D-Sub – Standard subminiature D connectors

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Connectors with press-in termination see chapter 20
Connectors for SMT see chapter 21
Connectors for SMC see chapter 22
Tooling see chapters 30, 31 and 32
Cables see chapter 40

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D-Sub - S

Number of contacts
9, 15, 25, 37, 50
UL recognized

Working current
see current carrying capacity chart

Turned contacts	7.5 A max.
Stamped contacts	6.5 A max.

Test voltage $U_{r.m.s.}$
1 kV

Clearance and creepage
≥ 1.0 mm

Contact resistance
≤ 10 mΩ

Insulation resistance
≥ 10^{10} Ω

Temperature range
-55 °C … + 125 °C
The higher temperature limit includes the local ambient and heating effect of the contacts under load

Terminations
a) Solder pins Ø 0.6 mm for P.C.B. holes Ø 0.8/1 mm
b) Solder pins, angled 90° Ø 0.6 mm for P.C.B. holes Ø 1 mm

Materials

Mouldings and hoods	Thermoplastic resin, glass-fibre filled (PBTP), UL 94-V0
Contacts	Copper alloy

Contact surface

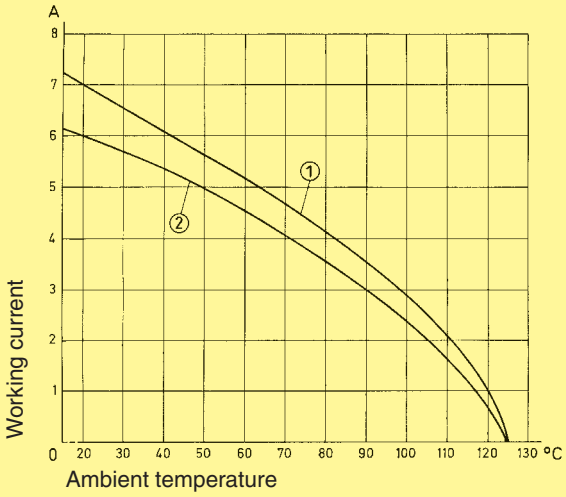
Contact zone	selectively gold-plated according to performance level[1)]
Metal shell	Plated steel

Insertion and withdrawal force
Connector on P.C.B.
Solder, straight with clips
– insertion max. per connector: 60 N
– withdrawal min. per connector: 10 N

Mating force

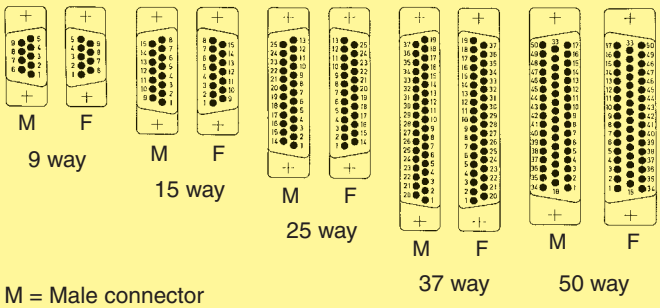
9 way	≤ 30 N
15 way	≤ 50 N
25 way	≤ 83 N
37 way	≤ 123 N
50 way	≤ 167 N

Current carrying capacity
The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals.
The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.
Control and test procedures according to DIN IEC 60 512.



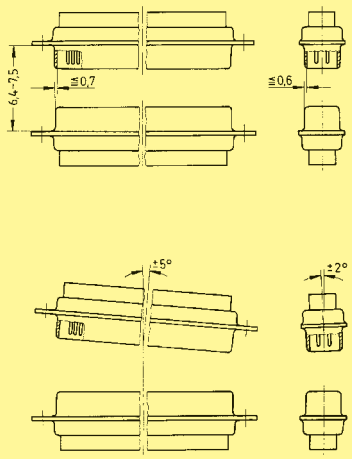
Example: 25 way connector
① Turned contacts
② Stamped contacts

Contact arrangement View from termination side



M = Male connector
F = Female connector

Mating conditions as per DIN 41 652



[1)] Performance level 3, 50 mating cycles, no gas test
Performance level 2 as per CECC 75 301-802, 250 mating cycles, 4 days 4 mixed gas test – IEC 60 512
Performance level 1 as per CECC 75 301-802, 500 mating cycles, 10 days 4 mixed gas test – IEC 60 512

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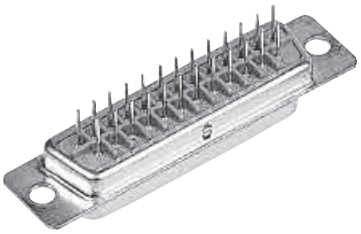
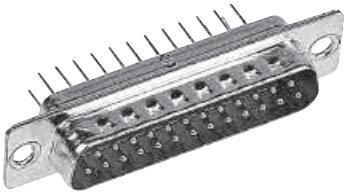
Number of contacts

9–50

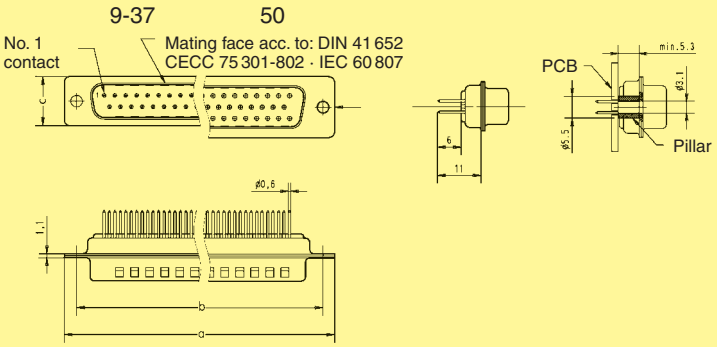




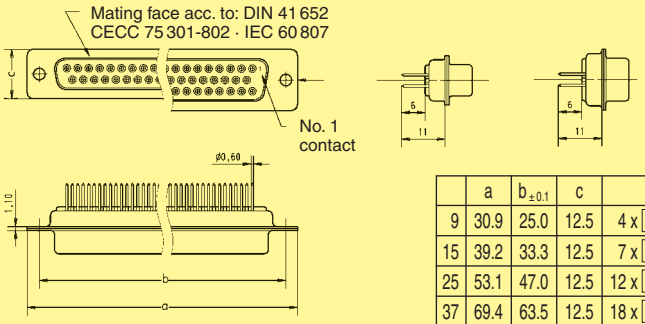
Turned solder pins, straight

Identification	No. of contacts	Part No.	
Performance levels Explanations see page 02.02 Other performance levels on request		Performance level 3	Performance level 2
Male connector metal shell with dimples	9	09 67 009 5654	09 67 009 5655
	15	09 67 015 5654	09 67 015 5655
	25	09 67 025 5654	09 67 025 5655
	37	09 67 037 5654	09 67 037 5655
	50	09 67 050 5654[1)]	09 67 050 5655[1)]
Female connector metal shell	9	09 67 009 4754	09 67 009 4755
	15	09 67 015 4754	09 67 015 4755
	25	09 67 025 4754	09 67 025 4755
	37	09 67 037 4754	09 67 037 4755
	50	09 67 050 4754[1)]	09 67 050 4755[1)]

Male connector

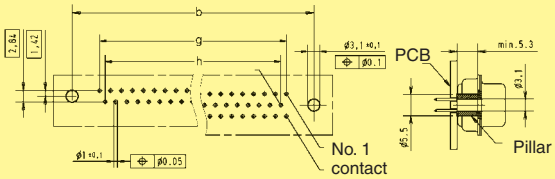


Female connector



	a	$b_{\pm 0.1}$	c	g	h
9	30.9	25.0	12.5	4 x 2.74 = 10.96	3 x 2.74 = 8.22
15	39.2	33.3	12.5	7 x 2.74 = 19.18	6 x 2.74 = 16.44
25	53.1	47.0	12.5	12 x 2.76 = 33.12	11 x 2.76 = 30.36
37	69.4	63.5	12.5	18 x 2.76 = 49.68	17 x 2.76 = 46.92
50	67.0	61.1	15.4	16 x 2.76 = 44.16	15 x 2.76 = 41.40

Board drillings



Dimensions in mm

[1)] Not normally kept in stock

Mating conditions see page 02.02

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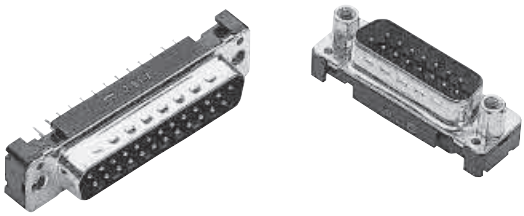
Number of contacts

9–50



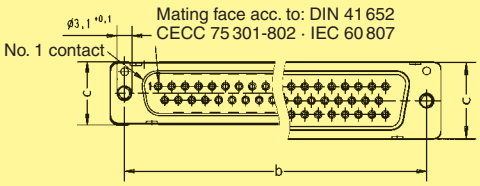
Turned solder pins, straight without grounding-pins

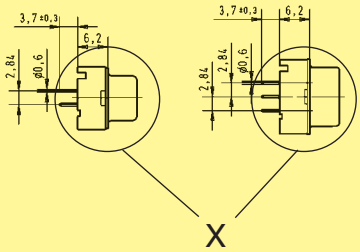
Identification	No. of contacts	Part No.		Part No.	
Performance levels Explanations see page 02.02 Other performance levels on request		Performance level 3		Performance level 2	
Male connector metal shell with dimples					
	9	09 66 121 770	.	09 66 121 670	.
	15	09 66 221 770	.	09 66 221 670	.
	25	09 66 321 770	.	09 66 321 670	.
	37	09 66 421 770	.	09 66 421 670	.
	50	09 66 521 770	.	09 66 521 670	.
Please insert digit for flange thread or fitted female screw locks: M3 ▶ 1; 4-40 UNC ▶ 2; fitted screw locks 4-40 UNC ▶ 3					

