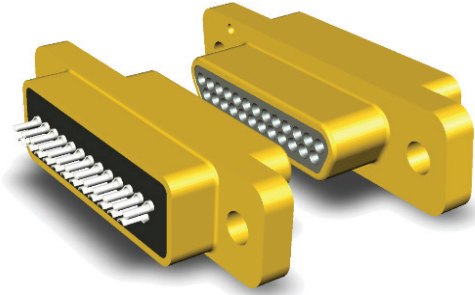


## Features and Benefits

- High performance Micropin™ contact system (“twist pin” spring male contact and tubular socket contact)
- Solderable contacts
- Harnesses length flexibility
- Non-Outgassing
- Low Size Connectors
- Low Weight

## Typical Applications

- Space equipment (engineering model)
- Satellites harnesses and payloads
- Avionics / Military
- Automotive / Medical / Industrial applications



## Specification

- High performance Micro-miniature connectors meet stringent tests for outgassing and residual magnetism and are suitable for use in Space Engineering Model, Avionics, Military, Medical and Industrial applications.
- Suitable for Board to Board, Board to Cable or Cable to Cable applications.
- Twist Pin Contacts Technology.
- Sizes available: 9, 15, 21, 25, 31, 37 and 51 ways.
- Accepted wires size: Insulated wire AWG26 and AWG28.
- Distance between 2 adjacent contacts: 1.27mm (.050 inch).
- Distance between 2 contacts rows: 1.09mm (.043 inch).

## Electrical & Mechanical Characteristics

CHARACTERISTIC	SPECIFICATION
Working Voltage (sea level)	150 Vrms
Rated Current AWG 26	2.5 A
Rated Current AWG 28	1.5 A
Contact Resistance	5 mΩ (rated current)
Insulation Resistance	5000 MΩ min
Voltage Proof	600 Vrms /2.0mA (leakage current)
Temperature range	-55/+125 °C

TYPE	MATING/UNMATING FORCE (N MAX)	UNMATING FORCE (N MIN)	WEIGHT (G)
Size 9	20	1.3	2.4
Size 15	33	2.0	3.3
Size 21	47	2.9	4.2
Size 25	55	3.5	4.8
Size 31	69	4.3	5.7
Size 37	82	5.1	6.7
Size 51	113	7.1	8.2

## Quality Level

- “Commercial Space Grade”.
- C&K Connector Specification CS FR022, for low cost products manufactured:
  - in the same ESA qualified site
  - Through the same piece parts
  - With lighter controls, documentation and traceability.
- The connectors are totally compatible, interchangeable and intermateable with ESA quality level connectors ESCC 3401/029 (MDM connectors), 3401/41 (connector Savers), 3401/032 (accessories), 3401/077 (MDMA connectors), 3401/078 (contacts) and 3401/087 (backshells).

## Process to use it

- Wire stripping.
- Cables soldering onto contacts.
- Wires cable installed by the end user.

## Options

- Optional captive nuts or float mounting.

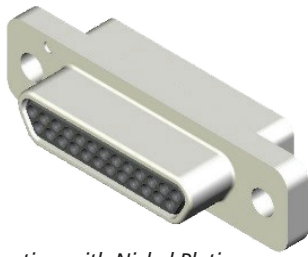
## Packaging

- Individual packaging.
- Each Micro-D connector is sold and delivered with a dust cap in individual plastic bag.
- Each socket Micro-D connector is sold and delivered with interfacial seal.

