

Micro-D



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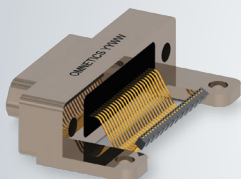
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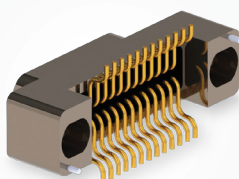
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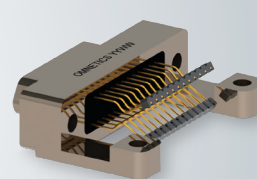
HORIZONTAL SMT
(H0)



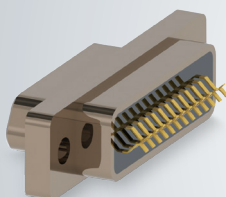
VERTICAL SMT
(V0)



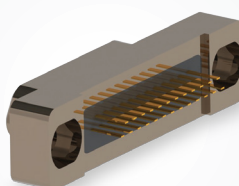
CARD EDGE SMT
(C0)



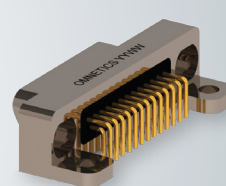
FLEX TAIL
(FF)



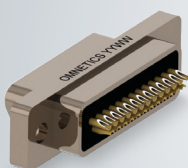
STRAIGHT THRU-HOLE
(S2)



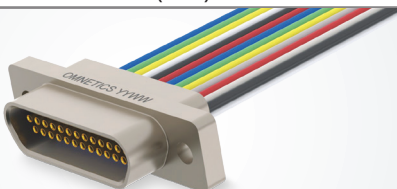
RIGHT ANGLE THRU-HOLE
(R2)



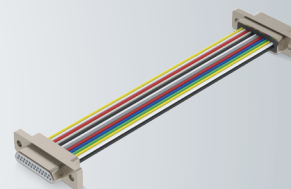
SOLDER CUP
(SS)



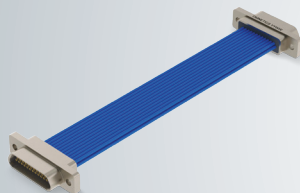
DISCRETE WIRE
(WD)



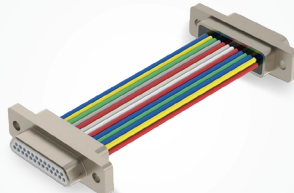
FEMALE TO MALE JUMPER
(W)



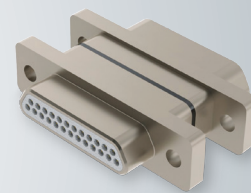
FEMALE TO FEMALE JUMPER
(X)



MALE TO MALE JUMPER
(Y)



CONNECTOR SAVER
(Z)

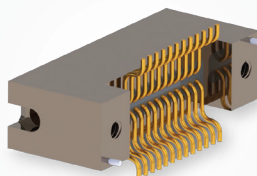


Latching Micro-D

LATCHING HORIZONTAL SMT
(H0)



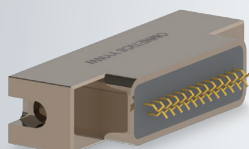
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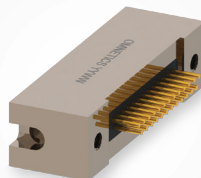
LATCHING CARD EDGE SMT
(C0)



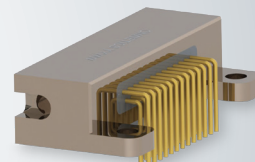
LATCHING FLEX TAIL
(FF)



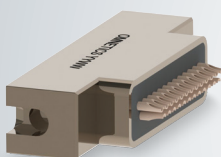
LATCHING
STRAIGHT THRU-HOLE
(S2)



LATCHING
RIGHT ANGLE THU-HOLE
(R2)



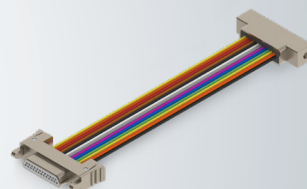
LATCHING SOLDER CUP
(SS)



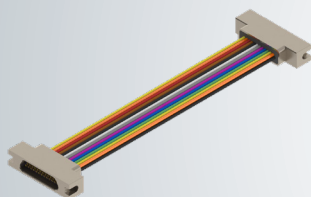
LATCHING DISCRETE WIRE
(WD)



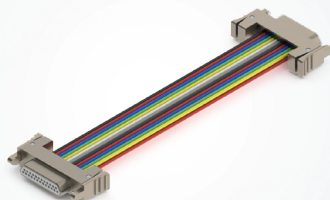
LATCHING
FEMALE TO MALE JUMPER
(W)



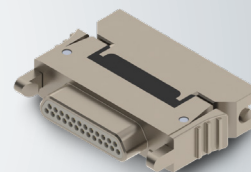
LATCHING
FEMALE TO FEMALE JUMPER
(X)



LATCHING
MALE TO MALE JUMPER
(Y)



LATCHING
CONNECTOR SAVER
(Z)



Low Profile Micro-D

DISCRETE WIRE
(WD)

RIGHT ANGLE THRU-HOLE
(H1)

SOLDER CUP
(SS)

RIGHT ANGLE THRU-HOLE
(R2)

STRAIGHT THRU-HOLE
(S2)



Single Row Micro-D

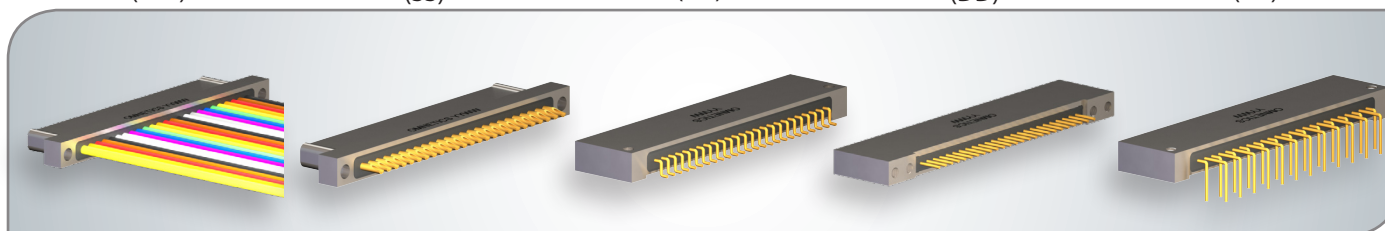
DISCRETE WIRE
(WD)

SOLDER CUP
(SS)

HORIZONTAL SMT
(AA)

STRAIGHT TAIL
(DD)

THRU-HOLE HORIZONTAL
(H2)



Hardware & Misc

HARDWARE OPTIONS

CONVERSION KIT

BACKSHELLS

CUSTOM CONNECTORS

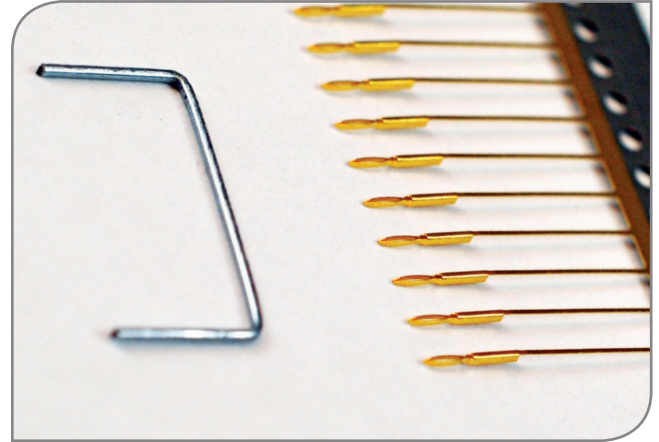


The Flex Pin Design

Designed Simply for High Shock & Vibration

Omnetics Flex Pin contact design will meet or exceed the requirements of MIL-DTL-83513. This one-piece design is stamped from Beryllium Copper per ASTM B488. The spring characteristic of BeCu is ideal for withstanding high shock and vibration situations.

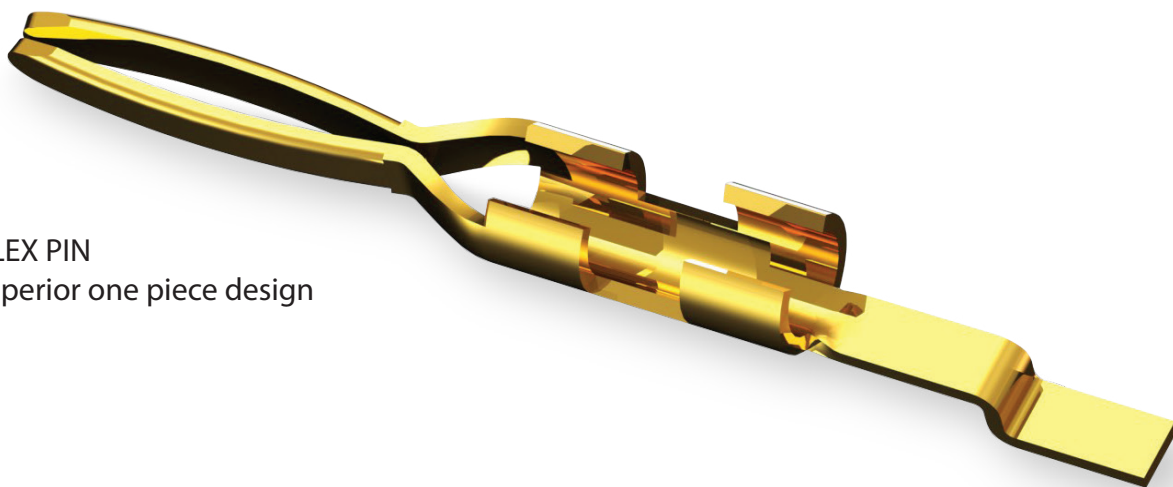
The Flex Pin contact is inter-mateable with all MIL-DTL-83513 sockets. Its rugged design passes the shock and vibration requirements of the military specification. In fact, independent tests have proven that the Flex Pin contact can even withstand the intense shock and vibration of the geophysical drilling market.



Flex Pin contacts are plated with 50 micro inches (1.27 μ m) of gold over 50 micro inches (1.27 μ m) of nickel. Pins are plated post forming to ensure a non-porous surface.

Flex Pin

The Omnetics Micro Flex Pin has been in successful production for over 50 years. Omnetics removed the extra crimps and welds from the traditional twist pin and came up with an elegant one-piece design with the same performance as the overly complex twist pin. The elimination of extra joints removed resistance points as well as spots for potential fatigue and failure. Micro Flex Pins are rated at 3 amps each and are the foundation of our Micro-D & MIL-DTL-83513 series of connectors.



FLEX PIN

Superior one piece design

Space Level Screening

Per EEE-INST-002

Ordering Steps

Step 1 - Choose a suitable Omnetics connector

Step 2 - Choose a level of Space Screening

Level 1 - Mission Critical (Highest Reliability)

Level 2 - High Reliability

Level 3 - Standard Reliability

Step 3 - Select any added outgassing processing needed.

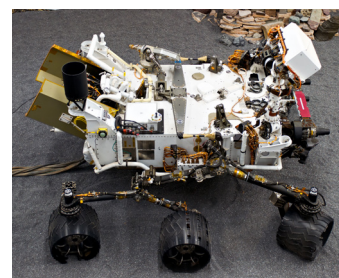
Step 4 - Specify chosen ORDERING CODES from table below.

These codes should be used as separate line items on all quote Requests and Purchase Orders as required.



Ordering Codes (quoted as separate line items)

Screening Level	Special Screening Only	Processing for Outgassing
Level 1 - Mission Critical	SPT1	All standard materials exhibit less than 1.0% TML without additional processing. Contact service for special requirements.
Level 2 - High Reliability	SPT2	
Level 3 - Standard Reliability	Standard	



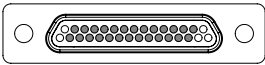
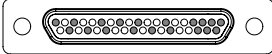
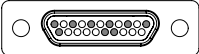
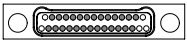
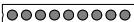
Inspection/Test	Micro (.050" center)		Nano (.025" center)	
	Level 1 Com'l/SCD	Level 2 Com'l/SCD	Level 1 Com'l/SCD	Level 2 Com'l/SCD
Visual	100%	100%	100%	100% 100%
Mechanical	2 (0)	2 (0)	2 (0)	2 (0)
Voltage Rating (DWV)	100%	2 (0)	100%	2 (0)
Insulation Resistance	2 (0)	2 (0)	2 (0)	2 (0)
Temperature Cycling	2 (0)	2 (0)	2 (0)	-
Low Level Contact Resistance	2 (0)	2 (0)	2 (0)	2 (0)
Mating/Unmating Force	2 (0)	-	2 (0)	-
Solderability/Resistance to heat (SMT & Thru-Hole only)	2 (0)	-	2 (0)	-
Note: NASA screening requirements from Table 2C & 2J of EEE-INST-002				

Micro-D

Specifications

The Omnetics High-Speed Protocol Guide, based on extensive internal research, provides connector options for various high-speed signaling protocols. The high-speed signaling specifications for each protocol were scrutinized extensively to provide an optimal pinout and ensure that the connectors meet or exceed the performance requirements.

When necessary, measurements were taken on the Omnetics connectors and directly compared to commercially available connectors. In these cases, Omnetics connectors outperformed the commercial connectors, yielding lower loss values across the critical frequencies. The pinouts for each available configuration are provided in the table below.

	Camera Link	Ethernet	HDMI	USB 3.0
Micro-D				
Nano-D				
Micro Strip				
Nano Strip				
Plastic Micro Circular				
Metal Micro Circular				
Plastic Nano Circular				
Metal Nano Circular				

Micro-D and MIL-DTL-83513 Specifications

1. Scope: These specifications highlight some of the standard requirements of Omnetics' Micro-D style microminiature connectors in both QPL & non-QPL versions. These connectors have contacts densely packed with centerlines of .050" (1.27 mm) and are commonly used in mission critical applications.

2. Precedence of Requirements: The specifications herein are a select summary of those called out in MIL-DTL-83513. The complete controlled version of MIL-DTL-83513 from DLA takes precedence over these pages. For non-QPL parts, requirements of customer specifications and Omnetics' detail drawings will take top priority.

3. Materials

3.1. Contact material: Contacts are suitably conductive copper based alloys per MIL-DTL-83513.

3.2. Contact finish: Contacts are gold plated in accordance with ASTM B488, type II, code C, class 1.27, 50 micro inches minimum thickness, over 50 micro inches minimum of nickel.

3.3. Dielectric materials: Insulator material for connectors is LCP in accordance with ASTM D5138

3.4. Shells: Shell options include the following materials:

3.4.1. Aluminum, alloy 6061 per SAE-AMS-QQ-A-200/8, plated as follows:

3.4.1.1. Electroless Nickel plated per SAE AMS-2404, class 3 or 4, grade B

3.4.1.2. Cadmium plated per SAE-AMS-QQ-P-416, type II, class 3, yellow chromate over nickel underplate

3.4.1.3. Black anodize per MIL-A-8625, Type II, Class 2

3.4.2. Stainless steel, 300 series, passivated per SAE AMS-2700, Type 2

3.5. Encapsulant: Epoxy shall be used as a potting material to prevent contact removal. A suitable material shall be used to enable the connector to pass all required mechanical, environmental and electrical testing.

3.6. Interfacial Seals: Seals shall be made from silicone or fluorosilicone elastomer in accordance with A-A-59588 or SAE AMS-R-25988

3.7. Mounting Hardware: Stainless steel, 300 series, passivated per SAE AMS-2700 except e-clips and lock washers. E-clips and lock washers are corrosion resistant steel, passivated per SAE AMS-QQ-P-35.

3.8. Pigtail Wire: Insulated wire shall be in accordance with SAE AS-22759/11, SAE AS-22759/33 or NEMA-HP3.

(NOTE: Connectors, which are pre-wired with SAE-AS-22759/33 and stored in a sealed environment, could experience corrosion. Omnetics takes this into consideration when packaging and storing connectors using this wire.

Micro-D and MIL-DTL-83513 Specifications cont...

4. Mechanical Requirements

4.1. Durability: MIL-DTL-83513 requires that the connectors exhibit no mechanical or electrical defects detrimental to the operation of the connector after a minimum of 500 mating cycles.

4.2. Insert Retention: Insulators will not be disturbed or dislodged from their shell when subjected to an axial load of 50 pounds per square inch (3.5 kilograms per square centimeter).

4.3. Contact Retention: Contacts will withstand a 5 lb. (2.3 kg) axial load for a min. of 5 seconds.

4.4. Crimp Tensile Strength: 26 AWG SAE AS22759/11 wire will not break or pull from crimp joints with an applied force of less than 5.0 lb. (2.3 kg). 26 AWG SAE AS22759/33 shall not fail at a tensile force up to 10 lb. (4.6 kg.). Wire breakage outside of the crimp does not constitute failure.

4.5. Contact Engaging and Separation Force: Maximum engagement force is 6.0 ounces (170.1 g.) with the minimum diameter test sleeve and minimum separation force is 0.5 ounces (14.2 g.) with the maximum diameter test sleeve. Tested using test sleeves as specified in MIL-STD-83513.

4.6. Connector Mating/Unmating Force: Maximum mating and Unmating force will be less than or equal to 10 ounces (283 g.) times the number of contacts.

4.7. Solderability: Printed circuit tails intended for SMT and Thru-Hole soldering and soldercups will meet the solderability requirements of MIL-STD-202, Method 208.

4.8. Solder Heat Resistance: Connectors shall show no evidence of distortion, contact misalignment, or damage to any area of the connector housing after the termination is heated with a soldering iron at 360°C per MIL-DTL-83513.

5. Electrical Requirements

5.1. Current Capacity: Contacts can carry 3.0 amps in continuous operation from -55° C to 125 ° C.

5.2. Dielectric Withstanding Voltage (sea level): Connectors will show no signs of breakdown or flash over at 600 volts ac, rms 60 Hz, per the DWV Test of EIA-364-20.

5.3. Dielectric Withstanding Voltage (70,000 feet): Connectors will show no signs of breakdown or flash over at 150 volts ac, rms 60 Hz, per the DWV Test of EIA-364-20.

5.4. Insulation Resistance: 5,000 Megohms minimum @ 500 VDC IAW EIA-364-21.

5.5. Contact Resistance: 70 millivolt drop maximum with a 2.5 amperes test current in accordance with EIA-364-06 using 26 AWG SAE AS22759/11 wire, 80 millivolt drop maximum using 26 AWG SAE AS22759/33 wire.

5.6. Low Level Contact Resistance: 28 millivolt drop maximum with a test current of 100 milliamperes maximum in accordance with EIA-364-23 using 26 AWG SAE AS22759/11 wire, 32 millivolt drop maximum using 26 AWG SAE AS22759/33 wire.

5.7. Magnetic Permeability: The relative magnetic permeability will not exceed 2 mu when tested with an instrument IAW ASTM A342/A342M, excluding hardware.

Micro-D and MIL-DTL-83513 Specifications cont...

6. Environmental Requirements

6.1. Shock: 50 G peak acceleration per EIA-364-27, test condition E; when tested for mechanical shock, mated connectors shall not be damaged, and there shall be no loosening of parts. There shall be no interruption of electrical continuity or current flow longer than 1 microsecond.

6.2. Vibration: 20 G peak acceleration over a 12 hour duration per EIA-364-28, test condition IV; when tested for vibration, mated connectors shall not be damaged, and there shall be no loosening of parts. There shall be no interruption of electrical continuity or current flow longer than 1 microsecond.

6.3. Salt spray (corrosion): Mated connectors will show no exposure of base metal due to corrosion which will affect performance after be subjected to the salt spray test of EIA-364-26 condition B. All connector shell finishes must withstand 48 hours of salt spray. Following the test all connectors shall meet the specified requirements for connector mating/unmating forces, contact retention, contact resistance, and low-signal level contact resistance.

6.4. Thermal Vacuum Outgassing: Space class connector assemblies shall have a maximum total mass loss (TML) of 1.0 percent of the original specimen mass, and shall have a maximum volatile condensable material (VCM) content of 0.1 percent of the original specimen mass.

6.5. Fluid Immersion: Connectors will continue to adhere to the mating force requirements set forth by MIL-DTL-83513 after be subjected to a 20 hour immersion in synthetic lubricating oil and 1 hour immersion in a coolant-dielectric fluid synthetic silicate ester base lubricant (Coolanol 25). There will be no degradation of the insulators or encapsulates.

6.6. Material Fungus Resistance: Materials used in the construction of these connectors are fungus inert in accordance with Method 508.6 of MIL-STD-810.

6.7. Thermal Shock: Connectors will withstand 5 cycles of thermal shock from -55° C to 125 ° C per EIA-364-32, condition I. There will be no detrimental damage or degradation of the electrical performance.

6.8. Humidity: These connectors will meet all the humidity testing requirements in accordance with EIA-364-31, Test Method IV (excluding steps 7a & 7b). Post humidity, the connectors will pass a 360 volt DWV test. Within 1 to 2 hours the connectors will have a minimum of 1 megohm insulation resistance when tested at 100 VDC. Following 24 hours, the connectors will have a minimum of 1,000 megohm insulation resistance when tested at 100 VDC.

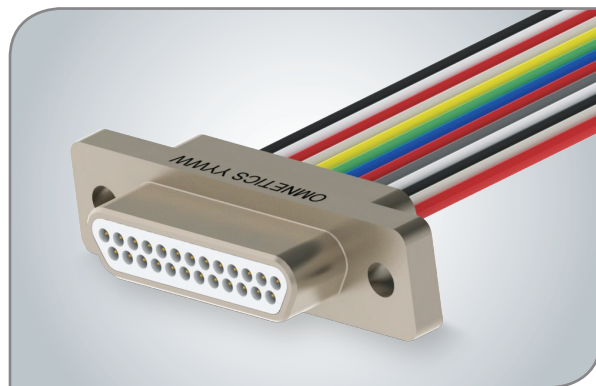
6.9. Marking Permanency: Any marking on the connector shells of these micro connectors shall meet the requirements of MIL-STD-202, Method 215.

Micro-D

MIL-DTL-83513 Micro-D

MIL-DTL-83513 Micro-D

Omnetics MIL-DTL-83513 Micro-D Connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. They are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. These highly rugged and compact designs are available in shell styles from 9 to 51 contacts. The Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Micro-D connectors will operate from -55°C to 125°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200°C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms (65 mV) Max @2.5 AMPS
Current Rating:	3 AMPS per contact
Durability:	>2000 Mating Cycles Max [500 Mating Cycles min]*
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM
Mating/Unmating Force:	3 oz (85g) typical per contact [10 oz (283 g) max per contact]*

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

*MIL-DTL-83513 specification minimum requirement

M83513/01 Solder Cup Male Micro-D Ordering Guide



Example:
MMDP/01-DN

Series	Insert Arrangement	Shell Material and Finish
MMDP/01	A = 9	C Aluminum Shell, Cadmium Plated N (STD) Aluminum Shell Electroless Nickel Plated P Stainless Steel Shell Passivated
	B = 15	
	C = 21	
	D = 25	
	E = 31	
	F = 37	
	G = 51	

M83513/02 Solder Cup Female Micro-D Ordering Guide



Example:
MMDS/02-DN

Series	Insert Arrangement	Shell Material and Finish
MMDS/02	A = 9	C Aluminum Shell, Cadmium Plated N (STD) Aluminum Shell Electroless Nickel Plated P Stainless Steel Shell Passivated
	B = 15	
	C = 21	
	D = 25	
	E = 31	
	F = 37	
	G = 51	

Micro-D

MIL-DTL-83513 Micro-D

M83513/03 Wired Male Micro-D Ordering Guide

Example:
MMDP/03-D03N



Series	Insert Arrangement	Wired Type	Shell Material and Finish
MMDP/03	A = 9 B = 15 C = 21 D = 25 E = 31 F = 37 G = 51	01 = M22759/11-26-9, 18 INCHES 02 = M22759/11-26-9, 36 INCHES 03 = M22759/11-26-#, 18 INCHES 04 = M22759/11-26-#, 36 INCHES 09 = M22759/33-26-9, 18 INCHES 10 = M22759/33-26-9, 36 INCHES 11 = M22759/33-26-#, 18 INCHES 12 = M22759/33-26-#, 36 INCHES 13 = M22759/11-26-9, 72 INCHES 14 = M22759/11-26-#, 72 INCHES 15 = M22759/33-26-9, 72 INCHES 16 = M22759/33-26-#, 72 INCHES	C <i>Aluminum Shell, Cadmium Plated</i> N (STD) <i>Aluminum Shell Electroless Nickel Plated</i> P <i>Stainless Steel Shell Passivated</i>

M83513/04 Solder Cup Female Micro-D Ordering Guide

Series	Insert Arrangement	Wired Type	Shell Material and Finish
MMDS/04	A = 9 B = 15 C = 21 D = 25 E = 31 F = 37 G = 51	01 = M22759/11-26-9, 18 INCHES 02 = M22759/11-26-9, 36 INCHES 03 = M22759/11-26-#, 18 INCHES 04 = M22759/11-26-#, 36 INCHES 09 = M22759/33-26-9, 18 INCHES 10 = M22759/33-26-9, 36 INCHES 11 = M22759/33-26-#, 18 INCHES 12 = M22759/33-26-#, 36 INCHES 13 = M22759/11-26-9, 72 INCHES 14 = M22759/11-26-#, 72 INCHES 15 = M22759/33-26-9, 72 INCHES 16 = M22759/33-26-#, 72 INCHES	C <i>Aluminum Shell, Cadmium Plated</i> N (STD) <i>Aluminum Shell Electroless Nickel Plated</i> P <i>Stainless Steel Shell Passivated</i>

Micro-D

Standard Micro-D

Metal Shell Micro-D Discrete Leadwire (TYPE WD)

Omnetics' Standard Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and designs are available in shell styles from 9 to 100 contacts. The Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200°C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

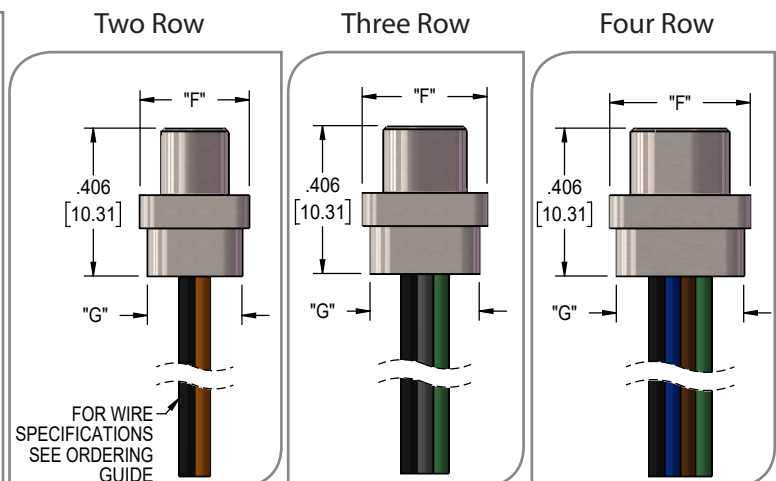
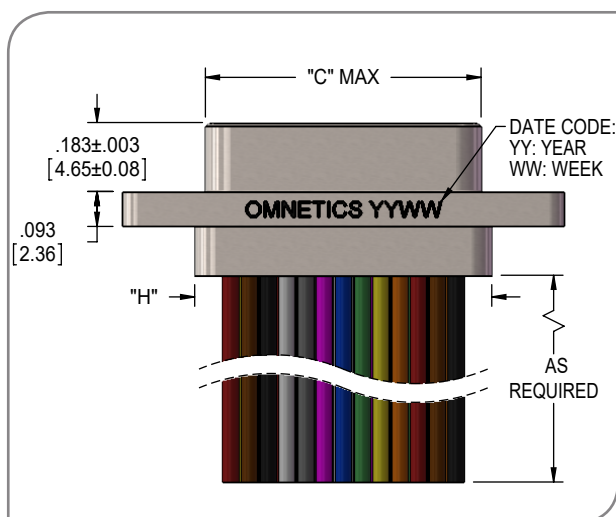
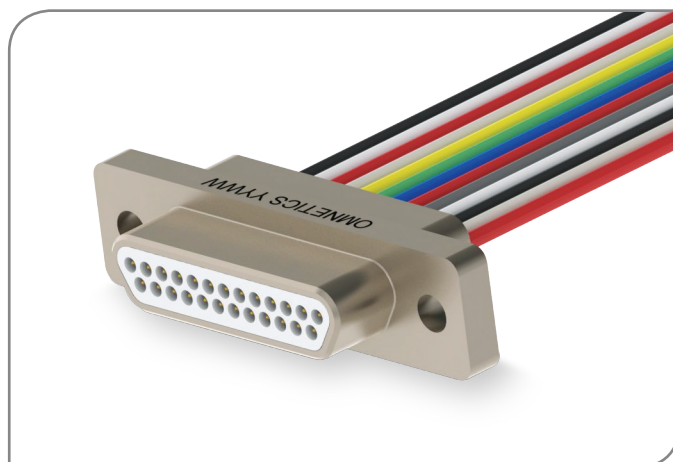
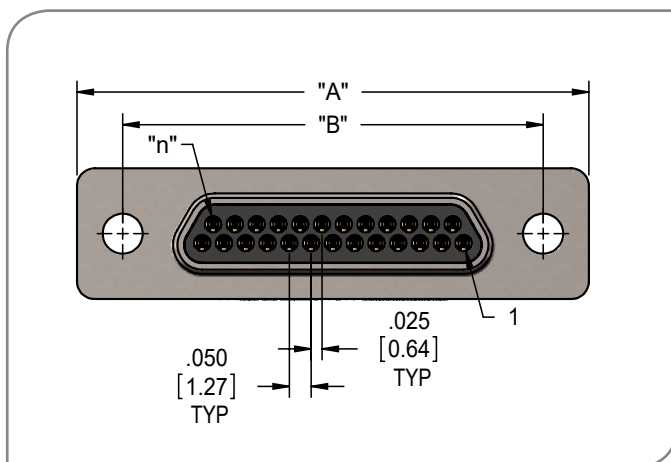
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Standard Micro-D

Metal Shell Micro-D Male Discrete Leadwire (TYPE WD)

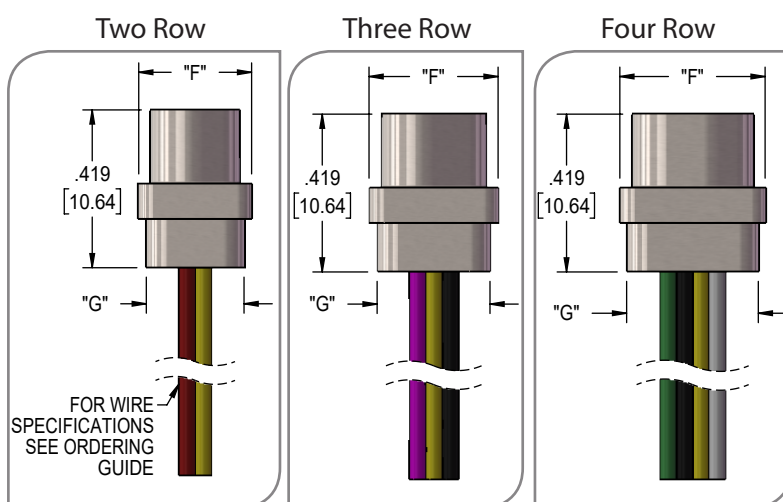
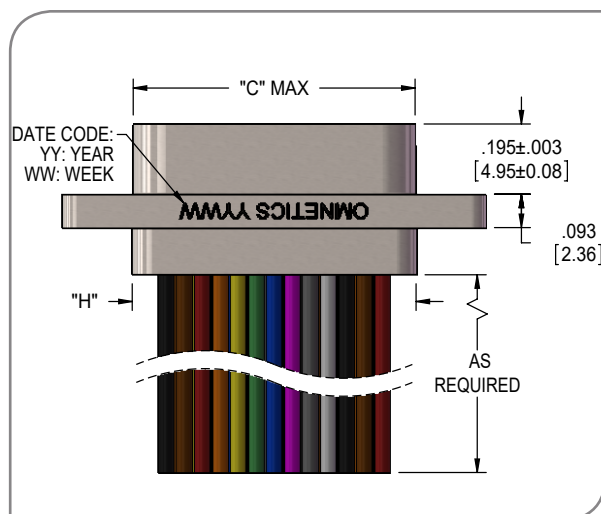
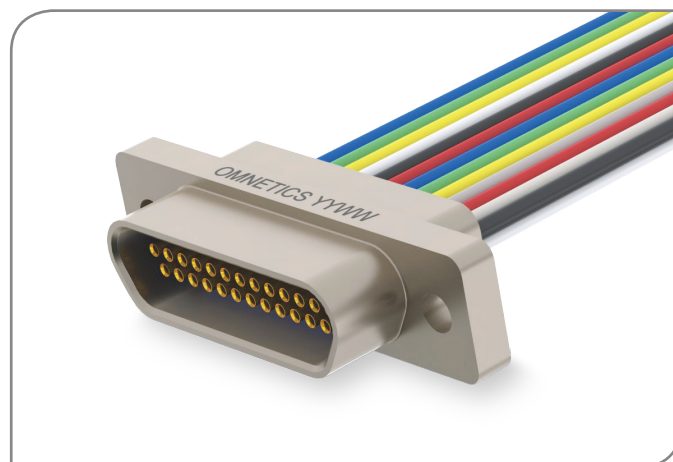
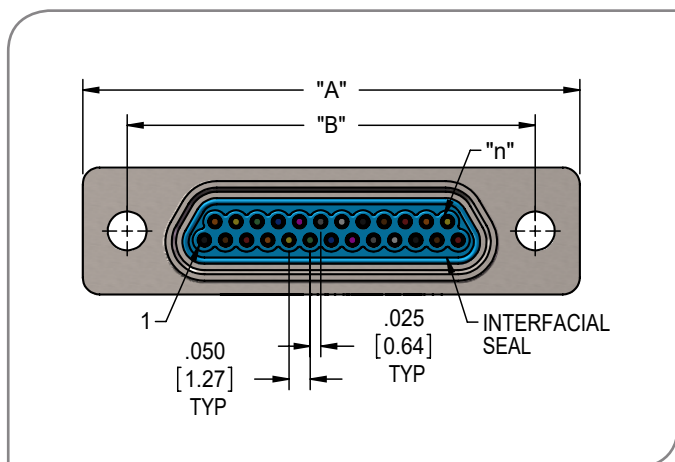


Contacts		English (IN)						Metric (mm)					
"n"	Rows	"A"	"B"	"C"	"F"	"G"	"H"	"A"	"B"	"C"	"F"	"G"	"H"
9	2	.775	.565	.334	.300	.260	.390	19.69	14.35	8.48	7.62	6.60	9.91
15	2	.925	.715	.484	.300	.260	.540	23.50	18.16	12.29	7.62	6.60	13.72
21	2	1.075	.865	.634	.300	.260	.690	27.31	21.97	16.10	7.62	6.60	17.53
25	2	1.175	.965	.734	.300	.260	.790	29.85	24.51	18.64	7.62	6.60	20.07
31	2	1.325	1.115	.884	.300	.260	.940	33.66	28.32	22.45	7.62	6.60	23.88
37	2	1.475	1.265	1.034	.300	.260	1.090	37.47	32.13	26.26	7.62	6.60	27.69
51	2	1.825	1.615	1.384	.300	.260	1.440	46.36	41.02	35.15	7.62	6.60	36.58
51	3	1.425	1.215	.984	.343	.300	1.040	36.20	30.86	24.99	8.71	7.62	26.42
69	3	1.725	1.515	1.284	.343	.300	1.340	43.82	38.48	32.61	8.71	7.62	34.04
100	4	2.160	1.800	1.384	.386	.386	1.432	54.86	45.72	35.15	9.80	9.80	36.37

Micro-D

Standard Micro-D

Metal Shell Micro-D Female Discrete Leadwire (TYPE WD)

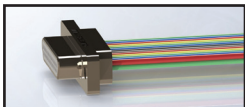


Contacts		English (IN)						Metric (mm)					
"n"	Rows	"A"	"B"	"C"	"F"	"G"	"H"	"A"	"B"	"C"	"F"	"G"	"H"
9	2	.775	.565	.400	.300	.260	.390	19.69	14.35	10.17	7.62	6.60	9.91
15	2	.925	.715	.550	.300	.260	.540	23.50	18.16	13.98	7.62	6.60	13.72
21	2	1.075	.865	.700	.300	.260	.690	27.31	21.97	17.79	7.62	6.60	17.53
25	2	1.175	.965	.800	.300	.260	.790	29.85	24.51	20.32	7.62	6.60	20.07
31	2	1.325	1.115	.950	.300	.260	.940	33.66	28.32	24.14	7.62	6.60	23.88
37	2	1.475	1.265	1.100	.300	.260	1.090	37.47	32.13	27.95	7.62	6.60	27.69
51	2	1.825	1.615	1.450	.300	.260	1.440	46.36	41.02	36.84	7.62	6.60	36.58
51	3	1.425	1.215	1.050	.343	.300	1.040	36.20	30.86	26.68	8.71	7.62	26.42
69	3	1.725	1.515	1.350	.343	.300	1.340	43.82	38.48	34.30	8.71	7.62	34.04
100	4	2.160	1.800	1.450	.386	.350	1.432	54.86	45.72	36.84	9.80	8.89	36.37

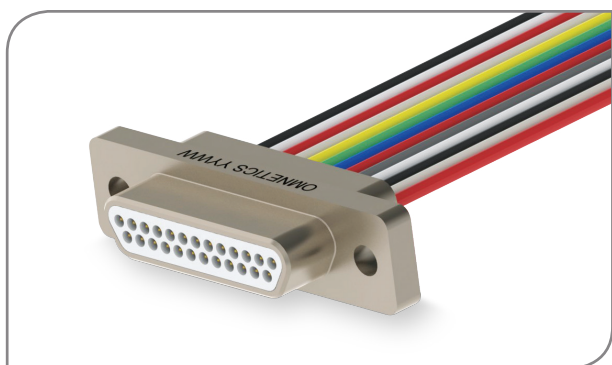
Micro-D

Standard Micro-D

Metal Shell Micro-D Discrete Leadwire (TYPE WD) Ordering Guide

Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MMD Male (P - Pin) 	009	N (STD)	00 - NONE, Ø .092	WD - Discrete Leadwire  WIRE AWG: 6 - 26 AWG (STD) 8 - 28 AWG 0 - 30 AWG WIRE TYPE: Q - NEMA HP3 (FORMERLY M16878/4 &/6) (STD) R - M22759/11 S - M22759/33 WIRE LENGTH: 18.0 - 18.00" (STD) XX.X - CUSTOM LENGTH COLOR SCHEME: 1 - 10 REPEATING (STD) 2 - BLUE 3 - WHITE 5 - YELLOW	HT High Temp. Epoxy (200 °C)  RH RoHS COMPLIANT 
	015	Aluminum Shell,	01 - FIXED JACK-POSTS (STD)		
	021	Electroless Nickel	02 - JACKSCREWS, STD LENGTH, HEX HEAD (STD)		
	025	Plated	03 - JACKSCREWS, STD LENGTH, SLOTTED		
	031	C	04 - JACKSCREWS, LONG, HEX		
	037	Aluminum Shell,	05 - JACKSCREWS, LONG, SLOTTED		
	051*	Cadmium Plated	06 - 07 FLOAT-MOUNT OPTIONS		
	069	B			
	100	Aluminum Shell, Black Anodized			
		P			
Female (S - Socket) 	*Use 512 for Two Row 051 and 513 for Three Row 051				

Example



MMDP-025-N00-WD6Q18.0-1-HT

Standard

"n"	Rows	FEMALE	MALE
9	2	A99100-009	A98100-009
15	2	A99100-015	A98100-015
21	2	A99100-021	A98100-021
25	2	A99100-025	A98100-025
31	2	A99100-031	A98100-031
37	2	A99100-037	A98100-037
51	2	A99100-512	A98100-512
51	3	A99100-513	A98100-513
69	3	A99100-069	A98100-069
100	4	A99100-100	A98100-100

Metal Shell Micro-D Solder Cup (TYPE SS)

Omnetics' Standard Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and designs are available in shell styles from 9 to 100 contacts. The Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

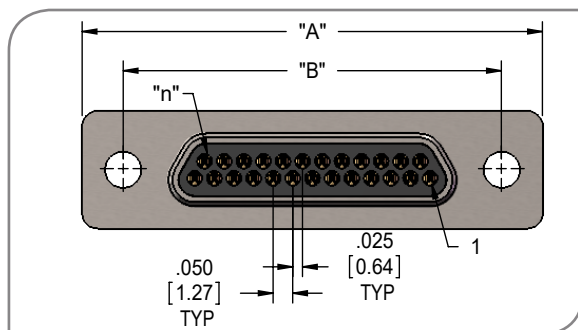
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

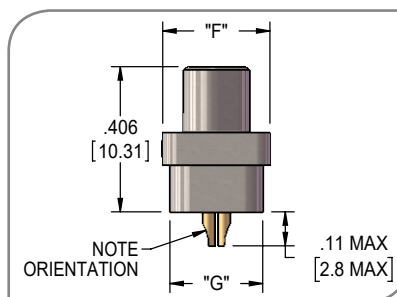
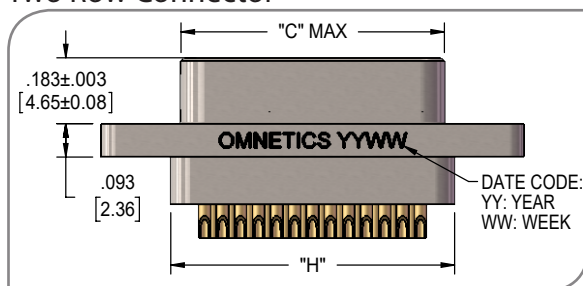
Micro-D

Standard Micro-D

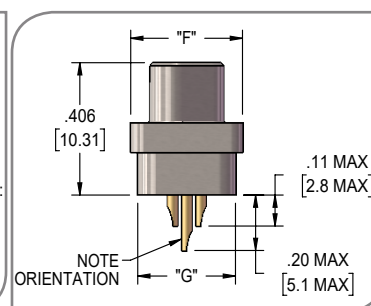
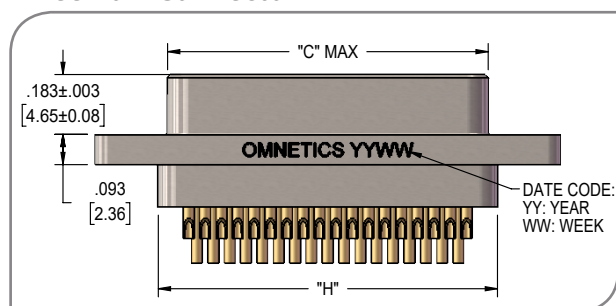
Metal Shell Micro-D Male Solder Cup (TYPE SS)



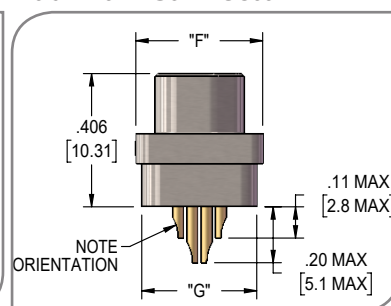
Two Row Connector



Three Row Connector



Four Row Connector

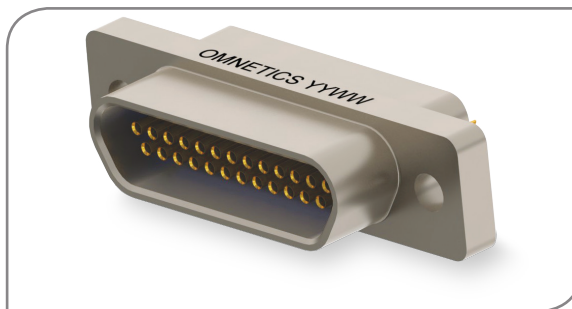
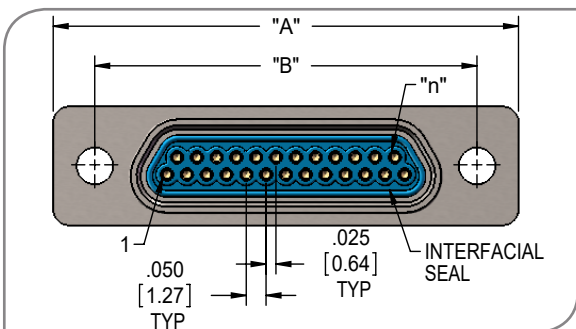


Contacts		English (IN)						Metric (mm)					
"n"	Rows	"A"	"B"	"C"	"F"	"G"	"H"	"A"	"B"	"C"	"F"	"G"	"H"
9	2	.775	.565	.334	.300	.260	.390	19.69	14.35	8.48	7.62	6.60	9.91
15	2	.925	.715	.484	.300	.260	.540	23.50	18.16	12.29	7.62	6.60	13.72
21	2	1.075	.865	.634	.300	.260	.690	27.31	21.97	16.10	7.62	6.60	17.53
25	2	1.175	.965	.734	.300	.260	.790	29.85	24.51	18.64	7.62	6.60	20.07
31	2	1.325	1.115	.884	.300	.260	.940	33.66	28.32	22.45	7.62	6.60	23.88
37	2	1.475	1.265	1.034	.300	.260	1.090	37.47	32.13	26.26	7.62	6.60	27.69
51	2	1.825	1.615	1.384	.300	.260	1.440	46.36	41.02	35.15	7.62	6.60	36.58
51	3	1.425	1.215	.984	.343	.300	1.040	36.20	30.86	24.99	8.71	7.62	26.42
69	3	1.725	1.515	1.284	.343	.300	1.340	43.82	38.48	32.61	8.71	7.62	34.04
100	4	2.160	1.800	1.384	.386	.350	1.432	54.86	45.72	35.15	9.80	8.89	36.37

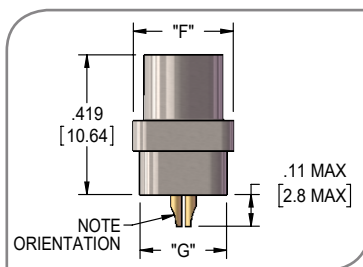
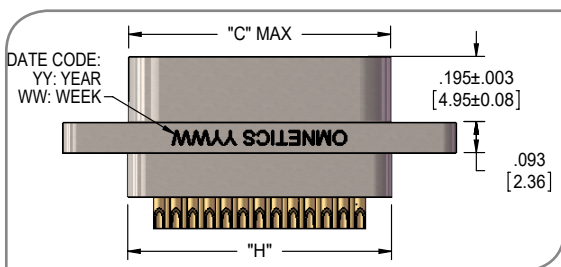
Micro-D

Standard Micro-D

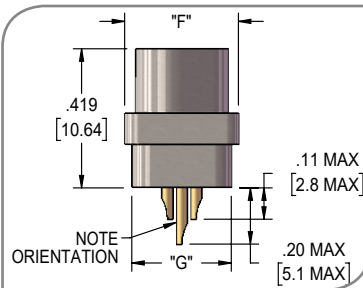
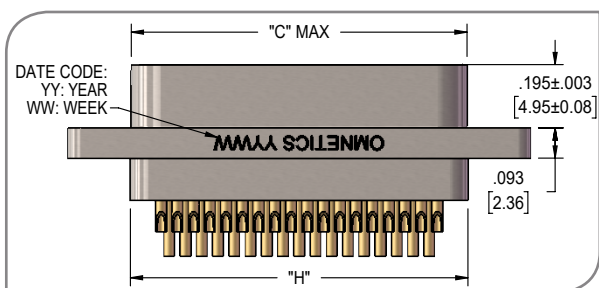
Metal Shell Micro-D Female Solder Cup (TYPE SS)



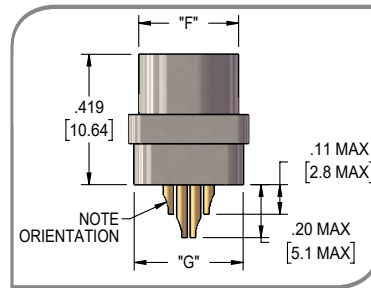
Two Row Connector



Three Row Connector



Four Row Connector



Contacts

English (IN)

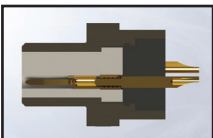
Metric (mm)

"n"	Rows	"A"	"B"	"C"	"F"	"G"	"H"	"A"	"B"	"C"	"F"	"G"	"H"
9	2	.775	.565	.400	.300	.260	.390	19.69	14.35	10.17	7.62	6.60	9.91
15	2	.925	.715	.550	.300	.260	.540	23.50	18.16	13.98	7.62	6.60	13.72
21	2	1.075	.865	.700	.300	.260	.690	27.31	21.97	17.79	7.62	6.60	17.53
25	2	1.175	.965	.800	.300	.260	.790	29.85	24.51	20.33	7.62	6.60	20.07
31	2	1.325	1.115	.950	.300	.260	.940	33.66	28.32	24.14	7.62	6.60	23.88
37	2	1.475	1.265	1.100	.300	.260	1.090	37.47	32.13	27.95	7.62	6.60	27.69
51	2	1.825	1.615	1.450	.300	.260	1.440	46.36	41.02	36.84	7.62	6.60	36.58
51	3	1.425	1.215	1.050	.343	.300	1.040	36.20	30.86	26.68	8.71	7.62	26.42
69	3	1.725	1.515	1.350	.343	.300	1.340	43.82	38.48	34.29	8.71	7.62	34.04
100	4	2.160	1.800	1.450	.386	.350	1.432	54.86	45.72	36.83	9.80	8.89	36.37

Micro-D

Standard Micro-D

Metal Shell Micro-D Solder Cup (TYPE SS) Ordering Guide

Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MMD Male (P - Pin) 	009	N (STD)	00 - NONE, Ø .092	SS Solder Cup 	HT High Temp. Epoxy (200 °C) 
	015	Aluminum Shell,	01 - FIXED		
	021	Electroless Nickel	02 - JACKSCREWS,		
	025	Plated	STD LENGTH,		
	031	C Aluminum Shell,	HEX (STD)		
	037		03 - JACKSCREWS,		
	051*		STD LENGTH,		
	069	Cadmium Plated	SLOTTED		
	100	B Aluminum Shell,	04 - JACKSCREWS,		RH RoHS COMPLIANT 
		Black Anodized	05 - JACKSCREWS,		
Female (S - Socket) 		P Stainless Steel	06 - FLOAT MOUNT,		
		Shell, Passivated	07 - FLOAT MOUNT,		
			REAR MOUNTED		
	*Use 512 for Two Row 051 and 513 for Three Row 051				

Example



MMDS-025-N00-SS-RH

Standard

"n"	Rows	FEMALE	MALE
9	2	A99000-009	A98000-009
15	2	A99000-015	A98000-015
21	2	A99000-021	A98000-021
25	2	A99000-025	A98000-025
31	2	A99000-031	A98000-031
37	2	A99000-037	A98000-037
51	2	A99000-512	A98000-512
51	3	A99000-513	A98000-513
69	3	A99000-069	A98000-069
100	4	A99000-100	A98000-100

Metal Shell Micro-D Horizontal Surface Mount (TYPE H0)

Omnetics' Standard Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 51 contacts. The Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

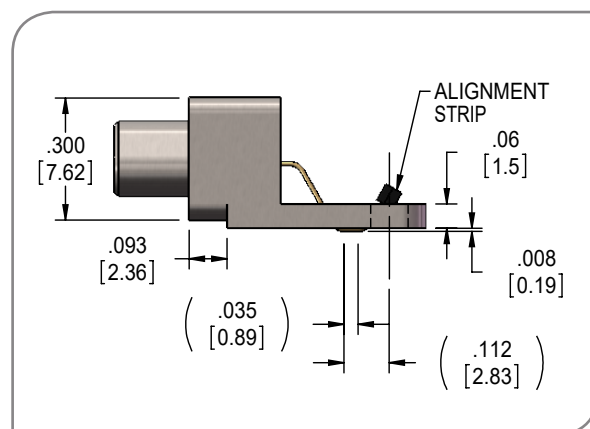
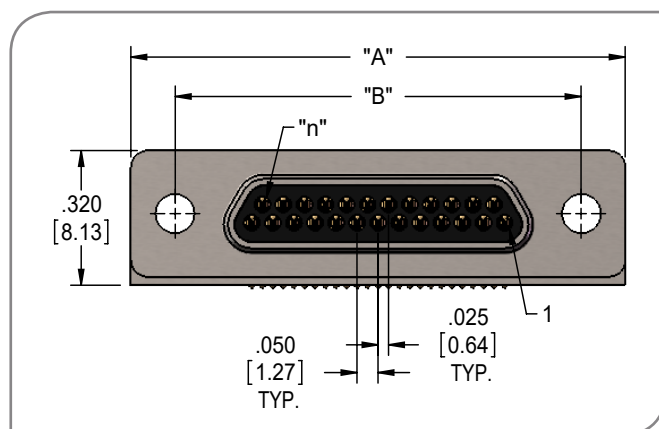
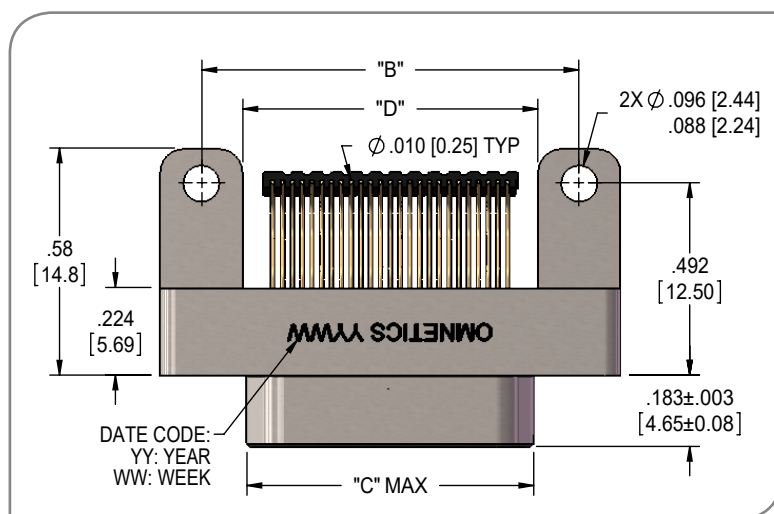
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Standard Micro-D

Metal Shell Micro-D Male Horizontal Surface Mount (TYPE H0)



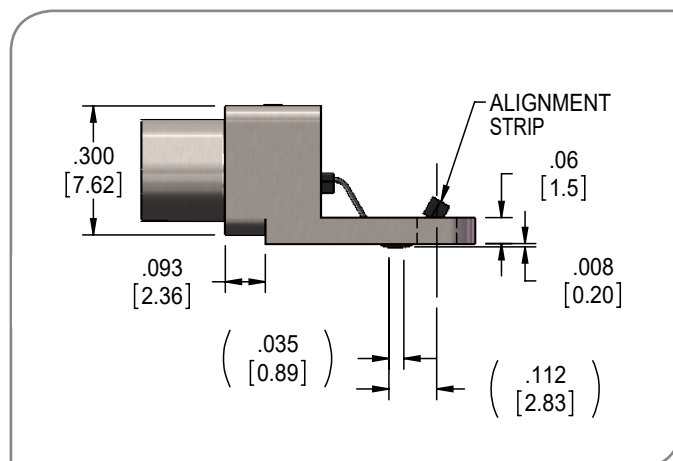
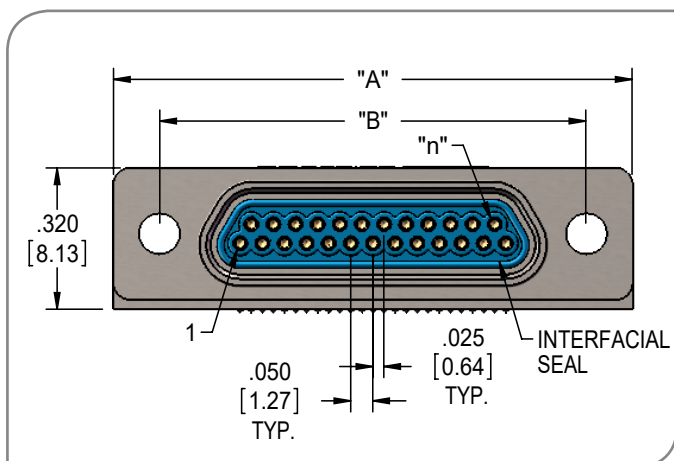
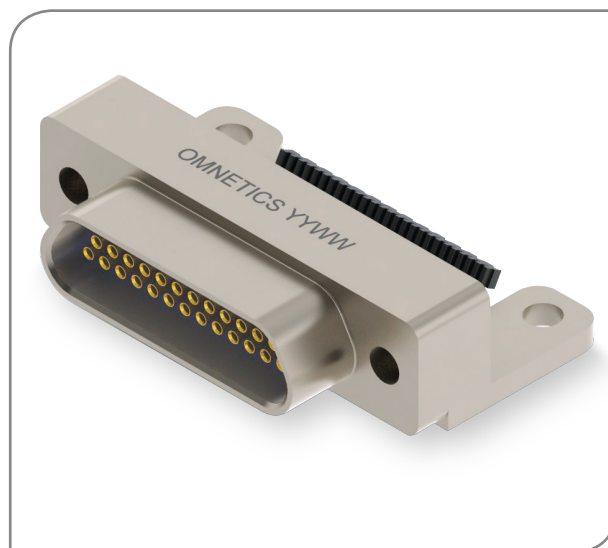
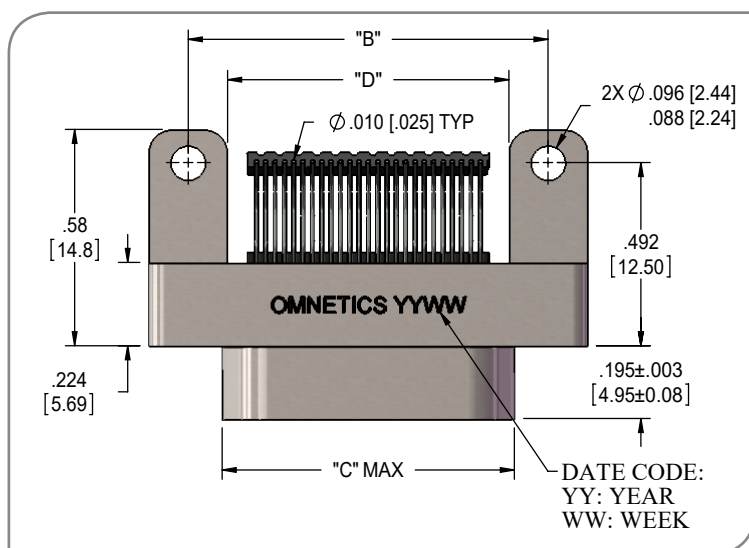
23

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

Micro-D

Standard Micro-D

Metal Shell Micro-D Female Horizontal Surface Mount (TYPE H0)



