

M83513 / 20 (continued)

M83513 / 20-G03CN	MK-383-051-455-000R-900	M83513 / 20-G03NN	MK-382-051-455-000R-900	M83513 / 20-G03PN	MK-385-051-455-000R-900
M83513 / 20-G03CP	MK-383-051-455-220R-900	M83513 / 20-G03NP	MK-382-051-455-220R-900	M83513 / 20-G03PP	MK-385-051-455-220R-900
M83513 / 20-G03CT	MK-383-051-455-000R-0B7	M83513 / 20-G03NT	MK-382-051-455-000R-0B7	M83513 / 20-G03PT	MK-385-051-455-000R-0B7
M83513 / 20-G03CW	MK-383-051-455-220R-0B7	M83513 / 20-G03NW	MK-382-051-455-220R-0B7	M83513 / 20-G03PW	MK-385-051-455-220R-0B7

M83513 / 21

M83513 / 21-H01CN	MK-483-100-435-000R-05K	M83513 / 21-H02CN	MK-483-100-445-000R-05K	M83513 / 21-H03CN	MK-483-100-455-000R-05K
M83513 / 21-H01CP	MK-483-100-435-620R-05K	M83513 / 21-H02CP	MK-483-100-445-620R-05K	M83513 / 21-H03CP	MK-483-100-455-620R-05K
M83513 / 21-H01CT	MK-483-100-435-000R-0BJ	M83513 / 21-H02CT	MK-483-100-445-000R-0BJ	M83513 / 21-H03CT	MK-483-100-455-000R-0BJ
M83513 / 21-H01CW	MK-483-100-435-620R-0BJ	M83513 / 21-H02CW	MK-483-100-445-620R-0BJ	M83513 / 21-H03CW	MK-483-100-455-620R-0BJ
M83513 / 21-H01NN	MK-482-100-435-000R-05K	M83513 / 21-H02NN	MK-482-100-445-000R-05K	M83513 / 21-H03NN	MK-482-100-455-000R-05K
M83513 / 21-H01NP	MK-482-100-435-620R-05K	M83513 / 21-H02NP	MK-482-100-445-620R-05K	M83513 / 21-H03NP	MK-482-100-455-620R-05K
M83513 / 21-H01NT	MK-482-100-435-000R-0BJ	M83513 / 21-H02NT	MK-482-100-445-000R-0BJ	M83513 / 21-H03NT	MK-482-100-455-000R-0BJ
M83513 / 21-H01NW	MK-482-100-435-620R-0BJ	M83513 / 21-H02NW	MK-482-100-445-620R-0BJ	M83513 / 21-H03NW	MK-482-100-455-620R-0BJ
M83513 / 21-H01PN	MK-485-100-435-000R-05K	M83513 / 21-H02PN	MK-485-100-445-000R-05K	M83513 / 21-H03PN	MK-485-100-455-000R-05K
M83513 / 21-H01PP	MK-485-100-435-620R-05K	M83513 / 21-H02PP	MK-485-100-445-620R-05K	M83513 / 21-H03PP	MK-485-100-455-620R-05K
M83513 / 21-H01PT	MK-485-100-435-000R-0BJ	M83513 / 21-H02PT	MK-485-100-445-000R-0BJ	M83513 / 21-H03PT	MK-485-100-455-000R-0BJ
M83513 / 21-H01PW	MK-485-100-435-620R-0BJ	M83513 / 21-H02PW	MK-485-100-445-620R-0BJ	M83513 / 21-H03PW	MK-485-100-455-620R-0BJ

