



0.5mm and 1.0mm Pitch FFC/FPC Connectors FH12, FH12A, FH12F and FH12S Series — “Flip-Lock” SMT/ZIF Type Flexible Printed Circuit Board Connectors



The FH12 Series of miniature connectors for FPC/FFC use brings form to the newly developed “flip-lock” concept and can be used with Surface Mount Technology (SMT) to eliminate the problems of the contemporary slide-lock system. These connectors have a contact spacing of 0.5mm, are suited to high density mounting, and are based on a single-acton Zero Insertion Force (ZIF) structure for easy connections. Types with top or bottom contacts, and vertical mounting are available to suit your applications.

Materials/Finish: • Insulation: Polyamide Resin, beige • Actuator: PPS Resin, dark brown (UL94V-0) • Contacts: Phosphor Bronze, gold plating **Electrical:** • Rated Current: 0.4A • Insulation Resistance: 500MΩ minimum 100VDC • Withstanding Voltage: 150VAC for one minute • Contact Resistance: 50mΩ maximum (*Note: When all conductors are to continuously carry the rated current, set the current to 70% of the rated current value.*)

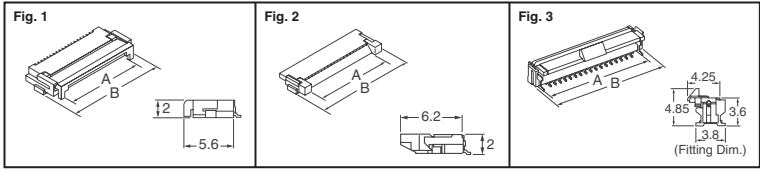


Fig.	No. of Pos.	Dimensions (mm)		Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		Hirose Part No.	
		A	B		1	25	100		250	Qty.		Pricing
0.5mm Horizontal Mount — Bottom Contact Type												
1	14	7.57	11.1	HFJ14CT-ND	1.55	1.20	.96	.80	—	—	FH12-14S-0.5SH	
	16	8.57	12.1	HFJ16CT-ND	1.59	1.23	.98	.82	—	—	FH12-16S-0.5SH	
	22	11.57	15.1	HFJ22CT-ND	1.82	1.40	1.12	.93	—	—	FH12-22S-0.5SH	
	45	23.07	26.6	HFJ45CT-ND	2.39	1.86	1.49	1.20	—	—	FH12-45S-0.5SH	
	0.5mm Horizontal Mount — Bottom Contact Type — RoHS Compliant											
1	6	3.57	7.1	HFJ106CT-ND	1.43	1.11	.89	.74	2,000	561.56/M	FH12-6S-0.5SH(55)	
	10	5.57	9.1	HFJ110CT-ND	1.59	1.23	.98	.82	2,000	622.82/M	FH12-10S-0.5SH(55)	
	11	6.07	9.6	HFJ111CT-ND	1.62	1.25	1.00	.83	2,000	633.03/M	FH12-11S-0.5SH(55)	
	12	6.57	10.1	HFJ112CT-ND	1.67	1.29	1.03	.86	2,000	653.46/M	FH12-12S-0.5SH(55)	
	14	7.07	11.1	HFJ114CT-ND	1.75	1.35	1.08	.90	2,000	684.09/M	FH12-14S-0.5SH(55)	
	15	8.07	11.6	HFJ115CT-ND	1.83	1.41	1.13	.94	2,000	714.72/M	FH12-15S-0.5SH(55)	
	16	8.57	12.1	HFJ116CT-ND	1.85	1.43	1.14	.95	2,000	724.93/M	FH12-16S-0.5SH(55)	
	18	9.57	13.1	HFJ118CT-ND	1.98	1.53	1.22	1.02	2,000	775.98/M	FH12-18S-0.5SH(55)	
	20	10.57	14.1	HFJ120CT-ND	2.06	1.59	1.27	1.06	2,000	806.61/M	FH12-20S-0.5SH(55)	
	22	11.57	15.1	HFJ122CT-ND	2.14	1.65	1.32	1.09	2,000	837.24/M	FH12-22S-0.5SH(55)	
	24	12.57	16.1	HFJ124CT-ND	2.24	1.73	1.38	1.15	2,000	878.08/M	FH12-24S-0.5SH(55)	
	26	13.57	17.1	HFJ126CT-ND	2.37	1.83	1.46	1.21	2,000	929.13/M	FH12-26S-0.5SH(55)	
