

## POWER/SIGNAL HYBRID MICRO-D CONNECTORS

Omnetics high reliability Micro-D connectors are available with mixed power/signal contact layouts. The number of power and signal contacts may be specified to provide the greatest flexibility in circuit design while ensuring that the connector is kept to the absolute minimum necessary size. This hybrid combination eliminates the need to have a d-sub type or other higher power connector next to the micro-d and making it easier for the operator who now only needs to mate a single connector. The power contact can handle 20-24 AWG wire and is suitable for use up to 10 Amps. These hybrid connectors are available in wired or thru hole PCB mount termination types. The wired power contact is an insertable/removable type contact which can be optionally supplied for customer termination. These options can be packaged in the conventional screw together type micro-d shells or the Omnetics quick latching micro-d form factor.



LMDS-02P05-B51-R2-RH  
MMDP-03P09-N00-WD6Q18.0-1

### ELECTRICAL-MECHANICAL SPECIFICATIONS

Operating Temperature:	-55°C to 125°C
Durability:	500 Mating Cycles min
Insulation Resistance:	5000 megohms minimum
Shock:	50 g's with no discontinuities > 1 microsecond
Vibration:	20 g's with no discontinuities > 1 microsecond

#### Signal Contacts

Dielectric Withstand Voltage:	600 VAC RMS @sea level
Contact Resistance:	26 milliohms (65 mV) Max @2.5 AMPS
Current Rating:	3 AMPS per contact
Mating/Unmating Force:	10 oz. max per contact

#### Power Contacts

Dielectric Withstand Voltage:	1000 VAC RMS @sea level
Contact Resistance:	7 milliohms (55 mV drop) Max @7.5 AMPS
Current Rating:	10 Amps per contact (Up to 85°C or intermittent)
Mating/Unmating Force:	16/10 oz. max per contact (Respectively)

### MATERIAL SPECIFICATIONS

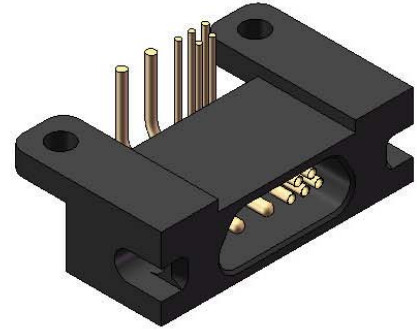
Contact:	Copper Alloy per MIL-DTL-83513 (Signal) or MIL-C-39029 (Power)
Signal Contact Finish:	Gold per ASTM B488, Type II, Class 1.27, Code C Over Nickel Underplate
Power Contact Finish:	Gold per MIL-G-45204, Type II, Grade C, Class 1, Code C Over Nickel Underplate
Insulator:	LCP per MIL-DTL-83513 or PEEK
Hardware:	Stainless Steel, 300 Series, Passivated per SAE AMS-2700
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

CAGE Code 61873

# HYBRID POWER/SIGNAL MICRO-D CONTACT LAYOUTS



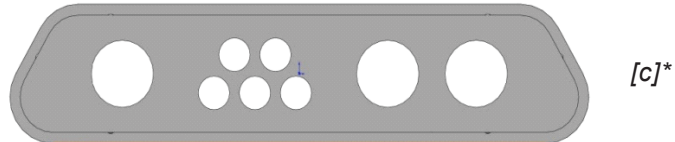
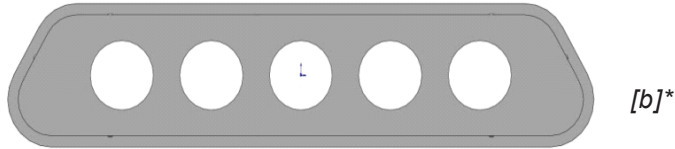
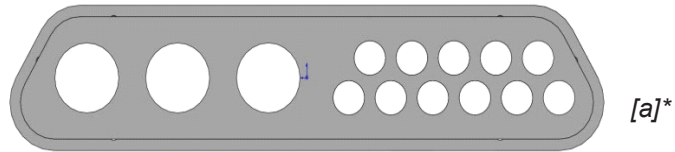
MMDP-03P09-N00-WD6Q18.0-1