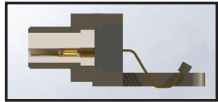
Contacts

English (IN)

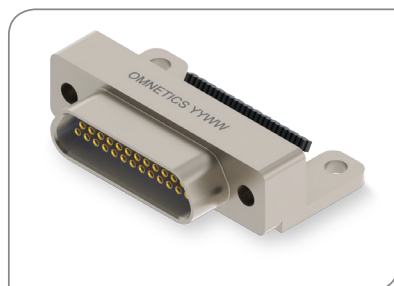
Metric (mm)

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

Metal Shell Micro-D Horizontal Surface Mount (TYPE H0) Ordering Guide

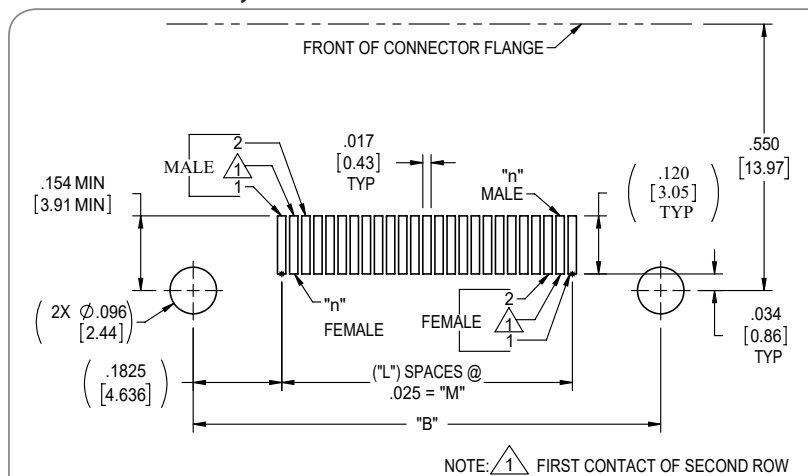
Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MMD Male (P - Pin)	009	N (STD)	00 - NONE, Ø .092	H0 Horizontal Surface Mount	HT High Temp. Epoxy (200 °C)
	015	Aluminum Shell,	HOLE (STD)		
	021	Electroless Nickel	01 - FIXED JACK-		
	025	Plated	POSTS (STD)		
	031	C	02 - JACKSCREWS,		
Female (S - Socket)	037	Aluminum Shell,	STD LENGTH, HEX		
	051*	Cadmium Plated	HEAD (STD)		
		B	03 - JACKSCREWS,		
		Aluminum Shell,	STD LENGTH,		
		Black Anodized	SLOTTED		
		P	04 - JACKSCREWS,		RH RoHS COMPLIANT
		Stainless Steel Shell,	LONG, HEX		
		Passivated	05 - JACKSCREWS		
			LONG, SLOTTED		

Example



MMDP-025-N00-H0

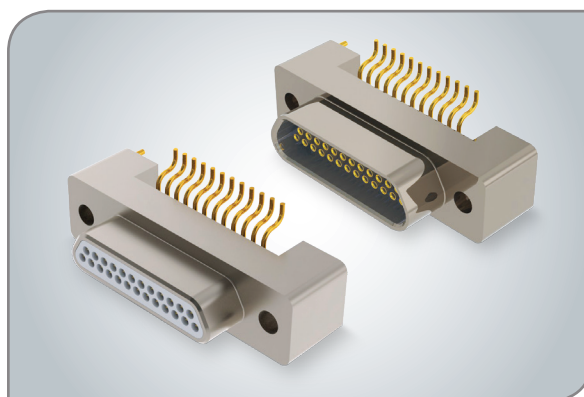
Board Mount Layout



Contacts		English (IN)			Metric (mm)		
"n"	Rows	"B"	"L"	"M"	"B"	"L"	"M"
9	2	.565	8	.200	14.35	8	5.08
15	2	.715	14	.350	18.16	14	8.89
21	2	.865	20	.500	21.97	20	12.70
25	2	.965	24	.600	24.51	24	15.24
31	2	1.115	30	.750	28.32	30	19.05
37	2	1.265	36	.900	32.13	36	22.86
51	2	1.615	50	1.250	41.02	50	31.75

Metal Shell Vertical SMT Micro-D (TYPE V0)

Omnetics' Standard Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 51 contacts. The Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

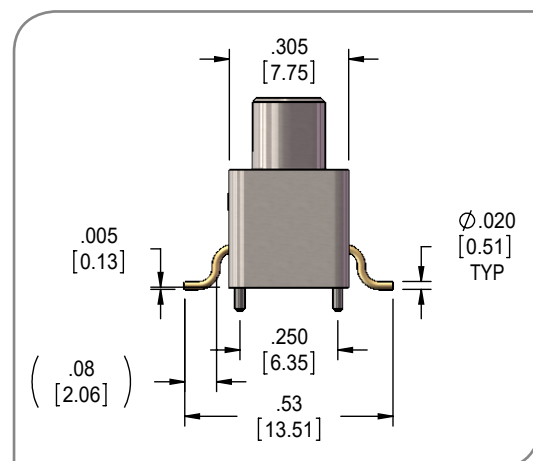
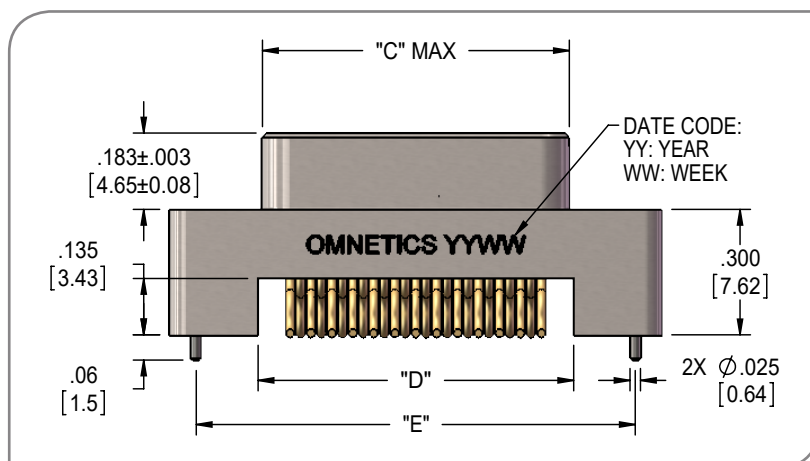
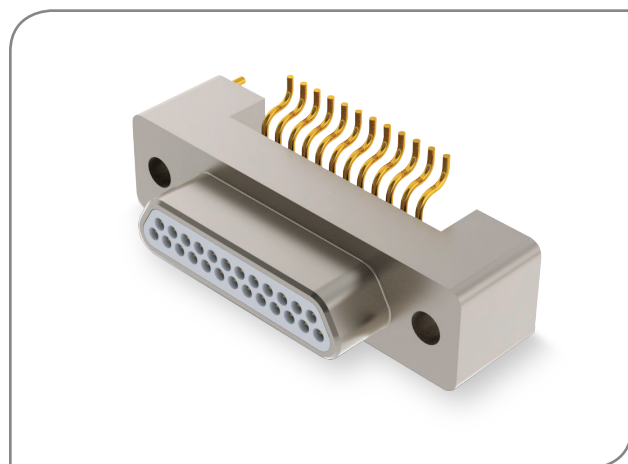
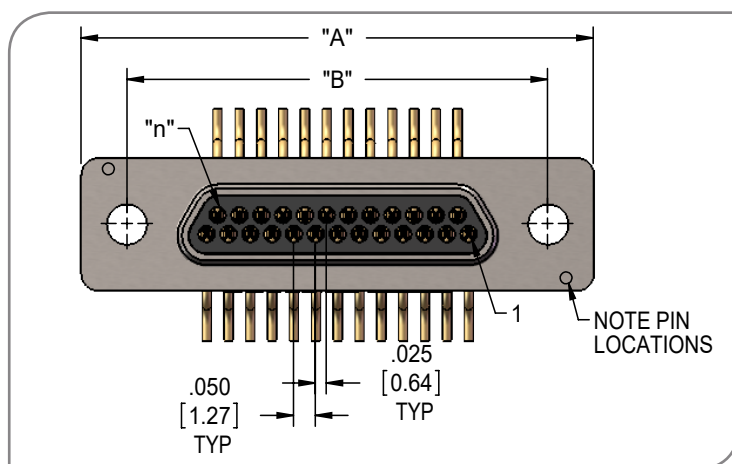
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Standard Micro-D

Metal Shell Micro-D Male Vertical Surface Mount (TYPE V0)

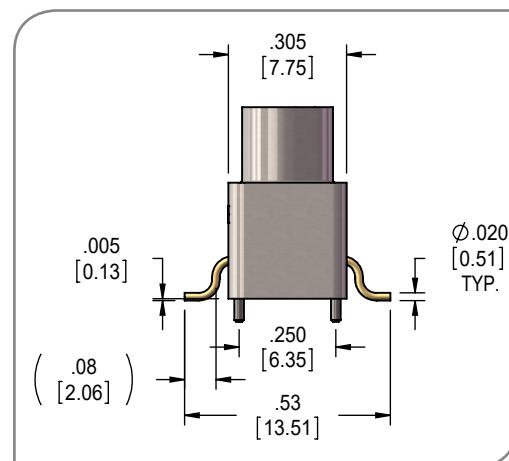
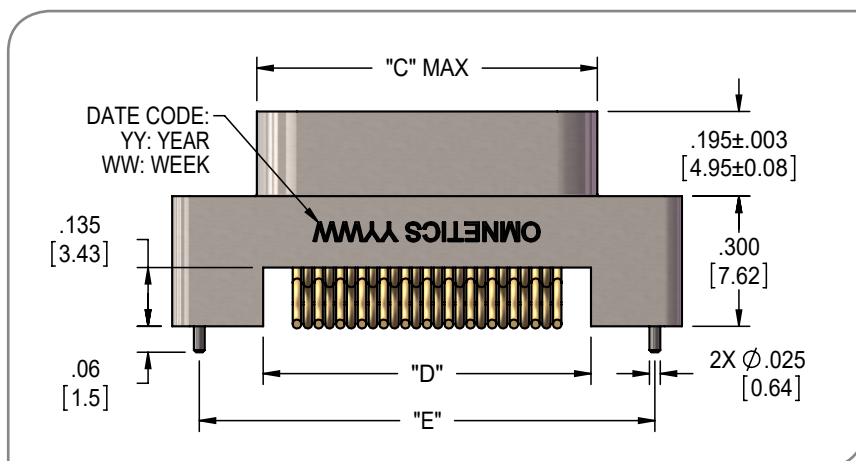
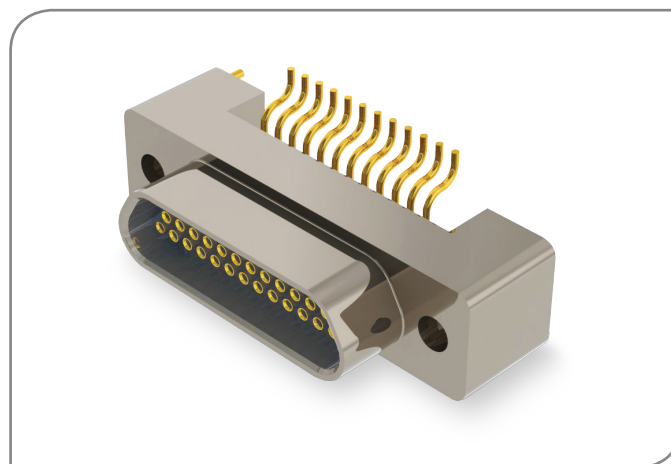
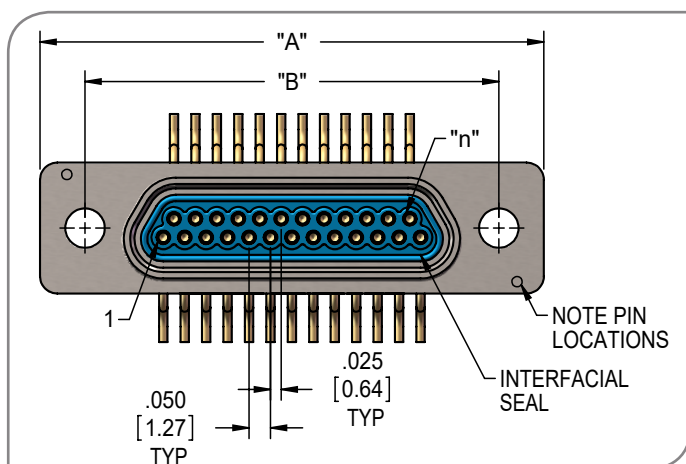


Contacts		English (IN)					Metric (mm)				
"n"	Rows	"A"	"B"	"C"	"D"	"E"	"A"	"B"	"C"	"D"	"E"
9	2	.775	.565	.334	.355	.650	19.69	14.35	8.48	9.02	16.51
15	2	.925	.715	.484	.505	.800	23.50	18.16	12.29	12.83	20.32
21	2	1.075	.865	.634	.655	.950	27.31	21.97	16.10	16.64	24.13
25	2	1.175	.965	.734	.755	1.050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

Micro-D

Standard Micro-D

Metal Shell Micro-D Female Vertical Surface Mount (TYPE VO)



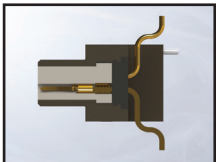
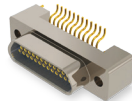
Contacts

English (IN)

Metric (mm)

"n"	Rows	"A"	"B"	"C"	"D"	"E"	"A"	"B"	"C"	"D"	"E"
9	2	.775	.565	.400	.355	.650	19.69	14.35	10.17	9.02	16.51
15	2	.925	.715	.550	.505	.800	23.50	18.16	13.98	12.83	20.32
21	2	1.075	.865	.700	.655	.950	27.31	21.97	17.79	16.64	24.13
25	2	1.175	.965	.800	.755	1.050	29.85	24.51	20.33	19.18	26.67
31	2	1.325	1.115	.950	.905	1.200	33.66	28.32	24.14	22.99	30.48
37	2	1.475	1.265	1.100	1.055	1.350	37.47	32.13	27.95	26.80	34.29
51	2	1.825	1.615	1.450	1.405	1.700	46.36	41.02	36.84	35.69	43.18

Metal Shell Micro-D Vertical Surface Mount (TYPE V0) Ordering Guide

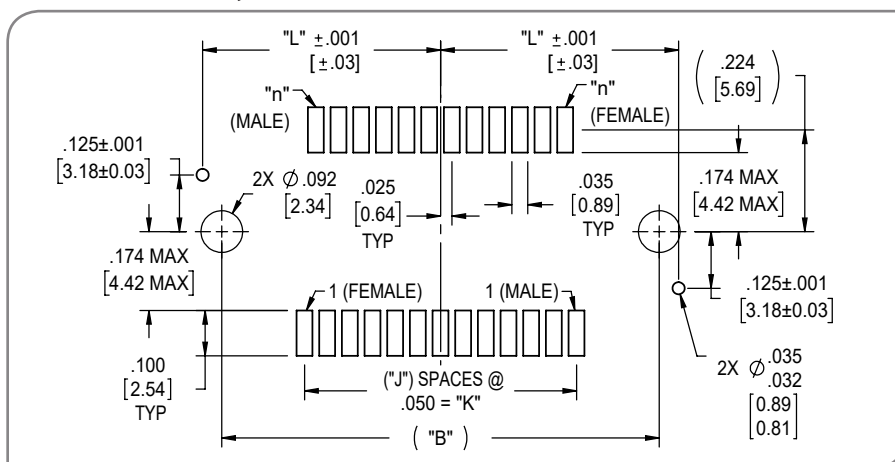
Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MMD Male (P - Pin) 	009	N (STD)	00 - NONE, Ø .092	V0 Vertical Surface Mount 	HT High Temp. Epoxy (200 °C) 
	015	Aluminum Shell,	HOLE (STD)		
	021	Electroless Nickel	01 - FIXED JACK-		
	025	Plated	POSTS (STD)		
	031	C	02 - JACKSCREWS,		
Female (S - Socket) 	037	Aluminum Shell,	STD LENGTH, HEX		RH RoHS COMPLIANT 
	051*	Cadmium Plated	HEAD (STD)		
		B	03 - JACKSCREWS,		
		Aluminum Shell,	STD LENGTH,		
		Black Anodized	SLOTTED		
		P	04 - JACKSCREWS,		
		Stainless Steel Shell,	LONG, HEX		
		Passivated	05 - JACKSCREWS		
			LONG, SLOTTED		

Example



MMDP-025-N00-V0-HT

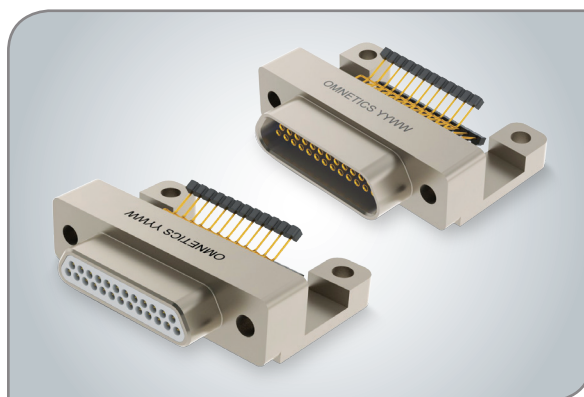
Board Mount Layout



Contacts		English (IN)				Metric (mm)			
"n"	Rows	"B"	"J"	"K"	"N"	"B"	"J"	"K"	"N"
9	2	.565	4	.200	.325	14.35	4	5.08	8.26
15	2	.715	7	.350	.400	18.16	7	8.89	10.16
21	2	.865	10	.500	.475	21.97	10	12.70	12.07
25	2	.965	12	.600	.525	24.51	12	15.24	13.34
31	2	1.115	15	.750	.600	28.32	15	19.05	15.24
37	2	1.265	18	.900	.675	32.13	18	22.86	17.15
51	2	1.615	25	1.250	.850	41.02	25	31.75	21.59

Metal Shell Micro-D Card Edge Surface Mount (TYPE C0)

Omnetics' Standard Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 51 contacts. The Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

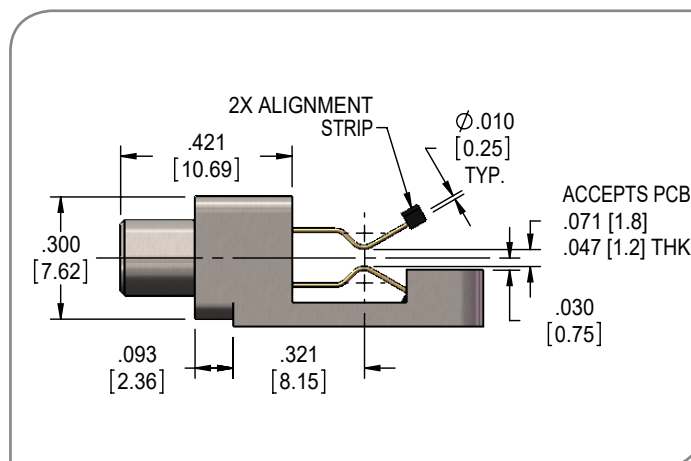
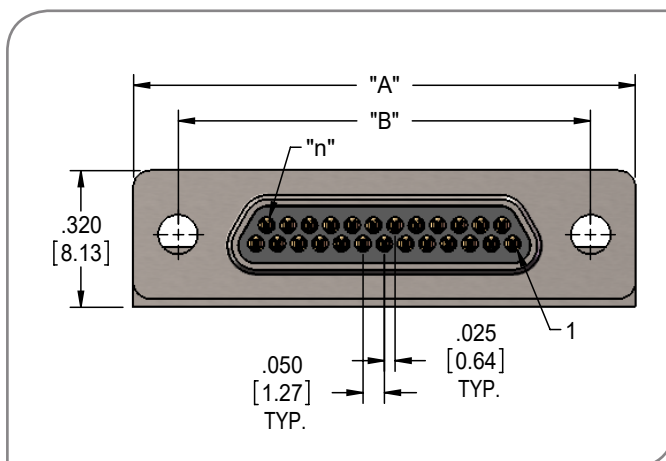
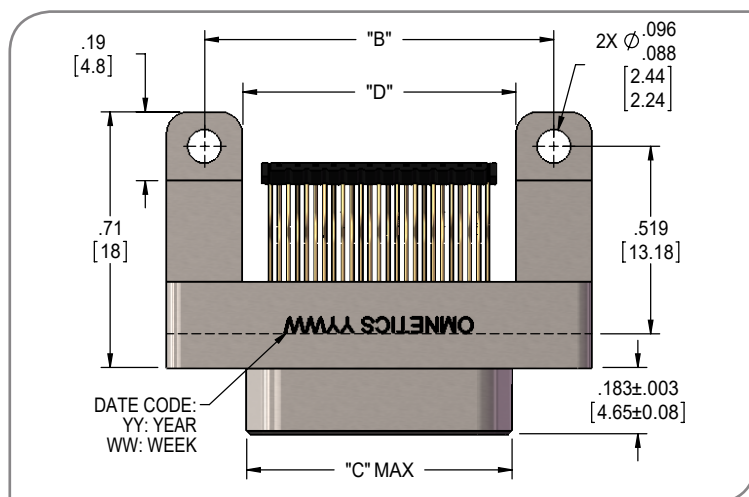
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Standard Micro-D

Metal Shell Male Micro-D Card Edge Surface Mount (TYPE C0)

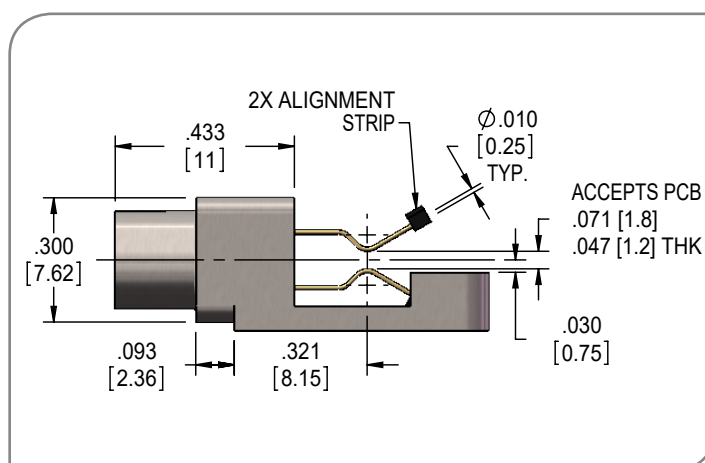
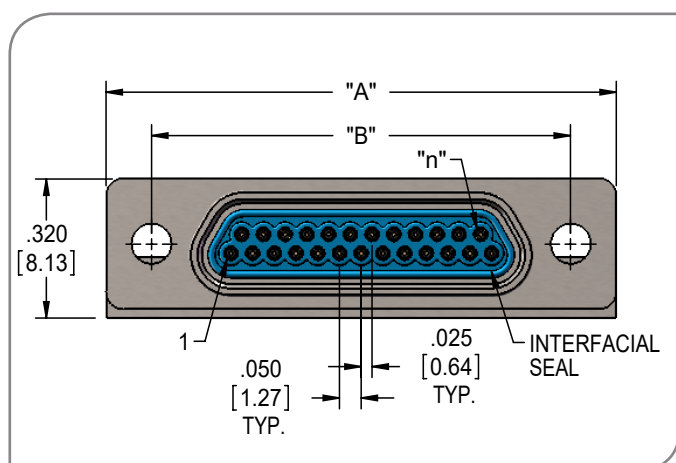
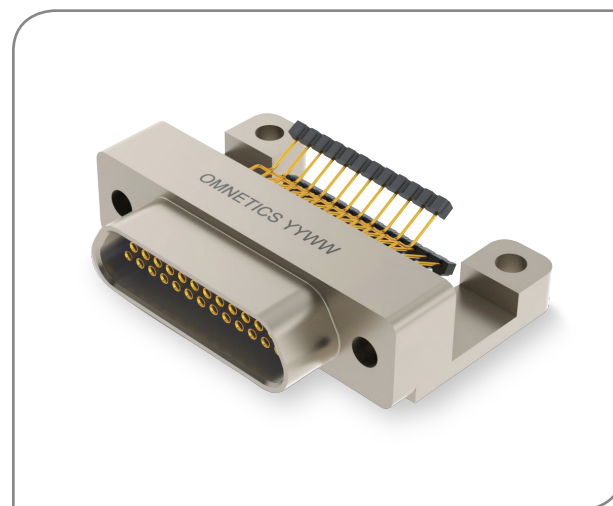
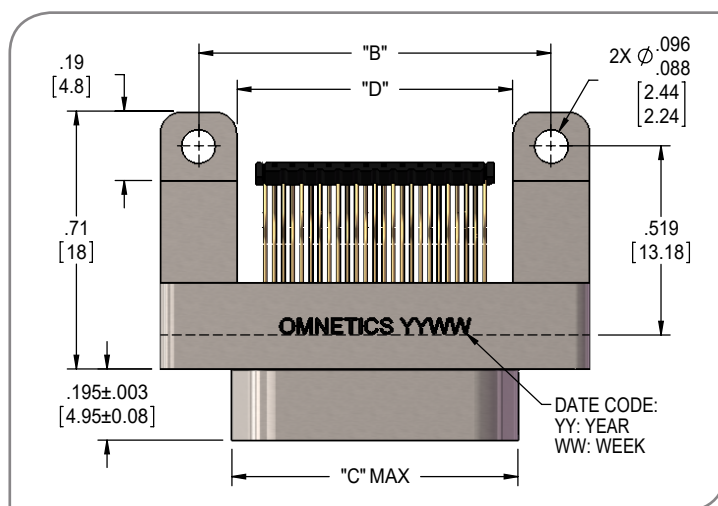


Contacts		English (IN)				Metric (mm)			
"n"	Rows	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"
9	2	.775	.565	.334	.355	19.69	14.35	8.48	9.02
15	2	.925	.715	.484	.505	23.50	18.16	12.29	12.83
21	2	1.075	.865	.634	.655	27.31	21.97	16.10	16.64
25	2	1.175	.965	.734	.755	29.85	24.51	18.64	19.18
31	2	1.325	1.115	.884	.905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

Micro-D

Standard Micro-D

Metal Shell Female Micro-D Card Edge Surface Mount (TYPE C0)



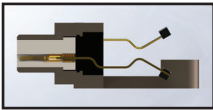
Contacts

English (IN)

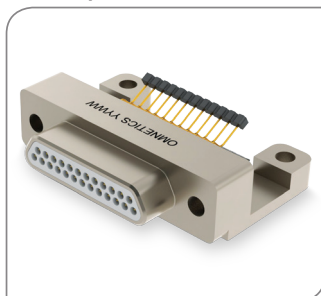
Metric (mm)

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

Metal Shell Micro-D Card Edge Surface Mount (TYPE C0) Ordering Guide

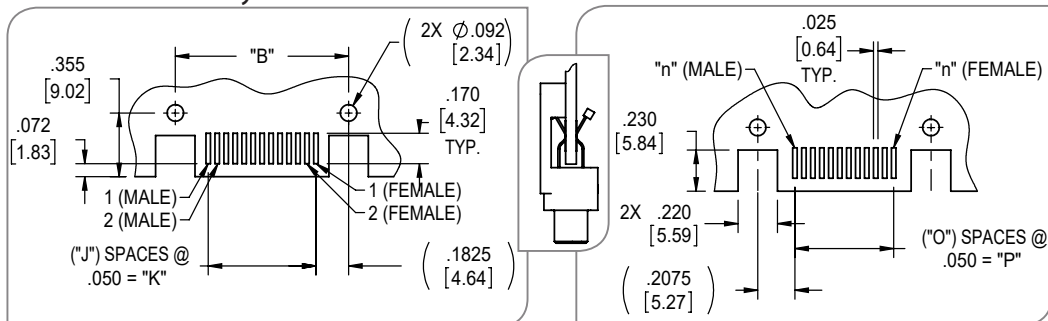
Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MMD Male (P - Pin) 	009	N (STD)	00 - NONE, Ø .092 HOLE (STD)	C0 Card Edge Surface Mount 	HT High Temp. Epoxy (200 °C) 
	015	Aluminum Shell,			
	021	Electroless Nickel	01 - FIXED JACKPOSTS (STD)		
	025	Plated	02 - JACKSCREWS, STD LENGTH, HEX HEAD (STD)		
	031	C Aluminum Shell, Cadmium Plated	03 - JACKSCREWS, STD LENGTH, SLOTTED		
	037		04 - JACKSCREWS, LONG, HEX		
Female (S - Socket) 	051*	B Aluminum Shell, Black Anodized	05 - JACKSCREWS LONG, SLOTTED		RH RoHS COMPLIANT 
	* use 512 for two row 051	P Stainless Steel Shell, Passivated			

Example



MMDP-025-N00-C0-RH

Board Mount Layout



Contacts		English (IN)					Metric (mm)				
"n"	Rows	"B"	"J"	"K"	"O"	"P"	"B"	"J"	"K"	"O"	"P"
9	2	.565	4	.200	3	.150	14.35	4	5.08	3	3.81
15	2	.715	7	.350	6	.300	18.16	7	8.89	6	7.62
21	2	.865	10	.500	9	.450	21.97	10	12.70	9	11.43
25	2	.965	12	.600	11	.550	24.51	12	15.24	11	13.97
31	2	1.115	15	.750	14	.700	28.32	15	19.05	14	17.78
37	2	1.265	18	.900	17	.850	32.13	18	22.86	17	21.59
51	2	1.615	25	1.250	24	1.200	41.02	25	31.75	24	30.48

Metal Shell Micro-D Flex Tail (TYPE FF)

Omnetics' Standard Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 51 contacts. The Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

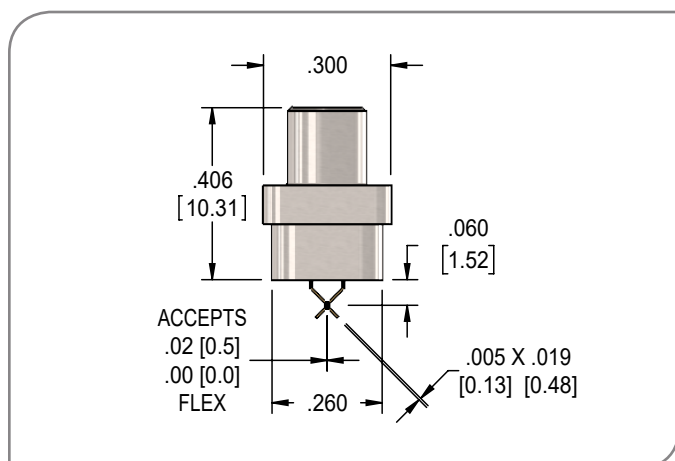
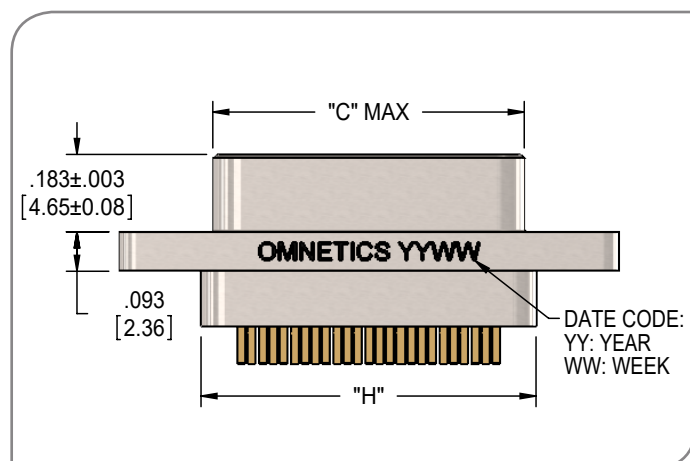
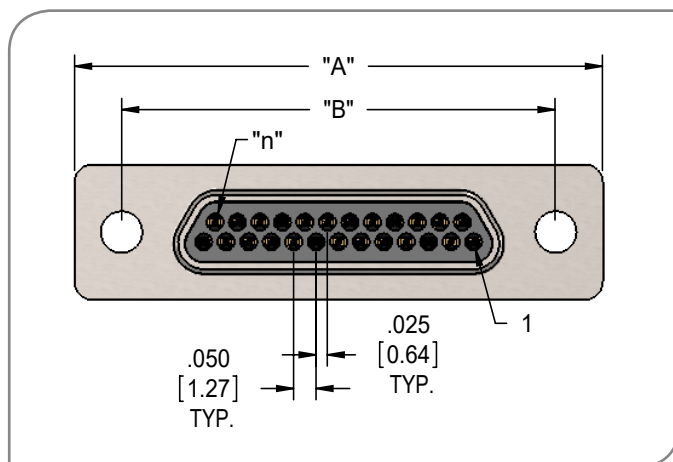
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Standard Micro-D

Metal Shell Male Micro-D Flex Tail (TYPE FF)



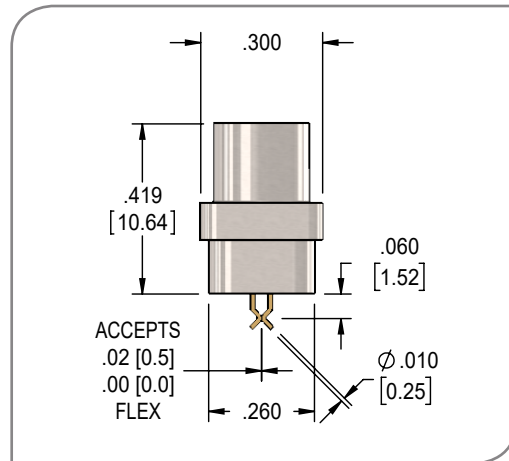
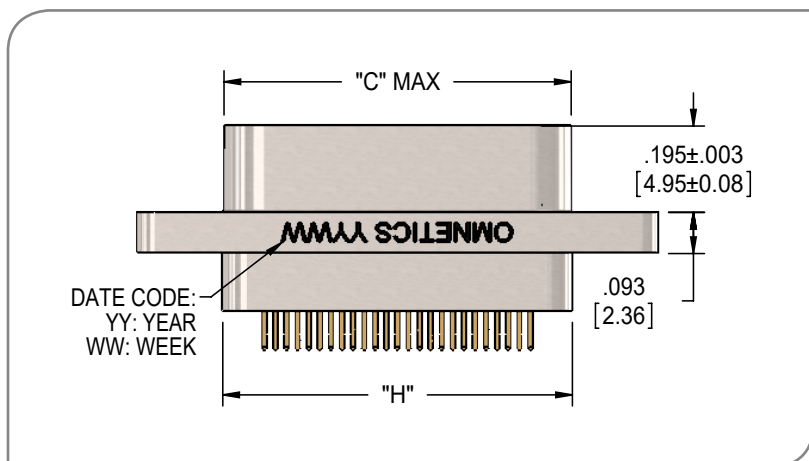
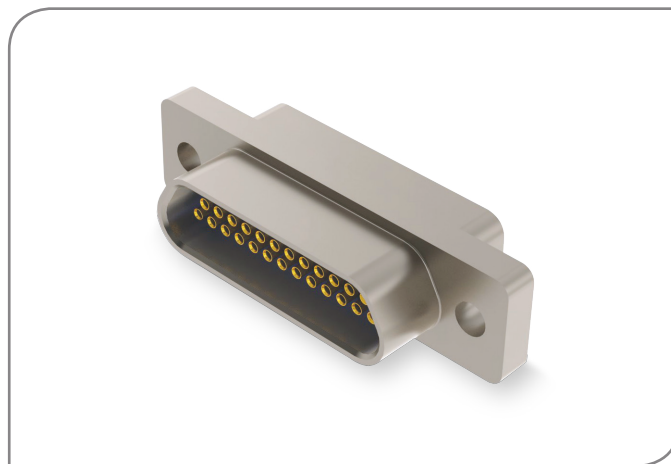
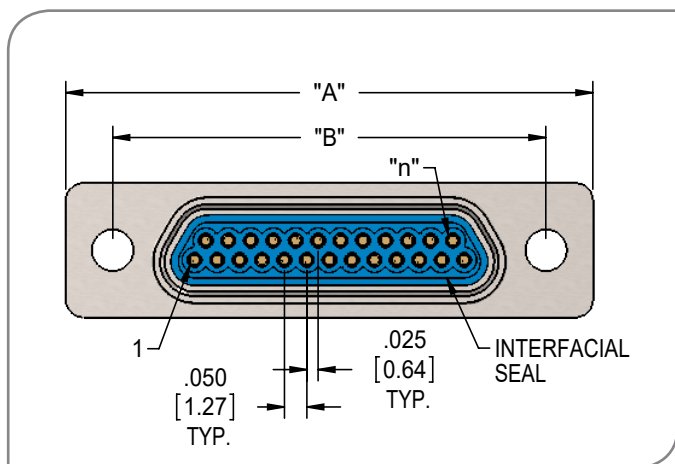
35

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

Micro-D

Standard Micro-D

Metal Shell Female Micro-D Flex Tail (TYPE FF)



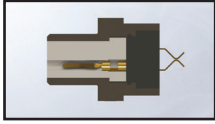
Contacts

English (IN)

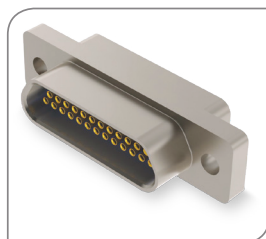
Metric (mm)

"n"	Rows	"A"	"B"	"C"	"H"	"A"	"B"	"C"	"H"
9	2	.775	.565	.400	.390	19.69	14.35	8.48	9.91
15	2	.925	.715	.550	.540	23.50	18.16	12.29	13.72
21	2	1.075	.865	.700	.690	27.31	21.97	16.10	17.53
25	2	1.175	.965	.800	.790	29.85	24.51	18.64	20.07
31	2	1.325	1.115	.950	.940	33.66	28.32	22.45	23.88
37	2	1.475	1.265	1.100	1.090	37.47	32.13	26.26	27.69
51	2	1.825	1.615	1.450	1.440	46.36	41.02	35.15	36.58

Metal Shell Micro-D Flex Tail (TYPE FF) Ordering Guide

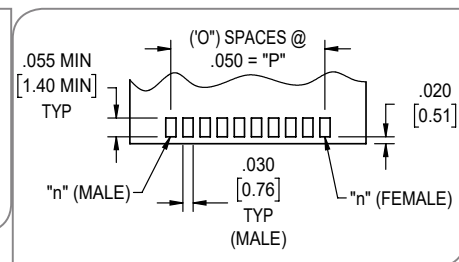
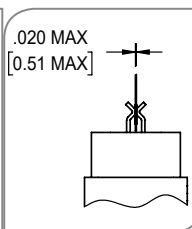
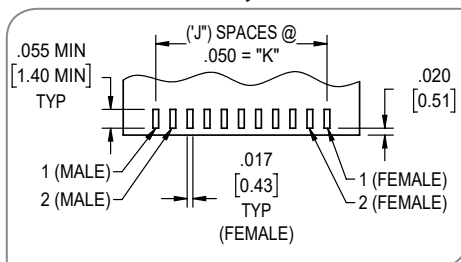
Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MMD Male (P - Pin) 	009	N (STD)	00 - NONE, Ø .092 HOLE (STD)	FF Flex Tail 	HT High Temp. Epoxy (200 °C) 
	015	Aluminum Shell,			
	021	Electroless Nickel	01 - FIXED JACKPOSTS (STD)		
	025	Plated	02 - JACKSCREWS, STD LENGTH, HEX (STD)		
	031	C	03 - JACKSCREWS, STD LENGTH, SLOTTED		
	037	Aluminum Shell,			
	051*	Cadmium Plated	04 - JACKSCREWS, LONG, HEX		
		B	05 - JACKSCREWS, LONG, SLOTTED		
		Aluminum Shell,	06 - FLOAT MOUNT, FRONT MOUNTED		
		Black Anodized	07 - FLOAT MOUNT, REAR MOUNTED		
Female (S - Socket) 		P			RH RoHS COMPLIANT 
		Stainless Steel			
		Shell, Passivated			

Example



MMDS-025-N00-FF-HT

Board Mount Layout



Contacts		English (IN)				Metric (mm)			
"n"	Rows	"J"	"K"	"O"	"P"	"J"	"K"	"O"	"P"
9	2	4	.200	3	.150	4	5.08	3	3.81
15	2	7	.350	6	.300	7	8.89	6	7.62
21	2	10	.500	9	.450	10	12.70	9	11.43
25	2	12	.600	11	.550	12	15.24	11	13.97
31	2	15	.750	14	.700	15	19.05	14	17.78
37	2	18	.900	17	.850	18	22.86	17	21.59
51	2	25	1.250	24	1.200	25	31.75	24	30.48

Metal Shell Micro-D Straight Thru-Hole (TYPE S2)

Omnetics' Standard Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 51 contacts. The Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

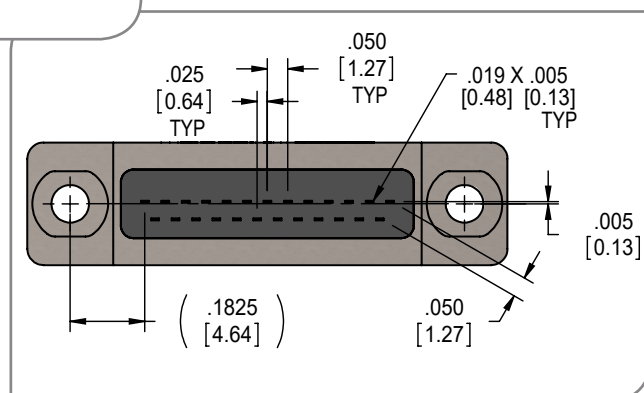
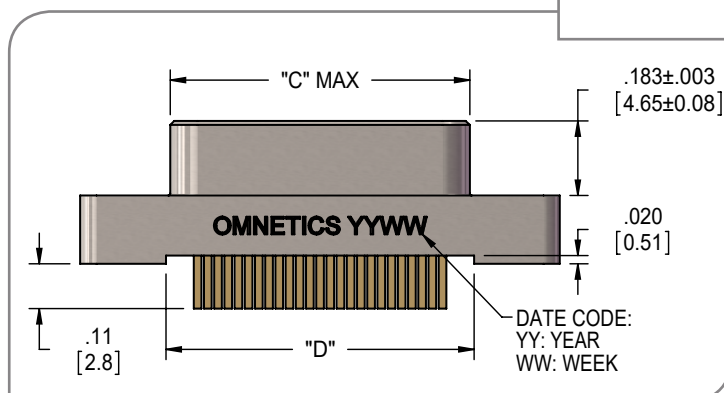
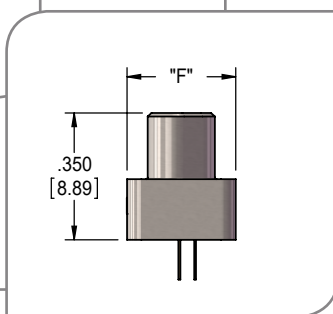
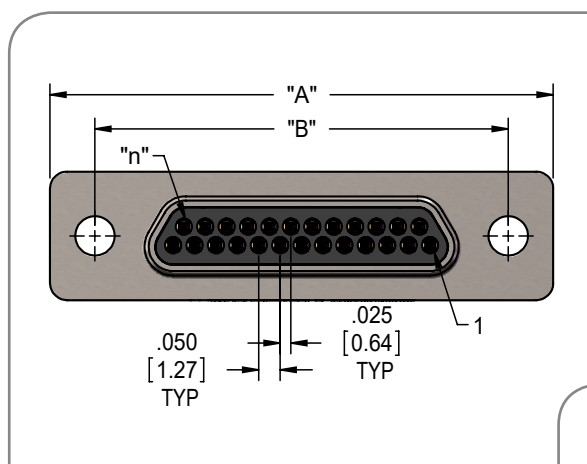
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Standard Micro-D

Metal Shell Micro-D Male Straight Thru-Hole (TYPE S2)



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Contacts

English (IN)

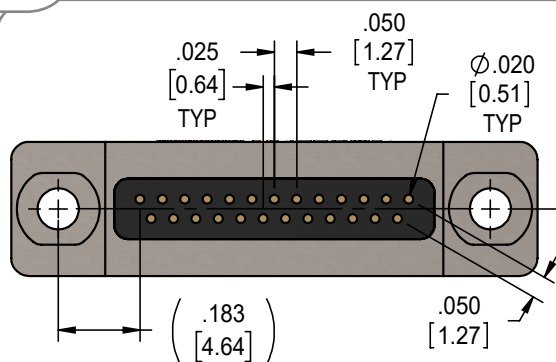
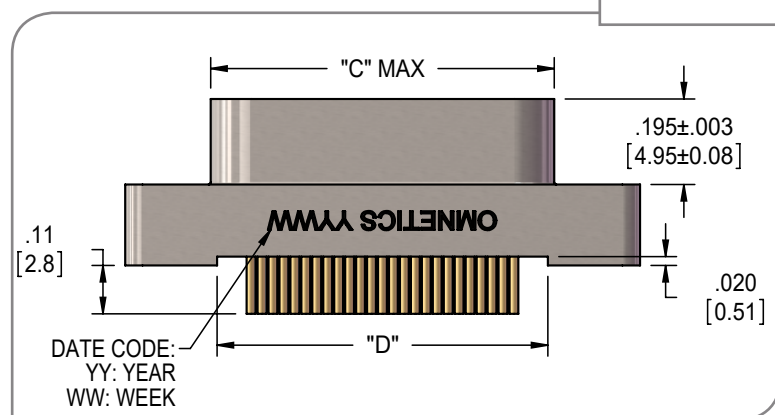
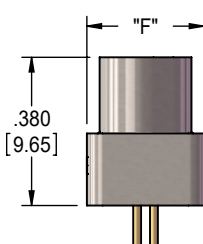
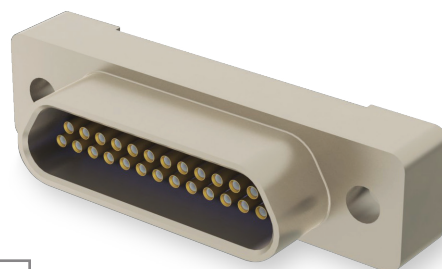
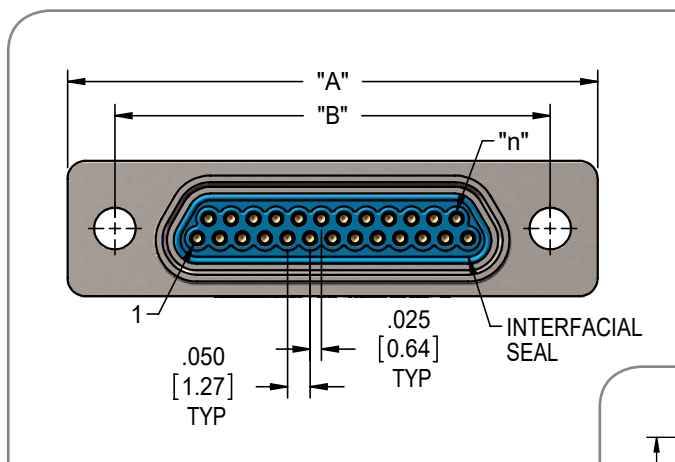
Metric (mm)

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

Micro-D

Standard Micro-D

Metal Shell Micro-D Female Straight Thru-Hole (TYPE S2)



Contacts

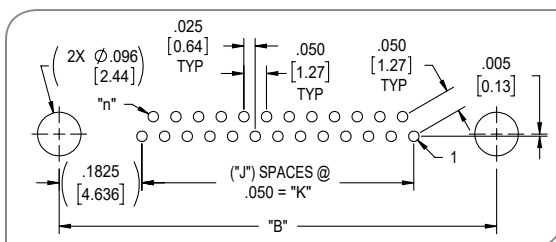
English (IN)

Metric (mm)

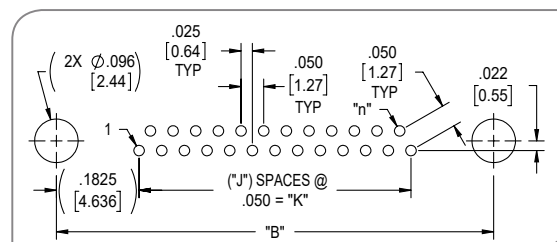
"n"	Rows	"A"	"B"	"C"	"D"	"F"	"A"	"B"	"C"	"D"	"F"
9	2	.775	.565	.400	.355	.300	19.69	14.35	10.17	9.02	7.62
15	2	.925	.715	.550	.505	.300	23.50	18.16	13.98	12.83	7.62
21	2	1.075	.865	.700	.655	.300	27.31	21.97	17.79	16.64	7.62
25	2	1.175	.965	.800	.755	.300	29.85	24.51	20.33	19.18	7.62
31	2	1.325	1.115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

Metal Shell Micro-D Straight Thru-Hole (TYPE S2) Board Mount Layout

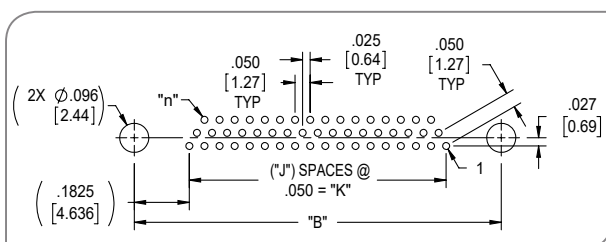
2 Row Male



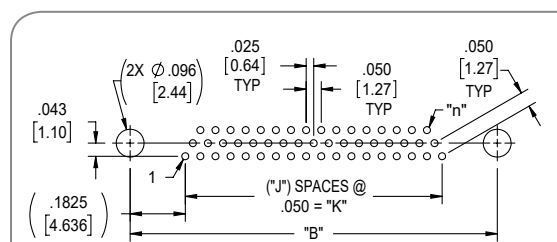
2 Row Female



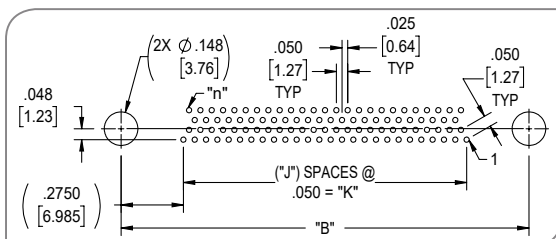
3 Row Male



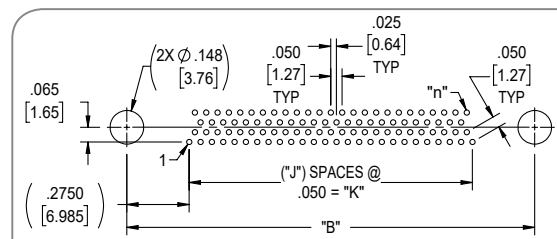
3 Row Female



4 Row Male



4 Row Female



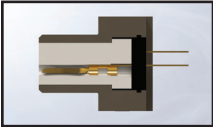
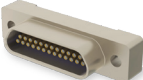
Contacts

English (IN)

Metric (mm)

"n"	Rows	"B"	"J"	"K"	"B"	"J"	"K"
9	2	.565	4	.200	14.35	4	5.08
15	2	.715	7	.350	18.16	7	8.89
21	2	.865	10	.500	21.97	10	12.70
25	2	.965	12	.600	24.51	12	15.24
31	2	1.115	15	.750	28.32	15	19.05
37	2	1.265	18	.900	32.13	18	22.86
51	2	1.615	25	1.250	41.02	25	31.75
51	3	1.215	17	.850	30.86	17	21.59
69	3	1.515	23	1.150	38.48	23	29.21
100	4	1.800	25	1.250	45.72	25	31.75

Metal Shell Micro-D Straight Thru-Hole (TYPE S2) Ordering Guide

Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MMD Male (P - Pin) 	009	N (STD)	00 - NONE, Ø .092	S2 Straight Thru-Hole 	HT High Temp. Epoxy (200 °C)  RH RoHS COMPLIANT 
	015	Aluminum Shell,	01 - FIXED JACK-		
	021	Electroless Nickel	POSTS (STD)		
	025	Plated	02 - JACKSCREWS,		
	031	C	STD LENGTH, HEX		
	037	Aluminum Shell,	HEAD (STD)		
	051*	Cadmium Plated	03 - JACKSCREWS,		
	069	B	STD LENGTH,		
	100	Aluminum Shell,	SLOTTED		
		Black Anodized	04 - JACKSCREWS,		
Female (S - Socket) 		P	05 - JACKSCREWS,		
		Stainless Steel	LONG, HEX		
		Shell, Passivated	LONG, SLOTTED		

*Use 512 for
Two Row 051
and 513 for
Three Row 051

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Example



MMDS-025-N00-S2-HT

Metal Shell Micro-D Right Angle Thru-Hole (TYPE R2)

Omnetics' Standard Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 51 contacts. The Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuties > 1 microsecond
Vibration:	20 g's with no discontinuties > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

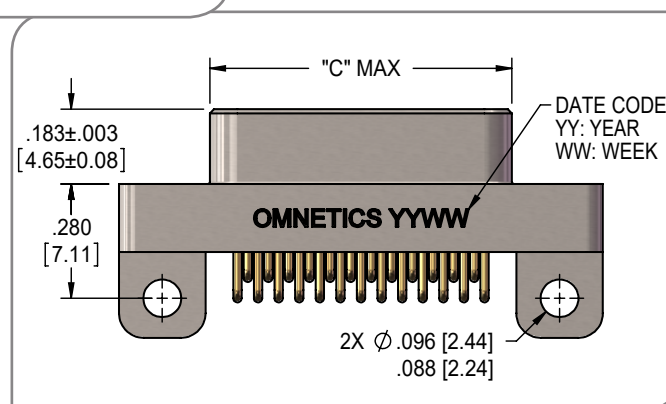
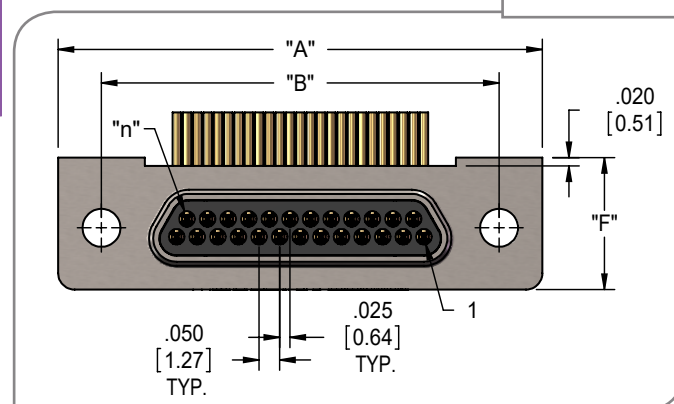
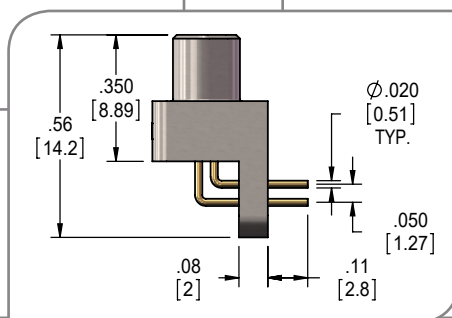
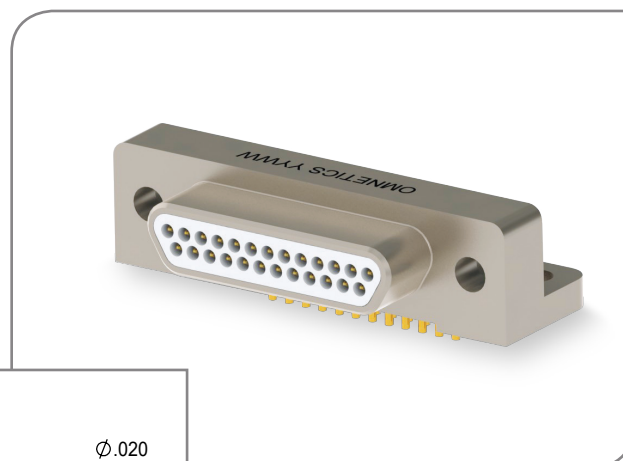
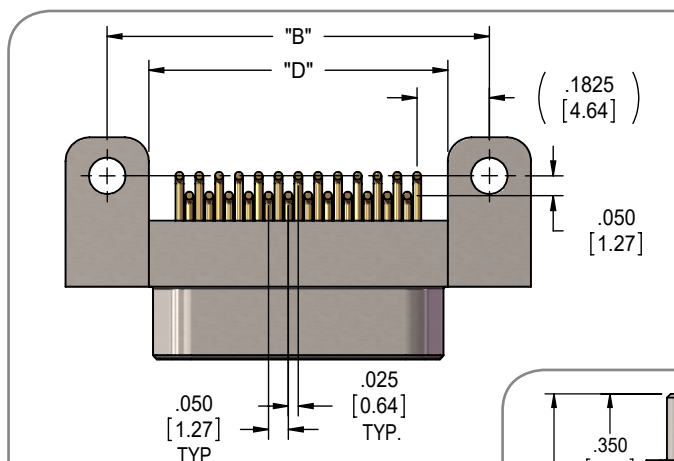
Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Metal Shell Micro-D Male Right Angle Thru-Hole (TYPE R2)



Contacts

English (IN)