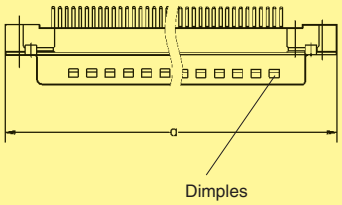
available on request

Male connector

9-37 50

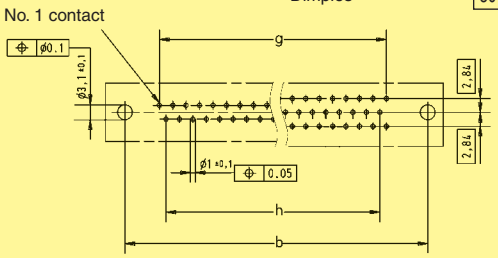




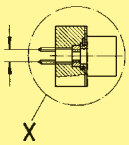


	a	$b_{\pm 0.1}$	c	g	h
9	30.9	25.0	12.9	4 x 2.74 = 10.96	3 x 2.74 = 8.22
15	39.2	33.3	12.9	7 x 2.74 = 19.18	6 x 2.74 = 16.44
25	53.1	47.0	12.9	12 x 2.76 = 33.12	11 x 2.76 = 30.36
37	69.4	63.5	12.9	18 x 2.76 = 49.68	17 x 2.76 = 46.92
50	67.0	61.1	15.7	16 x 2.76 = 44.16	15 x 2.76 = 41.40

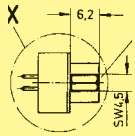
Board drillings



M3 or 4-40 UNC



fitted screw locks 4-40 UNC



Dimensions in mm

Mating conditions see page 02.02

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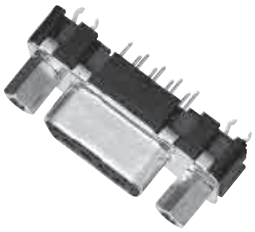
Number of contacts

9–37



Stamped solder pins, straight with/without grounding board locks

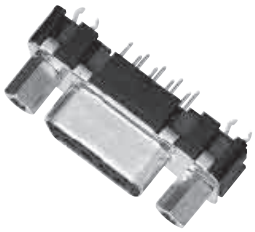
Identification	No. of contacts	Part No. Performance level 3	Part No. Performance level 2
Performance levels ▶ Explanations see page 02.02 Other performance levels on request			
Male connector metal shell with dimples			
Without grounding board locks	9	09 65 121 770 .	09 65 121 670 .
	15	09 65 221 770 .	09 65 221 670 .
	25	09 65 321 770 .	09 65 321 670 .
	37	09 65 421 770 .	09 65 421 670 .
With grounding board locks	9	09 65 161 771 .	09 65 161 671 .
	15	09 65 261 771 .	09 65 261 671 .
	25	09 65 361 771 .	09 65 361 671 .
	37	09 65 461 771 .	09 65 461 671 .
Female connector metal shell			
Without grounding board locks	9	09 66 111 750 .	09 66 111 650 .
	15	09 66 211 750 .	09 66 211 650 .
	25	09 66 311 750 .	09 66 311 650 .
	37	09 66 411 750 .	09 66 411 650 .
	50	09 66 511 750 .	09 66 511 650 .
With grounding board locks	9	09 66 151 751 .	09 66 151 651 .
	15	09 66 251 751 .	09 66 251 651 .
	25	09 66 351 751 .	09 66 351 651 .
	37	09 66 451 751 .	09 66 451 651 .
Please insert digit for flange thread or fitted female screw locks			
M3 ▶ 1			
4-40 UNC ▶ 2			
fitted screw locks 4-40 UNC ▶ 3[1)]			

[1)] Fitted screw locks 4-40 UNC not normally kept in stock for performance level 3
Connector dimensions see page 02.07. Mating conditions see page 02.02.

Downloaded from Arrow.com.

Number of contacts

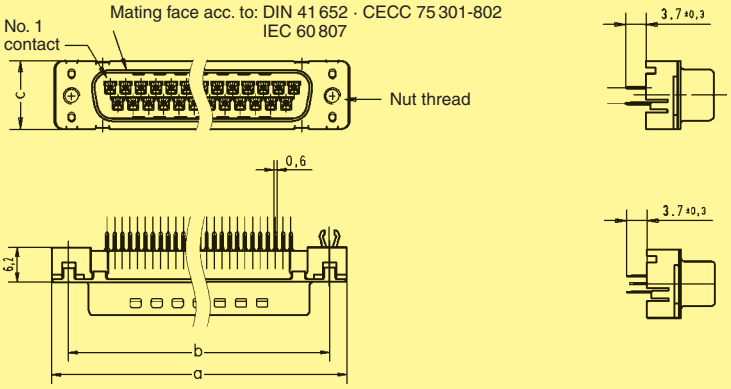
9–37



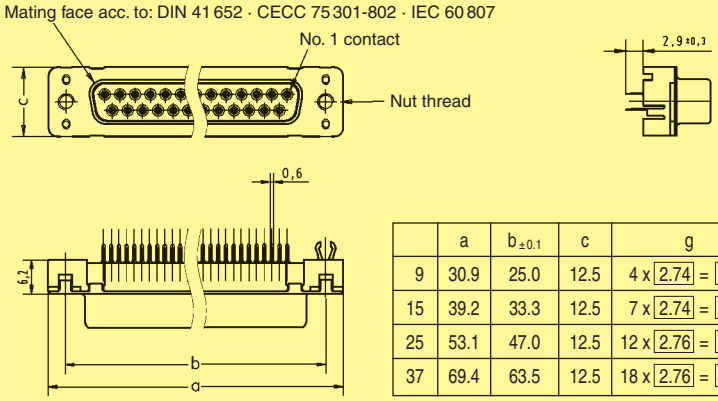
Stamped solder pins, straight with/without grounding board locks

Identification | Drawing | Dimensions in mm

Male connector
9 – 37 contacts

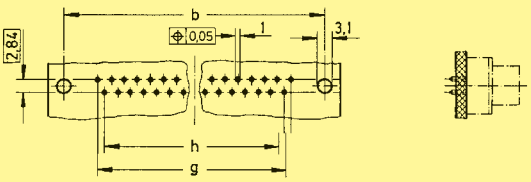


Female connector
9 – 37 contacts



	a	$b_{\pm 0.1}$	c	g	h
9	30.9	25.0	12.5	4 x 2.74 = 10.96	3 x 2.74 = 8.22
15	39.2	33.3	12.5	7 x 2.74 = 19.18	6 x 2.74 = 16.44
25	53.1	47.0	12.5	12 x 2.76 = 33.12	11 x 2.76 = 30.36
37	69.4	63.5	12.5	18 x 2.76 = 49.68	17 x 2.76 = 46.92

Board drillings
9 – 37 contacts



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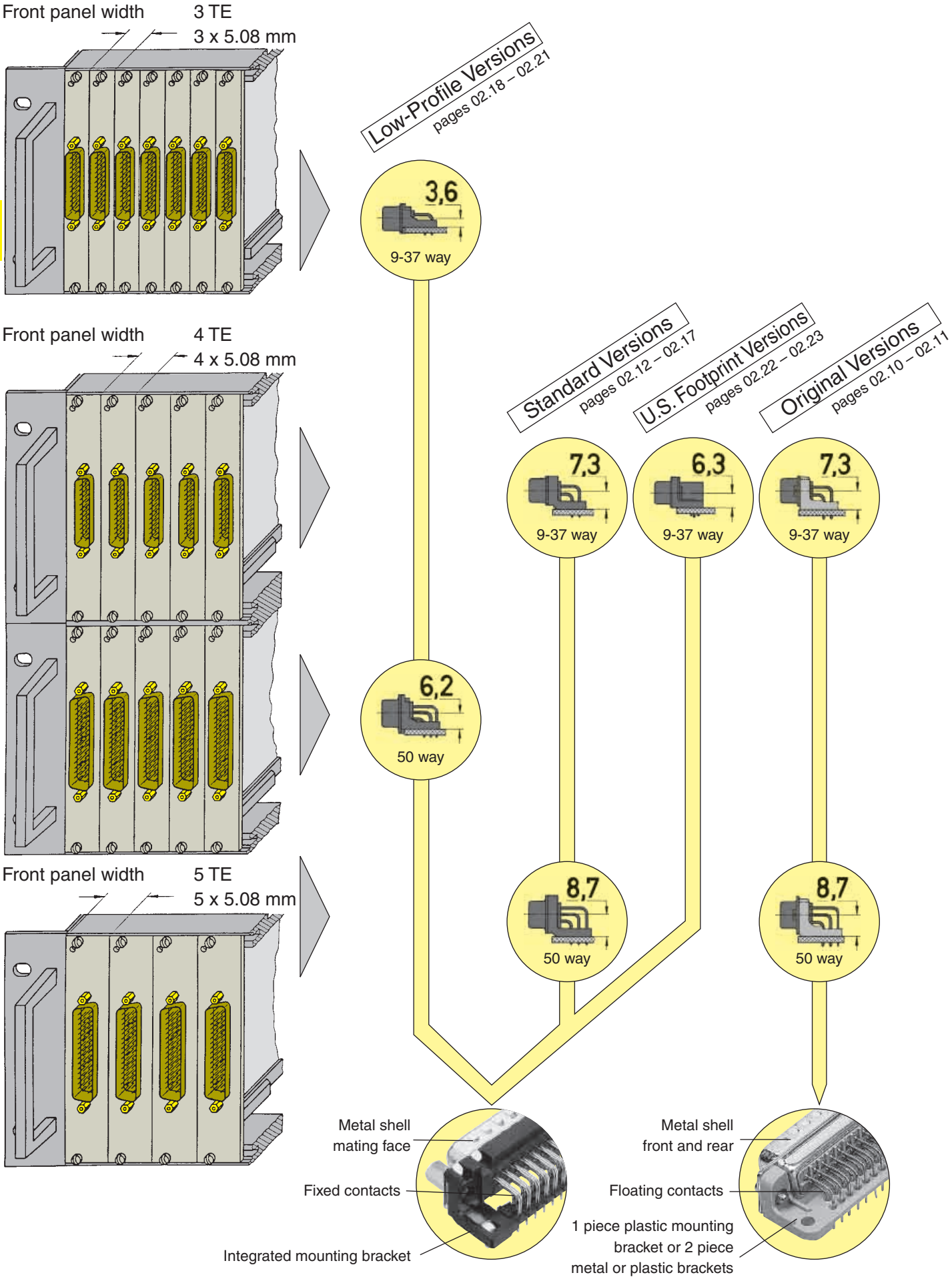

