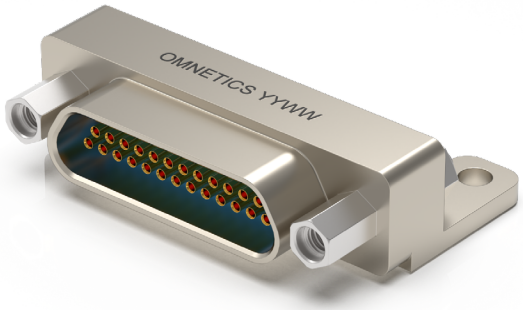


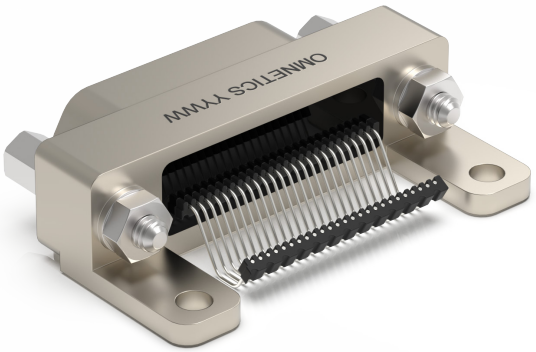


CONTACTS	ROWS	"A"	"B"	"C"	"D"
9	2	.775 [19.69]	.565 [14.35]	.334 [8.48]	.355 [9.02]
15	2	.925 [23.50]	.715 [18.16]	.484 [12.29]	.505 [12.83]
21	2	1.075 [27.31]	.865 [21.97]	.634 [16.10]	.655 [16.64]
25	2	1.175 [29.85]	.965 [24.51]	.734 [18.64]	.755 [19.18]
31	2	1.325 [33.66]	1.115 [28.32]	.884 [22.45]	.905 [22.99]
37	2	1.475 [37.47]	1.265 [32.13]	1.034 [26.26]	1.055 [26.80]
51	2	1.825 [46.36]	1.615 [41.02]	1.384 [35.15]	1.405 [35.69]

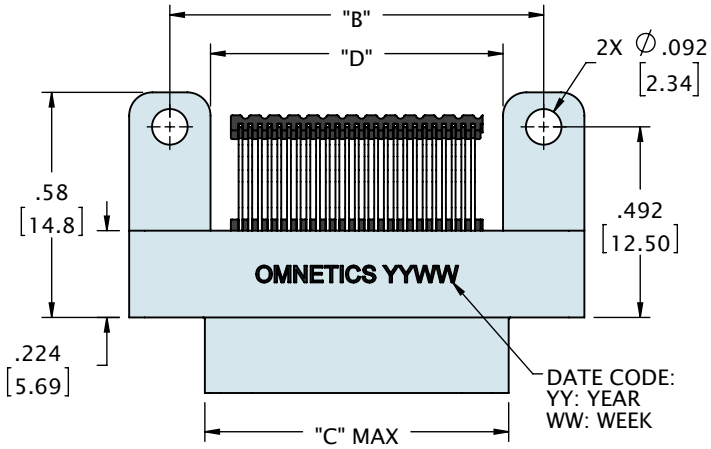
DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

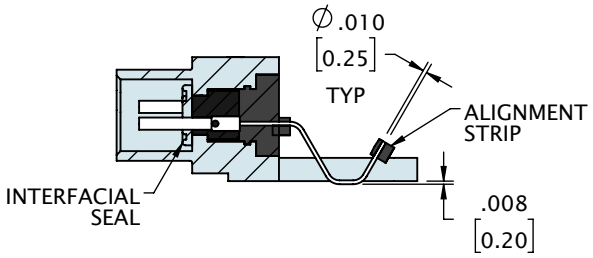
METAL SHELL MICRO-D HORIZONTAL SURFACE MOUNT (TYPE HO)

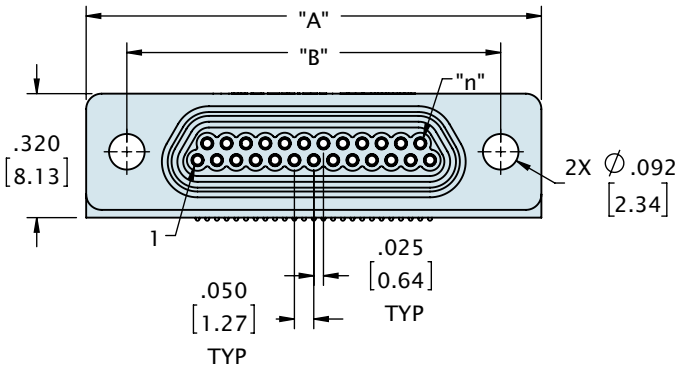


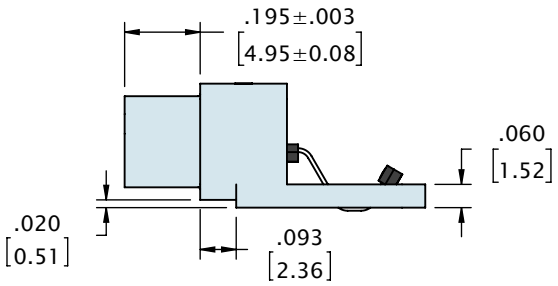


See page 158 for recommended board layout





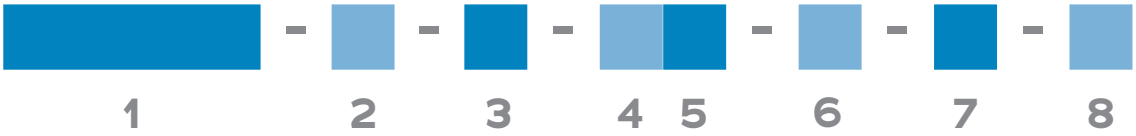




CONTACTS	ROWS	"A"	"B"	"C"	"D"
9	2	.775 [19.69]	.565 [14.35]	.400 [10.17]	.355 [9.02]
15	2	.925 [23.50]	.715 [18.16]	.550 [13.98]	.505 [12.83]
21	2	1.075 [27.31]	.865 [21.97]	.700 [17.79]	.655 [16.64]
25	2	1.175 [29.85]	.965 [24.51]	.800 [20.33]	.755 [19.18]
31	2	1.325 [33.66]	1.115 [28.32]	.950 [24.14]	.905 [22.99]
37	2	1.475 [37.47]	1.265 [32.13]	1.100 [27.95]	1.055 [26.80]
51	2	1.825 [46.36]	1.615 [41.02]	1.450 [36.84]	1.405 [35.69]

DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

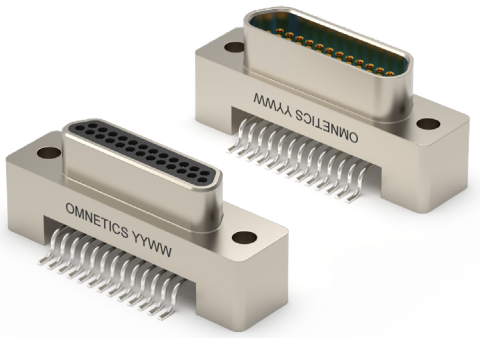
ORDERING GUIDE



1 Series	**MMDP** Metal Micro-D Pin	**MMDS** Metal Micro-D Socket
2 Number of Contacts	**009** **015** **021** **025** **031** **037** **051*** * Use **512** for Two Rows 051	
3 Termination Type	**HO** Horizontal Surface Mount	
4 Shell Material & Finish	**N** Aluminum Shell, Electroless Nickel Plated	**CD** Aluminium Shell, Cadmium Plated
	B Aluminium Shell, Black Anodized	**P** Stainless Steel Shell, Passivated
5 Hardware	**00** None, Ø .092 Hole	**01** Fixed Jack-posts (MMDS - STD)
	02 Jackscrews, STD Length, Hex (MMDP - STD)	**03** Jackscrews, STD Length, Slotted
	04 Jackscrews, Long Length, Hex	**05** Jackscrews, Long Length, Slotted
	06 Float Mount, Front Mounted	**07** Float Mount, Rear Mounted
	08 Non-Removable	**YY** Non Standard Hardware
6 Common Options	**PA** Panel Mount Rear, O-Ring	**PB** Panel Mount, Rear
	HT High Temp Epoxy	**RH** RoHS Compliant
7 Mod Codes	**M10** Keyed	**M30** Ground Spring
	M50 Space Grade Micro-D, SPT1	**M53** Space Grade Micro-D, SPT2
8 Special Instructions	**YYY** Describe anything that is not covered in standard options	

METAL SHELL VERTICAL SMT MICRO-D (TYPE VV)

Omnetics **Metal Shell Vertical SMT Micro-D** Connectors provide designers with the flexibility needed to create compact system architectures. These connectors serve innovative military, medical, and aerospace technologies such as guidance systems, optics, and on-board equipment in land and sea vehicles and avionics. They are built to meet or exceed the rugged requirements of MIL-DTL-83513 and feature Omnetics' innovative one-piece flex pin design to protect the integrity of the system even under shock and vibration. These connectors are ready to provide reliable service at temperatures ranging from -55°C to 125°C, making them an excellent choice for the widest variety of applications.



Electro-Mechanical Specifications

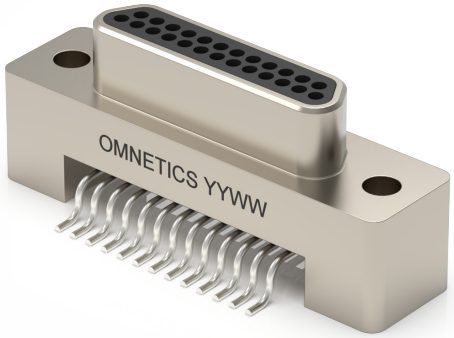
TYPE	PERFORMANCE
Durability	> 2000 Mating Cycles min
Temperature	-55°C to +125°C (200 °C w/HTE)
Current rating	3 Amps per contact per MIL-DTL-83513
Voltage Rating (DWV)	600 VAC RMS Sea Level
Insulation Resistance	5,000 Megohms @ 500 VDC
Shock	50 g's with no discontinuties > 1 microsecond
Vibration	20 g's with no discontinuties > 1 microsecond
Thermal Vacuum Outgassing	1.0% max TML, 0.1% max CVCM - NASA SP-R-0022
Contact Resistance	26 milliohms (65 mV) max @ 2.5 Amps per MIL-DTL-83513
Mating/Unmating Force	3 oz. (.85g) typical per contact

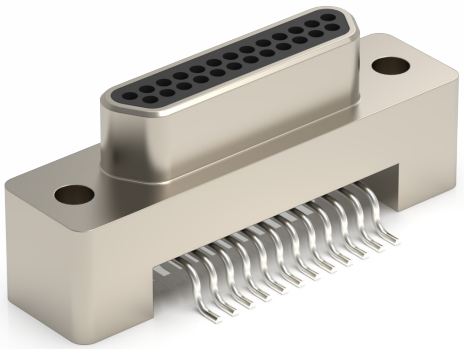
Material Specifications

TYPE	PERFORMANCE
Contact	Copper Alloy Per MIL-DTL-83513
Contact Finish	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
Insulator	Thermoplastic per MIL-DTL-83513
Interfacial Seal	Silicone Elastomer per A-A-59588
Hardware	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

