



## IL-312 Series 0.50mm Connectors (Cont.)



Fig.	No. of Positions	Dimensions (mm)		Digi-Key Part No.	Price Each			JAE Part No.
		A	B		1	25	100	
<b>SMD Receptacle</b>								
A	20	6.75	2.2	670-1732-ND	1.98	1.22	1.04	IL-312-A20S-VF-A1
	40	11.75	2.2	670-1898-ND	1.62	1.00	.85	IL-312-A40S-VF-A1
	50	14.25	2.2	670-2478-ND	3.66	2.08	1.96	IL-312-A50S-VF-A1
	60	16.75	2.2	670-2479-ND	4.32	2.46	2.31	IL-312-A60S-VF-A1
	70	19.25	2.2	670-1738-ND	4.89	2.85	2.61	IL-312-A70S-VF-A1
	80	21.75	2.2	670-1910-ND	5.45	3.18	2.91	IL-312-A80S-VF-A1
	100	26.75	2.2	670-1730-ND	5.98	4.07	3.59	IL-312-A100S-VF-A1
	20	6.75	2.7	670-1733-ND	1.98	1.22	1.04	IL-312-A20S-VFH05-A1
	30	9.25	2.7	670-1895-ND	2.31	1.35	1.24	IL-312-A30S-VFH05-A1
	40	11.75	2.7	670-1899-ND	2.99	1.75	1.60	IL-312-A40S-VFH05-A1
3	50	14.25	2.7	670-1902-ND	3.66	2.14	1.96	IL-312-A50S-VFH05-A1
	60	16.75	2.7	670-1905-ND	4.32	2.53	2.31	IL-312-A60S-VFH05-A1
	70	19.25	2.7	670-1739-ND	4.89	2.85	2.61	IL-312-A70S-VFH05-A1
	80	21.75	2.7	670-1911-ND	5.45	3.18	2.91	IL-312-A80S-VFH05-A1
	100	26.75	2.7	670-1731-ND	5.98	4.07	3.59	IL-312-A100S-VFH05-A1
	20	6.75	2.2	670-1892-ND	1.98	1.22	1.04	IL-312-A20SB-VF-A1
	30	9.25	2.2	670-1896-ND	2.31	1.35	1.24	IL-312-A30SB-VF-A1
	40	11.75	2.2	670-1900-ND	2.99	1.75	1.60	IL-312-A40SB-VF-A1
	50	14.25	2.2	670-1903-ND	3.66	2.14	1.96	IL-312-A50SB-VF-A1
	60	16.75	2.2	670-1906-ND	4.32	2.53	2.31	IL-312-A60SB-VF-A1
70	19.25	2.2	670-1907-ND	4.89	2.85	2.61	IL-312-A70SB-VF-A1	
80	21.75	2.2	670-1912-ND	5.45	3.18	2.91	IL-312-A80SB-VF-A1	
100	26.75	2.2	670-1889-ND	5.98	4.07	3.59	IL-312-A100SB-VF-A1	
20	6.75	2.7	670-1893-ND	1.98	1.22	1.04	IL-312-A20SB-VFH05-A1	
30	9.25	2.7	670-1897-ND	2.31	1.35	1.24	IL-312-A30SB-VFH05-A1	
40	11.75	2.7	670-1904-ND	2.99	1.75	1.60	IL-312-A40SB-VFH05-A1	
50	14.25	2.7	670-1907-ND	3.66	2.14	1.96	IL-312-A50SB-VFH05-A1	
60	16.75	2.7	670-1913-ND	4.32	2.53	2.31	IL-312-A60SB-VFH05-A1	
70	19.25	2.7	670-1890-ND	4.89	2.85	2.61	IL-312-A70SB-VFH05-A1	
80	21.75	2.7	670-1913-ND	5.45	3.18	2.91	IL-312-A80SB-VFH05-A1	
100	26.75	2.7	670-1890-ND	5.98	4.07	3.59	IL-312-A100SB-VFH05-A1	

## IL-AG5 / 7 / 9 Series 2.5mm Automotive Connectors



**IL-AG5/IL-AG7 Series:** Features: • Designed for automotive instrument panel applications • Mechanical lock assures positive mating • Unique housing configuration helps prevent misrouting • Double locking mechanism prevents dislodging of contacts  
**Specifications:** • Contact Spacing: 2.5mm (.098") • Current Rating: 3A per contact • Dielectric Withstanding Voltage: 1000VACr.m.s. (for one minute) • Insulation Resistance: 100MΩ min. • Contact Resistance: 10mΩ max. • Operating Temperature: -40°C ~ 85°C  
**Applicable Wire (Stranded):** • AV, AVS, AVSS: 22 ~ 20AWG • AVS, AVSS: 18AWG  
**Materials and Finishes:** • Insulator: PBT • Pin Contact: Brass/ Tin plating, Cable plug pin contact: Highly conductive Copper alloy • Socket Contact: Phosphor Bronze/ Tin plating  
**IL-AG9 Series:** Features: • Uses the existing 025 contact tab size (0.64 x 0.64) IL-AG5 terminals • Structure with a key to prevent twisted mating, mis-mating or reverse insertion • Mechanical lock method for withstanding vibration and pulling  
**Specifications:** • Contact Spacing: 2.50mm (.098") • Contact Resistance: 10mΩ max. (initial) • Withstanding Voltage: 1000VACr.m.s. for one minute • Operating Temperature: -40°C ~ 85°C • Rated Current: 3A • Insulation Resistance: 100MΩ min. (initial) • Rated Life: 50 cycles  
**Applicable Wire:** • AV, AVS, AVSS: 22 ~ 20AWG • AVS, AVSS: 18AWG  
**Materials and Finishes:** • Insulator: PBT/ Color: green • Relay Pin Contact: Copper alloy/ Tin plating • Socket Contact: Phosphor Bronze/ Tin plating