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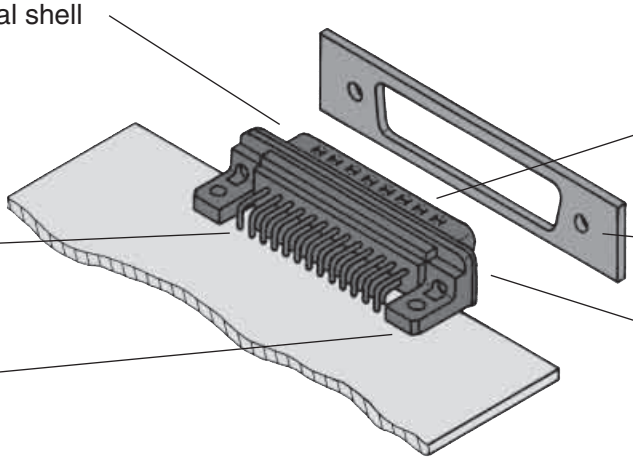
Advantages

All-round protective metal shell
- Polarisation
- Contact protection
- Plated shell
- Male connector with dimples

Plated terminations for increased solderability

Grounding contact riveted to metal shell

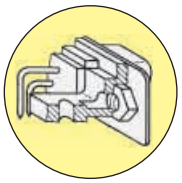
Integrated plastic mounting bracket



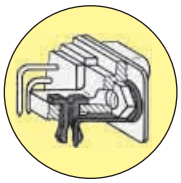
Contact surface finish to different performance levels

Panel

Different metal threads possible in flange area
- M3
- 4-40 UNC
- fitted female screw locks 4-40 UNC
- max. torque ≤ 0.8 Nm



Mounting bracket



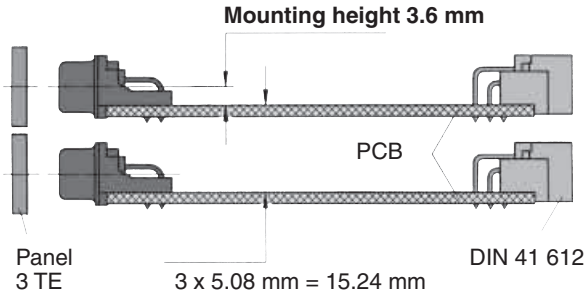
Mounting bracket
with snap-in-clips and grounding pin

Mounting height

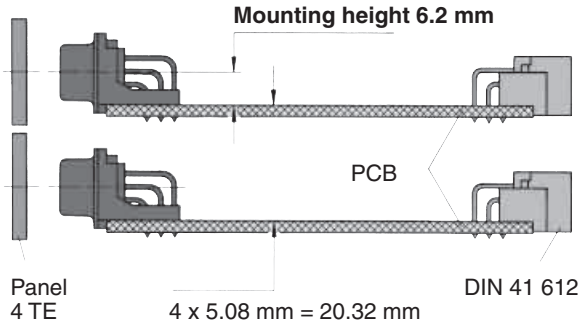
Low-Profile Versions

The reduced mounting height of these connectors allow them to be used on the same PCB as DIN 41 612 types with no loss of packaging density when card frames to DIN 41 494 are used.

9-37 way connectors with 3.6 mm mounting height can be fitted to front panels of 3 TE (15.24 mm) width.



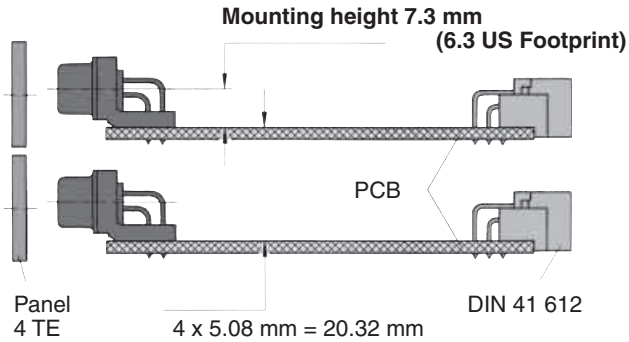
50 way connectors with 6.2 mm mounting height can be fitted to front panels of 4 TE (20.32 mm) width.



Standard Versions

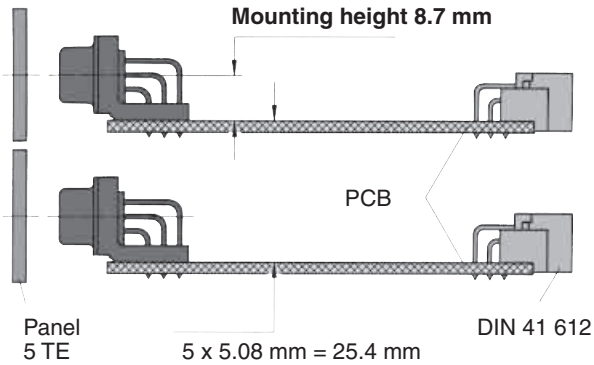
Original Versions

9-37 way connectors with 7.3 mm mounting height can be fitted to front panels of 4 TE (20.32 mm) width.



US Footprint

50 way connectors with 8.7 mm mounting height can be fitted to front panels of 5 TE (25.4 mm) width.



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Number of contacts

9–50

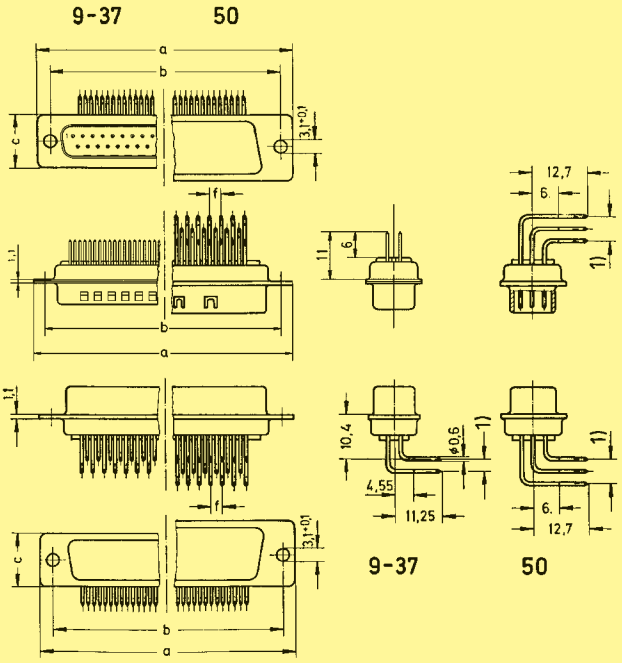
Original Versions

Turned solder pins, angled without fixing bracket

Identification	No. of contacts	Part No.	
Performance levels Explanations see page 02.02 Other performance levels on request		Performance level 3	Performance level 2
Male connector metal shell with dimples		2.84 mm pitch	2.84 mm pitch
	9	09 67 009 5663	09 67 009 5664
	15	09 67 015 5663	09 67 015 5664
	25	09 67 025 5663	09 67 025 5664
	37	09 67 037 5663	09 67 037 5664
	50	09 67 050 5663	09 67 050 5664[2]
		2.54 mm pitch	2.54 mm pitch
	9	09 67 009 5657[2]	09 67 009 5658[2]
	15	09 67 015 5657[2]	09 67 015 5658[2]
	25	09 67 025 5657[2]	09 67 025 5658[2]
	37	09 67 037 5657[2]	09 67 037 5658[2]
	50	09 67 050 5657[2]	09 67 050 5658[2]
Female connector metal shell		2.84 mm pitch	2.84 mm pitch
	9	09 67 009 4763	09 67 009 4764
	15	09 67 015 4763	09 67 015 4764
	25	09 67 025 4763	09 67 025 4764
	37	09 67 037 4763	09 67 037 4764
	50	09 67 050 4763	09 67 050 4764[2]
		2.54 mm pitch	2.54 mm pitch
	9	09 67 009 4757[2]	09 67 009 4758[2]
	15	09 67 015 4757[2]	09 67 015 4758[2]
	25	09 67 025 4757[2]	09 67 025 4758[2]
	37	09 67 037 4757[2]	09 67 037 4758[2]
	50	09 67 050 4757[2]	09 67 050 4758[2]

