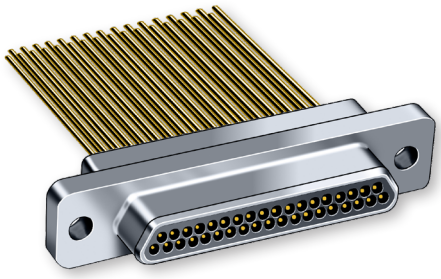
Micro-D MWDM Metal Shell Uninsulated Wire Connector



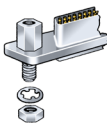
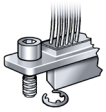
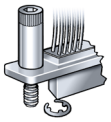
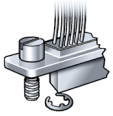
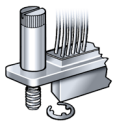
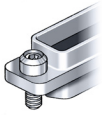
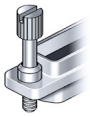
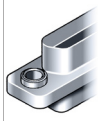
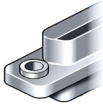
Micro-D Uninsulated Pigtails–These connectors feature gold-plated TwistPin contacts and mil spec crimp termination to gold-plated solid copper wire. Suitable for soldering or splicing applications, the wire leads can be ordered either gold-plated or solder-dipped.

New One-Piece Socket Contact–An "integral tail" socket contact is now standard on all socket connectors ordered with 24 AWG or 25 AWG, up to one inch of wire. This phospher bronze contact eliminates the crimp joint and offers greater rigidity.

How To Order Uninsulated Wire Micro-D Connectors

Sample Part Number	MWDM	2	L-	37	P-	5	C	4-	.250	M
Series	**MWDM** Glenair Micro-D									
Shell Material and Finish	**Aluminum Shell** **1** - Cadmium **2** - Nickel **4** - Black Anodize **5** - Gold **6** - Chem Film **33** - Nickel-PTFE **Stainless Steel Shell** **3** - Passivated									
Insulator Material	**L** - LCP or PPS LCP - 30% Glass-Filled Liquid Crystal Polymer PPS - 40% Glass Filled Polyphenylene Sulfide									
Contact Layout	**9**, **15**, **21**, **25**, **31**, **37**, **51**, **51-2**, **67**, **69**, **75**, **100**, **130** (See Table II)									
Contact Type	**P** – Pin **S** – Socket									
Wire Gage (AWG)	**4** – #24 (.020") **5** – #25 (.018") **6** – #26 (.016")									
Wire Type	**C** – Solid Copper									
Wire Finish	**3** – Solder-Dipped Sn 60/40 **4** – Gold									
Wire Length (Inches)	**.125**, **.250**, **.375**, **.500**, **.750**, **1.000**, **2.000** Wire Length In Inches. ".500" Specifies Half Inch.									
Hardware	**B**, **P**, **M**, **M1**, **S**, **S1**, **L**, **K**, **F**, **R**, **H** (See Table I)									

Table I: Mounting Hardware

B	P	M	M1	S	S1	L	K	F	R	H
										
Thru-Hole	Jackpost	Hex Head Jackscrew	Hex Head Jackscrew, Extended	Slot Head Jackscrew	Slot Head Jackscrew, Extended	Hex Head Jackscrew Non-Removable	Slot Head Jackscrew Non-Removable Extended	Float Mount For Front Panel Mounting	Float Mount For Rear Panel Mounting	Threaded Insert

Notes:

1. Assembly to be identified with Glenair's name, part number, date code, and pin 1 identification as space permits
2. Performance data per MIL-DTL-83513
3. Interface dimensions per MIL-DTL-83513

