

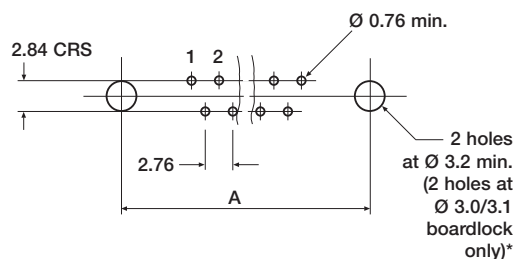
PCB layouts

Plug viewed from above,
socket viewed from below.

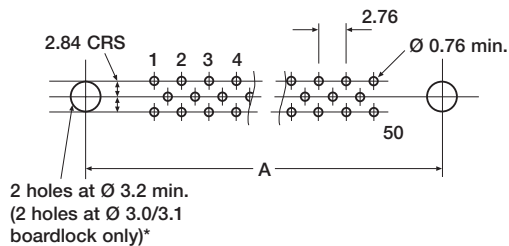
High Density D only

Plug viewed from above,
socket viewed from below.

Straight p.c. 9-37 way



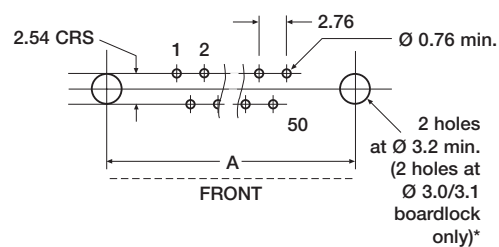
50 way



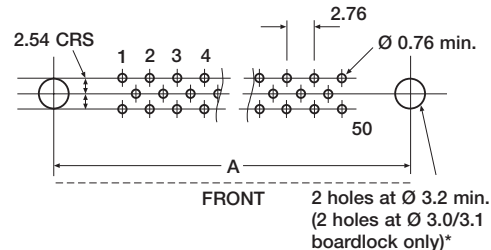
DIMENSIONS

Contact Arrangement	A crs
9	25.00
15	33.32
25	47.04
37	63.50
50	61.10

90° p.c. 9-37 way

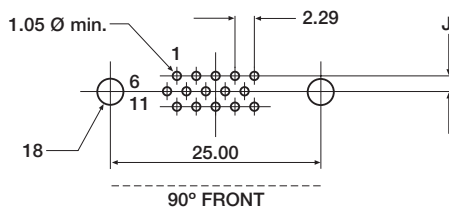


50 way

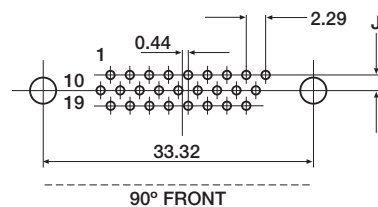


*Special D only

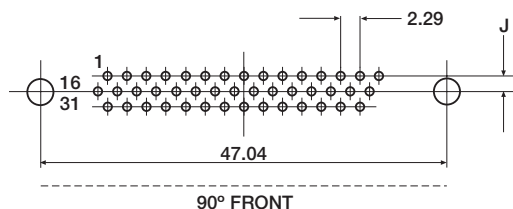
15 way High Density D



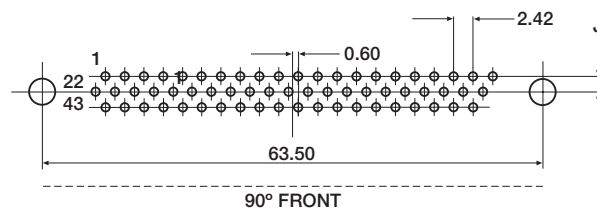
26 way High Density D



44 way High Density D



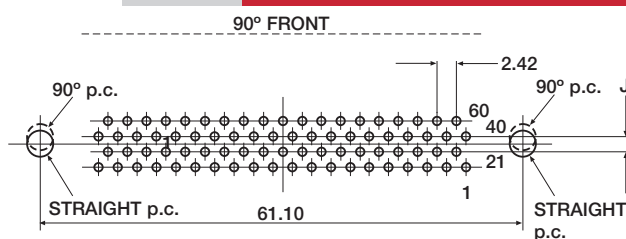
62 way High Density D



DIMENSIONS

Contact Arrangement	Straight p.c. J	90° p.c. J
15	1.98	2.54
26	1.98	2.54
44	1.98	2.54
62	1.98	2.54
78	2.08	2.54

