

# HiPer-D Combo Connectors



## 280-056P right angle PC tail pin connectors with low profile mounting flange



The HiPer-D is a high performance version of the M24308-type D-Subminiature connector. HiPer-D connectors feature improved EMI performance and environmental sealing. Factory-installed PC tail contacts, integral board standoffs and threaded holes for attaching to circuit board. Optional ground springs for improved resistance to electromagnetic interference. Gold-plated copper alloy contacts, one-piece machined aluminum shell, glass-reinforced thermoset epoxy insulator, epoxy potting compound, fluorosilicone face seal. 1000 VAC, 7.5 Amps (#20), up to 40 Amps with size #8 power contacts.

How To Order						
<b>Sample Part Number</b>	<b>280-056P</b>	<b>3-5P5</b>	<b>Z2</b>	<b>G</b>	<b>P</b>	<b>A</b>
<b>Basic Part Number</b>	<b>280-056P</b>					
<b>Shell Size-Contact Arrangement</b>	Contact Arrangements are shown in the adjacent table					
<b>Shell Finish</b>	<b>ME</b> = Electroless Nickel (RoHS) <b>MT</b> = Nickel-PTFE (RoHS) <b>JF</b> = Cadmium with Yellow Chromate <b>Z2</b> = Gold (RoHS) <b>Z1</b> = Passivated Stainless Steel (RoHS)					
<b>Ground Spring</b>	<b>G</b> = Supplied with EMI Ground Spring <b>N</b> = No Ground Spring					
<b>Mating Hardware</b>	<b>N</b> = No Hardware <b>P</b> = #4-40 Female Jackpost					
<b>PC Tail Length</b>	<b>A</b> = .125 (3.18) Tail Length <b>B</b> = .250 (6.35) Tail Length					

Contact Arrangements		
Shell Size-Contact Arr.	Contact Size and Qty	
	#20	#8
1-2P2		2
1-5P1	4	1
2-3P3		3
2-7P2	5	2
2-11P1	10	1
3-5P5		5
3-9P4	5	4
3-13P3	10	3
3-17P2	15	2
3-21P1	20	1
4-8P8		8
4-13P6	7	6
4-17P5	12	5
4-21PA4	17	4
4-25P3	22	3
4-27P2	25	2
5-24P7	17	7
5-36P4	32	4
5-43P2	41	2
5-47P1	46	1

Specifications	
Current Rating	#20 7.5 AMPS, #8 40 AMPS
Test Voltage	1000 VAC RMS
Insulation Resistance	5000 megohms minimum
Operating Temperature	-65° C. to +200° C.
Ingress Protection	IP 67
Shock	300 g.
Vibration, Random	43.92 g.

Materials and Finishes	
Shell	Aluminum alloy
Contacts	Copper alloy, 50 microinches gold
Insulator	Thermoset epoxy
EMI Spring	Copper alloy, nickel plated
Face Seal	Fluorosilicone rubber
Hardware	300 series stainless steel
Shroud, Contact	Aluminum alloy