Male connector

Female connector



	a	b ±0.1	c	f
9	30.9	25.0	12.5	2.74
15	39.2	33.3	12.5	2.74
25	53.1	47.0	12.5	2.76
37	69.4	63.5	12.5	2.76
50	67.0	61.1	15.4	2.76

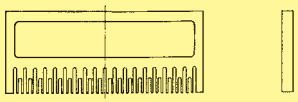
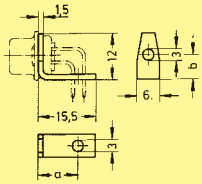
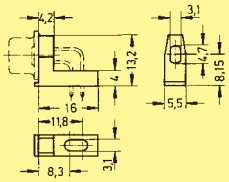
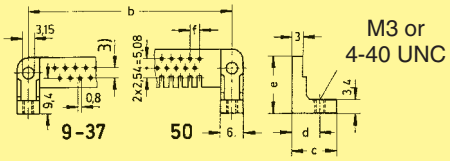
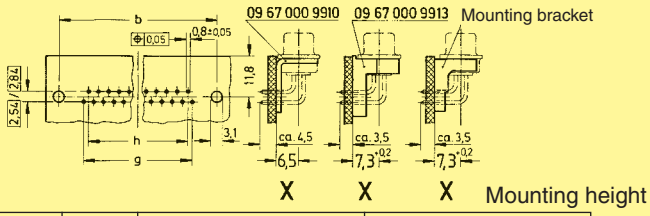
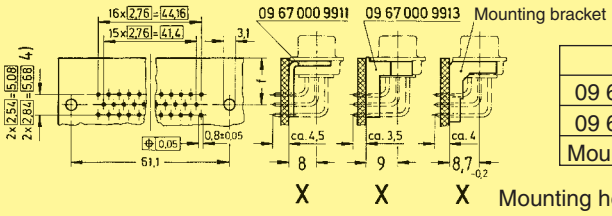
Dimensions in mm

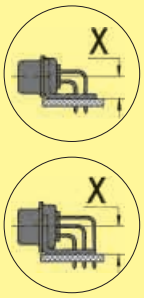
[1] for 2.54/2.84 mm row separation
[2] Not normally kept in stock

Mating conditions see page 02.02
Accessories see page 02.11
Board drillings see page 02.11

Downloaded from Arrow.com.

Accessories for turned solder pins, angled

Identification	No. of contacts	Part No.	Drawing	Dimensions in mm
Mounting comb for alignment of floating angled solder pins	9-50	09 99 000 0097		
Fixing bracket Metal bracket	9-37 50	09 67 000 9910[1)] 09 67 000 9911[1)]		
Plastic bracket	9-50	09 67 000 9913[1)]		
Mounting bracket for row separation 2.54/2.84 mm threaded flange M3	9 15 25 37 50	09 67 000 9935 09 67 000 9997 09 67 000 9998 09 67 000 9938 09 67 000 9939[2)]		
threaded flange 4-40 UNC	9 15 25 37 50	09 67 000 9987 09 67 000 9988 09 67 000 9989 09 67 000 9990 09 67 000 9991[2)]		
Board drillings angled solder pins Mounting height	9-37			
	50			



	a	b
9-37	10.8	6.5
50	12.2	8.0

	b	c	d	e	f
9	25.0	12.0	$7.3^{+0.2}$	14.7	2.74
15	33.3	12.0	$7.3^{+0.2}$	14.7	2.74
25	47.0	12.0	$7.3^{+0.2}$	14.7	2.76
37	63.5	12.0	$7.3^{+0.2}$	14.7	2.76
50	61.1	13.5	$8.7^{-0.2}$	17.0	2.76

M3 or 4-40 UNC

09 67 000 9910 09 67 000 9913 Mounting bracket

X X X Mounting height

	b	g	h
9	25.0	4 x 2.74 = 10.96	3 x 2.74 = 8.22
15	33.3	7 x 2.74 = 19.18	6 x 2.74 = 16.44
25	47.0	12 x 2.76 = 33.12	11 x 2.76 = 30.36
37	63.5	18 x 2.76 = 49.68	17 x 2.76 = 46.92

09 67 000 9911 09 67 000 9913 Mounting bracket

X X X Mounting height

f	
09 67 000 9911	13.20
09 67 000 9913	13.20
Mounting bracket	12.95

1) order 2 per connector
2) only row separation 2.54 mm
3) for 2.54/2.84 mm row separation
4) Not in conjunction with mounting bracket

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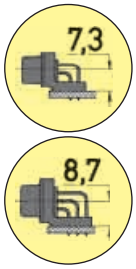
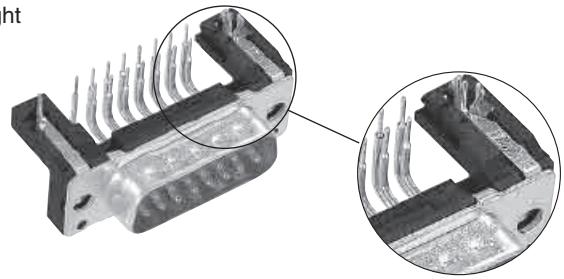
D-Sub DIN 41 652 · CECC 75 301-802 · IEC 60 807

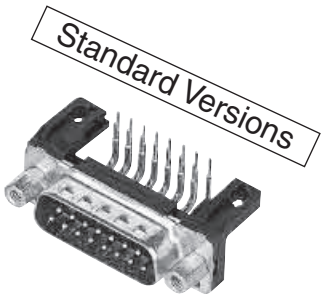
Number of contacts

9–37
50

Mounting height







Turned solder pins, angled with/without snap-in-clips and grounding board locks

Identification	No. of contacts	Part No.	
Performance levels Explanations see page 02.02 Other performance levels on request ▶		Performance level 3	Performance level 2
Male connector metal shell with dimples		2.84 mm pitch	2.84 mm pitch
With snap-in clips and grounding board locks	9	09 66 163 781 .	09 66 163 681 .
	15	09 66 263 781 .	09 66 263 681 .
	25	09 66 363 781 .	09 66 363 681 .
	37	09 66 463 781 .	09 66 463 681 .
	50	09 66 563 781 .	09 66 563 681 .
		2.54 mm pitch	2.54 mm pitch
available on request	9	09 66 162 781 .	09 66 162 681 .
	15	09 66 262 781 .	09 66 262 681 .
	25	09 66 362 781 .	09 66 362 681 .
	37	09 66 462 781 .	09 66 462 681 .
	50	09 66 562 781 .	09 66 562 681 .
		2.84 mm pitch	2.84 mm pitch
Without snap-in clips and grounding board locks	9	09 66 123 780 .	09 66 123 680 .
	15	09 66 223 780 .	09 66 223 680 .
	25	09 66 323 780 .	09 66 323 680 .
	37	09 66 423 780 .	09 66 423 680 .
	50	09 66 523 780 .	09 66 523 680 .
		2.54 mm pitch	2.54 mm pitch
available on request	9	09 66 122 780 .	09 66 122 680 .
	15	09 66 222 780 .	09 66 222 680 .
	25	09 66 322 780 .	09 66 322 680 .
	37	09 66 422 780 .	09 66 422 680 .
	50	09 66 522 780 .	09 66 522 680 .

Please insert digit for flange thread or fitted female screw locks

M3 ▶	1
4-40 UNC ▶	2
fitted screw locks 4-40 UNC ▶	3

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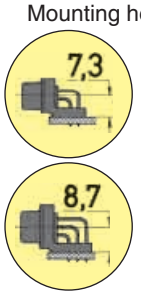
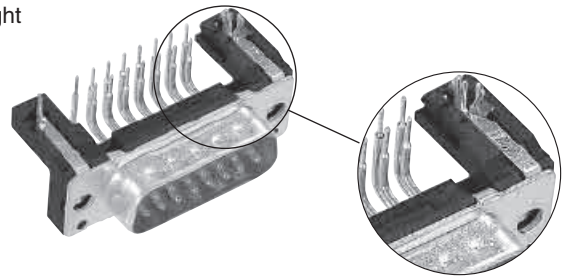
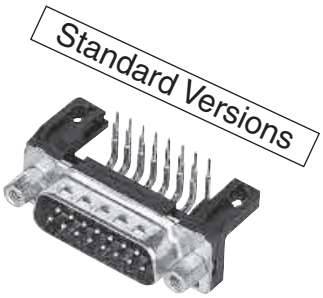
Number of contacts

9–37
50

Mounting height







Turned solder pins, angled with/without snap-in-clips and grounding board locks

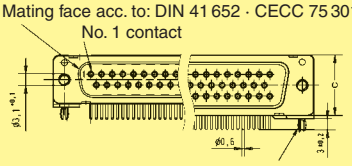
Identification	Drawing	Dimensions in mm

Male connector

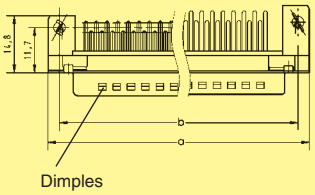
With snap-in clips
and grounding board locks