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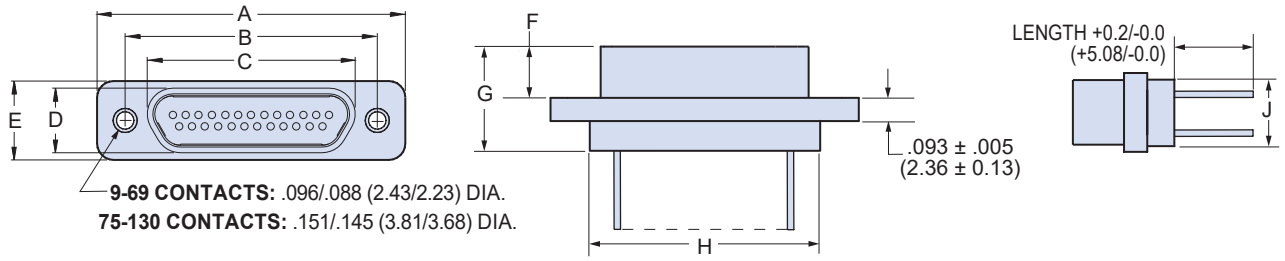
Micro-D MWDM Metal Shell Uninsulated Wire Connector

Table II: Dimensions



Layout	A Max.		B		C Max.		D Max.		E Max.		F		G Max.		H Max.		J Max.	
	In.	mm.	In . ± .003	mm. ± 0.08	In.	mm.	In.	mm.	In.	mm.	In. ± .003	mm. ± 0.08	In.	mm.	In.	mm.	In.	mm.
9P	.785	19.9	.565	14.4	.333	8.5	.184	4.7	.308	7.82	.183	4.65	.416	10.57	.400	10.2	.270	6.86
9S	.785	19.9	.565	14.4	.400	10.2	.250	6.35	.308	7.82	.195	4.95	.429	10.90	.400	10.2	.270	6.86
15P	.935	23.8	.715	18.2	.483	12.3	.184	4.7	.308	7.82	.183	4.65	.416	10.57	.550	14.0	.270	6.86
15S	.935	23.8	.715	18.2	.551	14.00	.250	6.4	.308	7.82	.195	4.95	.429	10.90	.550	14.0	.270	6.86
21P	1.085	27.6	.865	22.0	.633	16.0	.184	4.7	.308	7.82	.183	4.65	.416	10.57	.700	17.8	.270	6.86
21S	1.085	27.6	.865	22.0	.701	17.8	.250	6.4	.308	7.82	.195	4.95	.429	10.90	.700	17.8	.270	6.86
25P	1.185	30.0	.965	24.5	.733	18.6	.184	4.7	.308	7.82	.183	4.65	.416	10.57	.800	20.3	.270	6.86
25S	1.185	30.0	.965	24.5	.801	20.4	.250	6.4	.308	7.82	.195	4.95	.429	10.90	.800	20.3	.270	6.86
31P	1.335	33.9	1.115	28.3	.883	22.4	.184	4.7	.308	7.82	.183	4.65	.416	10.57	.950	24.1	.270	6.86
31S	1.335	33.9	1.115	28.3	.951	24.2	.250	6.4	.308	7.82	.195	4.95	.429	10.90	.950	24.1	.270	6.86
37P	1.485	37.7	1.265	32.1	1.033	26.2	.184	4.7	.308	7.82	.183	4.65	.416	10.57	1.100	27.9	.270	6.86
37S	1.485	37.7	1.265	32.1	1.101	28.0	.250	6.4	.308	7.82	.195	4.95	.429	10.90	1.100	27.9	.270	6.86
51P	1.435	36.5	1.215	30.9	.983	28.0	.228	5.8	.351	8.92	.183	4.65	.416	10.57	1.050	26.7	.310	7.87
51S	1.435	36.5	1.215	30.9	1.051	27.0	.296	7.5	.351	8.92	.195	4.95	.429	10.90	1.050	26.7	.310	7.87
51-2P	1.835	46.6	1.615	41.0	1.384	35.0	.184	4.7	.308	7.82	.183	4.65	.416	10.57	1.450	36.8	.270	6.86
51-2S	1.835	46.6	1.615	41.0	1.450	36.8	.250	6.4	.308	7.82	.195	4.95	.429	10.90	1.450	36.8	.270	6.86
67P	2.235	56.8	2.015	51.2	1.784	45.3	.184	4.7	.310	7.87	.183	4.65	.416	10.57	1.850	47.0	.270	6.86
67S	2.235	56.8	2.015	51.2	1.850	46.99	.250	6.4	.310	7.87	.195	4.95	.429	10.90	1.850	47.0	.270	6.86
69P	1.735	44.1	1.515	38.5	1.284	32.61	.228	5.8	.351	8.92	.183	4.65	.416	10.57	1.350	34.3	.310	7.87
69S	1.735	44.1	1.515	38.5	1.350	34.29	.296	7.5	.351	8.92	.195	4.95	.429	10.90	1.350	34.3	.310	7.87
75P	2.08	52.8	1.705	43.3	1.384	35.154	.228	5.8	.351	8.9	.183	4.6	.416	10.6	1.44	36.6	.310	7.9
75S	2.08	52.8	1.705	43.3	1.45	36.83	.296	7.5	.351	8.9	.195	5.0	.429	10.9	1.44	36.6	.310	7.9
100P	2.170	55.1	1.800	45.7	1.383	35.13	.270	6.9	.394	10.01	.183	4.65	.416	10.57	1.442	36.6	.360	9.14
100S	2.170	55.1	1.800	45.7	1.451	36.86	.333	8.5	.394	10.01	.195	4.95	.429	10.90	1.442	36.6	.360	9.14
130P	2.52	64.0	2.15	54.6	1.735	44.1	.270	6.86	.394	10.01	0.183	4.65	.416	10.57	1.780	45.21	.360	9.14
130S	2.52	64.0	2.15	54.6	1.795	45.6	.333	8.5	.394	10.01	0.195	4.95	.429	10.90	1.780	45.21	.360	9.14

