

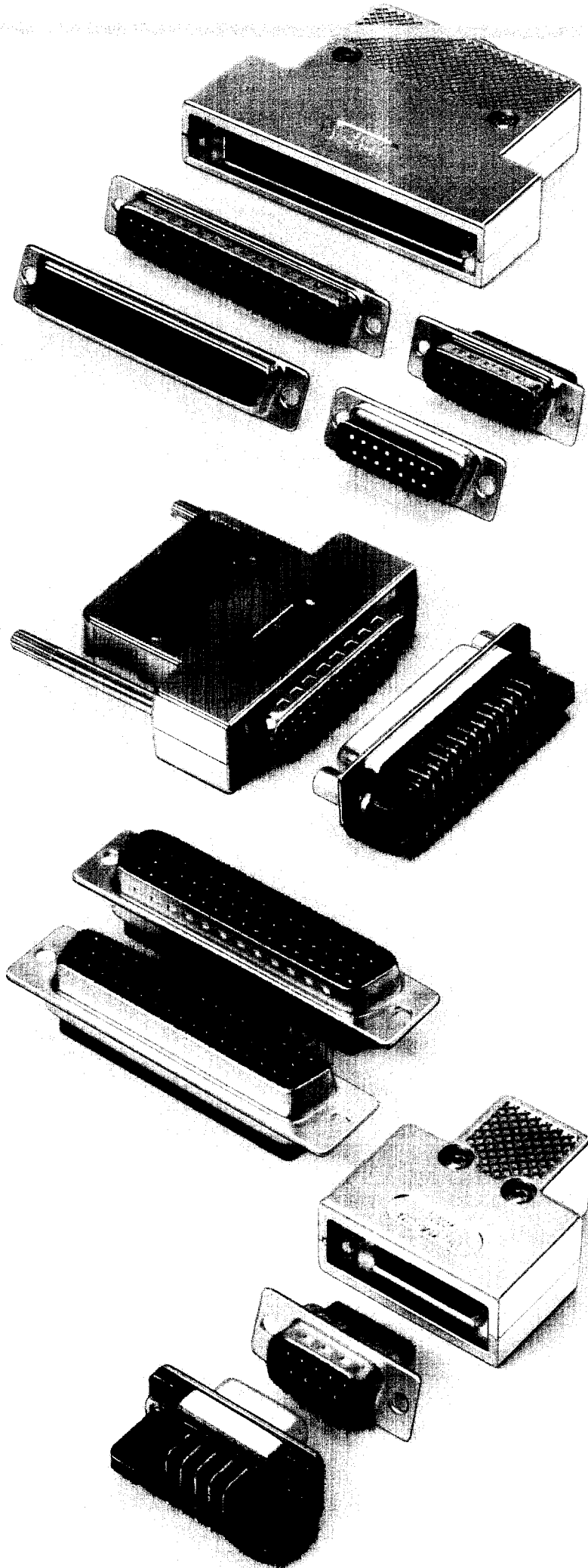
EMI SHIELDING IMPROVED GROUNDING

D SUB SERIES CONNECTORS

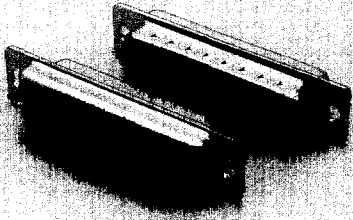
Radio frequency noise-control for electronic equipment is an important design criteria. Various specifications have been established by FCC, VDE, and other agencies. To serve this need, a new series with enhanced shielding has been introduced to the D Sub connector family.

Based on the standard D Sub connectors (solder-pot, crimp, insulation displacement, printed circuit board, and other types), grounding dimples are provided on the front shell of the pin side to ensure full grounding to the mating connector. Two-piece backshells that ground to cable braid, are also available. Both the connector shell and hood are nickel plated for good electrical and environmental protection.

The connectors are suitable for use with personal computers, test equipment, measuring instruments, telecom interfaces, and various other applications.