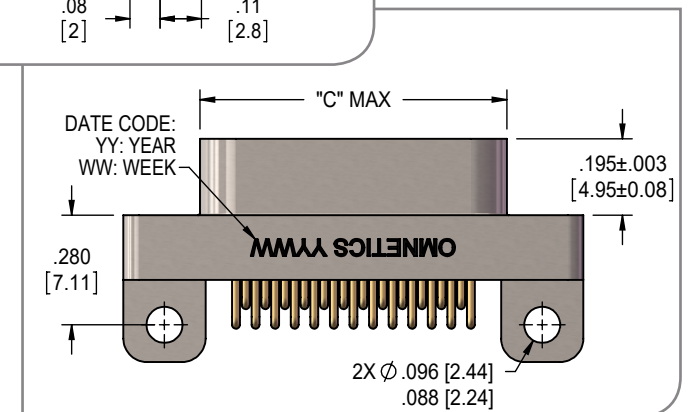
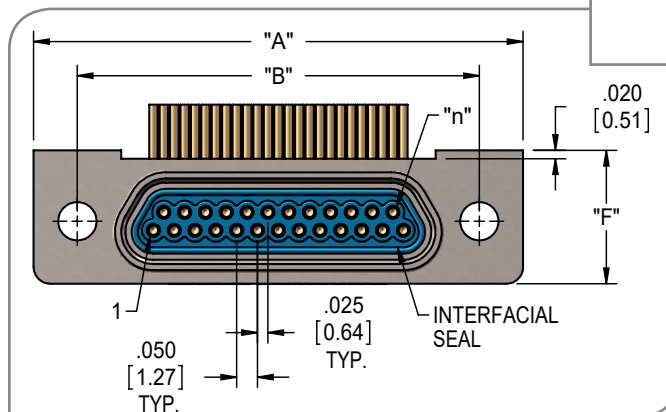
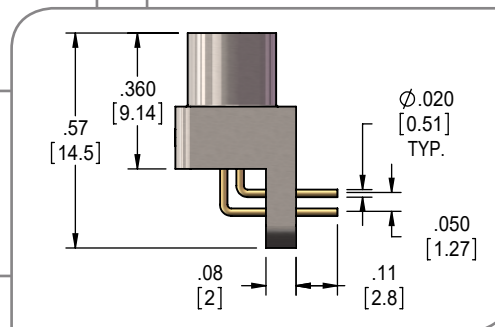
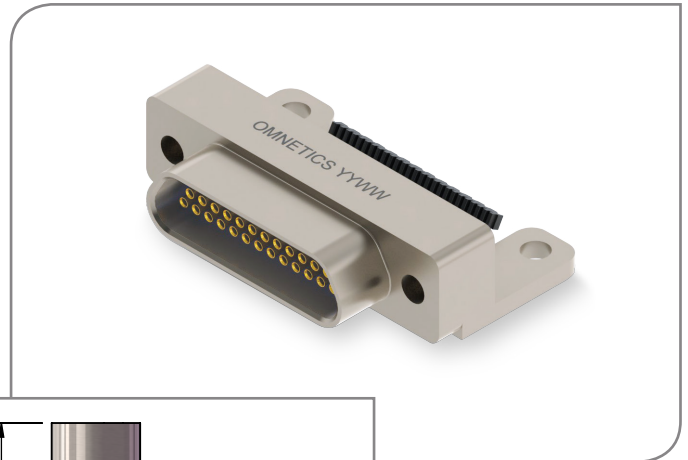
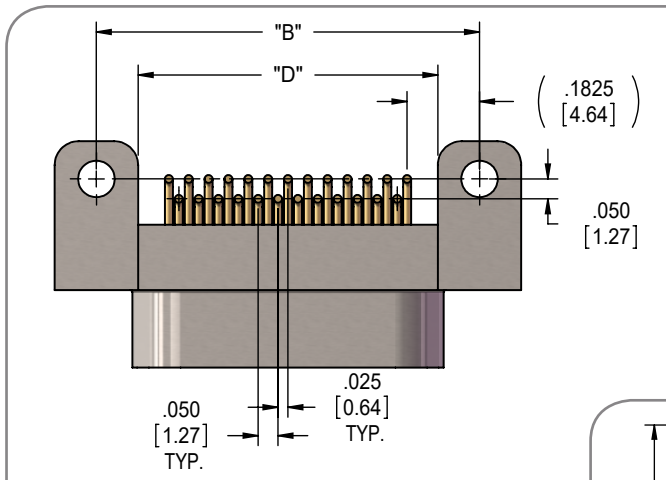
Metric (mm)

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

Micro-D

Standard Micro-D

Metal Shell Micro-D Female Right Angle Thru-Hole (TYPE R2)



Contacts

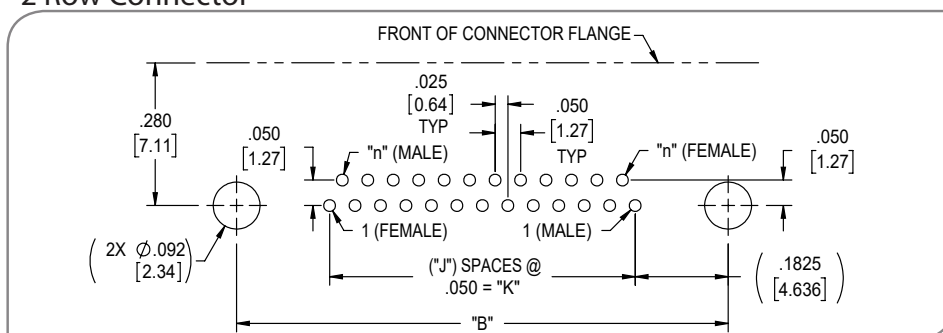
English (IN)

Metric (mm)

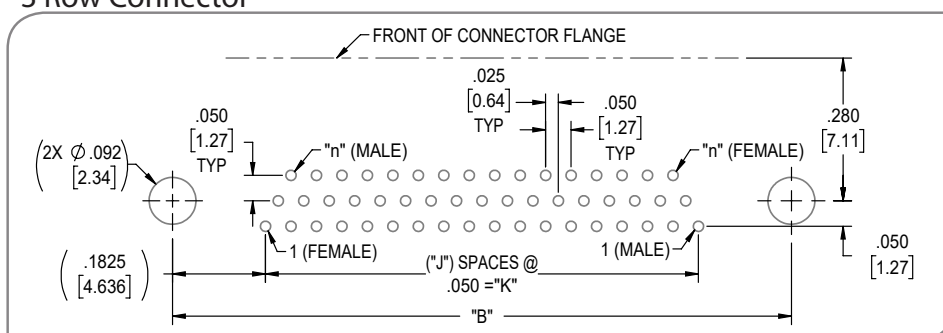
"n"	Rows	"A"	"B"	"C"	"D"	"F"	"A"	"B"	"C"	"D"	"F"
9	2	.775	.565	.400	.355	.320	19.69	14.35	10.17	9.02	8.13
15	2	.925	.715	.550	.505	.320	23.50	18.16	13.98	12.83	8.13
21	2	1.075	.865	.700	.655	.320	27.31	21.97	17.79	16.64	8.13
25	2	1.175	.965	.800	.755	.320	29.85	24.51	20.33	19.18	8.13
31	2	1.325	1.115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

Metal Shell Micro-D Right Angle Thru-Hole (TYPE R2) Board Mount Layout

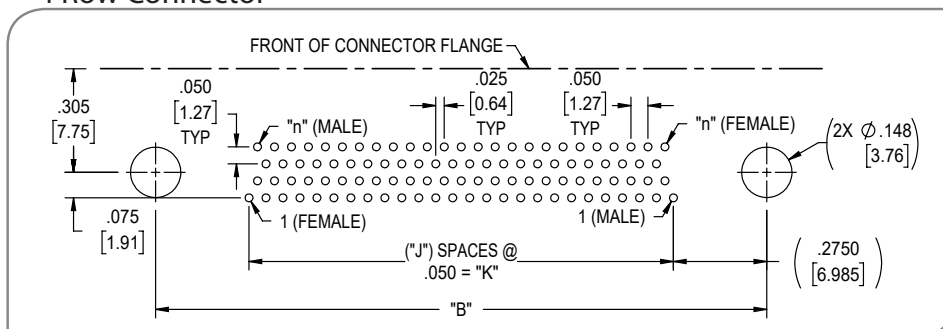
2 Row Connector



3 Row Connector



4 Row Connector

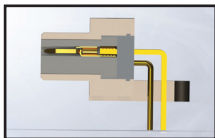


Contacts		English (IN)			Metric (mm)		
"n"	Rows	"B"	"J"	"K"	"B"	"J"	"K"
9	2	.565	4	.200	14.35	4	5.08
15	2	.715	7	.350	18.16	7	8.89
21	2	.865	10	.500	21.97	10	12.70
25	2	.965	12	.600	24.51	12	15.24
31	2	1.115	15	.750	28.32	15	19.05
37	2	1.265	18	.900	32.13	18	22.86
51	2	1.615	25	1.250	41.02	25	31.75
51	3	1.215	17	.850	30.86	17	21.59
69	3	1.515	23	1.150	38.48	23	29.21
100	4	1.800	25	1.250	45.72	25	31.75

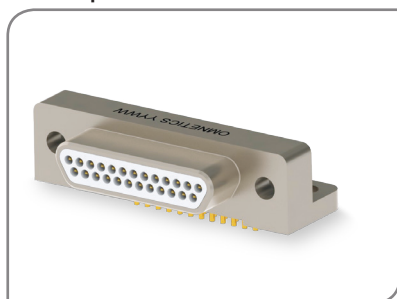
Micro-D

Standard Micro-D

Metal Shell Micro-D Right Angle Thru-Hole (TYPE R2) Ordering Guide

Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MMD Male (P - Pin) 	009	N (STD)	00 - NONE, Ø .092	R2 Right Angle Thru-Hole 	HT High Temp. Epoxy (200 °C) 
	015	Aluminum Shell,	01 - FIXED JACK-		
	021	Electroless Nickel	POSTS (STD)		
	025	Plated	02 - JACKSCREWS,		
	031	C Aluminum Shell,	STD LENGTH, HEX		
	037		HEAD (STD)		
	051*		03 - JACKSCREWS,		
	069		STD LENGTH,		
	100	B Aluminum Shell,	SLOTTED		RH RoHS COMPLIANT 
		Black Anodized	04 - JACKSCREWS,		
Female (S - Socket) 	*Use 512 for Two Row 051 and 513 for Three Row 051	P Stainless Steel Shell, Passivated	05 - JACKSCREWS,		
			LONG, SLOTTED		

Example

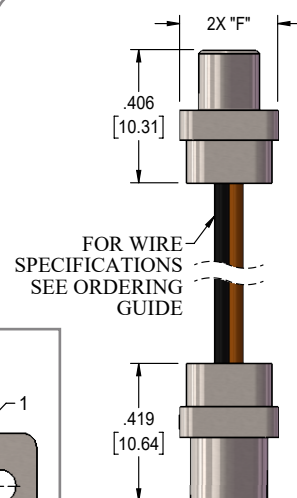
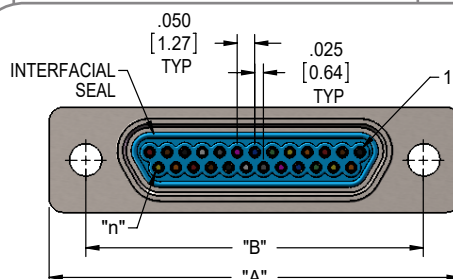
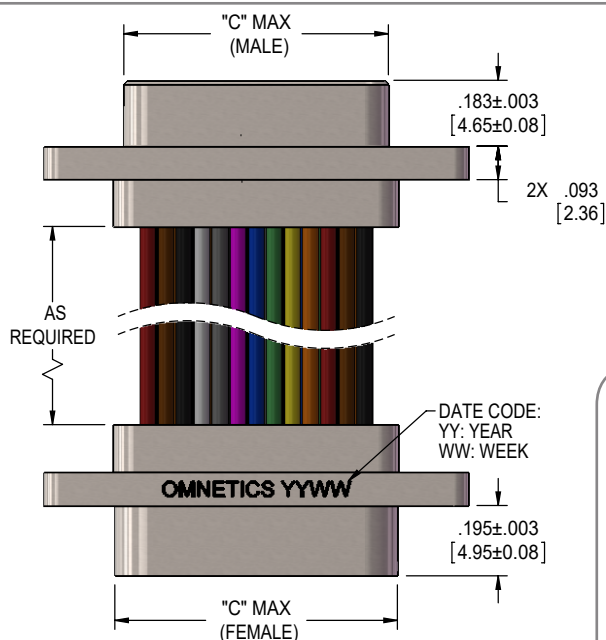
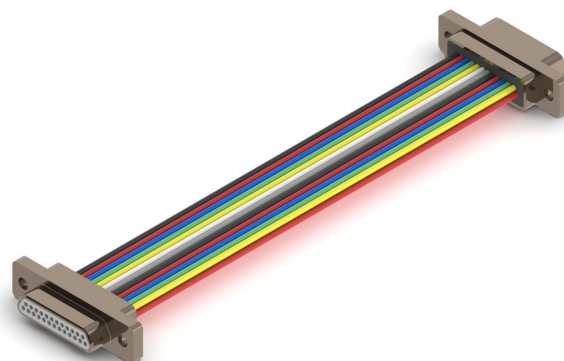
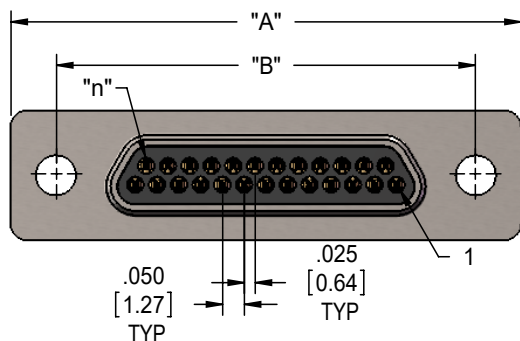


MMDP-025-N00-R2

Micro-D

Standard Micro-D

Metal Shell Micro-D Female to Male Jumpers (TYPE W)



Contacts

English (IN)

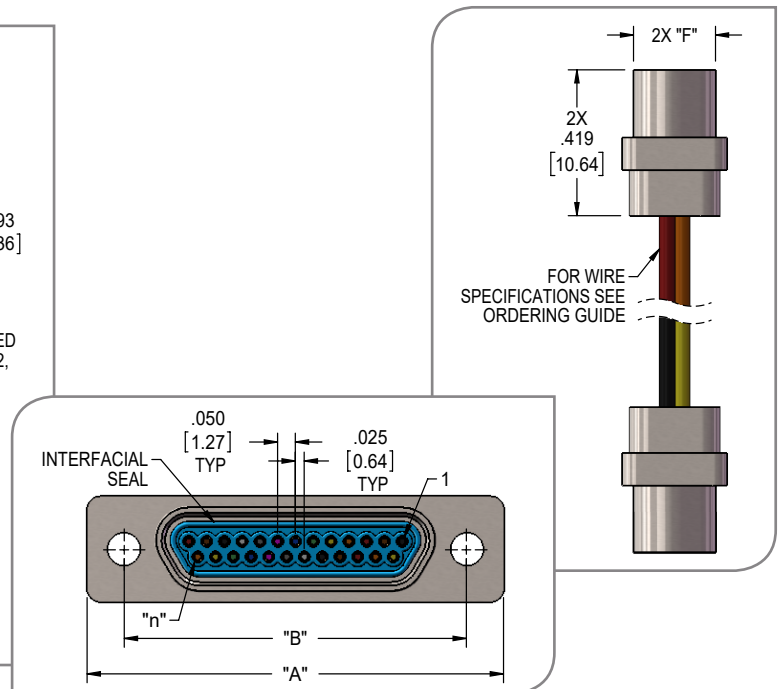
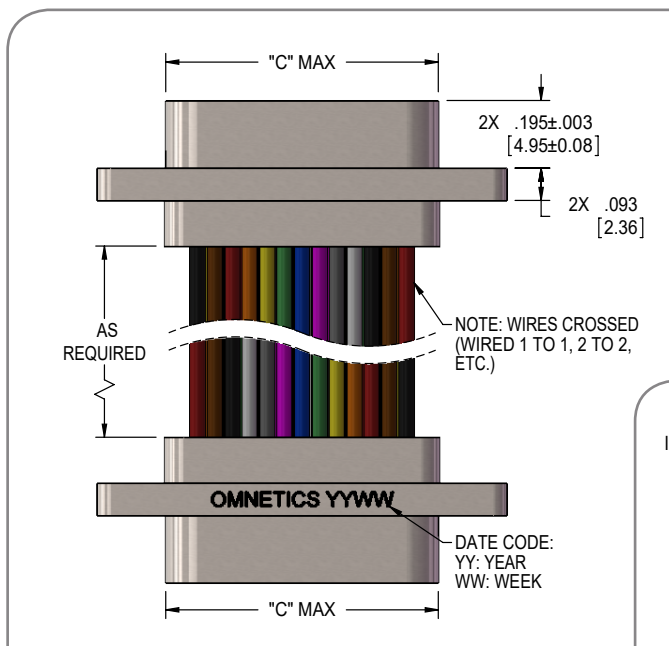
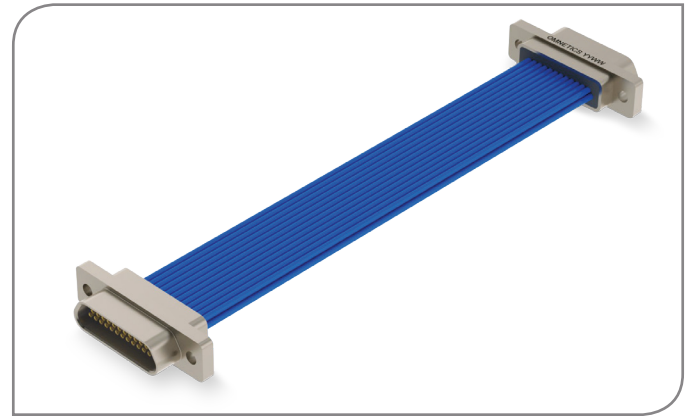
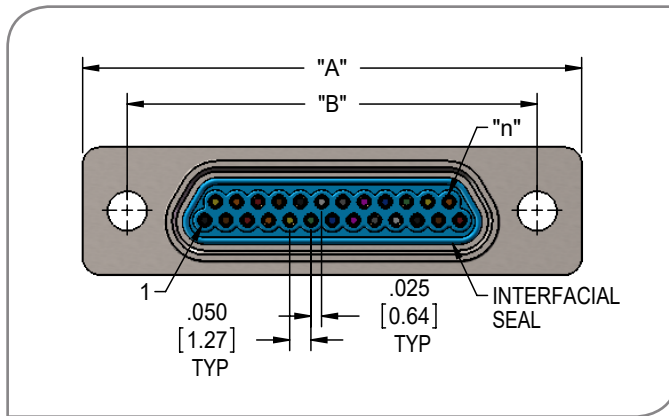
Metric (mm)

"n"	Rows	"A"	"B"	"C" Male	"C" Female	"F"	"A"	"B"	"C" Male	"C" Female	"F"
9	2	.775	.565	.334	.400	.260	19.69	14.35	8.48	10.17	6.60
15	2	.925	.715	.484	.550	.260	23.50	18.16	12.29	13.98	6.60
21	2	1.075	.865	.634	.700	.260	27.31	21.97	16.10	17.79	6.60
25	2	1.175	.965	.734	.800	.260	29.85	24.51	18.64	20.33	6.60
31	2	1.325	1.115	.884	.950	.260	33.66	28.32	22.45	24.14	6.60
37	2	1.475	1.265	1.034	1.100	.260	37.47	32.13	26.26	27.95	6.60
51	2	1.825	1.615	1.384	1.450	.260	46.36	41.02	35.15	36.84	6.60
51	3	1.425	1.215	.984	1.050	.300	36.20	30.86	24.99	26.68	7.62

Micro-D

Standard Micro-D

Metal Shell Micro-D Female to Female Jumpers (TYPE X)

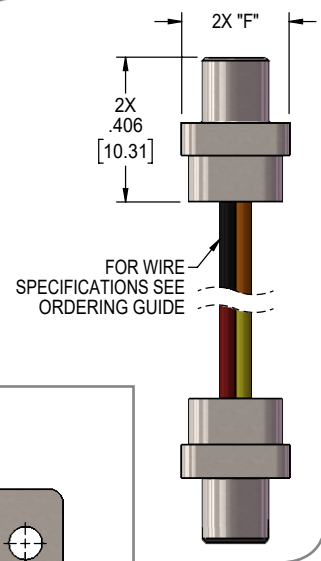
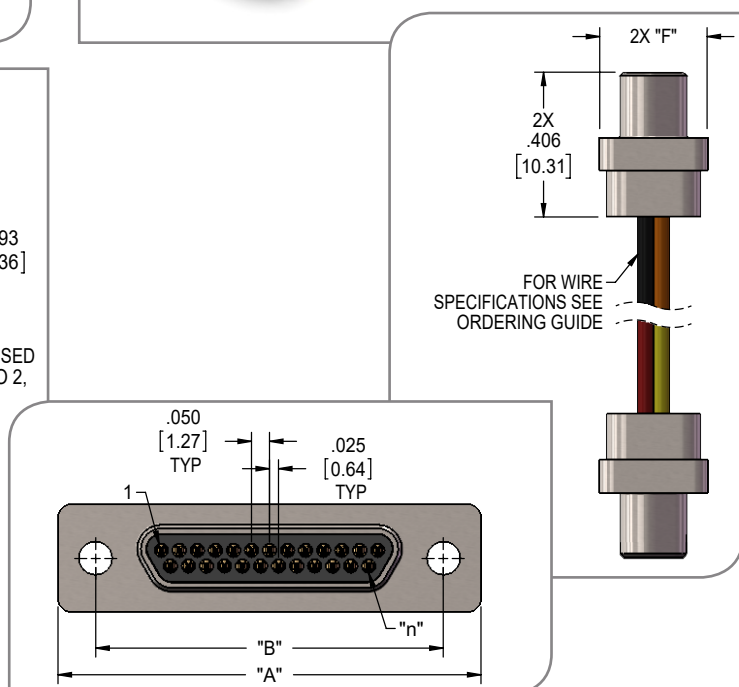
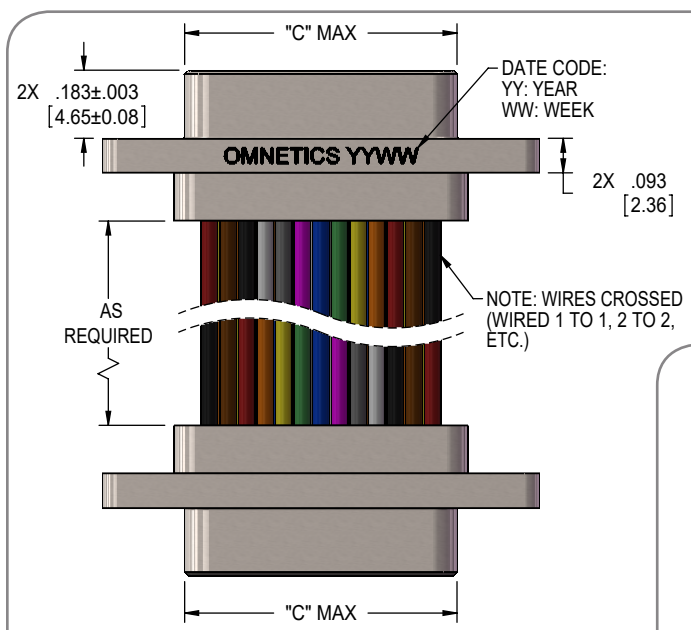
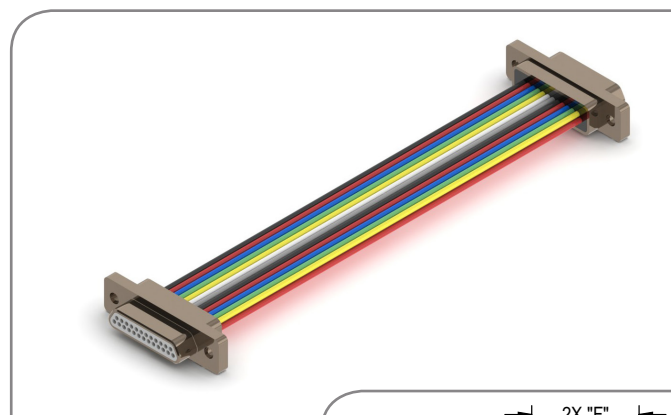
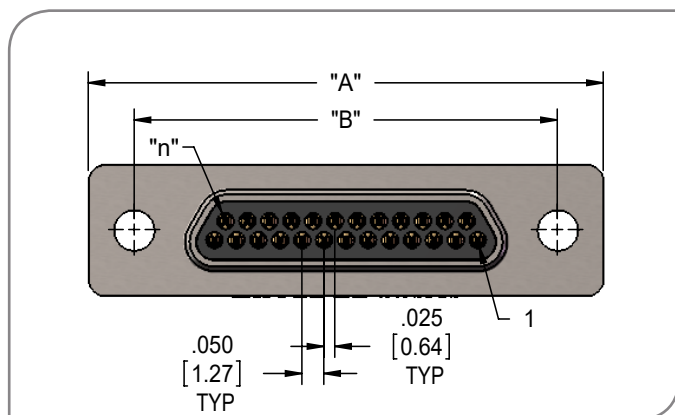


Contacts		English (IN)				Metric (mm)			
"n"	Rows	"A"	"B"	"C"	"F"	"A"	"B"	"C"	"F"
9	2	.775	.565	.400	.260	19.69	14.35	10.17	6.60
15	2	.925	.715	.550	.260	23.50	18.16	13.98	6.60
21	2	1.075	.865	.700	.260	27.31	21.97	17.79	6.60
25	2	1.175	.965	.800	.260	29.85	24.51	20.33	6.60
31	2	1.325	1.115	.950	.260	33.66	28.32	24.14	6.60
37	2	1.475	1.265	1.100	.260	37.47	32.13	27.95	6.60
51	2	1.825	1.615	1.450	.260	46.36	41.02	36.84	6.60
51	3	1.425	1.215	1.050	.300	36.20	30.86	26.68	7.62

Micro-D

Standard Micro-D

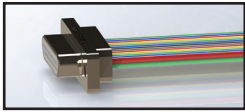
Metal Shell Micro-D Male to Male Jumpers (TYPE Y)



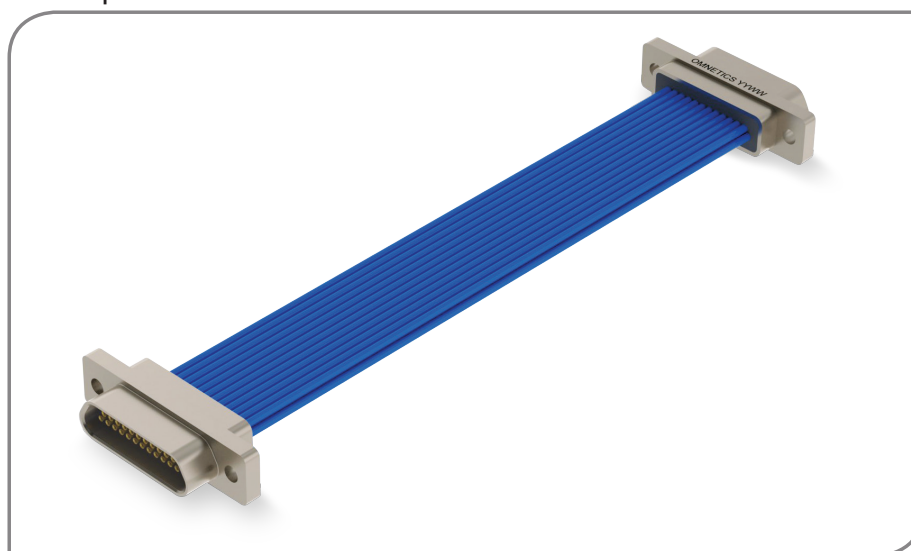
50

Contacts		English (IN)				Metric (mm)			
"n"	Rows	"A"	"B"	"C"	"F"	"A"	"B"	"C"	"F"
9	2	.775	.565	.334	.260	19.69	14.35	8.48	6.60
15	2	.925	.715	.484	.260	23.50	18.16	12.29	6.60
21	2	1.075	.865	.634	.260	27.31	21.97	16.10	6.60
25	2	1.175	.965	.734	.260	29.85	24.51	18.64	6.60
31	2	1.325	1.115	.884	.260	33.66	28.32	22.45	6.60
37	2	1.475	1.265	1.034	.260	37.47	32.13	26.26	6.60
51	2	1.825	1.615	1.384	.260	46.36	41.02	35.15	6.60
51	3	1.425	1.215	.984	.300	36.20	30.86	24.99	7.62

Metal Shell Micro-D Jumpers (TYPE W,X,Y) Ordering Guide

Series	# of Contacts	Shell Material and Finish	Hardware	Termination	Options
■ MMD W - Female to Male   X - Female to Female  Y - Male to Male 	009 015 021 025 031 037 051* *Use 512 for Two Row 051 and 513 for Three Row 051	N (STD) Aluminum Shell, Electroless Nickel Plated C Aluminum Shell, Cadmium Plated B Aluminum Shell, Black Anodized P Stainless Steel Shell, Passivated	00 - NONE, Ø .092 HOLE (STD) 13 FIXED JACK-POSTS (STD) (BOTH SIDES) 14 - JACKSCREWS, STD LENGTH, HEX HEAD (STD) (BOTH SIDES) 15 - ONE SET OF EACH, FIXED JACKPOSTS & JACKSCREWS, STANDARD LENGTH, HEX HEAD (STD) (PACKAGED SEPARATELY)	WD - Discrete Lead-wire w/Male and /Or Female Connectors  WIRE AWG: 6 - 26 AWG (STD) 8 - 28 AWG 0 - 30 AWG WIRE TYPE: Q - NEMA HP3 (FORMERLY M16878/4 &/6) (STD) R - M22759/11 S - M22759/33 WIRE LENGTH: 18.0 - 18.00" (STD) XX.X - CUSTOM LENGTH COLOR SCHEME: 1 - 10 REPEATING (STD) 2 - BLUE 3 - WHITE 5 - YELLOW	HT High Temp. Epoxy (200 °C)  RH RoHS COMPLIANT 

Example

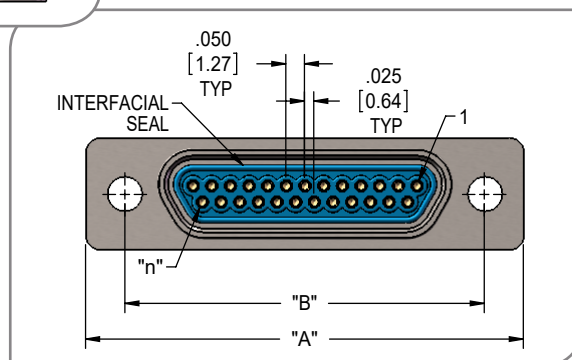
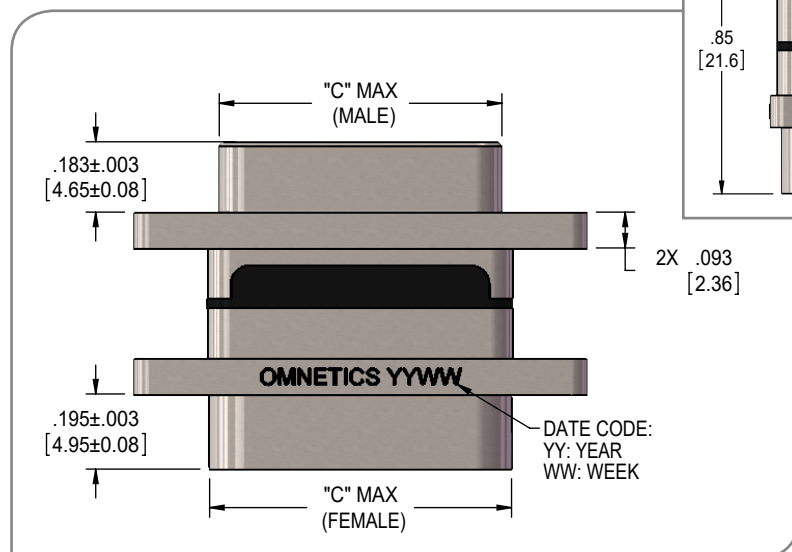
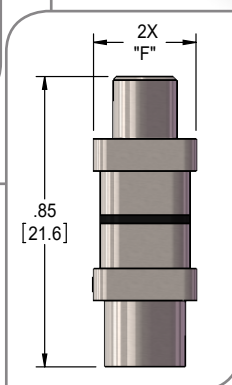
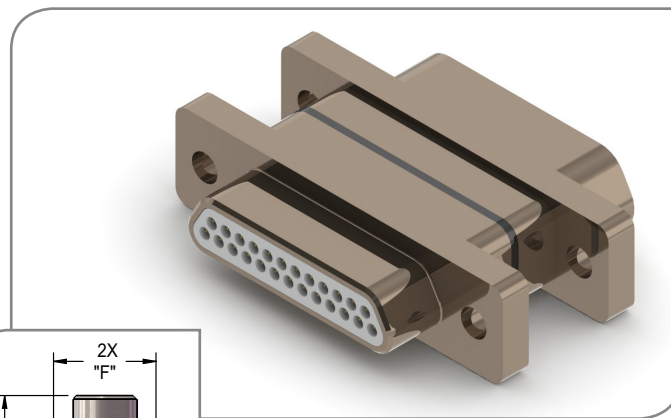
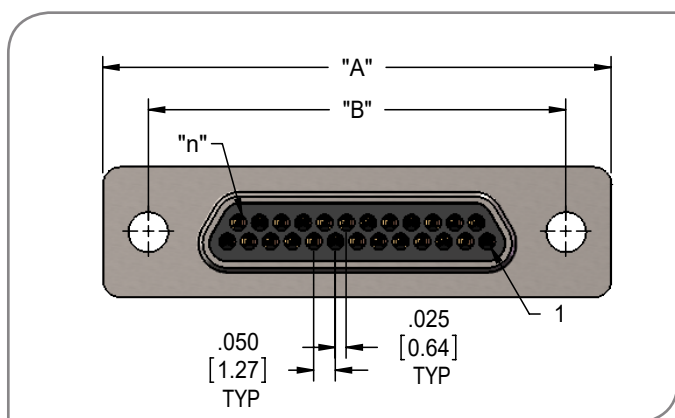


MMDX-025-N00-WD6Q18.0-2

Micro-D

Standard Micro-D

Metal Shell Micro-D Connector Saver (TYPE Z)



Contacts

English (IN)

Metric (mm)

"n"	Rows	"A"	"B"	"C" Male	"C" Female	"F"	"A"	"B"	"C" Male	"C" Female	"F"
9	2	.775	.565	.334	.400	.260	19.69	14.35	8.48	10.17	6.60
15	2	.925	.715	.484	.550	.260	23.50	18.16	12.29	13.98	6.60
21	2	1.075	.865	.634	.700	.260	27.31	21.97	16.10	17.79	6.60
25	2	1.175	.965	.734	.800	.260	29.85	24.51	18.64	20.33	6.60
31	2	1.325	1.115	.884	.950	.260	33.66	28.32	22.45	24.14	6.60
37	2	1.475	1.265	1.034	1.100	.260	37.47	32.13	26.26	27.95	6.60
51	2	1.825	1.615	1.384	1.450	.260	46.36	41.02	35.15	36.84	6.60
51	3	1.425	1.215	.984	1.050	.300	36.20	30.86	24.99	26.68	7.62

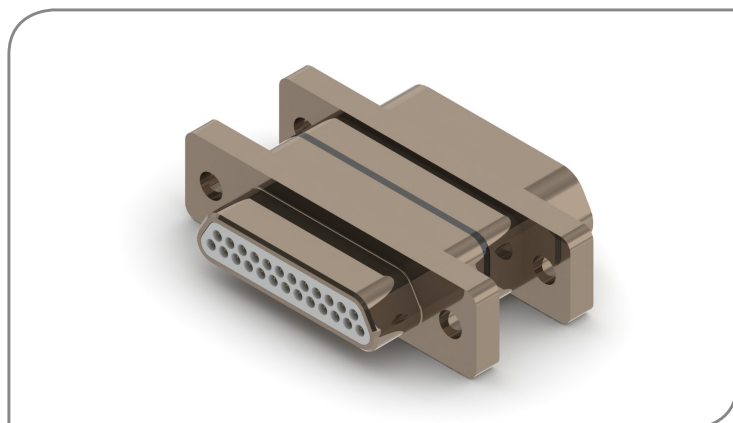
Micro-D

Standard Micro-D

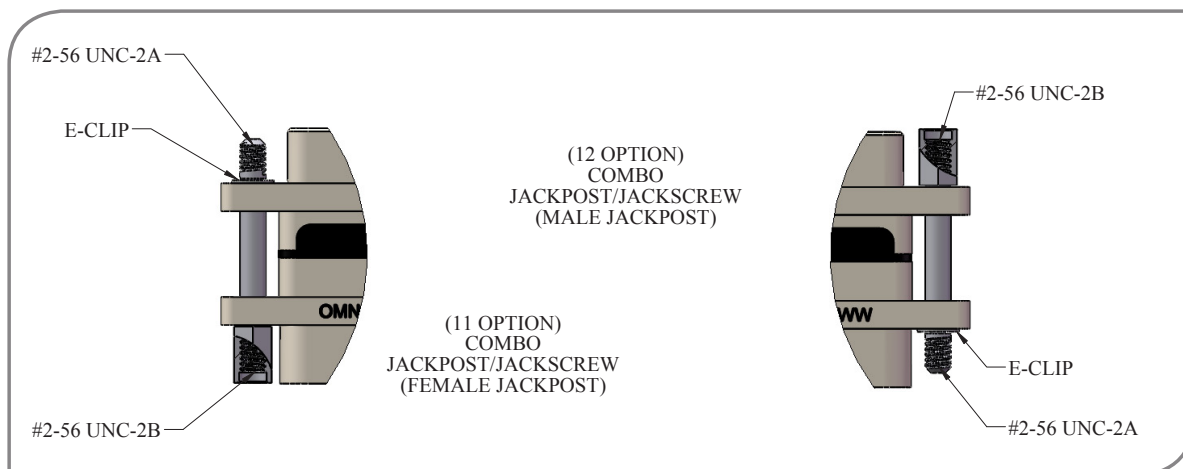
Metal Shell Micro-D Connector Saver (TYPE Z) Ordering Guide

Series	# of Contacts	Shell Material and Finish	Hardware	Options
MMD Z- Connector Saver	009	N (STD)	00 - NONE, Ø .092	HT High Temp. Epoxy (200 °C)
	015	Aluminum Shell,	HOLE (STD)	
	021	Electroless Nickel Plated	01 - FIXED JACK- POSTS (STD)	
	025	C	11 - COMBO	
	031	Aluminum Shell,	JACKPOST/ JACKSCREW	
	037	Cadmium Plated	(FEMALE JACK- POST) (STD)	RH RoHS COMPLIANT
	051*	B	12 - COMBO	
		Aluminum Shell, Black Anodized	JACKPOST/ JACKSCREW	
		P	(MALE JACK- POST) (STD)	
		Stainless Steel Shell, Passivated		

Example



MMDZ-025-N00-HT



Latching Micro-D Discrete Leadwire (TYPE WD)

Omnetics' rugged Latching Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Latching Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged designs are available in shell styles from 9 to 51 contacts. The Latching Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Latching Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700
Latch:	Stainless steel, Nickel Plated
Latch Spring:	Stainless steel
Retaining Pin:	Stainless steel

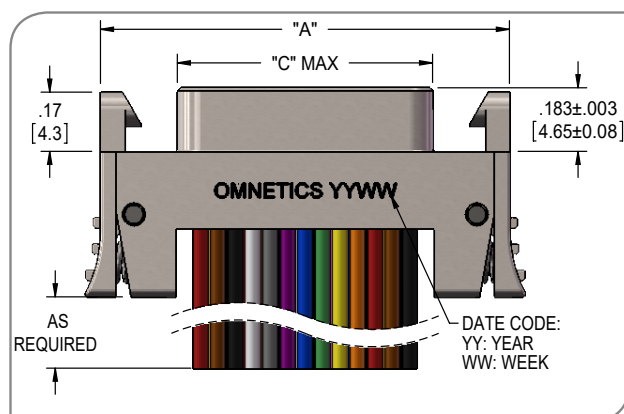
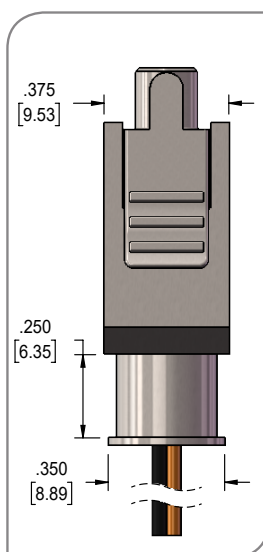
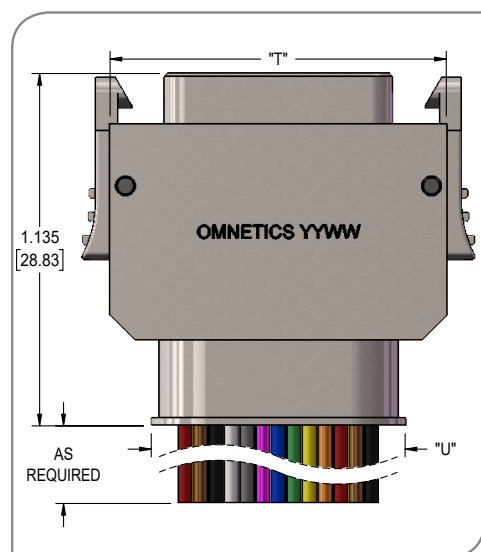
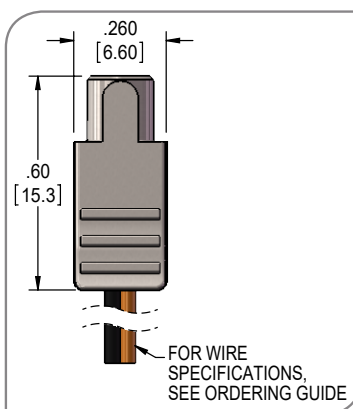
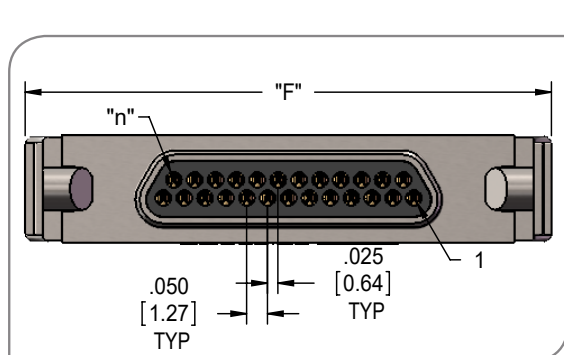
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Latching Micro-D

Latching Micro-D Male Discrete Leadwire (TYPE WD)



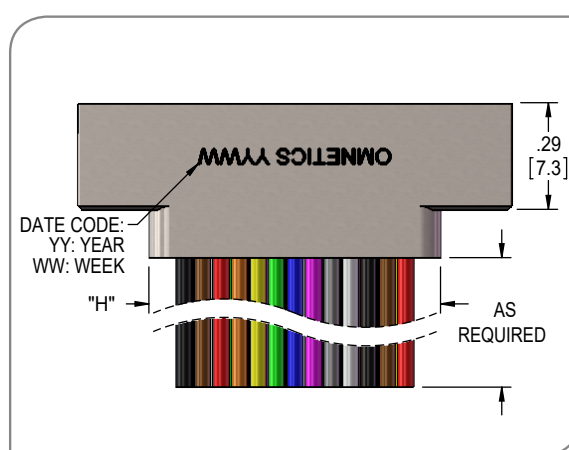
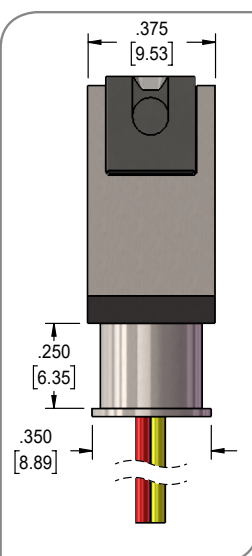
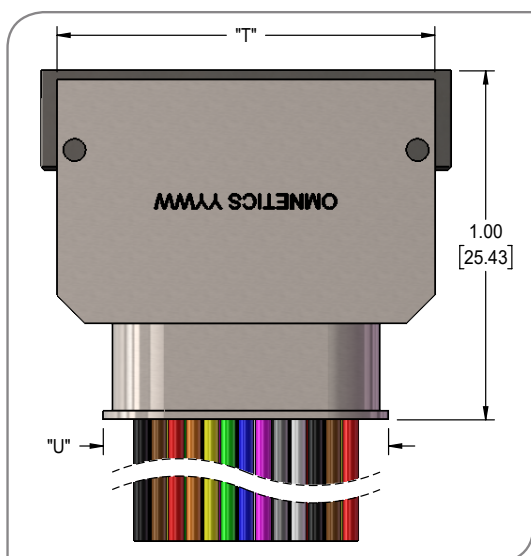
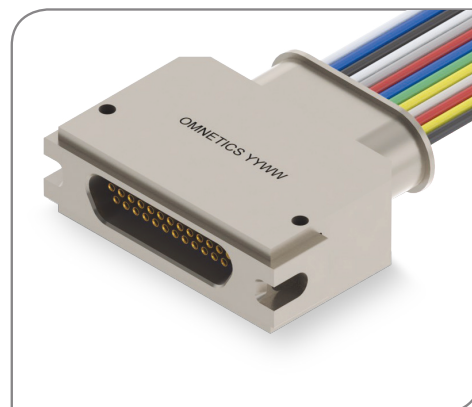
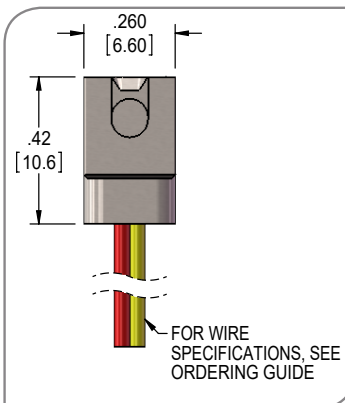
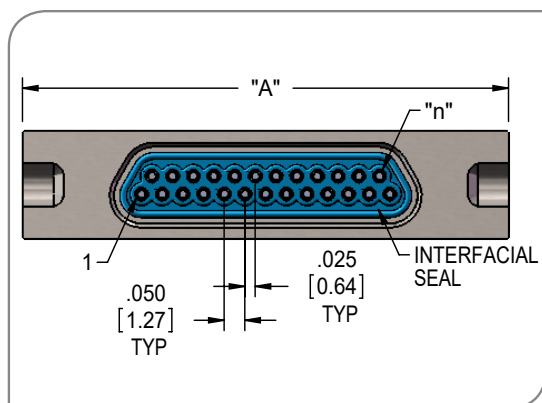
*Shown with optional backshell

Contacts		English (IN)					Metric (mm)				
"n"	Rows	"A"	"C"	"F"	"T"	"U"	"A"	"C"	"F"	"T"	"U"
9	2	.775	.334	.86	.683	.418	19.7	8.50	21.8	17.35	10.62
15	2	.925	.484	1.01	.833	.568	23.5	12.30	25.7	21.16	14.43
21	2	1.075	.634	1.16	.938	.718	27.3	16.10	29.5	24.97	18.24
25	2	1.175	.734	1.26	1.083	.818	29.8	18.60	32.0	27.51	20.78
31	2	1.325	.884	1.41	1.233	.968	33.7	22.50	35.8	31.32	24.59
37	2	1.475	1.034	1.56	1.383	1.118	37.5	26.30	39.6	35.13	28.40
51	2	1.825	1.384	1.91	1.733	1.468	46.4	35.20	48.5	44.02	37.29

Micro-D

Latching Micro-D

Latching Micro-D Female Discrete Leadwire (TYPE WD)



*Shown with optional backshell

Contacts

English (IN)

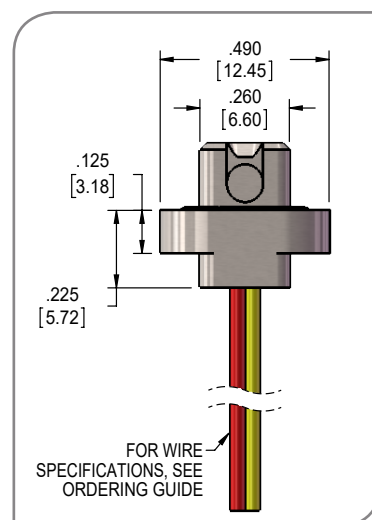
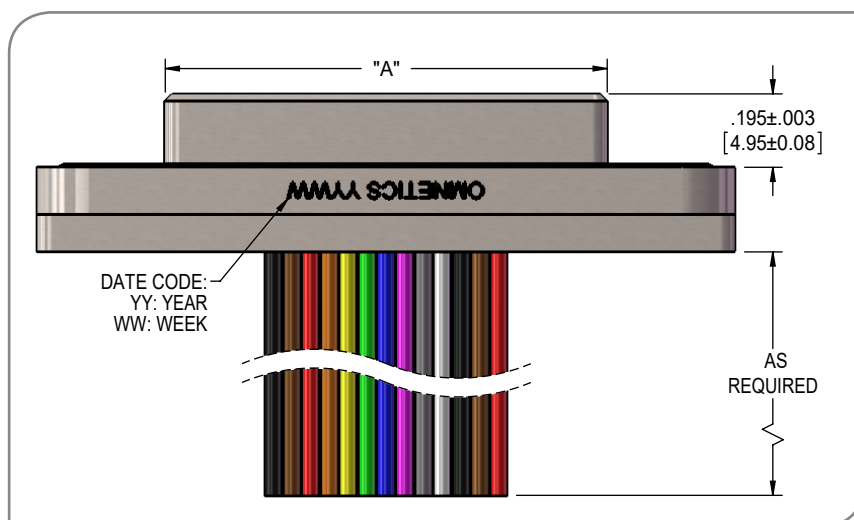
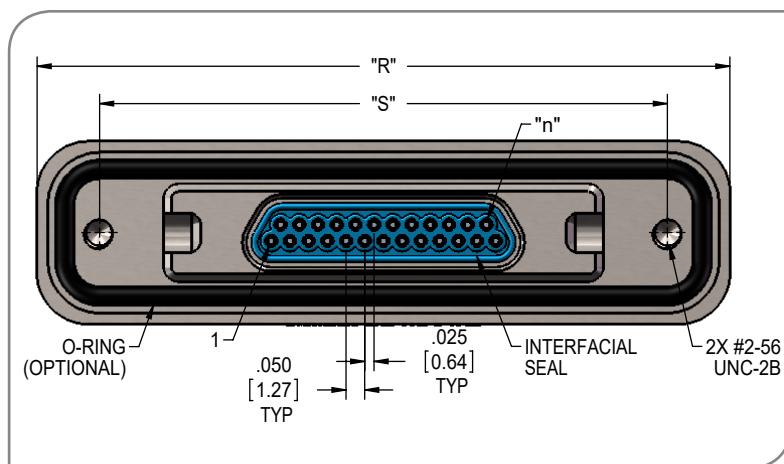
Metric (mm)

"n"	Rows	"A"	"H"	"T"	"U"	"A"	"H"	"T"	"U"
9	2	.775	.390	.683	.418	19.7	9.91	17.35	10.62
15	2	.925	.540	.833	.568	23.5	13.72	21.16	14.43
21	2	1.075	.690	.938	.718	27.3	17.53	24.97	18.24
25	2	1.175	.790	1.083	.818	29.8	20.07	27.51	20.78
31	2	1.325	.940	1.233	.968	33.7	23.88	31.32	24.59
37	2	1.475	1.090	1.383	1.118	37.5	27.69	35.13	28.40
51	2	1.825	1.440	1.733	1.468	46.4	36.58	44.02	37.29

Micro-D

Latching Micro-D

Latching Micro-D Female Discrete Leadwire Panel Mount (TYPE WD)

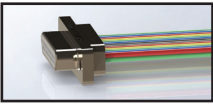
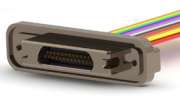


Contacts		English (IN)			Metric (mm)		
"n"	Rows	"A"	"R"	"S"	"A"	"R"	"S"
9	2	.775	1.455	1.120	19.69	36.96	28.45
15	2	.925	1.605	1.270	23.50	40.77	32.26
21	2	1.075	1.755	1.420	27.31	44.58	36.07
25	2	1.175	1.855	1.520	29.85	47.12	38.61
31	2	1.325	2.005	1.670	33.66	50.93	42.42
37	2	1.475	2.155	1.820	37.47	54.74	46.23
51	2	1.825	2.505	2.170	46.36	63.63	55.12

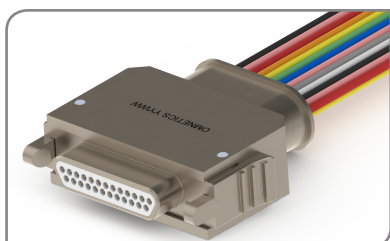
Micro-D

Latching Micro-D

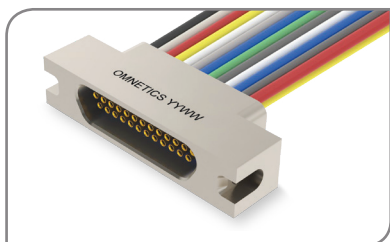
Latching Micro-D Discrete Leadwire (TYPE WD) Ordering Guide

Series	# of Contacts	Shell Material and Finish / Hardware	Termination Type	Options
LMD Male (P - Pin) 	009 015 021 025 031 037 051*	N (STD) Aluminum Shell, Electroless Nickel Plated C Aluminum Shell, Cadmium Plated B Aluminum Shell, Black Anodized P Stainless Steel Shell, Passivated	WD - Discrete Leadwire  WIRE AWG: 6 - 26 AWG (STD) 8 - 28 AWG 0 - 30 AWG WIRE TYPE: Q - NEMA HP3 (FORMERLY M16878/4 & 6) (STD) R - M22759/11 S - M22759/33 WIRE LENGTH: 18.0 - 18.00" (STD) XX.X - CUSTOM LENGTH COLOR SCHEME: 1 - 10 REPEATING (STD) 2 - BLUE 3 - WHITE 5 - YELLOW	HT High Temp. Epoxy (200 °C)  RH RoHS COMPLIANT  BS Backshell  PA (Female Only) Panel Mount, Rear, O-Ring  PB (Female Only) Panel Mount, Rear 
Female (S - Socket) 	* use 512 for two row 051	50- LATCH  51- LATCH RECEPTACLE (FEMALE ONLY) 		

Examples



LMDP-025-N50-WD6Q18.0-1-HT-BS



LMDS-025-N51-WD6Q18.0-1-HT

Standard

"n"	Rows	FEMALE	MALE
9	2	A99150-009	A98150-009
15	2	A99150-015	A98150-015
21	2	A99150-021	A98150-021
25	2	A99150-025	A98150-025
31	2	A99150-031	A98150-031
37	2	A99150-037	A98150-037
51	2	A99150-512	A98150-512

Latching Micro-D Solder Cup (TYPE SS)

Omnetics' rugged Latching Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Latching Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged designs are available in shell styles from 9 to 51 contacts. The Latching Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Latching Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700
Latch:	Stainless steel, Nickel Plated
Latch Spring:	Stainless steel
Retaining Pin:	Stainless steel

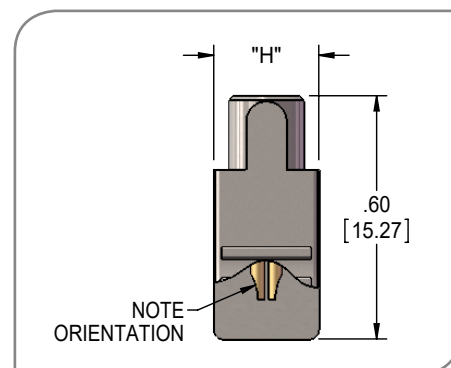
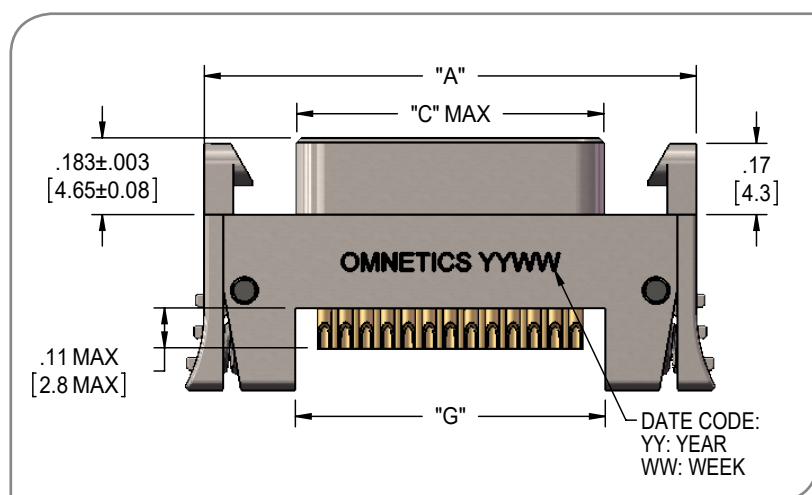
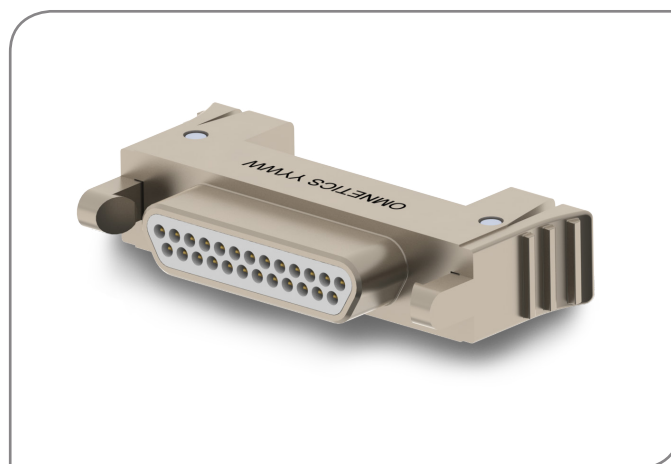
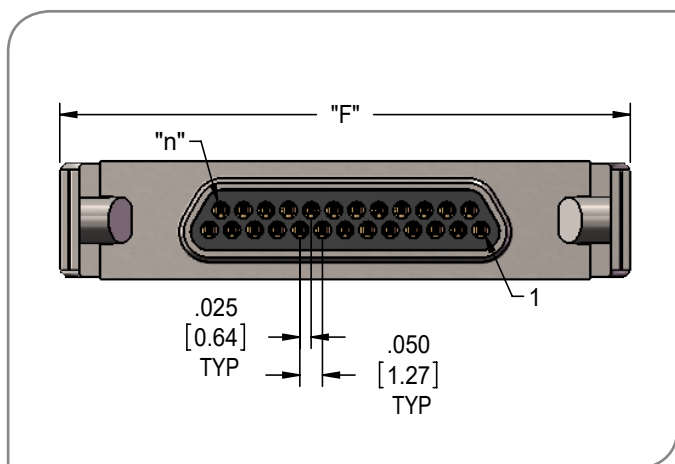
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Latching Micro-D

Latching Micro-D Male Solder Cup (TYPE SS)



Contacts

English (IN)