Performance Specifications	
Current Rating	**3 AMP**
DWV	600 VAC Sea level
Insulation Resistance	5000 Megohms Minimum
Contact Resistance	8 Milliohms Maximum
Low Level Contact Resist.	32 Milliohms Maximum
Magnetic Permeability	2 µ Maximum
Operating Temperature	-55° C. to +150° C.
Shock, Vibration	50 g., 20g.
Mating Force	(10 Ounces) X (# of Contacts)

Materials and Finishes	
Connector Shell	Aluminum Alloy 6061 or Stainless Steel, 300 Series, passivated. See Ordering Info for Plating Options
Insulator	Liquid Crystal Polymer (LCP) Polyphenylene Sulfide (PPS)
Interfacial Seal	Fluorosilicone Rubber, Blue
Pin Contact	Copper Alloy, _Gold over Nickel Plating
Socket Contact	Copper Alloy, Gold Over Nickel Plating
Hardware	300 Series Stainless Steel
Encapsulant	Epoxy Resin Hysol EE4215

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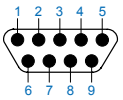
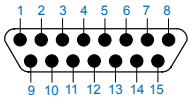
Micro-D Contact Arrangements

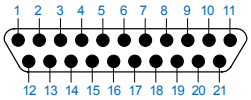
Face View Pin Connector – Micro-D Contact Arrangements



9 pin



15 pin



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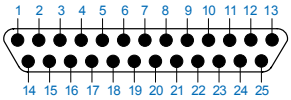

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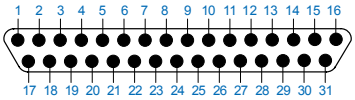

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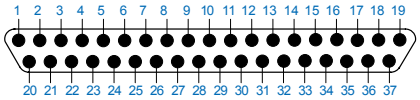

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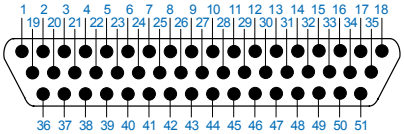