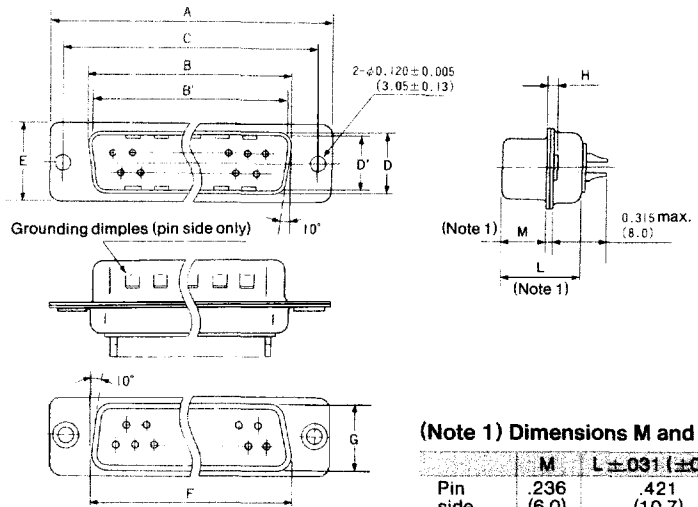


■ SOLDER TERMINATION · D*·F-N TYPE



The connector basically, is the same as the standard type D*·N (with stamped contacts) with solder-pots. The shell is nickel plated, and grounding dimples are provided on the front shell on the pin side.

- **Dimensions and specifications** ... See pages 22 and 23.
- **Materials/Finishes**
 Shell: Steel/Nickel plate
 Insulator: Polyester, UL94V-0, black
 Contacts: Copper alloy/Gold over nickel

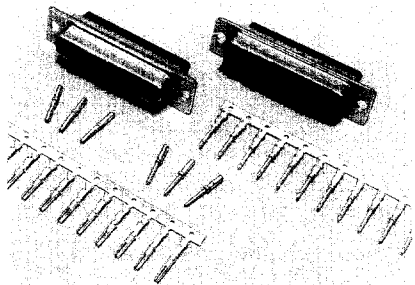


(Note 1) Dimensions M and L

	M	L ±0.031 (±0.8)
Pin side	.236 (6.0)	.421 (10.7)
Socket side	.240 (6.1)	.425 (10.8)

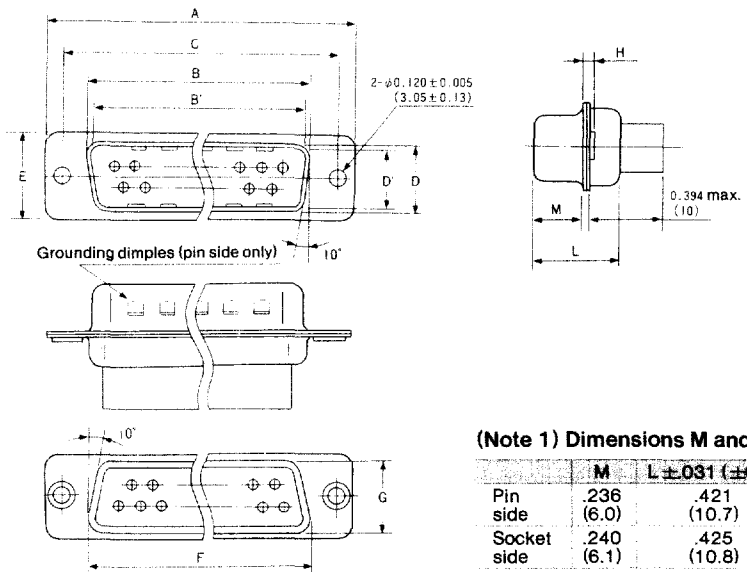
No. of Contacts	Part Number	
	Pin side	Socket side
9	DE-9PF-N	DE-9SF-N
15	DA-15PF-N	DA-15SF-N
25	DB-25PF-N	DB-25SF-N
37	DC-37PF-N	DC-37SF-N
50	DD-50PF-N	DD-50SF-N

■ CRIMP AND PCB THROUGH HOLE TERMINATIONS · D*U·F TYPE



D*U EMI control connectors have crimp or printed circuit contacts. A manual crimping tool for easy wire connection and a semiautomatic crimping machine for higher volume terminations are available. Optional contacts can be inserted through the rear of the insulator after termination.