	30	15.57	19.1	HFJ130CT-ND	2.47	1.91	1.53	1.27	2,000	969.97/M	FH12-30S-0.5SH(55)	
	32	16.57	20.1	HFJ132CT-ND	2.39	1.86	1.49	1.20	2,000	1051.65/M	FH12-32S-0.5SH(55)	
	33	17.07	20.6	HFJ133CT-ND	2.46	1.91	1.53	1.24	2,000	1082.28/M	FH12-33S-0.5SH(55)	
	34	17.57	21.1	HFJ134CT-ND	2.46	1.91	1.53	1.24	2,000	1082.28/M	FH12-34S-0.5SH(55)	
	36	18.57	22.1	HFJ136CT-ND	2.53	1.97	1.58	1.27	2,000	1112.91/M	FH12-36S-0.5SH(55)	
	40	20.57	24.1	HFJ140CT-ND	2.79	2.17	1.73	1.40	2,000	1225.23/M	FH12-40S-0.5SH(55)	
	45	23.07	26.6	HFJ145CT-ND	3.09	2.40	1.92	1.55	2,000	1357.96/M	FH12-45S-0.5SH(55)	
	50	25.57	29.1	HFJ150CT-ND	3.35	2.60	2.08	1.68	2,000	1470.27/M	FH12-50S-0.5SH(55)	
0.5mm Horizontal Mount — Top Contact Type												
2	34	17.57	21.5	HFK34CT-ND	1.93	1.49	1.19	.99	—	—	FH12A-34S-0.5SH	
	0.5mm Horizontal Mount — Top Contact Type — RoHS Compliant											
2	10	5.57	9.5	HFK110CT-ND	1.49	1.08	.89	.75	2,000	510.11/M	FH12A-10S-0.5SH(55)	
	12	6.57	10.5	HFK112CT-ND	1.35	1.05	.84	.70	2,000	530.93/M	FH12A-12S-0.5SH(55)	
	16	8.57	12.5	HFK116CT-ND	1.54	1.19	.95	.79	2,000	602.40/M	FH12A-16S-0.5SH(55)	
	18	9.57	13.5	HFK118CT-ND	1.62	1.25	1.00	.83	2,000	633.03/M	FH12A-18S-0.5SH(55)	
	20	10.57	14.5	HFK120CT-ND	1.59	1.23	.98	.82	2,000	622.82/M	FH12A-20S-0.5SH(55)	
	24	12.57	16.5	HFK124CT-ND	1.85	1.43	1.14	.95	2,000	724.93/M	FH12A-24S-0.5SH(55)	
	30	15.57	19.5	HFK130CT-ND	2.21	1.71	1.37	1.13	2,000	867.87/M	FH12A-30S-0.5SH(55)	
	32	16.57	20.5	HFK132CT-ND	2.29	1.77	1.41	1.17	2,000	898.50/M	FH12A-32S-0.5SH(55)	
	33	17.07	21.0	HFK133CT-ND	2.37	1.83	1.46	1.21	2,000	929.13/M	FH12A-33S-0.5SH(55)	
	36	18.57	22.5	HFK136CT-ND	2.52	1.95	1.56	1.29	2,000	990.39/M	FH12A-36S-0.5SH(55)	
	40	20.57	24.5	HFK140CT-ND	2.46	1.91	1.53	1.24	2,000	1082.28/M	FH12A-40S-0.5SH(55)	
	45	23.07	27.0	HFK145CT-ND	2.71	2.11	1.69	1.36	2,000	1194.60/M	FH12A-45S-0.5SH(55)	
	50	25.57	29.5	HFK150CT-ND	3.04	2.37	1.89	1.53	2,000	1337.54/M	FH12A-50S-0.5SH(55)	
	0.5mm Vertical Mount — RoHS Compliant											
	3	10	6.5	8.4	HFL110CT-ND	1.38	1.07	.85	.71	1,000	564.48	FH12-10S-0.5SV(55)
12		7.5	9.4	HFL112CT-ND	1.54	1.19	.95	.79	1,000	628.39	FH12-12S-0.5SV(55)	
15		9.0	10.9	HFL115CT-ND	1.75	1.35	1.08	.90	1,000	713.59	FH12-15S-0.5SV(55)	
16		9.5	11.4	HFL116CT-ND	1.77	1.37	1.09	.91	1,000	724.24	FH12-16S-0.5SV(55)	
18		10.5	12.4	HFL118CT-ND	1.90	1.47	1.17	.98	1,000	777.50	FH12-18S-0.5SV(55)	
20		11.5	13.4	HFL120CT-ND	2.00	1.55	1.24	1.03	1,000	820.10	FH12-20S-0.5SV(55)	
22		12.5	14.4	HFL122CT-ND	2.14	1.65	1.32	1.09	1,000	873.35	FH12-22S-0.5SV(55)	
24		13.5	15.4	HFL124CT-ND	2.29	1.77	1.41	1.17	1,000	937.26	FH12-24S-0.5SV(55)	
26		14.5	16.4	HFL126CT-ND	2.37	1.83	1.46	1.21	1,000	969.21	FH12-26S-0.5SV(55)	