LMDS-02P05-B51-R2-RH

MAX # OF SIGNALS GIVEN THE BELOW # OF POWER (ALL POWER ON ONE SIDE) [a]													
SIZE	ROWS	LENGTH "A"	1	2	3	4	5	6	7	8	9	10	11
9	2	.775	3	1									
15	2	.925	9	5	1								
21	2	1.075	15	11	7	1							
25	2	1.175	19	15	11	5	1						
31	2	1.325	25	21	17	11	7	3	1				
37	2	1.475	31	27	23	17	13	9	5	1			
51	2	1.825	45	41	37	31	27	23	19	15	11	5	1

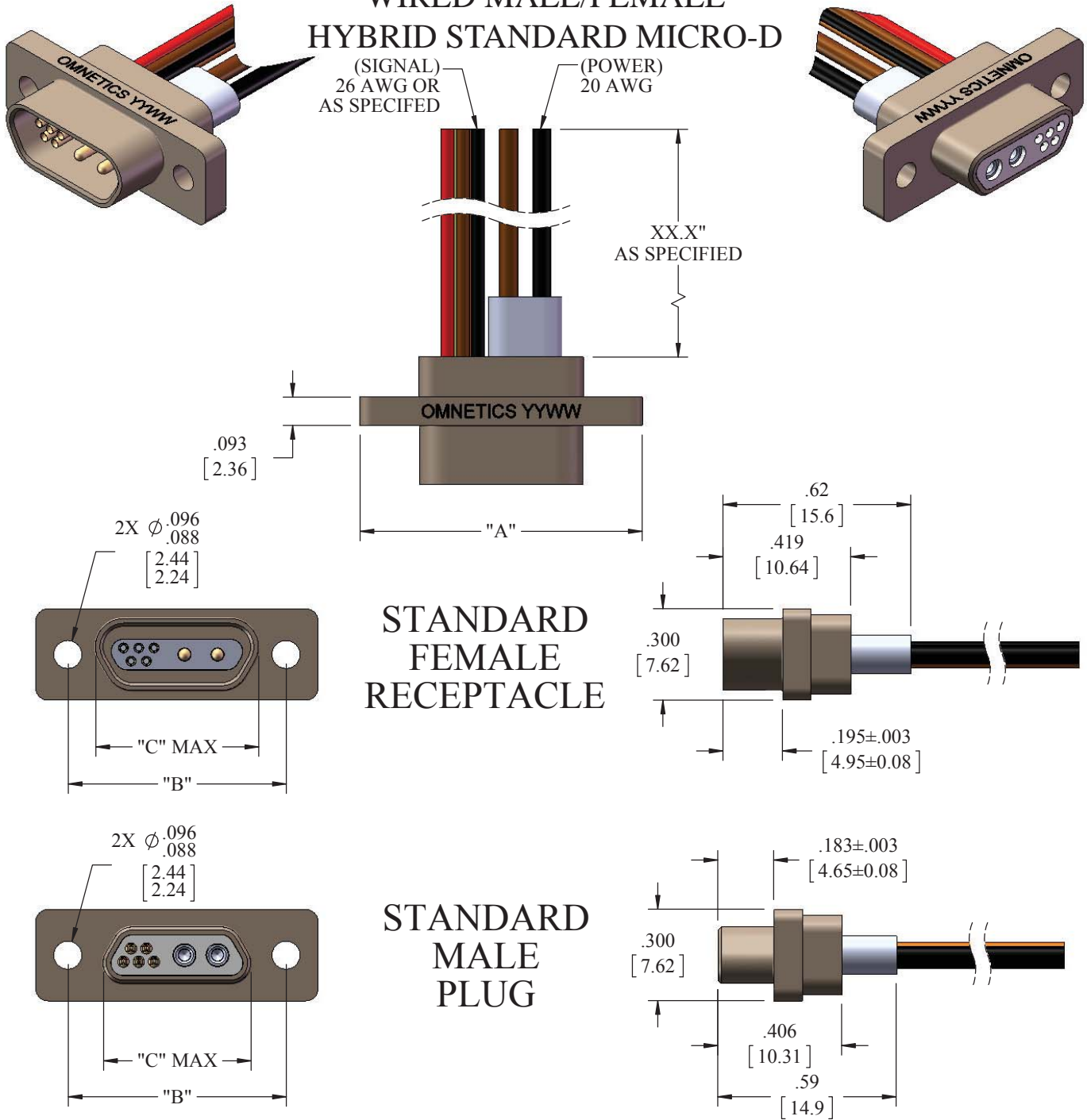
MAX # OF POWER, NO SIGNAL [b]			
SIZE	ROWS	LENGTH "A"	#
9	2	.775	2
15	2	.925	3
21	2	1.075	4
25	2	1.175	5
31	2	1.325	7
37	2	1.475	8
51	2	1.825	11