- **Materials/Finishes**
 Shell: Steel/Nickel plate
 Insulator: Glass-filled synthetic resin, UL94V-0, black
 Contacts: Copper alloy/Gold over nickel

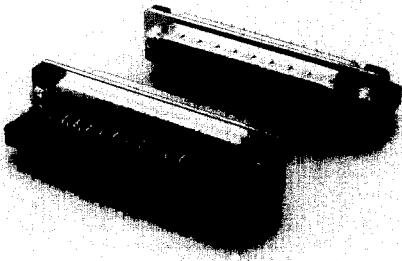


(Note 1) Dimensions M and L

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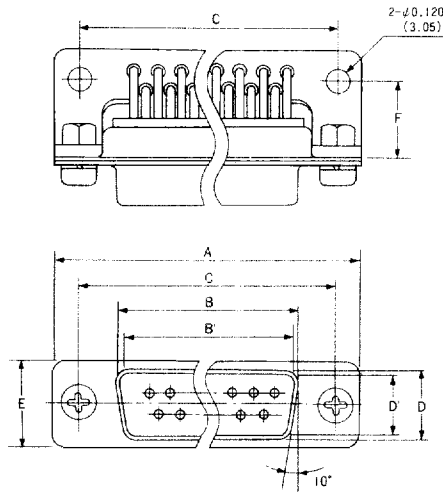
No. of Contacts	Part Number	
	Pin side	Socket side
9	DEU-9PF-FO	DEU-9SF-FO
15	DAU-15PF-FO	DAU-15SF-FO
25	DBU-25PF-FO	DBU-25SF-FO
37	DCU-37PF-FO	DCU-37SF-FO
50	DDU-50PF-FO	DDU-50SF-FO

■ PCB THROUGH HOLE TERMINATION ·D*·AF·N TYPE

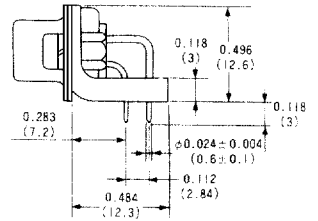


These EMI-control connectors are basically the same as the right angle type D*·**A-N (stamped contacts) for wave soldering to printed circuit board through holes. Grounding dimples are provided on the front shell on the pin side to ensure secure contact to the mating shell.

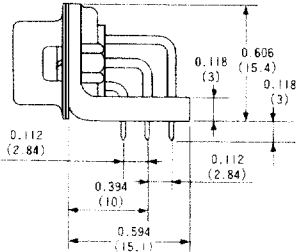
- See pages 34 and 35 for dimensions and specifications, and see page 61 for PCB hole patterns.
- **Materials/Finishes**
 Shell: Steel/Nickel plate
 Insulator: Polyester, UL94V-0, black
 Contacts: Copper alloy/Gold over nickel
 Bracket: Synthetic resin, UL94V-0, black