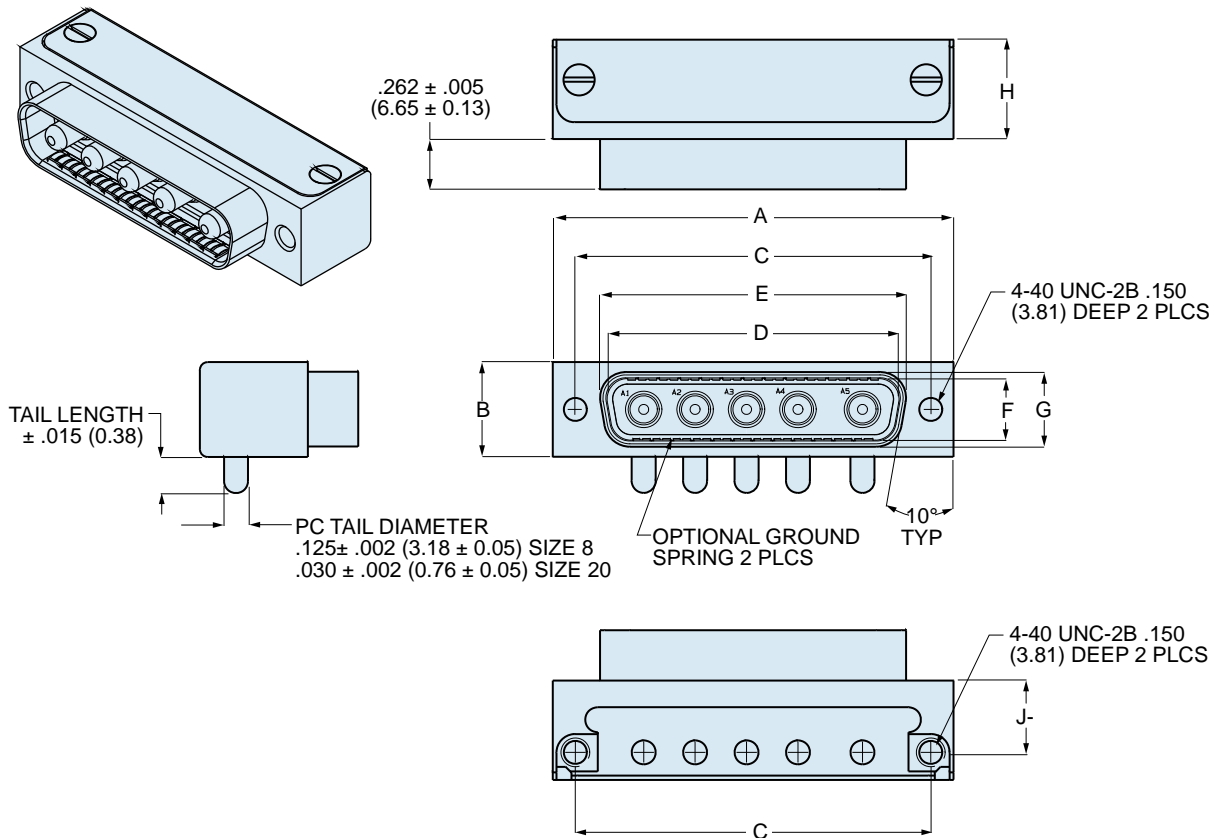
Mating Hardware	
<b>N</b> No Hardware #4-40 Female Threads in Mounting Holes	<b>P</b> #4-40 Female Jackposts
Choose this option for rear panel mounting and order jackpost kit 289-016 separately.	

# SERIES 28 HiPer-D Combo Connectors



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## 280-056P DIMENSIONS



		Dimensions																
Shell Size	A		B		C Basic		D		E		F		G		H		J	
	in ± .015	mm ± 0.38	in ± .015	mm ± 0.38	in.	mm	in ± .005	mm ± 0.13	in ± .005	mm ± 0.13	in ± .005	mm ± 0.13	in ± .005	mm ± 0.13	in	mm	in ± .005	mm ± 0.13
1	1.213	30.81	.494	12.55	.984	24.99	.666	16.92	.726	18.44	.329	8.36	.389	9.88	.518	13.16	.374	9.50
2	1.541	39.14	.494	12.55	1.312	33.32	.994	25.25	1.054	26.77	.329	8.36	.389	9.88	.518	13.16	.374	9.50
3	2.088	53.04	.494	12.55	1.852	47.04	1.534	38.96	1.594	40.49	.329	8.36	.389	9.88	.518	13.16	.374	9.50
4	2.729	69.32	.494	12.55	2.500	63.50	2.182	55.42	2.242	56.95	.329	8.36	.389	9.88	.518	13.16	.374	9.50
5	2.635	66.93	.605	15.37	2.406	61.11	2.079	52.81	2.139	54.33	.441	11.20	.501	12.73	.630	16.00	.430	10.92

## NOTES

- Contacts are factory-installed, non-removable and are potted with epoxy.
- HiPer-D connectors are available with a wide variety of materials and finishes. See [About Series 28 HiPer-D Shell Plating Options](#) for additional choices.
- For panel cutout dimensions, refer to [Panel Cutouts and Printed Circuit Board Footprints](#).
- For printed circuit board mounting dimensions, refer to [Panel Cutouts and Printed Circuit Board Footprints](#).
- Combo HiPer-D connectors meet the applicable requirements of MIL-DTL-24308 and are interchangeable with standard M24308-type D-Subminiature combo connectors with corresponding contact arrangements and type.
- Additional electrical, mechanical and environmental specifications are listed in [HiPer-D Product Specification](#).