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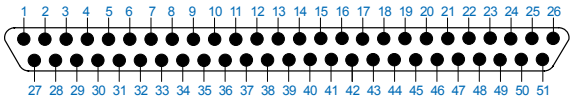

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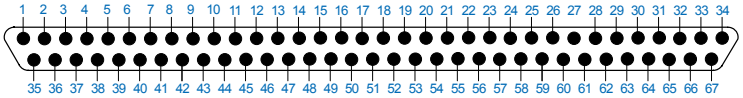
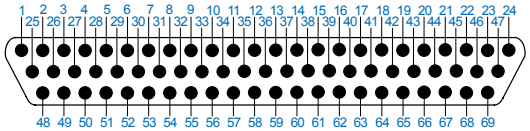


67 pin



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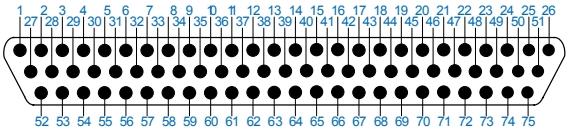
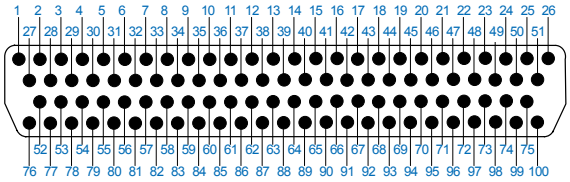
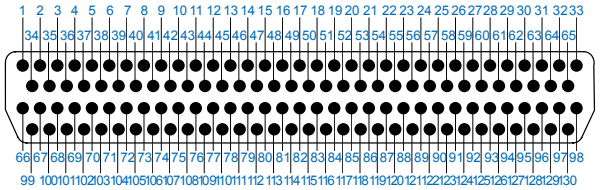


75 pin



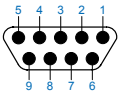
100 pin



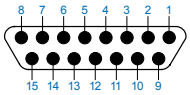
130 pin

Micro-D Contact Arrangements

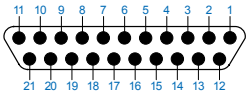
Face View Socket Connector – Micro-D Contact Arrangements



9 socket



15 socket



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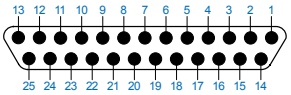
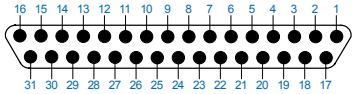


25 socket



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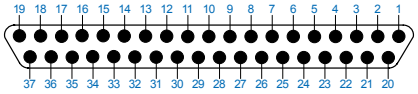

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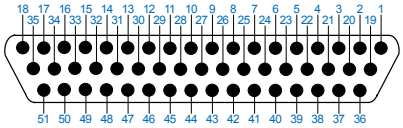

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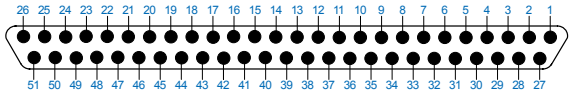
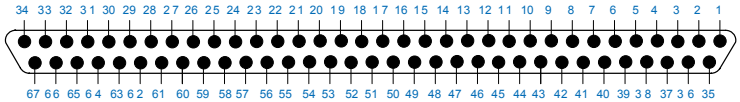


51 socket (special 2 row)



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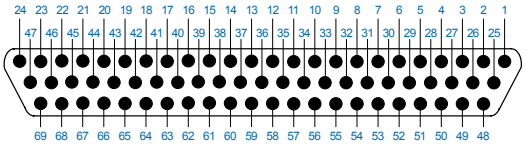

