

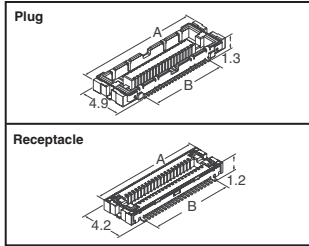


## FX12 Connectors with Dual Shields - 0.4mm Pitch



- Specifications:**
- **Current Rating:** 0.3A
  - **Voltage Rating:** 30VAC
  - **Operating Temperature:** -55°C ~ 85°C
  - **Insulation Resistance:** 50MΩ @ 100VDC
  - **Withstanding Voltage:** No flashover or insulation breakdown @ 100VAC one minute
  - **Contact Resistance:** 100mΩ Maximum @ 100mA

- Materials:**
- **Insulator:** Polyamide, Black Finish, UL94V-0
  - **Contacts:** Phosphor Bronze, Gold Plated Finish
  - **Ground Plates:** Phosphor Bronze, Gold Plated
  - **Metal Fittings:** Phosphor Bronze, Tin-Copper plated



No. of Contacts	Dimensions in mm		Digi-Key Part No.	Cut Tape Price Each			T & R▲ Pricing 3,000	Hirose Part No.
	A	B		1	10	50		
<b>Plugs</b>								
24	10.6	4.4	H11405CT-ND	1.21	.99	.80	415.28/M	FX12B-24P-0.4SV
40	13.8	7.6	H11407CT-ND	1.25	1.04	.87	490.78/M	FX12B-40P-0.4SV
60	17.79	11.6	H11409CT-ND	1.70	1.42	1.18	666.47/M	FX12B-60P-0.4SV
<b>Receptacles</b>								
24	8.1	4.4	H11406CT-ND	1.21	.99	.80	415.28/M	FX12B-24S-0.4SV
40	11.3	7.6	H11408CT-ND	1.25	1.04	.87	490.78/M	FX12B-40S-0.4SV
60	15.34	11.6	H11410CT-ND	1.63	1.36	1.13	638.88/M	FX12B-60S-0.4SV

▲ For Tape and Reel part number, change CT-ND to TR-ND

## DF30 Surface Mount Connectors - 0.4mm Pitch



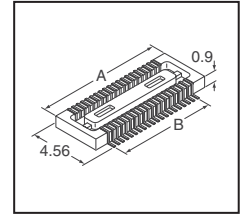
- Applications:** • Cellular Phones • PDAs • Mobile Computers • Digital Cameras • Digital Video Cameras • Devices demanding high reliability connections in extremely limited spaces

- Specifications:** • **Operating Temperature Range:** -35°C ~ 85°C • **Voltage Rating:** 30VAC • **Current Rating:** 0.3A

- Electrical Characteristics:** • **Contact Resistance:** 100mΩ maximum • **Insulation Resistance:** 50MΩ minimum

- Mechanical Characteristics:** • **Mechanical Operation:** 50 times insertions and extractions

- Materials:** • **Insulator:** LCP, Black Finish, UL94V-0 • **Contacts:** Phosphor Bronze, Gold Plated Finish • **Metal Fittings:** Phosphor Bronze, Tin-Copper plated Finish



No. of Contacts	Dimensions in mm		Digi-Key Part No.	Cut Tape Price Each			T & R▲ Pricing 1,000	Hirose Part No.
	A	B		1	10	50		
<b>Receptacles</b>								
20	6.22	3.6	H3859CT-ND	1.18	.97	.79	415.27	DF30FC-20DS-0.4V(82)
24	7.02	4.4	H3860CT-ND	1.21	.99	.80	424.71	DF30FC-24DS-0.4V(82)
30	8.22	5.6	H3861CT-ND	1.32	1.08	.88	463.19	DF30FC-30DS-0.4V(82)
34	9.02	6.4	H3862CT-ND	1.18	.98	.82	482.79	DF30FC-34DS-0.4V(82)
40	10.22	7.6	H3855CT-ND	1.34	1.12	.94	550.31	DF30FC-40DS-0.4V(82)
50	12.22	9.6	H3863CT-ND	1.58	1.32	1.10	646.87	DF30FC-50DS-0.4V(82)
60	14.22	11.6	H3857CT-ND	1.77	1.47	1.23	724.55	DF30FC-60DS-0.4V(82)
<b>Headers</b>								
20	5.14	3.6	H3864CT-ND	1.27	1.04	.84	444.31	DF30FC-20DP-0.4V(82)
24	5.94	4.4	H3865CT-ND	1.35	1.11	.89	473.35	DF30FC-24DP-0.4V(82)
30	7.14	5.6	H3866CT-ND	1.25	1.04	.87	511.83	DF30FC-30DP-0.4V(82)
34	7.94	6.4	H3867CT-ND	1.32	1.10	.92	540.87	DF30FC-34DP-0.4V(82)
40	9.14	7.6	H3856CT-ND	1.42	1.18	.99	579.35	DF30FC-40DP-0.4V(82)
50	11.14	9.6	H3868CT-ND	1.70	1.42	1.18	695.51	DF30FC-50DP-0.4V(82)
60	13.14	11.6	H3858CT-ND	1.87	1.55	1.30	763.03	DF30FC-60DP-0.4V(82)