MAX # OF SIGNALS GIVEN THE BELOW # OF POWER (POWER SPLIT - BOTH ENDS) [c]													
SIZE	ROWS	LENGTH "A"	1	2	3	4	5	6	7	8	9	10	11
9	2	.775											
15	2	.925	3	1									
21	2	1.075	9	5	1								
25	2	1.175	13	9	5	1							
31	2	1.325	19	15	11	7	3	1					
37	2	1.475	25	21	17	13	9	5	1				
51	2	1.825	39	35	31	27	23	19	13	9	5	1	

\*ALL CONFIGURATIONS PICTURED ARE STANDARD SIZE 25 MICRO-D'S

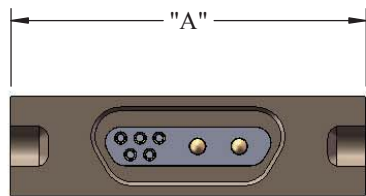
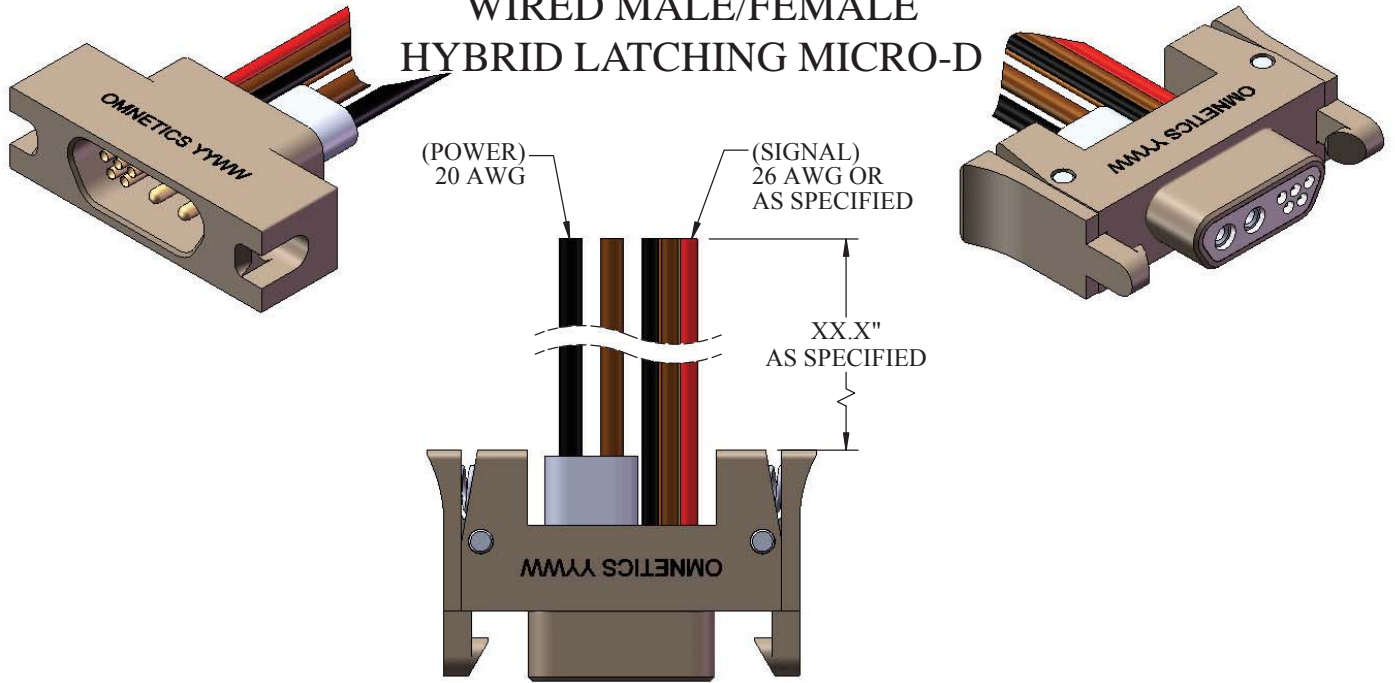
# WIRED MALE/FEMALE HYBRID STANDARD MICRO-D