• DE, DA, DB, DC Size

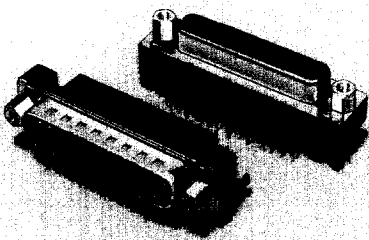


• DD Size

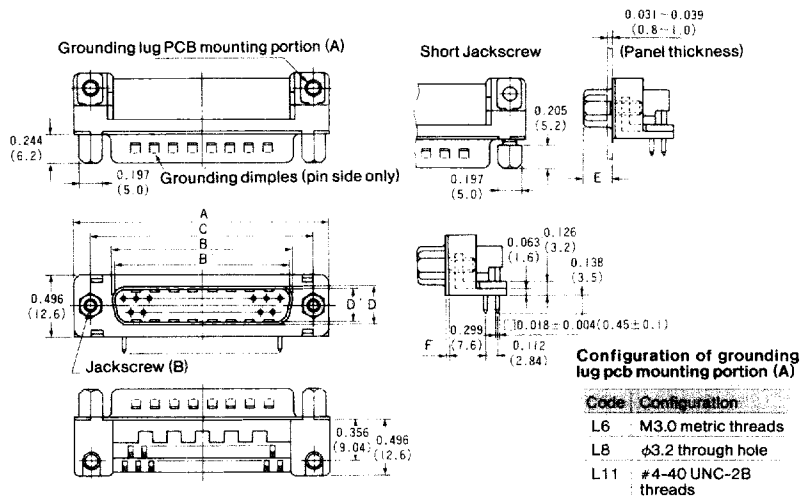


No. of Contacts	Part Number	
	Pin side	Socket side
9	DE-9PAF-N	DE-9SAF-N
15	DA-15PAF-N	DA-15SAF-N
25	DB-25PAF-N	DB-25SAF-N
37	DC-37PAF-N	DC-37SAF-N
50	DD-50PAF-N	DD-50SAF-N

■ PCB THROUGH HOLE TERMINATION ·D*·LC TYPE



See pages 31 through 33 for details of D*LC-J type.



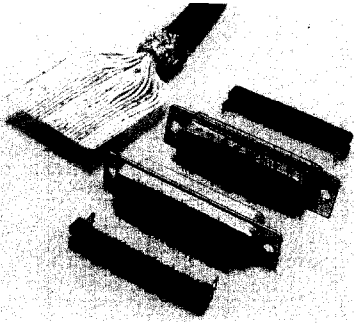
No. of Contacts	Part Number (by jackscrew threads)			
	M2.0 metric threads (short)	M3.0 metric threads (long)	#4-40 UNC-2B threads (short)	#4-40 UNC-2B threads (long)
9	DELC-J9*AF-10L□	DELC-J9*AF-13L□	DELC-J9*AF-20L□	DELC-J9*AF-23L□
15	DALC-J15*AF-10L□	DALC-J15*AF-13L□	DALC-J15*AF-20L□	DALC-J15*AF-23L□
25	DBLC-J25*AF-10L□	DBLC-J25*AF-13L□	DBLC-J25*AF-20L□	DBLC-J25*AF-23L□
37	DCLC-J37*AF-10L□	DCLC-J37*AF-13L□	DCLC-J37*AF-20L□	DCLC-J37*AF-23L□

(Note 1) * Contact type, P... Pin S... Socket

(Note 2) □ Configuration of grounding lug pcb mounting portion
 6... M3.0 metric threads
 8... φ3.2 mm through hole

9... Hook style
 11... #4-40 UNC-2B threads
 Example DELC-J9PAF-10L6, DELC-J9SAF-13L8

■ IDC TERMINATION -D*SP "F" TYPE



The sheath on the flat ribbon cables does not have to be removed since insulation displacement connectors are Self-Piercing. All conductors are terminated simultaneously.

Insulation displacement wiring connections are easily performed using simple, efficient termination tools.

The connectors are the same configuration as the standard D*SP type. Grounding dimples are provided on the front side of the shell on the pin side. Shells are nickel plated.

- Refer to pages 16 to 19 for configuration, dimensions, specifications, terminating tools, terminating and wire connection procedures, etc.