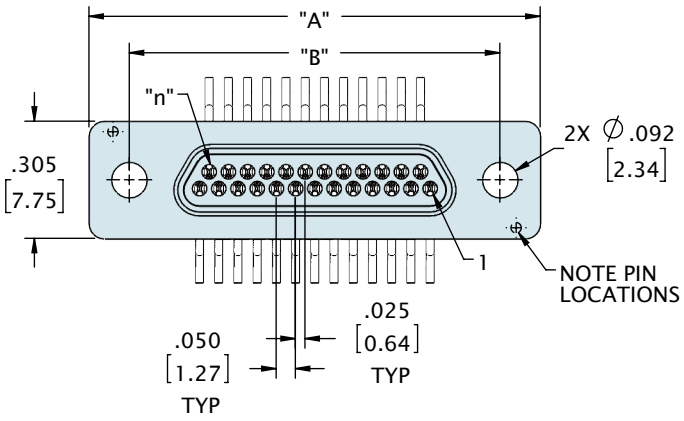
Shell Options

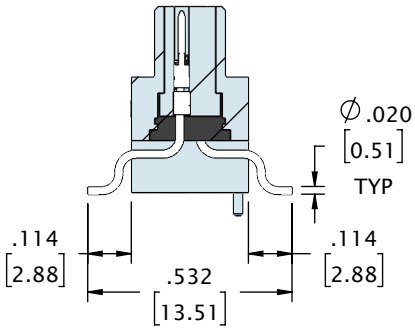
MATERIAL	FINISH
Aluminum 6061	Electroless Nickel per SAE-AMS-2404
Stainless Steel, 300 Series	Passivated per SAE-AMS-2700

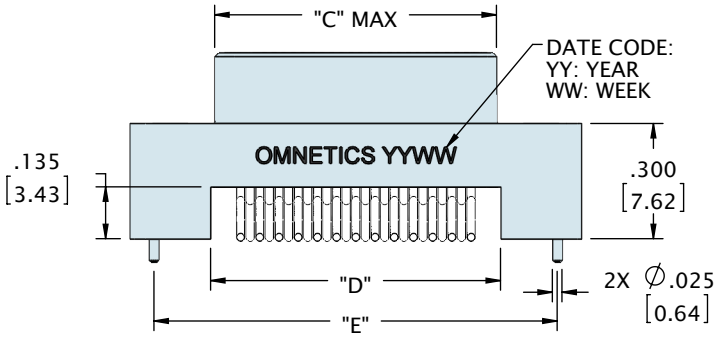


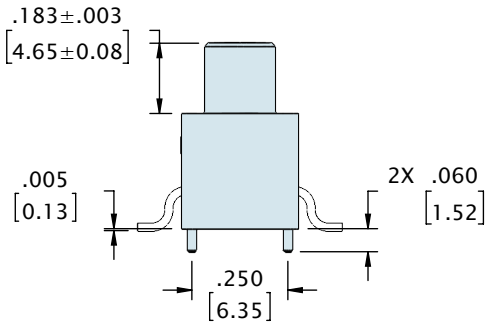


See page 158 for recommended board layout





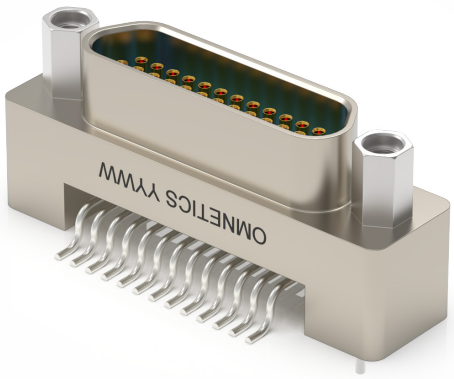


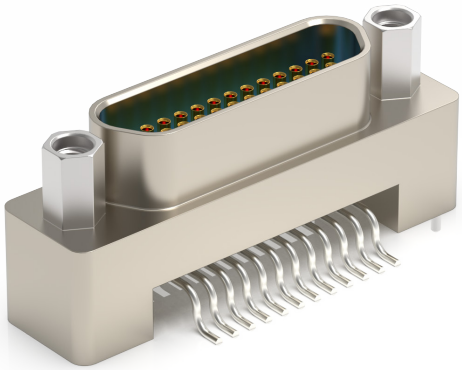


CONTACTS	ROWS	"A"	"B"	"C"	"D"	"E"
9	2	.775 [19.69]	.565 [14.35]	.334 [8.48]	.355 [9.02]	.650 [16.51]
15	2	.925 [23.50]	.715 [18.16]	.484 [12.29]	.505 [12.83]	.800 [20.32]
21	2	1.075 [27.31]	.865 [21.97]	.634 [16.10]	.655 [16.64]	.950 [24.13]
25	2	1.175 [29.85]	.965 [24.51]	.734 [18.64]	.755 [19.18]	1.050 [26.67]
31	2	1.325 [33.66]	1.115 [28.32]	.884 [22.45]	.905 [22.99]	1.200 [30.48]
37	2	1.475 [37.47]	1.265 [32.13]	1.034 [26.26]	1.055 [26.80]	1.350 [34.29]
51	2	1.825 [46.36]	1.615 [41.02]	1.384 [35.15]	1.405 [35.69]	1.700 [43.18]

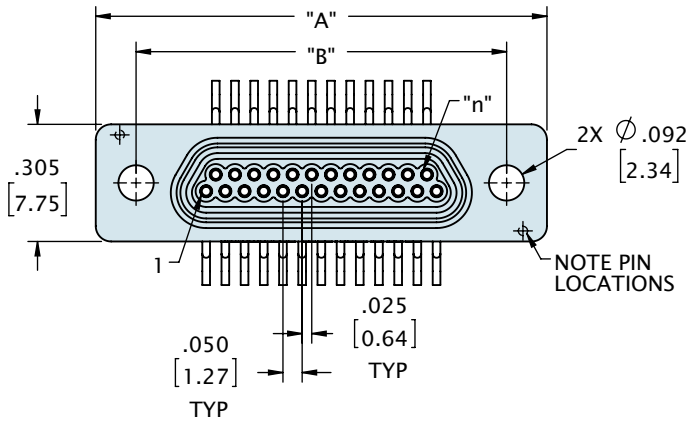
DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

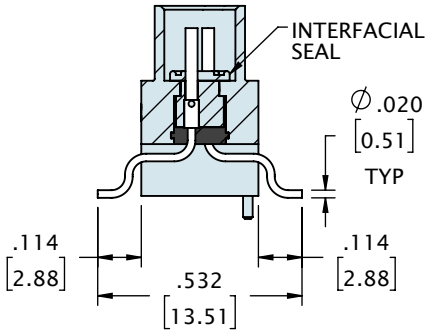
METAL SHELL VERTICAL SMT MICRO-D (TYPE VV)

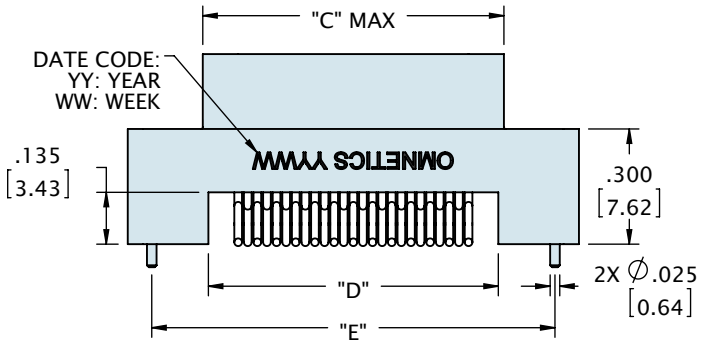


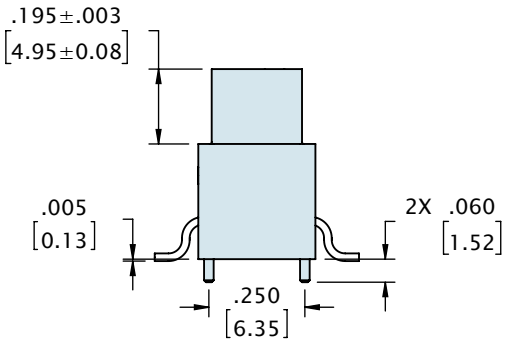


See page 158 for recommended board layout









CONTACTS	ROWS	"A"	"B"	"C"	"D"	"E"
9	2	.775 [19.69]	.565 [14.35]	.400 [10.17]	.355 [9.02]	.650 [16.51]
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37	2	1.475 [37.47]	1.265 [32.13]	1.100 [27.95]	1.055 [26.80]	1.350 [34.29]
51	2	1.825 [46.36]	1.615 [41.02]	1.450 [36.84]	1.405 [35.69]	1.700 [43.18]

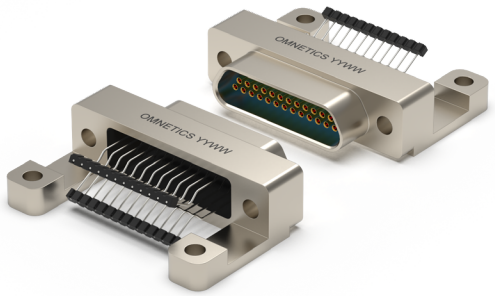
DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

ORDERING GUIDE

1 Series	**MMDP** Metal Micro-D Pin	**MMDS** Metal Micro-D Socket
2 Number of Contacts	**009** **015** **021** **025** **031** **037** **051*** * Use **512** for Two Rows 051	
3 Termination Type	**VV** Vertical Surface Mount	
4 Shell Material & Finish	**N** Aluminum Shell, Electroless Nickel Plated **B** Aluminium Shell, Black Anodized	**CD** Aluminium Shell, Cadmium Plated **P** Stainless Steel Shell, Passivated
5 Hardware	**OO** None, Ø .092 Hole **YY** Non Standard Hardware	**O1** Fixed Jack-posts (STD)
6 Common Options	**PA** Panel Mount Rear, O-Ring **HT** High Temp Epoxy	**PB** Panel Mount, Rear **RH** RoHS Compliant
7 Mod Codes	**M10** Keyed **M50** Space Grade Micro-D, SPT1	**M30** Ground Spring **M53** Space Grade Micro-D, SPT2
8 Special Instructions	**YYY** Describe anything that is not covered in standard options	

METAL SHELL MICRO-D CARD EDGE SURFACE MOUNT (TYPE CO)

Omnetics **Metal Shell Micro-D Card Edge Surface Mount** Connectors are engineered for applications with tight architectures, providing high signal integrity while preserving space on the board. These connectors serve innovative military and civilian technologies such as navigation and communications systems and computing devices. They are built to meet or exceed the rugged requirements of MIL-DTL-83513 and feature Omnetics' one-piece flex pin design to protect the integrity of the system even under shock and vibration. These connectors are rated to three amps per contact.