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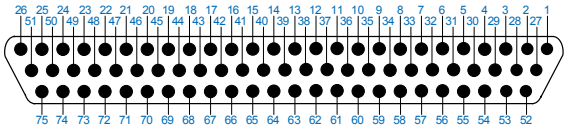
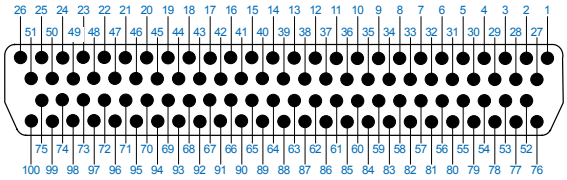
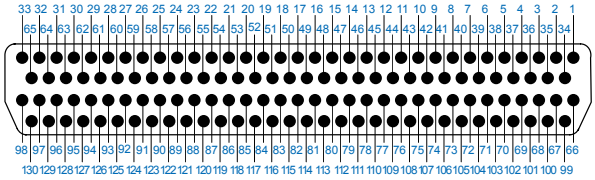


75 socket



100 socket



130 socket

MIL-STD-681 Color Code Chart

MIL-STD-681 Color Code Chart for Micro-D Connectors

PIN NO.	MIL-STD-681 NUMBER	Base Color	First Stripe	Second Stripe	PIN NO.	MIL-STD-681 NUMBER	Base Color	First Stripe	Second Stripe	Third Stripe
1	0	BLK			51	957	WHT	GRN	VIO	
2	1	BRN			52	958	WHT	GRN	GRY	
3	2	RED			53	967	WHT	BLU	VIO	
4	3	ORN			54	968	WHT	BLU	GRY	
5	4	YEL			55	978	WHT	VIO	GRY	
6	5	GRN			56	9012	WHT	BLK	BRN	RED
7	6	BLU			57	9013	WHT	BLK	BRN	ORN
8	7	VIO			58	9014	WHT	BLK	BRN	YEL
9	8	GRY			59	9015	WHT	BLK	BRN	GRN
10	9	WHT			60	9016	WHT	BLK	BRN	BLU
11	90	WHT	BLK		61	9017	WHT	BLK	BRN	VIO
12	91	WHT	BRN		62	9018	WHT	BLK	BRN	GRY
13	92	WHT	RED		63	9023	WHT	BLK	RED	ORN
14	93	WHT	ORN		64	9024	WHT	BLK	RED	YEL
15	94	WHT	YEL		65	9025	WHT	BLK	RED	GRN
16	95	WHT	GRN		66	9026	WHT	BLK	RED	BLU
17	96	WHT	BLU		67	9027	WHT	BLK	RED	VIO
18	97	WHT	VIO		68	9028	WHT	BLK	RED	GRY
19	98	WHT	GRY		69	9034	WHT	BLK	ORN	YEL
20	901	WHT	BLK	BRN	70	9035	WHT	BLK	ORN	GRN
21	902	WHT	BLK	RED	71	9036	WHT	BLK	ORN	BLU
22	903	WHT	BLK	ORN	72	9037	WHT	BLK	ORN	VIO
23	904	WHT	BLK	YEL	73	9038	WHT	BLK	ORN	GRY
24	905	WHT	BLK	GRN	74	9045	WHT	BLK	YEL	GRN
25	906	WHT	BLK	BLU	75	9046	WHT	BLK	YEL	BLU
26	907	WHT	BLK	VIO	76	9047	WHT	BLK	YEL	VIO
27	908	WHT	BLK	GRY	77	9048	WHT	BLK	YEL	GRY
28	912	WHT	BRN	RED	78	9056	WHT	BLK	GRN	BLU
29	913	WHT	BRN	ORN	79	9057	WHT	BLK	GRN	VIO
30	914	WHT	BRN	YEL	80	9058	WHT	BLK	GRN	GRY
31	915	WHT	BRN	GRN	81	9067	WHT	BLK	BLU	VIO
32	916	WHT	BRN	BLU	82	9068	WHT	BLK	BLU	GRY
33	917	WHT	BRN	VIO	83	9078	WHT	BLK	VIO	GRY
34	918	WHT	BRN	GRY	84	9123	WHT	BRN	RED	ORN
35	923	WHT	RED	ORN	85	9124	WHT	BRN	RED	YEL
36	924	WHT	RED	YEL	86	9125	WHT	BRN	RED	GRN
37	925	WHT	RED	GRN	87	9126	WHT	BRN	RED	BLU
38	926	WHT	RED	BLU	88	9127	WHT	BRN	RED	VIO
39	927	WHT	RED	VIO	89	9128	WHT	BRN	RED	GRY
40	928	WHT	RED	GRY	90	9134	WHT	BRN	ORN	YEL
41	934	WHT	ORN	YEL	91	9135	WHT	BRN	ORN	GRN
42	935	WHT	ORN	GRN	92	9136	WHT	BRN	ORN	BLU
43	936	WHT	ORN	BLU	93	9137	WHT	BRN	ORN	VIO
44	937	WHT	ORN	VIO	94	9138	WHT	BRN	ORN	GRY
45	938	WHT	ORN	GRY	95	9145	WHT	BRN	YEL	GRN
46	945	WHT	YEL	GRN	96	9146	WHT	BRN	YEL	BLU
47	946	WHT	YEL	BLU	97	9147	WHT	BRN	YEL	VIO
48	947	WHT	YEL	VIO	98	9148	WHT	BRN	YEL	GRY
49	948	WHT	YEL	GRY	99	9156	WHT	BRN	GRN	BLU
50	956	WHT	GRN	BLU	100	9157	WHT	BRN	GRN	VIO