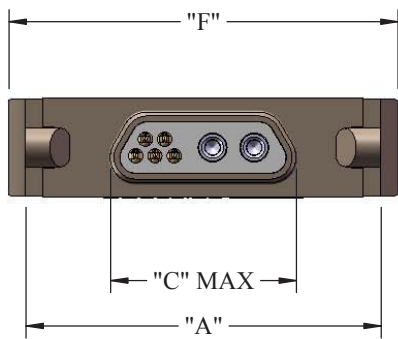
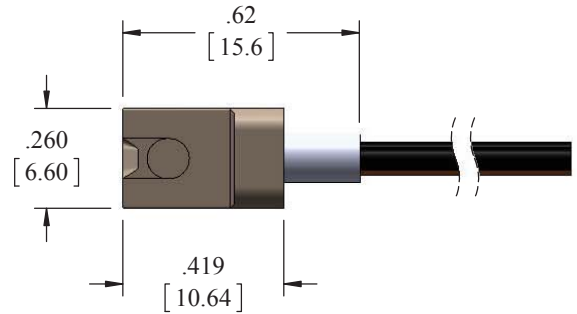
CONTACTS		ENGLISH (IN)				METRIC (mm)			
"n"	ROWS	"A"	"B"	"C" (FEMALE)	"C" (MALE)	"A"	"B"	"C" (FEMALE)	"C" (MALE)
9	2	.775	.565	.400	.334	19.69	14.35	10.16	8.48
15	2	.925	.715	.550	.484	23.50	18.16	13.97	12.29
21	2	1.075	.865	.700	.634	27.31	21.97	17.78	16.10
25	2	1.175	.965	.800	.734	29.85	24.51	20.32	18.64
31	2	1.325	1.115	.950	.884	33.66	28.32	24.13	22.45
37	2	1.475	1.265	1.100	1.034	37.47	32.13	27.94	26.26
51	2	1.825	1.615	1.450	1.384	46.36	41.02	36.83	35.15

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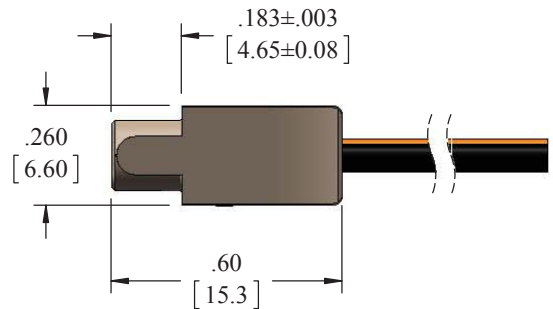
# WIRED MALE/FEMALE HYBRID LATCHING MICRO-D



LATCHING  
FEMALE  
RECEPTACLE

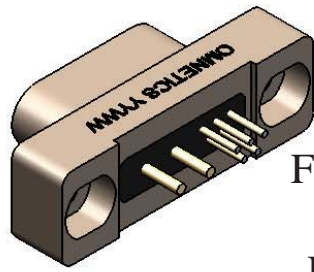


LATCHING  
MALE  
PLUG



CONTACTS		ENGLISH (IN)			METRIC (mm)		
"n"	ROWS	"A"	"C"	"F"	"A"	"C"	"F"
9	2	.775	.334	.86	19.69	8.48	21.8
15	2	.925	.484	1.01	23.50	12.29	25.7
21	2	1.075	.634	1.06	27.31	16.10	26.9
25	2	1.175	.734	1.26	29.85	18.64	32.0
31	2	1.325	.884	1.41	33.66	22.45	35.8
37	2	1.475	1.034	1.56	37.47	26.26	39.6
51	2	1.825	1.384	1.91	46.36	35.15	48.5