M83513 / 22

M83513 / 22-A01CN	MK-213-009-125-0000	M83513 / 22-A03PW	MK-215-009-145-2200-0B7	M83513 / 22-B03PP	MK-215-015-145-2200
M83513 / 22-A01CP	MK-213-009-125-2200			M83513 / 22-B03PT	MK-215-015-145-0000-0B7
M83513 / 22-A01CT	MK-213-009-125-0000-0B7	M83513 / 22-B01CN	MK-213-015-125-0000	M83513 / 22-B03PW	MK-215-015-145-2200-0B7
M83513 / 22-A01CW	MK-213-009-125-2200-0B7	M83513 / 22-B01CP	MK-213-015-125-2200		
M83513 / 22-A01NN	MK-212-009-125-0000	M83513 / 22-B01CT	MK-213-015-125-0000-0B7	M83513 / 22-C01CN	MK-213-021-125-0000
M83513 / 22-A01NP	MK-212-009-125-2200	M83513 / 22-B01CW	MK-213-015-125-2200-0B7	M83513 / 22-C01CP	MK-213-021-125-2200
M83513 / 22-A01NT	MK-212-009-125-0000-0B7	M83513 / 22-B01NN	MK-212-015-125-0000	M83513 / 22-C01CT	MK-213-021-125-0000-0B7
M83513 / 22-A01NW	MK-212-009-125-2200-0B7	M83513 / 22-B01NP	MK-212-015-125-2200	M83513 / 22-C01CW	MK-213-021-125-2200-0B7
M83513 / 22-A01PN	MK-215-009-125-0000	M83513 / 22-B01NT	MK-212-015-125-0000-0B7	M83513 / 22-C01NN	MK-212-021-125-0000
M83513 / 22-A01PP	MK-215-009-125-2200	M83513 / 22-B01NW	MK-212-015-125-2200-0B7	M83513 / 22-C01NP	MK-212-021-125-2200
M83513 / 22-A01PT	MK-215-009-125-0000-0B7	M83513 / 22-B01PN	MK-215-015-125-0000	M83513 / 22-C01NT	MK-212-021-125-0000-0B7
M83513 / 22-A01PW	MK-215-009-125-2200-0B7	M83513 / 22-B01PP	MK-215-015-125-2200	M83513 / 22-C01NW	MK-212-021-125-2200-0B7
M83513 / 22-A02CN	MK-213-009-135-0000	M83513 / 22-B01PT	MK-215-015-125-0000-0B7	M83513 / 22-C01PN	MK-215-021-125-0000
M83513 / 22-A02CP	MK-213-009-135-2200	M83513 / 22-B01PW	MK-215-015-125-2200-0B7	M83513 / 22-C01PP	MK-215-021-125-2200
M83513 / 22-A02CT	MK-213-009-135-0000-0B7	M83513 / 22-B02CN	MK-213-015-135-0000	M83513 / 22-C01PT	MK-215-021-125-0000-0B7
M83513 / 22-A02CW	MK-213-009-135-2200-0B7	M83513 / 22-B02CP	MK-213-015-135-2200	M83513 / 22-C01PW	MK-215-021-125-2200-0B7
M83513 / 22-A02NN	MK-212-009-135-0000	M83513 / 22-B02CT	MK-213-015-135-0000-0B7	M83513 / 22-C02CN	MK-213-021-135-0000
M83513 / 22-A02NP	MK-212-009-135-2200	M83513 / 22-B02CW	MK-213-015-135-2200-0B7	M83513 / 22-C02CP	MK-213-021-135-2200
M83513 / 22-A02NT	MK-212-009-135-0000-0B7	M83513 / 22-B02NN	MK-212-015-135-0000	M83513 / 22-C02CT	MK-213-021-135-0000-0B7
M83513 / 22-A02NW	MK-212-009-135-2200-0B7	M83513 / 22-B02NP	MK-212-015-135-2200	M83513 / 22-C02CW	MK-213-021-135-2200-0B7
M83513 / 22-A02PN	MK-215-009-135-0000	M83513 / 22-B02NT	MK-212-015-135-0000-0B7	M83513 / 22-C02NN	MK-212-021-135-0000
M83513 / 22-A02PP	MK-215-009-135-2200	M83513 / 22-B02NW	MK-212-015-135-2200-0B7	M83513 / 22-C02NP	MK-212-021-135-2200
M83513 / 22-A02PT	MK-215-009-135-0000-0B7	M83513 / 22-B02PN	MK-215-015-135-0000	M83513 / 22-C02NT	MK-212-021-135-0000-0B7
M83513 / 22-A02PW	MK-215-009-135-2200-0B7	M83513 / 22-B02PP	MK-215-015-135-2200	M83513 / 22-C02NW	MK-212-021-135-2200-0B7
M83513 / 22-A03CN	MK-213-009-145-0000	M83513 / 22-B02PT	MK-215-015-135-0000-0B7	M83513 / 22-C02PN	MK-215-021-135-0000
M83513 / 22-A03CP	MK-213-009-145-2200	M83513 / 22-B02PW	MK-215-015-135-2200-0B7	M83513 / 22-C02PP	MK-215-021-135-2200
M83513 / 22-A03CT	MK-213-009-145-0000-0B7	M83513 / 22-B03CN	MK-213-015-145-0000	M83513 / 22-C02PT	MK-215-021-135-0000-0B7
M83513 / 22-A03CW	MK-213-009-145-2200-0B7	M83513 / 22-B03CP	MK-213-015-145-2200	M83513 / 22-C02PW	MK-215-021-135-2200-0B7
M83513 / 22-A03NN	MK-212-009-145-0000	M83513 / 22-B03CT	MK-213-015-145-0000-0B7	M83513 / 22-C03CN	MK-213-021-145-0000
M83513 / 22-A03NP	MK-212-009-145-2200	M83513 / 22-B03CW	MK-213-015-145-2200-0B7	M83513 / 22-C03CP	MK-213-021-145-2200
M83513 / 22-A03NT	MK-212-009-145-0000-0B7	M83513 / 22-B03NN	MK-212-015-145-0000	M83513 / 22-C03CT	MK-213-021-145-0000-0B7
M83513 / 22-A03NW	MK-212-009-145-2200-0B7	M83513 / 22-B03NP	MK-212-015-145-2200	M83513 / 22-C03CW	MK-213-021-145-2200-0B7
M83513 / 22-A03PN	MK-215-009-145-0000	M83513 / 22-B03NT	MK-212-015-145-0000-0B7	M83513 / 22-C03NN	MK-212-021-145-0000
M83513 / 22-A03PP	MK-215-009-145-2200	M83513 / 22-B03NW	MK-212-015-145-2200-0B7	M83513 / 22-C03NP	MK-212-021-145-2200
M83513 / 22-A03PT	MK-215-009-145-0000-0B7	M83513 / 22-B03PN	MK-215-015-145-0000	M83513 / 22-C03NT	MK-212-021-145-0000-0B7

Military Cross Reference Chart

-- Continued from previous page



M83513 / 22 (continued)