9-37 50

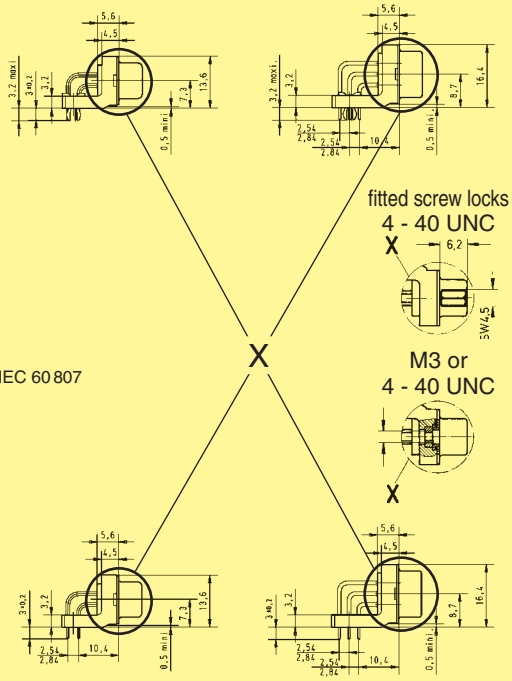
Mating face acc. to: DIN 41 652 · CECC 75 301-802 · IEC 60 807
No. 1 contact



Grounding pins 0.2 x 0.6



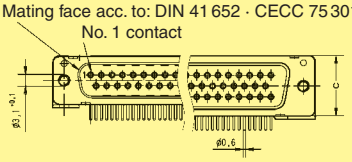
Dimples

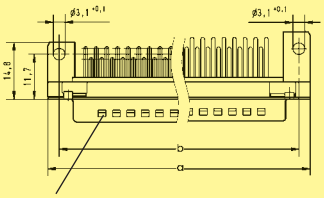


Without snap-in clips
and grounding board locks

9-37 50

Mating face acc. to: DIN 41 652 · CECC 75 301-802 · IEC 60 807
No. 1 contact

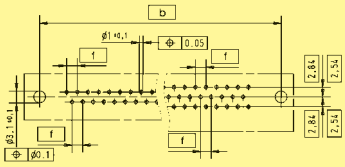




Dimples

Board drillings

9-37 50



	a	$b_{\pm 0.1}$	c	f
9	30.90	25.00	12.90	2.74
15	39.20	33.30	12.90	2.74
25	53.10	47.00	12.90	2.76
37	69.40	63.50	12.90	2.76
50	67.00	61.10	15.70	2.76

Mating conditions see page 02.02
Mounting details see page 02.24

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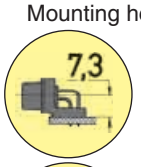
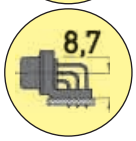
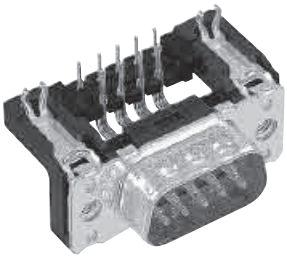
Number of contacts

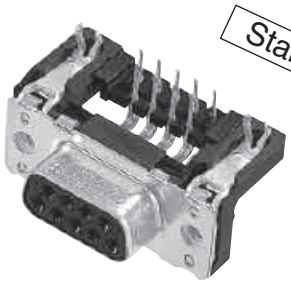
9–37
50

Mounting height









Standard Versions

Stamped solder pins, angled with grounding board locks

Identification	No. of contacts	Part No.		Part No.	
Performance levels Explanations see page 02.02 Other performance levels on request ▶		Performance level 3		Performance level 2	
Male connector metal shell with dimples					
		2.84 mm pitch		2.84 mm pitch	
	9	09 65 163 781 .	1)	09 65 163 681 .	1)
	15	09 65 263 781 .	1)	09 65 263 681 .	1)
	25	09 65 363 781 .	1)	09 65 363 681 .	1)
	37	09 65 463 781 .	1)	09 65 463 681 .	1)
		2.54 mm pitch		2.54 mm pitch	
	9	09 65 162 781 .		09 65 162 681 .	
	15	09 65 262 781 .		09 65 262 681 .	
	25	09 65 362 781 .		09 65 362 681 .	
	37	09 65 462 781 .		09 65 462 681 .	
Female connector metal shell					
		2.84 mm pitch		2.84 mm pitch	
	9	09 66 153 761 .	1)	09 66 153 661 .	1)
	15	09 66 253 761 .	1)	09 66 253 661 .	1)
	25	09 66 353 761 .	1)	09 66 353 661 .	1)
	37	09 66 453 761 .	1)	09 66 453 661 .	1)
	50	09 66 553 761 .	1)	09 66 553 661 .	1)
		2.54 mm pitch		2.54 mm pitch	
	9	09 66 152 761 .		09 66 152 661 .	
	15	09 66 252 761 .		09 66 252 661 .	
	25	09 66 352 761 .		09 66 352 661 .	
	37	09 66 452 761 .		09 66 452 661 .	
	50	09 66 552 761 .	1)	09 66 552 661 .	1)

Please insert digit for flange thread or fitted female screw locks

Ø 3.1 mm hole ▶	0[1)]
M3 ▶	1
4-40 UNC ▶	2
fitted screw locks 4-40 UNC ▶	3

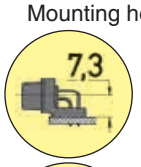
[1)] Not normally kept in stock

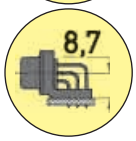
Downloaded from Arrow.com.

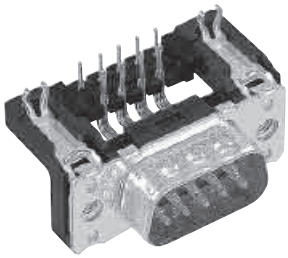
Number of contacts

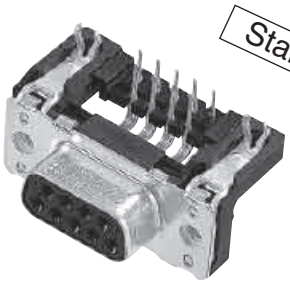
9–37
50

Mounting height







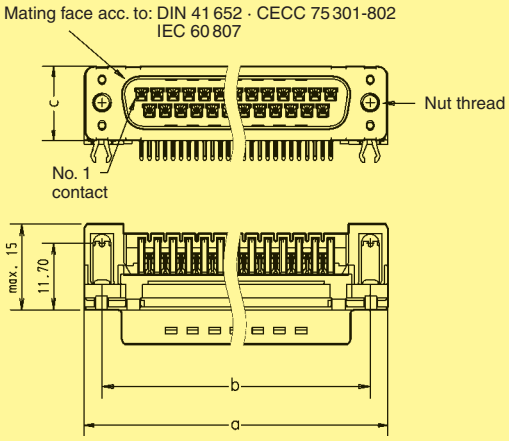


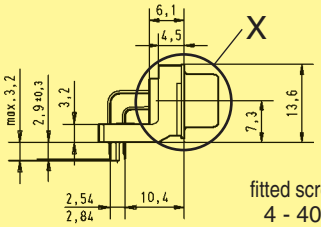
Standard Versions

Stamped solder pins, angled with grounding board locks

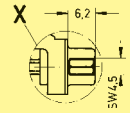
Identification | Drawing | Dimensions in mm

Male connector

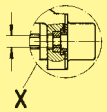




fitted screw locks
4 - 40 UNC

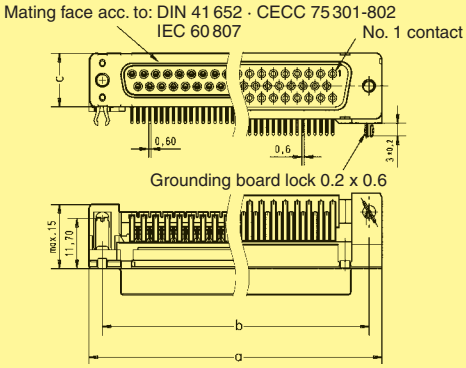


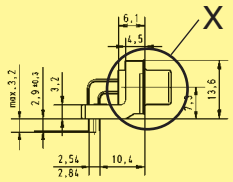
M3 or
4 - 40 UNC



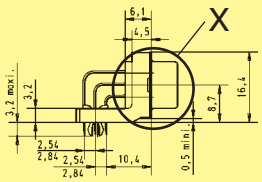
Female connector

9-37 50





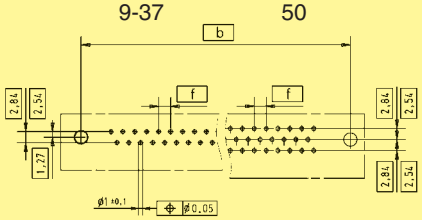
9-37



50

Board drillings

9-37 50



	a	$b_{\pm 0.1}$	c	f
9	30.90	25.00	12.50	2.74
15	39.20	33.30	12.50	2.74
25	53.10	47.00	12.50	2.76
37	69.40	63.50	12.50	2.76
50	67.00	61.10	15.40	2.76

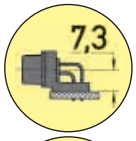
Mating conditions see page 02.02
Mounting details see page 02.24

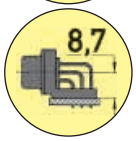
Downloaded from Arrow.com.