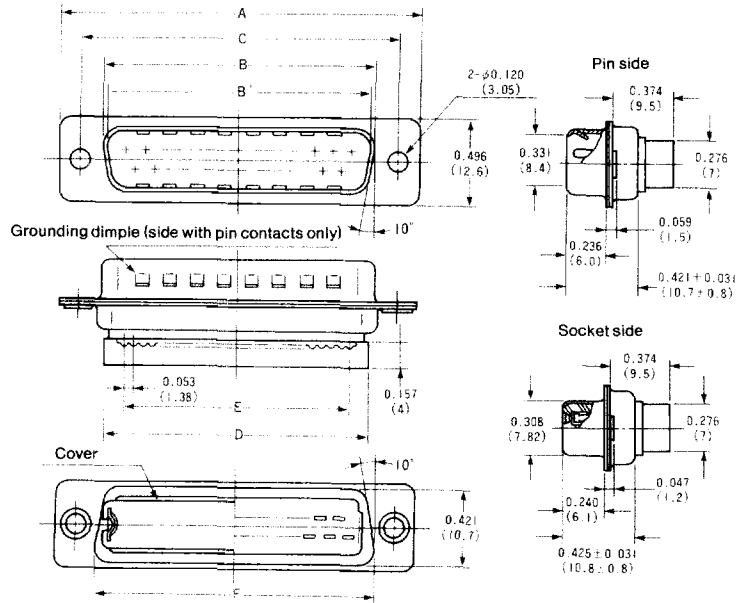
- Materials/Finishes**

Shell: Steel/Nickel plate
 Insulator: Polyester, UL94V-0, black
 Contacts: Beryllium copper/Gold plate

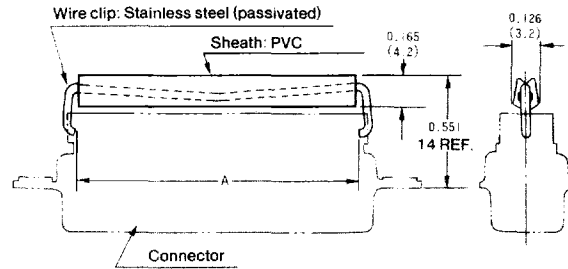
- Applicable wire**

Conductor: AWG #26-#28, tin-plated annealed copper wire, solid or stranded

Insulator: Soft PVC, $\phi 1.8 - \phi 1.1$ mm
 Spacing: 1.27 mm or 1.38 mm



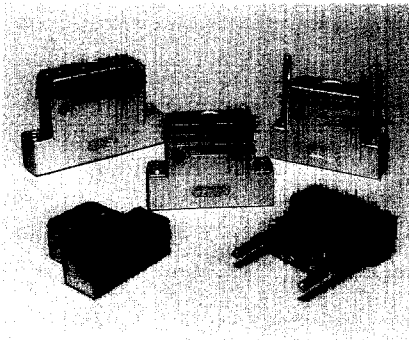
- Strain relief**



No. of Contacts	Part Number		Strain Relief
	Pin side	Socket side	
9	DESP-JB9PF	DESP-JB9SF	DESP-SR
15	DASP-JB15PF	DASP-JB15SF	DASP-SR
25	DBSP-JB25PF	DBSP-JB25SF	DBSP-SR
37	DCSP-JB37PF	DCSP-JB37PF	DCSP-SR

(Note) Use round flat ribbon cable with clamp hoods D*-C4/D*-C8. Consult us for details.

CLAMP HOODS (EMI SHIELDING)



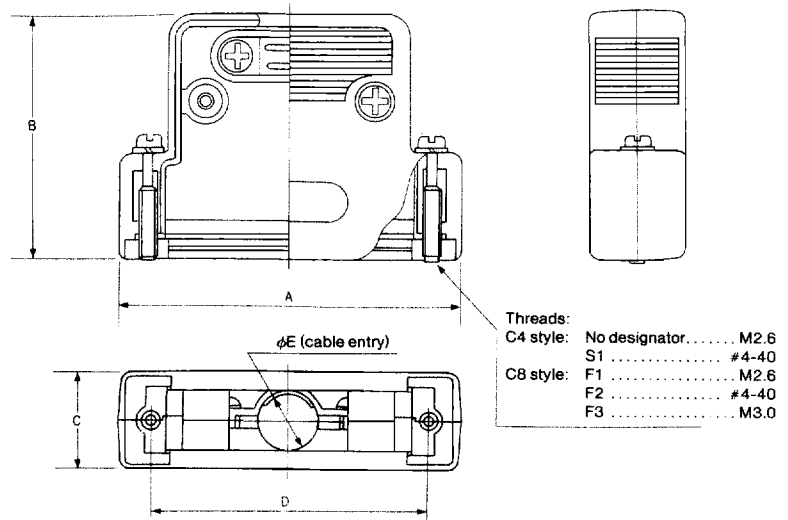
The backshells have a two-piece construction (split type) for easy assembly. Step-interlocking construction is provided on the matching groove to accurately cover the connector flange for superior shielding. Lightweight and highly functional.