M83513 / 22-C03NW	MK-212-021-145-2200-0B7	M83513 / 22-D03PP	MK-215-025-145-2200	M83513 / 22-E03PW	MK-215-031-145-2200-0B7
M83513 / 22-C03PN	MK-215-021-145-0000	M83513 / 22-D03PT	MK-215-025-145-0000-0B7	M83513 / 22-F01CN	MK-213-037-125-0000
M83513 / 22-C03PP	MK-215-021-145-2200	M83513 / 22-D03PW	MK-215-025-145-2200-0B7	M83513 / 22-F01CP	MK-213-037-125-2200
M83513 / 22-C03PT	MK-215-021-145-0000-0B7			M83513 / 22-F01CT	MK-213-037-125-0000-0B7
M83513 / 22-C03PW	MK-215-021-145-2200-0B7			M83513 / 22-F01CW	MK-213-037-125-2200-0B7
		M83513 / 22-E01CN	MK-213-031-125-0000	M83513 / 22-F01NN	MK-212-037-125-0000
M83513 / 22-D01CN	MK-213-025-125-0000	M83513 / 22-E01CP	MK-213-031-125-2200	M83513 / 22-F01NP	MK-212-037-125-2200
M83513 / 22-D01CP	MK-213-025-125-2200	M83513 / 22-E01CT	MK-213-031-125-0000-0B7	M83513 / 22-F01NT	MK-212-037-125-0000-0B7
M83513 / 22-D01CT	MK-213-025-125-0000-0B7	M83513 / 22-E01CW	MK-213-031-125-2200-0B7	M83513 / 22-F01NW	MK-212-037-125-2200-0B7
M83513 / 22-D01CW	MK-213-025-125-2200-0B7	M83513 / 22-E01NN	MK-212-031-125-0000	M83513 / 22-F01PN	MK-215-037-125-0000
M83513 / 22-D01NN	MK-212-025-125-0000	M83513 / 22-E01NP	MK-212-031-125-2200	M83513 / 22-F01PP	MK-215-037-125-2200
M83513 / 22-D01NP	MK-212-025-125-2200	M83513 / 22-E01NT	MK-212-031-125-0000-0B7	M83513 / 22-F01PT	MK-215-037-125-0000-0B7
M83513 / 22-D01NT	MK-212-025-125-0000-0B7	M83513 / 22-E01NW	MK-212-031-125-2200-0B7	M83513 / 22-F01PW	MK-215-037-125-2200-0B7
M83513 / 22-D01NW	MK-212-025-125-2200-0B7	M83513 / 22-E01PN	MK-215-031-125-0000	M83513 / 22-F02CN	MK-213-037-135-0000
M83513 / 22-D01PN	MK-215-025-125-0000	M83513 / 22-E01PP	MK-215-031-125-2200	M83513 / 22-F02CP	MK-213-037-135-2200
M83513 / 22-D01PP	MK-215-025-125-2200	M83513 / 22-E01PT	MK-215-031-125-0000-0B7	M83513 / 22-F02CT	MK-213-037-135-0000-0B7
M83513 / 22-D01PT	MK-215-025-125-0000-0B7	M83513 / 22-E01PW	MK-215-031-125-2200-0B7	M83513 / 22-F02CW	MK-213-037-135-2200-0B7
M83513 / 22-D01PW	MK-215-025-125-2200-0B7	M83513 / 22-E02CN	MK-213-031-135-0000	M83513 / 22-F02NN	MK-212-037-135-0000
M83513 / 22-D02CN	MK-213-025-135-0000	M83513 / 22-E02CP	MK-213-031-135-2200	M83513 / 22-F02NP	MK-212-037-135-2200
M83513 / 22-D02CP	MK-213-025-135-2200	M83513 / 22-E02CT	MK-213-031-135-0000-0B7	M83513 / 22-F02NT	MK-212-037-135-0000-0B7
M83513 / 22-D02CT	MK-213-025-135-0000-0B7	M83513 / 22-E02CW	MK-213-031-135-2200-0B7	M83513 / 22-F02NW	MK-212-037-135-2200-0B7
M83513 / 22-D02CW	MK-213-025-135-2200-0B7	M83513 / 22-E02NN	MK-212-031-135-0000	M83513 / 22-F02NP	MK-215-037-135-0000
M83513 / 22-D02NN	MK-212-025-135-0000	M83513 / 22-E02NP	MK-212-031-135-2200	M83513 / 22-F02PP	MK-215-037-135-2200
M83513 / 22-D02NP	MK-212-025-135-2200	M83513 / 22-E02NT	MK-212-031-135-0000-0B7	M83513 / 22-F02PT	MK-215-037-135-0000-0B7
M83513 / 22-D02NT	MK-212-025-135-0000-0B7	M83513 / 22-E02NW	MK-212-031-135-2200-0B7	M83513 / 22-F02PW	MK-215-037-135-2200-0B7
M83513 / 22-D02NW	MK-212-025-135-2200-0B7	M83513 / 22-E02PN	MK-215-031-135-0000	M83513 / 22-F03CN	MK-213-037-145-0000
M83513 / 22-D02PN	MK-215-025-135-0000	M83513 / 22-E02PP	MK-215-031-135-2200	M83513 / 22-F03CP	MK-213-037-145-2200
M83513 / 22-D02PT	MK-215-025-135-0000-0B7	M83513 / 22-E02PT	MK-215-031-135-0000-0B7	M83513 / 22-F03CT	MK-213-037-145-0000-0B7
M83513 / 22-D02PW	MK-215-025-135-2200-0B7	M83513 / 22-E02PW	MK-215-031-135-2200-0B7	M83513 / 22-F03CW	MK-213-037-145-2200-0B7
M83513 / 22-D03CN	MK-213-025-145-0000	M83513 / 22-E03CN	MK-213-031-145-0000	M83513 / 22-F03NN	MK-212-037-145-0000
M83513 / 22-D03CP	MK-213-025-145-2200	M83513 / 22-E03CP	MK-213-031-145-2200	M83513 / 22-F03NP	MK-212-037-145-2200
M83513 / 22-D03CT	MK-213-025-145-0000-0B7	M83513 / 22-E03CT	MK-213-031-145-0000-0B7	M83513 / 22-F03NT	MK-212-037-145-0000-0B7
M83513 / 22-D03CW	MK-213-025-145-2200-0B7	M83513 / 22-E03CW	MK-213-031-145-2200-0B7	M83513 / 22-F03NW	MK-212-037-145-2200-0B7
M83513 / 22-D03NN	MK-212-025-145-0000	M83513 / 22-E03NN	MK-212-031-145-0000	M83513 / 22-F03PN	MK-215-037-145-0000
M83513 / 22-D03NP	MK-212-025-145-2200	M83513 / 22-E03NP	MK-212-031-145-2200	M83513 / 22-F03PP	MK-215-037-145-2200
M83513 / 22-D03NT	MK-212-025-145-0000-0B7	M83513 / 22-E03NW	MK-212-031-145-2200-0B7	M83513 / 22-F03PT	MK-215-037-145-0000-0B7
M83513 / 22-D03NW	MK-212-025-145-2200-0B7	M83513 / 22-E03PN	MK-215-031-145-0000	M83513 / 22-F03PW	MK-215-037-145-2200-0B7
M83513 / 22-D03PN	MK-215-025-145-0000	M83513 / 22-E03PP	MK-215-031-145-2200		
		M83513 / 22-E03PT	MK-215-031-145-0000-0B7		