Electro-Mechanical Specifications

TYPE	PERFORMANCE
Durability	> 2000 Mating Cycles min
Temperature	-55ºC to +125ºC (200 ºC w/HTE)
Current rating	3 Amps per contact per MIL-DTL-83513
Voltage Rating (DWV)	600 VAC RMS Sea Level
Insulation Resistance	5,000 Megohms @ 500 VDC
Shock	50 g's with no discontinuties > 1 microsecond
Vibration	20 g's with no discontinuties > 1 microsecond
Thermal Vacuum Outgassing	1.0% max TML, 0.1% max CVCM - NASA SP-R-0022
Contact Resistance	26 milliohms (65 mV) max @ 2.5 Amps per MIL-DTL-83513
Mating/Unmating Force	3 oz. (.85g) typical per contact

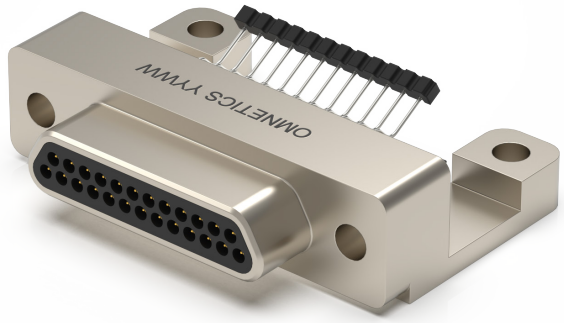
Material Specifications

TYPE	PERFORMANCE
Contact	Copper Alloy Per MIL-DTL-83513
Contact Finish	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
Insulator	Thermoplastic per MIL-DTL-83513
Interfacial Seal	Silicone Elastomer per A-A-59588
Hardware	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

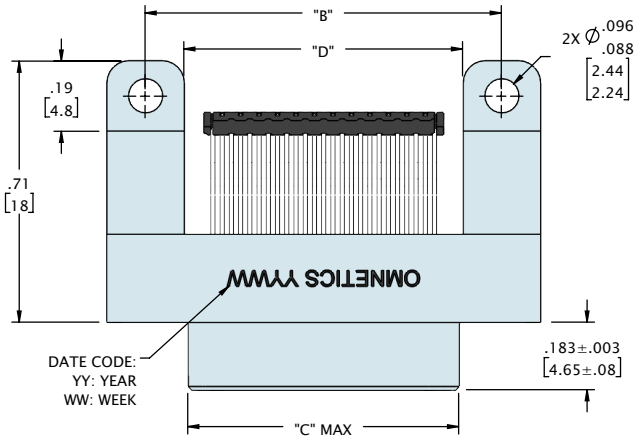
Shell Options

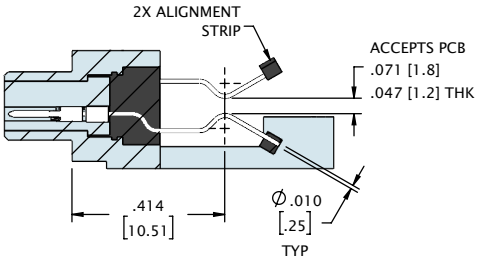
MATERIAL	FINISH
Aluminum 6061	Electroless Nickel per SAE-AMS-2404
Stainless Steel, 300 Series	Passivated per SAE-AMS-2700

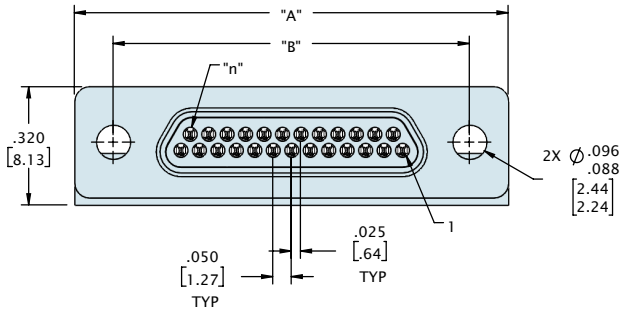
METAL SHELL MICRO-D CARD EDGE SURFACE MOUNT (TYPE CO)

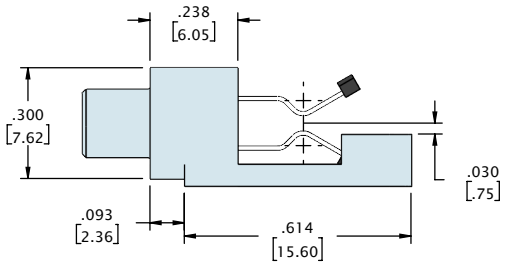


See page 159 for recommended board layout





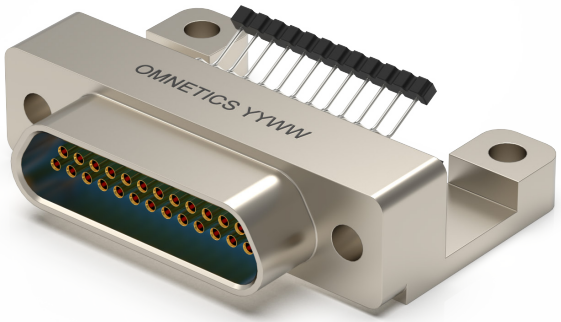


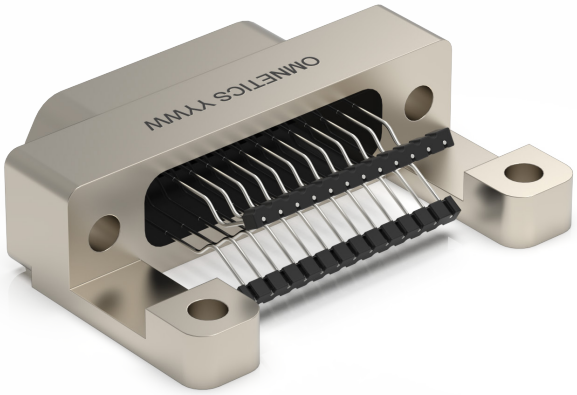


CONTACTS	ROWS	"A"	"B"	"C"	"D"
9	2	.775 [19.69]	.565 [14.35]	.334 [8.48]	.355 [9.02]
15	2	.925 [23.50]	.715 [18.16]	.484 [12.29]	.505 [12.83]
21	2	1.075 [27.31]	.865 [21.97]	.634 [16.10]	.655 [16.64]
25	2	1.175 [29.85]	.965 [24.51]	.734 [18.64]	.755 [19.18]
31	2	1.325 [33.66]	1.115 [28.32]	.884 [22.45]	.905 [22.99]
37	2	1.475 [37.47]	1.265 [32.13]	1.034 [26.26]	1.055 [26.80]
51	2	1.825 [46.36]	1.615 [41.02]	1.384 [35.15]	1.405 [35.69]

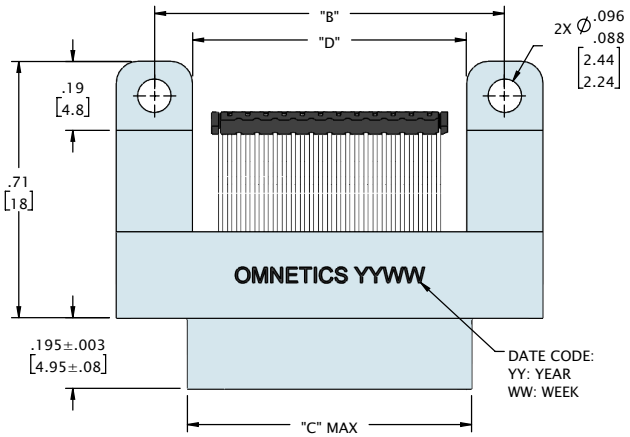
DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

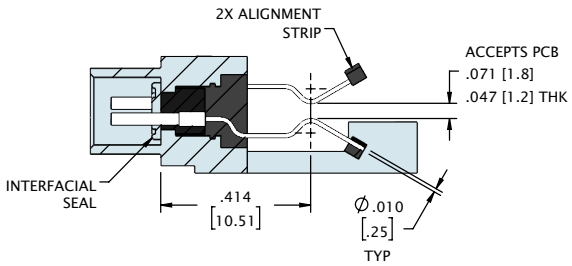
METAL SHELL MICRO-D CARD EDGE SURFACE MOUNT (TYPE CO)

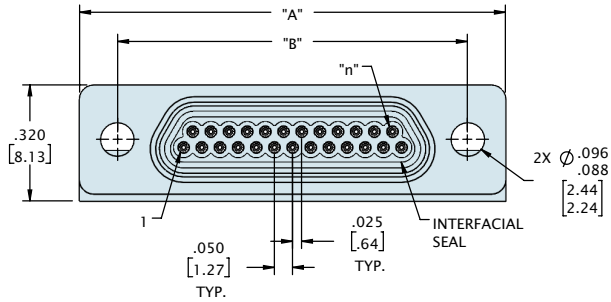


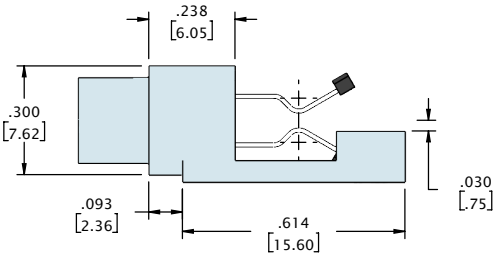


See page 159 for recommended board layout





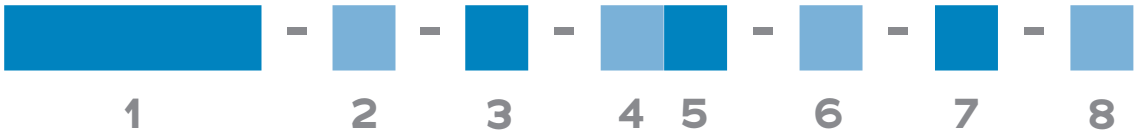




CONTACTS	ROWS	"A"	"B"	"C"	"D"
9	2	.775 [19.69]	.565 [14.35]	.400 [10.17]	.355 [9.02]
15	2	.925 [23.50]	.715 [18.16]	.550 [13.98]	.505 [12.83]
21	2	1.075 [27.31]	.865 [21.97]	.700 [17.79]	.655 [16.64]
25	2	1.175 [29.85]	.965 [24.51]	.800 [20.33]	.755 [19.18]
31	2	1.325 [33.66]	1.115 [28.32]	.950 [24.14]	.905 [22.99]
37	2	1.475 [37.47]	1.265 [32.13]	1.100 [27.95]	1.055 [26.80]
51	2	1.825 [46.36]	1.615 [41.02]	1.450 [36.84]	1.405 [35.69]

DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

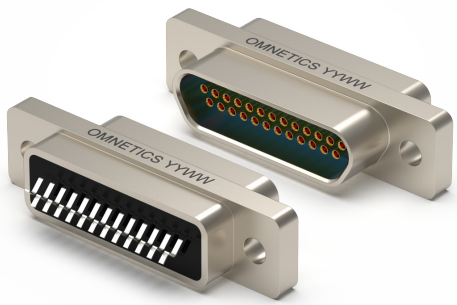
ORDERING GUIDE



1 Series	**MMDP** Metal Micro-D Pin **MMDS** Metal Micro-D Socket
2 Number of Contacts	**009** **015** **021** **025** **031** **037** **051*** * Use **512** for Two Rows 051
3 Termination Type	**CO** Card Edge Surface Mount
4 Shell Material & Finish	**N** Aluminum Shell, Electroless Nickel Plated **CD** Aluminium Shell, Cadmium Plated **B** Aluminium Shell, Black Anodized **P** Stainless Steel Shell, Passivated
5 Hardware	**OO** None, Ø .092 Hole **O1** Fixed Jack-posts (MMDS - STD) **O2** Jackscrews, STD Length, Hex (MMDP - STD) **O3** Jackscrews, STD Length, Slotted **O4** Jackscrews, Long Length, Hex **O5** Jackscrews, Long Length, Slotted **YY** Non Standard Hardware
6 Common Options	**PA** Panel Mount Rear, O-Ring **PB** Panel Mount, Rear **HT** High Temp Epoxy **RH** RoHS Compliant
7 Mod Codes	**M10** Keyed **M30** Ground Spring **M50** Space Grade Micro-D, SPT1 **M53** Space Grade Micro-D, SPT2
8 Special Instructions	**YYY** Describe anything that is not covered in standard options

METAL SHELL MICRO-D FLEX TAIL (TYPE FF)

Omnetics **Metal Shell Micro-D Flex Tail** Connectors are ideal for small devices, robotics, and unmanned systems. They serve emerging technologies in the military, medical, and aeronautics worlds. They are built to meet or exceed the rugged requirements of MIL-DTL-83513 and feature Omnetics' innovative one-piece flex pin design to protect the integrity of the system even under shock and vibration. The gold-plated flex pins are built to withstand more than 2,000 mating cycles, making them a good choice for hand-on applications that see significant use in the field.



