

MDM Series

Micro D Connectors

Savers NXTMC - CS FR022



Type	Mating/ Unmating force (N max)	Unmating force (N min)	Max weight with contacts and without accessories (g)
Size 9	25	1.3	4
Size 15	42	2.0	5.5
Size 21	58	2.9	7
Size 25	70	3.5	8
Size 31	86	4.3	9.5
Size 37	103	5.1	10
Size 51	142	7.1	13.5
Size 51-2R	142	7.1	13.5

Electrical & Mechanical Characteristics

Characteristics	Specifications	
Working voltage	150	Vrms max (at sea level)
	100	Vrms max (33000 m of altitude)
Rated current	2.5	A max
Contact resistance (Low level current)	12	mΩ max (10mA / 20 mV DC)
Contact resistance (Rated current)	10	mΩ max
Insulation resistance	5000	MΩ min (500 V DC)
Voltage proof	600	Vrms / 2mA (leakage current)
Contact retention in insert	22.25	N min (no axial move allowed)
Engagement force	1.667	N max per contact
Separation force	0.137	N min per contact
Usage mating number	50	Cycles (mating / unmating)
Mechanical endurance	500	Cycles (mating / unmating)
Temperature range	-55/+125	°C
Storage temperature	-55/+125	°C

Description

High performance microminiature savers for space applications. Meet the performance and dimensional requirements of the ESCC 3401 specifications.

Compliant to ESCC specification 3401/041.

Intermediary device protecting main connector from frequent wear and damage.

Suitable for use in space applications : Board to Cable, Cable to Cable.

Twist Pin contacts technology.

Sizes available : 9, 15, 21, 25, 31, 37, 51 ways and 51-2R

Pitch between two contacts rows : 1.09 mm (.043")

Pitch between two horizontally adjacent contacts : 1.27 mm (.050")

Features & Benefits

- Enhanced grade
- Compliant with commercial space grade quality level
- High performance Micropin™ contact system: "Twist pin" spring male contact and tubular socket contact
- Non-outgassing
- Low size savers
- Low weight

Applications

- Space equipment
- Satellites harnesses and payloads

Quality Level

Enhanced grade according to specification FR022.

Packaging

Individual ESD plastic bag.

Each MDM savers is sold with an interfacial seal, socket side and without dust cap.

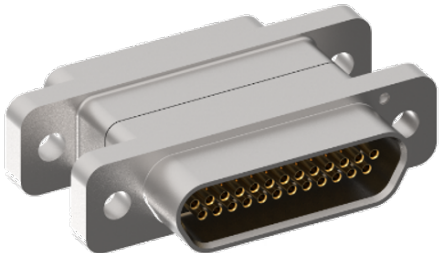
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How to order connector

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

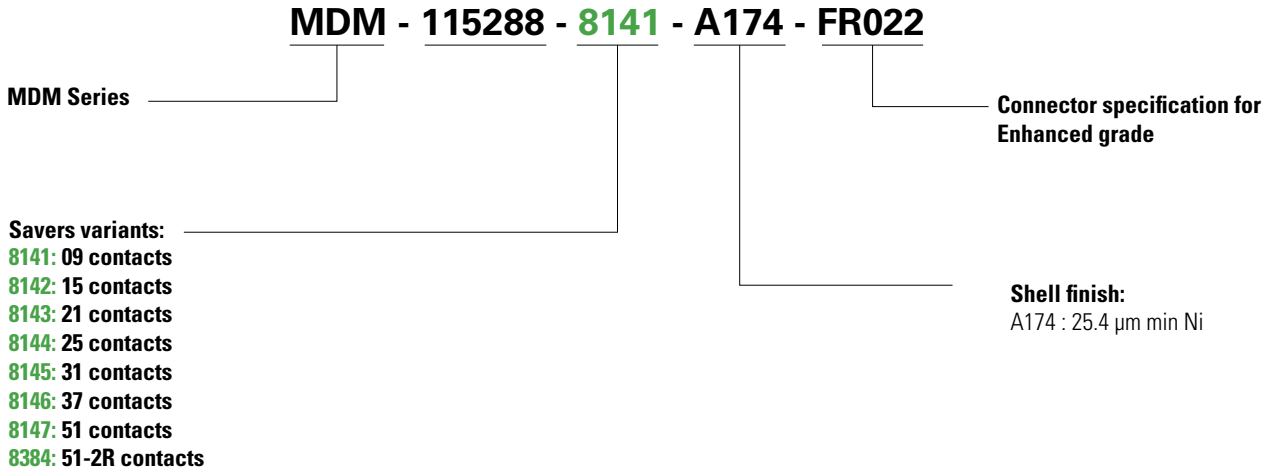


Pin Side



Socket side

FR022 specification:

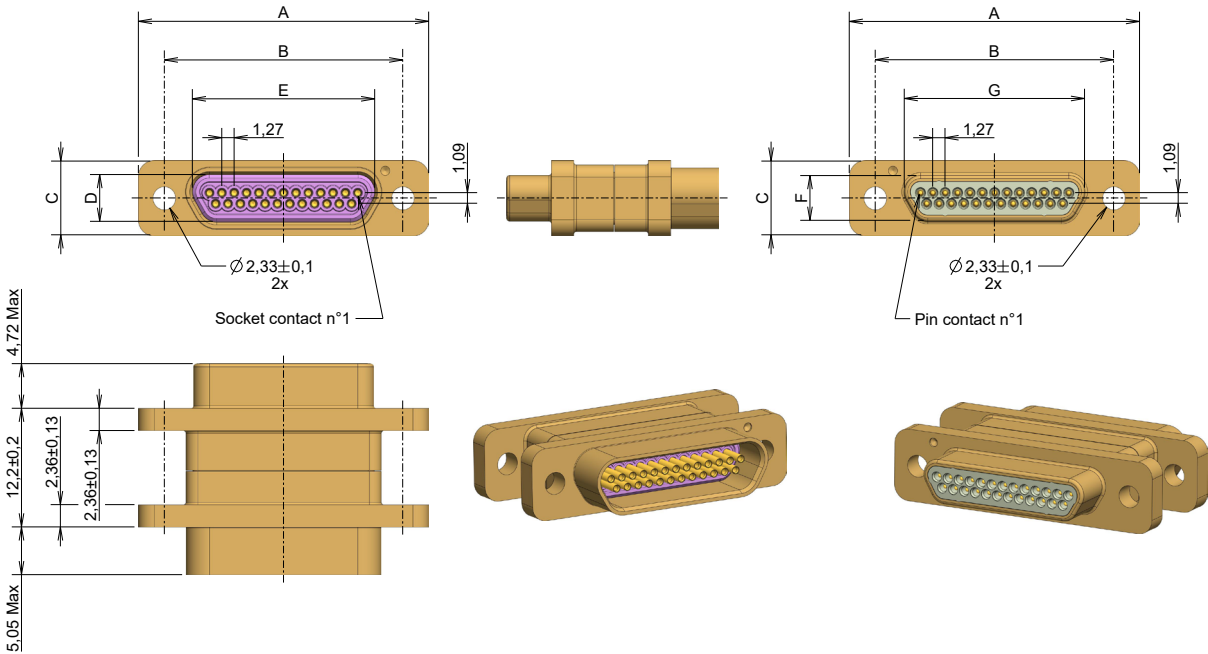


Materials & Finishes

Components	Materials	Finishes
Shells	Aluminum alloy	25.4 µm min Electroless Nickel
Insulators	LCP	UL 94-V0, Glass-filled, Black color
Contacts	Copper alloy	1.27 µm min Gold over Copper
Interfacial seal	Fluorosilicone elastomer	Pink color
Encapsulant	Epoxy	Black color
Jackposts	Stainless steel	Passivated