78 way High Density D



ORDERING information

for CONNECTORS

Series

D – Standard/Budget/Crimp
SD – Special D
LD – Special D 90° p.c. alternative
HD-High Density

Shell size

E, A, B, C and D

Mounting options/crimp select

No designator – Standard fixing holes
B – 90° brackets and stabiliser rivetted (fitted on 50 and 90° p.c. as standard)
F – Float mount for rear panel mounting
R – Reverse float mounting
G – MP501 rivetted
H – 4-40 UNC threaded inserts fitted
K – MP625 and screwlock fitted
L – MP501-2 screw mounted
N – 90° brackets and stabiliser with screwlock fitted
S – Screwlock fitted
T – Boardlocks fitted
X – Screwlocks and Boardlocks fitted
C-Crimp (contacts ordered separately)

Shell finish

No designator – Zinc/yellow passivate
T – Tinned (socket only)
TD – Tinned and dimpled (plug only)

Performance code

No designator – standard, HD, special, crimp
B – Budget

Termination type

No designator – Solder bucket (and crimped when selector code has been used)
N – 90° p.c.
OL – Straight p.c.
W – Wire wrapping

Contact type

P – Plug S – Socket

Contact arrangement

9, 15, 25, 37 and 50
High Density 15, 26, 44, 62 and 78

CONTACT ORDERING INFORMATION

Contact/Wire Gauge

MP642-Pin, 24/28 A.W.G (HD only)
MP643-Socket, 24/28 A.W.G (HD only)
MP647-Pin, 24/28 A.W.G (crimp D only)
MP648-Socket, 24/28 A.W.G (crimp D only)
MP649-Pin, 20/24 A.W.G (crimp D only)
MP650-Socket, 20/24 A.W.G (crimp D only)

MP642

R

06

Method of supply

No designator – in packs of 100
R – 10,000 on a reel

Performance Code

High Density

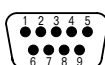
05-Pin, 200 operations
06-Pin, 50 operations
15-Socket, 200 operations
16-Socket, 50 operations

Crimp D

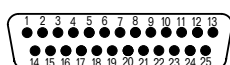
45-Pin, standard 500 operations
46-Pin, budget 300 operations
55-Socket, standard 500 operations
56-Socket, budget 300 operations

CONTACT ARRANGEMENT (viewed from mating face of male connector)

Special, Standard and Crimp D



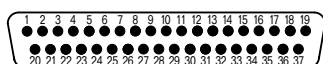
E - 9 contacts



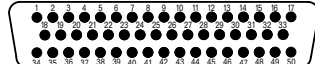
B - 25 contacts



A - 15 contacts

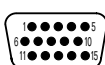


C - 37 contacts

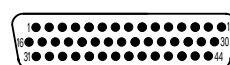


D - 50 contacts

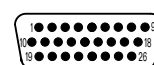
High Density D



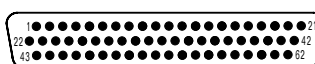
E - 15 contacts



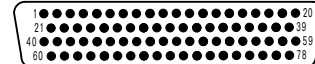
B - 44 contacts



A - 26 contacts



C - 62 contacts



D - 78 contacts

Accessories

A range of accessories are available including automatic and hand crimp tools, insertion and extraction tools – ask our sales office for details.

Due to our policy of continuous product development, ITW McMurdo Connectors retain the right to change the specification at any time without prior notice. Designed & printed in the UK.

Engelking Elektronik GmbH
Albstrasse 16
D-78609 Tuningen
Germany

Tel +49 (0) 7464 9865 0
Fax +49 (0) 7464 9865 71
sales@itw-switches.de
www.itw-switches.de