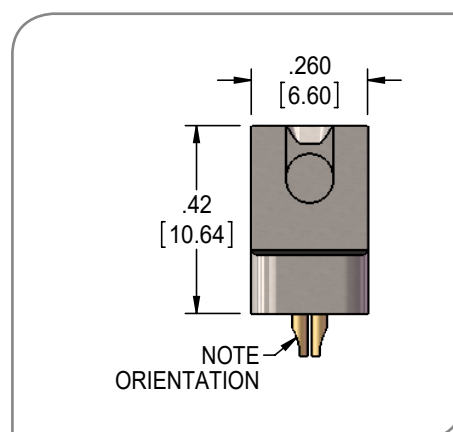
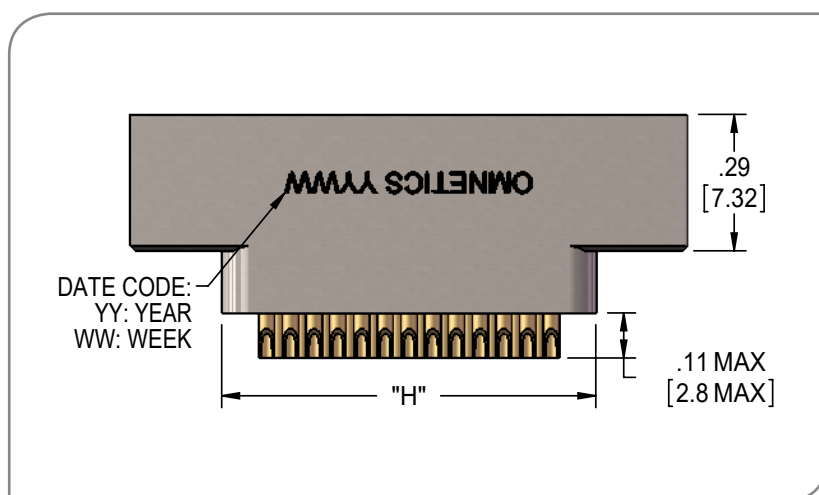
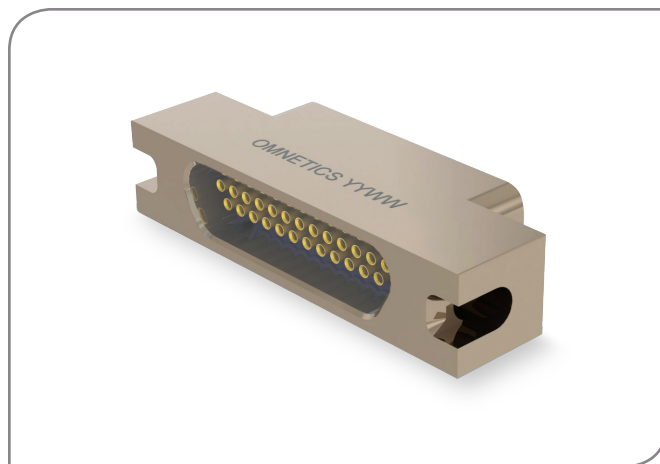
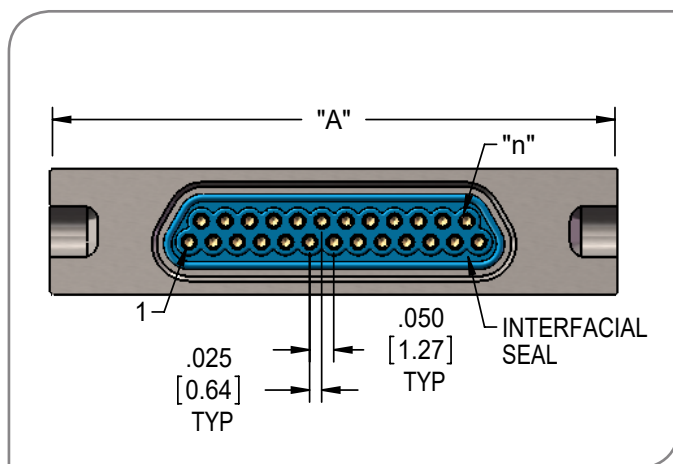
Metric (mm)

"n"	Rows	"A"	"C"	"F"	"G"	"A"	"C"	"F"	"G"
9	2	.775	.334	.86	.340	19.70	8.50	21.8	8.60
15	2	.925	.484	1.01	.490	23.50	12.30	25.7	12.40
21	2	1.075	.634	1.16	.640	27.30	16.10	29.5	16.30
25	2	1.175	.734	1.26	.740	29.80	18.60	32.0	18.80
31	2	1.325	.884	1.41	.890	33.70	22.50	35.8	22.60
37	2	1.475	1.034	1.56	1.040	37.50	26.30	39.6	26.40
51	2	1.825	1.384	1.91	1.390	46.40	35.20	48.5	35.30

Micro-D

Latching Micro-D

Latching Micro-D Female Solder Cup (TYPE SS)

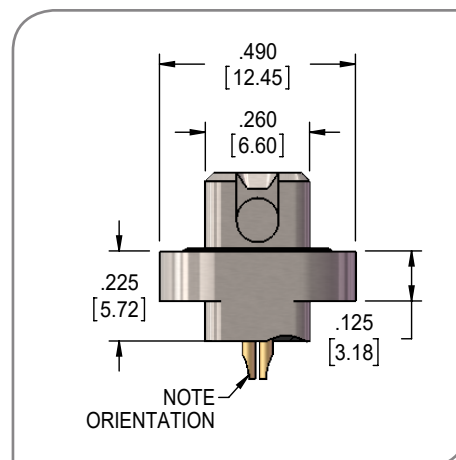
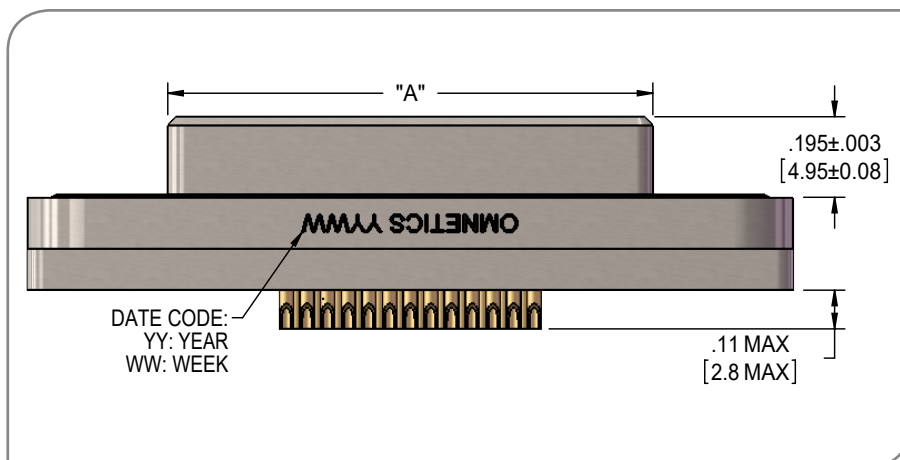
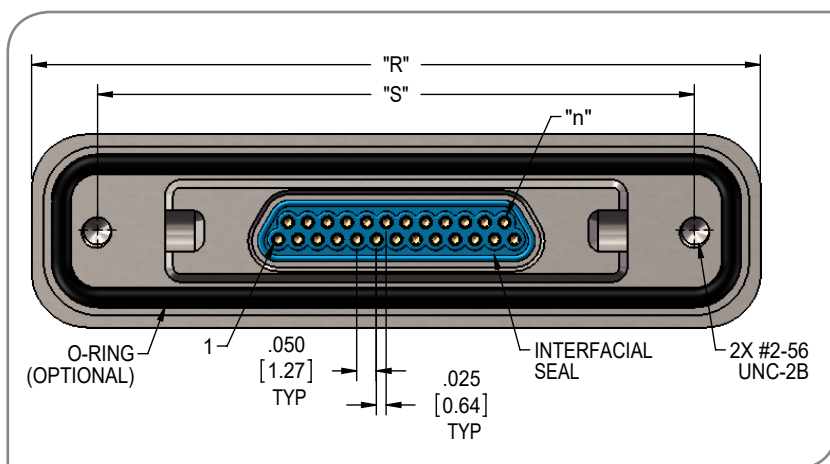


Contacts		English (IN)		Metric (mm)	
"n"	Rows	"A"	"H"	"A"	"H"
9	2	.775	.390	19.69	9.91
15	2	.925	.540	23.50	13.72
21	2	1.075	.690	27.31	17.53
25	2	1.175	.790	29.85	20.07
31	2	1.325	.940	33.66	23.88
37	2	1.475	1.090	37.47	27.69
51	2	1.825	1.440	46.36	36.58

Micro-D

Latching Micro-D

Latching Micro-D Female Solder Cup Panel Mount (TYPE SS)



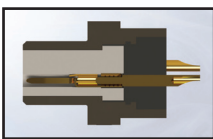
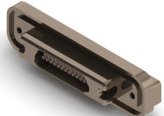
62

Contacts		English (IN)			Metric (mm)		
"n"	Rows	"A"	"R"	"S"	"A"	"R"	"S"
9	2	.775	1.455	1.120	19.69	36.96	28.45
15	2	.925	1.605	1.270	23.50	40.77	32.26
21	2	1.075	1.755	1.420	27.31	44.58	36.07
25	2	1.175	1.855	1.520	29.85	47.12	38.61
31	2	1.325	2.005	1.670	33.66	50.93	42.42
37	2	1.475	2.155	1.820	37.47	54.74	46.23
51	2	1.825	2.505	2.170	46.36	63.63	55.12

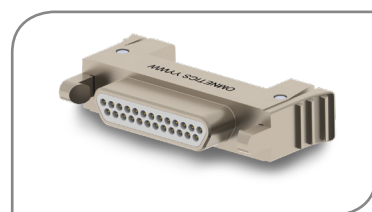
Micro-D

Latching Micro-D

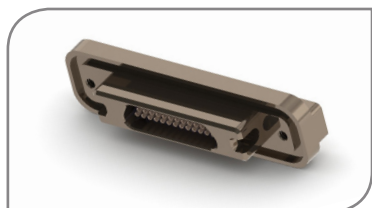
Latching Micro-D Solder Cup (TYPE SS) Ordering Guide

Series	# of Contacts	Shell Material and Finish / Hardware	Termination Type	Options
LMD Male (P - Pin) 	009	N (STD)	SS - Solder cup 	HT High Temp. Epoxy (200 °C) 
	015	Aluminum Shell,		
	021	Electroless Nickel Plated		
	025	C		
	031	Aluminum Shell,		
Female (S - Socket) 	037	Cadmium Plated		RH RoHS COMPLIANT 
	051*	B		
		Aluminum Shell,		
		Black Anodized		
		P		
		Stainless Steel Shell, Passivated		
		50- LATCH - N50 (MALE ONLY) 		PA - N51 (Female Only) Panel Mount, Rear, O-Ring 
		51- LATCH RECEPTICAL -N51 (FEMALE ONLY) 		PB - N51 (Female Only) Panel Mount, Rear 

Examples



LMDP-025-N50-SS-RH



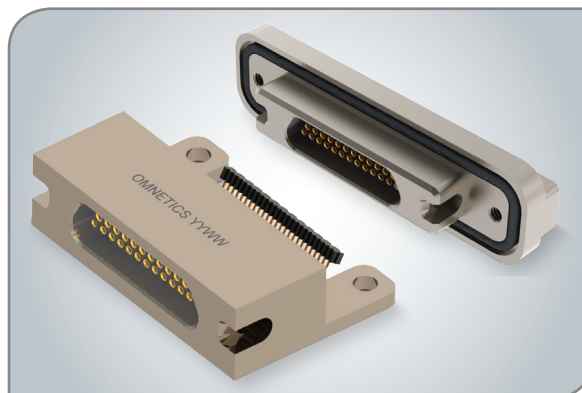
LMDS-025-N51-SS-HT-PA

Standard

"n"	Rows	FEMALE	MALE
9	2	A99080-009	A98027-009
15	2	A99080-015	A98027-015
21	2	A99080-021	A98027-021
25	2	A99080-025	A98027-025
31	2	A99080-031	A98027-031
37	2	A99080-037	A98027-037
51	2	A99080-512	A98027-512

Latching Micro-D Horizontal Surface Mount (TYPE H0)

Omnetics' rugged Latching Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Latching Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged designs are available in shell styles from 9 to 51 contacts. The Latching Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Latching Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700
Latch:	Stainless steel, Nickel Plated
Latch Spring:	Stainless steel
Retaining Pin:	Stainless steel

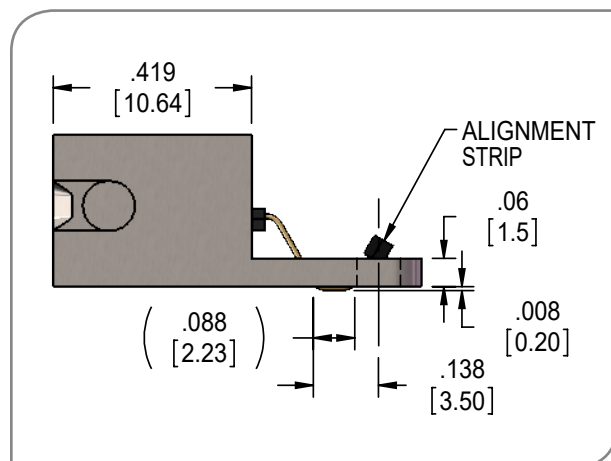
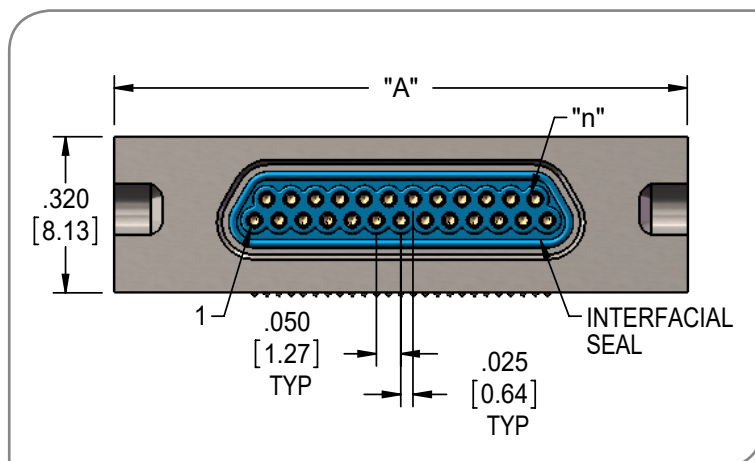
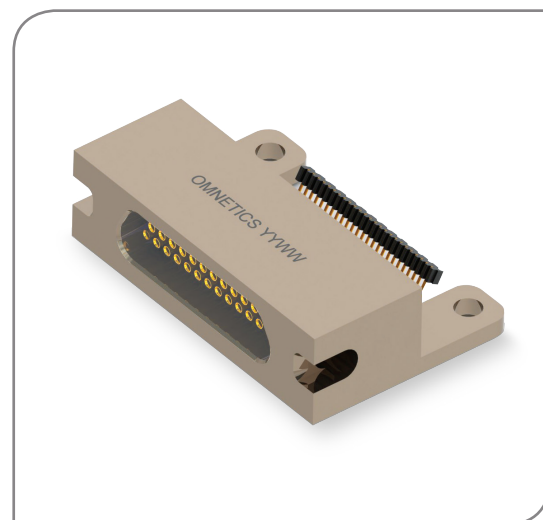
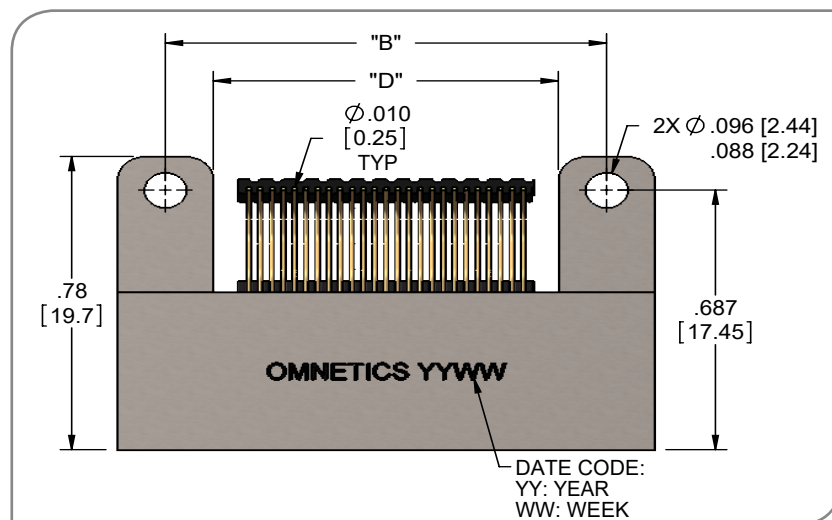
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Latching Micro-D

Latching Micro-D Female Horizontal Surface Mount (TYPE H0)

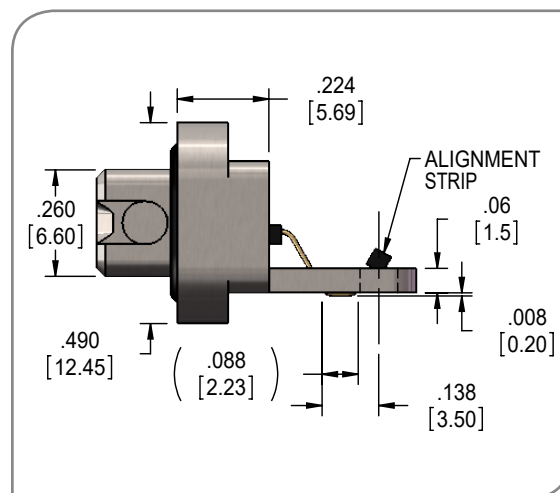
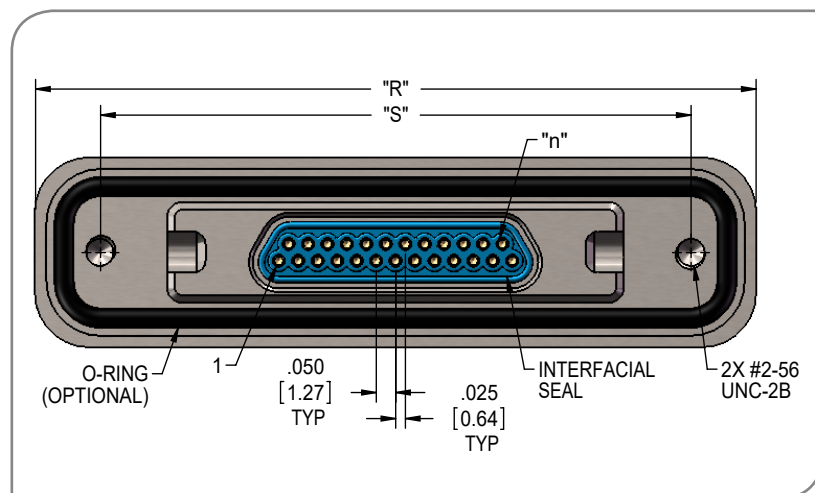
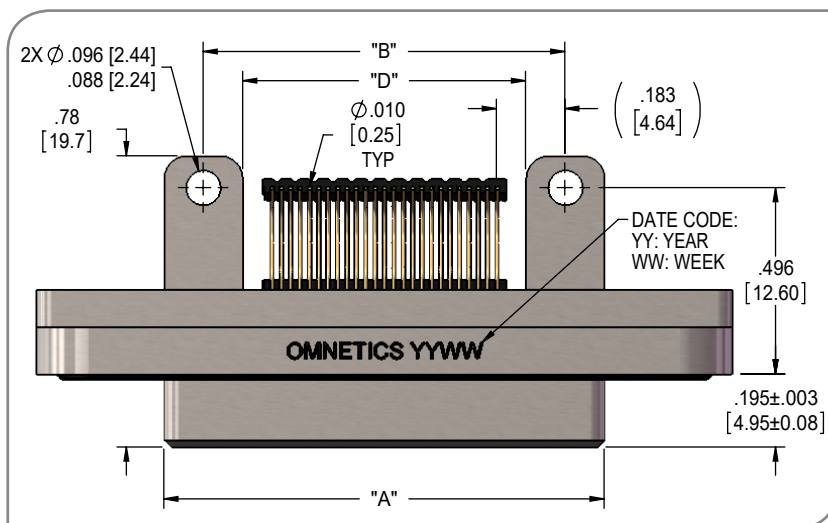


Contacts		English (IN)			Metric (mm)		
"n"	Rows	"A"	"B"	"D"	"A"	"B"	"D"
9	2	.775	.565	.355	19.69	14.35	9.02
15	2	.925	.715	.505	23.50	18.16	12.83
21	2	1.075	.865	.655	27.31	21.97	16.64
25	2	1.175	.965	.755	29.85	24.51	19.18
31	2	1.325	1.115	.905	33.66	28.32	22.99
37	2	1.475	1.265	1.055	37.47	32.13	26.80
51	2	1.825	1.615	1.405	46.36	41.02	35.69

Micro-D

Latching Micro-D

Latching Micro-D Female Horizontal Surface Mount (TYPE H0)



Contacts

English (IN)

Metric (mm)

"n"	Rows	"A"	"B"	"D"	"R"	"S"	"A"	"B"	"D"	"R"	"S"
9	2	.775	.565	.355	1.455	1.120	19.69	14.35	9.02	36.96	28.45
15	2	.925	.715	.505	1.605	1.270	23.50	18.16	12.83	40.77	32.26
21	2	1.075	.865	.655	1.755	1.420	27.31	21.97	16.64	44.58	36.07
25	2	1.175	.965	.755	1.855	1.520	29.85	24.51	19.18	47.12	38.61
31	2	1.325	1.115	.905	2.005	1.670	33.66	28.32	22.99	50.93	42.42
37	2	1.475	1.265	1.055	2.155	1.820	37.47	32.13	26.80	54.74	46.23
51	2	1.825	1.615	1.405	2.505	2.170	46.36	41.02	35.69	63.63	55.12

Micro-D

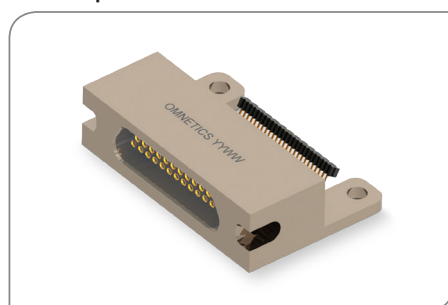
Latching Micro-D

Latching Micro-D Horizontal Surface Mount (TYPE H0) Ordering Guide

Series	# of Contacts	Shell Material and Finish / Hardware	Termination Type	Options
LMD Female (S - Socket)	009	N (STD)	H0 - Horizontal Surface Mount	HT
	015	Aluminum Shell,		High Temp.
	021	Electroless Nickel Plated		Epoxy (200 °C)
	025	C		RH
	031	Aluminum Shell,		RoHS
	037	Cadmium Plated		COMPLIANT
	051*	B		PA
		Aluminum Shell,		Panel Mount,
		Black Anodized		Rear, O-Ring
		P		PB
		Stainless Steel Shell,		Panel Mount,
		Passivated		Rear
		51- LATCH RECEPTACLE		



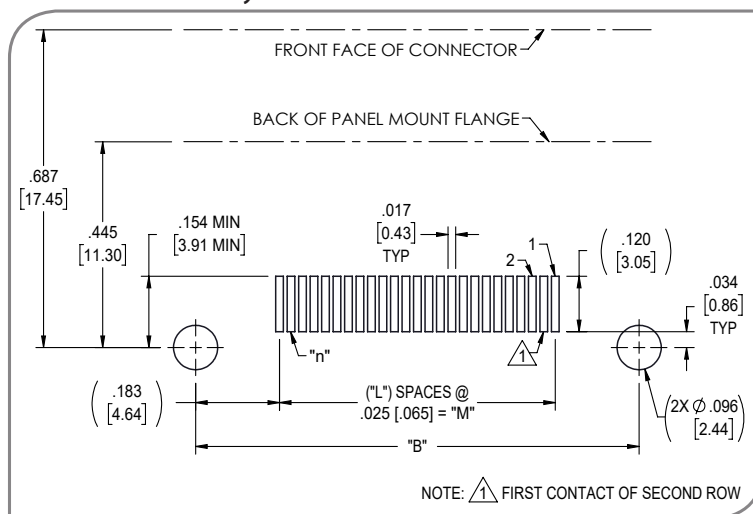
Example



LMDS-025-N51-H0-RH



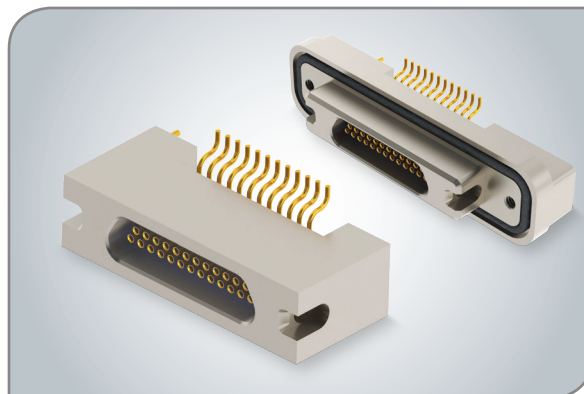
Board Mount Layout



Contacts		English (IN)			Metric (mm)		
"n"	Rows	"B"	"L"	"M"	"B"	"L"	"M"
9	2	.565	8	.200	14.35	8	5.08
15	2	.715	14	.350	18.16	14	8.89
21	2	.865	20	.500	21.97	20	12.70
25	2	.965	24	.600	24.51	24	15.24
31	2	1.115	30	.750	28.32	30	19.05
37	2	1.265	36	.900	32.13	36	22.86
51	2	1.615	50	1.250	41.02	50	31.75

Latching Micro-D Vertical Surface Mount (TYPE V0)

Omnetics' rugged Latching Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Latching Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged designs are available in shell styles from 9 to 51 contacts. The Latching Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Latching Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700
Latch:	Stainless steel, Nickel Plated
Latch Spring:	Stainless steel
Retaining Pin:	Stainless steel

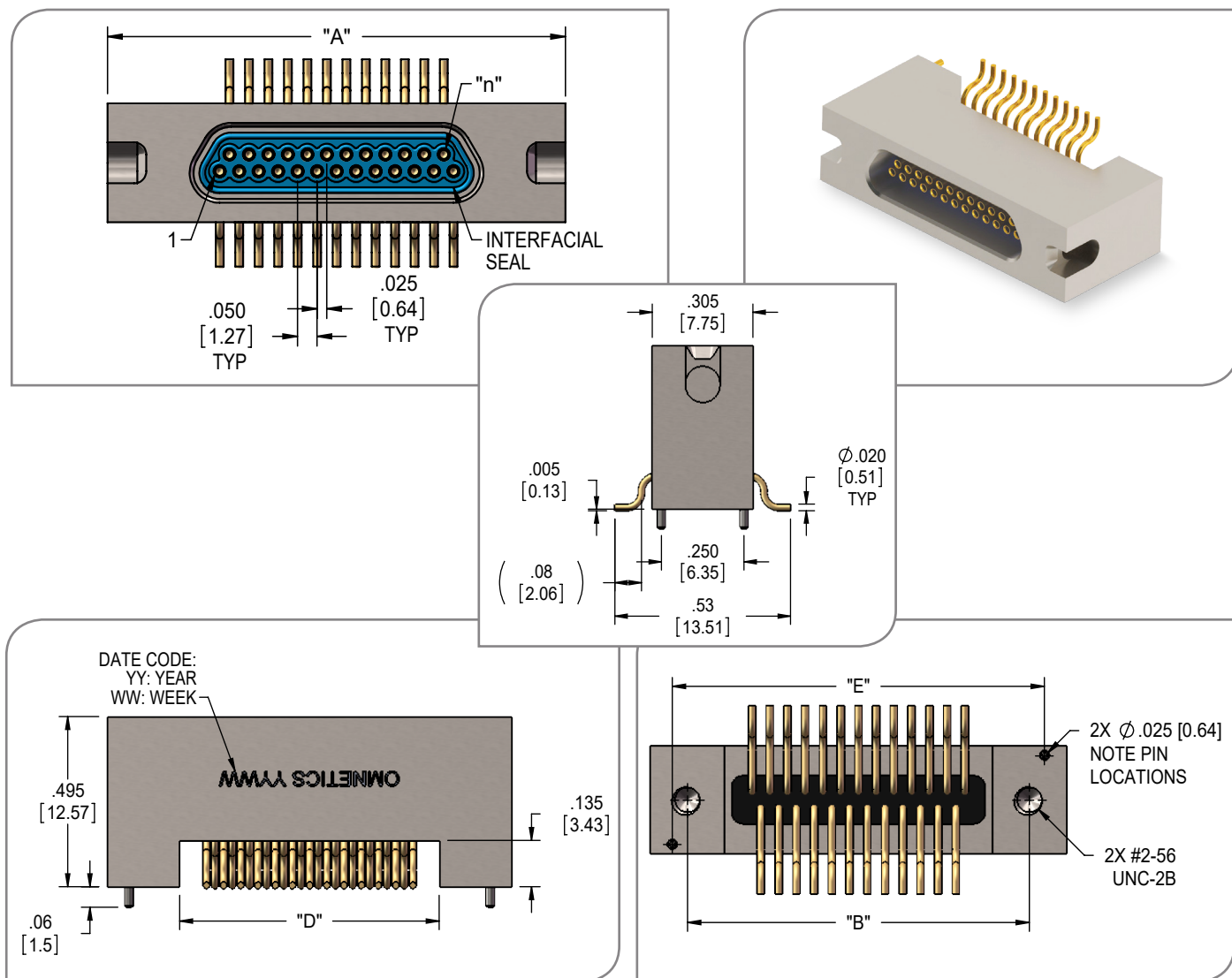
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Latching Micro-D

Latching Micro-D Female Vertical Surface Mount (TYPE V0)



Contacts

English (IN)

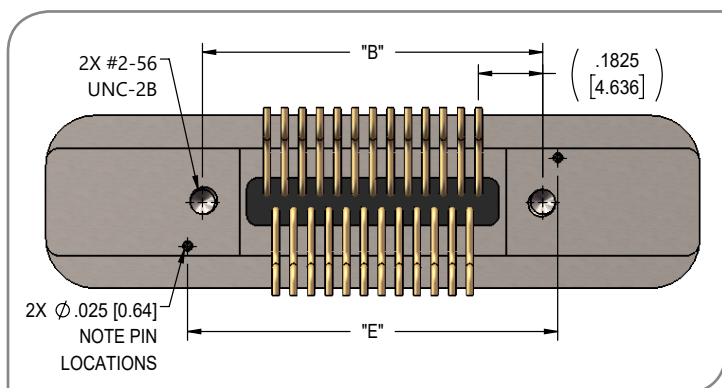
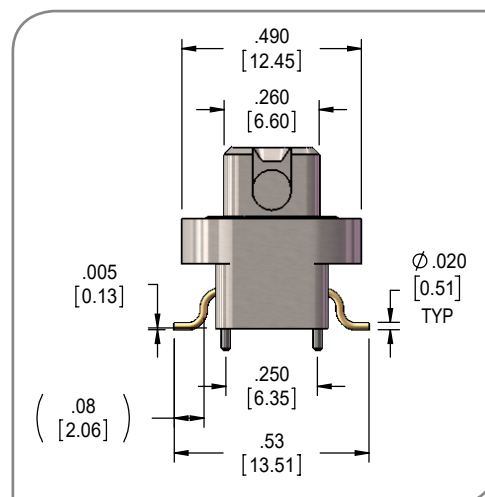
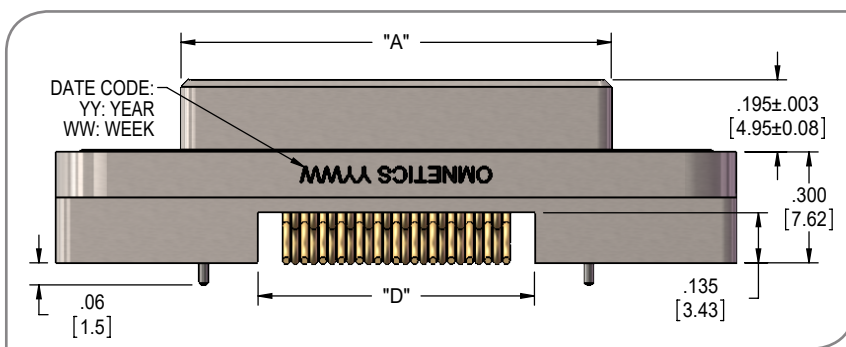
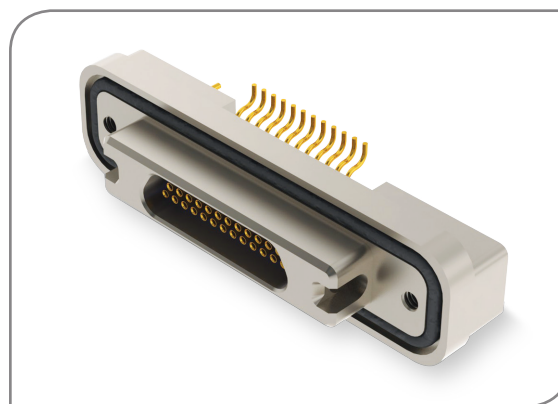
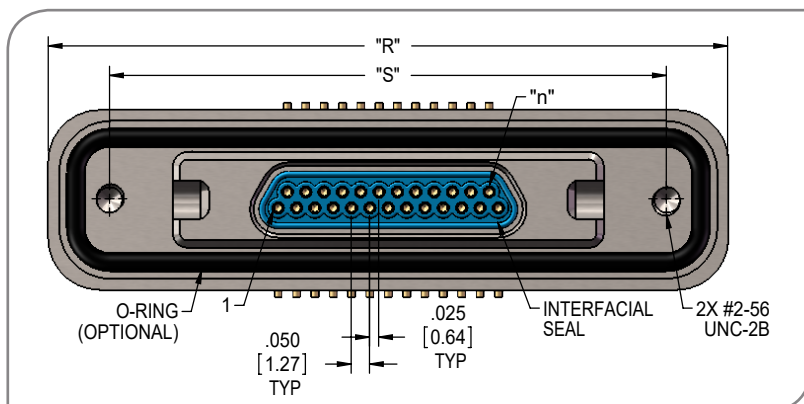
Metric (mm)

"n"	Rows	"A"	"B"	"D"	"E"	"A"	"B"	"D"	"E"
9	2	.775	.565	.355	.650	19.69	14.35	9.02	16.51
15	2	.925	.715	.505	.800	23.50	18.16	12.83	20.32
21	2	1.075	.865	.655	.950	27.31	21.97	16.64	24.13
25	2	1.175	.965	.755	1.050	29.85	24.51	19.18	26.67
31	2	1.325	1.115	.905	1.200	33.66	28.32	22.99	30.48
37	2	1.475	1.265	1.055	1.350	37.47	32.13	26.80	34.29
51	2	1.825	1.615	1.405	1.700	46.36	41.02	35.69	43.18

Micro-D

Latching Micro-D

Latching Female Micro-D Vertical Surface Mount Panel Mount (TYPE V0)



Contacts

English (IN)

Metric (mm)

"n"	Rows	"A"	"B"	"D"	"E"	"R"	"S"	"A"	"B"	"D"	"E"	"R"	"S"
9	2	.775	.565	.355	.650	1.455	1.120	19.69	14.35	9.02	16.51	36.96	28.45
15	2	.925	.715	.505	.800	1.605	1.270	23.50	18.16	12.83	20.32	40.77	32.26
21	2	1.075	.865	.655	.950	1.755	1.420	27.31	21.97	16.64	24.13	44.58	36.07
25	2	1.175	.965	.755	1.050	1.855	1.520	29.85	24.51	19.18	26.67	47.12	38.61
31	2	1.325	1.115	.905	1.200	2.005	1.670	33.66	28.32	22.99	30.48	50.93	42.42
37	2	1.475	1.265	1.055	1.350	2.155	1.820	37.47	32.13	26.80	34.29	54.74	46.23
51	2	1.825	1.615	1.405	1.700	2.505	2.170	46.36	41.02	35.69	43.18	63.63	55.12

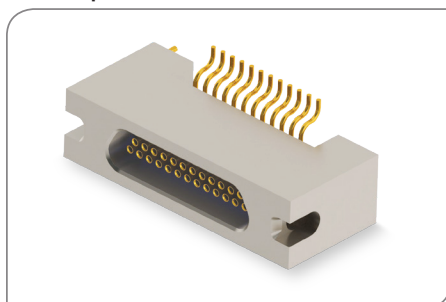
Micro-D

Latching Micro-D

Latching Micro-D Vertical Surface Mount (TYPE V0) Ordering Guide

Series	# of Contacts	Shell Material and Finish / Hardware	Termination Type	Options
LMD Female (S - Socket)	009	N (STD)	V0 - Vertical Surface Mount	HT High Temp. Epoxy (200 °C)
	015	Aluminum Shell,		
	021	Electroless Nickel Plated		
	025	C		
	031	Aluminum Shell,		
	037	Cadmium Plated		
051* * use 512 for two row 051		B		RH RoHS COMPLIANT
		Aluminum Shell,		
		Black Anodized		
		P		
		Stainless Steel Shell,		PA Panel Mount, Rear, O-Ring
		Passivated		
		51- LATCH RECEPTACLE		PB Panel Mount, Rear

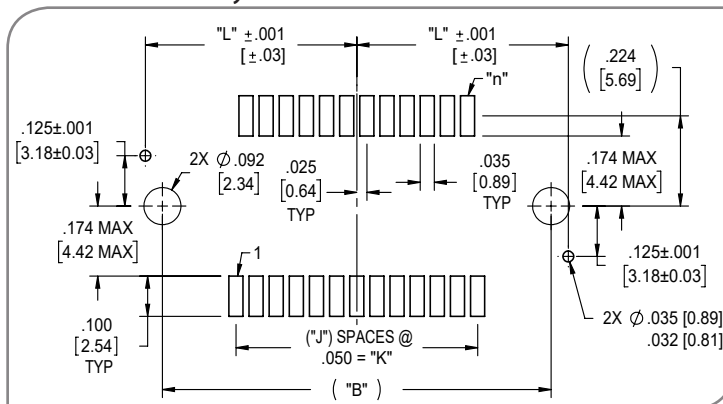
Example



LMDS-025-N51-V0



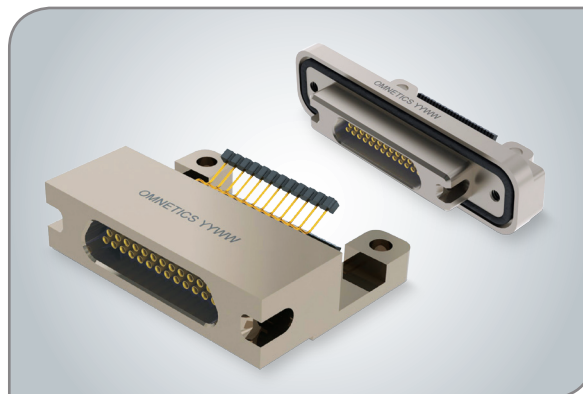
Board Mount Layout



Contacts		English (IN)				Metric (mm)			
"n"	Rows	"B"	"J"	"K"	"N"	"B"	"J"	"K"	"N"
9	2	.565	4	.200	.325	14.35	4	5.08	8.26
15	2	.715	7	.350	.400	18.16	7	8.89	10.16
21	2	.865	10	.500	.475	21.97	10	12.70	12.07
25	2	.965	12	.600	.525	24.51	12	15.24	13.34
31	2	1.115	15	.750	.600	28.32	15	19.05	15.24
37	2	1.265	18	.900	.675	32.13	18	22.86	17.15
51	2	1.615	25	1.250	.850	41.02	25	31.75	21.95

Latching Micro-D Card Edge Surface Mount (TYPE C0)

Omnetics' rugged Latching Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Latching Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged designs are available in shell styles from 9 to 51 contacts. The Latching Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Latching Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700
Latch:	Stainless steel, Nickel Plated
Latch Spring:	Stainless steel
Retaining Pin:	Stainless steel

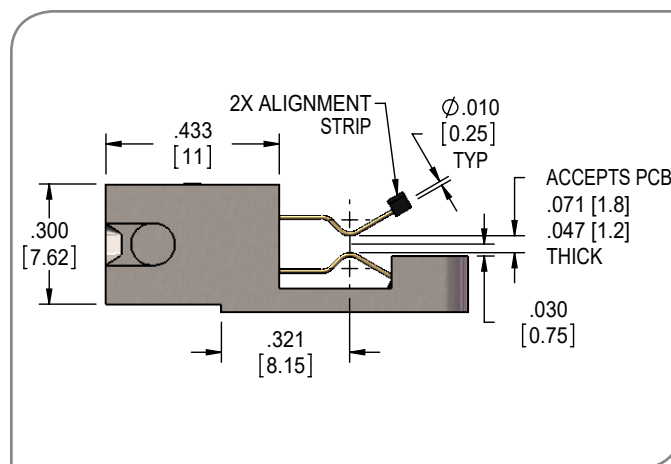
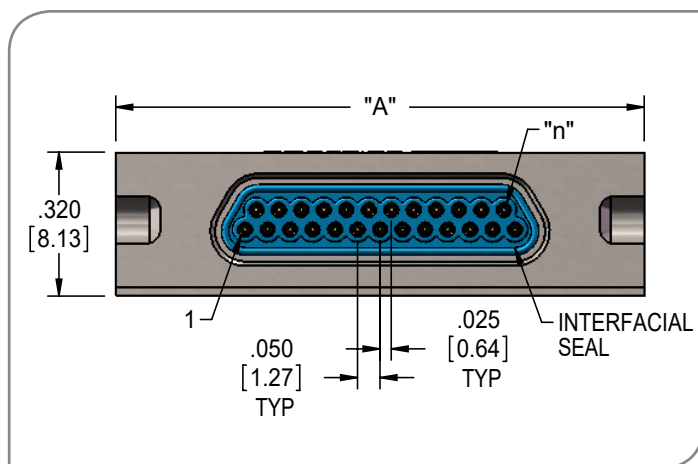
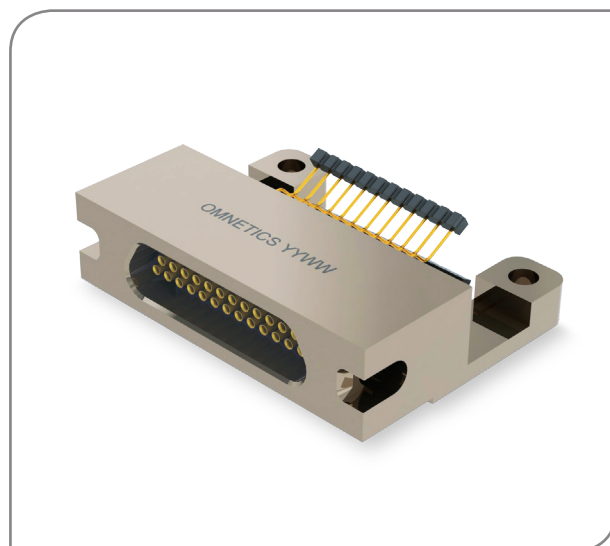
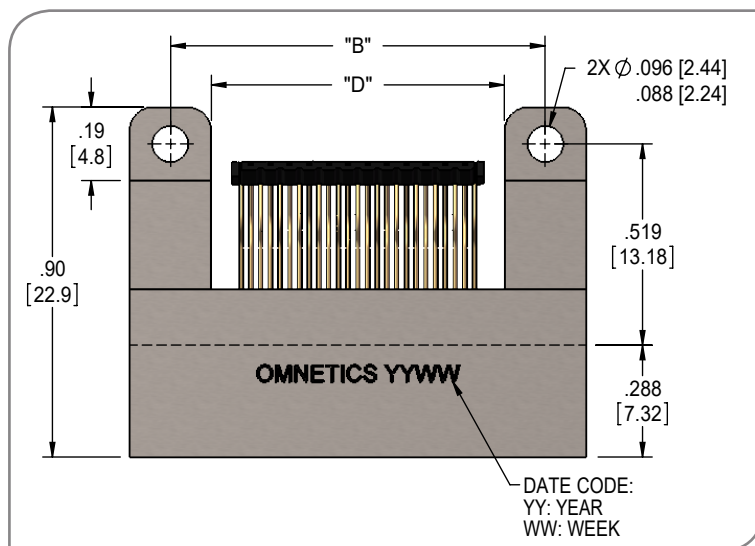
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Latching Micro-D

Latching Micro-D Female Card Edge Surface Mount (TYPE C0)

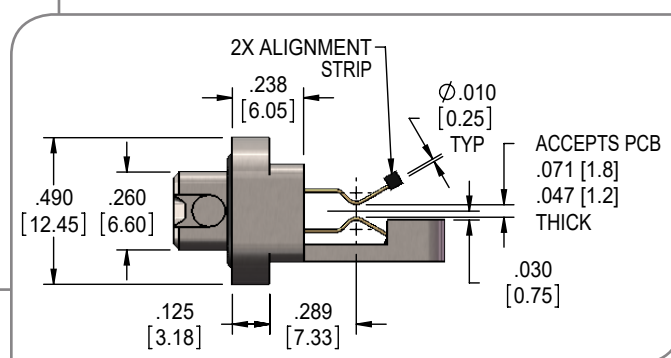
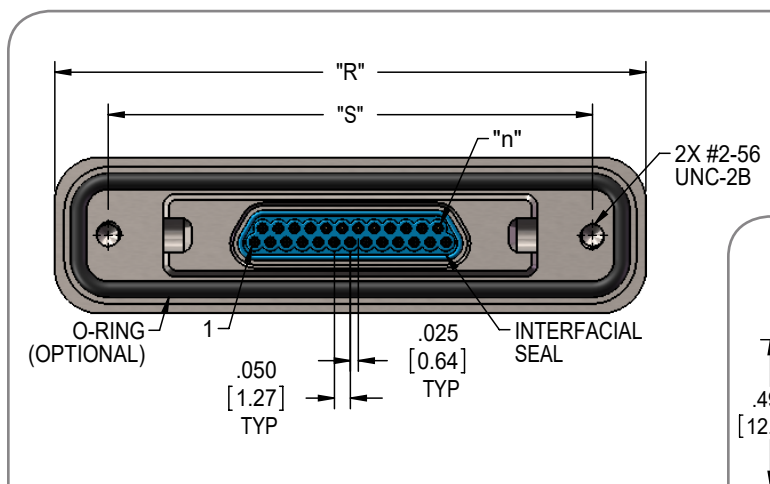
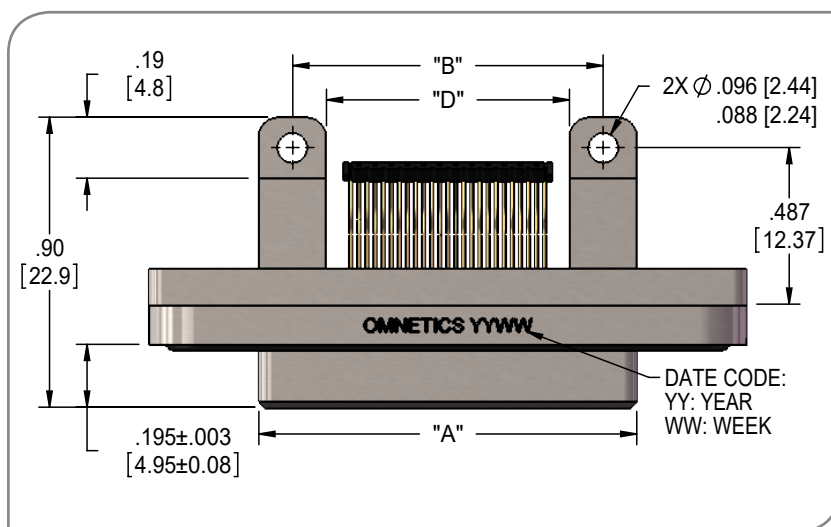


Contacts		English (IN)			Metric (mm)		
"n"	Rows	"A"	"B"	"D"	"A"	"B"	"D"
9	2	.775	.565	.355	19.69	14.35	9.02
15	2	.925	.715	.505	23.50	18.16	12.83
21	2	1.075	.865	.655	27.31	21.97	16.64
25	2	1.175	.965	.755	29.85	24.51	19.18
31	2	1.325	1.115	.905	33.66	28.32	22.99
37	2	1.475	1.265	1.055	37.47	32.13	26.80
51	2	1.825	1.615	1.405	46.36	41.02	35.69

Micro-D

Latching Micro-D

Latching Micro-D Card Edge Surface Mount Panel Mount (TYPE C0)



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Contacts		English (IN)					Metric (mm)				
"n"	Rows	"A"	"B"	"D"	"R"	"S"	"A"	"B"	"D"	"R"	"S"
9	2	.775	.565	.355	1.455	1.230	19.69	14.35	9.02	36.96	31.24
15	2	.925	.715	.505	1.605	1.380	23.50	18.16	12.83	40.77	35.05
21	2	1.075	.865	.655	1.755	1.530	27.31	21.97	16.64	44.58	38.86
25	2	1.175	.965	.755	1.855	1.630	29.85	24.51	19.18	47.12	41.40
31	2	1.325	1.115	.905	2.005	1.780	33.66	28.32	22.99	50.93	45.21
37	2	1.475	1.265	1.055	2.155	1.930	37.47	32.13	26.80	54.74	49.02
51	2	1.825	1.615	1.405	2.505	2.280	46.36	41.02	35.69	63.63	57.91

Micro-D

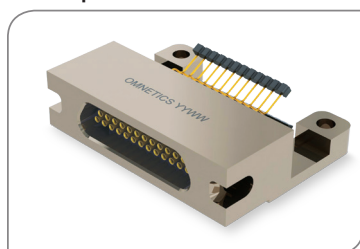
Latching Micro-D

Latching Micro-D Card Edge Surface Mount (TYPE C0) Ordering Guide

Series	# of Contacts	Shell Material and Finish / Hardware	Termination Type	Options
LMD Female (S - Socket)	009 015 021 025 031 037 051*	N (STD) Aluminum Shell, Electroless Nickel Plated C Aluminum Shell, Cadmium Plated B Aluminum Shell, Black Anodized P Stainless Steel Shell, Passivated	C0 - Card Edge Surface Mount	HT High Temp. Epoxy (200 °C) RH RoHS COMPLIANT PA Panel Mount, Rear, O-Ring PB Panel Mount, Rear

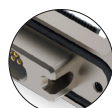


Example

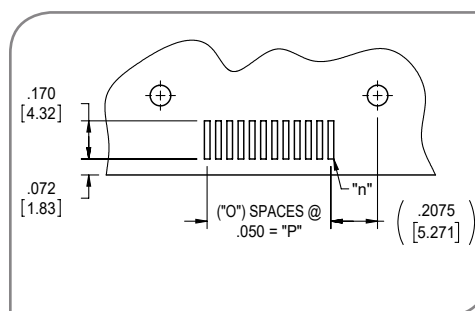
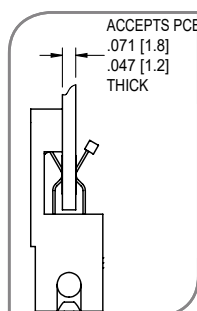
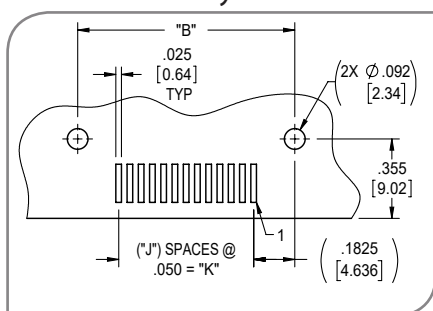


LMDS-025-N51-C0-HT

51- LATCH RECEPTACLE



Board Mount Layout



Contacts		English (IN)					Metric (mm)				
"n"	Rows	"B"	"J"	"K"	"O"	"P"	"B"	"J"	"K"	"O"	"P"
9	2	.565	4	.200	3	.150	14.35	4	5.08	3	3.81
15	2	.715	7	.350	6	.300	18.16	7	8.89	6	7.62
21	2	.865	10	.500	9	.450	21.97	10	12.70	9	11.43
25	2	.965	12	.600	11	.550	24.51	12	15.24	11	13.97
31	2	1.115	15	.750	14	.700	28.32	15	19.05	14	17.78
37	2	1.265	18	.900	17	.850	32.13	18	22.86	17	21.59
51	2	1.615	25	1.250	24	1.200	41.02	25	31.75	24	30.48

Latching Micro-D Flex Tail (TYPE FF)

Omnetics' rugged Latching Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Latching Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged designs are available in shell styles from 9 to 51 contacts. The Latching Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Latching Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700
Latch:	Stainless steel, Nickel Plated
Latch Spring:	Stainless steel
Retaining Pin:	Stainless steel

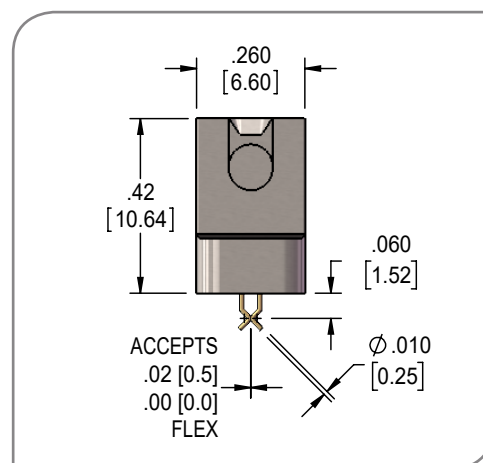
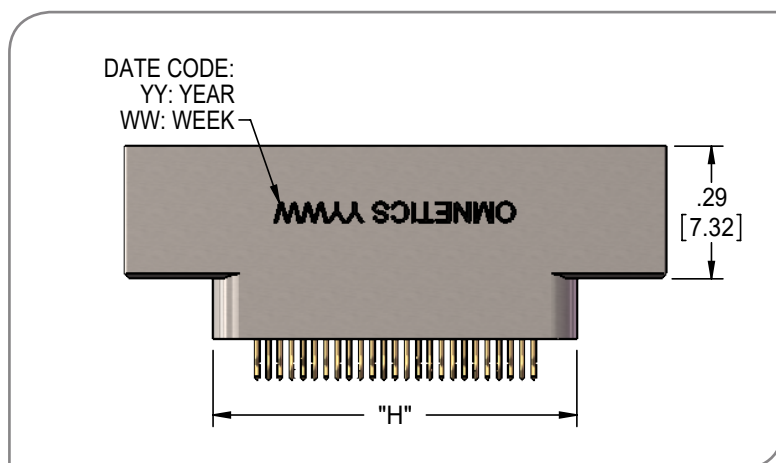
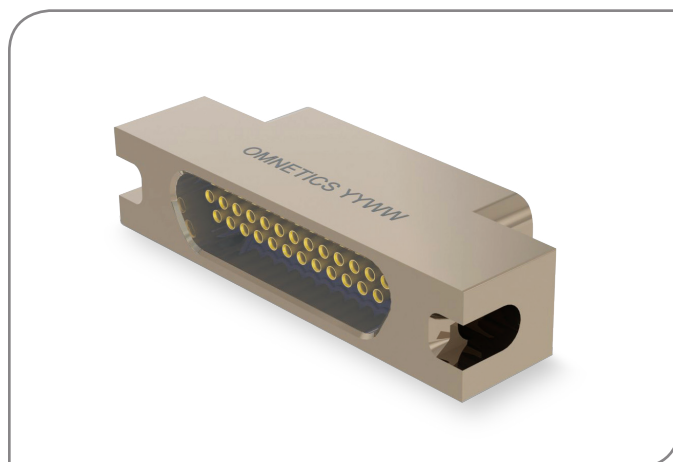
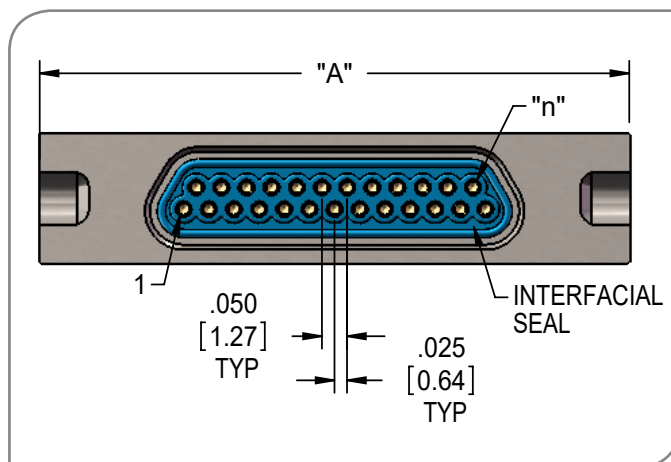
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Latching Micro-D

Latching Micro-D Female Flex Tail (TYPE FF)

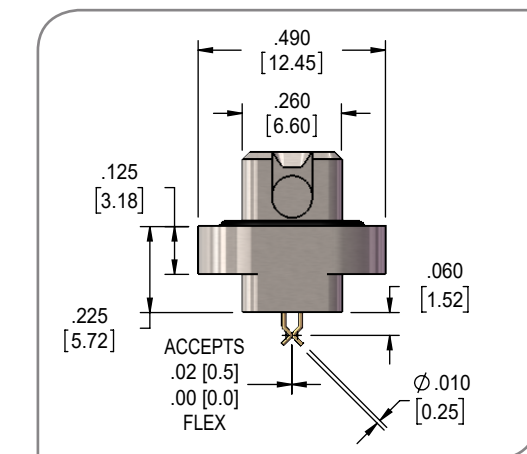
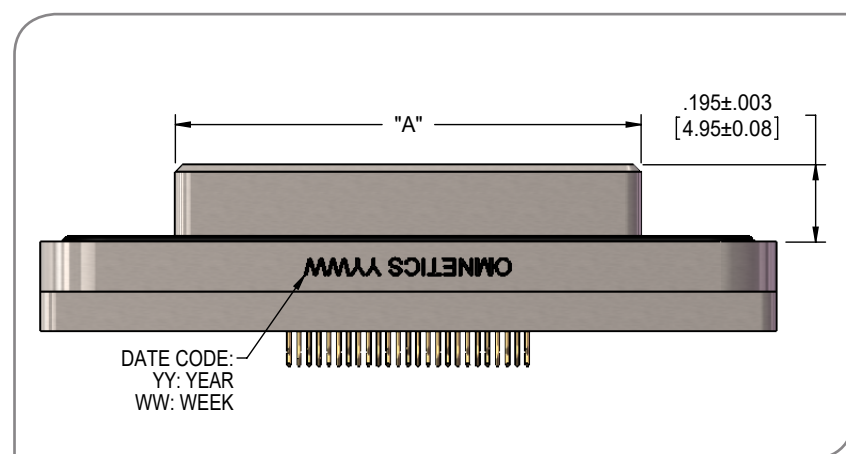
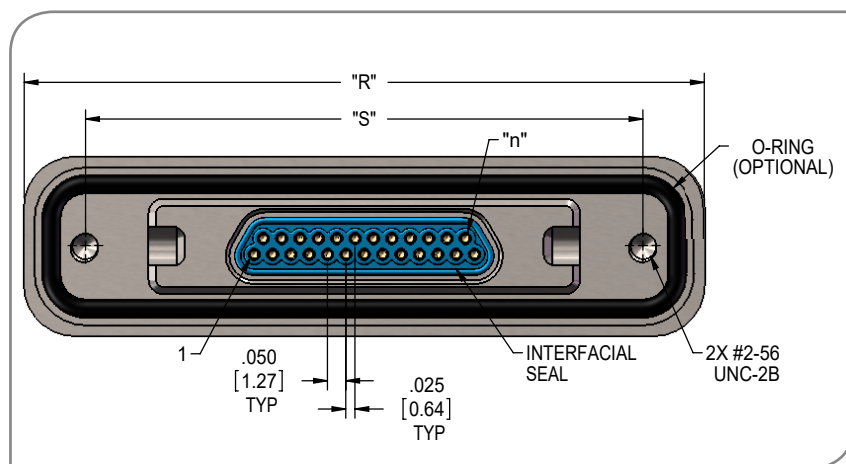


Contacts		English (IN)		Metric (mm)	
"n"	Rows	"A"	"H"	"A"	"H"
9	2	.775	.390	19.69	9.91
15	2	.925	.540	23.50	13.72
21	2	1.075	.690	27.31	17.53
25	2	1.175	.790	29.85	20.07
31	2	1.325	.940	33.66	23.88
37	2	1.475	1.090	37.47	27.69
51	2	1.825	1.440	46.36	36.58