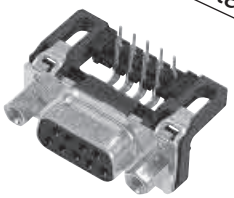
Number of contacts

9–37
50

Mounting height







Standard Versions

Stamped solder pins, angled without grounding board locks

Identification	No. of contacts	Part No.		Part No.	
Performance levels Explanations see page 02.02 Other performance levels on request ▶		Performance level 3		Performance level 2	
Male connector metal shell with dimples					
		2.84 mm pitch		2.84 mm pitch	
	9	09 65 123 780 .		09 65 123 680 .	
	15	09 65 223 780 .		09 65 223 680 .	
	25	09 65 323 780 .		09 65 323 680 .	
	37	09 65 423 780 .		09 65 423 680 .	
		2.54 mm pitch		2.54 mm pitch	
	9	09 65 122 780 .		09 65 122 680 .	
	15	09 65 222 780 .		09 65 222 680 .	
	25	09 65 322 780 .		09 65 322 680 .	
	37	09 65 422 780 .		09 65 422 680 .	
Female connector metal shell					
		2.84 mm pitch		2.84 mm pitch	
	9	09 66 113 760 .	1)	09 66 113 660 .	1)
	15	09 66 213 760 .	1)	09 66 213 660 .	1)
	25	09 66 313 760 .	1)	09 66 313 660 .	1)
	37	09 66 413 760 .	1)	09 66 413 660 .	1)
	50	09 66 513 760 .	1)	09 66 513 660 .	1)
		2.54 mm pitch		2.54 mm pitch	
	9	09 66 112 760 .		09 66 112 660 .	
	15	09 66 212 760 .		09 66 212 660 .	
	25	09 66 312 760 .		09 66 312 660 .	
	37	09 66 412 760 .		09 66 412 660 .	
	50	09 66 512 760 .	1)	09 66 512 660 .	1)

Please insert digit for flange thread or fitted female screw locks

Ø 3.1 mm hole ▶	0[1)]
M3 ▶	1
4-40 UNC ▶	2
fitted screw locks 4-40 UNC ▶	3

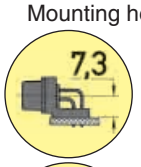
[1)] Not normally kept in stock

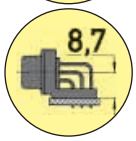
Downloaded from Arrow.com.

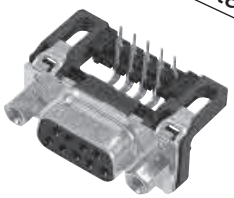
Number of contacts

9–37
50

Mounting height





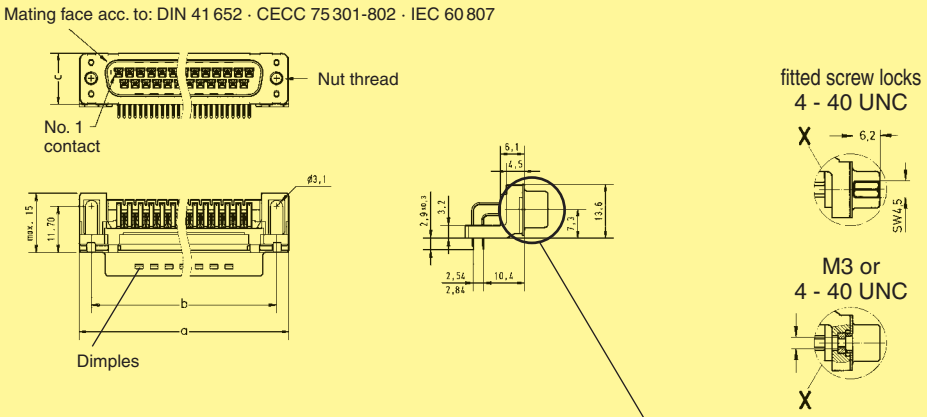


Standard Versions

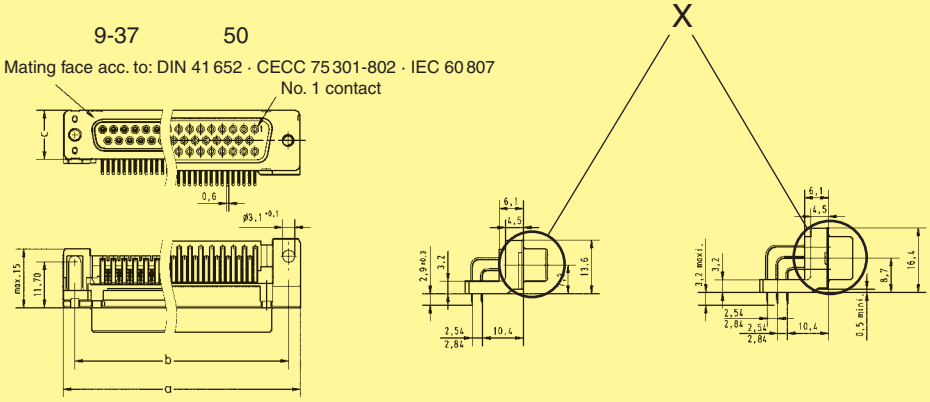
Stamped solder pins, angled without grounding board locks

Identification	Drawing	Dimensions in mm

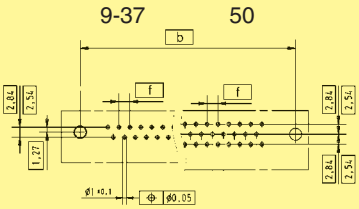
Male connector



Female connector



Board drillings



	a	$b_{\pm 0.1}$	c	f
9	30.90	25.00	12.50	2.74
15	39.20	33.30	12.50	2.74
25	53.10	47.00	12.50	2.76
37	69.40	63.50	12.50	2.76
50	67.00	61.10	15.40	2.76

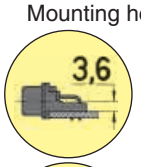
Mating conditions see page 02.02
Mounting details see page 02.24

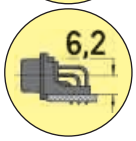
Downloaded from Arrow.com.

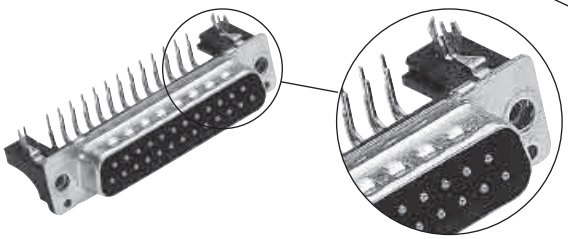
Number of contacts

9–37
50

Mounting height

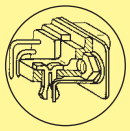






Low-Profile Versions

Turned solder pins, angled with snap-in-clips and grounding board locks

Identification	No. of contacts	Part No.	
Performance levels ▶ Explanations see page 02.02 Other performance levels on request		Performance level 3	Performance level 2
Male connector metal shell with dimples		2.54 mm pitch	2.54 mm pitch
	9	09 66 162 781 .	09 66 162 681 .
	15	09 66 262 781 .	09 66 262 681 .
	25	09 66 362 781 .	09 66 362 681 .
	37	09 66 462 781 .	09 66 462 681 .
available on request	50	09 66 562 781 .	09 66 562 681 .

Please insert digit for flange thread or fitted female screw locks

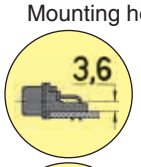
M3 ▶	5
4-40 UNC ▶	6
fitted screw locks 4-40 UNC ▶	7

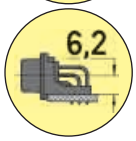
Downloaded from Arrow.com.

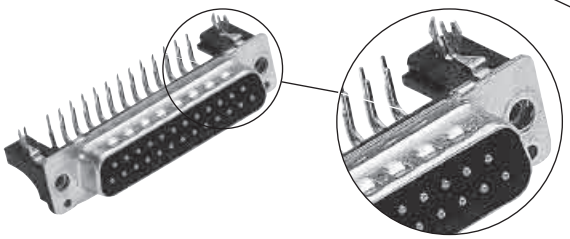
Number of contacts

9–37
50

Mounting height







Low-Profile Versions

Turned solder pins, angled with snap-in-clips and grounding board locks

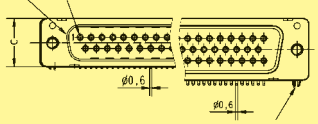
Identification	Drawing	Dimensions in mm

Male connector

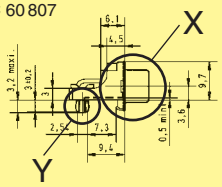
9-37 50

Mating face acc. to: DIN 41 652 · CECC 75 301-802 · IEC 60 807

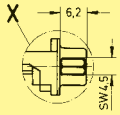
No. 1 contact

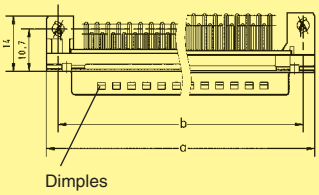


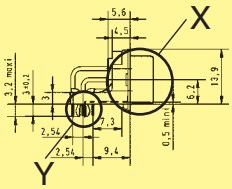
Grounding board lock 0.2 x 0.6



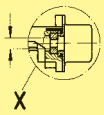
fitted screw locks
4 - 40 UNC





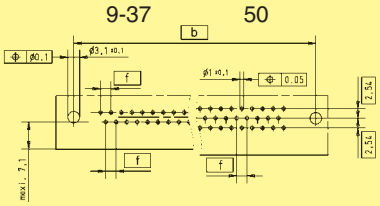


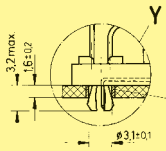
M3 or
4 - 40 UNC



Board drillings

9-37 50





plated through holes

	a	$b_{\pm 0.1}$	c	f
9	30.90	25.00	12.50	2.74
15	39.20	33.30	12.50	2.74
25	53.10	47.00	12.50	2.76
37	69.40	63.50	12.50	2.76
50	67.00	61.10	15.70	2.76

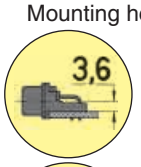
Mating conditions see page 02.02
Mounting details see page 02.24

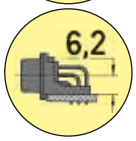
Downloaded from Arrow.com.