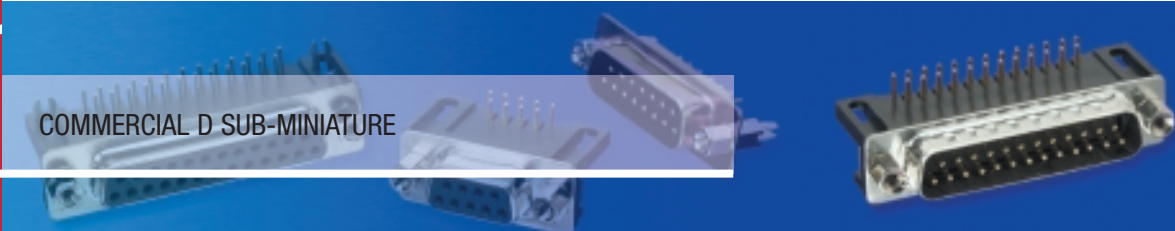
ITW McMurdo Connectors



D range connectors

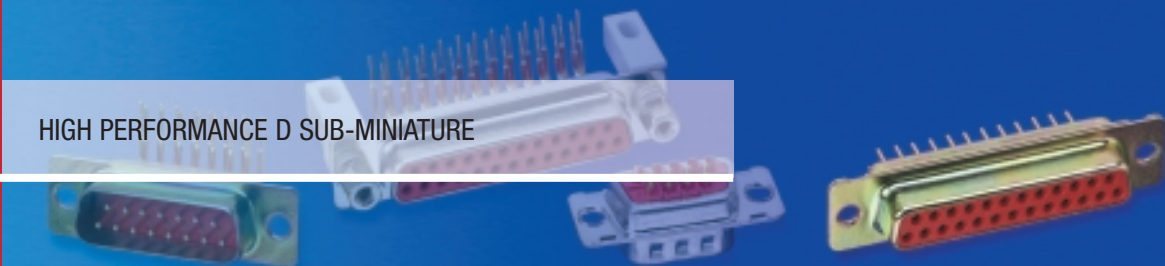
Special D

COMMERCIAL D SUB-MINIATURE



Standard D

HIGH PERFORMANCE D SUB-MINIATURE



Crimp D

FLEXIBLE AND FAST ASSEMBLY D SUB-MINIATURE



High Density D

INCREASED DENSITY D SUB-MINIATURE



D Accessories

Special D

A range of D connectors utilising stamped and formed or turned contacts to provide a low cost option for commercial applications.

COMMERCIAL D SUB-MINIATURE



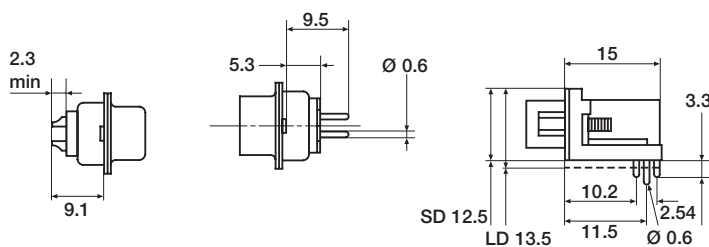
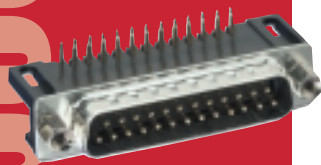
FEATURES

Choice of three termination styles – solder bucket, straight p.c. and 90° p.c.

Optional solderable boardlock features for 90° p.c. types – reduces installation time.

Threaded inserts on 90° p.c. versions as standard – accepts a wide range of mounting hardware.

Tinned and dimpled shell options – for EMI/RFI shielding.



Solder Bucket

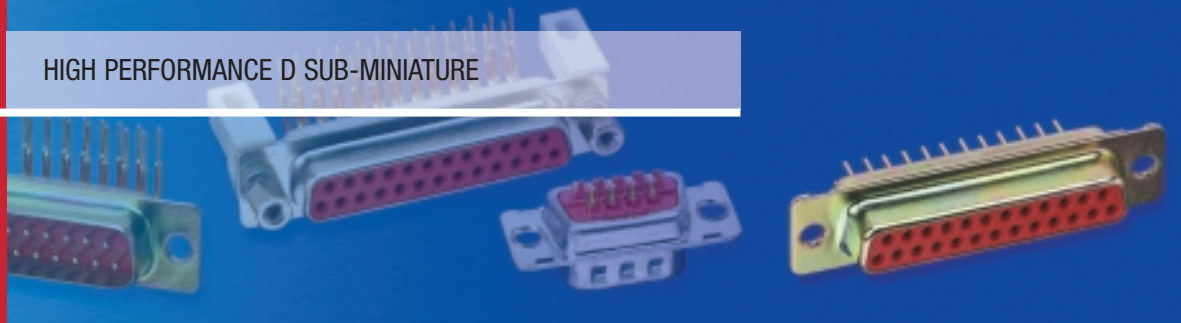
Straight P. C.

90° P. C.

Standard D

Designed for demanding industrial applications, McMurdo's D connectors offer precision turned contacts in two performance levels: Standard D offers a minimum of 500 operations. Budget D has been developed for harsh industrial applications offering 300 operations.

HIGH PERFORMANCE D SUB-MINIATURE



FEATURES

Standard D meets the most demanding requirements.