Micro-D

Latching Micro-D

Latching Micro-D Female Flex Tail Panel Mount (TYPE FF)



Contacts

English (IN)

Metric (mm)

"n"	Rows	"A"	"R"	"S"	"A"	"R"	"S"
9	2	.775	1.455	1.120	19.69	36.96	28.45
15	2	.925	1.605	1.270	23.50	40.77	32.26
21	2	1.075	1.755	1.420	27.31	44.58	36.07
25	2	1.175	1.855	1.520	29.85	47.12	38.61
31	2	1.325	2.005	1.670	33.66	50.93	42.42
37	2	1.475	2.155	1.820	37.47	54.74	46.23
51	2	1.825	2.505	2.170	46.36	63.63	52.12

Latching Micro-D Flex Tail (TYPE FF) Ordering Guide

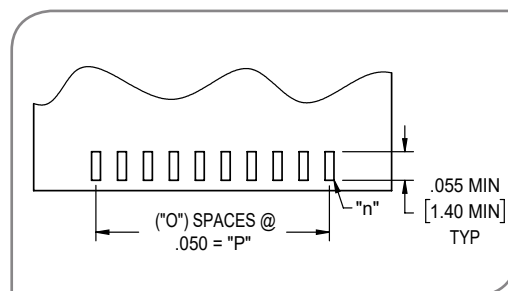
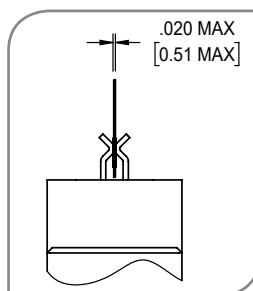
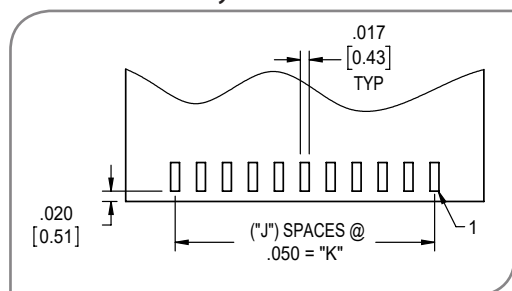
Series	# of Contacts	Shell Material and Finish / Hardware	Termination Type	Options
LMD Female (S - Socket)	009	N (STD)	FF - Flex Tail	HT
	015	Aluminum Shell,		High Temp.
	021	Electroless Nickel Plated		Epoxy (200 °C)
	025	C		RH
	031	Aluminum Shell,		RoHS
	037	Cadmium Plated		COMPLIANT
	051*	B		PA
* use 512 for two row 051		Aluminum Shell,		Panel Mount, Rear,
		Black Anodized		O-Ring
		P		PB
		Stainless Steel Shell,		Panel Mount, Rear
		Passivated		
		51- LATCH RECEPTACLE		

Example



LMDS-025-N51-FF-RH

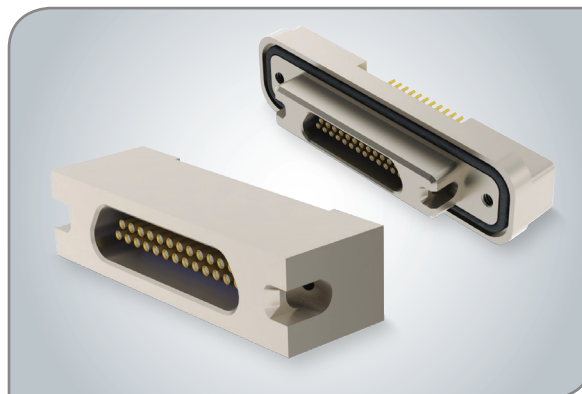
Board Mount Layout



Contacts		English (IN)				Metric (mm)			
"n"	Rows	"J"	"K"	"O"	"P"	"J"	"K"	"O"	"P"
9	2	4	.200	3	.150	4	5.08	3	3.81
15	2	7	.350	6	.300	7	8.89	6	7.62
21	2	10	.500	9	.450	10	12.70	9	11.43
25	2	12	.600	11	.550	12	15.24	11	13.97
31	2	15	.750	14	.700	15	19.05	14	17.78
37	2	18	.900	17	.850	18	22.86	17	21.59
51	2	25	1.250	24	1.200	25	31.75	24	30.48

Latching Micro-D Straight Thru-Hole (TYPE S2)

Omnetics' rugged Latching Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Latching Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged designs are available in shell styles from 9 to 51 contacts. The Latching Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Latching Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700
Latch:	Stainless steel, Nickel Plated
Latch Spring:	Stainless steel
Retaining Pin:	Stainless steel

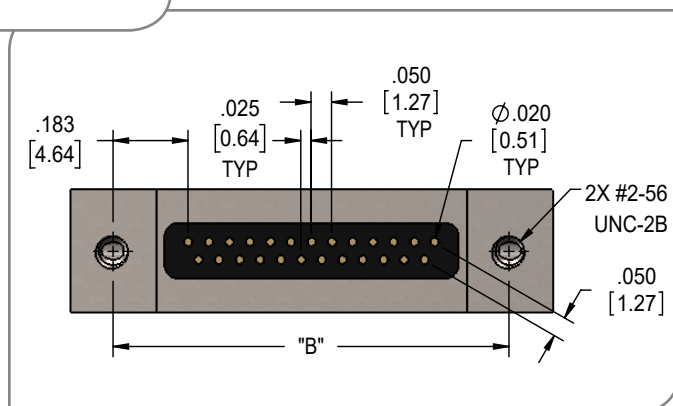
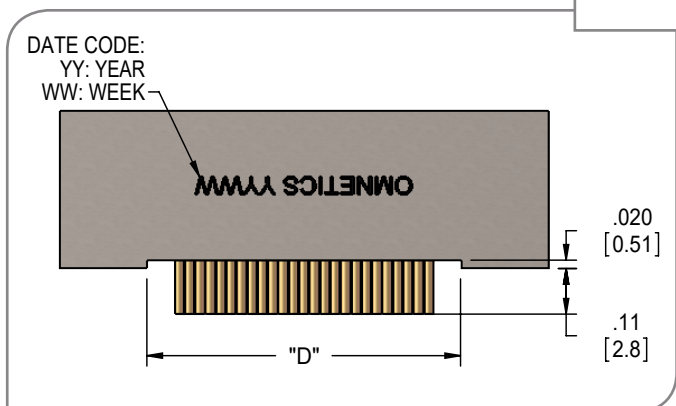
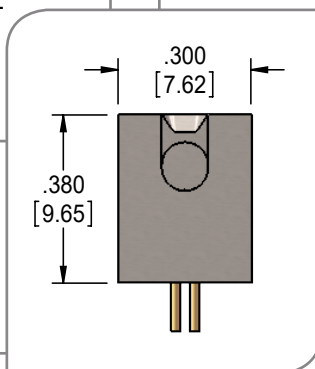
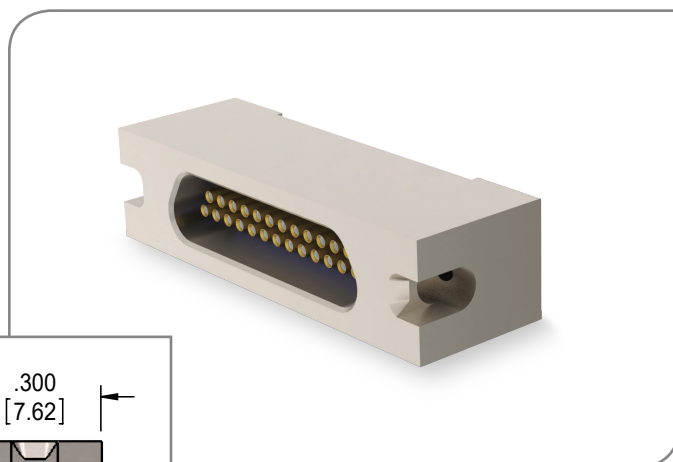
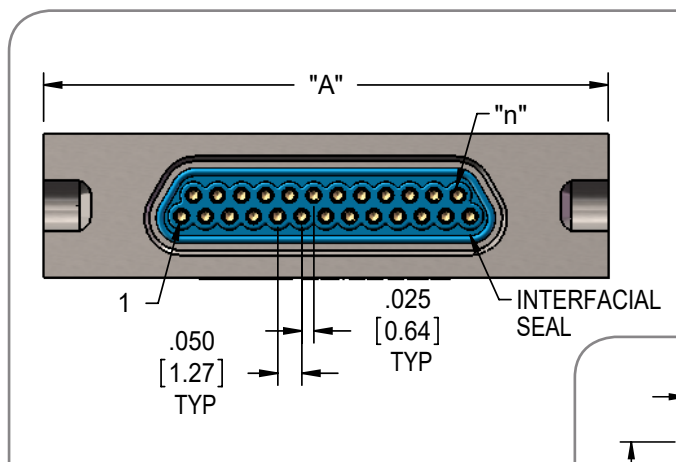
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Latching Micro-D

Latching Micro-D Female Straight Thru-Hole (TYPE S2)



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Contacts

English (IN)

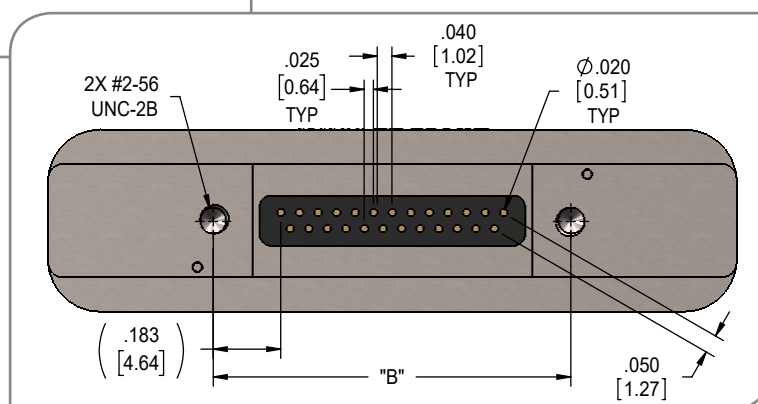
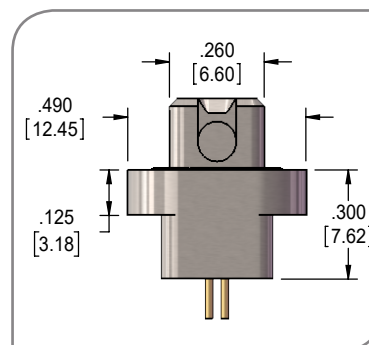
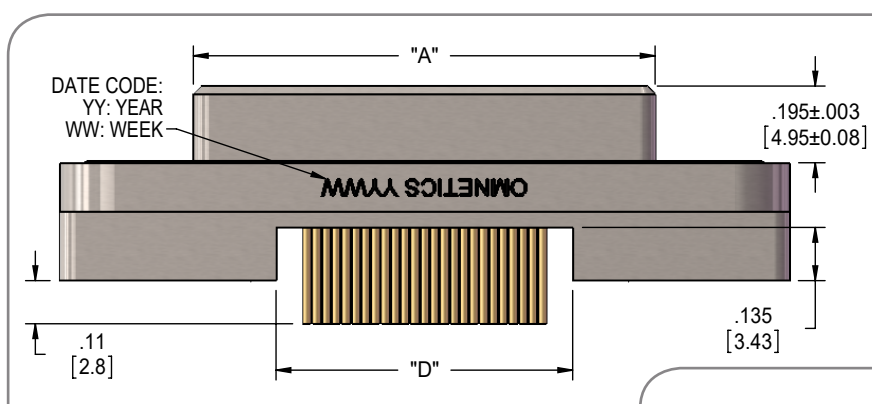
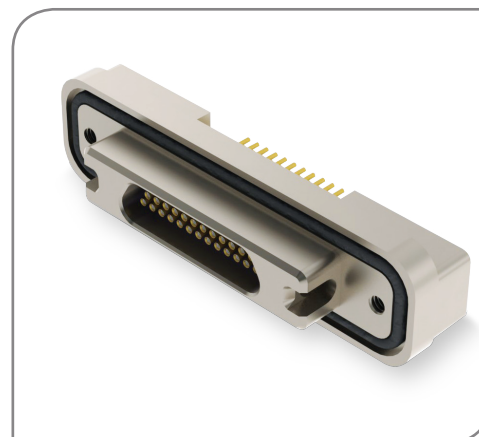
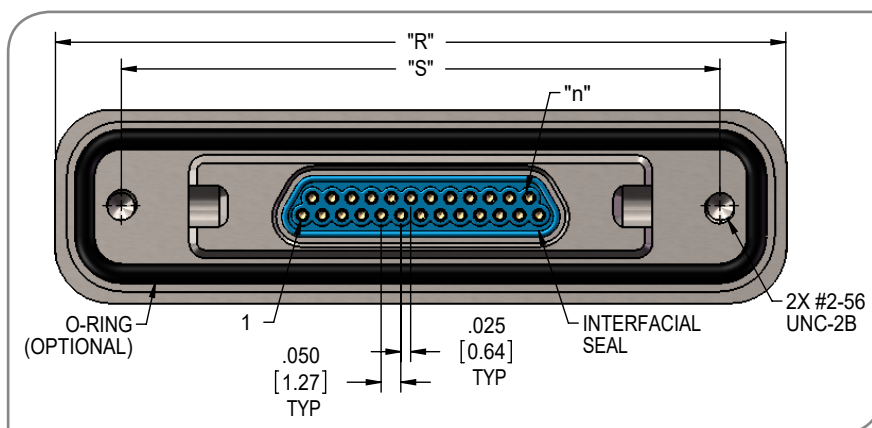
Metric (mm)

"n"	Rows	"A"	"B"	"D"	"A"	"B"	"D"
9	2	.775	.565	.355	19.69	14.35	9.02
15	2	.925	.715	.505	23.50	18.16	12.83
21	2	1.075	.865	.655	27.31	21.97	16.64
25	2	1.175	.965	.755	29.85	24.51	19.18
31	2	1.325	1.115	.905	33.66	28.32	22.99
37	2	1.475	1.265	1.055	37.47	32.13	26.80
51	2	1.825	1.615	1.405	46.36	41.02	35.69

Micro-D

Latching Micro-D

Latching Micro-D Female Straight Thru-Hole Panel Mount (TYPE S2)



Contacts

English (IN)

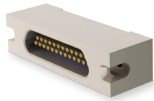
Metric (mm)

"n"	Rows	"A"	"B"	"D"	"R"	"S"	"A"	"B"	"D"	"R"	"S"
9	2	.775	.565	.355	1.455	1.120	19.69	14.35	9.02	36.96	28.45
15	2	.925	.715	.505	1.605	1.270	23.50	18.16	12.83	40.77	32.26
21	2	1.075	.865	.655	1.755	1.420	27.31	21.97	16.64	44.58	36.07
25	2	1.175	.965	.755	1.855	1.520	29.85	24.51	19.18	47.12	38.61
31	2	1.325	1.115	.905	2.005	1.670	33.66	28.32	22.99	50.93	42.42
37	2	1.475	1.265	1.055	2.155	1.820	37.47	32.13	26.80	54.74	46.23
51	2	1.825	1.615	1.405	2.505	2.170	46.36	41.02	35.69	63.63	52.12

Micro-D

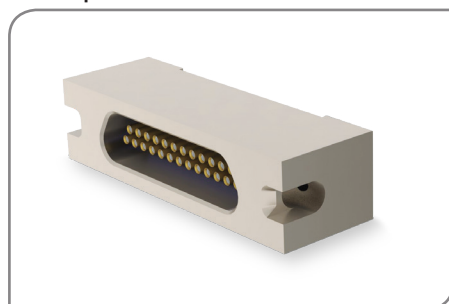
Latching Micro-D

Latching Micro-D Straight Thru-Hole (TYPE S2) Ordering Guide

Series	# of Contacts	Shell Material and Finish / Hardware	Termination Type	Options
LMD S -Socket 	009	N (STD)	S2 - Straight Thru-Hole	HT
	015	Aluminum Shell,		High Temp.
	021	Electroless Nickel Plated		Epoxy (200 °C)
	025	C		
	031	Aluminum Shell,		
	037	Cadmium Plated		RH
	051*	B		RoHS COMPLIANT
		Aluminum Shell,		
		Black Anodized		
		P		PA
		Stainless Steel Shell,		Panel Mount, Rear,
		Passivated		O-Ring

* use 512 for two row 051

Example



LMD S-025-N51-S2

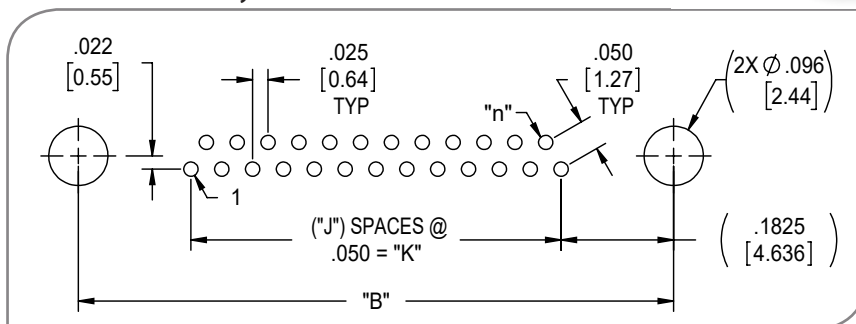
51- LATCH RECEPTACLE



PB
Panel Mount, Rear



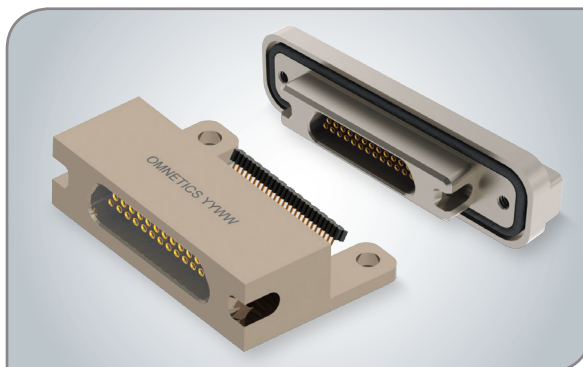
Board Mount Layout



Contacts		English (IN)			Metric (mm)		
"n"	Rows	"B"	"J"	"K"	"B"	"J"	"K"
9	2	.565	4	.200	14.35	4	5.08
15	2	.715	7	.350	18.16	7	8.89
21	2	.865	10	.500	21.97	10	12.70
25	2	.965	12	.600	24.51	12	15.24
31	2	1.115	15	.750	28.32	15	19.05
37	2	1.265	18	.900	32.13	18	22.86
51	2	1.615	25	1.250	41.02	25	31.75

Latching Micro-D Right Angle Thru-Hole (TYPE R2)

Omnetics' rugged Latching Micro-D connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. These commercial Latching Micro-D connectors are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged designs are available in shell styles from 9 to 51 contacts. The Latching Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Latching Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700
Latch:	Stainless steel, Nickel Plated
Latch Spring:	Stainless steel
Retaining Pin:	Stainless steel

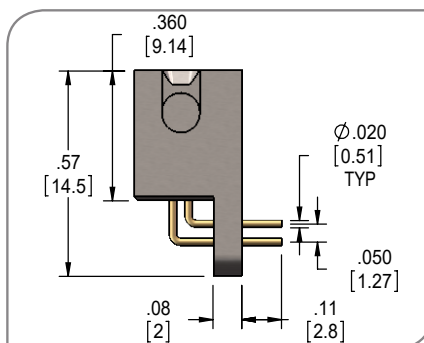
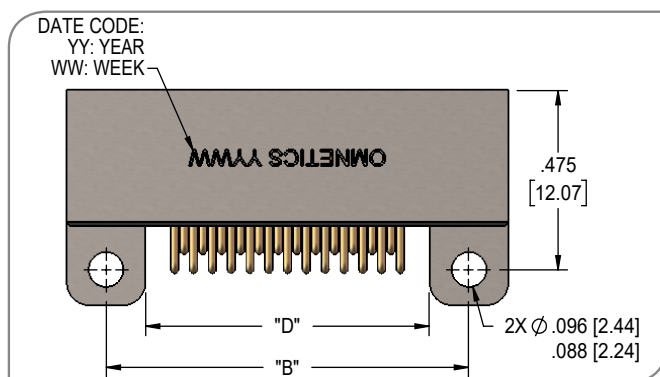
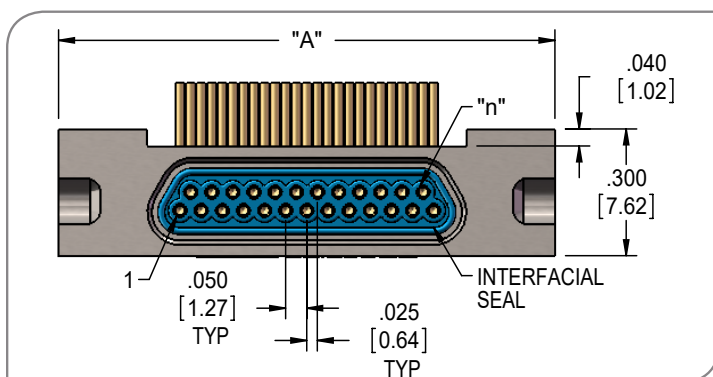
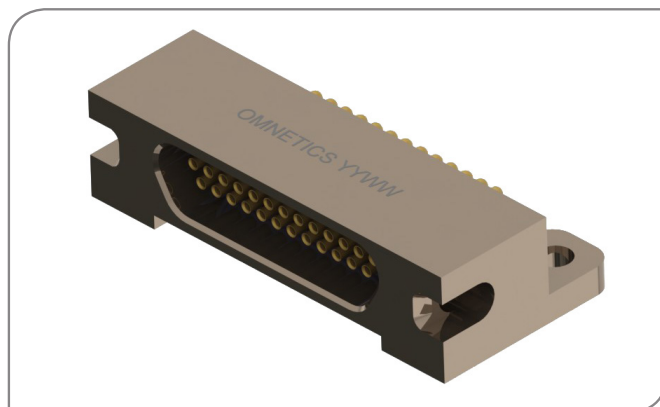
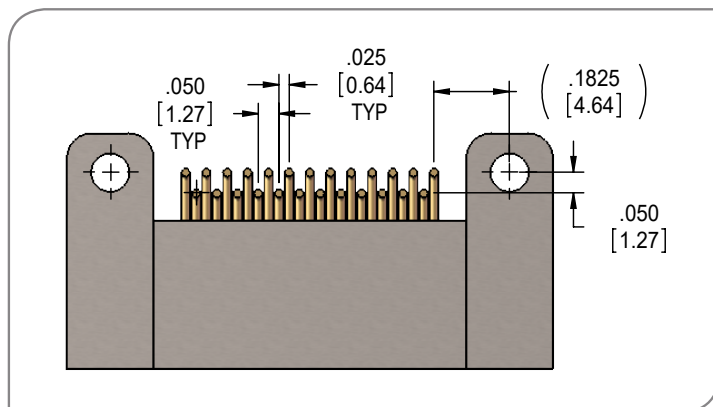
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Latching Micro-D

Latching Micro-D Female Right Angle Thru-Hole (TYPE R2)



Contacts

English (IN)

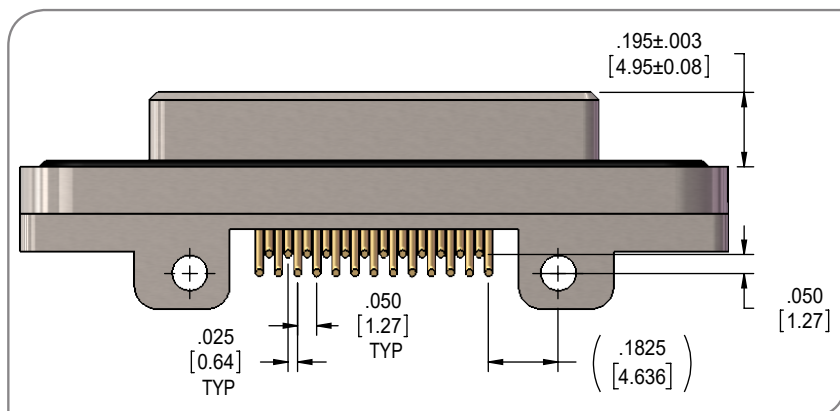
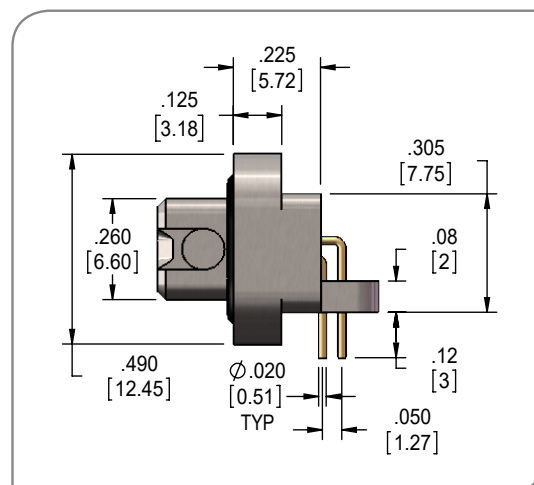
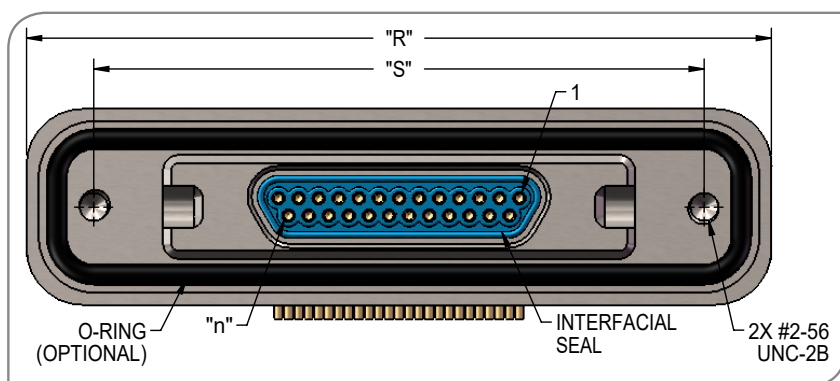
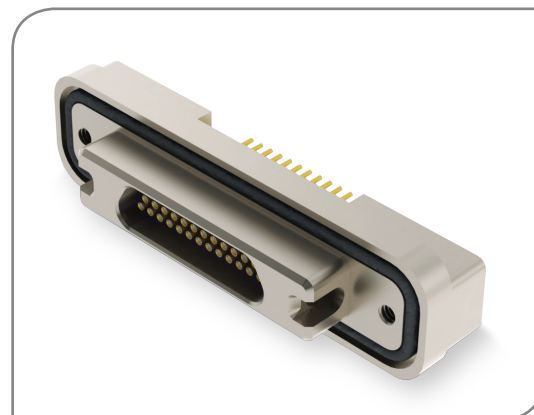
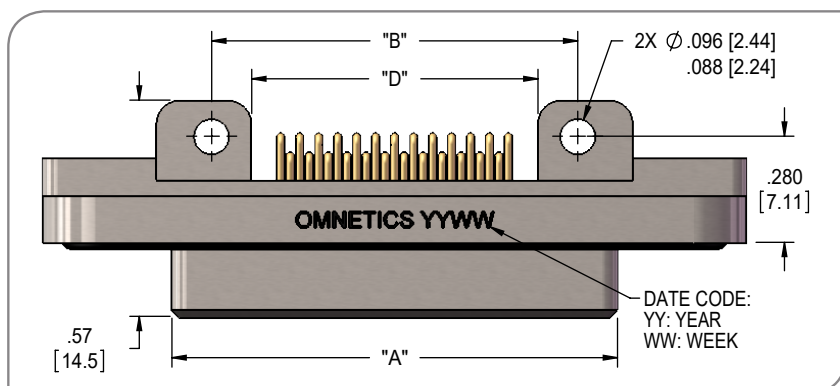
Metric (mm)

"n"	Rows	"A"	"B"	"D"	"A"	"B"	"D"
9	2	.775	.565	.355	19.69	14.35	9.02
15	2	.925	.715	.505	23.50	18.16	12.83
21	2	1.075	.865	.655	27.31	21.97	16.64
25	2	1.175	.965	.755	29.85	24.51	19.18
31	2	1.325	1.115	.905	33.66	28.32	22.99
37	2	1.475	1.265	1.055	37.47	32.13	26.80
51	2	1.825	1.615	1.405	46.36	41.02	35.69

Micro-D

Latching Micro-D

Latching Micro-D Female Right Angle Thru-Hole Panel Mount (TYPE R2)



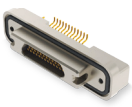
Contacts

English (IN)

Metric (mm)

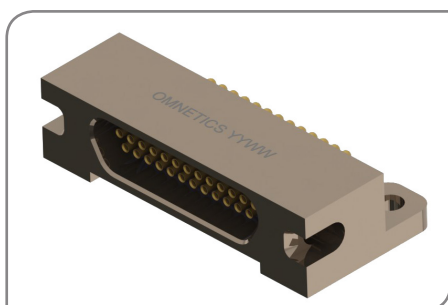
"n"	Rows	"A"	"B"	"D"	"R"	"S"	"A"	"B"	"D"	"R"	"S"
9	2	.775	.565	.355	1.455	1.120	19.69	14.35	9.02	36.96	28.45
15	2	.925	.715	.505	1.605	1.270	23.50	18.16	12.83	40.77	32.26
21	2	1.075	.865	.655	1.755	1.420	27.31	21.97	16.64	44.58	36.07
25	2	1.175	.965	.755	1.855	1.520	29.85	24.51	19.18	47.12	38.61
31	2	1.325	1.115	.905	2.005	1.670	33.66	28.32	22.99	50.93	42.42
37	2	1.475	1.265	1.055	2.155	1.820	37.47	32.13	26.80	54.74	46.23
51	2	1.825	1.615	1.405	2.505	2.170	46.36	41.02	35.69	63.63	52.12

Latching Micro-D Right Angle Thru-Hole (TYPE R2) Ordering Guide

Series	# of Contacts	Shell Material and Finish / Hardware	Termination Type	Options
LMD S - Socket 	009 015 021 025 031 037 051*	N (STD) Aluminum Shell, Electroless Nickel Plated C Aluminum Shell, Cadmium Plated B Aluminum Shell, Black Anodized P Stainless Steel Shell, Passivated	R2 - Right Angle Thru-Hole	HT High Temp. Epoxy (200 °C)  RH RoHS COMPLIANT  PA Panel Mount, Rear, O-Ring  PB Panel Mount, Rear 

* use 512 for two row 051

Example

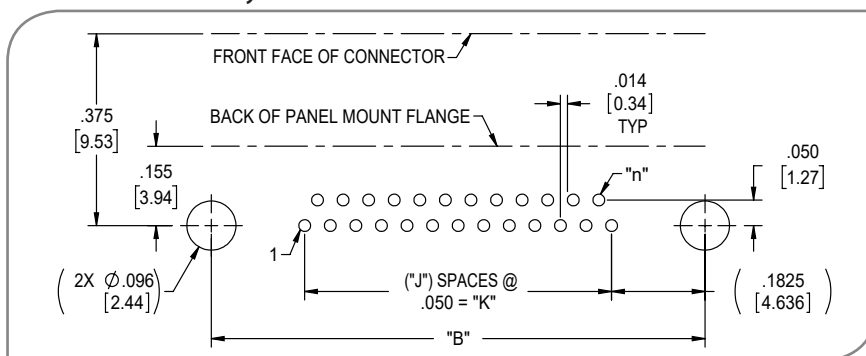


LMDS-025-N51-R2-HT-RH

51- LATCH RECEPTACLE



Board Mount Layout

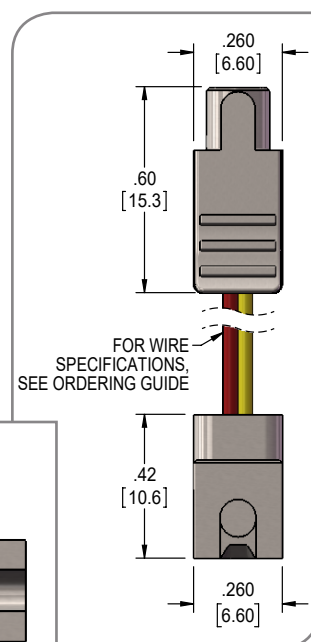
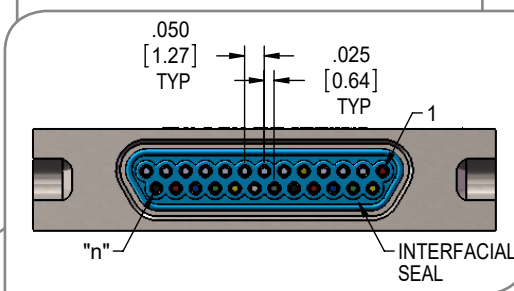
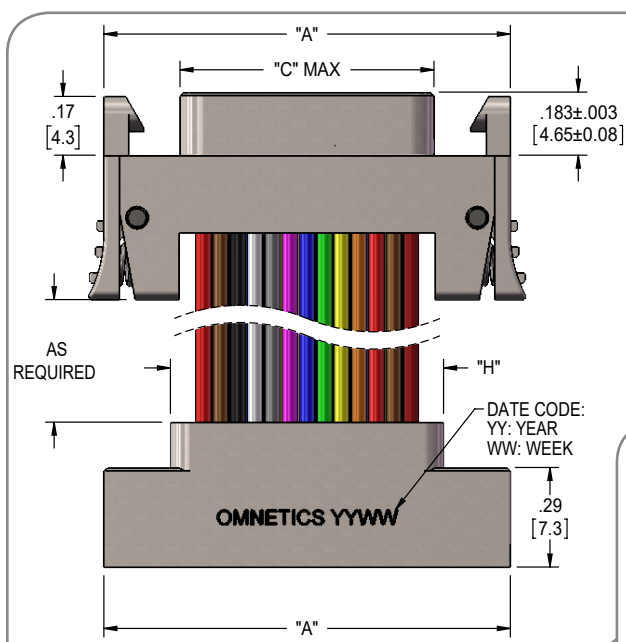
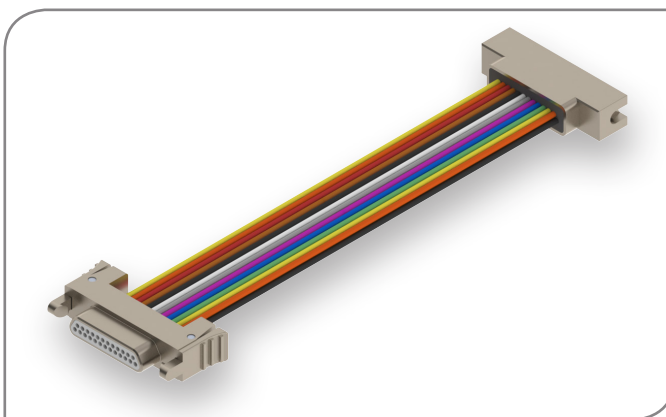
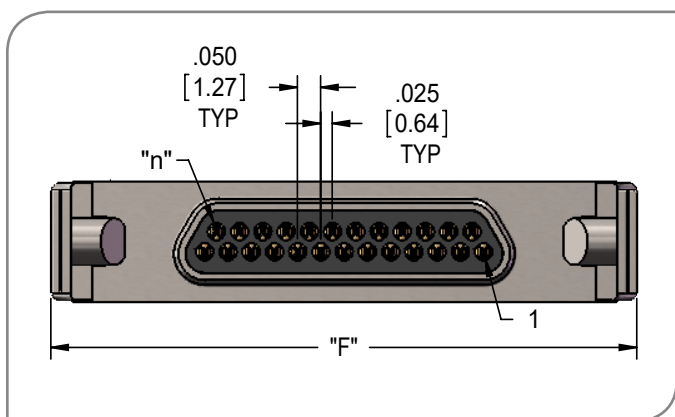


Contacts		English (IN)			Metric (mm)		
"n"	Rows	"B"	"J"	"K"	"B"	"J"	"K"
9	2	.565	4	.200	14.35	4	5.08
15	2	.715	7	.350	18.16	7	8.89
21	2	.865	10	.500	21.97	10	12.70
25	2	.965	12	.600	24.51	12	15.24
31	2	1.115	15	.750	28.32	15	19.05
37	2	1.265	18	.900	32.13	18	22.86
51	2	1.615	25	1.250	41.02	25	31.75

Micro-D

Latching Micro-D

Latching Micro-D Jumper, Male to Female (TYPE W)



Contacts

English (IN)

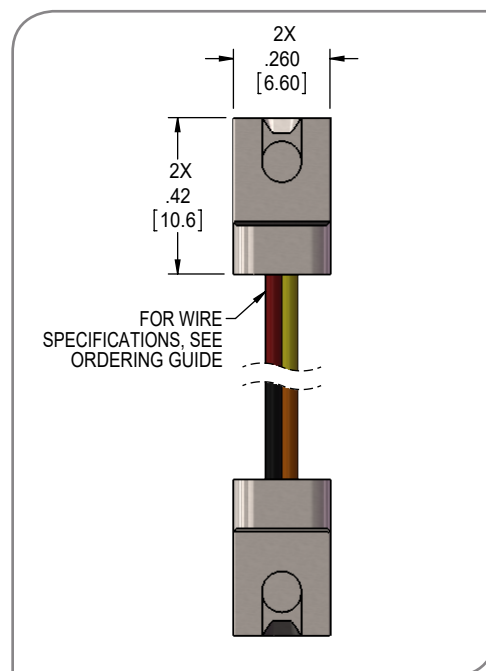
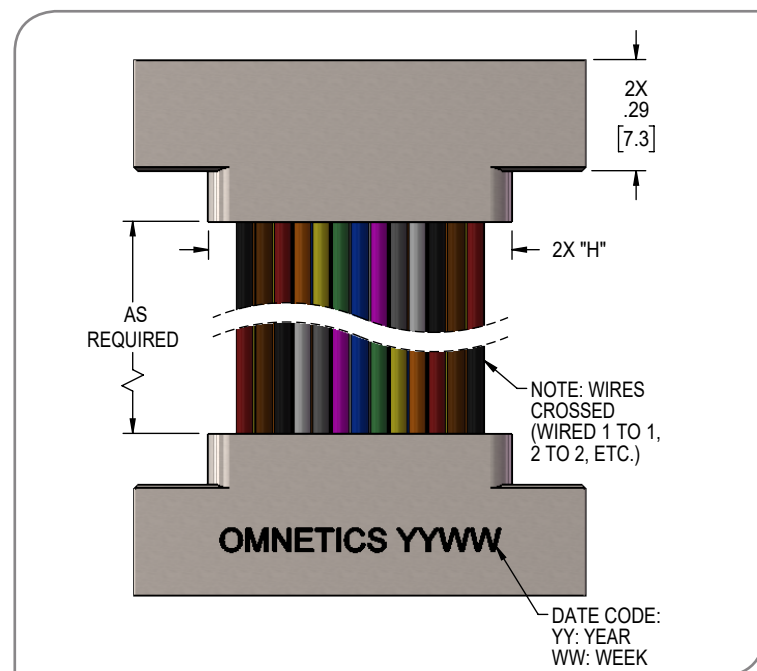
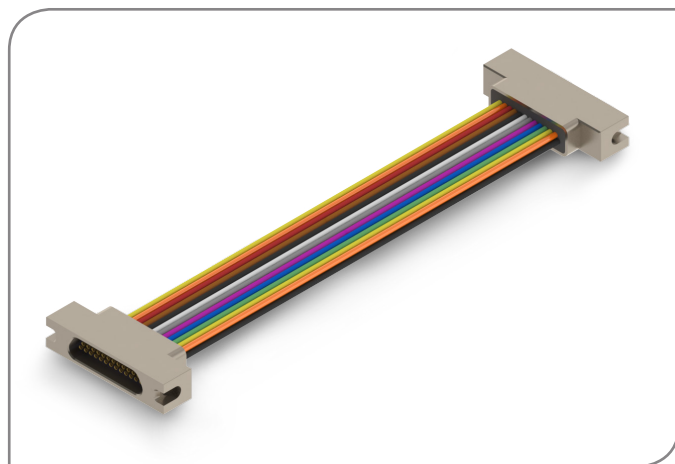
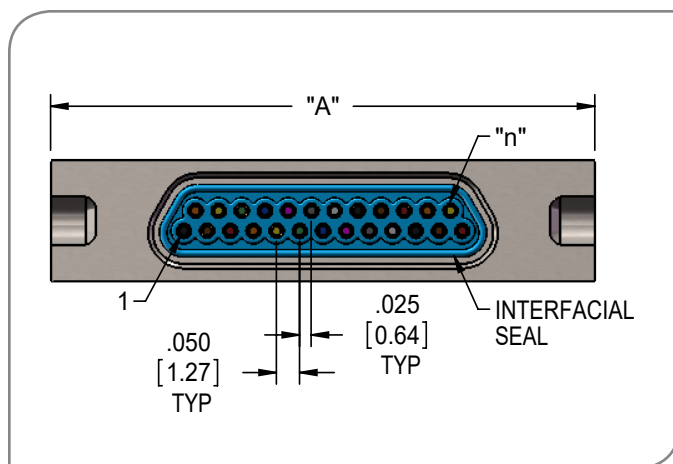
Metric (mm)

"n"	Rows	"A"	"C"	"F"	"H"	"A"	"C"	"F"	"H"
9	2	.775	.334	.86	.390	19.7	8.50	21.8	9.91
15	2	.925	.484	1.01	.540	23.5	12.30	25.7	13.72
21	2	1.075	.634	1.16	.690	27.3	16.10	29.5	17.53
25	2	1.175	.734	1.26	.790	29.8	18.60	32.0	20.07
31	2	1.325	.884	1.41	.940	33.7	22.50	35.8	23.88
37	2	1.475	1.034	1.56	1.090	37.5	26.30	39.6	27.69
51	2	1.825	1.384	1.91	1.440	46.4	35.20	48.5	36.58

Micro-D

Latching Micro-D

Latching Micro-D Jumper, Female to Female (TYPE X)

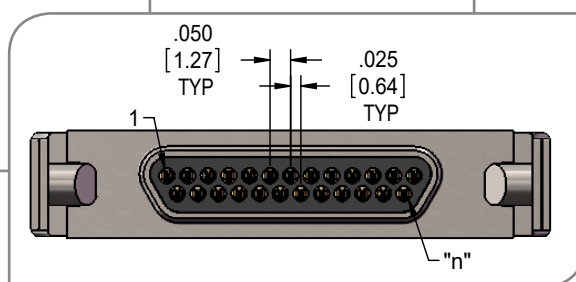
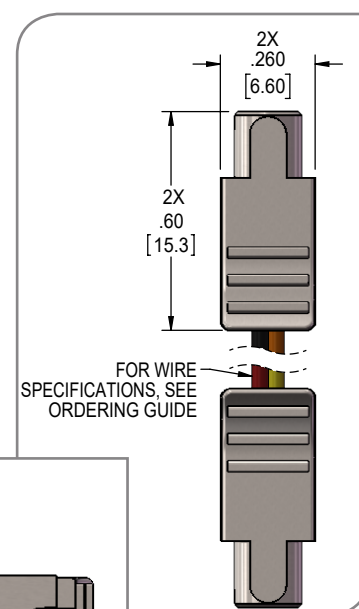
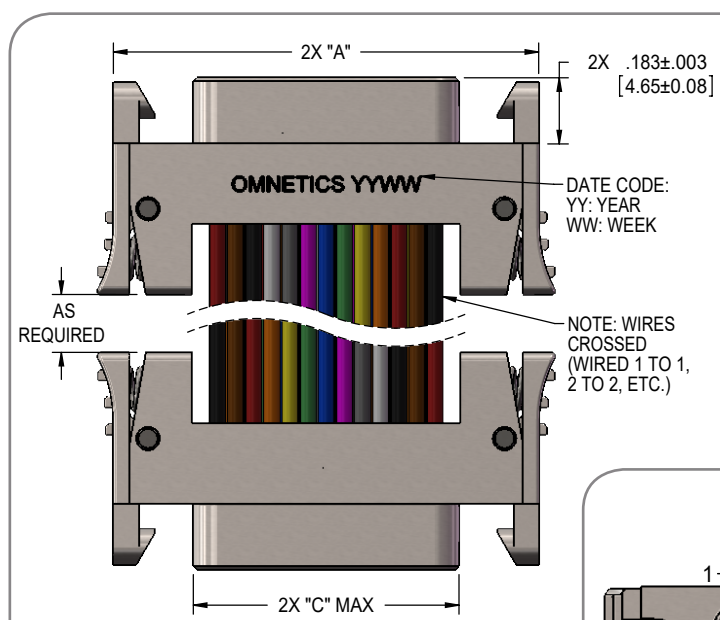
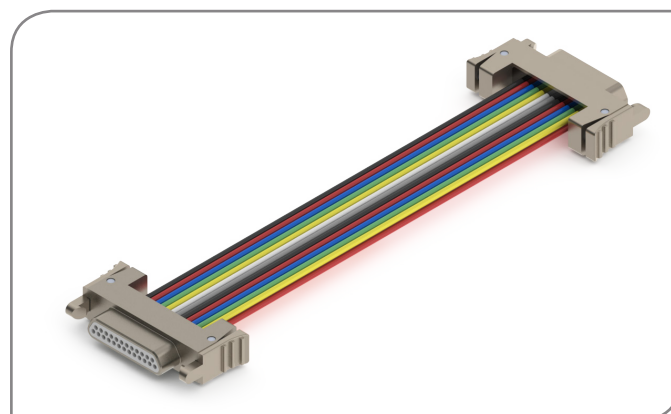
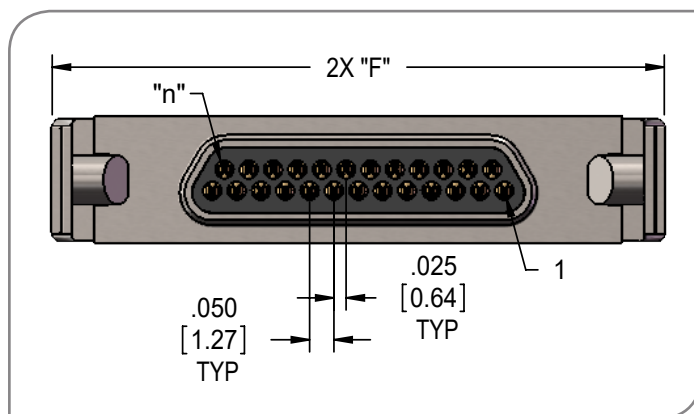


Contacts		English (IN)		Metric (mm)	
"n"	Rows	"A"	"H"	"A"	"H"
9	2	.775	.390	19.69	9.91
15	2	.925	.540	23.50	13.72
21	2	1.075	.690	27.31	17.53
25	2	1.175	.790	29.85	20.07
31	2	1.325	.940	33.66	23.88
37	2	1.475	1.090	37.47	27.69
51	2	1.825	1.440	46.36	36.58

Micro-D

Latching Micro-D

Latching Micro-D Jumper, Male to Male (TYPE Y)



Contacts

English (IN)

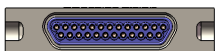
Metric (mm)

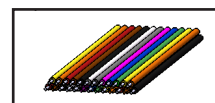
"n"	Rows	"A"	"C"	"F"	"A"	"C"	"F"
9	2	.775	.334	0.86	19.69	8.48	21.9
15	2	.925	.484	1.01	23.50	12.29	25.7
21	2	1.075	.634	1.16	27.31	16.10	29.5
25	2	1.175	.734	1.26	29.85	18.64	32.1
31	2	1.325	.884	1.41	33.66	22.45	35.9
37	2	1.475	1.034	1.56	37.47	26.26	39.7
51	2	1.825	1.384	1.91	46.36	35.15	48.6

Micro-D

Latching Micro-D

Latching Micro-D Jumpers (TYPE W, X, Y) Ordering Guide

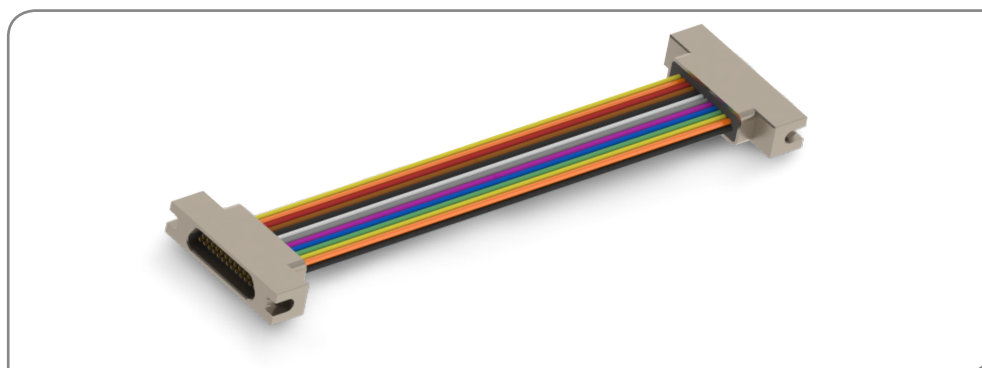
Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
■ LMD - Series	009	N (STD)	00 - NONE, Ø .092	WD - Discrete Lead-	HT
	015	Aluminum Shell,	HOLE (STD)	wire w/Male and/or	High Temp.
Contact Types:	021	Electroless Nickel	13 FIXED JACK-	Female Connectors	Epoxy (200 °C)
W - Female	025	Plated	POSTS (STD)		
to Male	031	C	(BOTH SIDES)		
	037	Aluminum Shell,	14 - JACKSCREWS,		
	051*	Cadmium Plated	STD LENGTH, HEX		
		B	HEAD (STD)		
X - Female	* use 512 for	Aluminum Shell,	(BOTH SIDES)		
to Female	two row 051	Black Anodized	15 - ONE SET OF		
		P	EACH, FIXED		
Y - Male to Male		Stainless Steel	JACKPOSTS &		
		Shell,	JACKSCRWs,		
		Passivated	STANDARD		
			LENGTH,		
			HEX HEAD (STD)		
			(PACKAGED		
			SEPARATELY)		
				WIRE AWG:	
				6 - 26 AWG (STD)	
				8 - 28 AWG	
				0 - 30 AWG	
				WIRE TYPE:	
				Q - NEMA HP3	
				(FORMERLY M16878/4	
				&/6) (STD)	
				R - M22759/11	
				S - M22759/33	
				WIRE LENGTH:	
				18.0 - 18.00" (STD)	
				XX.X - CUSTOM	
				LENGTH	
				COLOR SCHEME:	
				1 - 10 REPEATING (STD)	
				2 - BLUE	
				3 - WHITE	
				5 - YELLOW	



RH
RoHS
COMPLIANT



Example

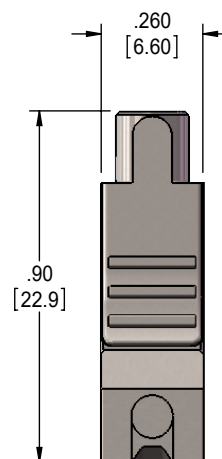
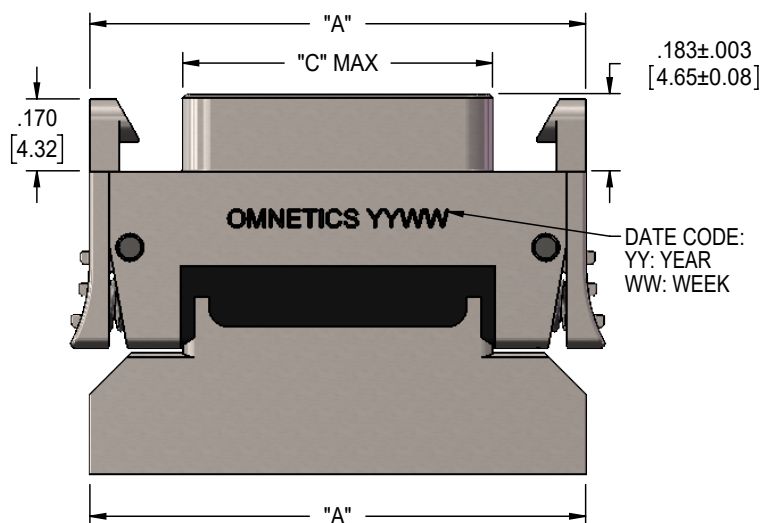
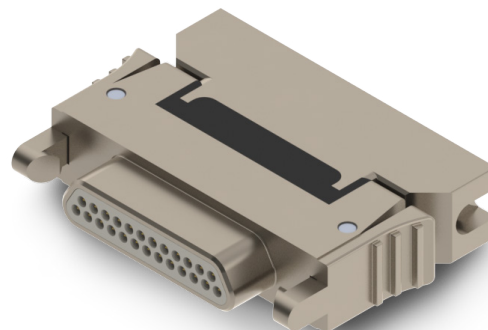
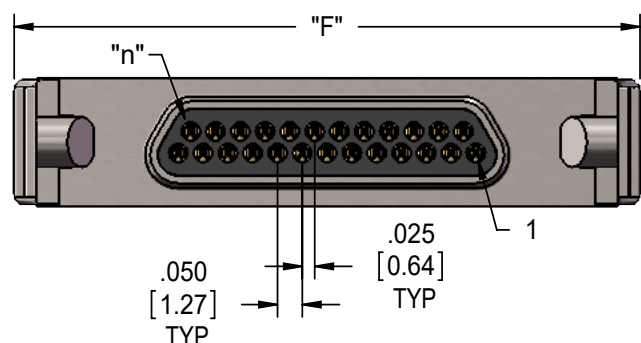


LMDX-025-N51-WD6Q18.0-1

Micro-D

Latching Micro-D

Latching Micro-D Connector Saver (TYPE Z)



Contacts

English (IN)

Metric (mm)

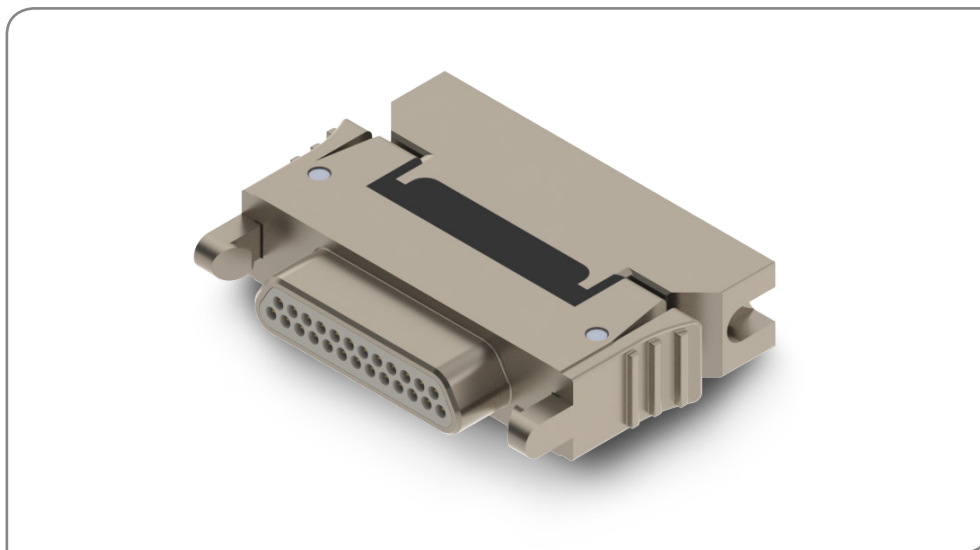
"n"	Rows	"A"	"C"	"F"	"A"	"C"	"F"
9	2	.775	.334	0.86	19.69	8.48	21.9
15	2	.925	.484	1.01	23.50	12.29	25.7
21	2	1.075	.634	1.16	27.31	16.10	29.5
25	2	1.175	.734	1.26	29.85	18.64	32.1
31	2	1.325	.884	1.41	33.66	22.45	35.9
37	2	1.475	1.034	1.56	37.47	26.26	39.7
51	2	1.825	1.384	1.91	46.36	35.15	48.6

Latching Micro-D Connector Saver (TYPE Z) Ordering Guide

Series	# of Contacts	Shell Material and Finish	Termination Type	Options
LMD - Series Contact Types: Z - Connector Saver 	009	N (STD)	52 - Latch One Side and Latch Receptacle One Side	HT High Temp. Epoxy (200 °C)  RH RoHS COMPLIANT 
	015	Aluminum Shell,		
	021	Electroless Nickel Plated		
	025	C		
	031	Aluminum Shell,		
	037	Cadmium Plated		
	051*	B		
		Aluminum Shell,		
		Black Anodized		
		P		
		Stainless Steel Shell,		
		Passivated		

* use 512 for two row 051

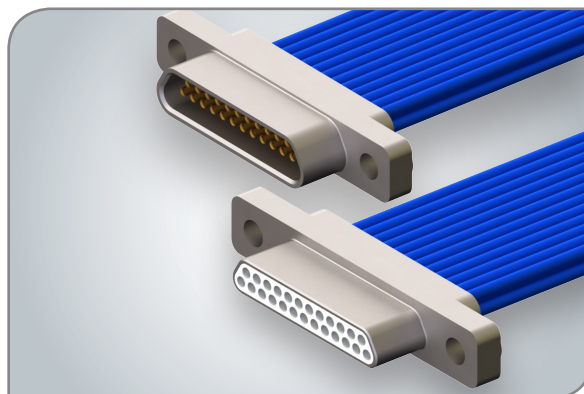
Example



LMDZ-025-N52-HT

Low Profile Micro-D Discrete Leadwire (TYPE WD)

Measuring 2.34 mm thinner than a standard Micro-D, Omnetics' Low Profile Micro-D Connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. They are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. These commercial Low Profile Micro-D connectors are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 37 contacts. The Low Profile Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Low Profile Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