M83513 / 23

M83513 / 23-G01CN	MK-313-051-125-0000	M83513 / 23-G02CN	MK-313-051-135-0000	M83513 / 23-G03CN	MK-313-051-145-0000
M83513 / 23-G01CP	MK-313-051-125-2200	M83513 / 23-G02CP	MK-313-051-135-2200	M83513 / 23-G03CP	MK-313-051-145-2200
M83513 / 23-G01CT	MK-313-051-125-0000-0B7	M83513 / 23-G02CT	MK-313-051-135-0000-0B7	M83513 / 23-G03CT	MK-313-051-145-0000-0B7
M83513 / 23-G01CW	MK-313-051-125-2200-0B7	M83513 / 23-G02CW	MK-313-051-135-2200-0B7	M83513 / 23-G03CW	MK-313-051-145-2200-0B7
M83513 / 23-G01NN	MK-312-051-125-0000	M83513 / 23-G02NN	MK-312-051-135-0000	M83513 / 23-G03NN	MK-312-051-145-0000
M83513 / 23-G01NP	MK-312-051-125-2200	M83513 / 23-G02NP	MK-312-051-135-2200	M83513 / 23-G03NP	MK-312-051-145-2200
M83513 / 23-G01NT	MK-312-051-125-0000-0B7	M83513 / 23-G02NT	MK-312-051-135-0000-0B7	M83513 / 23-G03NT	MK-312-051-145-0000-0B7
M83513 / 23-G01NW	MK-312-051-125-2200-0B7	M83513 / 23-G02NW	MK-312-051-135-2200-0B7	M83513 / 23-G03NW	MK-312-051-145-2200-0B7
M83513 / 23-G01PN	MK-315-051-125-0000	M83513 / 23-G02PN	MK-315-051-135-0000	M83513 / 23-G03PN	MK-315-051-145-0000
M83513 / 23-G01PP	MK-315-051-125-2200	M83513 / 23-G02PP	MK-315-051-135-2200	M83513 / 23-G03PP	MK-315-051-145-2200
M83513 / 23-G01PT	MK-315-051-125-0000-0B7	M83513 / 23-G02PT	MK-315-051-135-0000-0B7	M83513 / 23-G03PT	MK-315-051-145-0000-0B7
M83513 / 23-G01PW	MK-315-051-125-2200-0B7	M83513 / 23-G02PW	MK-315-051-135-2200-0B7	M83513 / 23-G03PW	MK-315-051-145-2200-0B7

PLUG: MK-312-051-135-2200

RECEPTACLE: MM-322-051-253-4400

PLUG: ML-311-051-135-2200

RECEPTACLE: MN-321-051-253-4400

XX-XXX-XXX-XXX-XXXX-XXX

PLUG

RECEPTACLE

SERIES	
MK .050" Rugged Metal PC Board Mount Connector	MM .050" Rugged Metal I/O Connector
ML .050" Rugged Plastic PC Board Mount Connector (MK & ML mate with MK, ML, MM, MN receptacles)	MN .050" Rugged Plastic I/O Connector (MM & MN mate with MK, ML, MM, MN plugs)