Number of contacts

9–37
50

Mounting height





Low-Profile Versions

Stamped solder pins, angled with grounding board locks

Identification	No. of contacts	Part No.		Part No.	
Performance levels Explanations see page 02.02 Other contact surfaces on request ▶		Performance level 3		Performance level 2	
Male connector metal shell with dimples					
	9	09 65 162 781 .		09 65 162 681 .	
	15	09 65 262 781 .		09 65 262 681 .	
	25	09 65 362 781 .		09 65 362 681 .	
	37	09 65 462 781 .		09 65 462 681 .	
Female connector metal shell					
	9	09 66 152 761 .		09 66 152 661 .	
	15	09 66 252 761 .		09 66 252 661 .	
	25	09 66 352 761 .		09 66 352 661 .	
	37	09 66 452 761 .		09 66 452 661 .	
	50	09 66 552 761 .	[1]	09 66 552 661 .	[1]

Please insert digit for flange thread or fitted female screw locks

M3 ▶	5
4-40 UNC ▶	6
fitted screw locks 4-40 UNC ▶	7

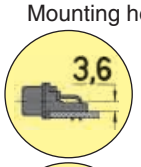
[1] Not normally kept in stock

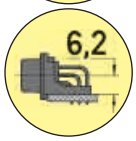
Downloaded from Arrow.com.

Number of contacts

9–37
50

Mounting height



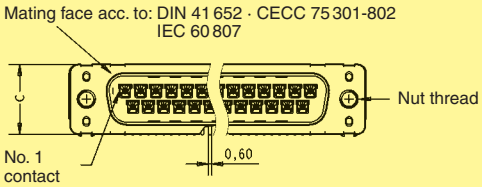


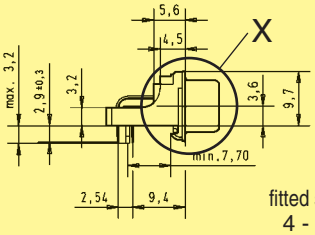
Low-Profile Versions

Stamped solder pins, angled with grounding board locks

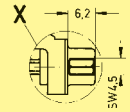
Identification	Drawing	Dimensions in mm

Male connector

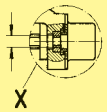


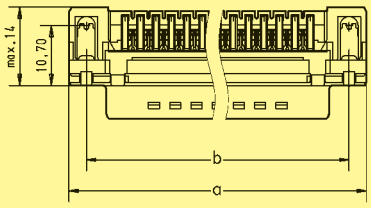


fitted screw locks
4 - 40 UNC



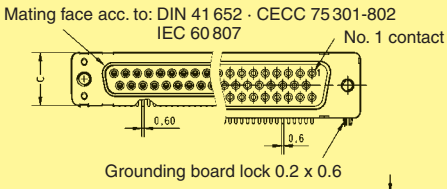
M3 or
4 - 40 UNC



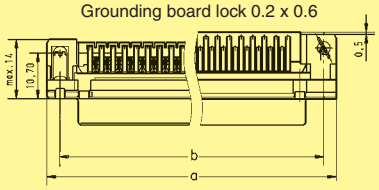


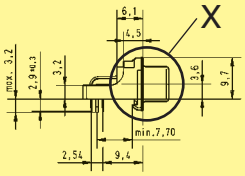
9-37 50

Female connector

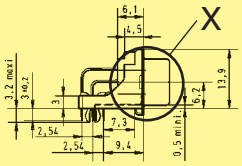


Grounding board lock 0.2 x 0.6





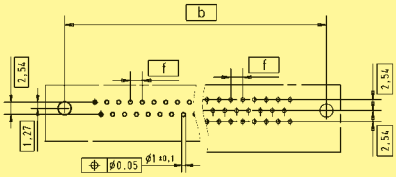
9-37



50

Board drillings

9-37 50



	a	$b_{\pm 0.1}$	c	f
9	30.90	25.00	12.50	2.74
15	39.20	33.30	12.50	2.74
25	53.10	47.00	12.50	2.76
37	69.40	63.50	12.50	2.76
50	67.00	61.10	15.40	2.76

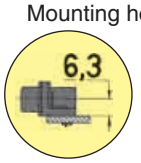
Mating conditions see page 02.02
Mounting details see page 02.24

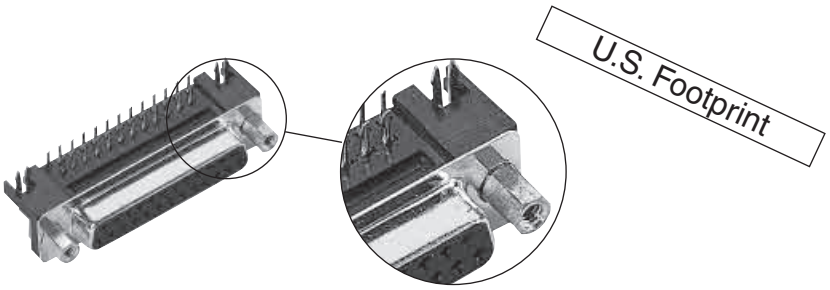
Downloaded from Arrow.com.

Number of contacts

9–37

Mounting height





Stamped solder pins, angled with snap-in-clips and grounding board locks

Identification	No. of contacts	Part No.			
Performance levels Explanations see page 02.02 Other performance levels on request ▶		Performance level 3		S4[1]	
Male connector metal shell with dimples		2.84 mm pitch		2.84 mm pitch	
	9	09 68 163 781	.	09 68 163 581	.
	15	09 68 263 781	.	09 68 263 581	.
	25	09 68 363 781	.	09 68 363 581	.
	37	09 68 463 781	.	09 68 463 581	.
Female connector metal shell		2.84 mm pitch		2.84 mm pitch	
	9	09 68 153 761	.	09 68 153 561	.
	15	09 68 253 761	.	09 68 253 561	.
	25	09 68 353 761	.	09 68 353 561	.
	37	09 68 453 761	.	09 68 453 561	.
Please insert digit for flange thread or fitted female screw locks					
M3 ▶ 1[2]					
4-40 UNC ▶ 2					
fitted screw locks 4-40 UNC ▶ 3					

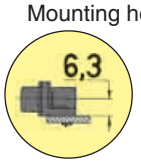
[1] S4: ≥ 0.76 µm Au (30 µinch)
[2] Not normally kept in stock

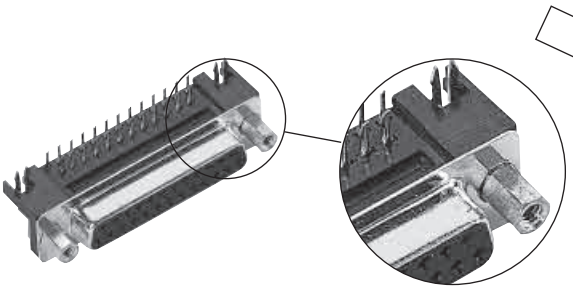
Downloaded from Arrow.com.

Number of contacts

9–37

Mounting height



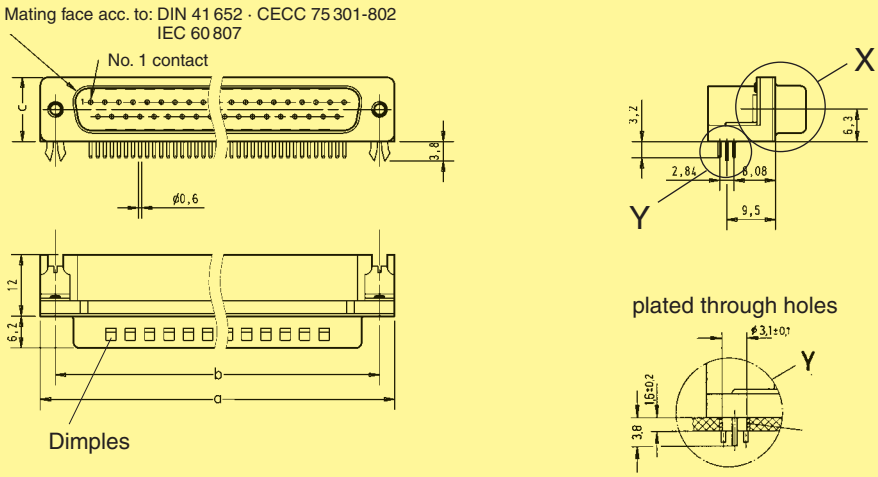


U.S. Footprint

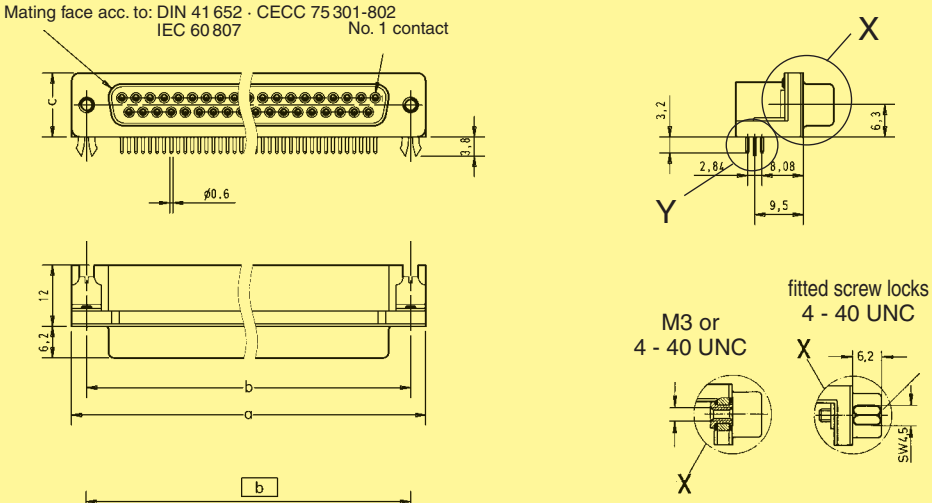
Stamped solder pins, angled with snap-in-clips and grounding board locks