CAGE Code 61873

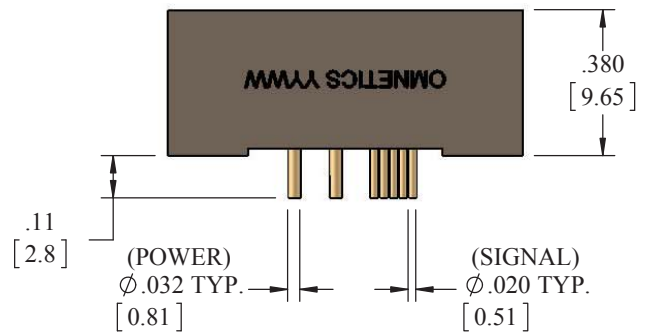
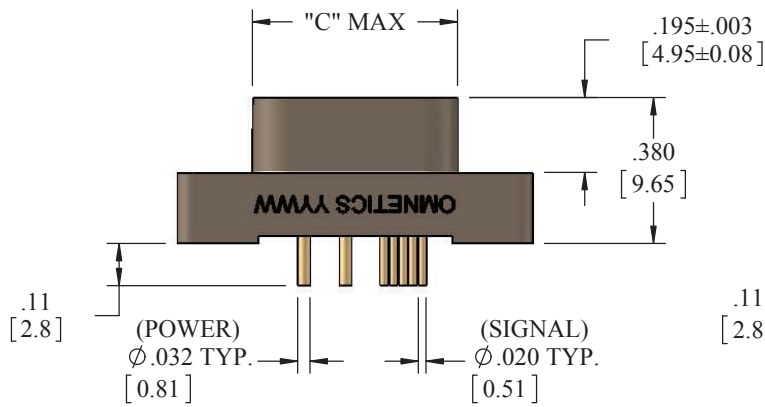
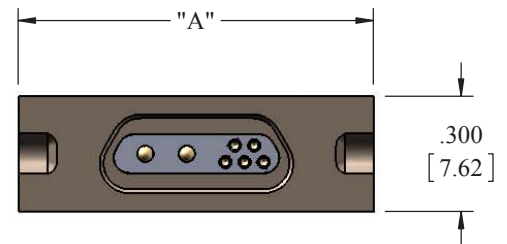
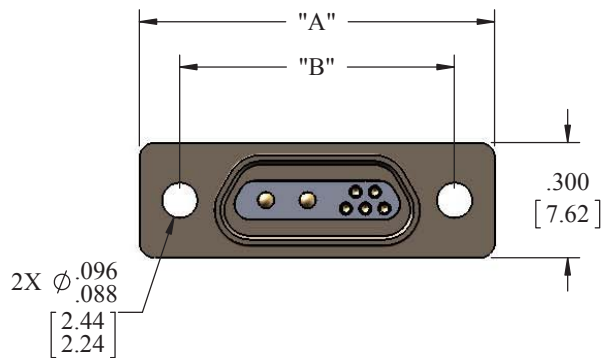