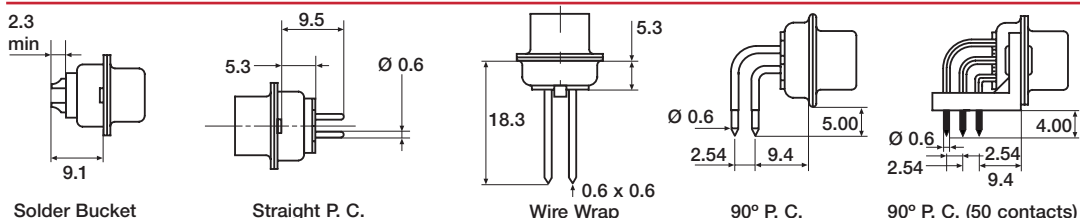
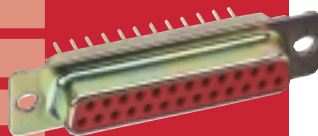
Available in five shell sizes, providing up to 50 contacts.

Tinned and dimpled shell options – for EMI/RFI shielding.

Precision turned contacts.

Solder bucket, straight p.c., 90° p.c. and wire wrapping termination styles – to suit all your applications.

Wide range of accessories – greater user flexibility.



Solder Bucket

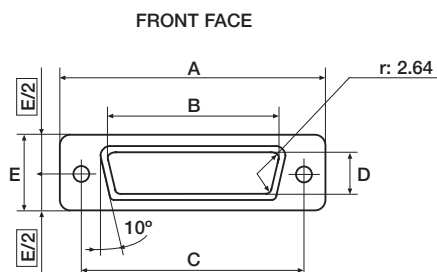
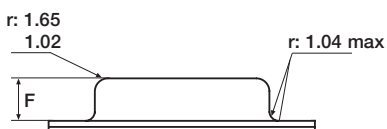
Straight P. C.

Wire Wrap

90° P. C.

90° P. C. (50 contacts)

All ranges: male



No. of contacts	A	B	C	D	E	F
9	31.19 30.43	17.04 16.79	25.12 24.87	8.48 8.23	12.93 12.17	6.12 5.82
15	39.52 38.76	25.37 25.12	33.45 33.20	8.48 8.23	12.93 12.17	6.12 5.82
25	53.42 52.65	39.09 38.84	47.17 46.91	8.48 8.23	12.93 12.17	5.99 5.69
37	69.70 68.94	55.55 55.30	63.63 63.37	8.48 8.23	12.93 12.17	5.99 5.69
50	67.34 66.55	52.93 52.68	61.24 60.99	11.33 10.95	15.75 14.99	5.99 5.69



Technical Data

FEATURES

- Shell
- Insulator
- Contact
- Termination – solder bucket
- straight PC
- 90° PC
- CRIMP

MECHANICAL

Operations

Temperature range

ELECTRICAL

Current – individual contact
(in isolation) at 70°C

– All contacts
(simultaneously) at 70°C

Working voltage (DC or AC
PEAK)

Proof voltage (DC or AC PEAK)

Contact resistance

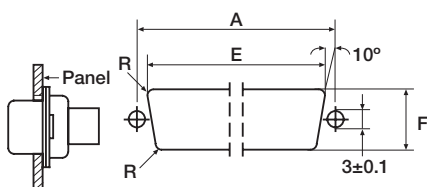
Insulation resistance

D range connectors

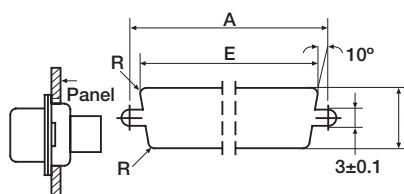
Special D	Standard D	Crimp D	High Density D
	Steel plated zinc/yellow passivate or tin		
	Thermoplastic rated UL94V-0		
	Copper alloy plated hard acid gold		
Tin	Gold	–	Tin
Tin	Gold	–	Tin
Tin	Gold	–	Tin
–	–	Tin or Gold	Tin
100	300 (budget) 500 (standard)	300 (budget) 500 (standard)	100 50 or 200 crimp
	-55°C to +105°C		
3A	6.5A	3A	3A
2A	3.3A	2A	2A
350V	500V	350V	300V
1500V	1500V	1500V	1000V
15mΩ max	10mΩ max	15mΩ max	15mΩ max
5000mΩ min	1000mΩ min	5000mΩ min	1000mΩ min