Electro-Mechanical Specifications

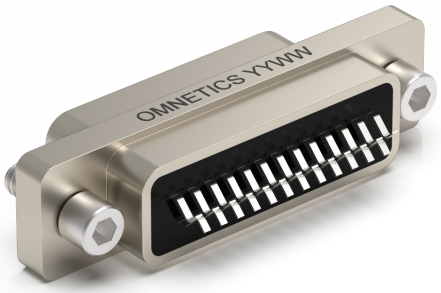
TYPE	PERFORMANCE
Durability	> 2000 Mating Cycles min
Temperature	-55ºC to +125ºC (200 ºC w/HTE)
Current rating	3 Amps per contact per MIL-DTL-83513
Voltage Rating (DWV)	600 VAC RMS Sea Level
Insulation Resistance	5,000 Megohms @ 500 VDC
Shock	50 g's with no discontinuties > 1 microsecond
Vibration	20 g's with no discontinuties > 1 microsecond
Thermal Vacuum Outgassing	1.0% max TML, 0.1% max CVCM - NASA SP-R-0022
Contact Resistance	26 milliohms (65 mV) max @ 2.5 Amps per MIL-DTL-83513
Mating/Unmating Force	3 oz. (.85g) typical per contact

Material Specifications

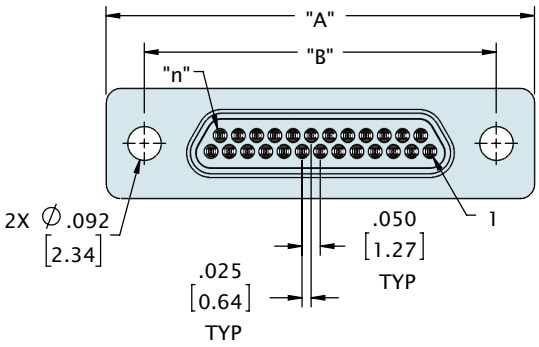
TYPE	PERFORMANCE
Contact	Copper Alloy Per MIL-DTL-83513
Contact Finish	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
Insulator	Thermoplastic per MIL-DTL-83513
Interfacial Seal	Silicone Elastomer per A-A-59588
Hardware	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

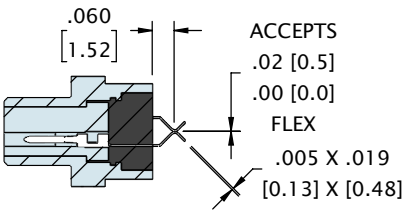
Shell Options

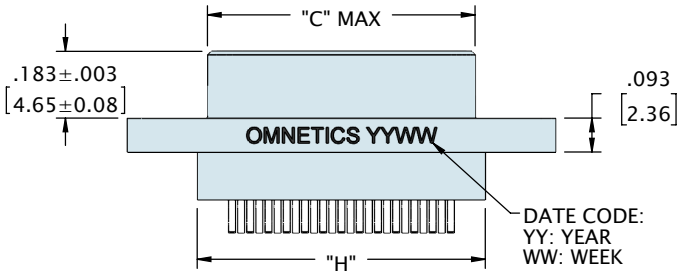
MATERIAL	FINISH
Aluminum 6061	Electroless Nickel per SAE-AMS-2404
Stainless Steel, 300 Series	Passivated per SAE-AMS-2700

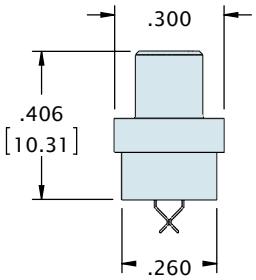


See page 159 for recommended board layout





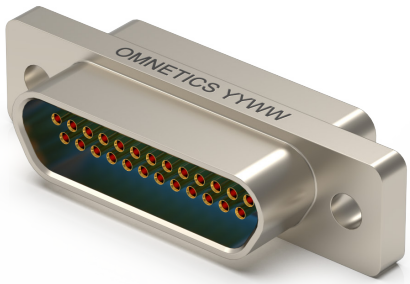




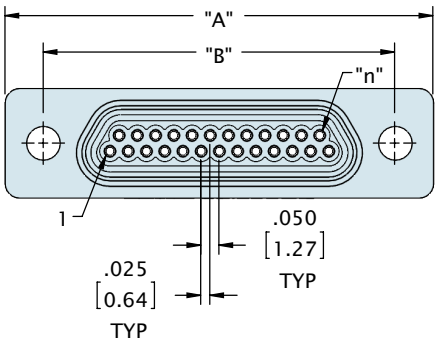
CONTACTS	ROWS	"A"	"B"	"C"	"D"
9	2	.775 [19.69]	.565 [14.35]	.334 [8.48]	.390 [9.91]
15	2	.925 [23.50]	.715 [18.16]	.484 [12.29]	.540 [13.72]
21	2	1.075 [27.31]	.865 [21.97]	.634 [16.10]	.690 [17.53]
25	2	1.175 [29.85]	.965 [24.51]	.734 [18.64]	.790 [20.07]
31	2	1.325 [33.66]	1.115 [28.32]	.884 [22.45]	.940 [23.88]
37	2	1.475 [37.47]	1.265 [32.13]	1.034 [26.26]	1.090 [27.69]
51	2	1.825 [46.36]	1.615 [41.02]	1.384 [35.15]	1.440 [36.58]

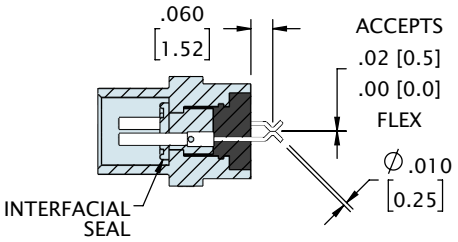
DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

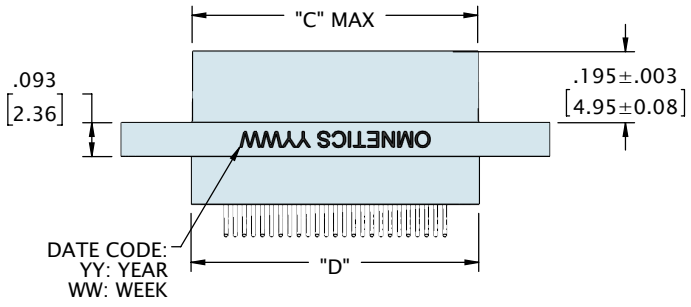
METAL SHELL MICRO-D FLEX TAIL (TYPE FF)

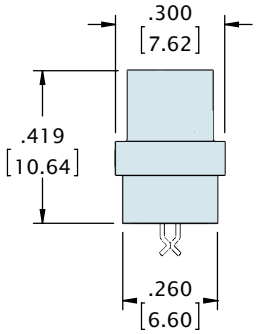


See page 159 for recommended board layout









CONTACTS	ROWS	"A"	"B"	"C"	"D"
9	2	.775 [19.69]	.565 [14.35]	.334 [8.48]	.390 [9.91]
15	2	.925 [23.50]	.715 [18.16]	.484 [12.29]	.540 [13.72]
21	2	1.075 [27.31]	.865 [21.97]	.634 [16.10]	.690 [17.53]
25	2	1.175 [29.85]	.965 [24.51]	.734 [18.64]	.790 [20.07]
31	2	1.325 [33.66]	1.115 [28.32]	.884 [22.45]	.940 [23.88]
37	2	1.475 [37.47]	1.265 [32.13]	1.034 [26.26]	1.090 [27.69]
51	2	1.825 [46.36]	1.615 [41.02]	1.384 [35.15]	1.440 [36.58]

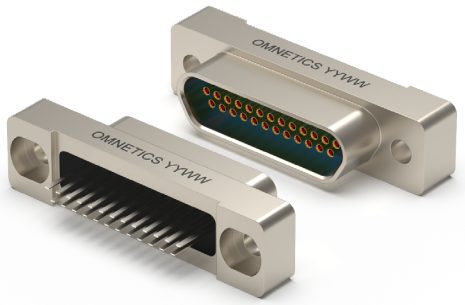
DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

ORDERING GUIDE

1	**Series**	**MMDP** Metal Micro-D Pin **MMDS** Metal Micro-D Socket
2	**Number of Contacts**	**009** **015** **021** **025** **031** **037** **051*** * Use **512** for Two Rows 051
3	**Termination Type**	**FF** Flex Tail
4	**Shell Material & Finish**	**N** Aluminum Shell, Electroless Nickel Plated **CD** Aluminium Shell, Cadmium Plated **B** Aluminium Shell, Black Anodized **P** Stainless Steel Shell, Passivated
5	**Hardware**	**00** None, Ø .092 Hole **01** Fixed Jack-posts (MMDS - STD) **02** Jackscrews, STD Length, Hex (MMDP - STD) **03** Jackscrews, STD Length, Slotted **04** Jackscrews, Long Length, Hex **05** Jackscrews, Long Length, Slotted **06** Float Mount, Front Mounted **YY** Non Standard Hardware
6	**Common Options**	**PA** Panel Mount Rear, O-Ring **PB** Panel Mount, Rear **HT** High Temp Epoxy **RH** RoHS Compliant
7	**Mod Codes**	**M10** Keyed **M30** Ground Spring **M50** Space Grade Micro-D, SPT1 **M53** Space Grade Micro-D, SPT2
8	**Special Instructions**	**YYY** Describe anything that is not covered in standard options

METAL SHELL MICRO-D STRAIGHT THRU-HOLE (TYPE DD)

Omnetics **Metal Shell Micro-D Straight Thru-Hole** Connectors provide high performance in rugged environments. They serve critical technologies in military, medical, and aeronautics systems. They meet or exceed the rugged requirements of MIL-DTL-83513 and feature Omnetics' innovative one-piece flex pin design to protect the integrity of the system even under shock and vibration. The gold-plated flex pins are built to withstand more than 2,000 mating cycles. They are ideal for designs that require maximum performance in the smallest and tightest systems.



Electro-Mechanical Specifications

TYPE	PERFORMANCE
Durability	> 2000 Mating Cycles min
Temperature	-55ºC to +125ºC (200 ºC w/HTE)
Current rating	3 Amps per contact per MIL-DTL-83513
Voltage Rating (DWV)	600 VAC RMS Sea Level
Insulation Resistance	5,000 Megohms @ 500 VDC
Shock	50 g's with no discontinuties > 1 microsecond
Vibration	20 g's with no discontinuties > 1 microsecond
Thermal Vacuum Outgassing	1.0% max TML, 0.1% max CVCM - NASA SP-R-0022
Contact Resistance	26 milliohms (65 mV) max @ 2.5 Amps per MIL-DTL-83513
Mating/Unmating Force	3 oz. (.85g) typical per contact

Material Specifications

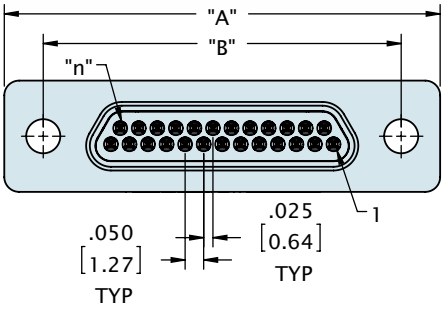
TYPE	PERFORMANCE
Contact	Copper Alloy Per MIL-DTL-83513
Contact Finish	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
Insulator	Thermoplastic per MIL-DTL-83513
Interfacial Seal	Silicone Elastomer per A-A-59588
Hardware	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

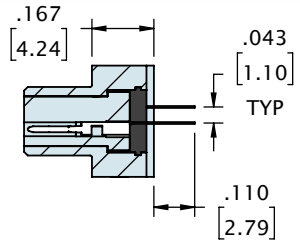
Shell Options

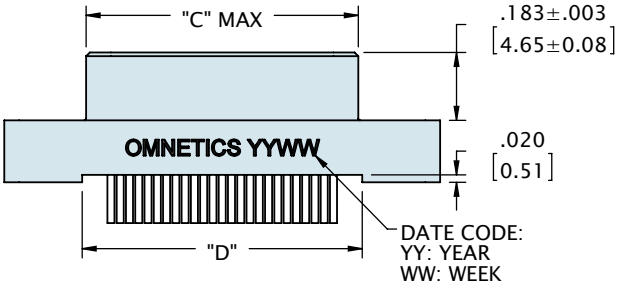
MATERIAL	FINISH
Aluminum 6061	Electroless Nickel per SAE-AMS-2404
Stainless Steel, 300 Series	Passivated per SAE-AMS-2700