FEMALE STRAIGHT  
THRU-HOLE PCB  
HYBRID MICRO-D

STANDARD  
FEMALE  
RECEPTACLE

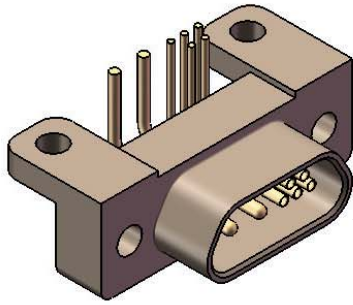


LATCHING  
FEMALE  
RECEPTACLE



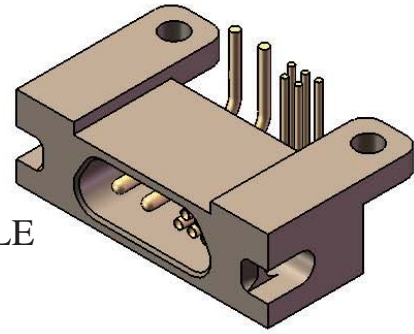
CONTACTS		ENGLISH (IN)			METRIC (mm)		
"n"	ROWS	"A"	"B"	"C"	"A"	"B"	"C"
9	2	.775	.565	.400	19.69	14.35	10.17
15	2	.925	.715	.550	23.50	18.16	13.98
21	2	1.075	.865	.700	27.31	21.97	17.79
25	2	1.175	.965	.800	29.85	24.51	20.33
31	2	1.325	1.115	.950	33.66	28.32	24.14
37	2	1.475	1.265	1.100	37.47	32.13	27.95
51	2	1.825	1.615	1.450	46.36	41.02	36.84

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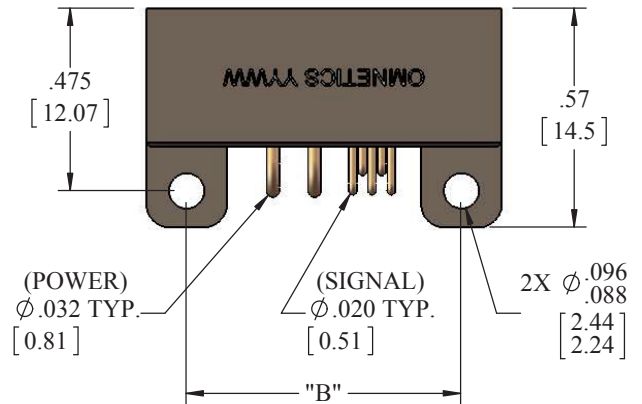
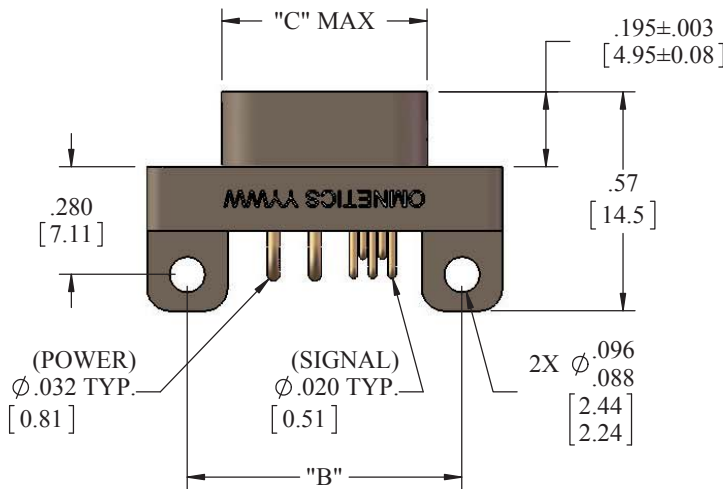
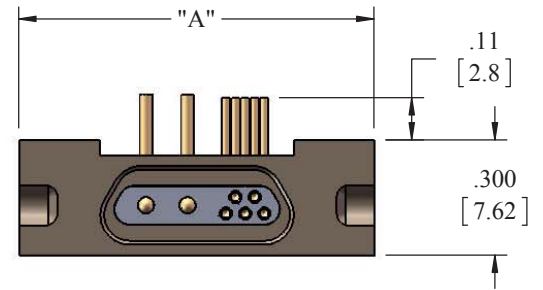
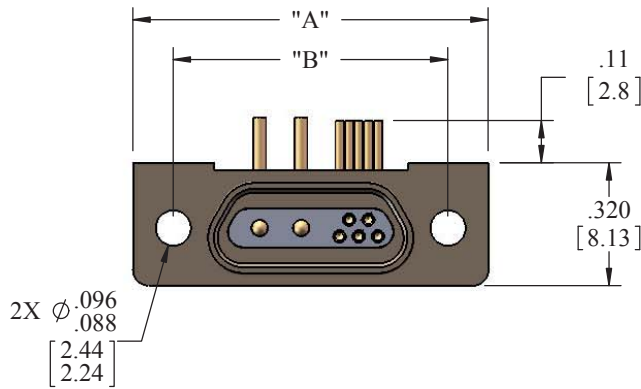