BODY	
2 2-Row (Sizes 9 thru 37)	2 2-Row (Sizes 9 thru 37)
3 3-Row (Size 51)	3 3-Row (Size 51)
4 4-Row (Size 100)	4 4-Row (Size 100)
BODY STYLE:	BODY STYLE:
1 Plug, straight, narrow footprint, w/ mtg holes	2 Receptacle, straight, with ears
BODY MATERIAL:	BODY MATERIAL:
1 Polyphenylene Sulfide (ML only)	1 Polyphenylene Sulfide (MN only)
2 Polyphenylene Sulfide with electroless nickel shell	2 Polyphenylene Sulfide with electroless nickel shell
3 Polyphenylene Sulfide with electrodeposited cadmium shell <input checked="" type="checkbox"/>	3 Polyphenylene Sulfide with electrodeposited cadmium shell <input checked="" type="checkbox"/>
4 Polyphenylene Sulfide with hard anodized black shell	4 Polyphenylene Sulfide with hard anodized black shell
5 Polyphenylene Sulfide with stainless steel shell	5 Polyphenylene Sulfide with stainless steel shell

SIZE	
XXX 009, 015, 021, 025, 031, 037, 051, 100	XXX 009, 015, 021, 025, 031, 037, 051, 100

CONTACTS	
TYPE CONTACTS/TERMINATIONS:	TYPE CONTACTS/TERMINATIONS:
12 Pin, straight, PCB leads, .109"	21 Socket, straight, solder cup
13 Pin, straight, PCB leads, .140"	24 Socket, straight, .500" pigtails (.018 dia)
14 Pin, straight, PCB leads, .172"	25 Socket, straight, 1.000" pigtails (.018 dia)
	26 Socket, straight, crimped wire
PLATING OPTIONS:	PLATING OPTIONS:
3 50 μ" Au contacts; 10 μ" Au terminations	1 50 μ" Au contacts (crimp wire)
5 50 μ" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>	3 50 μ" Au contacts; 10 μ" Au terminations (solder cup, pigtail)
7 50 μ" Au contacts; SAC305 terminations	5 50 μ" Au contacts; Sn/Pb alloy terminations (pigtail) <input checked="" type="checkbox"/>
	7 50 μ" Au contacts; SAC305 terminations (pigtail)

HARDWARE	
STYLE OF HARDWARE:	STYLE OF HARDWARE:
00 None	00 None
22 Two fixed jacknut assemblies (62*)	22 Two fixed jacknut assemblies (62*)
99 Keying hardware, see options below (Body material 2, 3 and 4 only)	41 Two turning jackscrews, allen head, retaining ring (81*)
	42 Two long turning jackscrews, allen head, retaining ring (82*)
	43 Two turning jackscrews, slot head, retaining ring (83*)
	44 Two long turning jackscrews, slot head, retaining ring (84*)
	45 Two turning jackscrews, allen head, captivated** (85*)
	99 Keying hardware, see options below (Body material 2, 3 and 4 only)

POLARIZATION / WIRING:	
00 None	00 None
	XX For wiring codes, see page MA-3 & MA-4

OPTIONS	
KPXX Two fixed jacknuts. See page MA-6 for keying options (KN*)	KSXX Two turning jackscrews and interfacial sealing gasket. See page MA-6 for keying options (KJ*)
0B7 Threaded inserts	900 Interfacial sealing gasket

* = Use numbers or letters in parenthesis when ordering size 100.
 ** = Captive hardware is factory installed and non-removable.
 = Option not RoHS compliant



Cable to Board (Narrow Footprint)

.050"

9 thru 100 Contacts

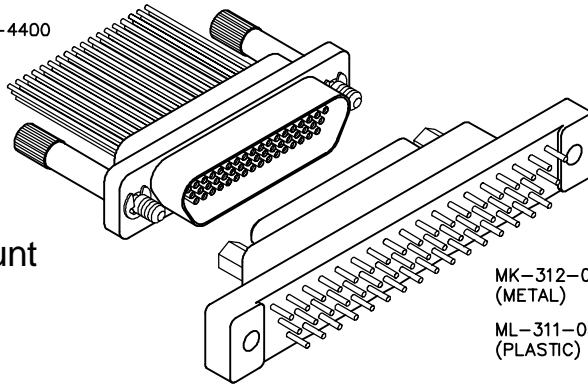
Rugged Cable Rugged Board Mount

MM, MN

MK, ML

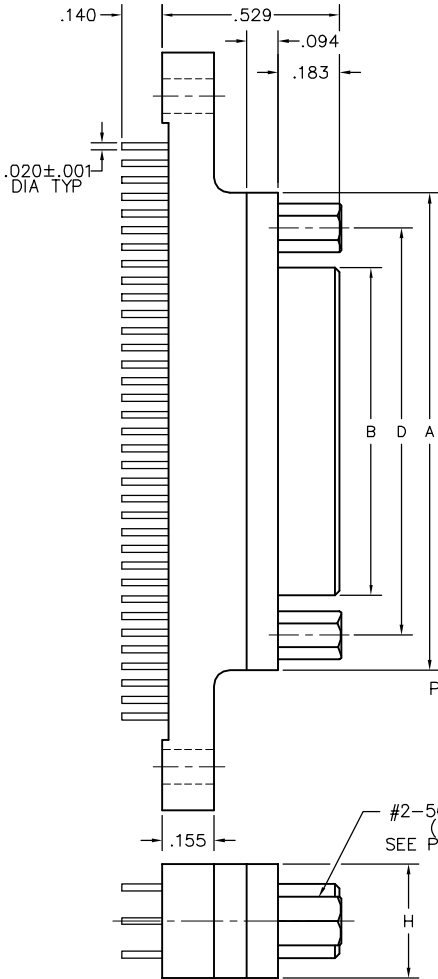
MM-322-051-253-4400
(METAL)