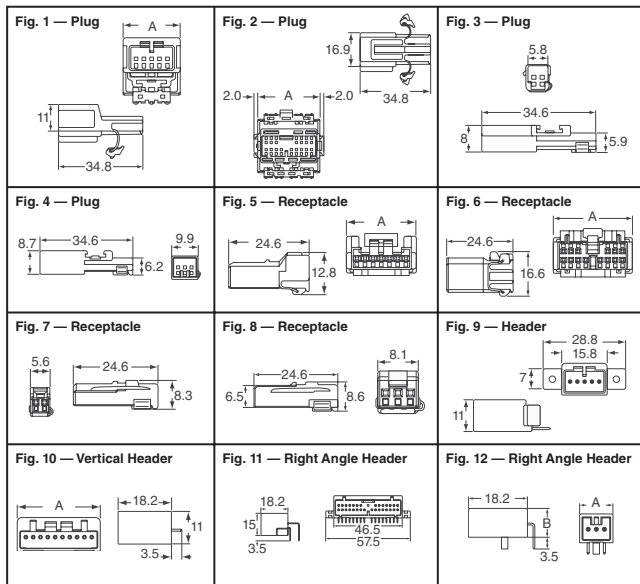
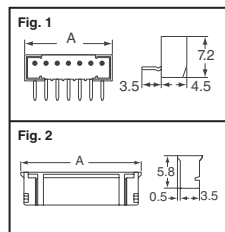


Fig.	No. of Positions	Dimensions (mm)		Digi-Key Part No.	Price Each			JAE Part No.
		A	B		1	25	100	
<b>Plug</b>								
1	5	18.3	—	670-2209-ND	.86	.54	.43	IL-AG5-5P-S3C1
	7	23.3	—	670-2210-ND	1.85	1.13	.96	IL-AG5-7P-S3C1
2	16	30.8	—	670-2208-ND	2.06	1.25	1.07	IL-AG5-16P-D3C1
	22	38.3	—	670-1817-ND	2.44	1.38	1.10	IL-AG5-22P-D3C1
3	2	—	—	670-2410-ND	.45	.23	.19	IL-AG9-2P-S3C1
4	3	—	—	670-2215-ND	1.44	.91	.73	IL-AG9-3P-S3C1

Fig.	No. of Positions	Dimensions (mm)		Digi-Key Part No.	Price Each			JAE Part No.
		A	B		1	25	100	
<b>Receptacle</b>								
5	7	21.1	—	670-2211-ND	.80	.51	.41	IL-AG5-7S-S3C1
	7	21.1	—	670-2212-ND	.62	.37	.30	IL-AG5-7S-S3C1-B
	5	—	—	670-1802-ND	.33	.17	.13	IL-AG5-5SK-S3C1-LB
	5	16.1	—	670-1799-ND	.33	.17	.13	IL-AG5-5S-S3C1
	6	18.6	—	670-1800-ND	.37	.19	.15	IL-AG5-6S-S3C1
	10	28.6	—	670-1814-ND	.42	.21	.17	IL-AG5-10S-S3C1
6	14	26.7	—	670-1815-ND	.83	.42	.34	IL-AG5-14S-D3C1-A
	16	29.2	—	670-1816-ND	.97	.55	.44	IL-AG5-16S-D3C1-A
	22	36.7	—	670-2407-ND	1.03	.58	.47	IL-AG5-22S-D3C1
	30	46.7	—	670-1818-ND	1.37	.92	.78	IL-AG5-30S-D3C1
7	2	—	—	670-2133-ND	.37	.19	.15	IL-AG9-2S-S3C1
8	3	—	—	670-2217-ND	.73	.44	.35	IL-AG9-3S-S3C1
<b>Header</b>								
9	5	—	—	670-2214-ND	1.23	.75	.64	IL-AG7-5P-S3T2
<b>Vertical Header</b>								
10	4	13.3	—	670-1819-ND	1.83	1.22	1.04	IL-AG5-4P-S3T2
	5	15.8	—	670-2409-ND	.72	.41	.33	IL-AG5-5P-S3T2
	10	28.3	—	670-1813-ND	1.28	.72	.58	IL-AG5-10P-S3T2
<b>Right Angle Header</b>								
11	30	—	—	670-2131-ND	2.67	1.87	1.71	IL-AG7-30P-D3L2
12	4	13.3	—	670-2408-ND	1.16	.59	.53	IL-AG5-4P-S3L2
	5	15.8	11	670-1812-ND	.94	.47	.38	IL-AG5-5P-S3L2-LB
3	10.3	8.9	—	670-2216-ND	2.24	1.36	1.16	IL-AG9-3PL-S3L2
<b>Contacts</b>								
—	Crimp Socket Tin 18 ~ 22 AWG	670-1785-1-ND†	—	—	.12	.06	.05	IL-AG5-C1-5000
		670-1785-2-ND‡	—	—	127.46/5,000	—	—	IL-AG5-C1-5000
—	Socket Gold 18 ~ 22 AWG	670-2213-ND	—	—	.46	.24	.19	IL-AG5-C1-IE-5000
		670-1790-1-ND†	—	—	.17	.08	.06	IL-AG5-PC1-5000
—	Pin Tin 18 ~ 22 AWG	670-1790-2-ND‡	—	—	174.19/5,000	—	—	IL-AG5-PC1-5000