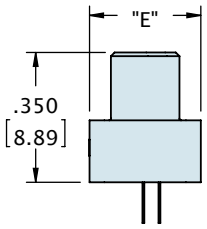
METAL SHELL MICRO-D STRAIGHT THRU-HOLE (TYPE DD)

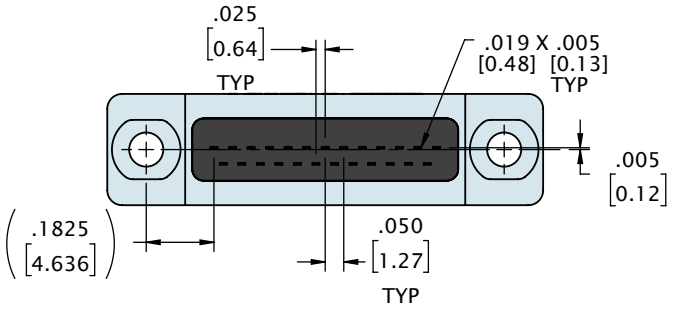
See page 160 for recommended board layout







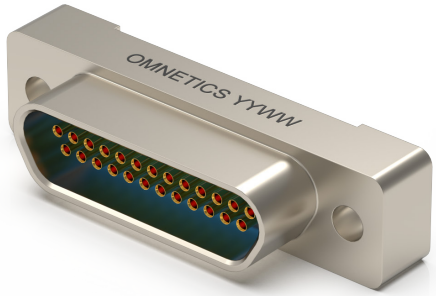




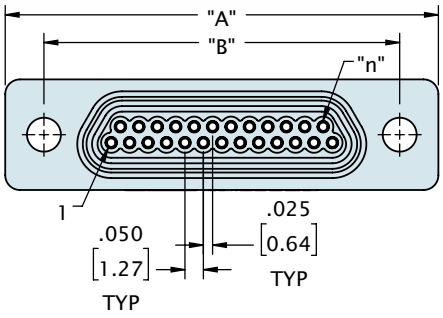
CONTACTS	ROWS	"A"	"B"	"C"	"D"	"E"
9	2	.775 [19.69]	.565 [14.35]	.334 [8.48]	.355 [9.02]	.300 [7.62]
15	2	.925 [23.50]	.715 [18.16]	.484 [12.29]	.505 [12.83]	.300 [7.62]
21	2	1.075 [27.31]	.865 [21.97]	.634 [16.10]	.655 [16.64]	.300 [7.62]
25	2	1.175 [29.85]	.965 [24.51]	.734 [18.64]	.755 [19.18]	.300 [7.62]
31	2	1.325 [33.66]	1.115 [28.32]	.884 [22.45]	.905 [22.99]	.300 [7.62]
37	2	1.475 [37.47]	1.265 [32.13]	1.034 [26.26]	1.055 [26.80]	.300 [7.62]
51	2	1.825 [46.36]	1.615 [41.02]	1.384 [35.15]	1.405 [35.69]	.300 [7.62]
51	3	1.425 [36.20]	1.215 [30.86]	.984 [24.99]	1.005 [25.53]	.341 [8.66]
69	3	1.725 [43.82]	1.515 [38.48]	1.284 [32.61]	1.305 [33.15]	.341 [8.66]
100	4	2.160 [54.86]	1.800 [45.72]	1.384 [35.15]	1.440 [36.58]	.386 [9.80]

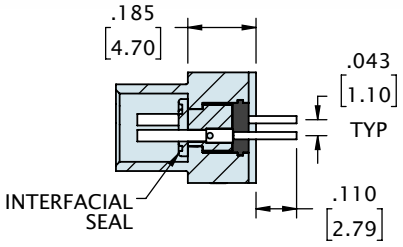
DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

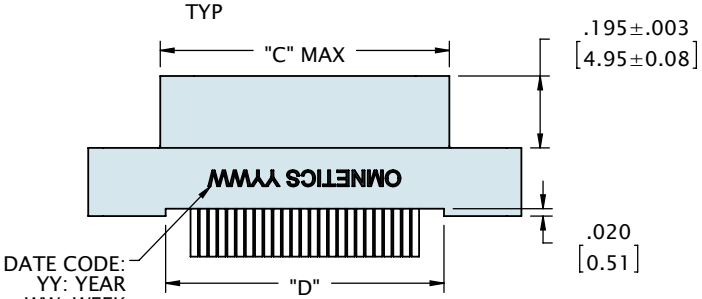
METAL SHELL MICRO-D STRAIGHT THRU-HOLE (TYPE DD)

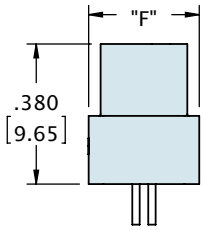


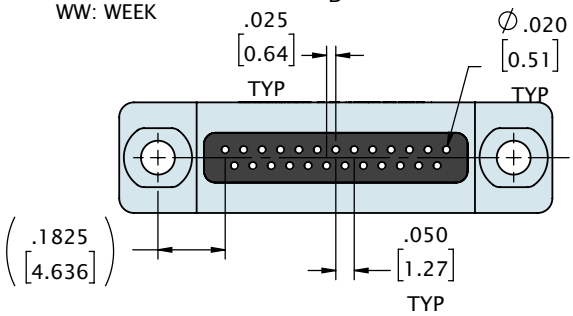
See page 160 for recommended board layout











CONTACTS	ROWS	"A"	"B"	"C"	"D"	"E"
9	2	.775 [19.69]	.565 [14.35]	.400 [10.17]	.355 [9.02]	.300 [7.62]
15	2	.925 [23.50]	.715 [18.16]	.550 [13.98]	.505 [12.83]	.300 [7.62]
21	2	1.075 [27.31]	.865 [21.97]	.700 [17.79]	.655 [16.64]	.300 [7.62]
25	2	1.175 [29.85]	.965 [24.51]	.800 [20.33]	.755 [19.18]	.300 [7.62]
31	2	1.325 [33.66]	1.115 [28.32]	.950 [24.14]	.905 [22.99]	.300 [7.62]
37	2	1.475 [37.47]	1.265 [32.13]	1.100 [27.95]	1.055 [26.80]	.300 [7.62]
51	2	1.825 [46.36]	1.615 [41.02]	1.450 [36.84]	1.405 [35.69]	.300 [7.62]
51	3	1.425 [36.20]	1.215 [30.86]	1.050 [26.67]	1.005 [25.53]	.343 [8.71]
69	3	1.725 [43.82]	1.515 [38.48]	1.350 [34.29]	1.305 [33.15]	.343 [8.71]
100	4	2.160 [54.86]	1.800 [45.72]	1.450 [36.83]	1.440 [36.58]	.386 [9.80]

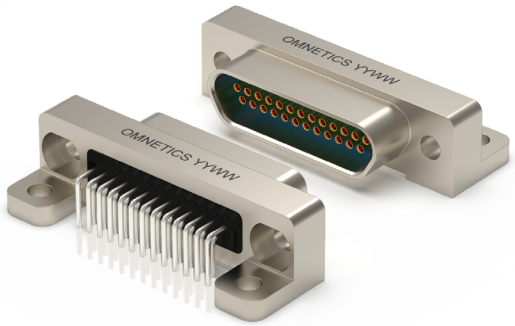
DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

ORDERING GUIDE

1	**Series**	**MMDP** Metal Micro-D Pin **MMDS** Metal Micro-D Socket
2	**Number of Contacts**	**009** **015** **021** **025** **031** **037** **051*** **069** **100** * Use **512** for Two Rows 051 and **513** for Three Rows 051
3	**Termination Type**	**DD** Straight Thru-Hole
4	**Shell Material & Finish**	**N** Aluminum Shell, Electroless Nickel Plated **CD** Aluminium Shell, Cadmium Plated **B** Aluminium Shell, Black Anodized **P** Stainless Steel Shell, Passivated
5	**Hardware**	**00** None, Ø .092 Hole **01** Fixed Jack-posts (MMDS - STD) **02** Jackscrews, STD Length, Hex (MMDP - STD) **03** Jackscrews, STD Length, Slotted **04** Jackscrews, Long Length, Hex **05** Jackscrews, Long Length, Slotted **06** Float Mount, Front Mounted **YY** Non Standard Hardware
6	**Common Options**	**PA** Panel Mount Rear, O-Ring **PB** Panel Mount, Rear **IBS** Integrated Backshell **HT** High Temp Epoxy **RH** RoHS Compliant
7	**Mod Codes**	**M10** Keyed **M30** Ground Spring **M50** Space Grade Micro-D, SPT1 **M53** Space Grade Micro-D, SPT2
8	**Special Instructions**	**YYY** Describe anything that is not covered in standard options

METAL SHELL MICRO-D RIGHT ANGLE THRU-HOLE (TYPE H2)

Omnetics **Metal Shell Micro-D Right Angle Thru-Hole** Connectors enable designers to fit powerful connectivity into compressed electronic systems. They serve critical technologies in the military, medical, and aeronautics industries. These high-reliability connectors meet or exceed the rugged requirements of MIL-DTL-83513. They feature Omnetics' innovative one-piece flex pin design to protect the integrity of system that must provide exceptional performance even under conditions that include shock and vibration. The gold-plated flex pins are built to withstand more than 2,000 mating cycles. They play a key role in emerging product design for the most demanding environments.



Electro-Mechanical Specifications

TYPE	PERFORMANCE
Durability	> 2000 Mating Cycles min
Temperature	-55ºC to +125ºC (200 ºC w/HTE)
Current rating	3 Amps per contact per MIL-DTL-83513
Voltage Rating (DWV)	600 VAC RMS Sea Level
Insulation Resistance	5,000 Megohms @ 500 VDC
Shock	50 g's with no discontinuties > 1 microsecond
Vibration	20 g's with no discontinuties > 1 microsecond
Thermal Vacuum Outgassing	1.0% max TML, 0.1% max CVCM - NASA SP-R-0022
Contact Resistance	26 milliohms (65 mV) max @ 2.5 Amps per MIL-DTL-83513
Mating/Unmating Force	3 oz. (.85g) typical per contact

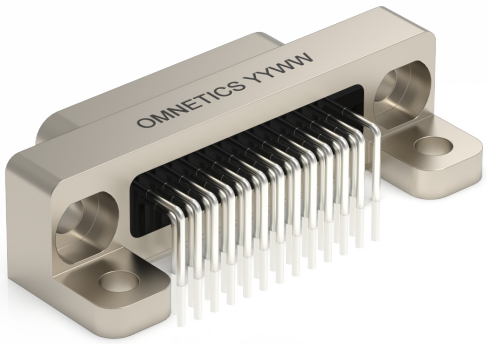
Material Specifications

TYPE	PERFORMANCE
Contact	Copper Alloy Per MIL-DTL-83513
Contact Finish	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
Insulator	Thermoplastic per MIL-DTL-83513
Interfacial Seal	Silicone Elastomer per A-A-59588
Hardware	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

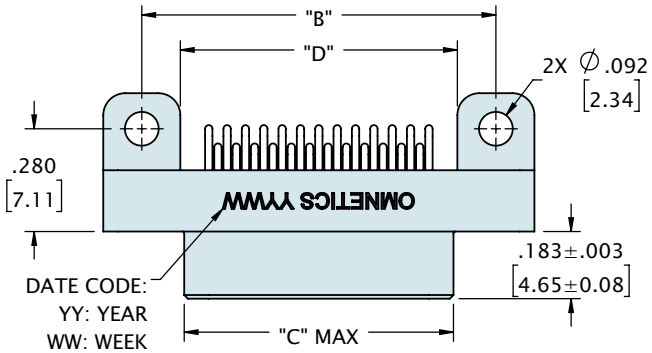
Shell Options

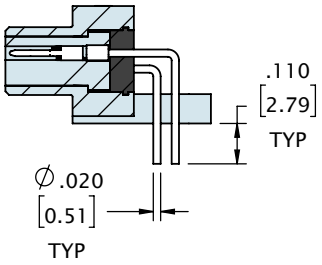
MATERIAL	FINISH
Aluminum 6061	Electroless Nickel per SAE-AMS-2404
Stainless Steel, 300 Series	Passivated per SAE-AMS-2700