FEMALE RIGHT ANGLE  
THRU-HOLE PCB  
HYBRID MICRO-D

STANDARD  
FEMALE  
RECEPTACLE



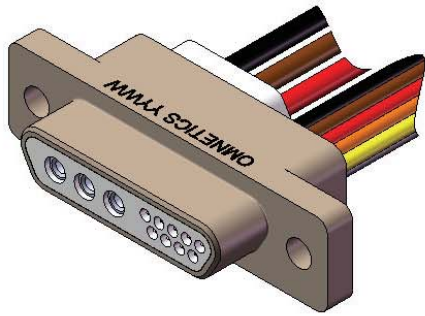
LATCHING  
FEMALE  
RECEPTACLE



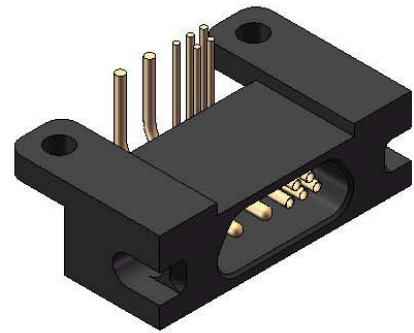
CONTACTS		ENGLISH (IN)			METRIC (mm)		
"n"	ROWS	"A"	"B"	"C"	"A"	"B"	"C"
9	2	.775	.565	.400	19.69	14.35	10.17
15	2	.925	.715	.550	23.50	18.16	13.98
21	2	1.075	.865	.700	27.31	21.97	17.79
25	2	1.175	.965	.800	29.85	24.51	20.33
31	2	1.325	1.115	.950	33.66	28.32	24.14
37	2	1.475	1.265	1.100	37.47	32.13	27.95
51	2	1.825	1.615	1.450	46.36	41.02	36.84

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# HYBRID POWER/SIGNAL MICRO-D ORDERING GUIDE



MMDP-03P09-N00-WD6Q18.0-1



LMDS-02P05-B51-R2-RH

## For Wired Connectors (WD Termination Style)

<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	
Series + Contact Type		# of Contacts		Shell Type + Hardware		"WD" + Wire AWG + Wire Type + Length		Wire Color Scheme	Options*

## For All Other Connectors (Various Termination Style)

<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>
Series + Contact Type		# of Contacts		Shell Type + Hardware		Termination Style		Options*

\*Each Additional Option Field Separated by a Hyphen

### Series

MMD = Standard Micro-D  
LMD = Latching Micro-D

### Contact Types

P = Male Pin Contact  
S = Female Socket Contact

### # of Contacts

##P##, i.e. "02P05"  
Leading #'s = # of Power Contacts  
Trailing #'s = # of Signal Contacts

### Shell Type (Finish - Material)

N = Electroless Nickel - Aluminum\*\*  
C = Cadmium - Aluminum  
B = Black Anodize - Aluminum

### Hardware

00 = None, Ø.092" Holes (MMD Only)  
01 = Fixed Jackposts (MMD Only)  
02 = Jackscrews, Standard length, Hex (MMD Only)  
03 = Jackscrews, Standard length, Slotted (MMD Only)  
04 = Jackscrews, Long, Hex (MMD Only)  
05 = Jackscrews, Long, Slotted (MMD Only)  
50 = Spring Latches (LMDP Only)  
51 = Latch Receptacle (LMDS Only)

### Termination Styles

WD = Discrete Wire  
R2 = Right Angle Thru Hole  
S2 = Straight Thru Hole

### Wire AWG\*\*\*

6 = 26 AWG\*\*  
8 = 28 AWG  
0 = 30 AWG

### Wire Types

Q = NEMA HP3\*\*  
R = M22759/11  
S = M22759/33

### Wire Color Schemes

1 = 10 Repeating Colors\*\*  
2 = Blue  
3 = White  
5 = Yellow

### Wire Length

18.0\*\*\*  
XXX Length in inches including tenths, i.e. 39.4

### Options

RH = RoHS Compliant  
PA = Panel Mount Rear, O-ring (LMDS Only)  
PB = Panel Mount Rear (LMDS Only)

\*\*Standard Options

\*\*\*Signal Wires Only, Power Wires are 20 AWG

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