▲ For Tape and Reel part number, change CT-ND to TR-ND

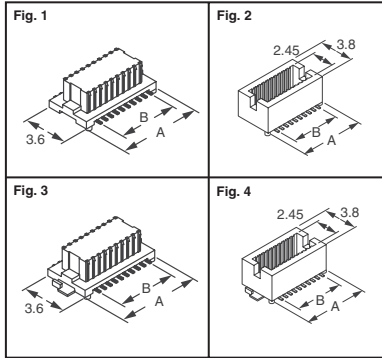
## DF12 Surface Mount Connectors - 0.5mm Pitch



- Features:**
- Connectors furnished with reinforcement fittings to prevent peeling of the solder joints (due to mechanical stress) are also available and these can be mounted to FPC with confidence • A specification with convenient guide posts for manual work is available as well as one without guide posts for automatic mounting

- Specifications:**
- **Current Capacity:** 0.3A • **Rated Voltage:** 50VAC • **Insulation Resistance:** 100VDC, 500MΩ minimum • **Withstand Voltage:** 1 minute at rated value, 150VAC • **Contact Resistance:** 100mA DC, 50mΩ maximum

- Material (receptacle/header):**
- **Insulation:** Polyamide, beige (natural), UL94V-0 • **Contacts:** Phosphor copper with gold plating • **Fittings:** Brass finish with tin-lead plating



No. of Con-tacts	Descrip-tion	Dimension in mm		Digi-Key Part No.	Cut Tape Price Each			T & R▲ Pricing 1,000	Hirose Part No.
		A	B		1	25	100		
<b>Receptacles</b>									
<b>3.0mm Stacking Height — RoHS Compliant</b>									
1	With Guide Posts	10.1	7.5	H5202CT-ND	1.44	1.11	.89	588.79	DF12A(3.0)-32DS-0.5V(81)
		14.6	12.0	H2736-ND	1.53	1.18	.95	—	DF12A(3.0)-50DS-0.5V(80)
		14.6	12.0	H5203CT-ND	2.03	1.57	1.25	830.54	DF12A(3.0)-50DS-0.5V(81)
		17.1	14.5	H5204CT-ND	2.11	1.64	1.31	943.80	DF12A(3.0)-60DS-0.5V(81)
<b>3.0mm Stacking Height</b>									
3	With Guide Posts and Reinforced Fittings	11.0	7.5	H5205CT-ND◆	1.10	.80	.66	386.23	DF12(3.0)-32DS-0.5V(86)
		15.5	12.0	H1509-ND	1.53	1.18	.95	—	DF12(3.0)-50DS-0.5V(80)
		15.5	12.0	H5206CT-ND◆	1.39	1.08	.86	569.91	DF12(3.0)-50DS-0.5V(86)
		18.0	14.5	H5207CT-ND◆	1.53	1.18	.95	627.99	DF12(3.0)-60DS-0.5V(86)
80	23.0	19.5	H5208CT-ND◆	2.15	1.66	1.33	878.46	DF12(3.0)-80DS-0.5V(86)	
<b>3.5 to 5.0mm Stacking Height — RoHS Compliant</b>									
1	With Guide Posts	7.1	4.5	H5209CT-ND	1.24	.90	.74	434.87	DF12A-20DS-0.5V(81)
		9.6	7.0	H5210CT-ND	1.39	1.08	.86	569.91	DF12A-30DS-0.5V(81)
		11.1	8.5	H5211CT-ND	1.60	1.24	.99	656.30	DF12A-36DS-0.5V(81)
		12.1	9.5	H5212CT-ND	1.66	1.28	1.02	675.91	DF12A-40DS-0.5V(81)
		14.6	12.0	H5213CT-ND	2.08	1.60	1.28	849.42	DF12A-50DS-0.5V(81)
3	With Guide Reinforced	8.0	4.5	H5214CT-ND	.77	.56	.46	270.07	DF12-20DS-0.5V(86)
		10.5	7.0	H5215CT-ND	1.05	.76	.63	366.63	DF12-30DS-0.5V(86)