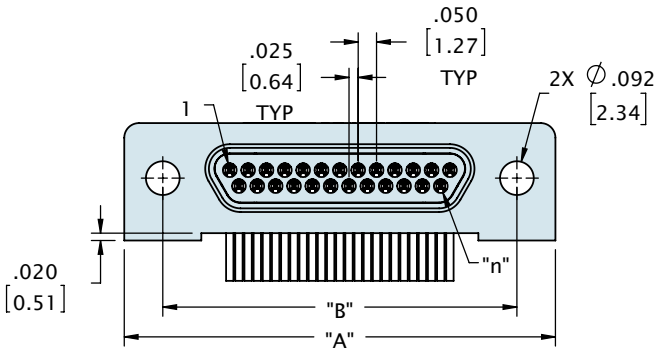
METAL SHELL MICRO-D RIGHT ANGLE THRU-HOLE (TYPE H2)

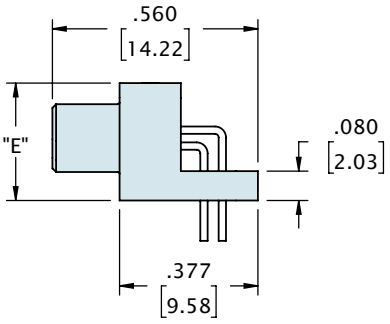


See page 161 for recommended board layout





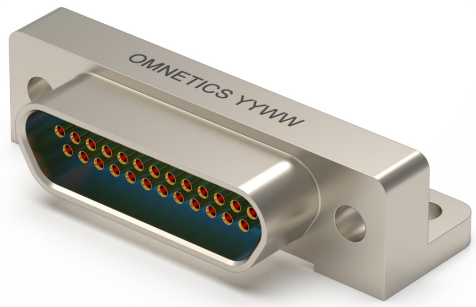




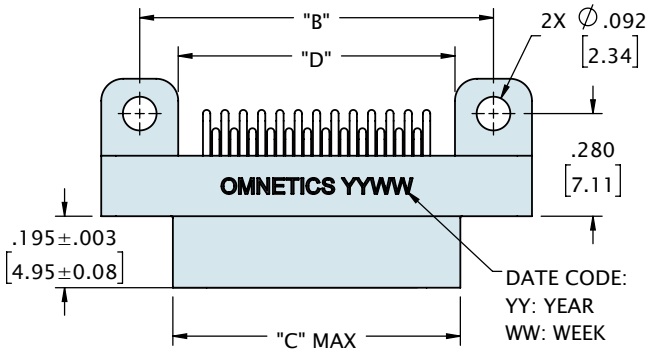
CONTACTS	ROWS	"A"	"B"	"C"	"D"	"E"
9	2	.775 [19.69]	.565 [14.35]	.334 [8.48]	.355 [9.02]	.320 [8.13]
15	2	.925 [23.50]	.715 [18.16]	.484 [12.29]	.505 [12.83]	.320 [8.13]
21	2	1.075 [27.31]	.865 [21.97]	.634 [16.10]	.655 [16.64]	.320 [8.13]
25	2	1.175 [29.85]	.965 [24.51]	.734 [18.64]	.755 [19.18]	.320 [8.13]
31	2	1.325 [33.66]	1.115 [28.32]	.884 [22.45]	.905 [22.99]	.320 [8.13]
37	2	1.475 [37.47]	1.265 [32.13]	1.034 [26.26]	1.055 [26.80]	.320 [8.13]
51	2	1.825 [46.36]	1.615 [41.02]	1.384 [35.15]	1.405 [35.69]	.320 [8.13]
51	3	1.425 [36.20]	1.215 [30.86]	.984 [24.99]	1.005 [25.53]	.361 [9.17]
69	3	1.725 [43.82]	1.515 [38.48]	1.284 [32.61]	1.305 [33.15]	.361 [9.17]
100	4	2.160 [54.86]	1.800 [45.72]	1.384 [35.15]	1.440 [36.58]	.406 [10.31]

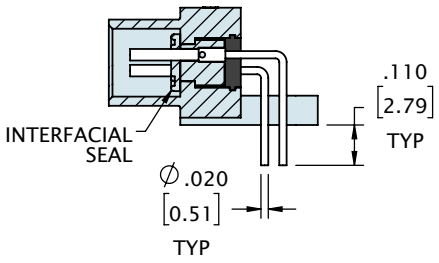
DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

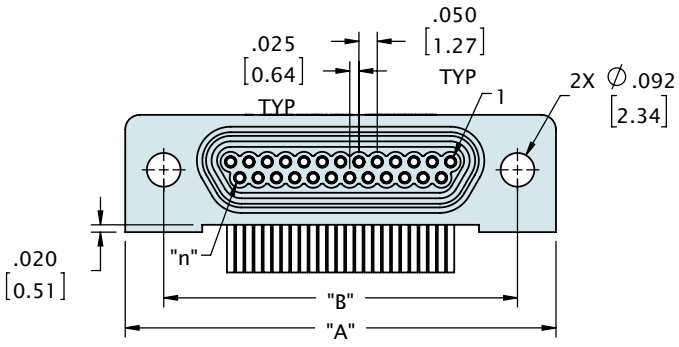
METAL SHELL MICRO-D RIGHT ANGLE THRU-HOLE (TYPE H2)

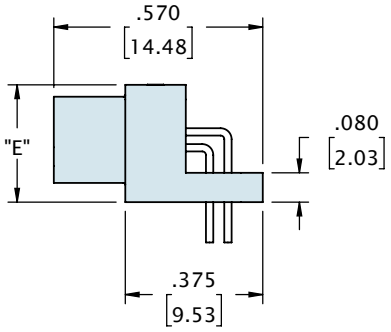


See page 161 for recommended board layout









CONTACTS	ROWS	"A"	"B"	"C"	"D"	"E"
9	2	.775 [19.69]	.565 [14.35]	.400 [10.17]	.355 [9.02]	.320 [8.13]
15	2	.925 [23.50]	.715 [18.16]	.550 [13.98]	.505 [12.83]	.320 [8.13]
21	2	1.075 [27.31]	.865 [21.97]	.700 [17.79]	.655 [16.64]	.320 [8.13]
25	2	1.175 [29.85]	.965 [24.51]	.800 [20.33]	.755 [19.18]	.320 [8.13]
31	2	1.325 [33.66]	1.115 [28.32]	.950 [24.14]	.905 [22.99]	.320 [8.13]
37	2	1.475 [37.47]	1.265 [32.13]	1.100 [27.95]	1.055 [26.80]	.320 [8.13]
51	2	1.825 [46.36]	1.615 [41.02]	1.450 [36.84]	1.405 [35.69]	.320 [8.13]
51	3	1.425 [36.20]	1.215 [30.86]	1.050 [26.67]	1.005 [25.53]	.361 [9.17]
69	3	1.725 [43.82]	1.515 [38.48]	1.350 [34.29]	1.305 [33.15]	.361 [9.17]
100	4	2.160 [54.86]	1.800 [45.72]	1.450 [36.83]	1.440 [36.58]	.406 [10.31]

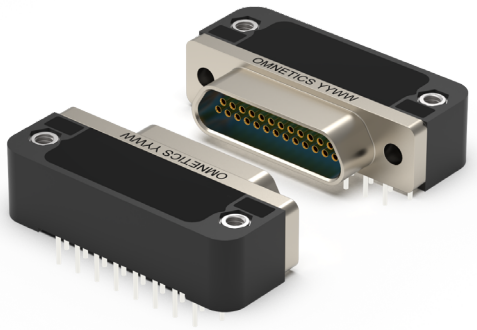
DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

ORDERING GUIDE

1	**Series**	**MMDP** Metal Micro-D Pin **MMDS** Metal Micro-D Socket
2	**Number of Contacts**	**009** **015** **021** **025** **031** **037** **051*** **069** **100** * Use **512** for Two Rows 051 and **513** for Three Rows 051
3	**Termination Type**	**H2** Right Angle Thru-Hole
4	**Shell Material & Finish**	**N** Aluminum Shell, Electroless Nickel Plated **CD** Aluminium Shell, Cadmium Plated **B** Aluminium Shell, Black Anodized **P** Stainless Steel Shell, Passivated
5	**Hardware**	**OO** None, Ø .092 Hole **O1** Fixed Jack-posts (MMDS - STD) **OO2** Jackscrews, STD Length, Hex (MMDP - STD) **O3** Jackscrews, STD Length, Slotted **O4** Jackscrews, Long Length, Hex **O5** Jackscrews, Long Length, Slotted **YY** Non Standard Hardware
6	**Common Options**	**PA** Panel Mount Rear, O-Ring **PB** Panel Mount, Rear **HT** High Temp Epoxy **RH** RoHS Compliant
7	**Mod Codes**	**M10** Keyed **M30** Ground Spring **M50** Space Grade Micro-D, SPT1 **M53** Space Grade Micro-D, SPT2
8	**Special Instructions**	**YYY** Describe anything that is not covered in standard options

METAL SHELL MICRO-D NARROW RIGHT ANGLE .100 (TYPE SR1)

Omnetics **Micro-D Narrow Right Angle Thru-Hole board mount connectors** offer the traditional .100 inch pitch. These high-reliability connectors provide excellent shock and vibration performance and meet or exceed the requirements of MIL-DTL-83513 utilizing the rugged Omnetics flex pin contact.



Electro-Mechanical Specifications

TYPE	PERFORMANCE
Durability	> 2000 Mating Cycles min
Temperature	-55°C to +125°C (200 °C w/HTE)
Current rating	3 Amps per contact per MIL-DTL-83513
Voltage Rating (DWV)	600 VAC RMS Sea Level
Insulation Resistance	5,000 Megohms @ 500 VDC
Shock	50 g's with no discontinuties > 1 microsecond
Vibration	20 g's with no discontinuties > 1 microsecond
Thermal Vacuum Outgassing	1.0% max TML, 0.1% max CVCM - NASA SP-R-0022
Contact Resistance	26 milliohms (65 mV) max @ 2.5 Amps per MIL-DTL-83513
Mating/Unmating Force	3 oz. (.85g) typical per contact

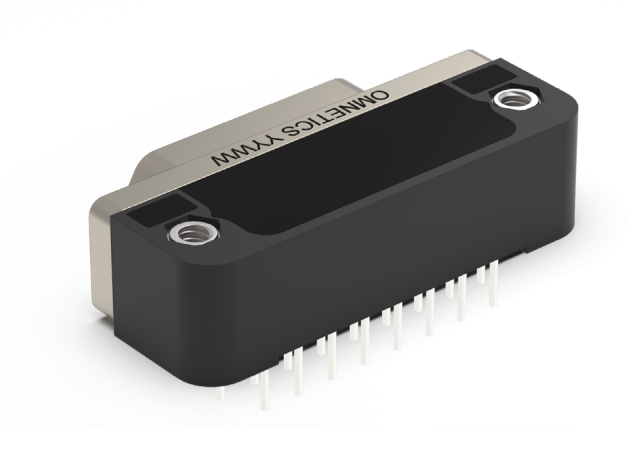
Material Specifications

TYPE	PERFORMANCE
Contact	Copper Alloy Per MIL-DTL-83513
Contact Finish	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
Insulator	Thermoplastic per MIL-DTL-83513
Interfacial Seal	Silicone Elastomer per A-A-59588
Hardware	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