† Cut Tape ‡ Tape and Reel

## IL-S Series 2.0mm Connectors

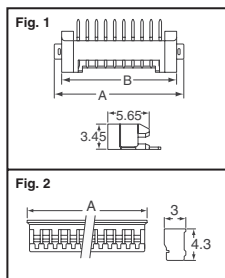


**Features:** • Box type pin header prevents misrouting • Design prevents flux wicking  
**Specifications:** • Current Rating: 3A • Operating Voltage: 300VAC, 400VDC • Dielectric Withstanding Voltage: 1,000VACr.m.s. (one minute) • Insulation Resistance: 100MΩ min. • Contact Resistance: 20mΩ max. • Applicable Wire: 24 ~ 28AWG, stranded • Operating Temperature: -40°C ~ 85°C  
**Materials and Finishes:** • Insulator: 6-6 Nylon (UL94V-0, Light Brown) • Pin Contact: Brass/Tin plating over Nickel • Socket Contact: Phosphor Bronze/ Tin plated

Fig.	No. of Positions	Dimension A (mm)	Digi-Key Part No.	Pricing			JAE Part No.
				1	25	100	
<b>Header</b>							
1	3	7.6	670-2228-ND	.21	2.60	7.80	IL-S-3P-S2L2-EF
<b>Receptacle</b>							
2	3	7.6	670-2220-ND	.11	1.21	3.81	IL-S-3S-S2C2
	8	17.6	670-1751-ND	.21	2.38	7.80	IL-S-8S-S2C2
	8	17.6	670-2223-ND	.21	2.60	8.66	IL-S-8S-S2C2-S
—	Crimp Socket Tin 24 ~ 28 AWG	670-2368-1-ND†	—	.07	.87	2.29	IL-S-C2-10000
		670-2368-2-ND‡	—	—	118.05/10,000	—	IL-S-C2-10000

† Cut Tape ‡ Tape and Reel

## IL-Z Series 1.25mm Connectors



**Features:** • Crimp type for efficient wire termination • High reliability socket contacts • Boxed pin header design prevents misrouting • Anti-wicking feature  
**Specifications:** • Current Rating: AC/DC 1A per contact • Dielectric Withstanding Voltage: 500VACr.m.s. (for one minute) • Insulation Resistance: 100MΩ min. • Contact Resistance: 20mΩ max. • Operating Temperature: -40°C ~ 70°C • Applicable Wire: 32 ~ 28AWG (stranded) • Voltage Rating: AC/DC 200V  
**Materials and Finishes:** • Insulator: Pin Header and Socket Housing: 6-6 Nylon (UL94V-0, Light Brown), SMT Pin Header: PPS (UL94V-0, Light Gray) • Pin Contact: Brass/ Tin plating • Socket Contact: Phosphor Bronze/ Tin plating • Hold-down: Phosphor Bronze/ Tin plating

Fig.	No. of Pos.	Dimensions (mm)		Digi-Key Part No.	Pricing			JAE Part No.
		A	B		1	25	100	
<b>Header</b>								
1	2	7.65	5.65	670-1752-ND	.52	6.50	20.79	IL-Z-2PL-SMTYE
<b>Receptacle</b>								
2	2	3.95	—	670-1753-ND	.15	1.69	5.20	IL-Z-2S-S125C3
				670-2369-1-ND†	.11	1.28	3.85	IL-Z-C1-A-7000
—	Crimp Socket Tin	22 ~ 26 AWG	—	670-2369-2-ND‡	172.70/7,000	—	—	IL-Z-C1-A-7000
				670-2370-1-ND†	.06	.64	1.93	IL-Z-C3-A-15000
				670-2370-2-ND‡	173.55/15,000	—	—	IL-Z-C3-A-15000
				670-2231-1-ND†	.12	1.45	3.81	IL-Z-C3-A-1-15000
—	Socket Gold	28 ~ 32 AWG	—	670-2231-2-ND‡	277.42/15,000	—	—	IL-Z-C3-A-1-15000

† Cut Tape ‡ Tape and Reel

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

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