All ranges: panel mounting options

Contact Arrangement				Rear Panel Mounting					Front Panel Mounting				
Shell size	No of Contacts D,SD,LD	HD	A	Std	E	Float	F	R	Std	E	Float	F	R
E	9	15	25.00	20.32	21.16	11.30	12.09	3.50	22.07	22.88	12.90	13.71	2.25
A	15	26	33.32	28.70	29.49	11.30	12.09	3.50	30.40	31.22	12.90	13.71	2.25
B	25	44	47.04	42.42	43.20	11.30	12.09	3.50	44.14	44.96	12.90	13.71	2.25
C	37	62	63.50	58.93	59.77	11.30	12.09	3.50	60.60	61.42	12.90	13.71	2.25
D	50	78	61.10	56.26	57.02	13.97	14.78	3.50	58.21	59.44	15.69	16.51	2.25



Rear Panel Mounting



Front Panel Mounting

Crimp D

Maximum flexibility and reduced assembly costs are achieved through full or partial loading of selectively plated stamped and formed contacts.

FLEXIBLE AND FAST ASSEMBLY D SUB-MINIATURE



FEATURES

Replaceable contacts – no connector wastage.

Two contact performance levels – Budget for commercial and Standard for industrial applications.

Accepts wire sizes of 20 to 28 AWG – offers greater flexibility.

Tinned and dimpled shell options – for effective EMI/RFI shielding.

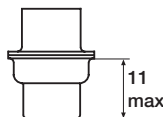
Complete selection of crimp tooling enables quick assembly.

Wire strip length 2.4 ± 0.2mm.

ASSEMBLY TOOLS AND HAND TOOLS



Hand Crimp Tool MP600-D/HD
Insertion/extraction tool MP601-D or MP601-HD



Crimp

High Density D

Increased contact density is provided in five industry standard shell sizes providing up to 78 contacts. A choice of four termination styles including crimp are available making this range one of the most versatile.

INCREASED DENSITY D SUB-MINIATURE



FEATURES

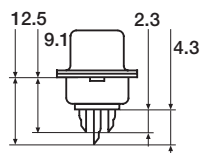
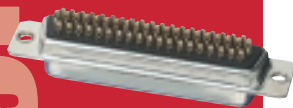
Tinned and dimpled shell as standard for enhanced electrical continuity and effective EMI/RFI shielding.

Threaded inserts – enable quick assembly of mounting hardware to 90° p.c. versions.

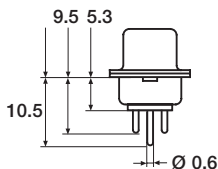
Solder bucket, straight p.c. 90° p.c. and crimp termination styles.

Optional screwlocks and solderable boardlocks fitted to 90° p.c. versions.

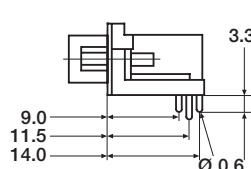
Compatible with Standard D range accessories.



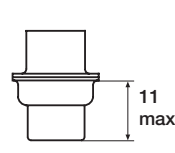
Solder Bucket



Straight P. C.

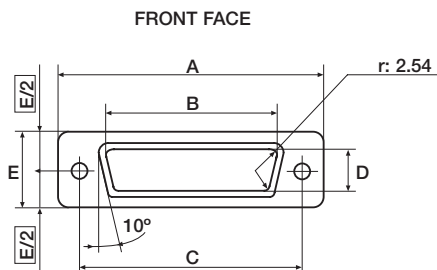
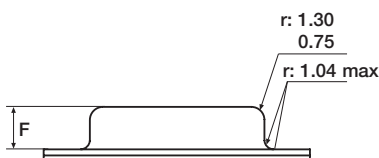


90° P. C.



Crimp

All ranges: female



No. of contacts	A	B	C	D	E	F
9	31.19 30, 43	16.46 16.21	25.12 24.87	8.03 7.77	12.93 12.17	6.30 6.05
15	39.52 38.76	24.79 24.54	33.45 33.20	8.03 7.77	12.93 12.17	6.30 6.05
25	53.42 52.65	38.51 38.25	47.17 46.91	8.03 7.77	12.93 12.17	6.30 6.05
37	69.70 68.94	54.97 54.71	63.63 63.37	8.03 7.77	12.93 12.17	6.30 6.05
50	67.34 66.55	52.56 52.30	61.24 60.99	10.87 10.62	15.75 14.99	6.30 6.05