

MDM Solder Bucket Contacts per FR164 C&K Specification

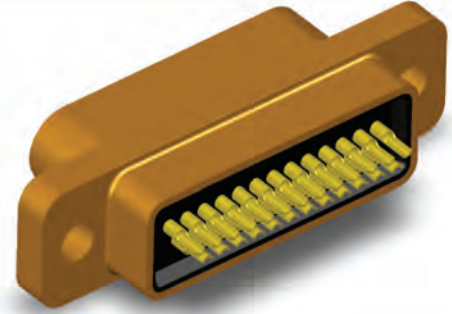
(Process and controls according to ESA/ESCC 3401-029)

Features/Benefits

- Compliant with ESA/ESCC specifications
- Solderable contacts
- Harnesses length flexibility

Typical Applications

- Space equipments
- Avionics / Military
- Industrials applications



Specification

Compliant to ESA/ESCC specifications 3401/029, MIL-DTL-83513/1, MIL-DTL-83513/2 and C&K FR164 specification.

Solder bucket contacts terminations.

Compatible with MDM ESCC 3401/029, MDMA ESCC 3401/077, Savers 3401/041 and Accessories 3401/032.

PIN and SOCKETS arrangements available.

SIZE AVAILABLE: 9, 15, 21, 25, 31, 37 and 51 ways (100 ways under request)

ACCEPTED WIRES SIZE: insulated AWG 26, AWG 28 and AWG 30. TWIST PIN CONTACTS TECHNOLOGY.

Distance between 2 adjacent contacts: 1.27mm (.050 inch)

Distance between 2 contacts rows: 1.09mm (.043 inch)



Mechanical

Type	Mating force (N.max)	Contact retention force (N.max)	Max Weight (g)*
Size 9	20	22.25	2.2
Size 15	33	22.25	3
Size 21	47	22.25	3.8
Size 25	55	22.25	4.3
Size 31	69	22.25	5.1
Size 37	82	22.25	5.9
Size 51	113	22.25	7.2

* Weights without cables, floating eyelets captive nuts and contacts

Electrical

Working Voltage (Sea level):	150 Vrms
Rated Current AWG 26	2.5 A
Rated Current AWG 28	1.5A

Temperature Range

Operating Temperature range	-55 to +125 °C
Storage Temperature Range	-65 to +125 °C

Quality Level

ESA / ESCC: code FR164 (Flying model)

Standard space: code FR022 (Engineering Model)

Process to use it

Wires stripping

Cables soldering onto contacts

Options

Optional captive nuts or float mounting (consult factory)

Packaging

Individual packaging and traceability associated as per ESA/ESCC specifications

Each MDM connector is sold with a dust cap in individual plastic bag

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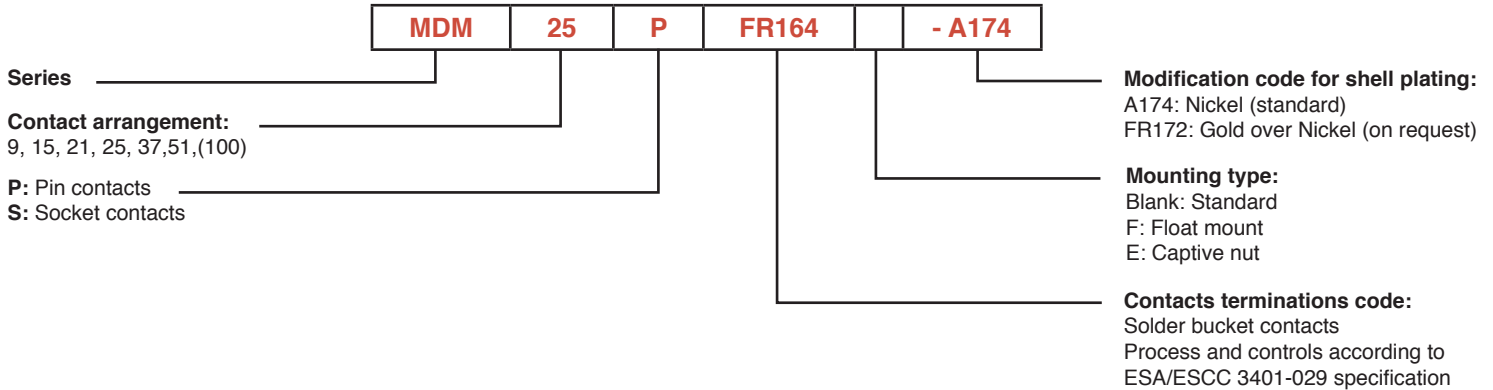
How to Order:

CONNECTORS:

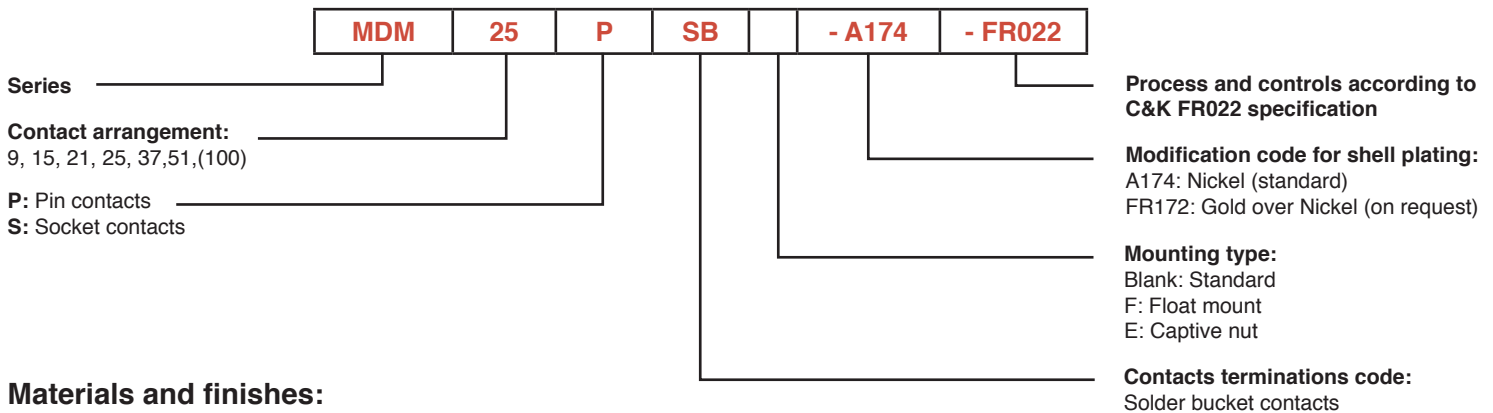
Our easy build-a-connector concept allows you to mix and match options to create the MDM you need. To order, select desired option from each category and place it in the appropriate box.

For any part number different from those listed above, please consult your local C&K components representative.

Connectors MDM According to ESA/ESCC 3401-029 Specification (Flying Models):



Connectors MDM According to C&K FR022 Specification (Engineering Models):



Materials and finishes:

Shells	Aluminium alloy Finish A174: 25,4 μm min. (1000 μin min.) electroless Nickel over Copper underlay Finish FR172: 2,54 μm min. (100 μin min.) Gold over 25,4 μm min. (1000 μin min.) electroless Nickel
Insulators	LCP (Liquid Crystal Polymer) thermoplastic material, UL 94-V0, glass-filled, black color
Female contacts	Copper alloy / Finish: 1,27 μm (50 μin) min. Gold over Copper underlay
Male contacts	Copper alloy / Finish: 1,27 μm (50 μin) min. Gold over Copper underlay
Interfacial Seals	Fluorosilicone elastomere, pink color
Accessories (F or E)	Stainless Steel type 303 or 316, passivated
Dust Caps	Polyethylene thermoplastic material, transparent pink color



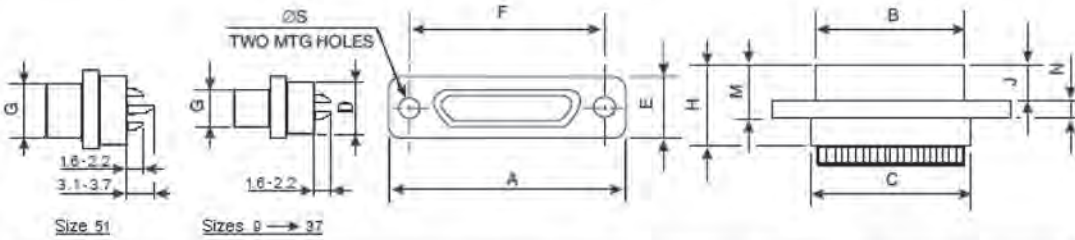
Dimensions are shown in mm (inch)
Dimensions subject to change