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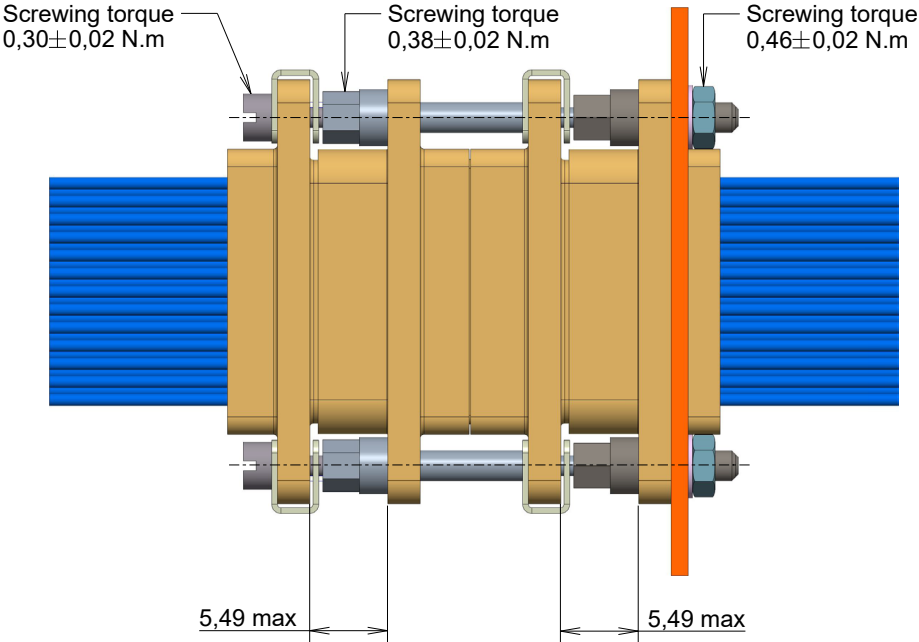
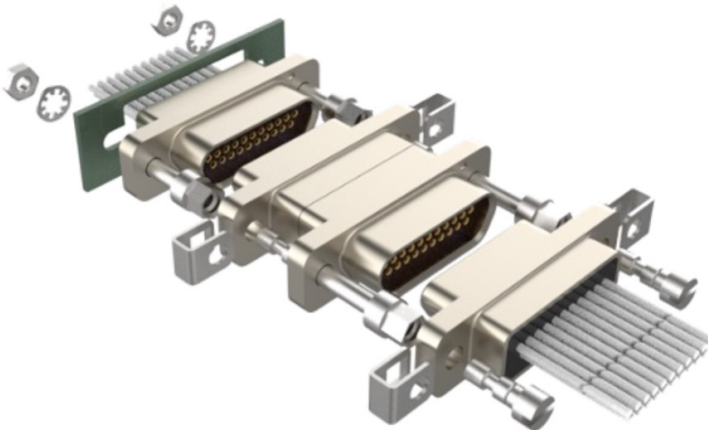
Savers dimensions



Shell Size	A ± 0.25	B ± 0.13	C ± 0.22	D min	E min	F max	G max
9	19.69	14.35	7.60	4.70	8.49	4.69	8.48
15	23.50	18.16	7.60	4.70	12.30	4.69	12.29
21	27.31	21.97	7.60	4.70	16.11	4.69	16.10
25	29.85	24.51	7.60	4.70	18.65	4.69	18.64
31	33.66	28.32	7.60	4.70	22.46	4.69	22.45
37	37.47	32.13	7.60	4.70	26.27	4.69	26.26
51	36.20	30.86	8.70	5.80	25.00	5.79	24.99
51-2R	46.36	41.02	7.60	4.70	35.16	4.69	35.15