MN-321-051-253-4400
(PLASTIC)

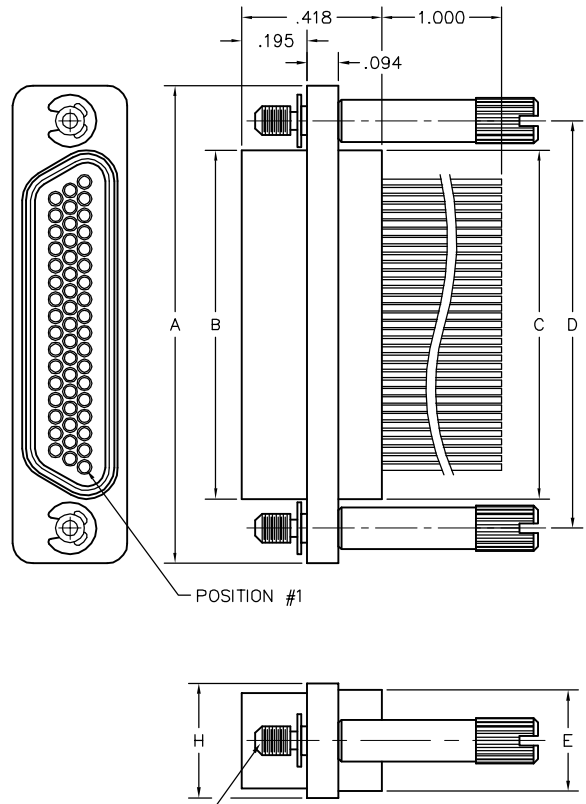
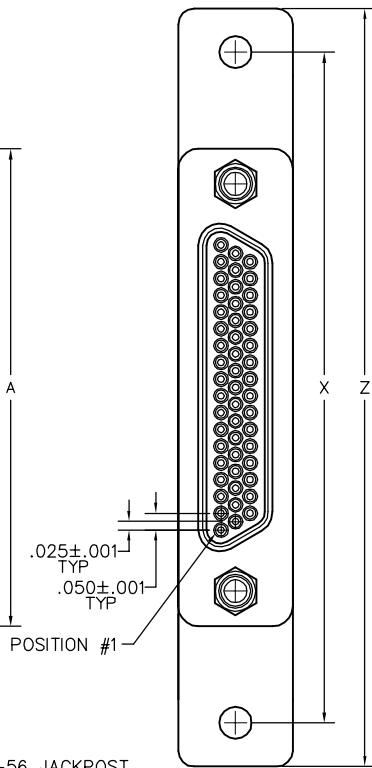


MK-312-051-135-2200
(METAL)

ML-311-051-135-2200
(PLASTIC)



PLUG



RECEPTACLE

DIMENSIONS												
SIZE	CONTACT ROWS	A	B		C	D	E	H	X	Z	HARDWARE	MOUNTING HOLE
			PLUG MAX	RCPT MAX								
9	2	.775	.334	.400	.390	.565	.270	.298	1.150	1.390	#2-56 UNC THD	.096 DIA OR #2-56 UNC THREADED INSERT
15		.925	.484	.550	.540	.715			1.450	1.690		
21		1.075	.634	.700	.690	.865			1.500	1.740		
25		1.175	.734	.800	.790	.965			1.800	2.040		
31		1.325	.884	.950	.940	1.115			2.100	2.340		
37	3	1.475	1.034	1.100	1.090	1.265	.310	.341	2.000	2.270	#4-40 UNC THD	.125 DIA OR #2-56 UNC THREADED INSERT
51	4	1.425	.984	1.050	1.040	1.215	.360	.384	2.800	3.240		
100	4	2.160	1.384	1.508	1.432	1.800						

PLUG: MM-213-025-161-41WQ
RECEPTACLE: MK-283-025-435-220R
PLUG: MN-211-025-161-41WQ
RECEPTACLE: ML-281-025-435-220R
 XX-XXX-XXX-XXX-XXXX-XXX