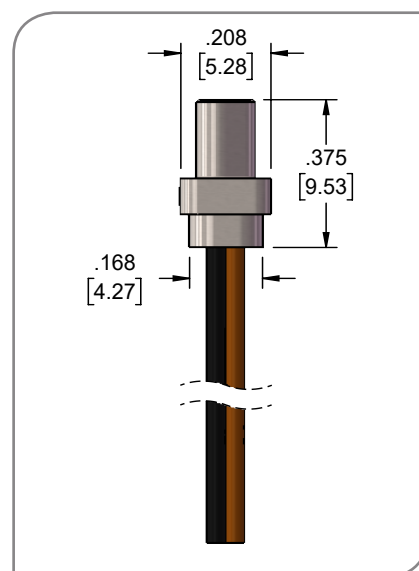
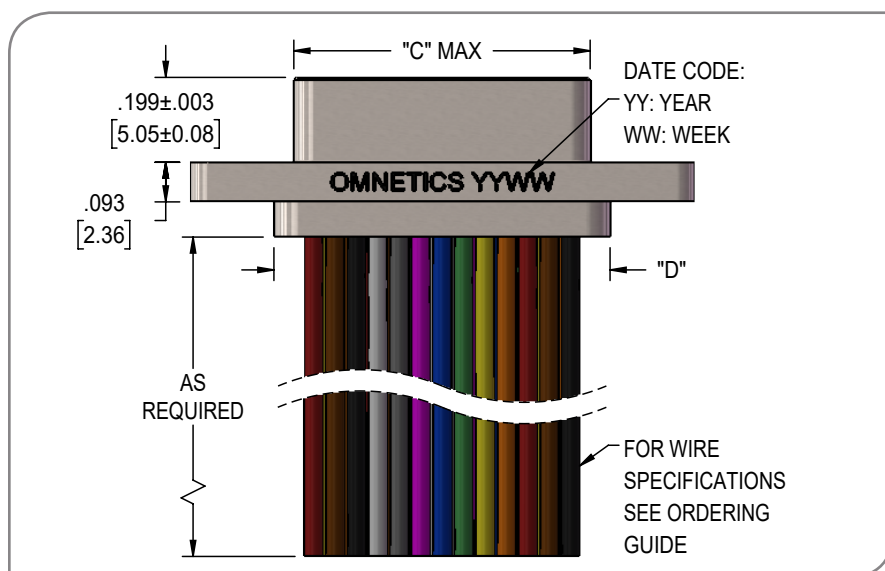
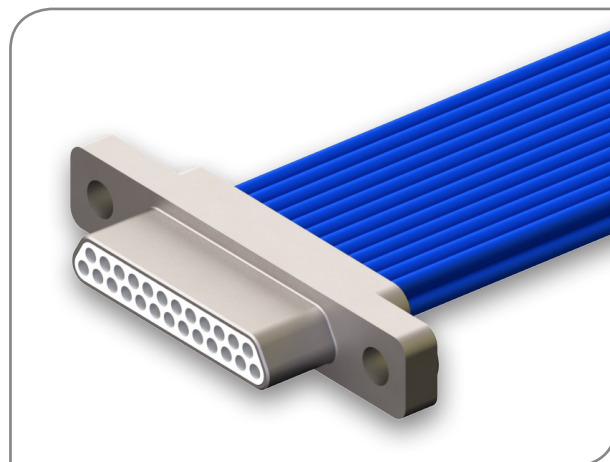
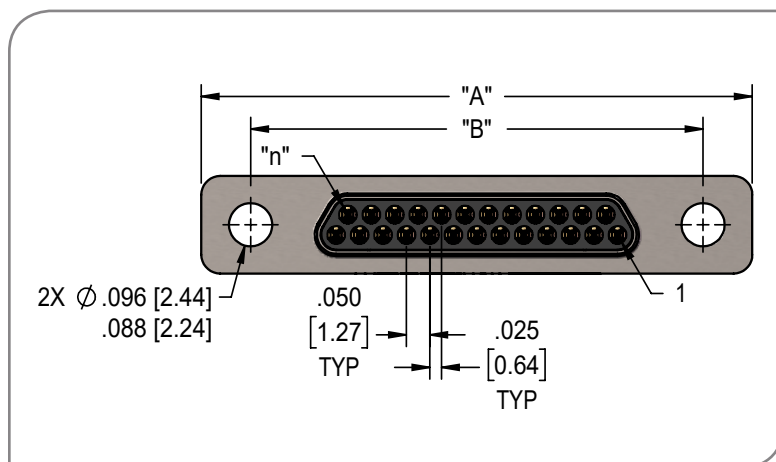
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Low Profile Micro-D

Low Profile Micro-D Male Discrete Leadwire (TYPE WD)

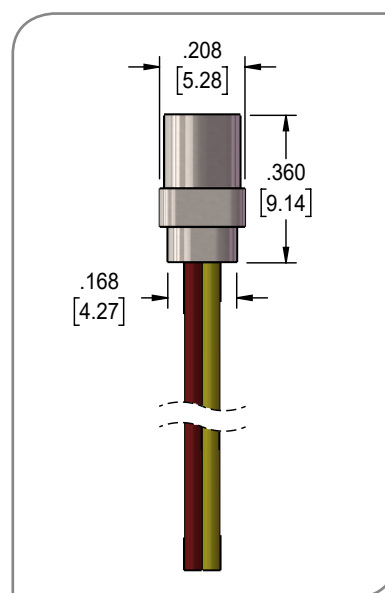
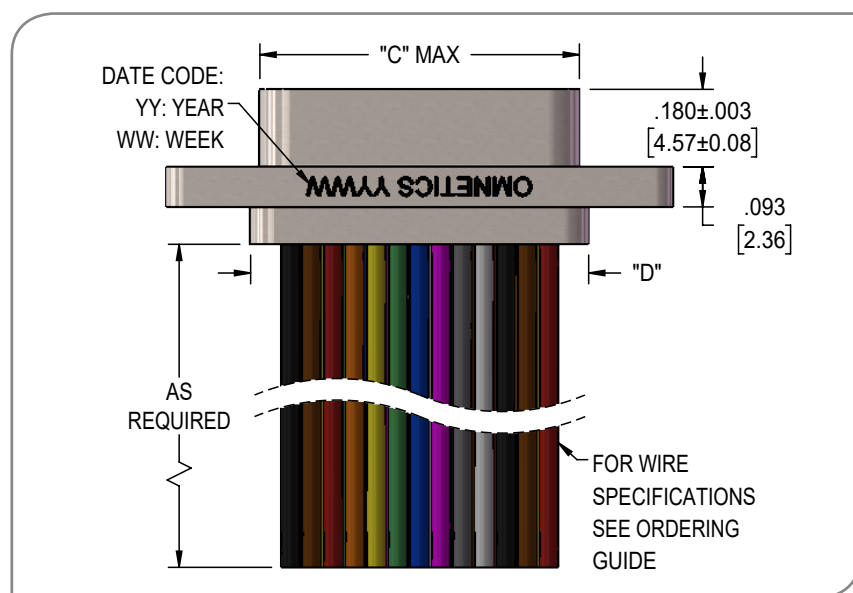
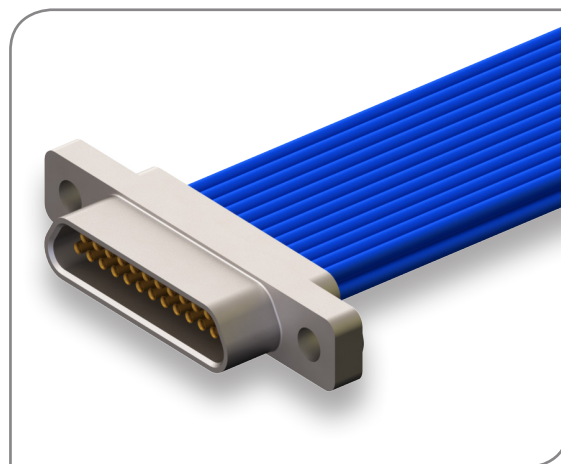
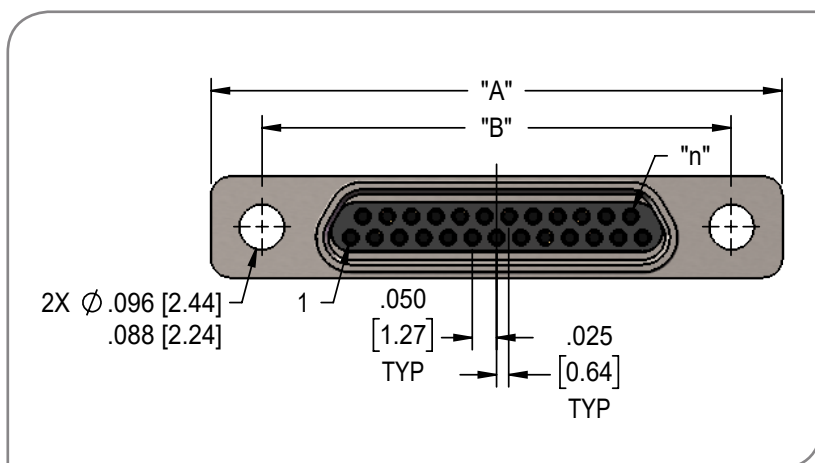


Contacts		English (IN)				Metric (mm)			
"n"	Rows	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"
9	2	.775	.565	.292	.385	19.69	14.35	7.42	10.11
15	2	.925	.715	.442	.535	23.50	18.16	11.23	13.92
21	2	1.075	.865	.592	.685	27.31	21.97	15.04	17.73
25	2	1.175	.965	.692	.785	29.85	24.51	17.58	20.27
31	2	1.325	1.115	.842	.935	33.66	28.32	21.39	24.08
37	2	1.475	1.265	.992	1.085	37.47	32.13	25.20	27.89

Micro-D

Low Profile Micro-D

Low Profile Micro-D Female Discrete Leadwire (TYPE WD)



Contacts

English (IN)

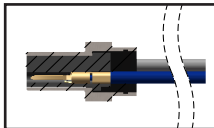
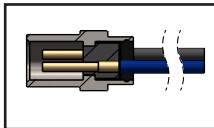
Metric (mm)

"n"	Rows	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"
9	2	.775	.565	.292	.385	19.69	14.35	7.42	10.11
15	2	.925	.715	.442	.535	23.50	18.16	11.23	13.92
21	2	1.075	.865	.592	.685	27.31	21.97	15.04	17.73
25	2	1.175	.965	.692	.785	29.85	24.51	17.58	20.27
31	2	1.325	1.115	.842	.935	33.66	28.32	21.39	24.08
37	2	1.475	1.265	.992	1.085	37.47	32.13	25.20	27.89

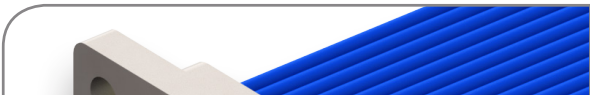
Micro-D

Low Profile Micro-D

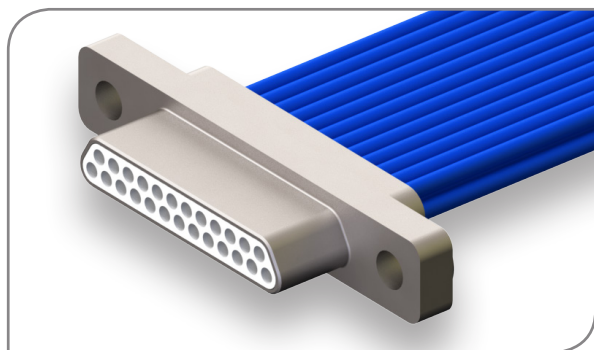
Low Profile Micro-D Discrete Leadwire (TYPE WD) Ordering Guide

Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
■ MDL Male (P - Pin)	009	N (STD)	00 - NONE, Ø .092 HOLE (STD)	WD - Discrete Leadwire 	HT High Temp. Epoxy (200 °C) 
	015	Aluminum Shell, Electroless Nickel Plated	01 - FIXED JACK-POSTS (STD)		
	021	C Aluminum Shell, Cadmium Plated	02 - JACKSCREWS, STD LENGTH, HEX HEAD (STD)		RH RoHS COMPLIANT 
	031		03 - JACKSCREWS, STD LENGTH, SLOTTED		
	037		04 - JACKSCREWS, LONG, HEX		
Female (S - Socket)		B Aluminum Shell, Black Anodized	05 - JACKSCREWS, LONG, SLOTTED	WIRE AWG: 6 - 26 AWG (STD) 8 - 28 AWG 0 - 30 AWG WIRE TYPE: Q - NEMA HP3 (FORMERLY M16878/4 &/6) (STD) R - M22759/11 S - M22759/33 WIRE LENGTH: 18.0 - 18.00" (STD) XX.X - CUSTOM LENGTH COLOR SCHEME: 1 - 10 REPEATING (STD) 2 - BLUE 3 - WHITE 5 - YELLOW	
		P Stainless Steel Shell, Passivated	06 - 07 FLOAT-MOUNT OPTIONS		

Example



Example



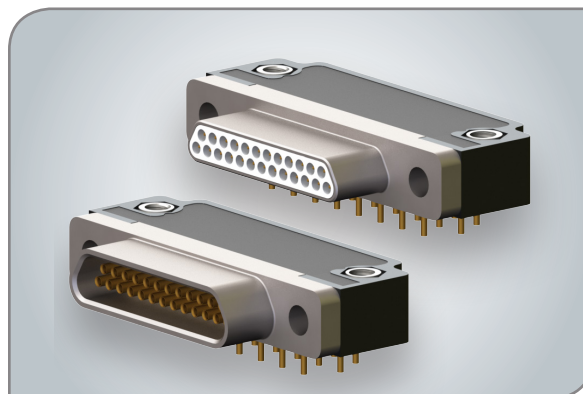
MDLP-025-N00-WD6Q18.0-2-HT

Standard

"n"	Rows	FEMALE	MALE
9	2	A99286-009	A98217-009
15	2	A99286-015	A98217-015
21	2	A99286-021	A98217-021
25	2	A99286-025	A98217-025
31	2	A99286-031	A98217-031
37	2	A99286-037	A98217-037
51	2	A99286-051	A98217-051

Low Profile Micro-D Right Angle Thru-Hole at .100" centers (TYPE H1)

Measuring 2.34 mm thinner than a standard Micro-D, Omnetics' Low Profile Micro-D Connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. They are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. These commercial Low Profile Micro-D connectors are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 37 contacts. The Low Profile Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Low Profile Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

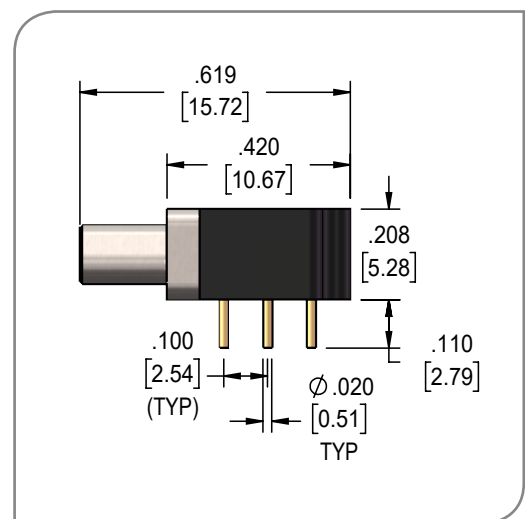
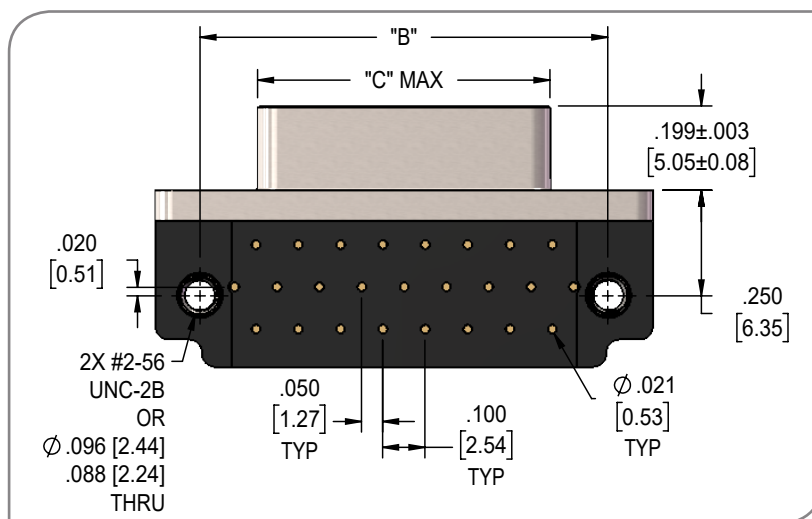
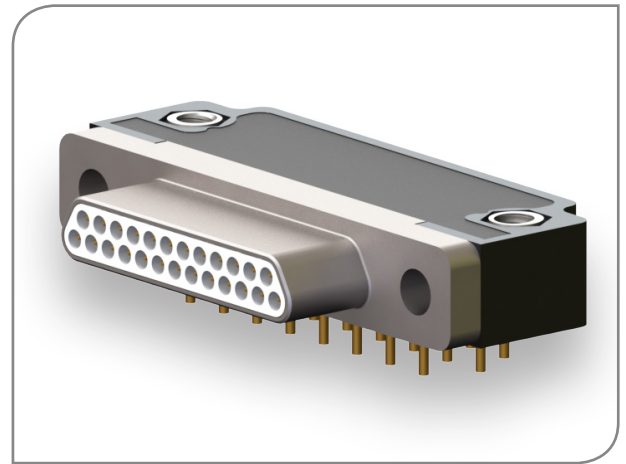
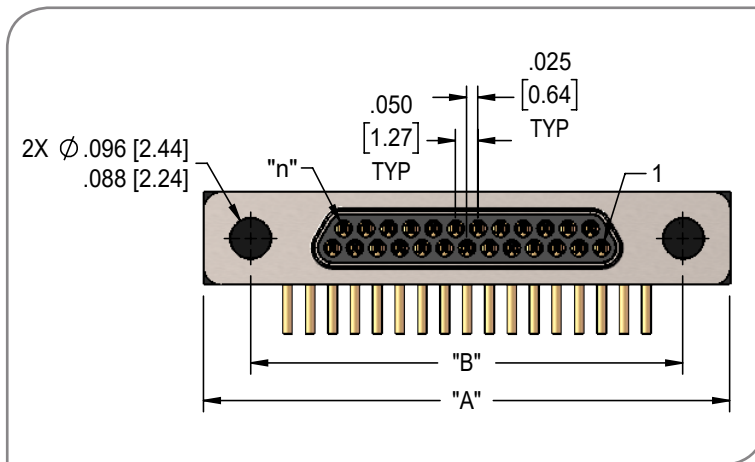
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Low Profile Micro-D

Low Profile Micro-D Male Right Angle Thru-Hole at .100" centers (TYPE H1)

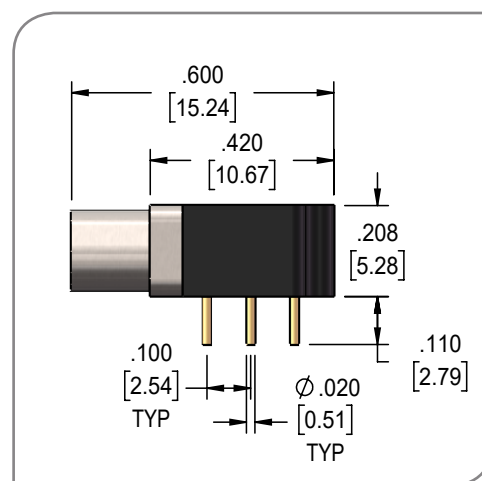
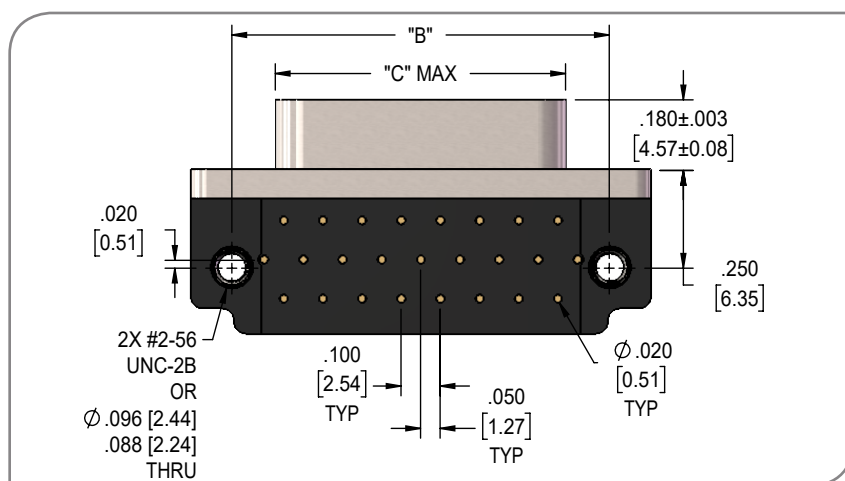
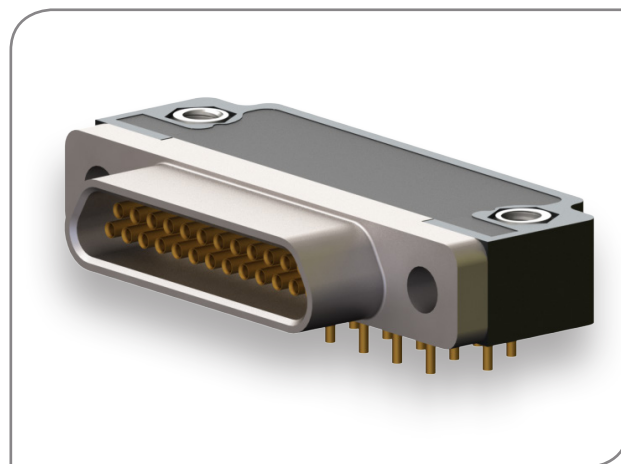
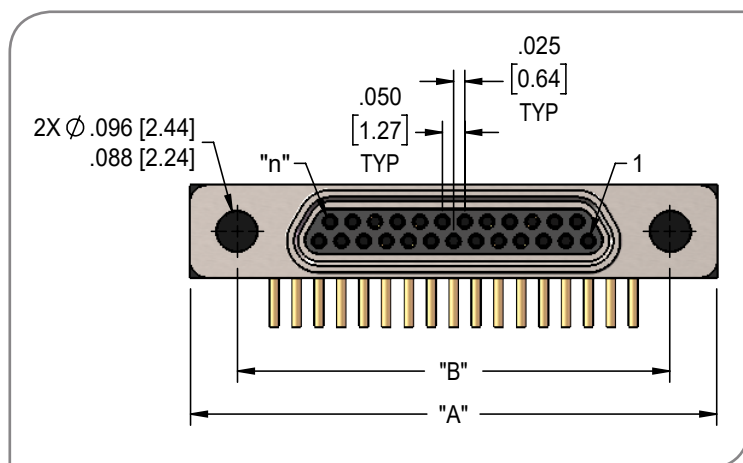


Contacts		English (IN)			Metric (mm)		
"n"	Rows	"A"	"B"	"C"	"A"	"B"	"C"
9	2	.775	.565	.292	19.69	14.35	7.42
15	2	.925	.715	.442	23.50	18.16	11.23
21	2	1.075	.865	.592	27.31	21.97	15.04
25	2	1.175	.965	.692	29.85	24.51	17.58
31	2	1.325	1.115	.842	33.66	28.32	21.39
37	2	1.475	1.265	.992	37.47	32.13	25.20

Micro-D

Low Profile Micro-D

Low Profile Micro-D Female Right Angle Thru-Hole at .100" centers (TYPE H1)

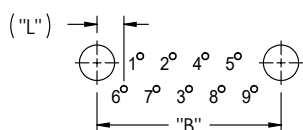


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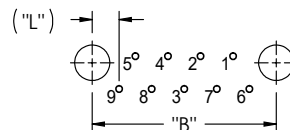
Contacts		English (IN)			Metric (mm)		
"n"	Rows	"A"	"B"	"C"	"A"	"B"	"C"
9	2	.775	.565	.358	19.69	14.35	9.09
15	2	.925	.715	.508	23.50	18.16	12.90
21	2	1.075	.865	.658	27.31	21.97	16.71
25	2	1.175	.965	.758	29.85	24.51	19.25
31	2	1.325	1.115	.908	33.66	28.32	23.06
37	2	1.475	1.265	1.058	37.47	32.13	26.87

Low Profile Micro-D Female Right Angle Thru-Hole Board Mount (TYPE H1)

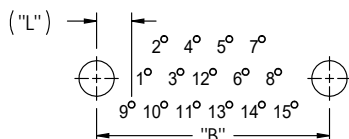
9 CONTACT
PLUG



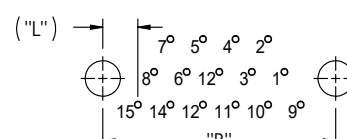
9 CONTACT
SOCKET



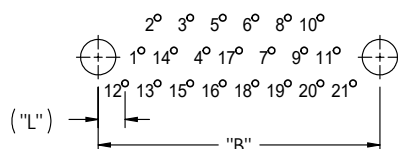
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PLUG



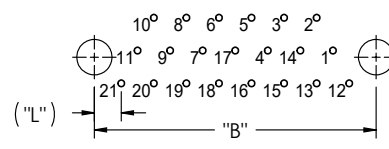
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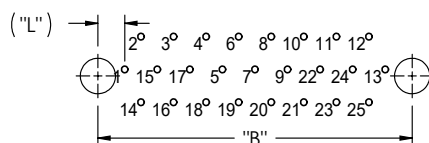
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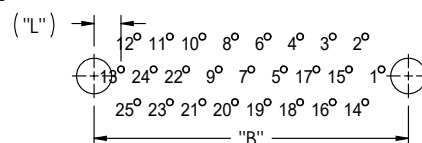
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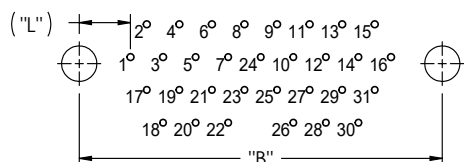
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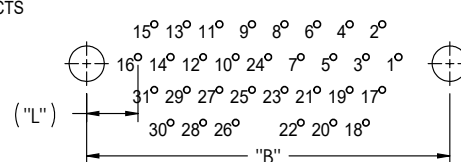
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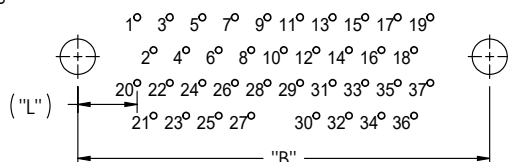
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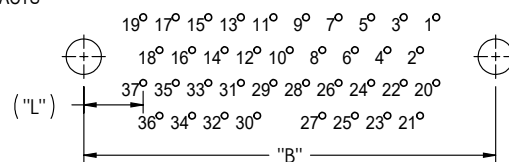
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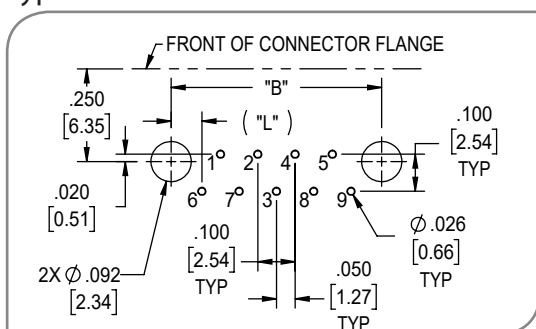
37 CONTACTS
PLUG



37 CONTACTS
SOCKET



Typical Dimensions

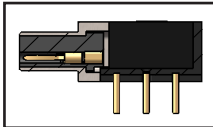
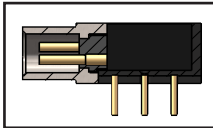


Contacts		English (IN)		Metric (mm)	
"n"	Rows	"B"	"L"	"B"	"L"
9	2	0.565	0.0825	14.35	2.096
15	3	0.715	0.1075	18.16	2.731
21	3	0.865	0.0825	21.97	2.096
25	3	0.965	0.0825	24.51	2.096
31	3	1.115	0.1575	28.32	4.001
37	3	1.265	0.1825	32.13	4.636

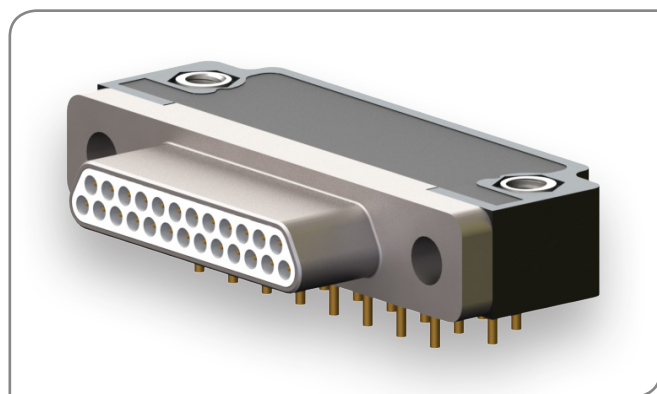
Micro-D

Low Profile Micro-D

Low Profile Micro-D Right Angle Thru-Hole at .100" centers (TYPE H1) Ordering Guide

Series	# of Contacts	Shell Material and Finish	Termination Type	Options
MDL Male (P - Pin)	009	N (STD)	H1 Right Angle Thru-Hole	HT High Temp. Epoxy (200 °C)
	015	Aluminum Shell,		
	021	Electroless Nickel		
	025	Plated		
	031	C		
	037	Aluminum Shell, Cadmium Plated		
Female (S- Socket)		B		
		Aluminum Shell, Black Anodized		
		P		
		Stainless Steel Shell, Passivated		RH RoHS COMPLIANT
				

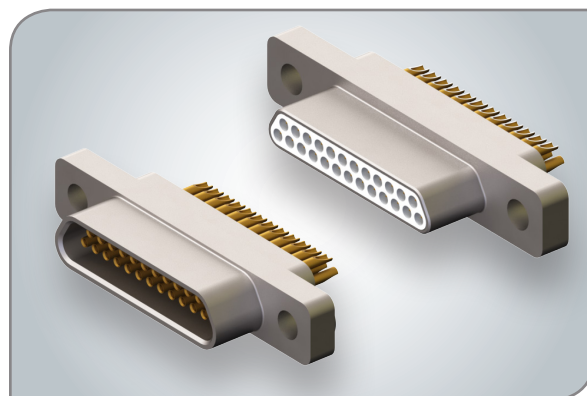
Example



MDLP-025-N00-H1

Low Profile Micro-D Solder Cup (TYPE SS)

Measuring 2.34 mm thinner than a standard Micro-D, Omnetics' Low Profile Micro-D Connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. They are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. These commercial Low Profile Micro-D connectors are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 37 contacts. The Low Profile Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Low Profile Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

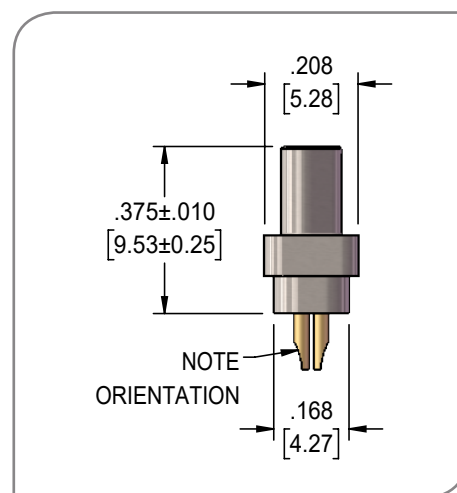
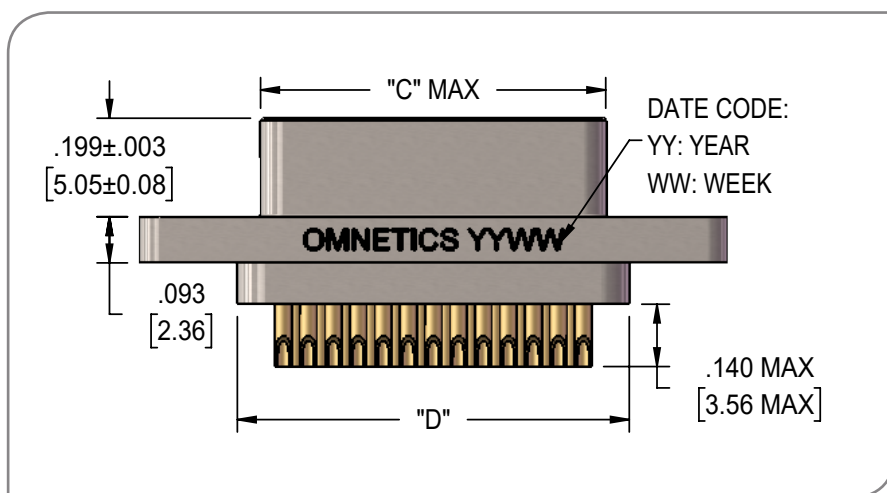
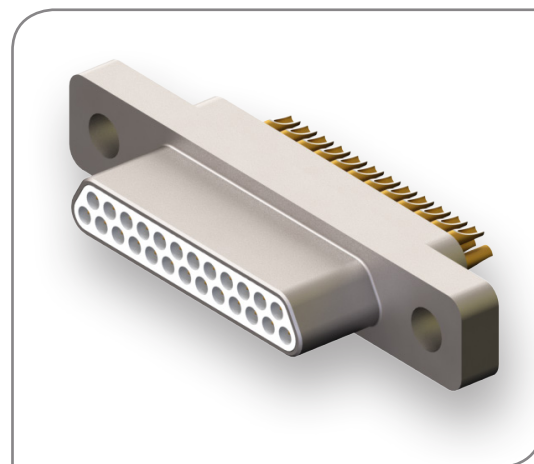
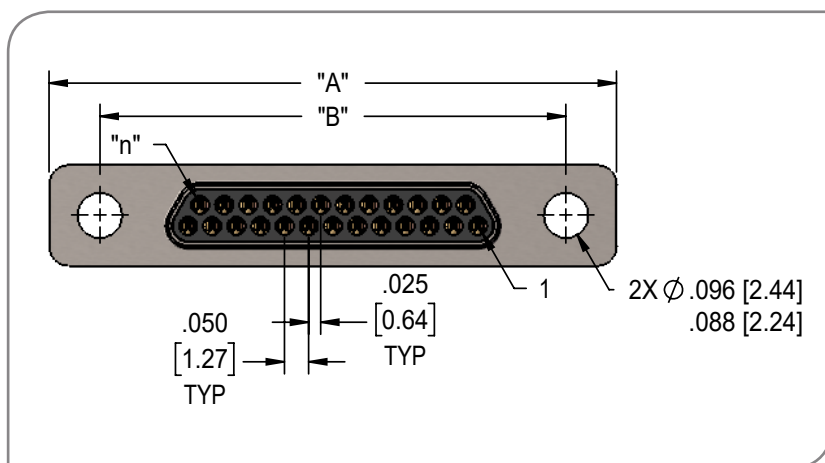
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Low Profile Micro-D

Low Profile Micro-D Male Solder Cup (TYPE SS)



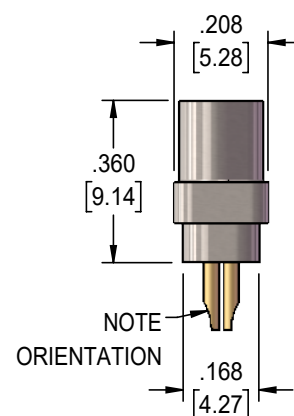
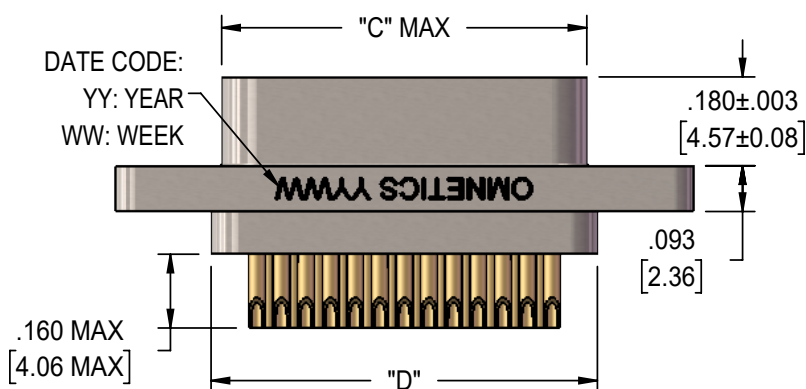
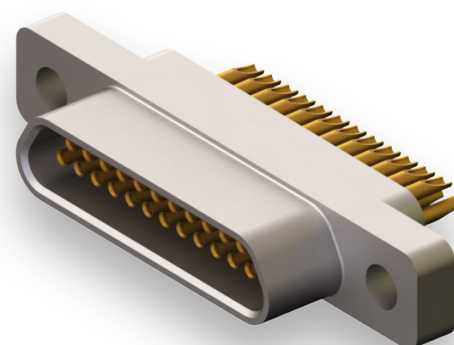
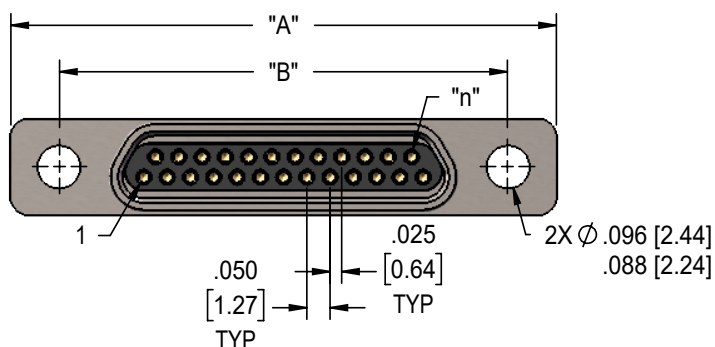
104

Contacts		English (IN)				Metric (mm)			
"n"	Rows	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"
9	2	.775	.565	.292	.385	19.69	14.35	7.42	10.11
15	2	.925	.715	.442	.535	23.50	18.16	11.23	13.92
21	2	1.075	.865	.592	.685	27.31	21.97	15.04	17.73
25	2	1.175	.965	.692	.785	29.85	24.51	17.58	20.27
31	2	1.325	1.115	.842	.935	33.66	28.32	21.39	24.08
37	2	1.475	1.265	.992	1.085	37.47	32.13	25.20	27.89

Micro-D

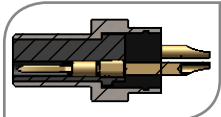
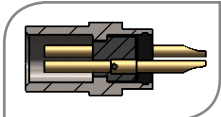
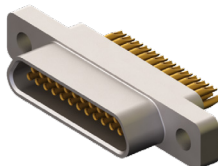
Low Profile Micro-D

Low Profile Micro-D Female Solder Cup (TYPE SS)

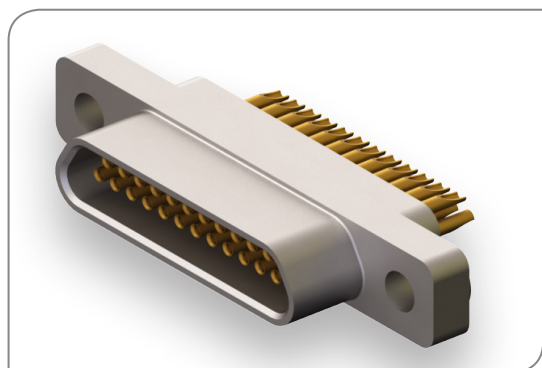


Contacts		English (IN)				Metric (mm)			
"n"	Rows	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"
9	2	.775	.565	.358	.385	19.69	14.35	9.09	10.11
15	2	.925	.715	.535	.535	23.50	18.16	12.90	13.92
21	2	1.075	.865	.685	.685	27.31	21.97	16.71	17.73
25	2	1.175	.965	.785	.785	29.85	24.51	19.25	20.27
31	2	1.325	1.115	.935	.935	33.66	28.32	23.06	24.08
37	2	1.475	1.265	1.085	1.085	37.47	32.13	26.87	27.89

Low Profile Micro-D Solder Cup (TYPE SS) Ordering Guide

Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
■ MDL	009	N (STD)	00 - NONE, Ø .092	SS	HT
Male	015	Aluminum Shell,	HOLE (STD)	Solder Cup	High Temp.
(P - Pin)	021	Electroless Nickel	01 - FIXED		Epoxy (200 °C)
	025	Plated	JACKPOSTS (STD)		
	031	C	02 - JACKSCREWS, STD LENGTH, HEX (STD)		
	037	Aluminum Shell, Cadmium Plated	03 - JACKSCREWS, STD LENGTH, SLOTTED		
Female		B	04 - JACKSCREWS, LONG, HEX		RH
(S - Socket)		Aluminum Shell, Black Anodized	05 - JACKSCREWS, LONG, SLOTTED		RoHS COMPLIANT
		P	06 - FLOAT MOUNT, FRONT MOUNTED		
		Stainless Steel Shell, Passivated	07 - FLOAT MOUNT, REAR MOUNTED		

Example



MDLS-025-N00-SS-RH

Standard

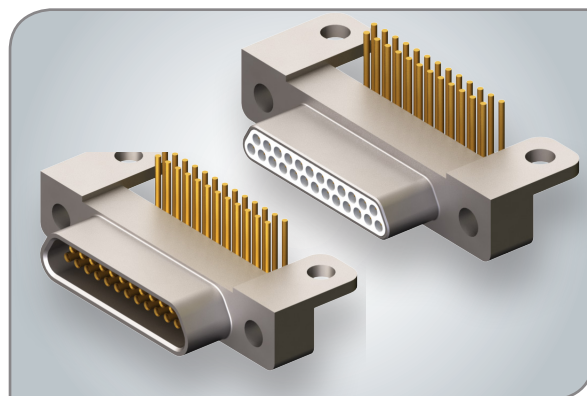
"n"	Rows	FEMALE	MALE
9	2	A99290-009	A98218-009
15	2	A99290-015	A98218-015
21	2	A99290-021	A98218-021
25	2	A99290-025	A98218-025
31	2	A99290-031	A98218-031
37	2	A99290-037	A98218-037

Micro-D

Low Profile Micro-D

Low Profile Micro-D Right Angle Thru-Hole (TYPE R2)

Measuring 2.34 mm thinner than a standard Micro-D, Omnetics' Low Profile Micro-D Connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. They are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. These commercial Low Profile Micro-D connectors are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 37 contacts. The Low Profile Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Low Profile Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

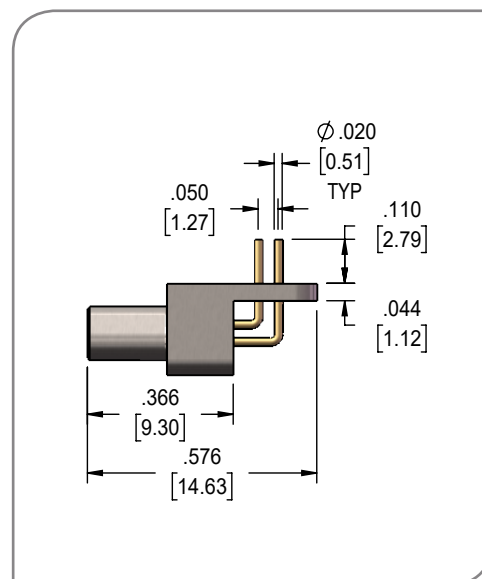
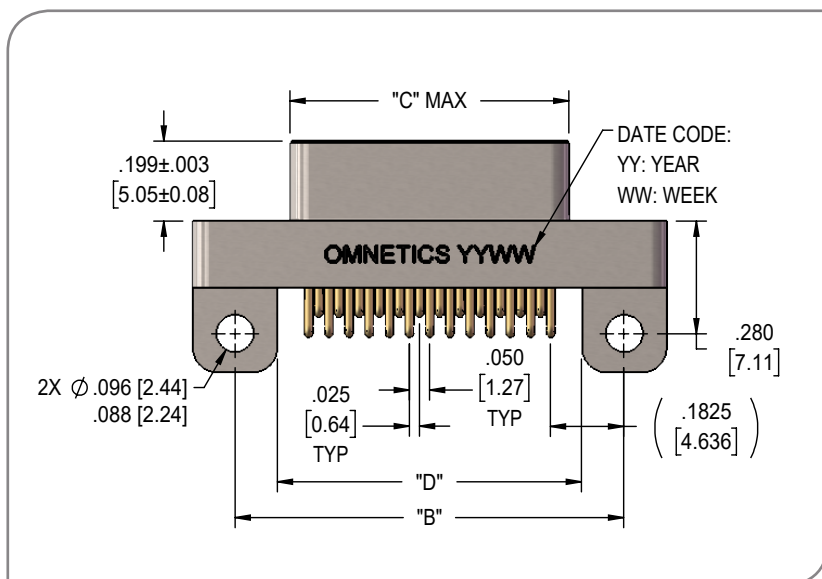
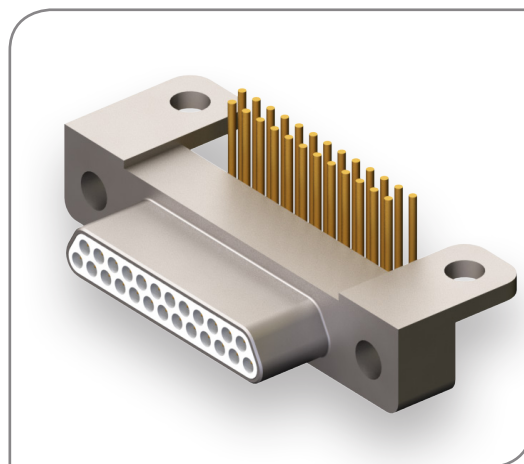
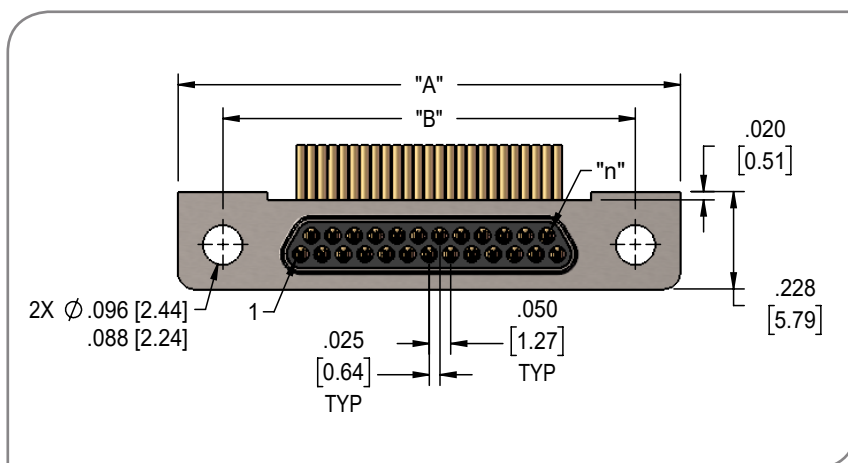
Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Low Profile Micro-D Male Right Angle Thru-Hole (TYPE R2)



Contacts

English (IN)

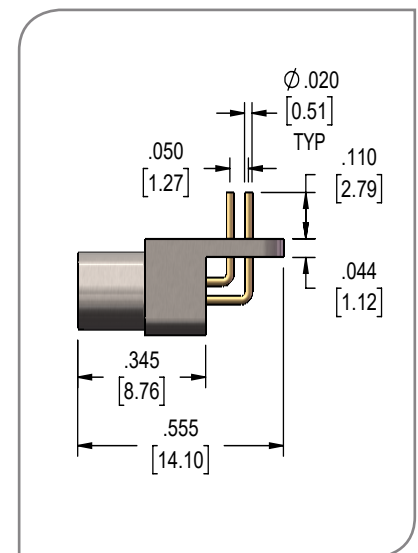
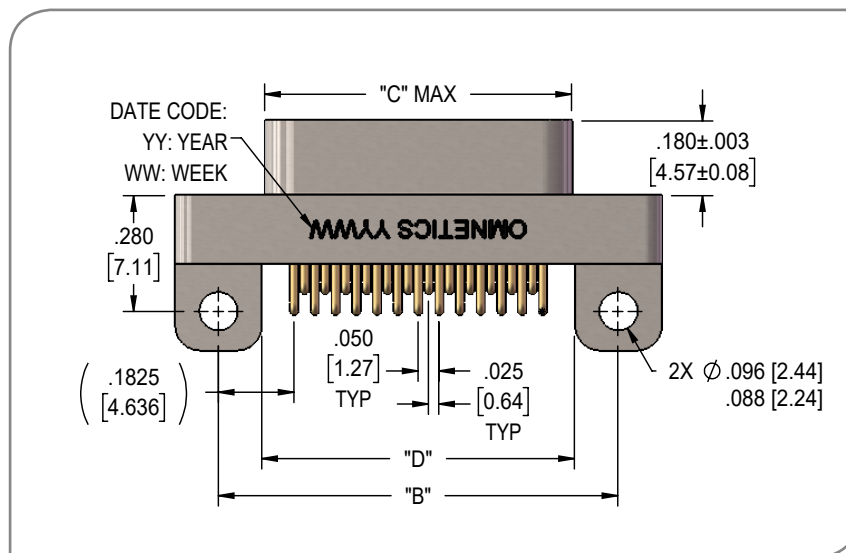
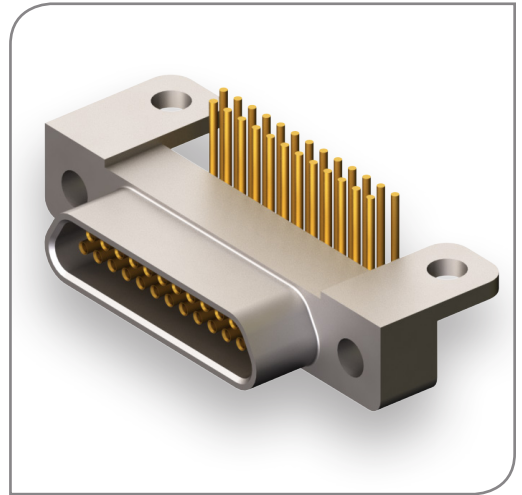
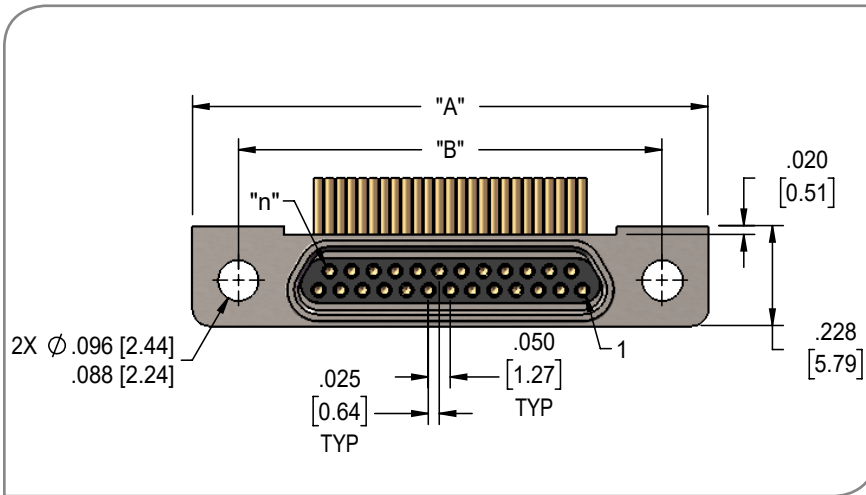
Metric (mm)

"n"	Rows	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"
9	2	.775	.565	.292	.385	19.69	14.35	7.42	10.11
15	2	.925	.715	.442	.535	23.50	18.16	11.23	13.92
21	2	1.075	.865	.592	.685	27.31	21.97	15.04	17.73
25	2	1.175	.965	.692	.785	29.85	24.51	17.58	20.27
31	2	1.325	1.115	.842	.935	33.66	28.32	21.39	24.08
37	2	1.475	1.265	.992	1.085	37.47	32.13	25.20	27.89

Micro-D

Low Profile Micro-D

Low Profile Micro-D Female Right Angle Thru-Hole (TYPE R2)

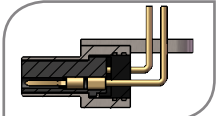
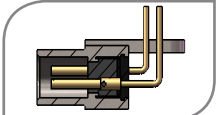
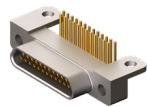


Contacts		English (IN)				Metric (mm)			
"n"	Rows	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"
9	2	.775	.565	.358	.355	19.69	14.35	9.09	9.02
15	2	.925	.715	.508	.505	23.50	18.16	12.90	12.83
21	2	1.075	.865	.658	.655	27.31	21.97	16.71	16.64
25	2	1.175	.965	.758	.755	29.85	24.51	19.25	19.18
31	2	1.325	1.115	.908	.905	33.66	28.32	23.06	22.99
37	2	1.475	1.265	1.058	1.055	37.47	32.13	26.87	26.80

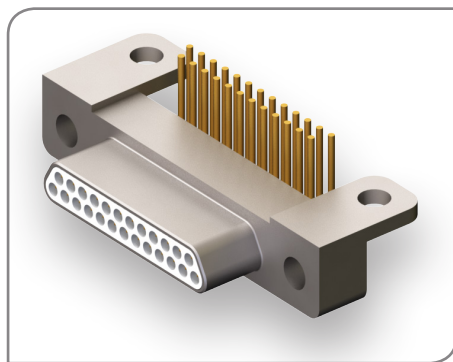
Micro-D

Low Profile Micro-D

Low Profile Micro-D Right Angle Thru-Hole (TYPE R2) Ordering Guide

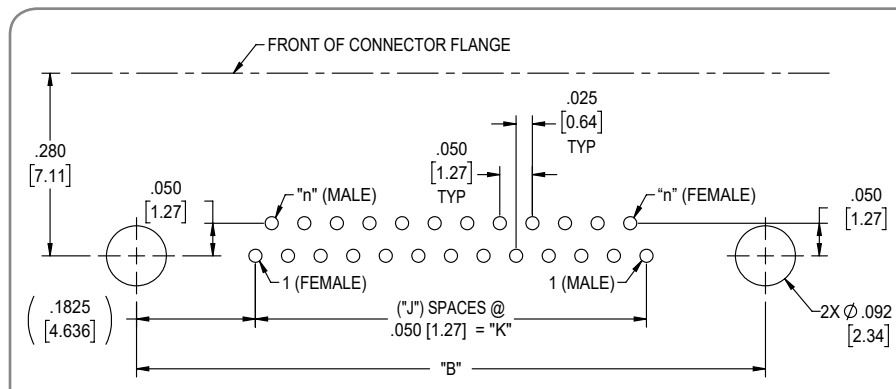
Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MDL Male (P - Pin) 	009	N (STD)	00 - NONE, Ø .092 HOLE (STD)	R2 Right Angle Thru-Hole 	HT High Temp. Epoxy (200 °C) 
	015	Aluminum Shell, Electroless Nickel Plated	01 - FIXED JACK-POSTS (STD)		
	025	C Aluminum Shell, Cadmium Plated	02 - JACKSCREWS, STD LENGTH, HEX HEAD (STD)		RH RoHS COMPLIANT 
	031		03 - JACKSCREWS, STD LENGTH, SLOTTED		
	037	B Aluminum Shell, Black Anodized	04 - JACKSCREWS, LONG, HEX		
Female (S - Socket) 		P Stainless Steel Shell, Passivated	05 - JACKSCREWS, LONG, SLOTTED		

Example



MDLP-025-N00-R2

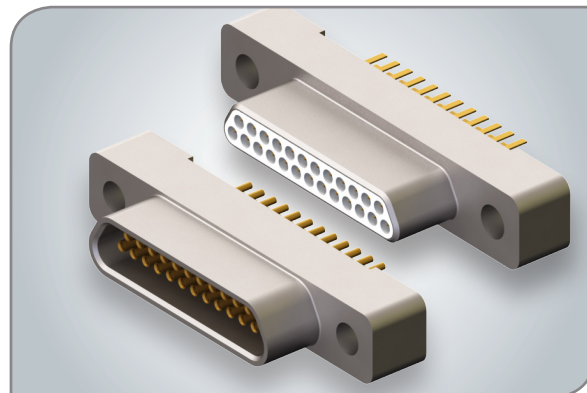
Board Mount Layout



Contacts		English (IN)			Metric (mm)		
"n"	Rows	"B"	"J"	"K"	"B"	"J"	"K"
9	2	.565	.4	.200	14.35	4	5.08
15	2	.715	.7	.350	18.16	7	8.89
21	2	.865	1.0	.500	21.97	10	12.70
25	2	.965	1.2	.600	24.51	12	15.24
31	2	1.115	1.5	.750	28.32	15	19.05
37	2	1.265	1.8	.900	32.13	18	22.86

Low Profile Micro-D Straight Thru-Hole (TYPE S2)

Measuring 2.34 mm thinner than a standard Micro-D, Omnetics' Low Profile Micro-D Connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. They are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. These commercial Low Profile Micro-D connectors are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 37 contacts. The Low Profile Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Low Profile Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

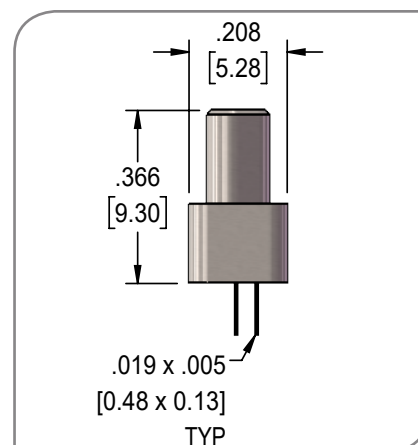
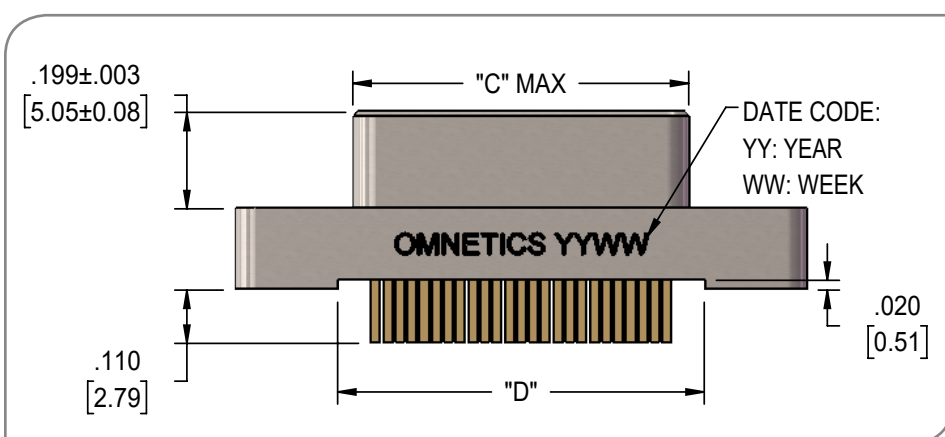
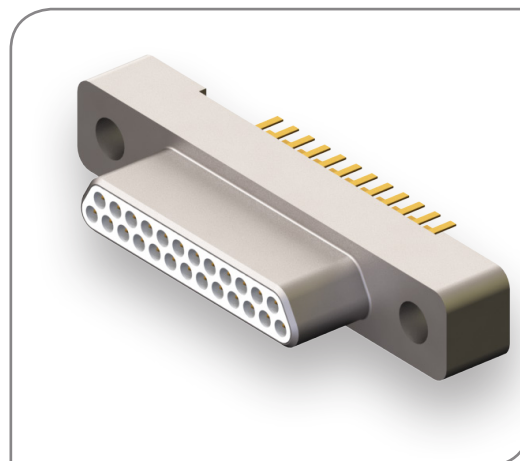
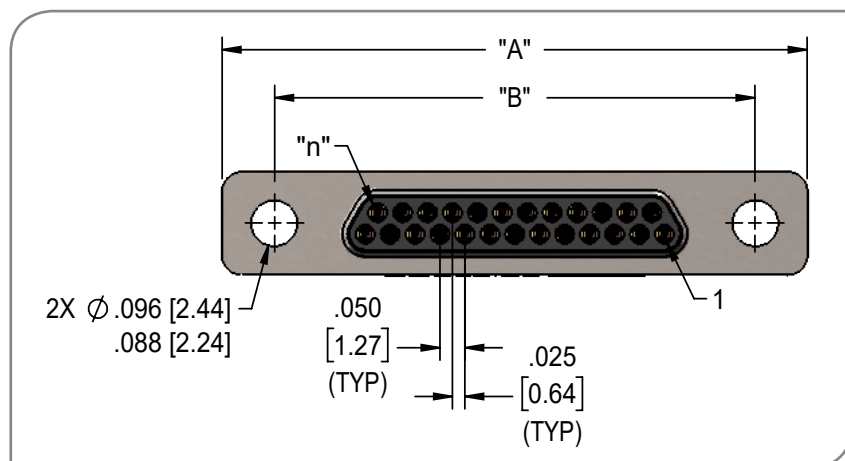
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Low Profile Micro-D