30		16.5	18.4	HFL130CT-ND	2.32	1.81	1.45	1.17	1,000	1041.04	FH12-30S-0.5SV(55)	
33		18.0	19.9	HFL133CT-ND	2.53	1.97	1.58	1.27	1,000	1134.73	FH12-33S-0.5SV(55)	
36		19.5	21.4	HFL136CT-ND	2.81	2.18	1.75	1.41	1,000	1259.66	FH12-36S-0.5SV(55)	
40		21.5	23.4	HFL140CT-ND	3.04	2.37	1.89	1.53	1,000	1363.76	FH12-40S-0.5SV(55)	
45		24.0	25.9	HFL145CT-ND	3.25	2.53	2.02	1.63	1,000	1457.46	FH12-45S-0.5SV(55)	
50		26.5	28.4	HFL150CT-ND	3.48	2.71	2.17	1.75	1,000	1561.56	FH12-50S-0.5SV(55)	
60		31.5	33.4	HFL160CT-ND	3.88	3.01	2.41	1.94	1,000	1738.54	FH12-60S-0.5SV(55)	
0.5mm Horizontal Mount — Bottom Contact Type with 0.18mm FPC End Thickness												
1		18	9.57	13.1	HFR18CT-ND	1.70	1.31	1.05	.87	—	—	FH12F-18S-0.5SH
	36	18.57	22.1	HFR36CT-ND	2.38	1.84	1.47	1.22	—	—	FH12F-36S-0.5SH	
0.5mm Horizontal Mount — Bottom Contact Type with Strengthened Lock Lever — RoHS Compliant												
1	30	15.57	19.1	HFA130CT-ND	2.47	1.91	1.53	1.27	2,000	969.97/M	FH12S-30S-0.5SH(55)	
	40	20.57	24.1	HFA140CT-ND	2.71	2.11	1.69	1.36	2,000	1194.60/M	FH12S-40S-0.5SH(55)	
	45	23.07	26.6	HFA145CT-ND	3.09	2.40	1.92	1.55	2,000	1357.96/M	FH12S-45S-0.5SH(55)	
	50	25.57	29.1	HFA150CT-ND	3.35	2.60	2.08	1.68	2,000	1470.27/M	FH12S-50S-0.5SH(55)	
1.0mm Horizontal Mount — Bottom Contact Type — RoHS Compliant												
1	5	6.07	9.6	HFB105CT-ND	1.22	.89	.73	.61	2,000	416.42/M	FH12-5S-1SH(55)	
	6	7.07	10.6	HFB106CT-ND	1.25	.91	.74	.63	2,000	426.83/M	FH12-6S-1SH(55)	
	7	8.07	11.6	HFB107CT-ND	1.31	.95	.78	.66	2,000	447.65/M	FH12-7S-1SH(55)	
	8	9.07	12.6	HFB108CT-ND	1.34	.97	.80	.67	2,000	458.06/M	FH12-8S-1SH(55)	
	9	10.07	13.6	HFB109CT-ND	1.40	1.02	.83	.70	2,000	478.88/M	FH12-9S-1SH(55)	
	11	12.07	15.6	HFB111CT-ND	1.31	1.01	.81	.67	2,000	510.51/M	FH12-11S-1SH(55)	
	16	17.07	20.6	HFB116CT-ND	1.51	1.17	.93	.78	2,000	592.19/M	FH12-16S-1SH(55)	
	22	23.07	26.6	HFB122CT-ND	1.67	1.29	1.03	.86	2,000	653.46/M	FH12-22S-1SH(55)	
26	27.07	30.6	HFB126CT-ND	1.83	1.41	1.13	.94	2,000	714.72/M	FH12-26S-1SH(55)		
1.0mm Vertical Mount — RoHS Compliant												
3	6	5	9.9	HFC106CT-ND	1.31	1.01	.81	.67	1,000	532.53	FH12-6S-1SV(55)	
	8	7	11.9	HFC108CT-ND	1.38	1.07	.85	.71	1,000	564.48	FH12-8S-1SV(55)	
	16	19.1	23.9	HFC116CT-ND	1.77	1.37	1.09	.91	1,000	724.24	FH12-16S-1SV(55)	
	20	23.9	29.9	HFC120CT-ND	2.00	1.55	1.24	1.03	1,000	820.10	FH12-20S-1SV(55)	
	24	27.9	33.9	HFC124CT-ND	2.29	1.77	1.41	1.17	1,000	937.26	FH12-24S-1SV(55)	

† Note: The 1.0mm version of FH12 is constructed by loading every other contact into the 0.5mm housing

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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