The backshells are nickel plated and can be ordered in either cast aluminum or metal-plated ABS plastic. The locking screws for attaching to the mating connector can be turned with a screwdriver (short screw type) or by hand (long screw type). Metric (mm) and inch screws are available.

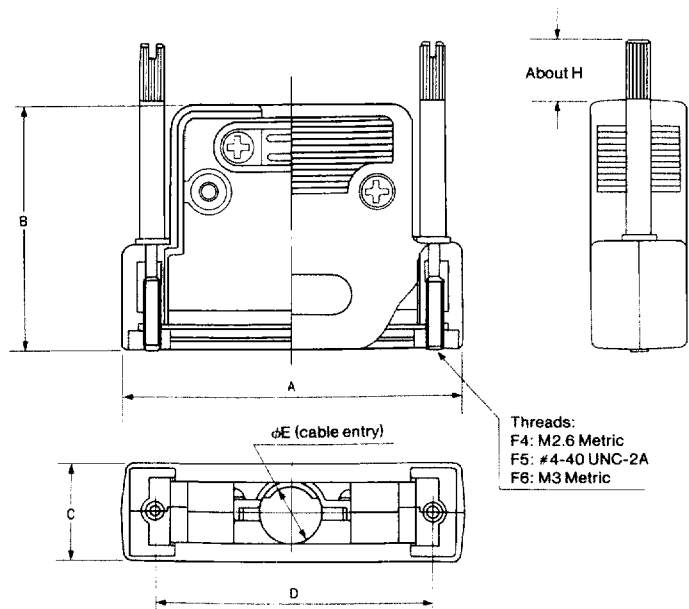
Materials/Finishes

- Hood: C4 style/Aluminum die casting
- C8 style/ABS
- Finish ... Nickel plate
- Saddle Clamp Mounting Screw: Steel/Nickel plate

- **Short screw type**
C4 style (metal hood)
C8/-F1, F2, F3 styles (plastic hood)



- **Long screw type**
C8/-F4, F5, F6 styles (plastic hood)



Shell Size	Part Number			A ± 0.20 (± 0.8)		B ± 0.20 (± 0.8)		C ± 0.30 (± 1)	D	ϕE		H About
	C4 style (metal hood)		C8 style (None F) (plastic hood)	C4	C8	C4	C8			C4	C8	
	With M2.6 screws	With #4-40 screws										
DE	DE-C4-J6	DE-C4-J6-S1	DE-C8-J9-F*-1	1.366 (34.7)	1.449 (36.8)	1.535 (39.0)	1.496 (38.0)	.630 (16.0)	.984 (24.99)	.276 (7.0)	.354 (9.0)	.551 (14.0)
DA	DA-C4-J10	DA-C4-J10-S1	DA-C8-J10-F*-1	1.693 (43.0)	1.776 (45.1)	1.811 (46.0)	1.496 (38.0)	.630 (16.0)	1.312 (33.32)	.394 (10.0)	.394 (10.0)	.551 (14.0)
DB	DB-C4-J11	DB-C4-J11-S1	DB-C8-J10-F*-1	2.244 (57.0)	2.315 (58.8)	1.929 (49.0)	1.634 (41.5)	.630 (16.0)	1.852 (47.04)	.453 (11.5)	.394 (10.0)	.394 (10.0)
DC	DC-C4-J12	DC-C4-J12-S1	DC-C8-J13-F*-1	2.874 (73.0)	2.965 (75.3)	2.165 (55.0)	1.850 (47.0)	.630 (16.0)	2.500 (63.5)	.512 (13.0)	.512 (13.0)	.197 (5.0)
DD	DD-C4-J13	DD-C4-J13-S1	DD-C8-J13-F*-1	2.795 (71.0)	2.870 (72.9)	2.165 (55.0)	1.850 (47.0)	.748 (19.0)	2.406 (61.1)	.512 (13.0)	.512 (13.0)	.197 (5.0)