Low Profile Micro-D Male Straight Thru-Hole (TYPE S2)



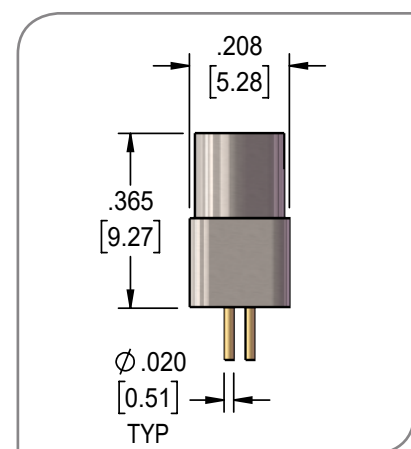
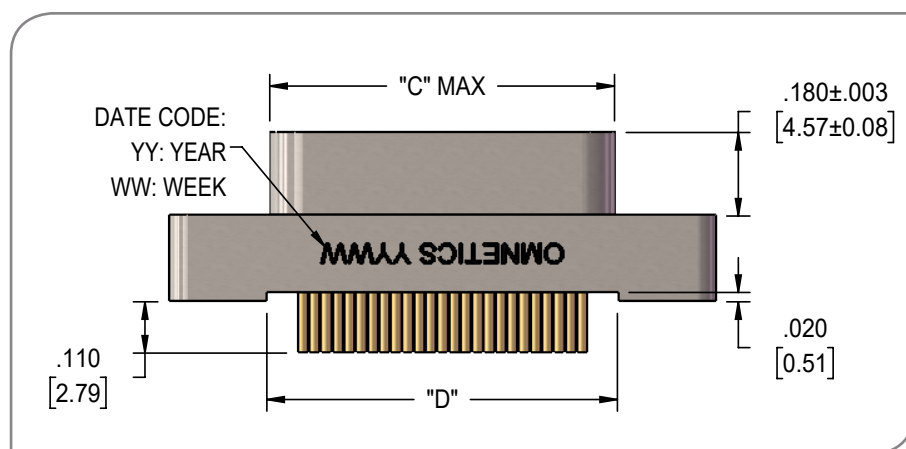
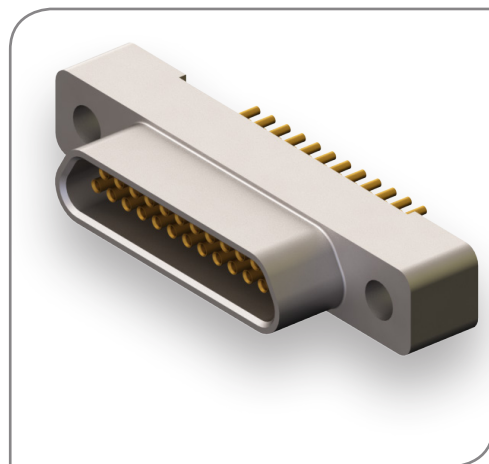
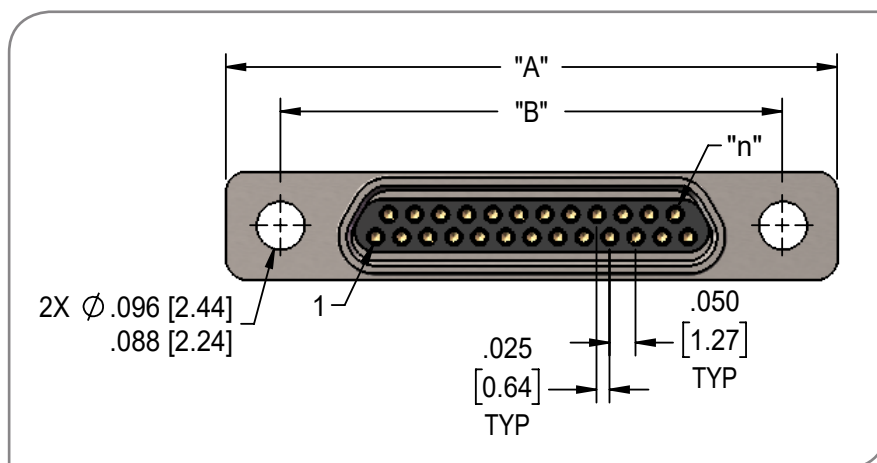
112

Contacts		English (IN)				Metric (mm)			
"n"	Rows	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"
9	2	.775	.565	.292	.355	19.69	14.35	7.42	9.02
15	2	.925	.715	.442	.505	23.50	18.16	11.23	12.83
21	2	1.075	.865	.592	.655	27.31	21.97	15.04	16.64
25	2	1.175	.965	.692	.755	29.85	24.51	17.58	19.18
31	2	1.325	1.115	.842	.905	33.66	28.32	21.39	22.99
37	2	1.475	1.265	.992	1.055	37.47	32.13	25.20	26.80

Micro-D

Low Profile Micro-D

Low Profile Micro-D Female Straight Thru-Hole (TYPE S2)

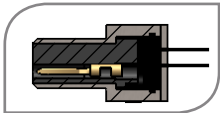
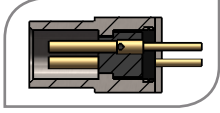


Contacts		English (IN)				Metric (mm)			
"n"	Rows	"A"	"B"	"C"	"D"	"A"	"B"	"C"	"D"
9	2	.775	.565	.358	.355	19.69	14.35	9.09	9.02
15	2	.925	.715	.508	.505	23.50	18.16	12.90	12.83
21	2	1.075	.865	.658	.655	27.31	21.97	16.71	16.64
25	2	1.175	.965	.758	.755	29.85	24.51	19.25	19.18
31	2	1.325	1.115	.908	.905	33.66	28.32	23.06	22.99
37	2	1.475	1.265	1.058	1.055	37.47	32.13	26.87	26.80

Micro-D

Low Profile Micro-D

Low Profile Micro-D Straight Thru-Hole (TYPE S2) Ordering Guide

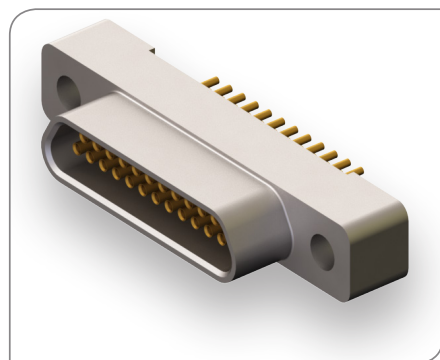
Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
■ MDL Male (P - Pin)	009	N (STD)	00 - NONE, Ø .092	S2	HT
	015	Aluminum Shell,	HOLE (STD)	Straight	High Temp.
	021	Electroless Nickel	01 - FIXED JACKPOSTS (STD)	Thru-Hole	Epoxy (200 °C)
	025	Plated	02 - JACKSCREWS, STD		
	031	C	LENGTH, HEX HEAD (STD)		
Female (S - Socket)	037	Aluminum Shell,	03 - JACKSCREWS, STD		RH
		Cadmium Plated	LENGTH, SLOTTED		
		B	04 - JACKSCREWS, LONG, HEX		RoHS COMPLIANT
		Aluminum Shell,	05 - JACKSCREWS, LONG, SLOTTED		
		Black Anodized			
		P			
		Stainless Steel			
		Shell, Passivated			



Female
(S - Socket)

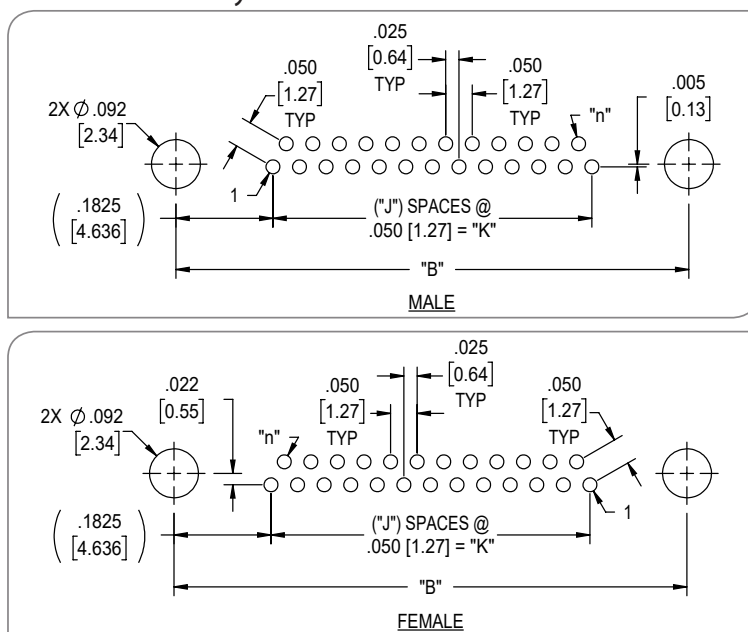


Example



MDLS-025-N00-S2-HT

Board Mount Layout



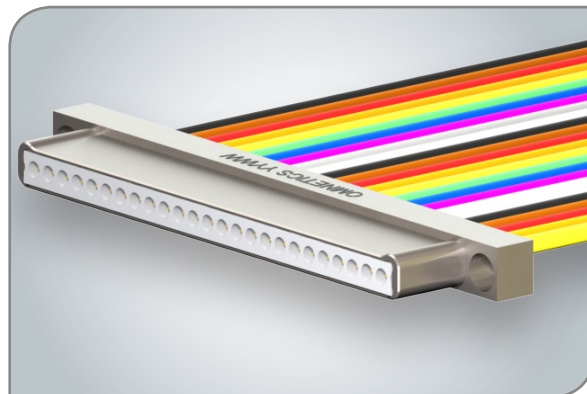
Contacts		English (IN)			Metric (mm)		
"n"	Rows	"B"	"J"	"K"	"B"	"J"	"K"
9	2	.565	.4	.200	14.35	4	5.08
15	2	.715	.7	.350	18.16	7	8.89
21	2	.865	10	.500	21.97	10	12.70
25	2	.965	12	.600	24.51	12	15.24
31	2	1.115	15	.750	28.32	15	19.05
37	2	1.265	18	.900	32.13	18	22.86

Micro-D

Single Row Micro-D

Single Row Micro-D Discrete Wired (TYPE WD)

Omnetics' Ultra Low Profile Single Row Micro-D Connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. They are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 37 contacts. The Single Row Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Single Row Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

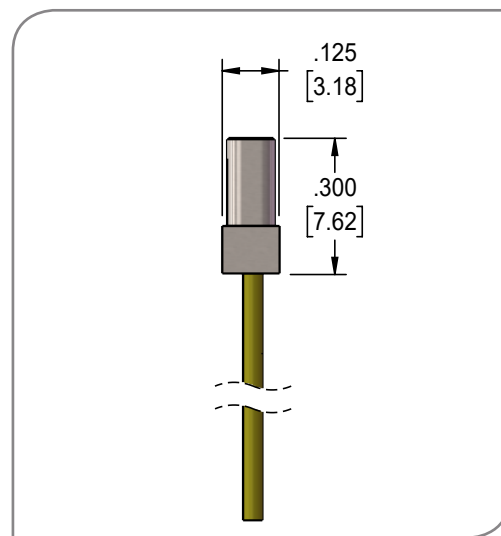
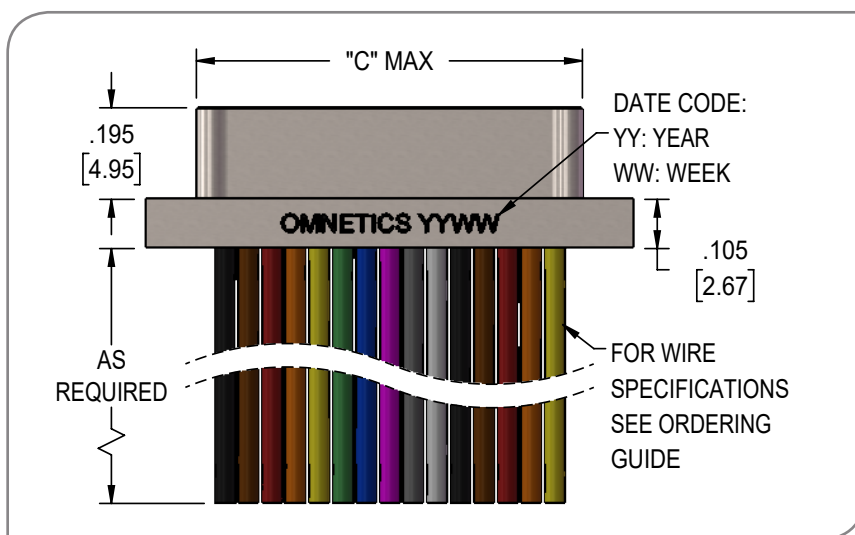
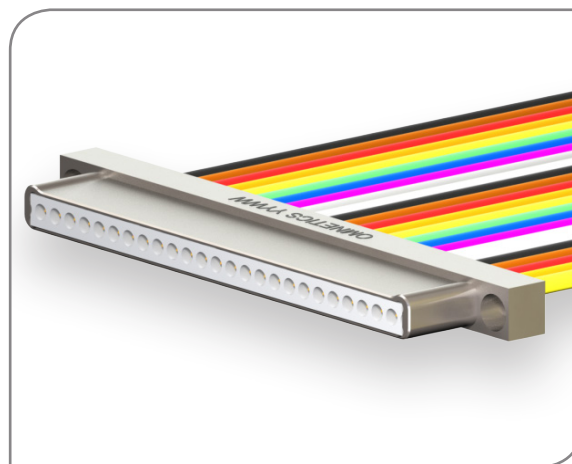
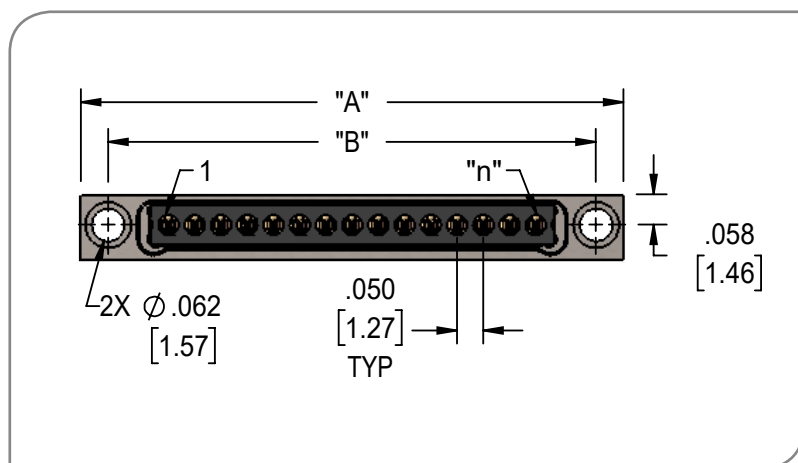
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Single Row Micro-D

Single Row Micro-D Male Discrete Wired (TYPE WD)

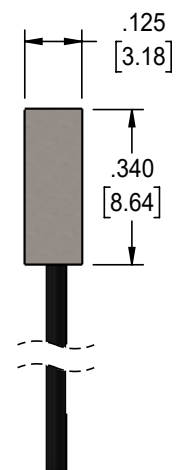
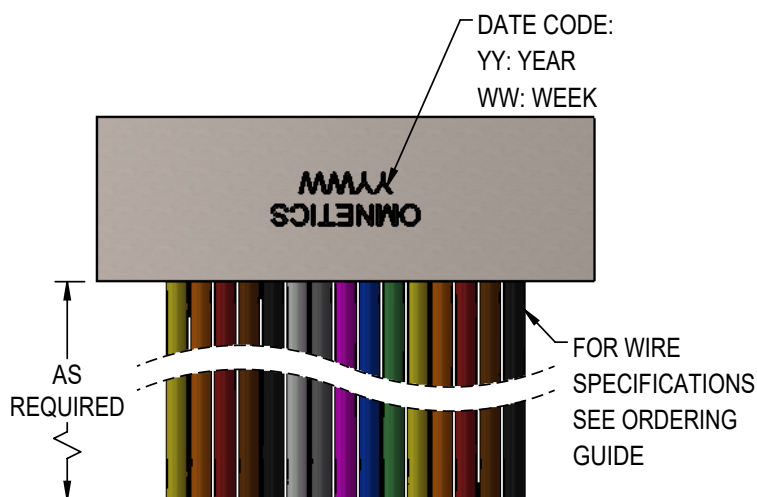
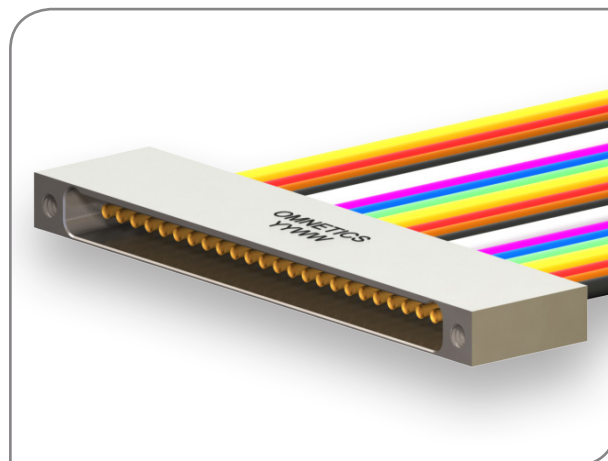
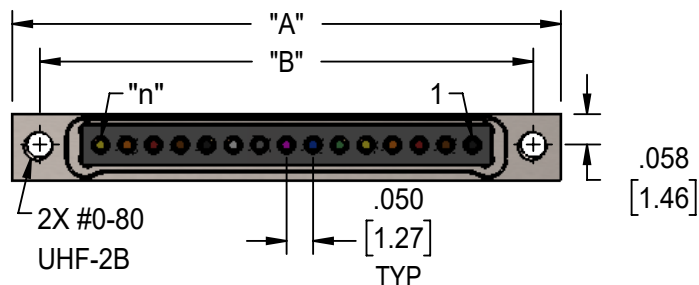


Contacts		English (IN)			Metric (mm)		
"n"	Rows	"A"	"B"	"C"	"A"	"B"	"C"
4	1	.485	.380	.270	12.32	9.65	6.86
9	1	.735	.630	.520	18.67	16.00	13.21
15	1	1.035	.930	.820	26.29	23.62	20.83
21	1	1.335	1.230	1.120	33.91	31.24	28.45
25	1	1.535	1.430	1.320	38.99	36.32	33.53
31	1	1.835	1.730	1.620	46.61	43.94	41.15
37	1	2.135	2.030	1.920	54.23	51.56	48.77

Micro-D

Single Row Micro-D

Single Row Micro-D Female Discrete Wired (TYPE WD)

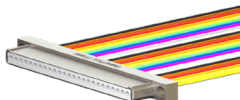
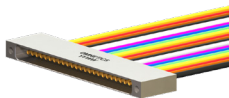
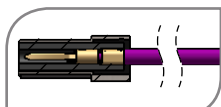
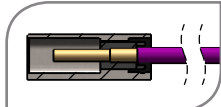


Contacts		English (IN)		Metric (mm)	
"n"	Rows	"A"	"B"	"A"	"B"
4	1	.485	.380	12.32	9.65
9	1	.735	.630	18.67	16.00
15	1	1.035	.930	26.29	23.62
21	1	1.335	1.230	33.91	31.24
25	1	1.535	1.430	38.99	36.32
31	1	1.835	1.730	46.61	43.94
37	1	2.135	2.030	54.23	51.56

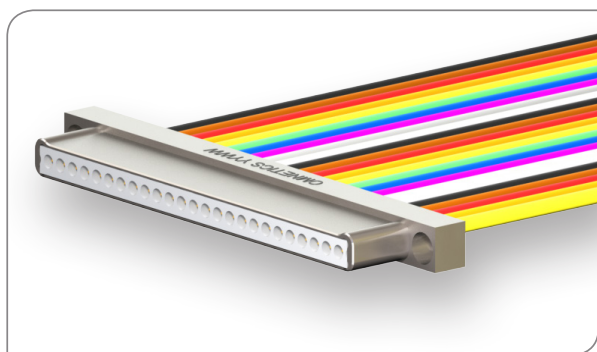
Micro-D

Single Row Micro-D

Single Row Micro-D Discrete Wired (TYPE WD) Ordering Guide

Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MMS Male (P - Pin)  Female (S - Socket) 	004	N (STD)	PIN - .062 DIAMETER	WD - Discrete Leadwire   WIRE AWG: 6 - 26 AWG (STD) 8 - 28 AWG 0 - 30 AWG WIRE TYPE: Q - NEMA HP3 (FORMERLY M16878/4 &/6) (STD) R - M22759/11 S - M22759/33 WIRE LENGTH: 18.0 - 18.00" (STD) XX.X - CUSTOM LENGTH COLOR SCHEME: 1 - 10 REPEATING (STD) 2 - BLUE 3 - WHITE 5 - YELLOW	HT High Temp. Epoxy (200 °C)  RH RoHS COMPLIANT 
	009	Aluminum Shell,	THRU-HOLE		
	015	Electroless Nickel	SOCKET - #0-80		
	021	Plated	UNF-2B THREADED		
	025	C			
	031	Aluminum Shell,			
	037	Cadmium Plated			
		B			
		Aluminum Shell,			
		Black Anodized			
		P			
		Stainless Steel			
		Shell, Passivated			

Example



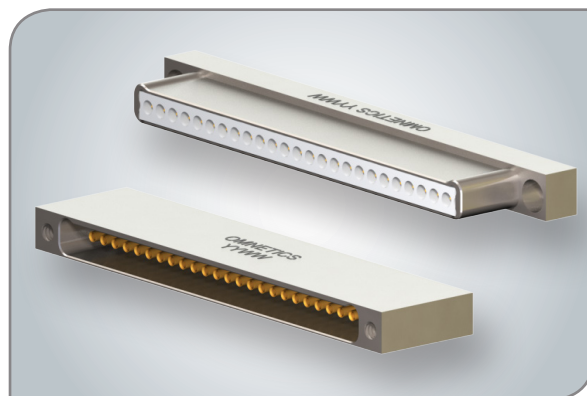
MMSP-025-N00-WD6Q18.0-1-HT

Standard

"n"	Rows	FEMALE	MALE
4	1	A92001-004	A91001-004
9	1	A92001-009	A91001-009
15	1	A92001-015	A91001-015
21	1	A92001-021	A91001-021
25	1	A92001-025	A91001-025
31	1	A92001-031	A91001-031
37	1	A92001-037	A91001-037

Single Row Micro-D Solder Cup (TYPE SS)

Omnetics' Ultra Low Profile Single Row Micro-D Connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. They are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 37 contacts. The Single Row Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Single Row Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

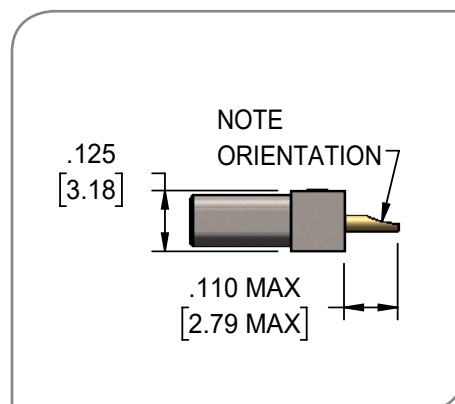
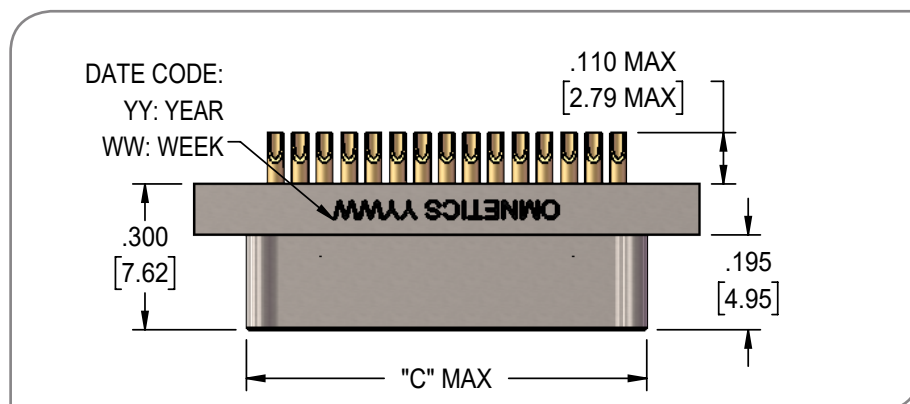
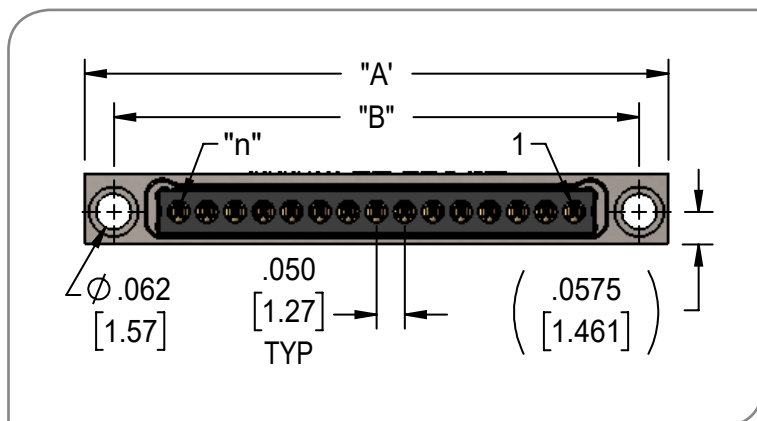
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Single Row Micro-D

Single Row Micro-D Male Solder Cup (TYPE SS)

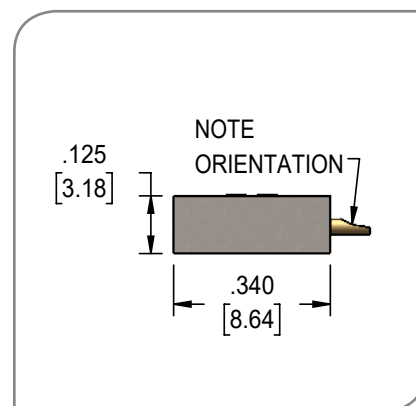
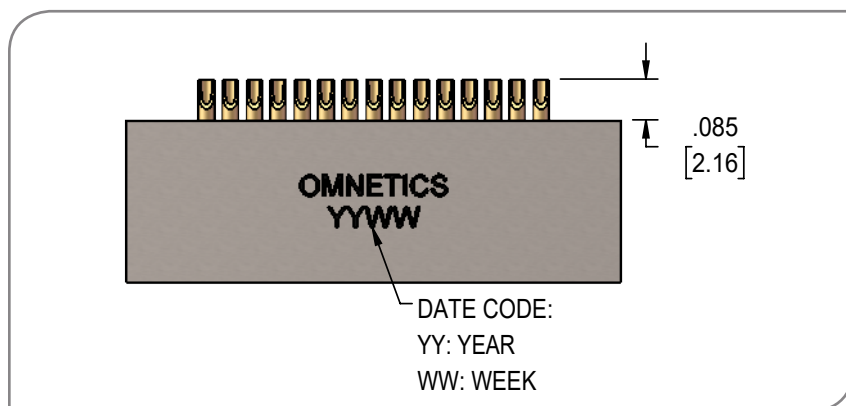
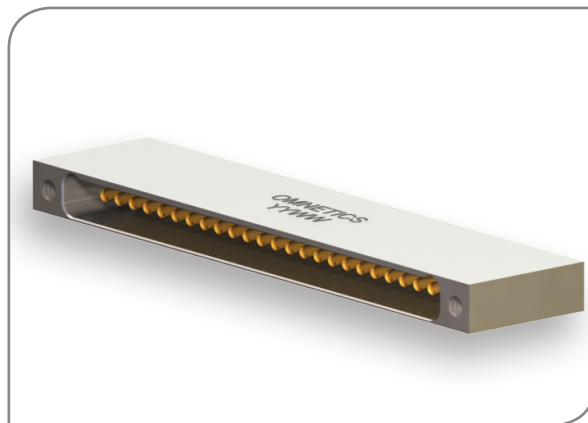
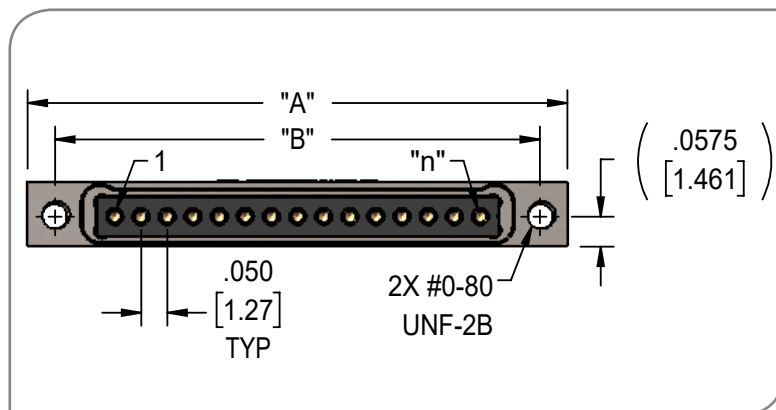


Contacts		English (IN)			Metric (mm)		
"n"	Rows	"A"	"B"	"C"	"A"	"B"	"C"
4	1	.485	.380	.270	12.32	9.65	6.86
9	1	.735	.630	.520	18.67	16.00	13.21
15	1	1.035	.930	.820	26.29	23.62	20.83
21	1	1.335	1.230	1.120	33.91	31.24	28.45
25	1	1.535	1.430	1.320	38.99	36.32	33.53
31	1	1.835	1.730	1.620	46.61	43.94	41.15
37	1	2.135	2.030	1.920	54.23	51.56	48.77

Micro-D

Single Row Micro-D

Single Row Micro-D Female Solder Cup (TYPE SS)

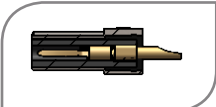
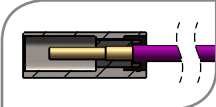


Contacts		English (IN)		Metric (mm)	
"n"	Rows	"A"	"B"	"A"	"B"
4	1	.485	.380	12.32	9.65
9	1	.735	.630	18.67	16.00
15	1	1.035	.930	26.29	23.62
21	1	1.335	1.230	33.91	31.24
25	1	1.535	1.430	38.99	36.32
31	1	1.835	1.730	46.61	43.94
37	1	2.135	2.030	54.23	51.56

Micro-D

Single Row Micro-D

Single Row Micro-D Solder Cup (TYPE SS) Ordering Guide

Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MMS Male (P - Pin)  Female (S - Socket) 	004	N (STD)	PIN - .062	SS Solder Cup  	HT High Temp. Epoxy (200 °C)  RH RoHS COMPLIANT 
	009	Aluminum Shell,	DIAMETER THRU-		
	015	Electroless Nickel	HOLE		
	021	Plated	SOCKET - #0-80		
	025	C	UNF-2B THREADED		
	031	Aluminum Shell,			
	037	Cadmium Plated			
		B			
		Aluminum Shell,			
		Black Anodized			
		P			
		Stainless Steel			
		Shell, Passivated			

Example



MMSP-025-N00-SS

Standard

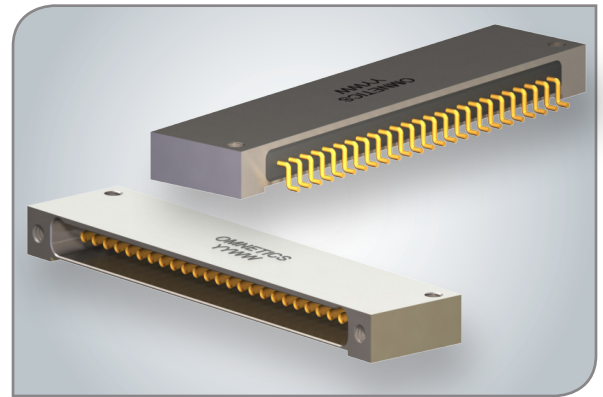
"n"	Rows	FEMALE	MALE
4	1	A92000-004	A91000-004
9	1	A92000-009	A91000-009
15	1	A92000-015	A91000-015
21	1	A92000-021	A91000-021
25	1	A92000-025	A91000-025
31	1	A92000-031	A91000-031
37	1	A92000-037	A91000-037

Micro-D

Single Row Micro-D

Single Row Micro-D Horizontal SMT (TYPE AA)

Omnetics' Ultra Low Profile Single Row Micro-D Connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. They are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 37 contacts. The Single Row Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Single Row Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

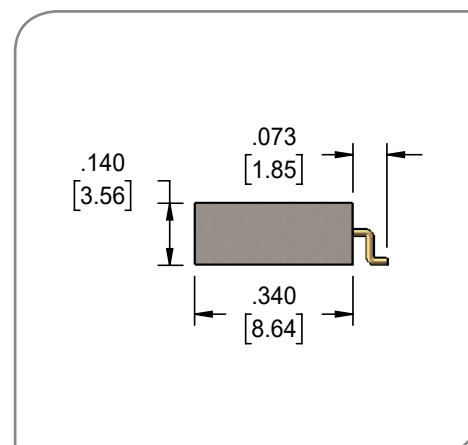
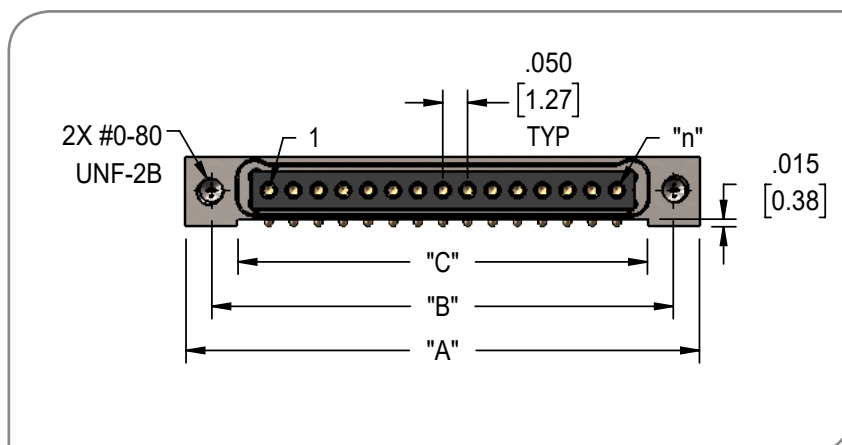
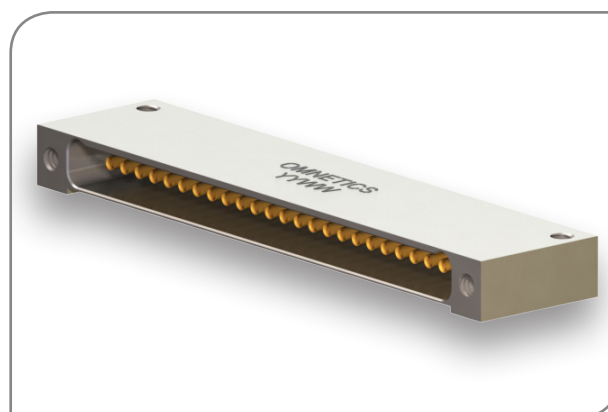
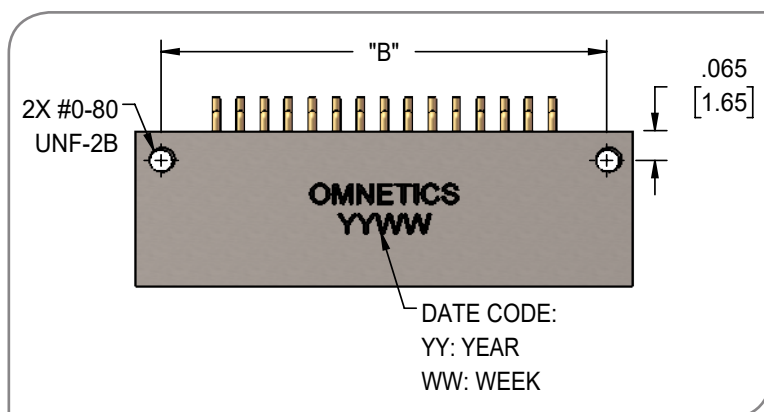
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Single Row Micro-D

Single Row Micro-D Female Horizontal SMT (TYPE AA)



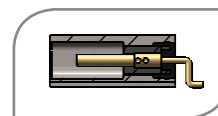
Contacts		English (IN)			Metric (mm)		
"n"	Rows	"A"	"B"	"C"	"A"	"B"	"C"
4	1	.485	.380	.275	12.32	9.65	6.99
9	1	.735	.630	.525	18.67	16.00	13.34
15	1	1.035	.930	.825	26.29	23.62	20.96
21	1	1.335	1.230	1.125	33.91	31.24	28.58
25	1	1.535	1.430	1.325	38.99	36.32	33.66
31	1	1.835	1.730	1.625	46.61	43.94	41.28
37	1	2.135	2.030	1.925	54.23	51.56	48.99

Micro-D

Single Row Micro-D

Single Row Micro-D Horizontal SMT (TYPE AA) Ordering Guide

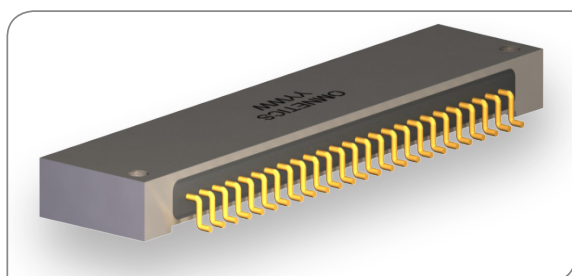
Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MMS Female (S - Socket)	004	N (STD)	SOCKET - #0-80	AA	HT
	009	Aluminum Shell,	UNF-2B THREADED	Horizontal SMT	High Temp. Epoxy (200 °C)
	015	Electroless Nickel			
	021	Plated			
	025	C			
	031	Aluminum Shell,			
	037	Cadmium Plated			
		B	Aluminum Shell,		RH RoHS COMPLIANT
		P	Black Anodized		
			Stainless Steel Shell, Passivated		



RH
RoHS
COMPLIANT

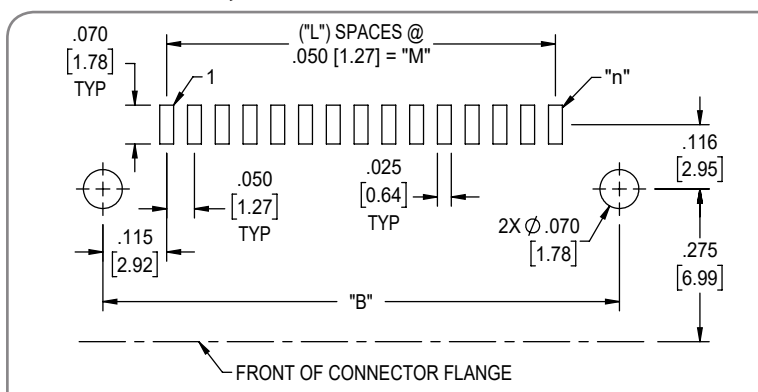


Example



MMSS-025-N00-AA

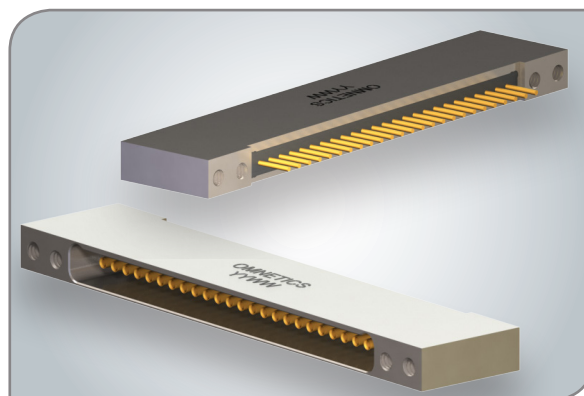
Board Mount Layout



Contacts		English (IN)			Metric (mm)		
"n"	Rows	"B"	"L"	"M"	"B"	"L"	"M"
4	1	.380	3	.150	9.65	3	3.81
9	1	.630	8	.400	16.00	8	10.16
15	1	.930	14	.700	23.62	14	17.78
21	1	1.230	20	1.000	31.24	20	25.40
25	1	1.430	24	1.200	36.32	24	30.48
31	1	1.730	30	1.500	43.94	30	38.10
37	1	2.030	36	1.800	51.56	36	45.72

Single Row Micro-D Straight Tail (TYPE DD)

Omnetics' Ultra Low Profile Single Row Micro-D Connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. They are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 37 contacts. The Single Row Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Single Row Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

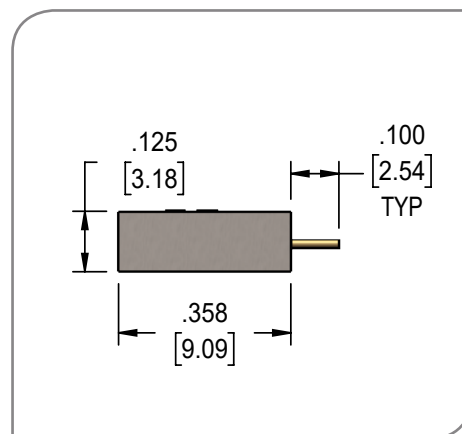
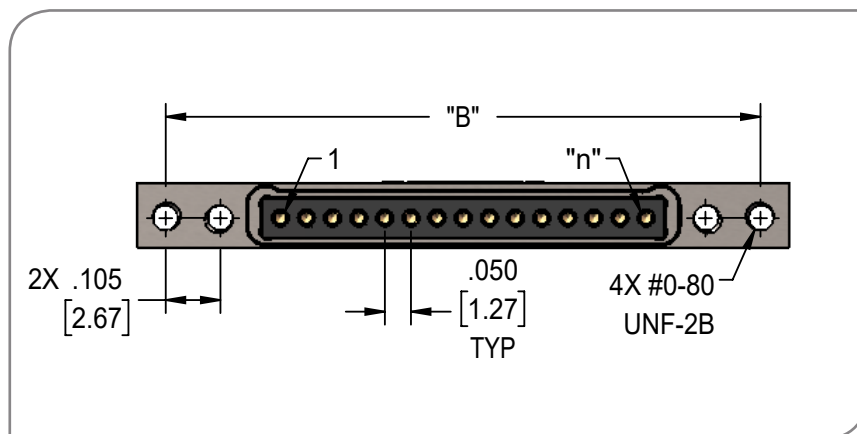
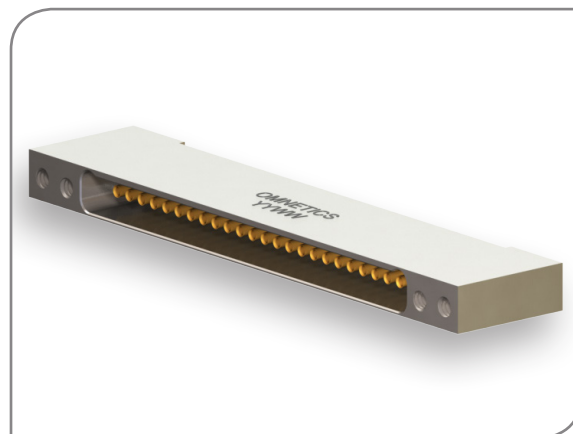
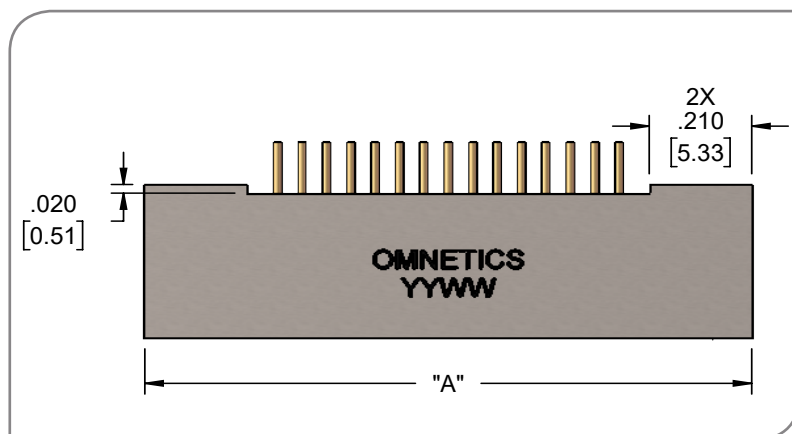
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Single Row Micro-D

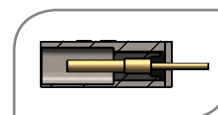
Single Row Micro-D Female Straight Tail (TYPE DD)



Contacts		English (IN)		Metric (mm)	
"n"	Rows	"A"	"B"	"A"	"B"
4	1	.696	.590	17.68	14.99
9	1	.946	.840	24.03	21.34
15	1	1.246	1.140	31.65	28.96
21	1	1.546	1.440	39.27	36.58
25	1	1.746	1.640	44.35	41.66
31	1	2.046	1.940	51.97	49.28
37	1	2.346	2.240	59.59	56.90

Single Row Micro-D Straight Tail (TYPE DD) Ordering Guide

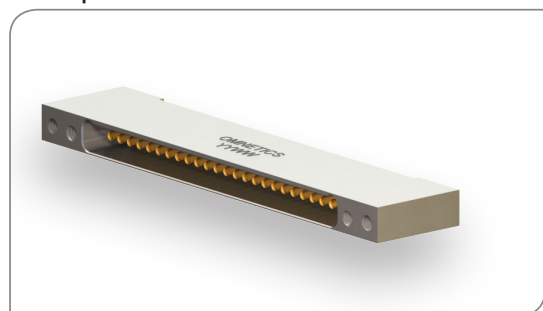
Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
MMS Female (S - Socket)	004	N (STD)	SOCKET - #0-80	DD	HT
	009	Aluminum Shell,	UNF-2B THREADED	Straight Tail	High Temp. Epoxy (200 °C)
	015	Electroless Nickel			
	021	Plated			
	025	C			
	031	Aluminum Shell,			
	037	Cadmium Plated			
		B			RH
		Aluminum Shell,			RoHS
		Black Anodized			COMPLIANT
		P			
		Stainless Steel			
		Shell, Passivated			



RH
RoHS
COMPLIANT

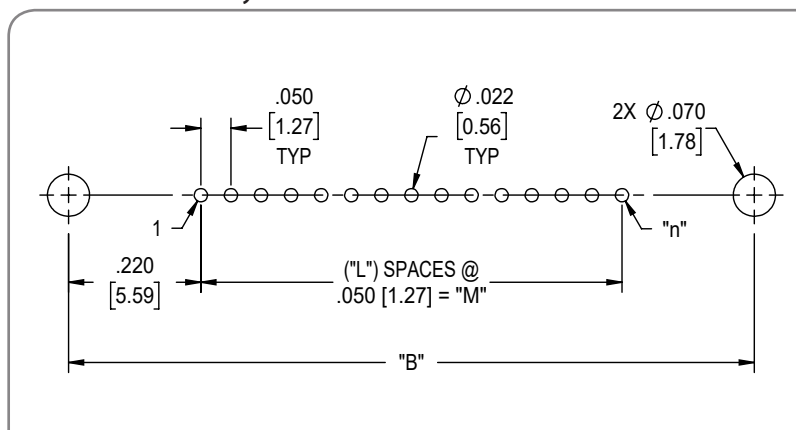


Example



MMSS-025-N00-DD

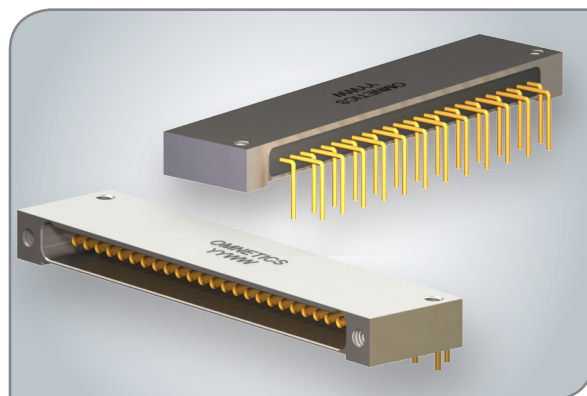
Board Mount Layout



Contacts		English (IN)			Metric (mm)		
"n"	Rows	"B"	"L"	"M"	"B"	"L"	"M"
4	1	.380	3	.150	9.65	3	3.81
9	1	.630	8	.400	16.00	8	10.16
15	1	.930	14	.700	23.62	14	17.78
21	1	1.230	20	1.000	31.24	20	25.40
25	1	1.430	24	1.200	36.32	24	30.48
31	1	1.730	30	1.500	43.94	30	38.10
37	1	2.030	36	1.800	51.56	36	45.72

Single Row Micro-D Thru-Hole Horizontal (TYPE H2)

Omnetics' Ultra Low Profile Single Row Micro-D Connectors are ideal for critical, high reliability industries including aerospace, military, petroleum, and medical. They are also used in devices such as optics, guidance systems, on-board equipment, space, and UAV systems. They are built to meet or exceed the specifications of MIL-DTL-83513. Highly rugged and compact designs in shell styles from 9 to 37 contacts. The Single Row Micro-D connectors incorporate Omnetics one-piece flex pin design for greater shock and vibration resistance. The high reliability gold plated flex pin is designed for >2,000 mating cycles. Omnetics Single Row Micro-D connectors will operate from -55°C to 200°C.



Electrical-Mechanical Specifications

Operating Temperature:	-55°C to 125°C (200 °C with High Temp Epoxy)
Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms max (65 mV drop) @2.5 AMPS per MIL-DTL-83513
Current Rating:	3 AMPS/contact per MIL-DTL-83513
Durability:	>2000 Mating Cycles min
Insulation Resistance:	5000 megohms @ 500 VDC
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond
Thermal Vacuum Outgassing (Space Class):	1.0% max TML, 0.03% CVCM - NASA SP-R-0022
Mating/Unmating Force:	3 oz (85 g) typical per contact

Material Specifications

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-M-24519
Interfacial Seal:	Silicone Elastomer per A-A-59588
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700

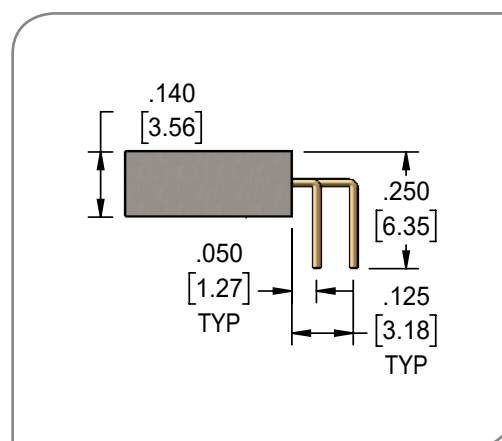
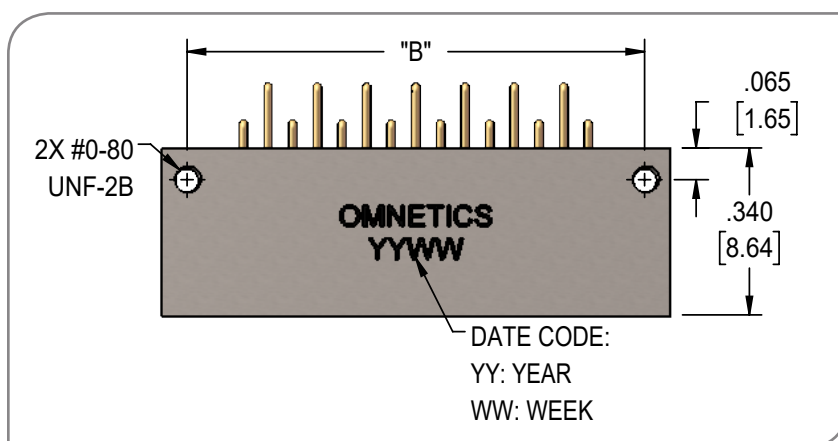
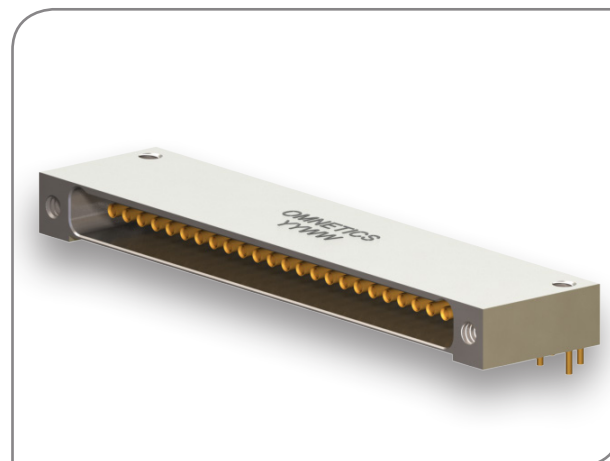
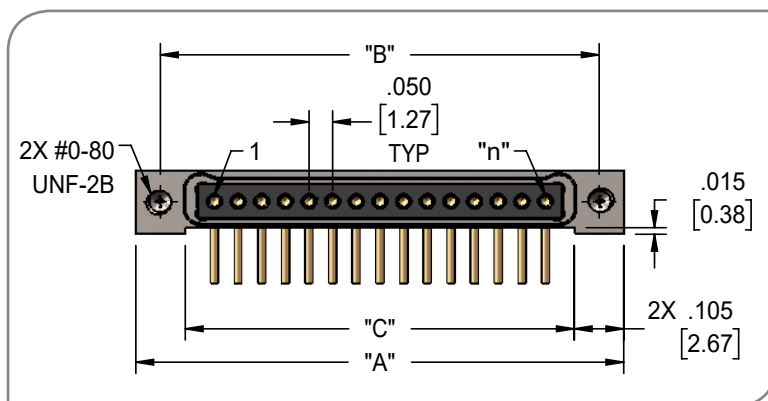
Shell Options

Aluminum with Nickel Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Nickel per SAE-AMS-2404
Stainless Steel:	300 Series, Passivated per SAE AMS-2700
Aluminum with Cadmium Plating:	Alloy 6061 per SAE AMS-QQ-A-200/8, Cadmium With Yellow Chromate Conversion per SAE-AMS-QQ-P-416, Type II, Class 3 Over Nickel Underplate

Micro-D

Single Row Micro-D

Single Row Micro-D Female Thru-Hole Horizontal (TYPE H2)



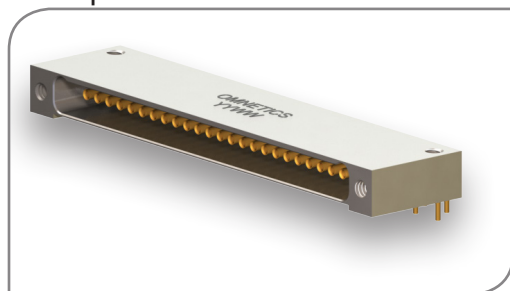
Contacts		English (IN)			Metric (mm)		
"n"	Rows	"A"	"B"	"C"	"A"	"B"	"C"
4	1	.485	.380	.275	12.32	9.65	6.99
9	1	.735	.630	.525	18.67	16.00	13.34
15	1	1.035	.930	.825	26.29	23.62	20.96
21	1	1.335	1.230	1.125	33.91	31.24	28.58
25	1	1.535	1.430	1.325	38.99	36.32	33.66
31	1	1.835	1.730	1.625	46.61	43.94	41.28
37	1	2.135	2.030	1.925	54.23	51.56	48.99

Single Row Micro-D

Single Row Micro-D Thru-Hole Horizontal (TYPE H2) Ordering Guide

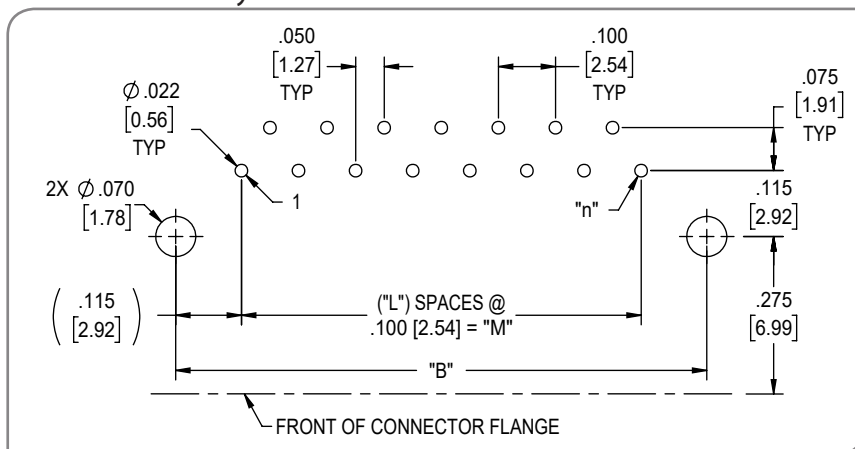
Series	# of Contacts	Shell Material and Finish	Hardware	Termination Type	Options
■ MMS	004	N (STD)	SOCKET - #0-80	H2	HT
Female	009	Aluminum Shell,	UNF-2B THREADED	Thru-Hole	High Temp.
(S - Socket)	015	Electroless Nickel		Horizontal	Epoxy (200 °C)
	021	Plated			
	025	C			
	031	Aluminum Shell,			
	037	Cadmium Plated			
		B			
		Aluminum Shell,			
		Black Anodized			
		P			
		Stainless Steel			
		Shell, Passivated			

Example



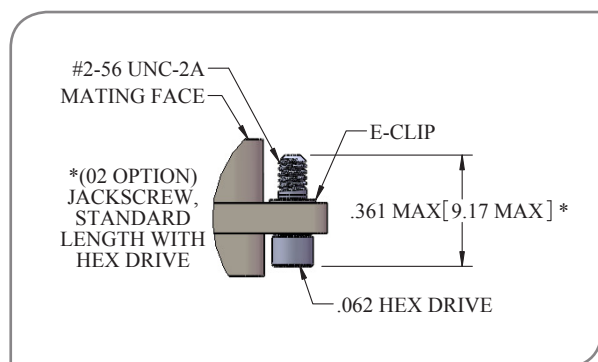
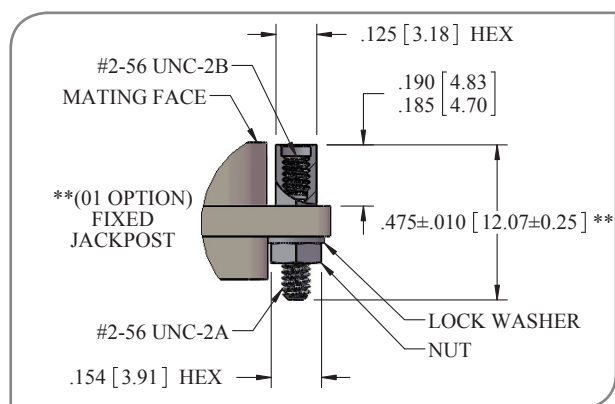
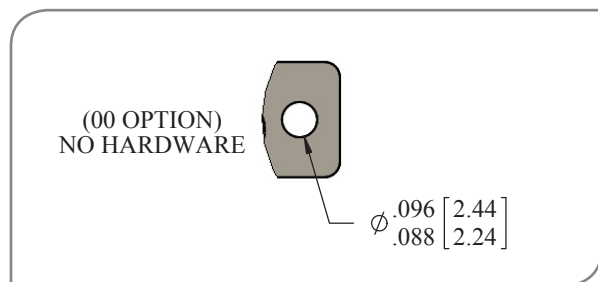
MMSS-025-N00-H2

Board Mount Layout



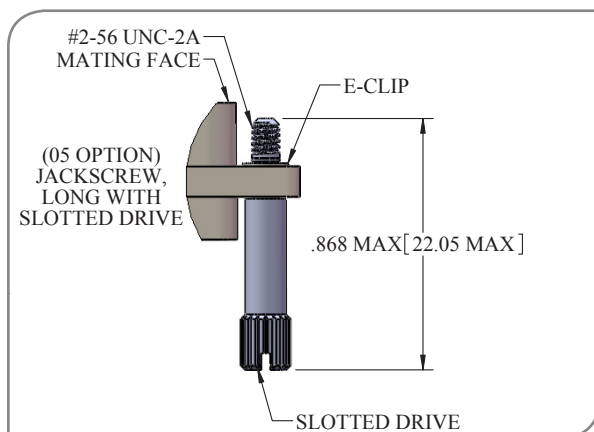
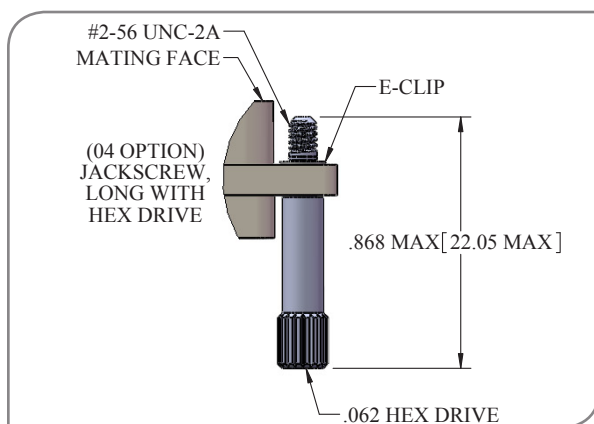
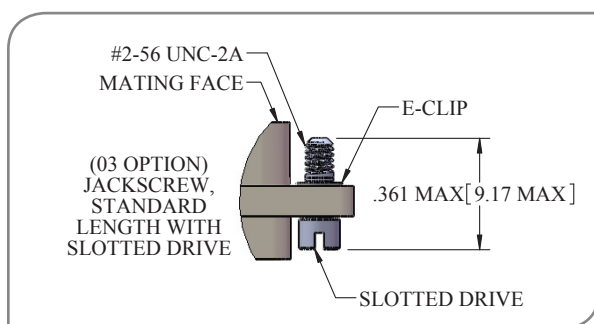
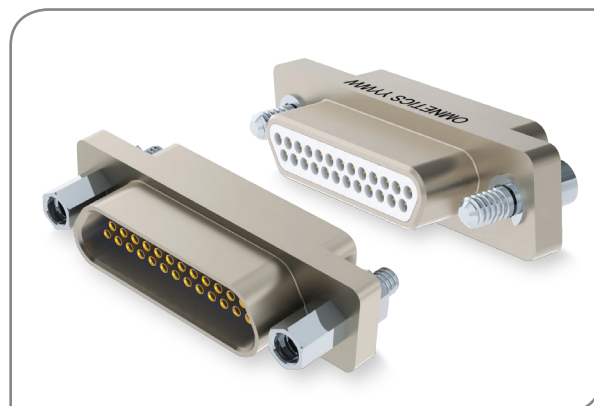
Contacts		English (IN)			Metric (mm)		
"n"	Rows	"B"	"L"	"M"	"B"	"L"	"M"
4	1	.380	3	.150	9.65	3	3.81
9	1	.630	8	.400	16.00	8	10.16
15	1	.930	14	.700	23.62	14	17.78
21	1	1.230	20	1.000	31.24	20	25.40
25	1	1.430	24	1.200	36.32	24	30.48
31	1	1.730	30	1.500	43.94	30	38.10
37	1	2.030	36	1.800	51.56	36	45.72

Hardware Selection

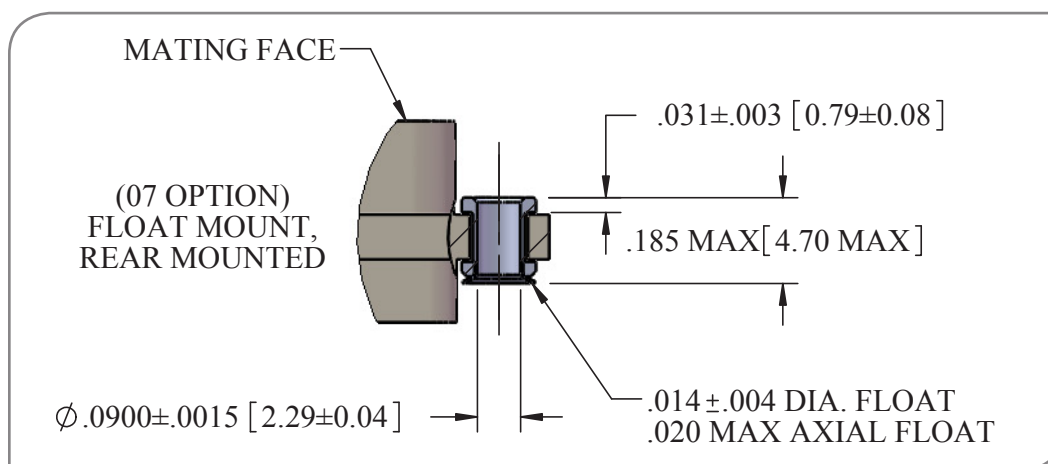
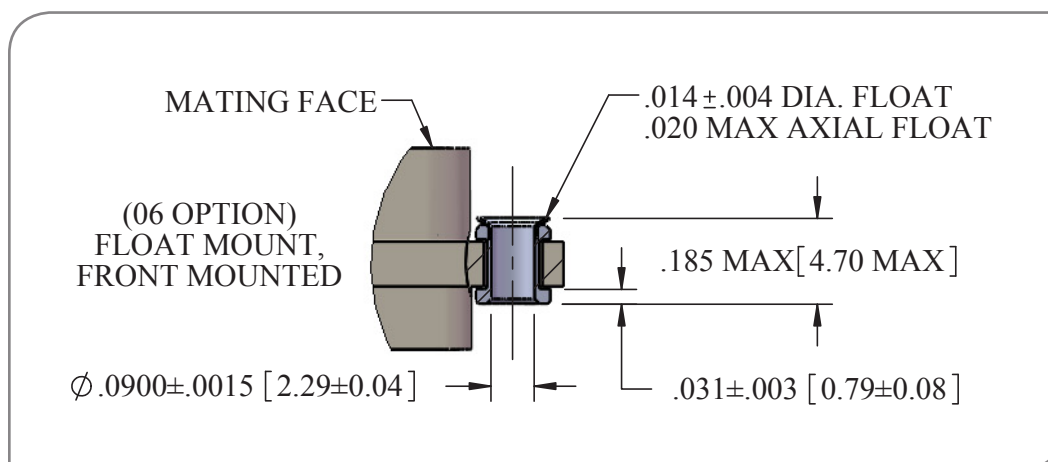


*FOR ALL TYPES EXCEPT HORIZONTAL SURFACE MOUNT (H0).
OVERALL LENGTH FOR STANDARD H0 JACKSCREW IS .485
[12.32] MAX.