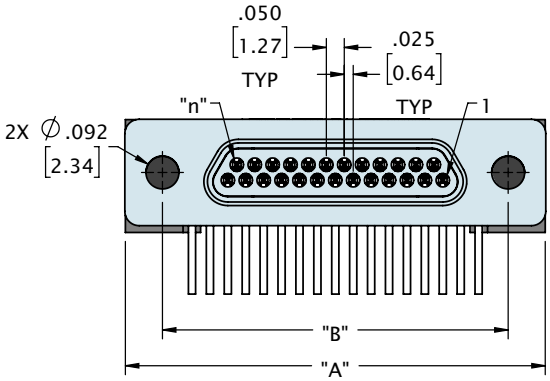
Shell Options

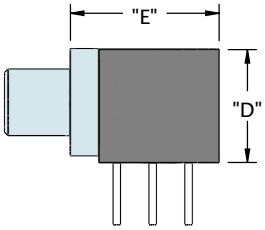
MATERIAL	FINISH
Aluminum 6061	Electroless Nickel per SAE-AMS-2404
Stainless Steel, 300 Series	Passivated per SAE-AMS-2700

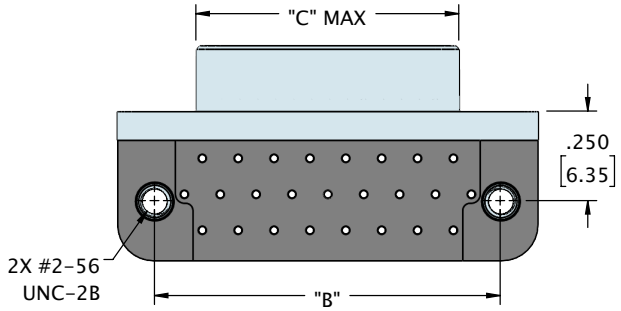
METAL SHELL MICRO-D NARROW RIGHT ANGLE .100 (TYPE SR1)

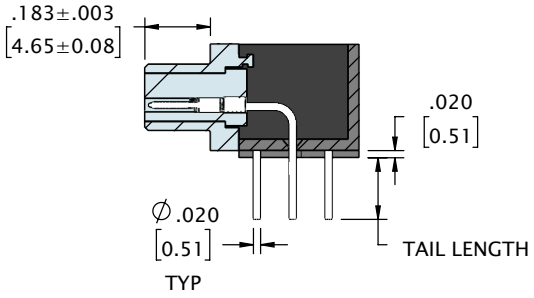


See page 162 for recommended board layout





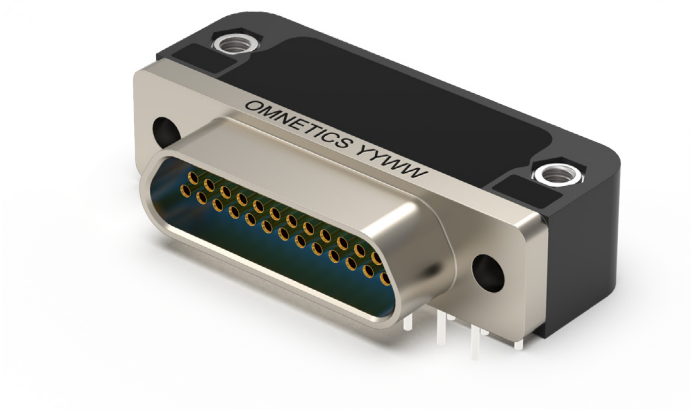


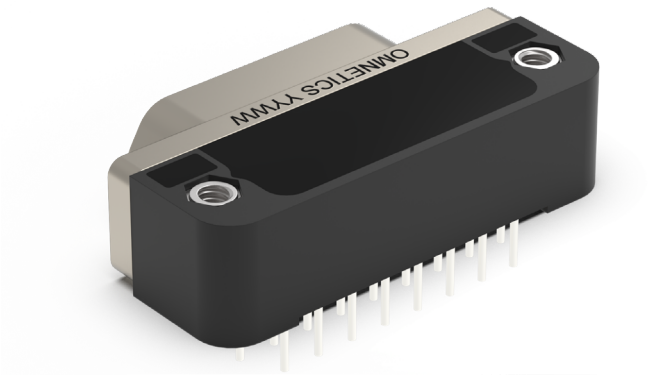


CONTACTS	ROWS	"A"	"B"	"C"	"D"	"E"
9	2	.775 [19.69]	.565 [14.35]	.334 [8.48]	.315 [8.00]	.415 [10.54]
15	2	.925 [23.50]	.715 [18.16]	.484 [12.29]	.315 [8.00]	.415 [10.54]
21	2	1.075 [27.31]	.865 [21.97]	.634 [16.10]	.315 [8.00]	.415 [10.54]
25	2	1.175 [29.85]	.965 [24.51]	.734 [18.64]	.315 [8.00]	.415 [10.54]
31	2	1.325 [33.66]	1.115 [28.32]	.884 [22.45]	.315 [8.00]	.515 [13.08]
37	2	1.475 [37.47]	1.265 [32.13]	1.034 [26.26]	.315 [8.00]	.515 [13.08]
51	3	1.425 [36.20]	1.215 [30.86]	.984 [24.99]	.350 [8.89]	.650 [16.51]

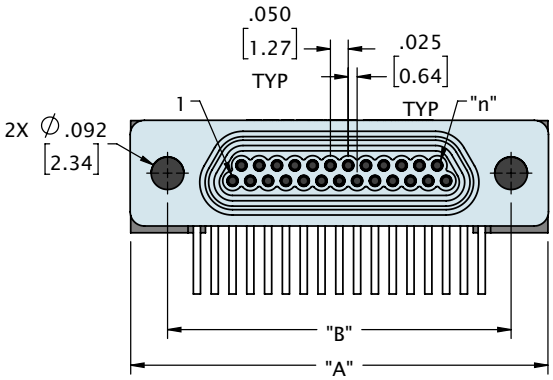
DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

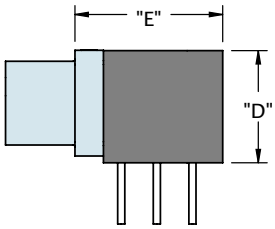
METAL SHELL MICRO-D NARROW RIGHT ANGLE .100 (TYPE SR1)

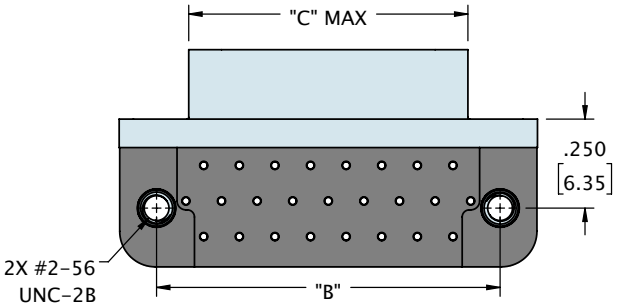


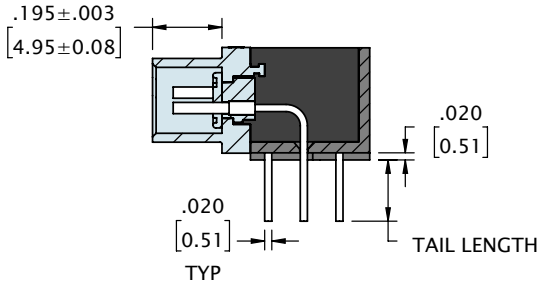


See page 162 for recommended board layout







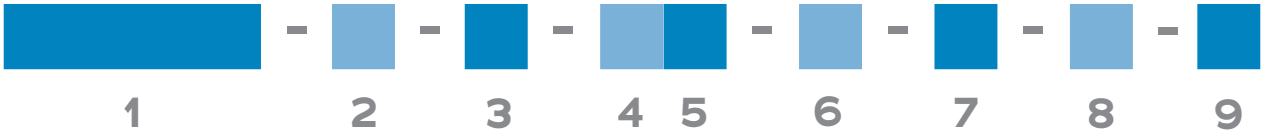


CONTACTS	ROWS	"A"	"B"	"C"	"D"	"E"
9	2	.775 [19.69]	.565 [14.35]	.400 [10.16]	.315 [8.00]	.415 [10.54]
15	2	.925 [23.50]	.715 [18.16]	.550 [13.97]	.315 [8.00]	.415 [10.54]
21	2	1.075 [27.31]	.865 [21.97]	.700 [17.78]	.315 [8.00]	.415 [10.54]
25	2	1.175 [29.85]	.965 [24.51]	.800 [20.32]	.315 [8.00]	.415 [10.54]
31	2	1.325 [33.66]	1.115 [28.32]	.950 [24.13]	.315 [8.00]	.515 [13.08]
37	2	1.475 [37.47]	1.265 [32.13]	1.100 [27.94]	.315 [8.00]	.515 [13.08]
51	3	1.425 [36.20]	1.215 [30.86]	1.100 [27.94]	.350 [8.89]	.650 [16.51]

DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

METAL SHELL MICRO-D NARROW RIGHT ANGLE .100 (TYPE SR1)

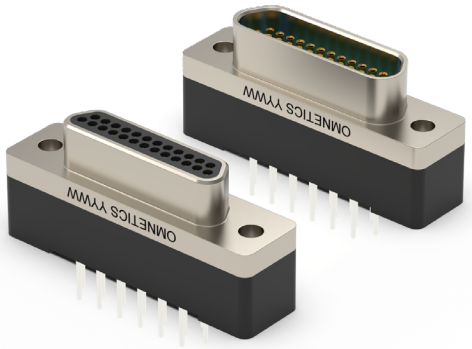
ORDERING GUIDE



1	**Series**	**MMDP** Metal Micro-D Pin **MMDS** Metal Micro-D Socket
2	**Number of Contacts**	**009** **015** **021** **025** **031** **037** **051*** * Use **513** for Three Rows 051
3	**Termination Type**	**SR1** Narrow Right Angle .100
4	**Shell Material & Finish**	**N** Aluminum Shell, Electroless Nickel Plated **CD** Aluminium Shell, Cadmium Plated **B** Aluminium Shell, Black Anodized **P** Stainless Steel Shell, Passivated
5	**Hardware**	**00** None, Ø .092 Hole **01** Fixed Jack-posts (STD)
6	**Common Options**	**ETH** End Threaded Holes (#2-56 UNC-2B) **M** Plain Mounting Holes **HT** High Temp Epoxy **RH** RoHS Compliant
7	**Mod Codes**	**M10** Keyed **M30** Ground Spring **M50** Space Grade Micro-D, SPT1 **M53** Space Grade Micro-D, SPT2
8	**Tail Length**	**109** **140** **172**
9	**Special Instructions**	**YYY** Describe anything that is not covered in standard options

METAL SHELL MICRO-D STANDARD VERTICAL BOARD MOUNT .075 (TYPE SV7)

Omnetics **Micro-D Standard Vertical Board Mount connectors** offer the traditional .075 inch terminal spacing design. These high-reliability connectors meet or exceed the shock and vibration requirements of MIL-DTL-83513 and utilize the rugged Omnetics flex pin contact.