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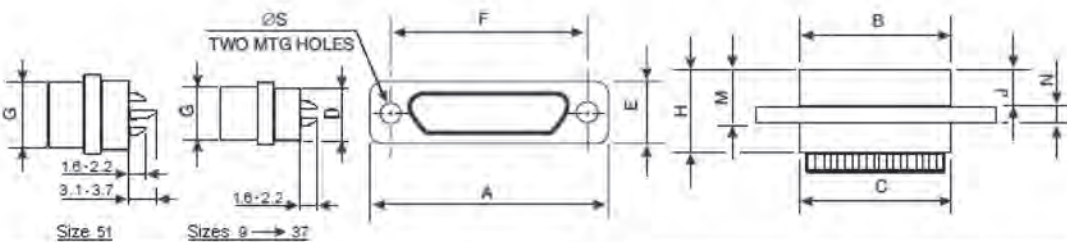
Physical Dimensions:

Connectors MDM Plug (Male contacts)



SHELL SIZE		A	B	C	D	E	F	G	H	J	M	N	ØS
9	Max.	19,94	8,46	10,16	6,86	7,82	14,48	4,69	10,57	4,72	7,26	2,49	2,39
	min.	-	-	-	-	-	14,22	-	-	-	-	2,23	2,23
15	Max.	23,75	12,27	13,97	6,86	7,82	18,29	4,69	10,57	4,72	7,26	2,49	2,39
	min.	-	-	-	-	-	18,03	-	-	-	-	2,23	2,23
21	Max.	27,56	16,08	17,78	6,86	7,82	22,10	4,69	10,57	4,72	7,26	2,49	2,39
	min.	-	-	-	-	-	21,84	-	-	-	-	2,23	2,23
25	Max.	30,10	18,62	20,32	6,86	7,82	24,64	4,69	10,57	4,72	7,26	2,49	2,39
	min.	-	-	-	-	-	24,38	-	-	-	-	2,23	2,23
31	Max.	33,91	22,43	24,13	6,86	7,82	28,45	4,69	10,57	4,72	7,26	2,49	2,39
	min.	-	-	-	-	-	28,19	-	-	-	-	2,23	2,23
37	Max.	37,72	26,24	27,94	6,86	7,82	32,26	4,69	10,57	4,72	7,26	2,49	2,39
	min.	-	-	-	-	-	32,00	-	-	-	-	2,23	2,23
51	Max.	36,45	24,97	26,67	7,87	8,92	30,99	5,76	10,57	4,72	7,26	2,49	2,39
	min.	-	-	-	-	-	30,73	-	-	-	-	2,23	2,23

Connectors MDM Receptacle (Female contacts)



SHELL SIZE		A	B	C	D	E	F	G	H	J	M	N	ØS
9	Max.	19,94	10,16	10,16	6,86	7,82	14,48	6,38	10,90	5,05	7,59	2,49	2,39
	min.	-	-	-	-	-	14,22	-	-	-	-	2,23	2,23
15	Max.	23,75	13,97	13,97	6,86	7,82	18,29	6,38	10,90	5,05	7,59	2,49	2,39
	min.	-	-	-	-	-	18,03	-	-	-	-	2,23	2,23
21	Max.	27,56	17,78	17,78	6,86	7,82	22,10	6,38	10,90	5,05	7,59	2,49	2,39
	min.	-	-	-	-	-	21,84	-	-	-	-	2,23	2,23
25	Max.	30,10	20,32	20,32	6,86	7,82	24,64	6,38	10,90	5,05	7,59	2,49	2,39
	min.	-	-	-	-	-	24,38	-	-	-	-	2,23	2,23
31	Max.	33,91	24,13	24,13	6,86	7,82	28,45	6,38	10,90	5,05	7,59	2,49	2,39
	min.	-	-	-	-	-	28,19	-	-	-	-	2,23	2,23
37	Max.	37,72	27,94	27,94	6,86	7,82	32,26	6,38	10,90	5,05	7,59	2,49	2,39
	min.	-	-	-	-	-	32,00	-	-	-	-	2,23	2,23
51	Max.	36,45	26,67	26,67	7,87	8,92	30,99	7,47	10,90	5,05	7,59	2,49	2,39
	min.	-	-	-	-	-	30,73	-	-	-	-	2,23	2,23

Recommended instruction:

Wire stripping:

Cut wires to length and strip insulation per above illustration. Check for broken or frayed wires.

Recommended wire trim length



Recommended wire

- 3901 013 01 B : PTFE INSULATED WIRE AWG 28
- 3901 013 02 B : PTFE INSULATED WIRE AWG 26
- 3901 002 61 B : POLYIMIDE INSULATED WIRE AWG 28
- 3901 002 56 B : POLYIMIDE INSULATED WIRE AWG 26



*Dimensions are shown in mm (inch)
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