PLUG		RECEPTACLE	
SERIES			
MM .050" Rugged Metal I/O Connector MN .050" Rugged Plastic I/O Connector (MM & MN mate with MK, ML, MM, MN receptacles)	MK .050" Rugged Metal PC Board Mount Connector ML .050" Rugged Plastic PC Board Mount Connector (MK & ML mate with MK, ML, MM, MN plugs)		
BODY			
2 2-Row (Sizes 9 thru 37) 3 3-Row (Size 51) 4 4-Row (Size 100)	2 2-Row (Sizes 9 thru 37) 3 3-Row (Size 51) 4 4-Row (Size 100)		
BODY STYLE: 1 Plug, straight, with ears	BODY STYLE: 8 Receptacle, right angle, standard footprint, w/ mtg holes		
BODY MATERIAL: 1 Polyphenylene Sulfide (MN only) 2 Polyphenylene Sulfide with electroless nickel shell 3 Polyphenylene Sulfide with electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Polyphenylene Sulfide with hard anodized black shell 5 Polyphenylene Sulfide with stainless steel shell	BODY MATERIAL: 1 Polyphenylene Sulfide (ML only) 2 Polyphenylene Sulfide with electroless nickel shell 3 Polyphenylene Sulfide with electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Polyphenylene Sulfide with hard anodized black shell 5 Polyphenylene Sulfide with stainless steel shell		
SIZE			
XXX 009, 015, 021, 025, 031, 037, 051, 100	XXX 009, 015, 021, 025, 031, 037, 051, 100		
CONTACTS			
TYPE CONTACTS/TERMINATIONS: 11 Pin, straight, solder cup 14 Pin, straight, .500" pigtails (.018 dia) 15 Pin, straight, 1.000" pigtails (.018 dia) 16 Pin, straight, crimped wire	TYPE CONTACTS/TERMINATIONS: 43 Socket, right angle, PCB leads, .109" 44 Socket, right angle, PCB leads, .140" 45 Socket, right angle, PCB leads, .172"		
PLATING OPTIONS: 1 50 μ" Au contacts (crimp wire) 3 50 μ" Au contacts: 10 μ" Au terminations (solder cup, pigtail) 5 50 μ" Au contacts; Sn/Pb alloy terminations (pigtail) <input checked="" type="checkbox"/> 7 50 μ" Au contacts; SAC305 terminations (pigtail)	PLATING OPTIONS: 3 50 μ" Au contacts: 10 μ" Au terminations 5 50 μ" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 7 50 μ" Au contacts; SAC305 terminations		
HARDWARE			
STYLE OF HARDWARE: 00 None 22 Two fixed jacknut assemblies (62*) 41 Two turning jackscrews, allen head, retaining ring (81*) 42 Two long turning jackscrews, allen head, retaining ring (82*) 43 Two turning jackscrews, slot head, retaining ring (83*) 44 Two long turning jackscrews, slot head, retaining ring (84*) 45 Two turning jackscrews, allen head, captivated** (85*) 99 Keying hardware, see options below (Body material 2, 3 and 4 only)	STYLE OF HARDWARE: 00 None 22 Two fixed jacknut assemblies (62*) 99 Keying hardware, see options below (Body material 2, 3 and 4 only)		
POLARIZATION / WIRING: 00 None XX For wiring codes, see page MA-3 & MA-4	POLARIZATION / WIRING OR Reversed body polarization		
OPTIONS			
KSXX Two turning jackscrews. See page MA-6 for keying options (KJ*)	KPXX Two fixed jacknuts and interfacial sealing gasket. See page MA-6 for keying options (KN*) 900 Interfacial sealing gasket 05K Mil-Spec footprint (size 100 only) 0B7 Threaded inserts and interfacial sealing gasket 0BJ Mil-Spec footprint (size 100 only) with threaded inserts and interfacial sealing gasket		

* = Use numbers or letters in parenthesis when ordering size 100.

** = Captive hardware is factory installed and non-removable.

= Option not RoHS compliant



MK-283-025-435-220R
(METAL)

ML-281-025-435-220R
(PLASTIC)

Board (Standard Footprint) to Cable

.050"

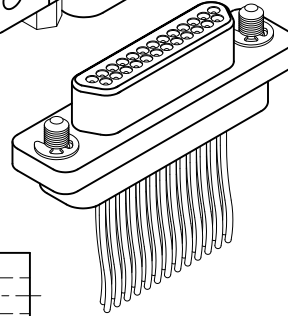
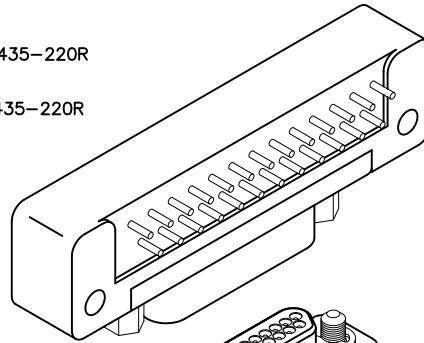
9 thru 100 Contacts