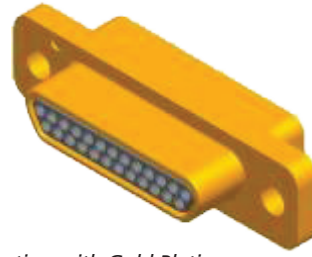
## HOW TO ORDER

### CONNECTOR

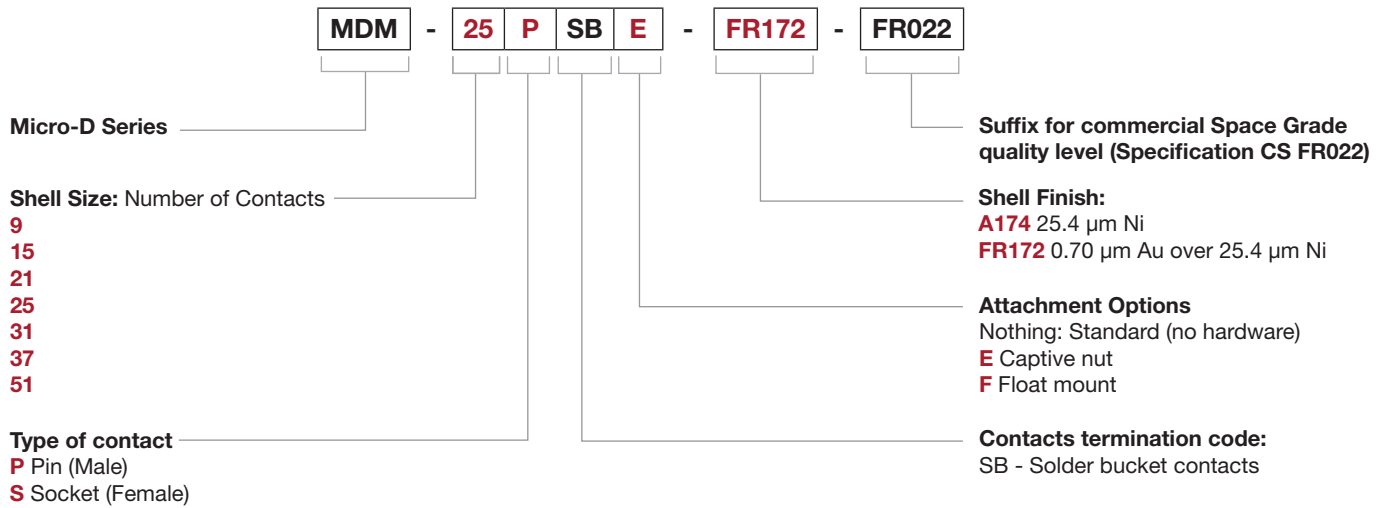
Our easy build-a-connector concept allows you to mix and match options to create the Micro-D connector you need. To order, select desired option from each category and place it in the appropriate box.