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Table 3: Standard Wire Specifications

Wire Code	Specification	Insulation	Conductor	Operating Temp.	Voltage Rating	AWG	Strands	Max. Conductor Diameter (Inches)	DC Resistance Ohms/1000 Ft.	Max. Finished Wire Dia.
E	NEMA HP3-EXB	Extruded PTFE	Silver-coated copper	-65° to +200°C	600 volts RMS	#24	7/32	.025	24.5	.048
						#26	7/34	.020	39.7	.043
						#28	7/36	.016	63.6	.039
						#30	7/38	.013	100	.036
J	M22759/33	Extruded cross-linked modified ETFE	Silver-coated high-strength copper alloy	-65° to +200°C	600 volts RMS	#24	19/36	.025	28.4	.037
						#26	19/38	.020	44.8	.034
						#28	7/36	.016	74.4	.029
						#30	7/38	.012	117.4	.026
K	M22759/11	Extruded PTFE	Silver-coated copper	-65° to +200°C	600 volts RMS	#24	19/36	.025	24.3	.045
						#26	19/38	.020	38.4	.040
						#28	7/36	.015	63.8	.035

Table 4: Stocked Wire Sizes and Colors

Wire Code	Color Code	Wire Insulation Color	#24 AWG	#26 AWG	#28AWG	#30 AWG
E	1	White	✓	✓	✓	✓
	2	Yellow	✓	✓	✓	✓
	5	White with MIL-STD-681 color stripes	⚠	⚠	not available	not available
	7	10 Color Repeat	✓	✓	✓	✓
J	1	White	✓	✓	✓	✓
	2	Yellow	✓	✓	✓	✓
	5	White with MIL-STD-681 color stripes	⚠	⚠	not available	not available
	7	10 Color Repeat	✓	✓	✓	✓
K	1	White	✓	✓	✓	not available
	2	Yellow	✓	✓	✓	not available
	5	White with MIL-STD-681 color stripes	⚠	⚠	not available	not available
	7	10 Color Repeat	✓	✓	✓	not available

✓ = Stocked wire.

⚠ = Stocked wire through 51 colors only. Connectors with more than 51 contacts are not available with striped wire. 10 color repeating is the recommended alternate.