Fig.	No. of Con-tacts	Descrip-tion	Dim. in mm		Digi-Key Part No.	Cut Tape Price Each			T & R▲ Pricing 1,000	Hirose Part No.
			A	B		1	25	100		
3	With Guide Posts Reinforced	12.0	8.5	H5216CT-ND	1.35	.98	.81	473.35	DF12-36DS-0.5V(86)	
		13.0	9.5	H5217CT-ND	1.24	.90	.74	434.87	DF12-40DS-0.5V(86)	
		15.5	12.0	H5218CT-ND	1.39	1.08	.86	569.91	DF12-50DS-0.5V(86)	
		18.0	14.5	H5001CT-ND	1.53	1.18	.95	627.99	DF12-60DS-0.5V(86)	
<b>Headers — RoHS Compliant</b>										
<b>3.0mm Stacking Height</b>										
2	With Guide Posts	10.2	7.5	H5219CT-ND	1.47	1.13	.91	598.95	DF12D(3.0)-32DP-0.5V(81)	
		14.7	12.0	H5220CT-ND	2.08	1.60	1.28	849.42	DF12D(3.0)-50DP-0.5V(81)	
		17.2	14.5	H5221CT-ND	2.17	1.69	1.35	972.11	DF12D(3.0)-60DP-0.5V(81)	
		22.2	19.5	H11581CT-ND	2.27	1.75	1.40	927.10	DF12D(3.0)-80DP-0.5V(81)	
4	With Guide Posts and Reinforced Fittings	11.0	7.5	H5222CT-ND	1.10	.80	.66	386.23	DF12(3.0)-32DP-0.5V(86)	
		15.5	12.0	H5223CT-ND	1.39	1.08	.86	569.91	DF12(3.0)-50DP-0.5V(86)	
		18.0	14.5	H5224CT-ND	1.49	1.15	.92	608.39	DF12(3.0)-60DP-0.5V(86)	
		23.0	19.5	H5225CT-ND	2.13	1.64	1.31	869.02	DF12(3.0)-80DP-0.5V(86)	
<b>3.5mm Stacking Height</b>										
2	With Guide Posts	7.2	4.5	H5226CT-ND	1.13	.82	.67	395.67	DF12D(3.5)-20DP-0.5V(81)	
		11.2	8.5	H5227CT-ND	1.60	1.24	.99	656.30	DF12D(3.5)-36DP-0.5V(81)	
		12.2	9.5	H5228CT-ND	1.66	1.28	1.02	675.91	DF12D(3.5)-40DP-0.5V(81)	
		14.7	12.0	H5229CT-ND	2.05	1.58	1.27	839.98	DF12D(3.5)-50DP-0.5V(81)	
		20	With Guide Posts and Reinforced Fittings	8.0	4.5	H5230CT-ND	.86	.62	.51	299.11
4	With Guide Posts and Reinforced Fittings	12.0	8.5	H5231CT-ND	1.18	.91	.73	482.79	DF12(3.5)-36DP-0.5V(86)	
		13.0	9.5	H5232CT-ND	1.30	.94	.77	453.75	DF12(3.5)-40DP-0.5V(86)	
		15.5	12.0	H5233CT-ND	1.44	1.11	.89	588.79	DF12(3.5)-50DP-0.5V(86)	
		18.0	14.5	H5234CT-ND	1.60	1.24	.99	656.30	DF12(3.5)-60DP-0.5V(86)	
<b>4.0mm Stacking Height</b>										
2	With Guide Posts	9.7	7.0	H2764-ND	1.32	.96	.79	—	DF12D(4.0)-30DP-0.5V(80)	
		9.7	7.0	H5234CT-ND	1.39	1.08	.86	569.91	DF12D(4.0)-30DP-0.5V(81)	
		11.2	8.5	H5235CT-ND	1.60	1.24	.99	656.30	DF12D(4.0)-36DP-0.5V(81)	
		12.2	9.5	H5236CT-ND	1.66	1.28	1.02	675.91	DF12D(4.0)-40DP-0.5V(81)	
		14.7	12.0	H5237CT-ND	2.05	1.58	1.27	839.98	DF12D(4.0)-50DP-0.5V(81)	
3	With Guide Posts and Reinforced Fittings	10.5	7.0	H5238CT-ND	1.39	1.08	.86	569.91	DF12(4.0)-30DP-0.5V(86)	
		12.0	8.5	H5239CT-ND	1.39	1.08	.86	569.91	DF12(4.0)-36DP-0.5V(86)	
		13.0	9.5	H5240CT-ND	1.47	1.13	.91	598.95	DF12(4.0)-40DP-0.5V(86)	
		15.5	12.0	H5241CT-ND	1.68	1.29	1.04	685.34	DF12(4.0)-50DP-0.5V(86)	
		18.0	14.5	H5002CT-ND	1.98	1.53	1.22	810.94	DF12(4.0)-60DP-0.5V(86)	
<b>5.0mm Stacking Height</b>										
2	With Guide Posts	7.2	4.5	H5242CT-ND	1.30	.94	.77	453.75	DF12D(5.0)-20DP-0.5V(81)	
		14.7	12.0	H5243CT-ND	2.15	1.66	1.33	878.46	DF12D(5.0)-50DP-0.5V(81)	
4	With Guide Posts and Reinforced Fittings	8.0	4.5	H5244CT-ND	.83	.60	.50	289.67	DF12(5.0)-20DP-0.5V(86)	
		15.5	12.0	H5245CT-ND	1.51	1.17	.93	617.83	DF12(5.0)-50DP-0.5V(86)	
		17.2	14.5	H5006CT-ND	1.70	1.31	1.05	695.51	DF12(5.0)-60DP-0.5V(86)	

◆ RoHS Compliant ▲ For Tape and Reel part number, change CT-ND to TR-ND

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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