Pin connection with Nickel Plating



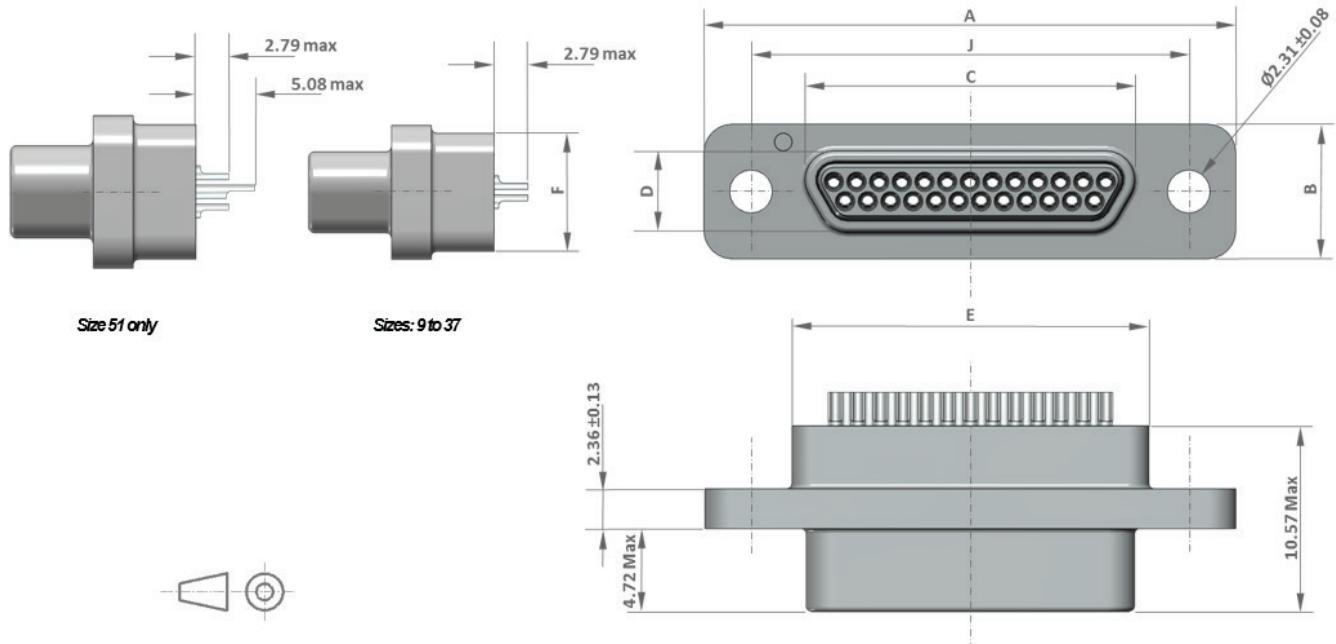
Pin connection with Gold Plating



## MATERIALS & FINISHES

COMPONENT	MATERIAL	FINISH
Shell	Aluminium alloy	<b>01:</b> 25.4 µm electroless Nickel over Copper underlay
		<b>02:</b> 0.70 µm Gold over 25.4 µm electroless Nickel
Insulator	Liquid Crystal Polymer	UL 94-V0, Glass-filled, Black Color
Female Contacts	Copper Alloy	1.27 µm Gold over Copper underlay
Male Contacts	Copper Alloy	1.27 µm Gold over Copper underlay
Accessories (E & F)	Stainless Steel	303 type, passivated
Interfacial Seals	Fluorosilicone elastomer	Pink color
Dust Cap	Polyethylene	Black color, antistatic.

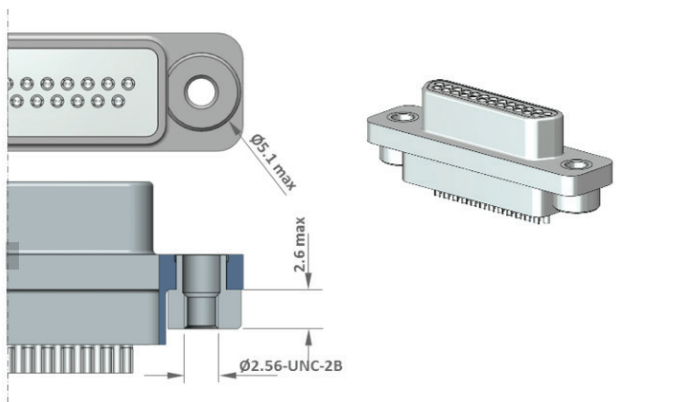
# CONNECTOR DIMENSIONS



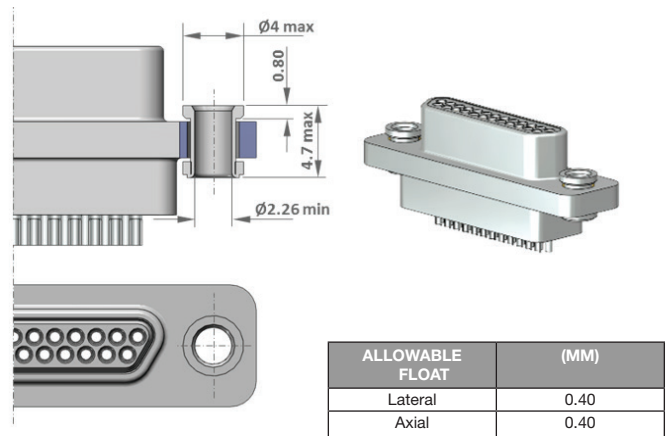
SHELL SIZE	A ±0.25	B ±0.22	C ±0.14	D ±0.15	E ±0.25	F ±0.13	J ±0.13
<b>9P</b>	19.68	7.60	8.31	4.54	9.91	6.63	14.35
<b>9S</b>	19.68	7.60	8.64	4.87	9.91	6.63	14.35
<b>15P</b>	23.50	7.60	12.12	4.54	13.72	6.63	18.16
<b>15S</b>	23.50	7.60	12.45	4.87	13.72	6.63	18.16
<b>21P</b>	27.30	7.60	15.93	4.54	17.53	6.63	21.97
<b>21S</b>	27.30	7.60	16.26	4.87	17.53	6.63	21.97
<b>25P</b>	29.84	7.60	18.47	4.54	20.07	6.63	24.51
<b>25S</b>	29.84	7.60	18.80	4.87	20.07	6.63	24.51
<b>31P</b>	33.65	7.60	22.28	4.54	23.88	6.63	28.32
<b>31S</b>	33.65	7.60	22.61	4.87	23.88	6.63	28.32
<b>37P</b>	37.46	7.60	26.09	4.54	27.69	6.63	32.13
<b>37S</b>	37.46	7.60	26.42	4.87	27.69	6.63	32.13
<b>51P</b>	36.20	8.70	24.83	5.68	26.42	7.65	30.86
<b>51S</b>	36.20	8.70	25.15	6.01	26.42	7.65	30.86

