



MICRO-D SERIES

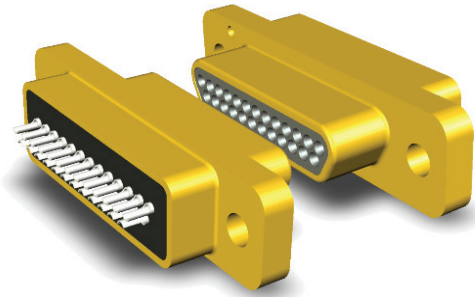
Microminiature connectors
with solder bucket termination
ESCC 3401/029

Features and Benefits

- Compliant with ESA specifications
- 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
- Satellites harnesses and payloads
- Avionics / Military



Specification

- High performance Micro-miniature connectors ESA qualified, for space applications.
- Compliant to ESCC 3401/029, MIL-DTL-83513/1 and MIL-DTL-83513-2 specifications.
- Compatible with ESCC 3401/077 MDMA Connectors, 3401/041 Savers, 3401/032 Accessories and 3401/087 Backshells.
- Suitable for use in Space, and high performance military/ aerospace applications: 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

- ESA / ESCC: code 3401 (Flying model).
- Qualification reviewed every 2 years.

Process to use it

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

Options

- Optional captive nuts or float mounting.

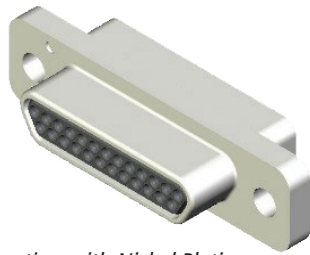
Packaging

- Individual packaging.
- Traceability associated as per ESA/ESCC specifications.
- Each Micro-D connector is sold 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

ESA/ESCC Specification: **3401029** **01** **B**

Detail Specification Number

Shell Finish

01 25.4 µm Ni

02 0.70 µm Au over 25.4 µm Ni

Testing Level

25 **P** **FR164** **E**

Attachment Options

Nothing: Standard (no hardware)

E Captive nut

F Float mount

Contact termination code

FR164 - Solder bucket contacts

Type of Contact

P Pin (Male)

S Socket (Female)

Shell Size: Number of

Contacts

9

15

21

25

31

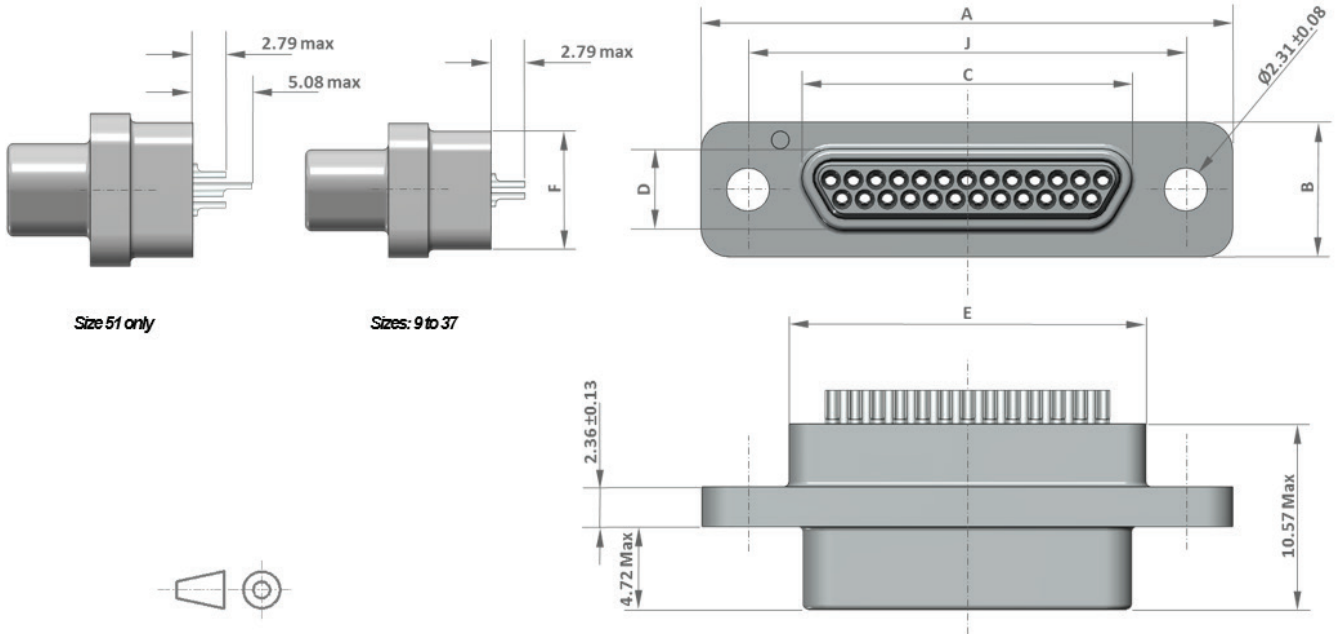
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51