**FOR ALL TYPES EXCEPT S2 AND R2. OVERALL LENGTH FOR
STANDARD S2 JACKPOST IS .560 [14.22] MAX AND .385 [9.78]
MAX FOR R2.



Hardware Selection Cont...



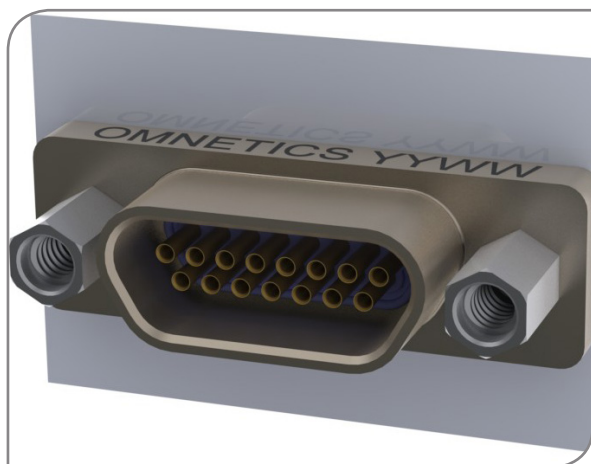
TO ORDER LOOSE HARDWARE SEPARATELY, USE OMNETICS PART NUMBERS BELOW

Kit Description	Omnetics Part #	Hardware Code (Ref)
Jackscrew Assembly, #2-56, Standard Length with Hex Drive	A97007-001	02
Jackscrew Assembly, #2-56, Standard Length with Slotted Drive	A97008-001	03
Jackscrew Assembly, #2-56, Extended Length with Hex Drive	A97007-002	04
Jackscrew Assembly, #2-56, Extended Length with Slotted Drive	A97008-002	05
Jackscrew Assembly, #2-56, Standard Length with Hex Drive* (H0)	A97007-003	02
Jackpost Assembly, Standard	A97009-001	01
Jackpost Assembly, Extended** (S2)	A97009-002	01
Jackpost Assembly, Short** (R2)	A97009-003	01

*FOR ALL TYPES EXCEPT HORIZONTAL SURFACE MOUNT (H0). OVERALL LENGTH FOR STANDARD H0 JACKSCREW IS .485 [12.32] MAX.

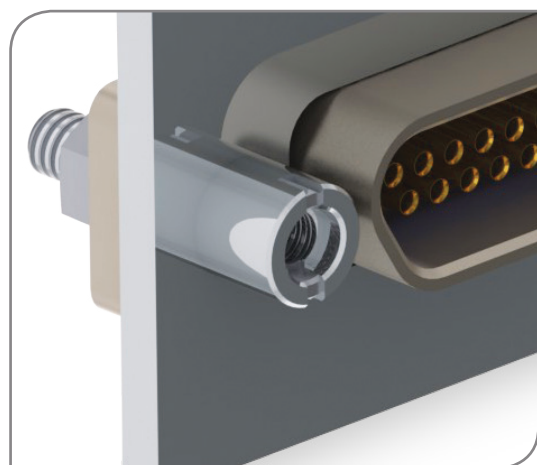
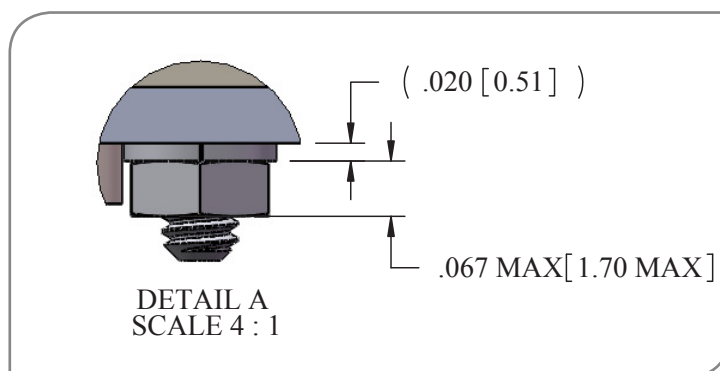
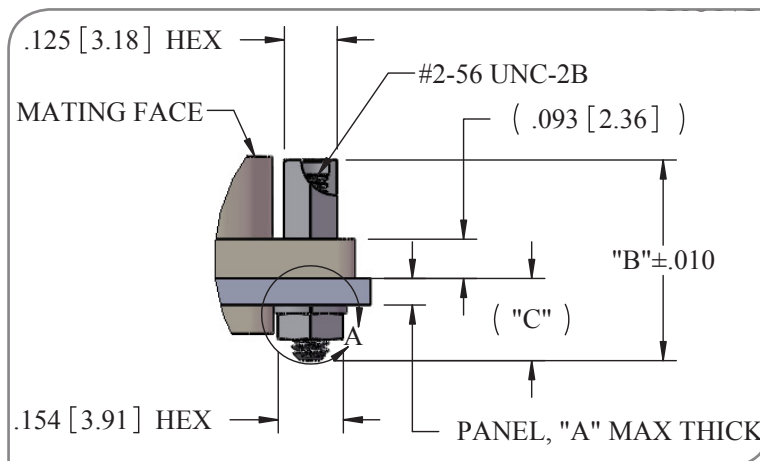
**FOR ALL TYPES EXCEPT S2 AND R2. OVERALL LENGTH FOR STANDARD S2 JACKPOST IS .560 [14.22] MAX AND .385 [9.78] MAX FOR R2.

Panel Mount Hardware Selection



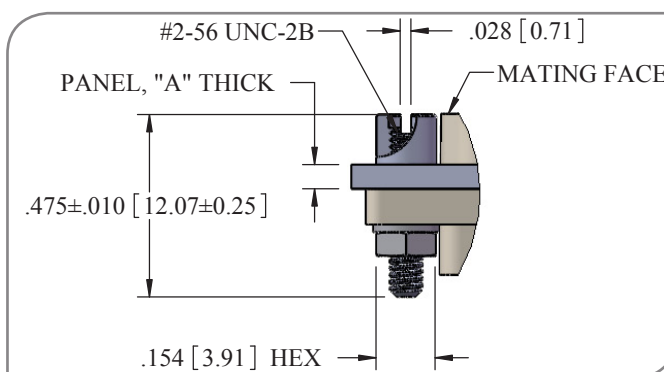
FRONT MOUNT

EACH KIT INCLUDES TWO JACKPOSTS, WASHERS, AND NUTS. FOR USE WITH REGULAR WIRED OR SOLDERCUP MICRO-D CONNECTORS.



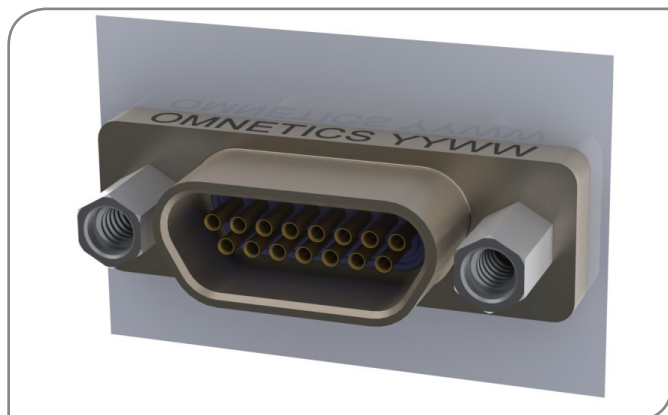
REAR MOUNT

English (IN)			Metric (mm)			Omnetics Part #
"A"	"B"	"C"	"A"	"B"	"C"	
.05	.475	.195	1.3	12.07	4.94	A 97006-001
.13	.550	.270	3.2	13.97	6.85	A 97006-002

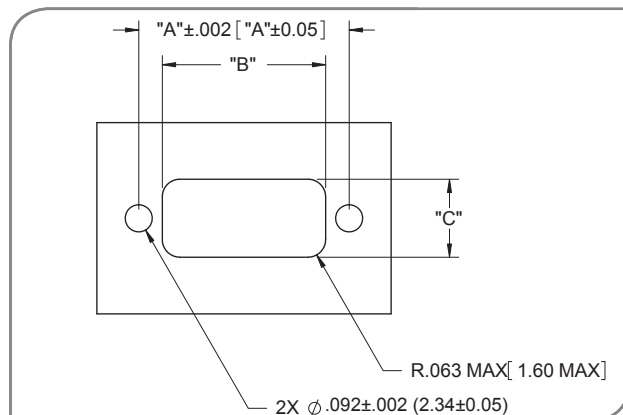


English (IN)		Metric (mm)		Omnetics Part #
"A"		"A"		
MIN	MAX	MIN	MAX	
.027	0.33	.69	.84	A97006-101
.059	0.65	1.50	1.65	A97006-102
.090	0.96	2.29	2.44	A97006-103

Panel Mount Cut Out

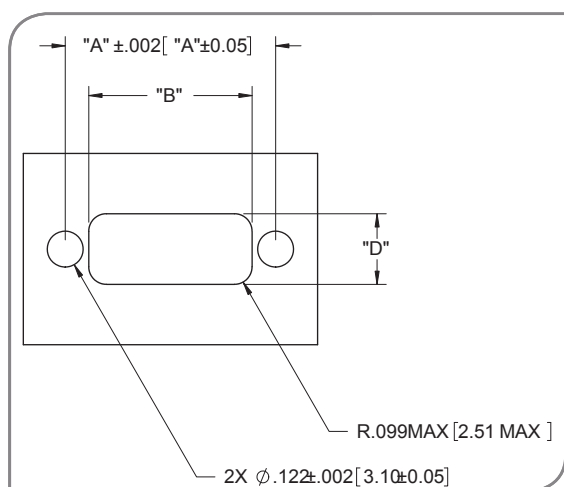
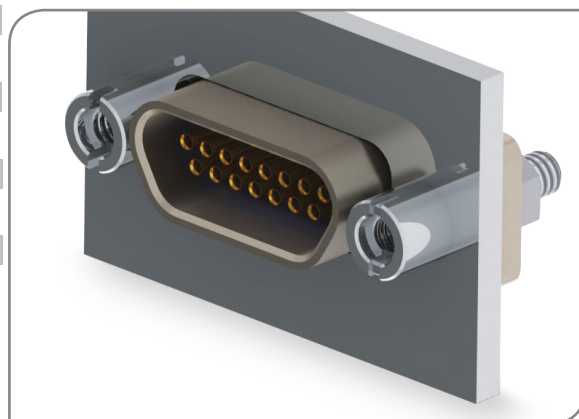


FRONT MOUNTED



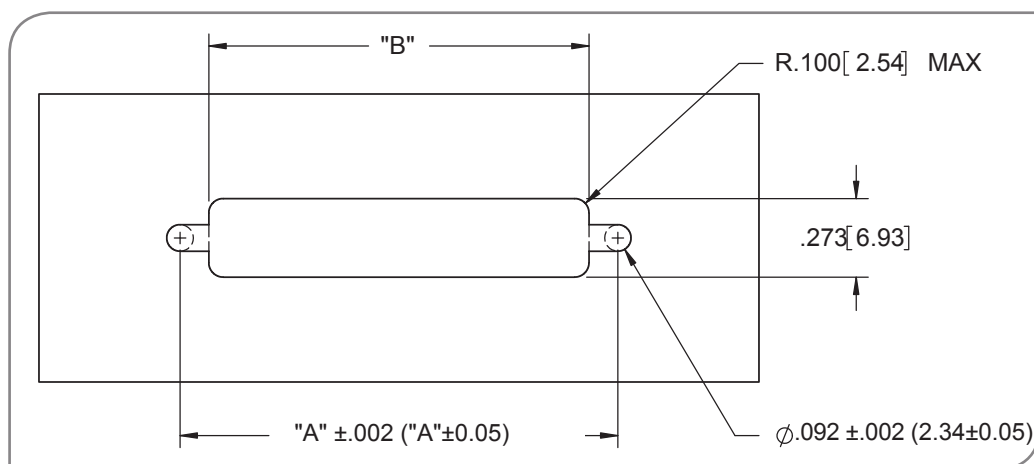
Contacts		English (IN)			Metric (mm)		
"n"	Rows	"A"	"B"	"C"	"A"	"B"	"C"
9	2	.565	.405	.275	14.35	10.29	6.99
15	2	.715	.555	.275	18.16	14.10	6.99
21	2	.865	.705	.275	21.97	17.91	6.99
25	2	.965	.805	.275	24.51	20.45	6.99
31	2	1.115	.955	.275	28.32	24.26	6.99
37	2	1.265	1.105	.275	32.13	28.07	6.99
51	2	1.615	1.455	.275	41.02	36.96	6.99
51	3	1.215	1.055	.315	30.86	26.80	8.00

REAR MOUNTED

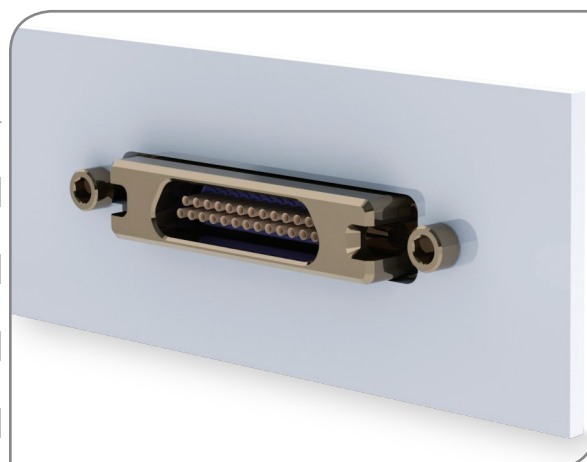


Contacts		English (IN)			Metric (mm)		
"n"	Rows	"A"	"B"	"D"	"A"	"B"	"D"
9	2	.565	.405	.255	14.35	10.29	6.48
15	2	.715	.555	.255	18.16	14.10	6.48
21	2	.865	.705	.255	21.97	17.91	6.48
25	2	.965	.805	.255	24.51	20.45	6.48
31	2	1.115	.955	.255	28.32	24.26	6.48
37	2	1.265	1.105	.255	32.13	28.07	6.48
51	2	1.615	1.455	.255	41.02	36.96	6.48
51	3	1.215	1.055	.298	30.86	26.80	7.57

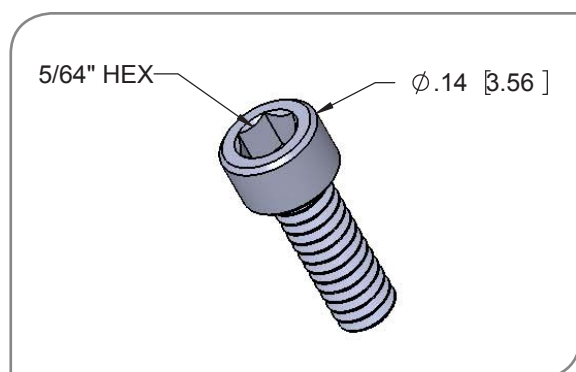
Latching Panel Mount Cut Out



Contacts		English (IN)		Metric (mm)	
"n"	Rows	"A"	"B"	"A"	"B"
9	2	1.120	.920	28.45	23.37
15	2	1.270	1.070	32.26	27.18
21	2	1.420	1.220	36.07	30.99
25	2	1.520	1.320	38.61	33.53
31	2	1.670	1.470	42.42	37.34
37	2	1.820	1.620	46.23	41.15
51	2	2.170	1.970	55.12	50.04



REAR MOUNTED (Latching Micro-D Shown)



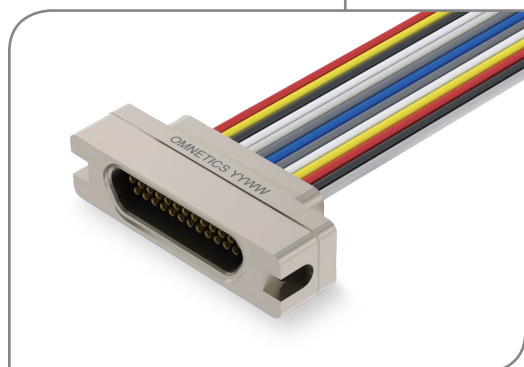
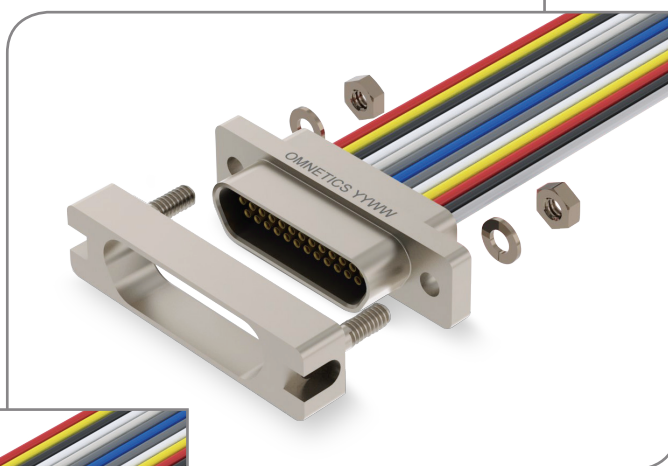
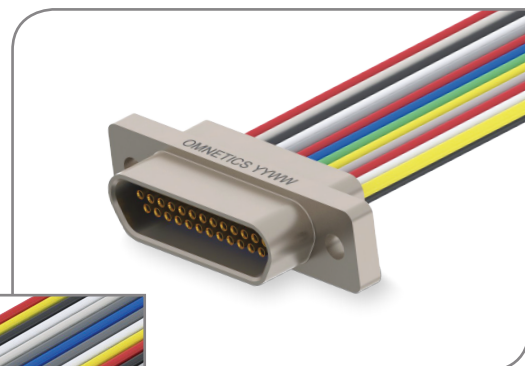
Panel Thickness		
English (IN)	Metric (mm)	Omnetics Part #
.010 - .045	0.25 - 1.14	D6292-156
.045 - .094	1.14 - 2.39	D6292-187

SCREWS SOLD INDIVIDUALLY, ORDER TWO PER CONNECTOR.

'No Tools Required' Adapter

Latching Micro-D Conversion Kit

Any Standard Micro-D connector with access to the back of the connector flange can be converted to a Latching Micro-D. With Omnetics' rugged latching systems, the need for tools is eliminated without compromising the performance expected from a Micro-D connector.



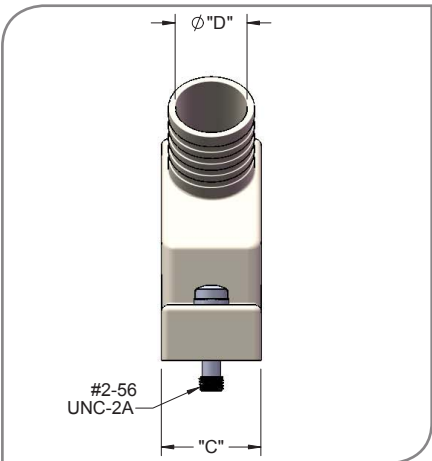
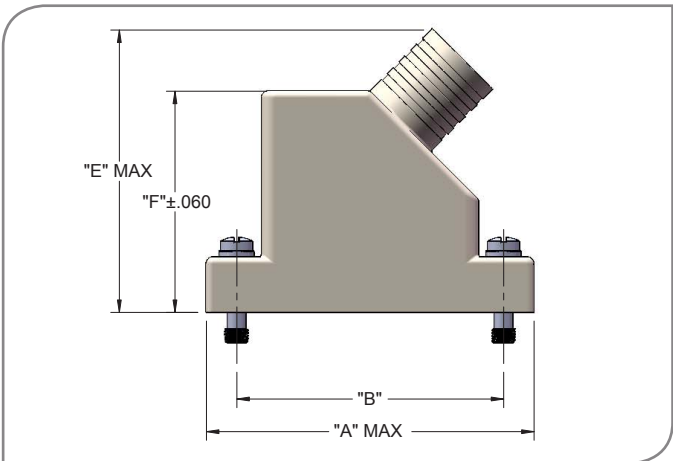
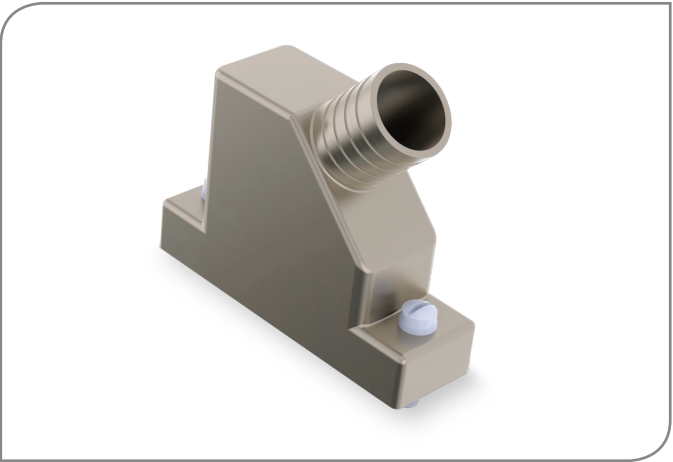
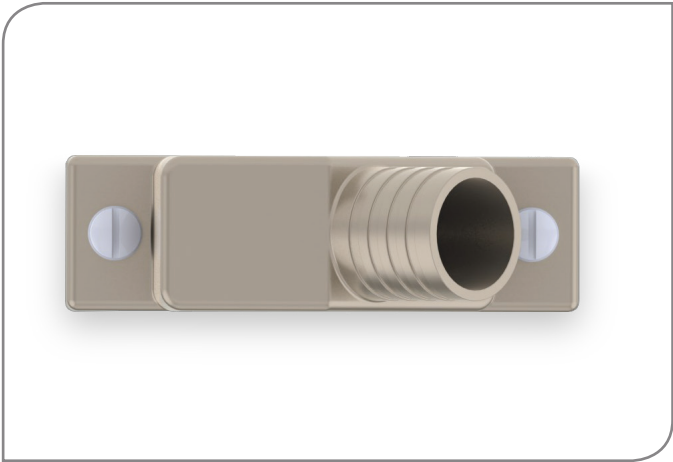
*Patent Pending

Contacts

Omnetics Part

"n"	Rows	
9	2	A99018-009
15	2	A99018-015
21	2	A99018-021
25	2	A99018-025
31	2	A99018-031
37	2	A99018-037
51	2	A99018-051

45 Degree Round Entry, Micro-D Backshell

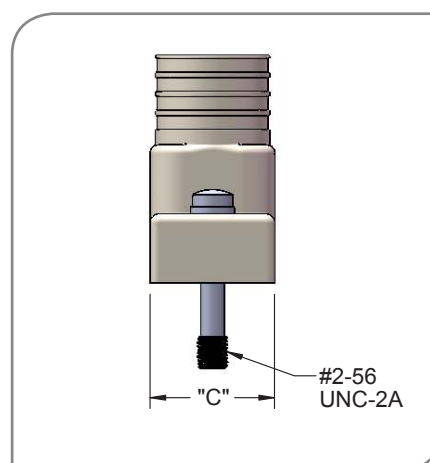
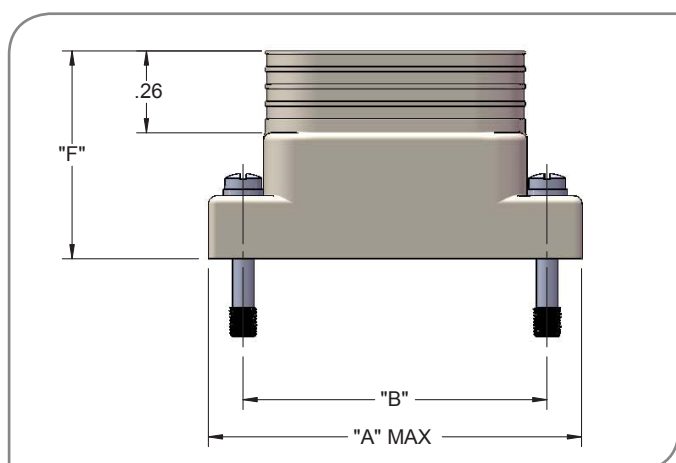
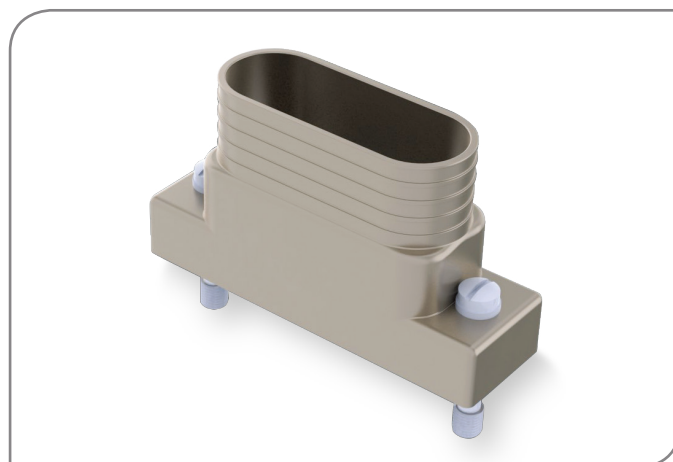
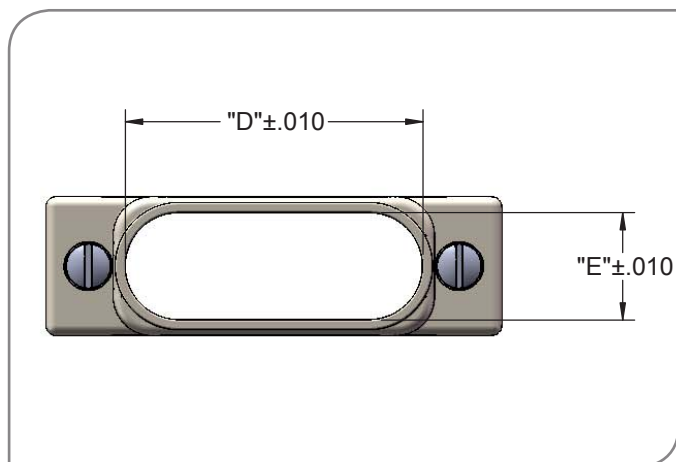


NOTE:
BACKSHELL MATERIAL: ALUMINUM ALLOY
FINISH: .0007/.0010 ELECTROLESS NICKEL PER SAE
AMS-2404 CLASS 3 OR 4 GRADE B
HARDWARE: PASSIVATED STAINLESS STEEL,
E-CLIPS (NOT SHOWN).

EACH KIT INCLUDES:
BACKSHELL, TWO SCREWS AND
TWO RETAINING CLIPS. ORDER
ONE KIT PER CONNECTOR

Contacts			English (IN)						Metric (mm)					
Omnetics														
Part #	"n"	Rows	"A"	"B"	"C"	"D"	"E"	"F"	"A"	"B"	"C"	"D"	"E"	"F"
A97000-009	9	2	.785	.565	.340	.160	.875	.650	19.94	14.35	8.64	4.06	22.23	16.51
A97000-015	15	2	.935	.715	.340	.190	.925	.700	23.75	18.16	8.64	4.83	23.50	17.78
A97000-021	21	2	1.085	.865	.340	.220	.975	.735	27.56	21.97	8.64	5.59	24.77	18.67
A97000-025	25	2	1.185	.965	.360	.260	1.025	.800	30.10	24.51	9.14	6.60	26.04	20.32
A97000-031	31	2	1.335	1.115	.360	.275	1.065	.860	33.91	28.32	9.14	6.99	27.05	21.84
A97000-037	37	2	1.485	1.265	.360	.285	1.105	.925	37.72	32.13	9.14	7.24	28.07	23.50
A97000-513	51	3	1.435	1.215	.413	.350	1.187	.975	36.45	41.02	10.49	8.89	30.15	24.77

Straight Oval Entry, Micro-D Backshell



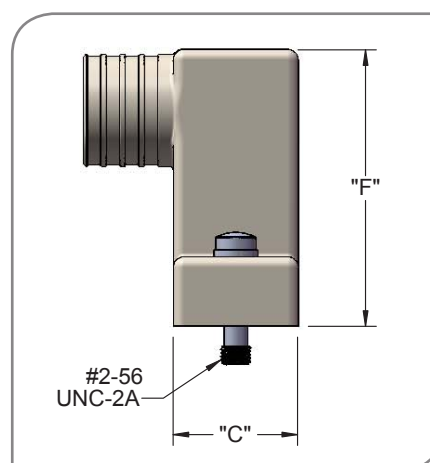
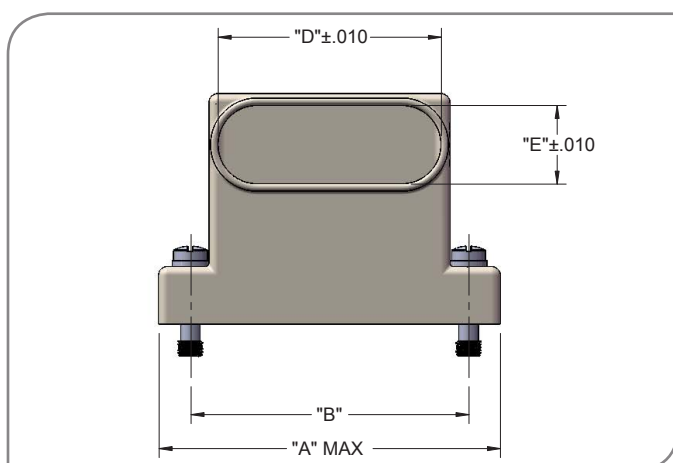
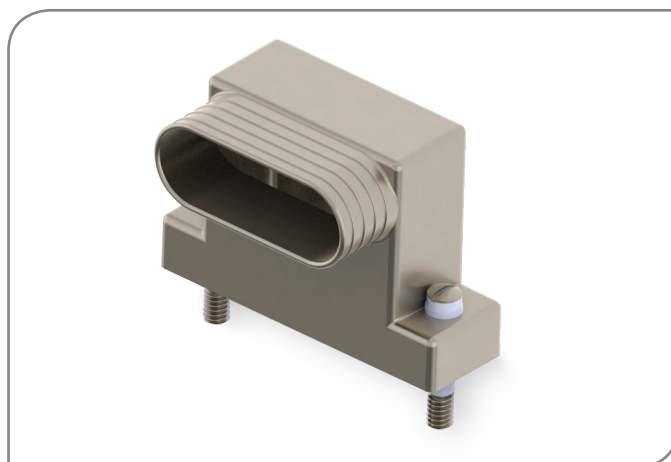
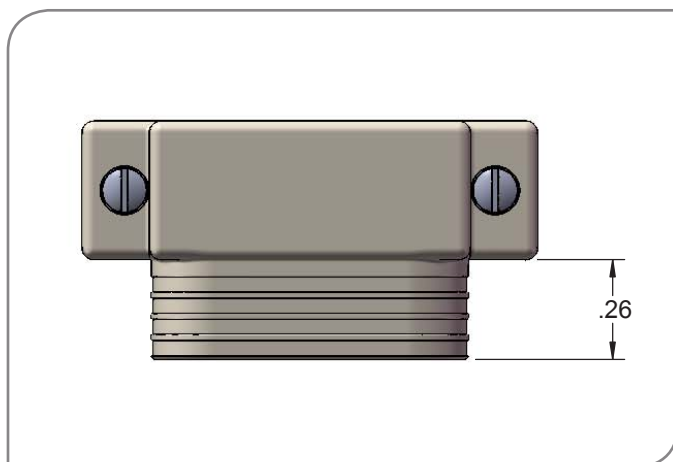
NOTE:

BACKSHELL MATERIAL: ALUMINUM ALLOY
FINISH: .0007/.0010 ELECTROLESS NICKEL PER SAE
AMS-2404 CLASS 3 OR 4 GRADE B
HARDWARE: PASSIVATED STAINLESS STEEL,
E-CLIPS (NOT SHOWN).

EACH KIT INCLUDES:
BACKSHELL, TWO SCREWS AND
TWO RETAINING CLIPS. ORDER
ONE KIT PER CONNECTOR

Contacts			English (IN)						Metric (mm)					
Omnetics														
Part #	"n"	Rows	"A"	"B"	"C"	"D"	"E"	"F"	"A"	"B"	"C"	"D"	"E"	"F"
A97001-009	9	2	.785	.565	.340	.375	.273	.660	19.94	14.35	8.64	9.53	6.93	16.76
A97001-015	15	2	.935	.715	.340	.525	.273	.660	23.75	18.16	8.64	13.34	6.93	16.76
A97001-021	21	2	1.085	.865	.340	.675	.273	.660	27.56	21.97	8.64	17.15	6.93	16.76
A97001-025	25	2	1.185	.965	.360	.775	.273	.660	30.10	24.51	9.14	19.69	6.93	16.76
A97001-031	31	2	1.335	1.115	.360	.925	.273	.660	33.91	28.32	9.14	23.50	6.93	16.76
A97001-037	37	2	1.485	1.265	.360	1.075	.273	.660	37.72	32.13	9.14	27.31	6.93	16.76
A97001-513	51	3	1.435	1.215	.380	1.025	.313	.880	36.45	30.86	10.49	26.04	7.95	22.35

90 Degree Oval Entry, Micro-D Backshell



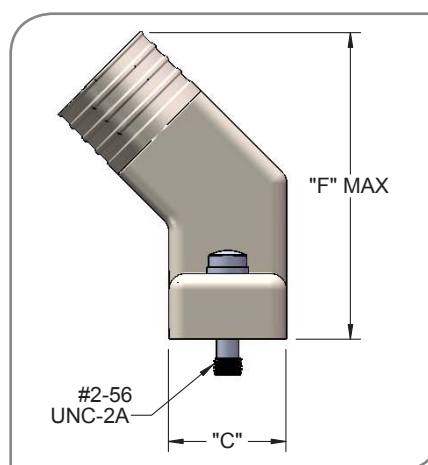
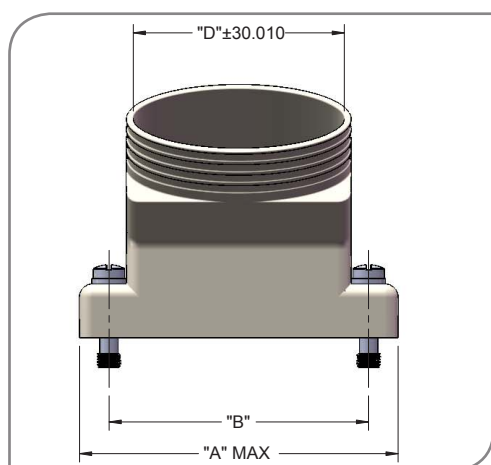
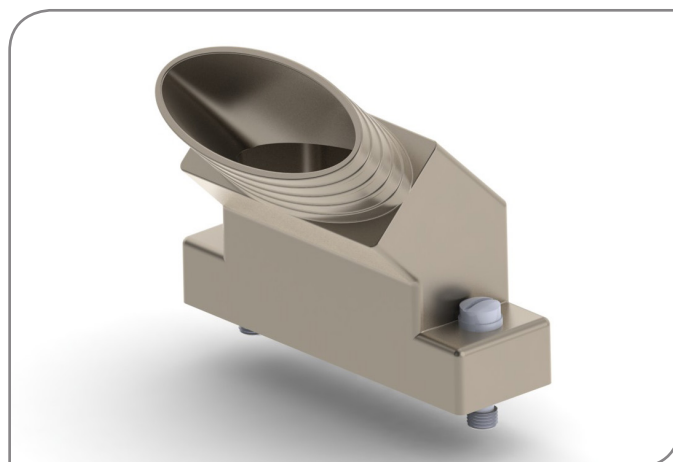
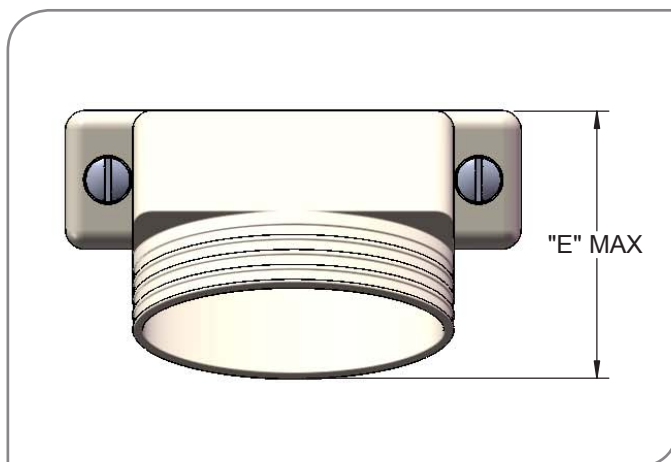
NOTE:

BACKSHELL MATERIAL: ALUMINUM ALLOY
FINISH: .0007/.0010 ELECTROLESS NICKEL PER SAE
AMS-2404 CLASS 3 OR 4 GRADE B
HARDWARE: PASSIVATED STAINLESS STEEL,
E-CLIPS (NOT SHOWN).

EACH KIT INCLUDES:
BACKSHELL, TWO SCREWS AND
TWO RETAINING CLIPS. ORDER
ONE KIT PER CONNECTOR

Contacts			English (IN)						Metric (mm)					
Omnetics														
Part #	"n"	Rows	"A"	"B"	"C"	"D"	"E"	"F"	"A"	"B"	"C"	"D"	"E"	"F"
A97002-009	9	2	.785	.565	.340	.375	.273	.80	19.94	14.35	8.64	9.53	6.93	20.32
A97002-015	15	2	.935	.715	.340	.525	.273	.80	23.75	18.16	8.64	13.34	6.93	20.32
A97002-021	21	2	1.085	.865	.340	.675	.273	.80	27.56	21.97	8.64	17.15	6.93	20.32
A97002-025	25	2	1.185	.965	.360	.775	.273	.80	30.10	24.51	9.14	19.69	6.93	20.32
A97002-031	31	2	1.335	1.115	.360	.925	.273	.80	33.91	28.32	9.14	23.50	6.93	20.32
A97002-037	37	2	1.485	1.265	.360	1.075	.273	.80	37.72	32.13	9.14	27.31	6.93	20.32
A97002-513	51	3	1.435	1.215	.400	1.025	.313	1.00	36.45	30.86	10.16	26.04	7.95	25.40

45 Degree Elliptical Entry, Micro-D Backshell



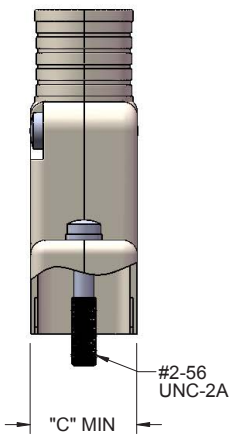
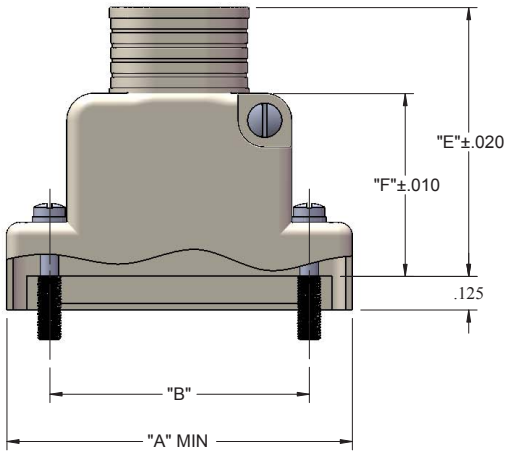
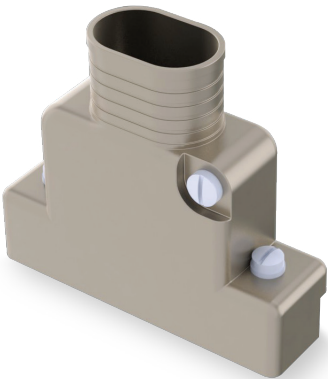
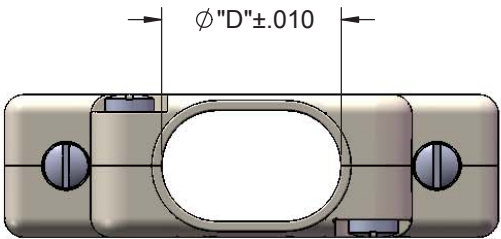
NOTE:

BACKSHELL MATERIAL: ALUMINUM ALLOY
FINISH: .0007/.0010 ELECTROLESS NICKEL PER SAE
AMS-2404 CLASS 3 OR 4 GRADE B
HARDWARE: PASSIVATED STAINLESS STEEL,
E-CLIPS (NOT SHOWN).

EACH KIT INCLUDES:
BACKSHELL, TWO SCREWS AND
TWO RETAINING CLIPS. ORDER
ONE KIT PER CONNECTOR

Contacts			English (IN)						Metric (mm)					
Omnetics														
Part #	"n"	Rows	"A"	"B"	"C"	"D"	"E"	"F"	"A"	"B"	"C"	"D"	"E"	"F"
A97003-009	9	2	.785	.565	.340	.344	.673	.851	19.94	14.35	8.64	8.74	17.09	21.62
A97003-015	15	2	.935	.715	.340	.494	.673	.876	23.75	18.16	8.64	12.55	17.09	22.25
A97003-021	21	2	1.085	.865	.340	.644	.673	.901	27.56	21.97	8.64	16.36	17.09	22.89
A97003-025	25	2	1.185	.965	.360	.744	.700	.943	30.10	24.51	9.14	18.19	17.78	23.95
A97003-031	31	2	1.335	1.115	.360	.894	.700	.963	33.91	28.32	9.14	22.71	17.78	24.46
A97003-037	37	2	1.485	1.265	.360	.994	.700	.983	37.72	32.13	9.14	25.25	17.78	24.97
A97003-513	51	3	1.435	1.215	.400	1.044	.755	1.058	36.45	30.86	10.16	26.52	19.18	26.87

Straight Elliptical Entry, Split Micro-D Backshell

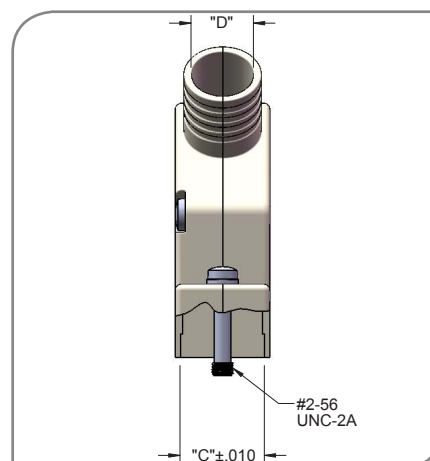
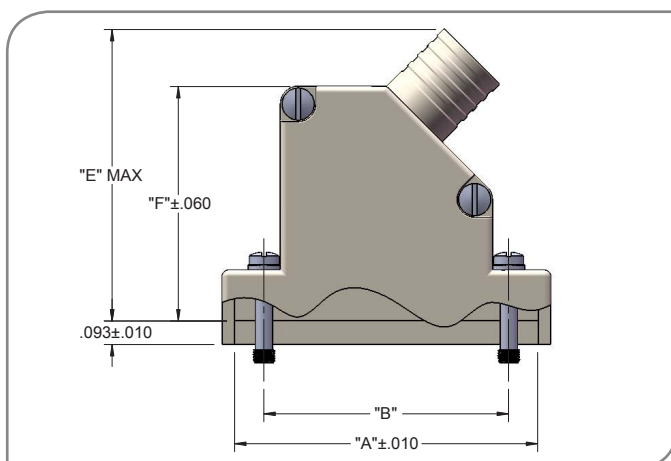
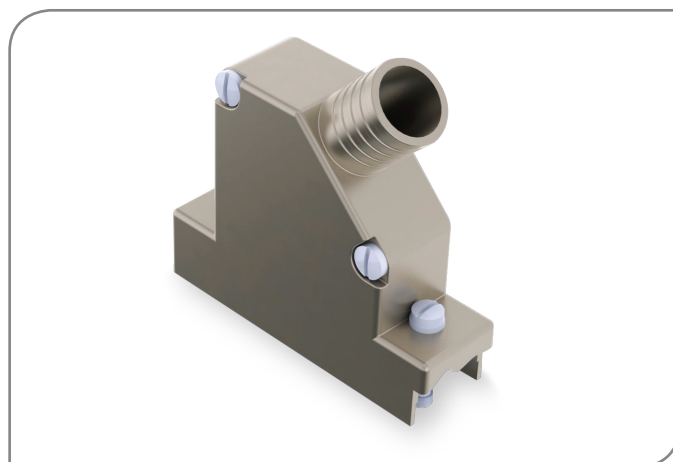
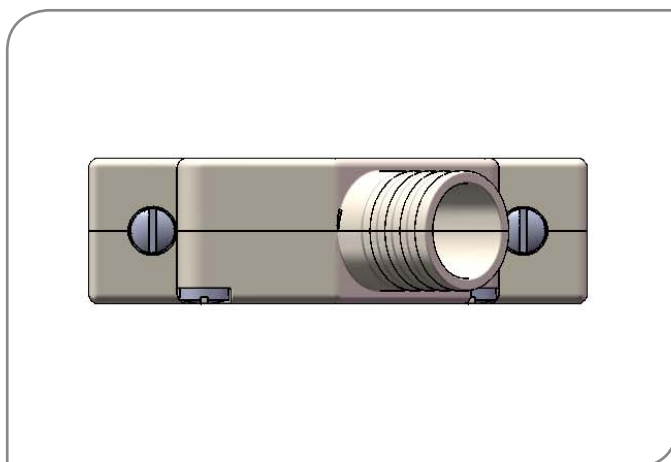


NOTE:
BACKSHELL MATERIAL: ALUMINUM ALLOY
FINISH: .0007/.0010 ELECTROLESS NICKEL PER SAE
AMS-2404 CLASS 3 OR 4 GRADE B
HARDWARE: PASSIVATED STAINLESS STEEL,
E-CLIPS (NOT SHOWN).

EACH KIT INCLUDES:
BACKSHELL, TWO SCREWS AND
TWO RETAINING CLIPS. ORDER
ONE KIT PER CONNECTOR

Contacts			English (IN)						Metric (mm)					
Omnetics														
Part #	"n"	Rows	"A"	"B"	"C"	"D"	"E"	"F"	"A"	"B"	"C"	"D"	"E"	"F"
A97004-021	21	2	1.185	.865	.370	.368	.950	.630	30.10	21.97	9.40	9.35	24.13	16.00
A97004-025	25	2	1.285	.965	.370	.468	1.000	.680	32.64	24.51	9.40	11.89	25.40	17.27
A97004-031	31	2	1.435	1.115	.370	.618	1.040	.720	36.45	28.32	9.40	15.70	26.42	18.29
A97004-037	37	2	1.585	1.265	.370	.718	1.080	.760	40.26	32.13	9.40	18.24	27.43	19.30
A97004-513	51	3	1.535	1.215	.410	.768	1.160	.840	38.99	30.86	10.41	19.51	29.46	21.34

45 Degree Round Entry, Split Micro-D Backshell



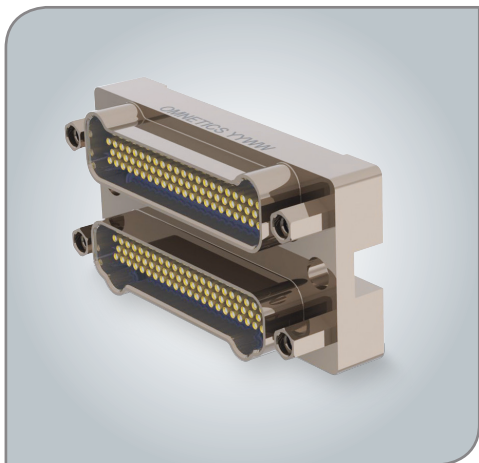
NOTE:

BACKSHELL MATERIAL: ALUMINUM ALLOY
FINISH: .0007/.0010 ELECTROLESS NICKEL PER SAE
AMS-2404 CLASS 3 OR 4 GRADE B
HARDWARE: PASSIVATED STAINLESS STEEL,
E-CLIPS (NOT SHOWN).

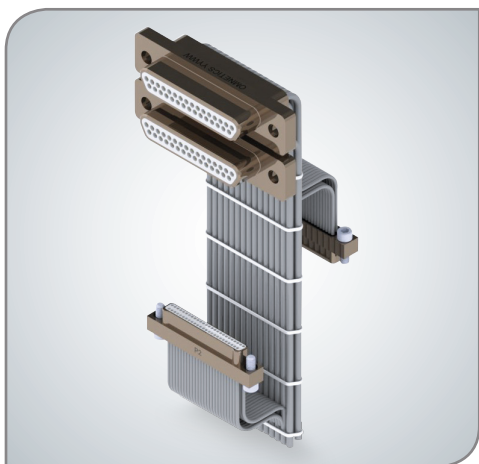
EACH KIT INCLUDES: TWO
BACKSHELL HALVES, TWO ASSEMBLY
SCREWS, TWO JACKSCREWS AND TWO
RETAINING CLIPS. ORDER ONE KIT
PER CONNECTOR

Contacts			English (IN)						Metric (mm)					
Omnetics														
Part #	"n"	Rows	"A"	"B"	"C"	"D"	"E"	"F"	"A"	"B"	"C"	"D"	"E"	"F"
A97005-009	9	2	.796	.565	.318	.160	1.000	.775	20.22	14.35	8.08	4.06	25.40	19.69
A97005-015	15	2	.946	.715	.318	.190	1.050	.825	24.03	18.16	8.08	4.83	26.67	20.96
A97005-021	21	2	1.096	.865	.318	.220	1.100	.860	27.84	21.97	8.08	5.59	27.94	21.84
A97005-025	25	2	1.196	.965	.318	.260	1.150	.925	30.38	24.51	8.08	6.60	29.21	23.50
A97005-031	31	2	1.346	1.115	.318	.275	1.190	.985	34.19	28.32	8.08	6.99	30.23	25.02
A97005-037	37	2	1.496	1.265	.318	.285	1.230	1.050	38.00	32.13	8.08	7.24	31.24	26.67
A97005-513	51	3	1.446	1.215	.361	.350	1.312	1.100	36.73	30.86	9.17	8.89	33.32	27.94

Didn't Find What You Were Looking For?



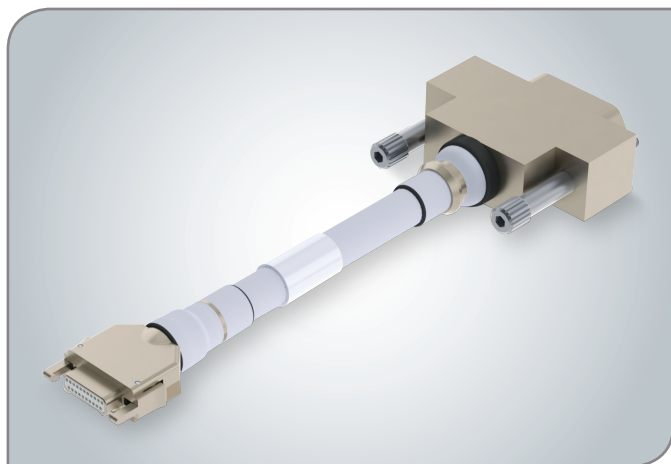
OMNETICS PROVIDES A WIDE RANGE OF CAPABILITIES TO DESIGN AND CREATE CONNECTORS THAT FIT YOUR INDIVIDUAL NEEDS.



CUSTOM HOUSINGS
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