Rugged Board Mount

MK, ML

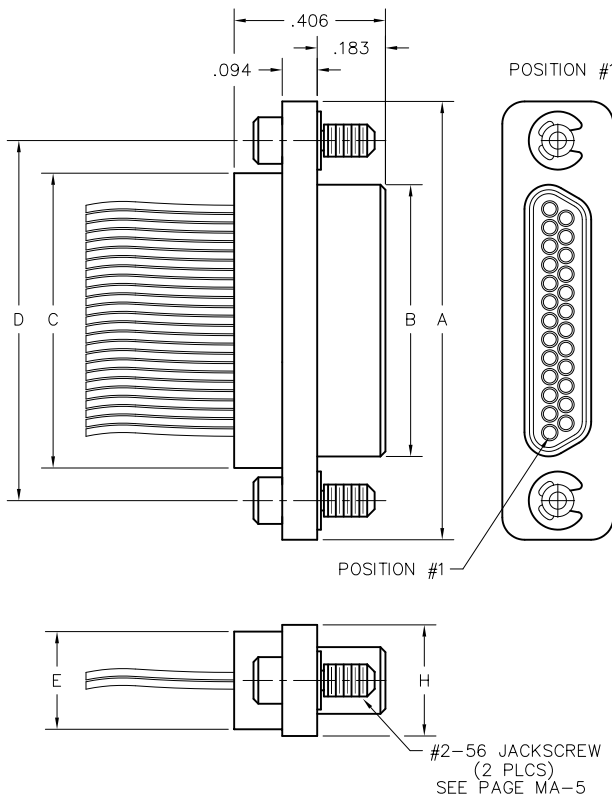
Rugged Cable

MM, MN

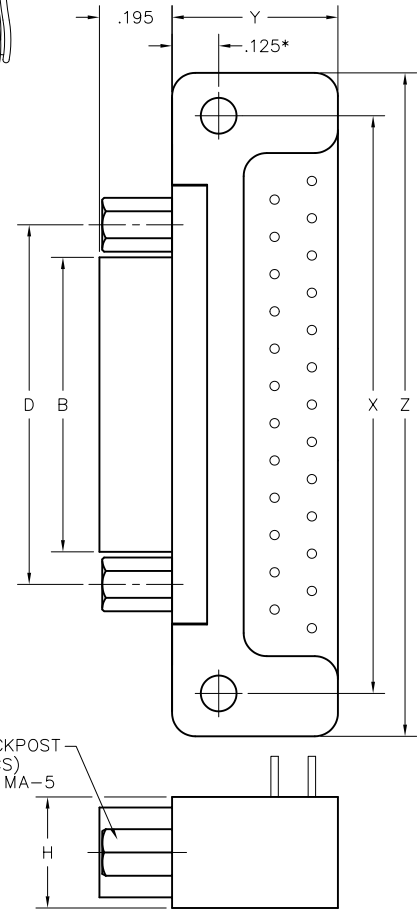
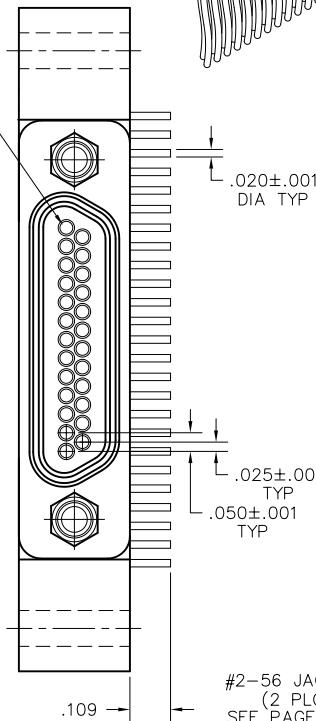


MM-213-025-161-41WQ
(METAL)

MN-211-025-161-41WQ
(PLASTIC)



PLUG



RECEPTACLE

SIZE	CONTACT ROWS	DIMENSIONS										HARDWARE	MOUNTING HOLE
		A	B		C	D	E	H	X	Y	Z		
			PLUG MAX	RCPT MAX									
9	2	.775	.334	.400	.390	.565	.270	.298	1.150	.455	1.390	#2-56 UNC THD	.096 DIA OR #2-56 UNC THREADED INSERT
15		.925	.484	.550	.540	.715			1.300		1.540		
21		1.075	.634	.700	.690	.865			1.450		1.690		
25		1.175	.734	.800	.790	.965			1.550		1.790		
31		1.325	.884	.950	.940	1.115			1.800		2.040		
37		1.475	1.034	1.100	1.090	1.265			2.100		2.340		
51	3	1.425	.984	1.050	1.040	1.215	.310	.341	1.600	.565	1.875	#4-40 UNC THD	.125 DIA OR #4-40 UNC THREADED INSERT
100	4	2.160	1.384	1.508	1.432	1.800	.360	.384	2.500	.665**	2.780		

* = .225 FOR ".05K" AND "0BJ" SPECIAL CODES (MIL-SPEC FOOTPRINT FOR 100 POSITION ONLY)
** = .765 MAX FOR ".05K" AND "0BJ" SPECIAL CODES (MIL-SPEC FOOTPRINT FOR 100 POSITION ONLY)

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [D-Sub MIL Spec Connectors](#) category:

Click to view products by [AirBorn](#) manufacturer:

Other Similar products are found below :

[M85049/50-5F](#) [850-056-0812](#) [1218697-4](#) [1484349-1](#) [17D25HV](#) [1996840-1](#) [243082-15](#) [1757682-1](#) [17D-E51218-1](#) [17SDA15S](#) [1883533-1](#)
[1883886-1](#) [1883889-1](#) [192900-0377](#) [M24308/8-347](#) [M83513/03-E09C](#) [443961-3](#) [5-1218949-1](#) [550-031NF1R6K](#) [3-1236089-2](#)
[550E001NF1R3J0L](#) [550T001NF1R6K0L](#) [557T283NF5B08](#) [DB121073-56](#) [DC121073157](#) [443869-3](#) [443869-4](#) [443869-5](#)
[550S004NF1R1B0F03](#) [557E283NF1A06](#) [527-019NF0303R2K1F](#) [5-446405-1](#) [550-031NF1R2E](#) [550E003M2R9J0F04](#) [550E003M3R9J0F05](#)
[550E024M104R9J0](#) [550E024NF102R3J0B](#) [550E039NF1R3J1-02](#) [550S003M3R9B0F05](#) [550S004M4R7M0F04](#) [550S004NF1R1B1F02](#)
[550S008M3F0K0F04](#) [550S086M5R3J0L](#) [550S100NF3F0E](#) [550T001M2R7E0L](#) [550T001NF1F0B1L](#) [550T001NF1R1K0G](#)
[550T001NF1R3K0G](#) [550T001NF1R4K0L](#) [550T001NF2R2K0L](#)