# ATTACHMENT OPTIONS

Captive Nut (Option E)



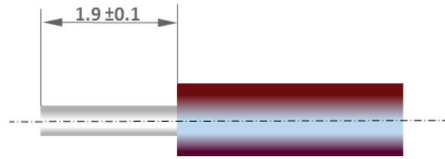
Floating Mount (Option F)



## PROCESS – RECOMMENDED INSTRUCTION

### Wire Stripping

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



Recommended wire:


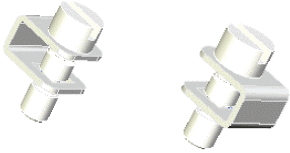
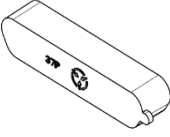
3901 013 01 B: PTFE insulated wire AWG28

3901 013 02 B: PTFE insulated wire AWG26

3901 002 61 B: Polyimide insulated wire AWG28

3901 002 56 B: Polyimide insulated wire AWG26

## ACCESSORIES

INTERFACIAL SEAL	SIZE	ESA/ESCC DESCRIPTION	C&K P/N
	9S	340103212B	C115373-0050C
	15S	340103213B	C115373-0051C
	21S	340103214B	C115373-0052C
	25S	340103215B	C115373-0053C
	31S	340103216B	C115373-0054C
	37S	340103217B	C115373-0055C
	51S	340103219B	C115373-0056C
MALE SCREWLOCK	DESCRIPTION		C&K P/N
	MDM-115288-6916-FR022		C115288-6916
DUST CAP	SIZE	DESCRIPTION	C&K P/N
	9P	MDM-DUSTCAP-9P-FR022	C115288-6927
	9S	MDM-DUSTCAP-9S-FR022	C115288-6928
	15P	MDM-DUSTCAP-15P-FR022	C115288-6929
	15S	MDM-DUSTCAP-15S-FR022	C115288-6930
	21P	MDM-DUSTCAP-21P-FR022	C115288-6931
	21S	MDM-DUSTCAP-21S-FR022	C115288-6932
	25P	MDM-DUSTCAP-25P-FR022	C115288-6933
	25S	MDM-DUSTCAP-25S-FR022	C115288-6934
	31P	MDM-DUSTCAP-31P-FR022	C115288-6935
	31S	MDM-DUSTCAP-31S-FR022	C115288-6936
	37P	MDM-DUSTCAP-37P-FR022	C115288-6937
	37S	MDM-DUSTCAP-37S-FR022	C115288-6938
	51P	MDM-DUSTCAP-51P-FR022	C115288-6939
51S	MDM-DUSTCAP-51S-FR022	C115288-6940	

For the complete range of accessories and details, consult our MDM accessories datasheet.