Electro-Mechanical Specifications

TYPE	PERFORMANCE
Durability	> 2000 Mating Cycles min
Temperature	-55ºC to +125ºC (200 ºC w/HTE)
Current rating	3 Amps per contact per MIL-DTL-83513
Voltage Rating (DWV)	600 VAC RMS Sea Level
Insulation Resistance	5,000 Megohms @ 500 VDC
Shock	50 g's with no discontinuties > 1 microsecond
Vibration	20 g's with no discontinuties > 1 microsecond
Thermal Vacuum Outgassing	1.0% max TML, 0.1% max CVCM - NASA SP-R-0022
Contact Resistance	26 milliohms (65 mV) max @ 2.5 Amps per MIL-DTL-83513
Mating/Unmating Force	3 oz. (.85g) typical per contact

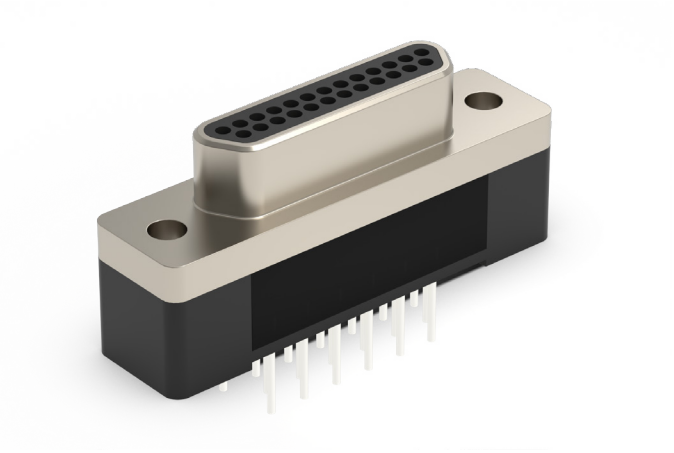
Material Specifications

TYPE	PERFORMANCE
Contact	Copper Alloy Per MIL-DTL-83513
Contact Finish	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
Insulator	Thermoplastic per MIL-DTL-83513
Interfacial Seal	Silicone Elastomer per A-A-59588
Hardware	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

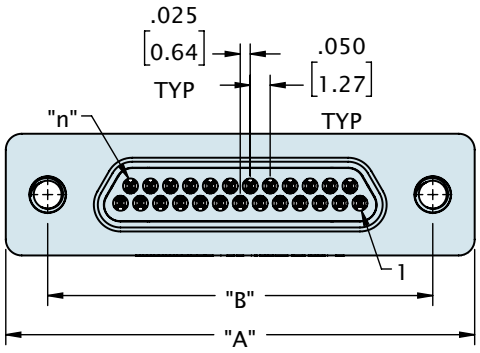
Shell Options

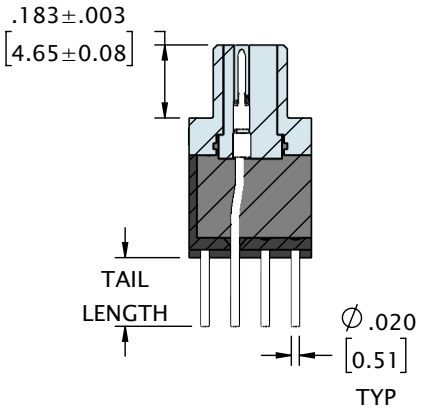
MATERIAL	FINISH
Aluminum 6061	Electroless Nickel per SAE-AMS-2404
Stainless Steel, 300 Series	Passivated per SAE-AMS-2700

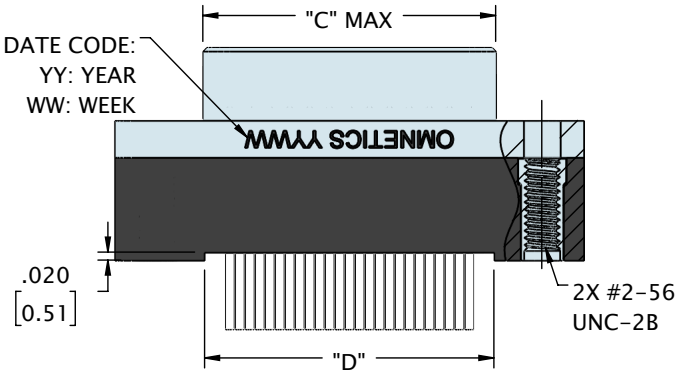
METAL SHELL MICRO-D STANDARD VERTICAL BOARD MOUNT .075 (TYPE SV7)

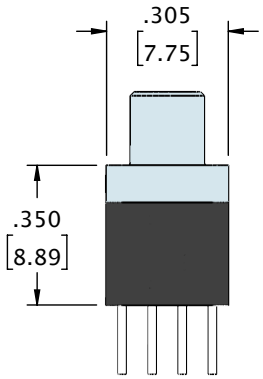


See page 163 for recommended board layout





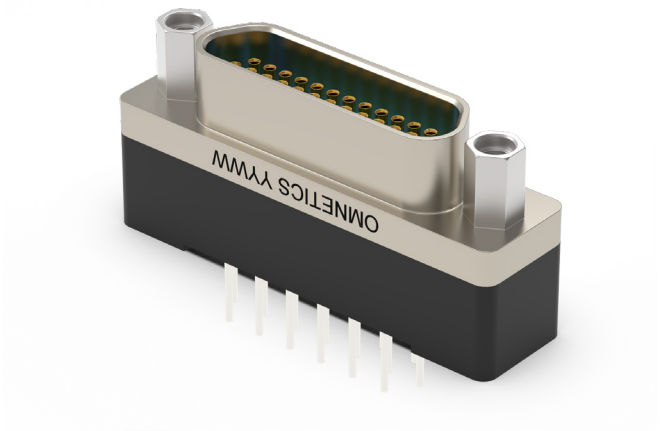


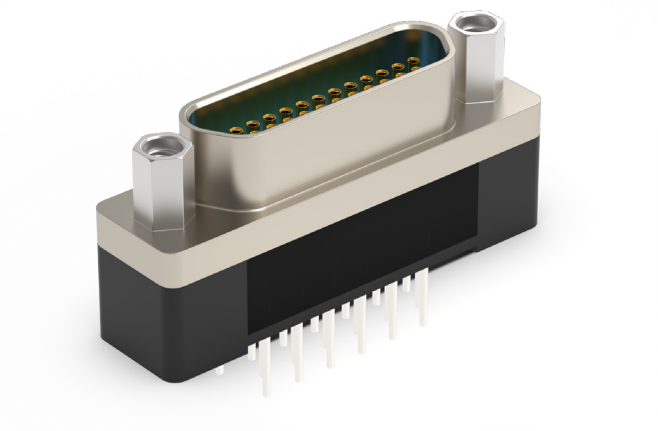


CONTACTS	ROWS	"A"	"B"	"C"	"D"
9	2	.775 [19.69]	.565 [14.35]	.334 [8.48]	.325 [8.26]
15	2	.925 [23.50]	.715 [18.16]	.484 [12.29]	.475 [12.07]
21	2	1.075 [27.31]	.865 [21.97]	.634 [16.10]	.625 [15.88]
25	2	1.175 [29.85]	.965 [24.51]	.734 [18.64]	.725 [18.42]
31	2	1.325 [33.66]	1.115 [28.32]	.884 [22.45]	.875 [22.23]
37	2	1.475 [37.47]	1.265 [32.13]	1.034 [26.26]	1.025 [26.04]

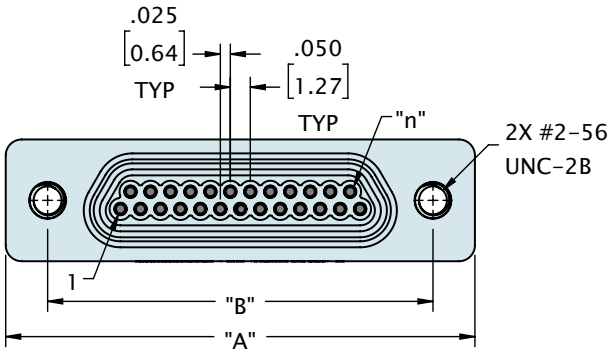
DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

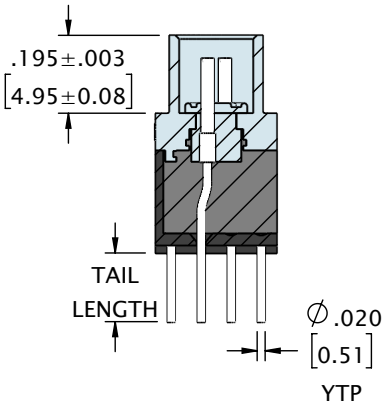
METAL SHELL MICRO-D STANDARD VERTICAL BOARD MOUNT .075 (TYPE SV7)

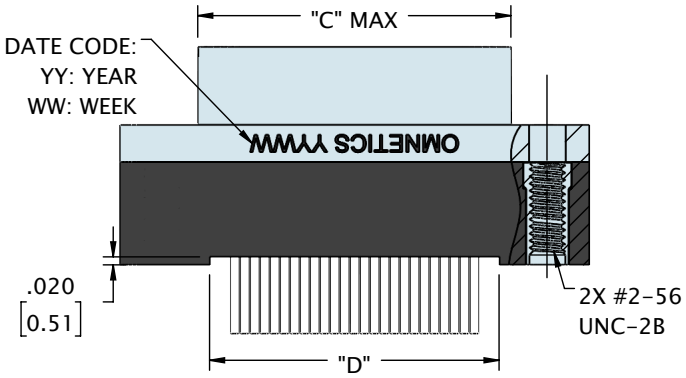


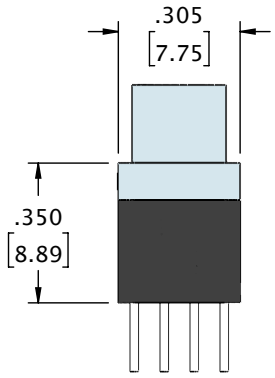


See page 163 for recommended board layout





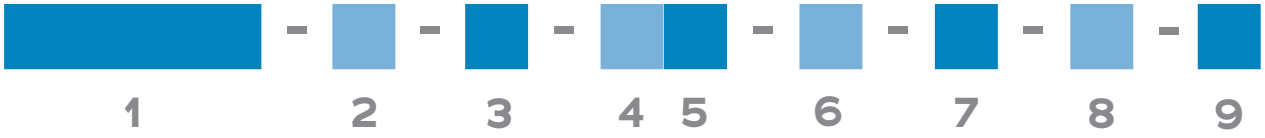




CONTACTS	ROWS	"A"	"B"	"C"	"D"
9	2	.775 [19.69]	.565 [14.35]	.400 [10.16]	.325 [8.26]
15	2	.925 [23.50]	.715 [18.16]	.550 [13.97]	.475 [12.07]
21	2	1.075 [27.31]	.865 [21.97]	.700 [17.78]	.625 [15.88]
25	2	1.175 [29.85]	.965 [24.51]	.800 [20.32]	.725 [18.42]
31	2	1.325 [33.66]	1.115 [28.32]	.950 [24.13]	.875 [22.23]
37	2	1.475 [37.47]	1.265 [32.13]	1.100 [27.94]	1.025 [26.04]

DIMENSIONS IN [ ] ARE IN MILLIMETERS AND ARE FOR REFERENCE ONLY

ORDERING GUIDE



1	**Series**	**MMDP** Metal Micro-D Pin **MMDS** Metal Micro-D Socket
2	**Number of Contacts**	**009** **015** **021** **025** **031** **037**
3	**Termination Type**	**SV7** Standard Vertical Board Mount .075
4	**Shell Material & Finish**	**N** Aluminum Shell, Electroless Nickel Plated **CD** Aluminium Shell, Cadmium Plated **B** Aluminium Shell, Black Anodized **P** Stainless Steel Shell, Passivated
5	**Hardware**	**00** None, Ø .092 Hole **01** Fixed Jack-posts (STD)
6	**Common Options**	**ETH** End Threaded Holes (#2-56 UNC-2B) **M** Plain Mounting Holes **HT** High Temp Epoxy **RH** RoHS Compliant
7	**Mod Codes**	**M10** Keyed **M30** Ground Spring **M50** Space Grade Micro-D, SPT1 **M53** Space Grade Micro-D, SPT2
8	**Tail Length**	**109** **140** **172**
9	**Special Instructions**	**YYY** Describe anything that is not covered in standard options