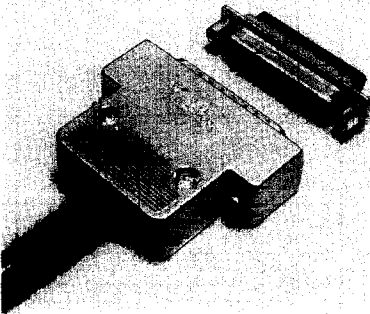
(Note 1) * Jackscrew, Short style/1 to 3 Long style/4 to 6
Example: DE-C8-J9-F1-1, DE-C8-J9-F4-1

JACKSCREW

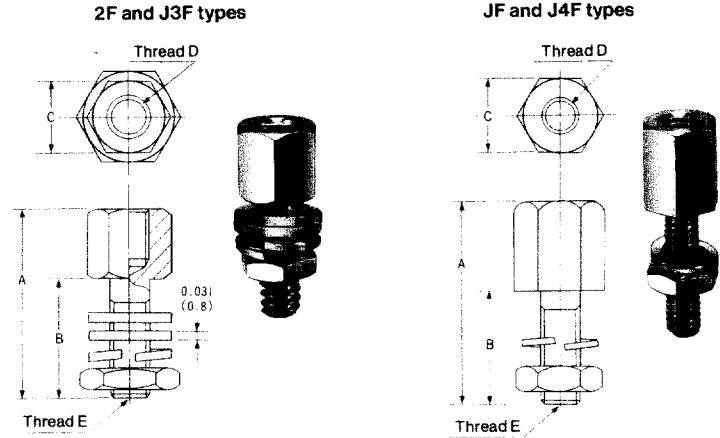


A screw lock assembly is used on both ends of a connector. The mating connector secures by the screw on the accessory cable clamp backshell. Order two screw lock assemblies for each connection.

- Material: Steel
- Finish: Nickel plate

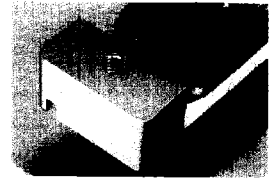
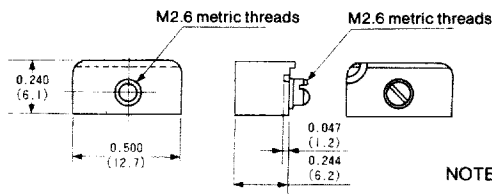


Hexagonal Jackscrew



Part Number	A ±0.020 (±0.8)	B ±0.020 (±0.8)	C	Thread D	Thread E
D20418-2F	.500 (12.7)	.311 (7.9)	.197 (5.0)	#4-40 NC	#4-40 NC
D20418-JF	.638 (16.2)	.394 (10.0)	.189 (4.8)	M2.6	M2.6
D20418-J3F	.583 (14.8)	.394 (10.0)	.197 (5.0)	M2.6	M2.6
D20418-J4F	.630 (16.0)	.402 (10.2)	.197 (5.0)	M3.0	M2.5

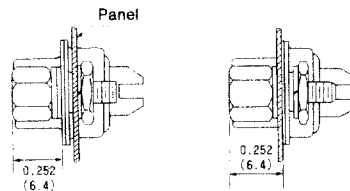
Rectangular Jackscrew (for C8 style hood only) Part description: D20418-J2F



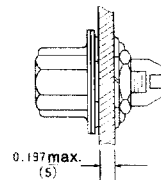
NOTE: Panel thickness: 0.047-0.067 (1.2-1.7)

PANEL MOUNTING EXAMPLES

2F and J3F types



JF and J4F types



Note: Adjust with panel thickness and plain washer (0.8 t) to maintain the dimension 6.4 mm when rear mounting.