MATERIALS & FINISHES

COMPONENT	MATERIAL	FINISH
Shell	Aluminium alloy	01: 25.4 µm electroless Nickel over Copper underlay
		02: 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

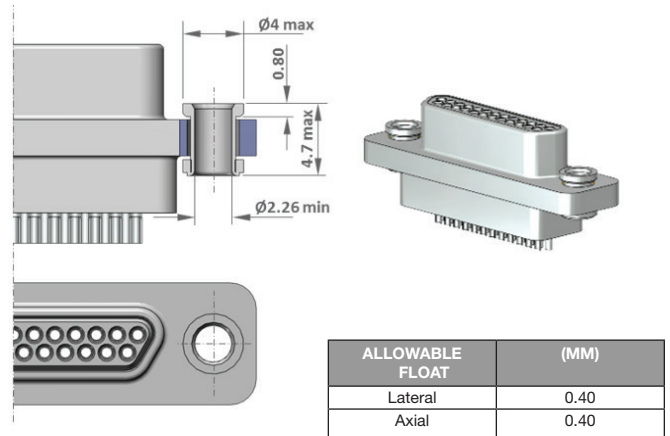
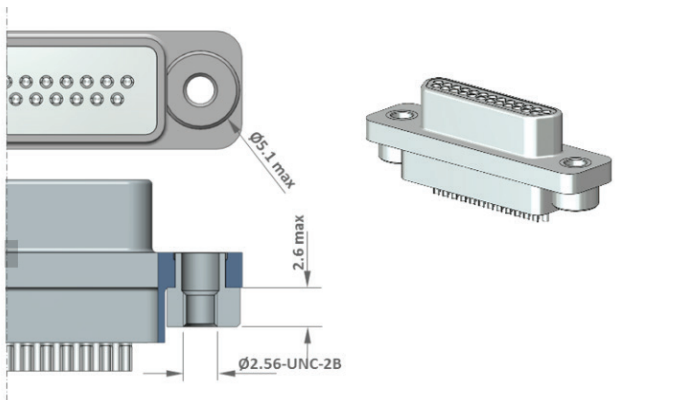


SHELL SIZE	A ±0.25	B ±0.22	C ±0.14	D ±0.15	E ±0.25	F ±0.13	J ±0.13
9P	19.68	7.60	8.31	4.54	9.91	6.63	14.35
9S	19.68	7.60	8.64	4.87	9.91	6.63	14.35
15P	23.50	7.60	12.12	4.54	13.72	6.63	18.16
15S	23.50	7.60	12.45	4.87	13.72	6.63	18.16
21P	27.30	7.60	15.93	4.54	17.53	6.63	21.97
21S	27.30	7.60	16.26	4.87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

ATTACHMENT OPTIONS

Captive Nut (Option E)

Floating Mount (Option F)

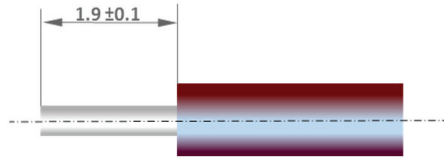


Dimensions shown in: mm
Specifications and dimensions subject to change

PROCESS – RECOMMENDED INSTRUCTION

Wire Stripping

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



Recommended wire:



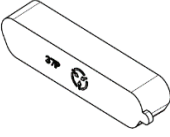
3901 013 01 B: PTFE insulated wire AWG28