# CONNECTORS DESCRIPTION AND C&K PART NUMBERS

SHELL	CONTACT TYPE	CONTACT #	ATTACHMENT OPTIONS					
			STANDARD CONNECTOR		CONNECTOR WITH CAPTIVE NUT (E)		CONNECTOR WITH FLOATING MOUNT (Y)	
			ESA/ESCC DESCRIPTION	C&K P/N	ESA/ESCC DESCRIPTION	C&K P/N	ESA/ESCC DESCRIPTION	C&K P/N
Nickel	Pin	9	MDM-9PSB-A174-FR022	C115288-6005	MDM-9PSBE-A174-FR022	C115288-6555	MDM-9PSBF-A174-FR022	C115288-6521
		15	MDM-15PSB-A174-FR022	C115288-6097	MDM-15PSBE-A174-FR022	C115288-6558	MDM-15PSBF-A174-FR022	C115288-6560
		21	MDM-21PSB-A174-FR022	C115288-6043	MDM-21PSBE-A174-FR022	C115288-6562	MDM-21PSBF-A174-FR022	C115288-6564
		25	MDM-25PSB-A174-FR022	C115288-6098	MDM-25PSBE-A174-FR022	C115288-6566	MDM-25PSBF-A174-FR022	C115288-6568
		31	MDM-31PSB-A174-FR022	C115288-6079	MDM-31PSBE-A174-FR022	C115288-6570	MDM-31PSBF-A174-FR022	C115288-6572
		37	MDM-37PSB-A174-FR022	C115288-6069	MDM-37PSBE-A174-FR022	C115288-6574	MDM-37PSBF-A174-FR022	C115288-6576
		51	MDM-51PSB-A174-FR022	C115288-6219	MDM-51PSBE-A174-FR022	C115288-6578	MDM-51PSBF-A174-FR022	C115288-6580
	Socket	9	MDM-9SSB-A174-FR022	C115288-6042	MDM-9SSBE-A174-FR022	C115288-6582	MDM-9SSBF-A174-FR022	C115288-6522
		15	MDM-15SSB-A174-FR022	C115288-6076	MDM-15SSBE-A174-FR022	C115288-6585	MDM-15SSBF-A174-FR022	C115288-6587
		21	MDM-21SSB-A174-FR022	C115288-6008	MDM-21SSBE-A174-FR022	C115288-6589	MDM-21SSBF-A174-FR022	C115288-6416
		25	MDM-25SSB-A174-FR022	C115288-6077	MDM-25SSBE-A174-FR022	C115288-6592	MDM-25SSBF-A174-FR022	C115288-6593
		31	MDM-31SSB-A174-FR022	C115288-6078	MDM-31SSBE-A174-FR022	C115288-6595	MDM-31SSBF-A174-FR022	C115288-6597
		37	MDM-37SSB-A174-FR022	C115288-6070	MDM-37SSBE-A174-FR022	C115288-6599	MDM-37SSBF-A174-FR022	C115288-6601
		51	MDM-51SSB-A174-FR022	C115288-6099	MDM-51SSBE-A174-FR022	C115288-6603	MDM-51SSBF-A174-FR022	C115288-6605
Gold	Pin	9	MDM-9PSB-FR172-FR022	C115288-6119	MDM-9PSBE-FR172-FR022	C115288-6556	MDM-9PSBF-FR172-FR022	C115288-6557
		15	MDM-15PSB-FR172-FR022	C115288-6121	MDM-15PSBE-FR172-FR022	C115288-6559	MDM-15PSBF-FR172-FR022	C115288-6561
		21	MDM-21PSB-FR172-FR022	C115288-6355	MDM-21PSBE-FR172-FR022	C115288-6563	MDM-21PSBF-FR172-FR022	C115288-6565
		25	MDM-25PSB-FR172-FR022	C115288-6123	MDM-25PSBE-FR172-FR022	C115288-6567	MDM-25PSBF-FR172-FR022	C115288-6569
		31	MDM-31PSB-FR172-FR022	C115288-6356	MDM-31PSBE-FR172-FR022	C115288-6571	MDM-31PSBF-FR172-FR022	C115288-6573
		37	MDM-37PSB-FR172-FR022	C115288-6124	MDM-37PSBE-FR172-FR022	C115288-6575	MDM-37PSBF-FR172-FR022	C115288-6577
		51	MDM-51PSB-FR172-FR022	C115288-6357	MDM-51PSBE-FR172-FR022	C115288-6579	MDM-51PSBF-FR172-FR022	C115288-6581
	Socket	9	MDM-9SSB-FR172-FR022	C115288-6118	MDM-9SSBE-FR172-FR022	C115288-6583	MDM-9SSBF-FR172-FR022	C115288-6584
		15	MDM-15SSB-FR172-FR022	C115288-6120	MDM-15SSBE-FR172-FR022	C115288-6586	MDM-15SSBF-FR172-FR022	C115288-6588
		21	MDM-21SSB-FR172-FR022	C115288-6358	MDM-21SSBE-FR172-FR022	C115288-6590	MDM-21SSBF-FR172-FR022	C115288-6591
		25	MDM-25SSB-FR172-FR022	C115288-6122	MDM-25SSBE-FR172-FR022	C115288-6411	MDM-25SSBF-FR172-FR022	C115288-6594
		31	MDM-31SSB-FR172-FR022	C115288-6359	MDM-31SSBE-FR172-FR022	C115288-6596	MDM-31SSBF-FR172-FR022	C115288-6598
		37	MDM-37SSB-FR172-FR022	C115288-6125	MDM-37SSBE-FR172-FR022	C115288-6600	MDM-37SSBF-FR172-FR022	C115288-6602
		51	MDM-51SSB-FR172-FR022	C115288-6360	MDM-51SSBE-FR172-FR022	C115288-6604	MDM-51SSBF-FR172-FR022	C115288-6606

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