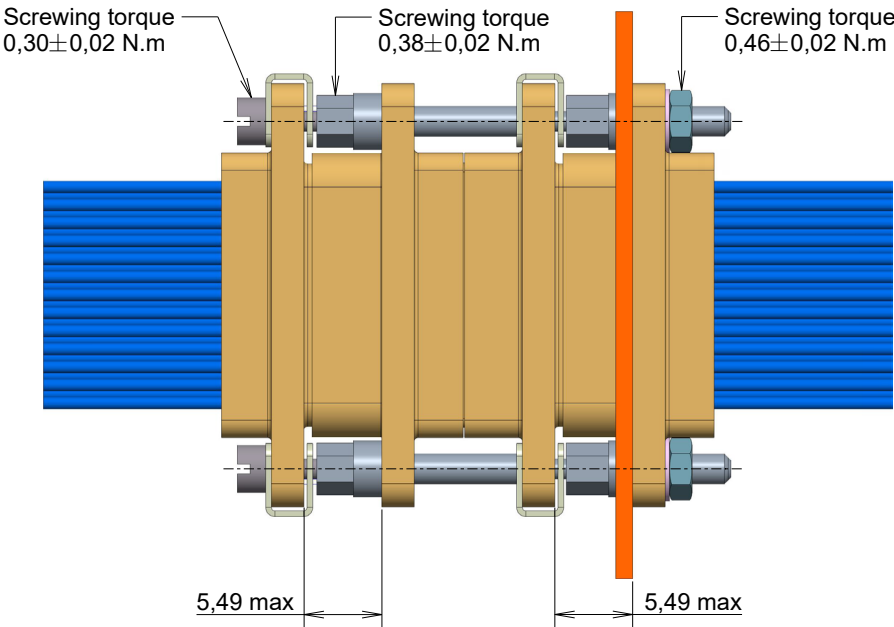
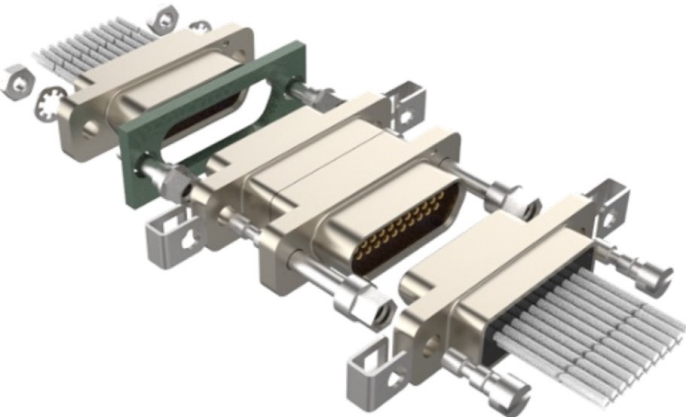
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Assembly conditions – Front panel mounting



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Assembly conditions – Rear panel mounting





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Accessories

Dust cap (if need, to order separately)	Size	Description	P/N
	9 P	MDM-DUSTCAP-9P-FR022	C115288-6927
	9 S	MDM-DUSTCAP-9S-FR022	C115288-6928
	15 P	MDM-DUSTCAP-15P-FR022	C115288-6929
	15 S	MDM-DUSTCAP-15S-FR022	C115288-6930
	21 P	MDM-DUSTCAP-21P-FR022	C115288-6931
	21 S	MDM-DUSTCAP-21S-FR022	C115288-6932
	25 P	MDM-DUSTCAP-25P-FR022	C115288-6933
	25 S	MDM-DUSTCAP-25S-FR022	C115288-6934
	31 P	MDM-DUSTCAP-31P-FR022	C115288-6935
	31 S	MDM-DUSTCAP-31S-FR022	C115288-6936
	37 P	MDM-DUSTCAP-37P-FR022	C115288-6937
	37 S	MDM-DUSTCAP-37S-FR022	C115288-6938
	51 P	MDM-DUSTCAP-51P-FR022	C115288-6939
	51 S	MDM-DUSTCAP-51S-FR022	C115288-6940
51-2R P	MDM-DUSTCAP-51-2R-P-FR022	C115288-6947	
51-2R S	MDM-DUSTCAP-51-2R-S-FR022	C115288-6948	
Jackposts (To be ordered separately)	NXTMC description		P/N
	Weight for one pair: 1.86 g max	MDM-JCKPOST-SAVERS	C115288-6921

Savers description and Part Numbers

Number of contacts	Savers	
	NXTMC description	P/N
9	MDM-115288-8141-A174-FR022	C115288-8141
15	MDM-115288-8142-A174-FR022	C115288-8142
21	MDM-115288-8143-A174-FR022	C115288-8143
25	MDM-115288-8144-A174-FR022	C115288-8144
31	MDM-115288-8145-A174-FR022	C115288-8145
37	MDM-115288-8146-A174-FR022	C115288-8146
51	MDM-115288-8147-A174-FR022	C115288-8147
51-2R	MDM-115288-8384-A174-FR022	C115288-8384