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	ESA/ESCC DESCRIPTION		C&K P/N
	340103207B		C115366-9218C
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	340102901B 9PFR164	C115366-9124C	340102901B 9PFR164E	C115366-9984C	340102901B 9PFR164F	C115366-9272C
		15	340102901B 15PFR164	C115366-9126C	340102901B 15PFR164E	C115366-9986C	340102901B 15PFR164F	C115366-9274C
		21	340102901B 21PFR164	C115366-9128C	340102901B 21PFR164E	C115366-9988C	340102901B 21PFR164F	C115366-9276C
		25	340102901B 25PFR164	C115366-9130C	340102901B 25PFR164E	C115366-9990C	340102901B 25PFR164F	C115366-9278C
		31	340102901B 31PFR164	C115366-9132C	340102901B 31PFR164E	C115366-9992C	340102901B 31PFR164F	C115366-9280C
		37	340102901B 37PFR164	C115366-9134C	340102901B 37PFR164E	C115366-9994C	340102901B 37PFR164F	C115366-9282C
		51	340102901B 51PFR164	C115366-9136C	340102901B 51PFR164E	C115366-9996C	340102901B 51PFR164F	C115366-9284C
	Socket	9	340102901B 9SFR164	C115366-9125C	340102901B 9SFR164E	C115366-9985C	340102901B 9SFR164F	C115366-9273C
		15	340102901B 15SFR164	C115366-9127C	340102901B 15SFR164E	C115366-9987C	340102901B 15SFR164F	C115366-9275C
		21	340102901B 21SFR164	C115366-9129C	340102901B 21SFR164E	C115366-9989C	340102901B 21SFR164F	C115366-9277C
		25	340102901B 25SFR164	C115366-9131C	340102901B 25SFR164E	C115366-9991C	340102901B 25SFR164F	C115366-9279C
		31	340102901B 31SFR164	C115366-9133C	340102901B 31SFR164E	C115366-9993C	340102901B 31SFR164F	C115366-9281C
		37	340102901B 37SFR164	C115366-9135C	340102901B 37SFR164E	C115366-9995C	340102901B 37SFR164F	C115366-9283C
		51	340102901B 51SFR164	C115366-9137C	340102901B 51SFR164E	C115366-9997C	340102901B 51SFR164F	C115366-9285C
Gold	Pin	9	340102902B 9PFR164	C115366-8568C	340102902B 9PFR164E	C115366-9271C	340102902B 9PFR164F	C115366-9286C
		15	340102902B 15PFR164	C115366-8556C	340102902B 15PFR164E	C115366-9230C	340102902B 15PFR164F	C115366-9288C
		21	340102902B 21PFR164	C115366-8558C	340102902B 21PFR164E	C115366-9232C	340102902B 21PFR164F	C115366-9290C
		25	340102902B 25PFR164	C115366-8560C	340102902B 25PFR164E	C115366-9234C	340102902B 25PFR164F	C115366-9292C
		31	340102902B 31PFR164	C115366-8562C	340102902B 31PFR164E	C115366-9236C	340102902B 31PFR164F	C115366-9294C
		37	340102902B 37PFR164	C115366-8564C	340102902B 37PFR164E	C115366-9238C	340102902B 37PFR164F	C115366-9296C
		51	340102902B 51PFR164	C115366-8566C	340102902B 51PFR164E	C115366-9240C	340102902B 51PFR164F	C115366-9298C
	Socket	9	340102902B 9SFR164	C115366-8569C	340102902B 9SFR164E	C115366-9229C	340102902B 9SFR164F	C115366-9287C
		15	340102902B 15SFR164	C115366-8557C	340102902B 15SFR164E	C115366-9231C	340102902B 15SFR164F	C115366-9289C
		21	340102902B 21SFR164	C115366-8559C	340102902B 21SFR164E	C115366-9233C	340102902B 21SFR164F	C115366-9291C
		25	340102902B 25SFR164	C115366-8561C	340102902B 25SFR164E	C115366-9235C	340102902B 25SFR164F	C115366-9293C
		31	340102902B 31SFR164	C115366-8563C	340102902B 31SFR164E	C115366-9237C	340102902B 31SFR164F	C115366-9295C
		37	340102902B 37SFR164	C115366-8565C	340102902B 37SFR164E	C115366-9239C	340102902B 37SFR164F	C115366-9297C
		51	340102902B 51SFR164	C115366-8567C	340102902B 51SFR164E	C115366-9241C	340102902B 51SFR164F	C115366-9299C

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