Identification | Drawing | Dimensions in mm

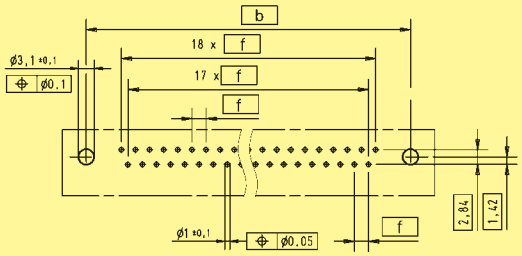
Male connector



Female connector



Board drillings



	a	$b_{\pm 0.1}$	c	f
9	30.90	25.00	12.55	2.77
15	39.20	33.30	12.55	2.77
25	53.10	47.00	12.55	2.77
37	69.40	63.50	12.55	2.77

Mating conditions see page 02.02
Mounting details see page 02.24

Downloaded from Arrow.com.

Identification	Drawing	Dimensions in mm

Standard Versions

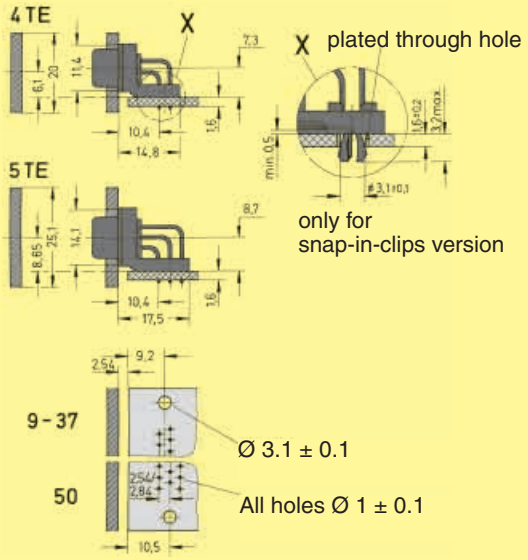
Mounting height 7.3 mm

9-37 way
for front panel
4 units of width (TE)

Mounting height 8.7 mm

50 way
for front panel
5 units of width (TE)

for connectors see pages 02.12 – 02.17



Low-Profile Versions

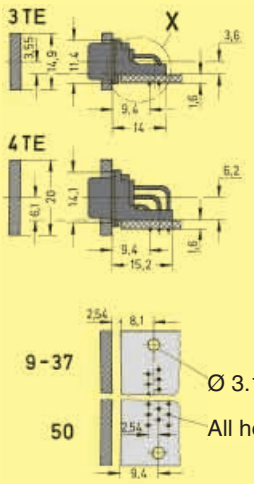
Mounting height 3.6 mm

9-37 way
for front panel
3 units of width (TE)

Mounting height 6.2 mm

50 way
for front panel
4 units of width (TE)

for connectors see pages 02.18 – 02.21



When used in a wave soldering process the mating face of the connector must be protected with adhesive tape.

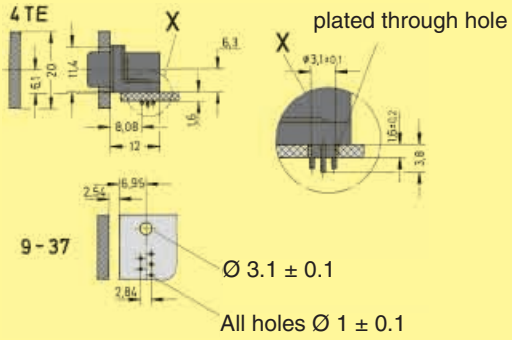
Adhesive tape

U.S. Footprint Versions

Mounting height 6.3 mm

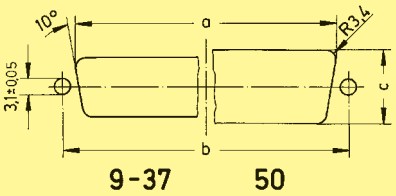
9-37 way
for front panel
4 units of width (TE)

for connectors see pages 02.22 – 02.23



Panel cut out for front/rear mount

Values are taken from the CECC 75 301-802



Front mount

	$a_{\pm 0.2}$	$b_{\pm 0.13}$	$c_{\pm 0.2}$
9	22.2	25.0	12.3
15	30.5	33.3	12.3
25	44.3	47.0	12.3
37	60.7	63.5	12.3
50	58.3	61.1	15.1

Rear mount

	$a_{\pm 0.2}$	$b_{\pm 0.13}$	$c_{\pm 0.2}$
9	20.5	25.0	11.4
15	28.8	33.3	11.4
25	42.5	47.0	11.4
37	59.1	63.5	11.4
50	56.3	61.1	14.1

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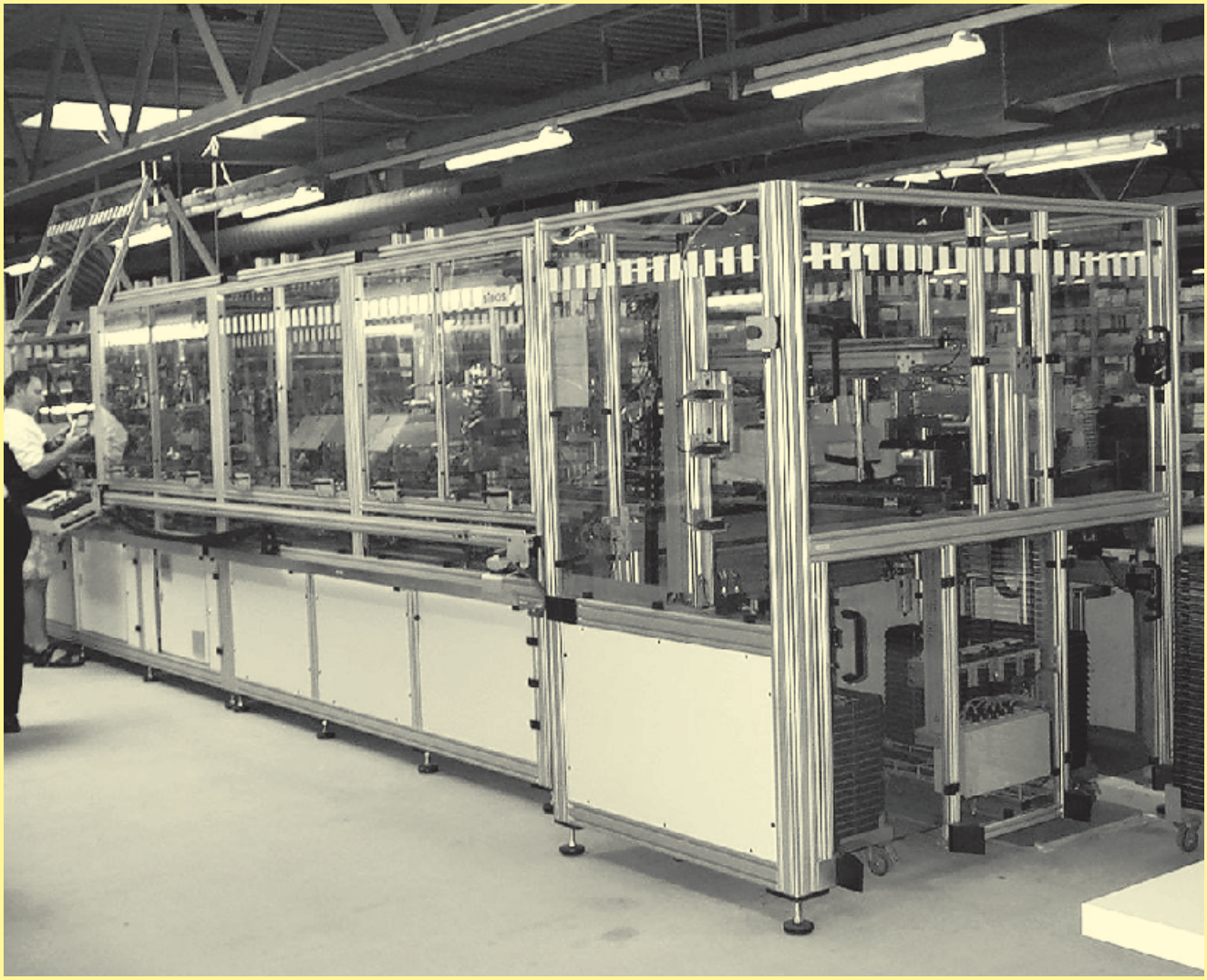


Fully automated assembly line, split into two sublines for a high production flexibility.

SEK connector mounted in a tape ready for placement using an odd form assembly station.

Subline one for pre-assembly and subline two for customizing.

The assembly line features an integrated online camera inspection system and laser printing.

Our claim is quality.

Our challenge is to improve quality from day to day.

Downloaded from Arrow.com.

Number of contacts

9, 15, 25, 37, 50
UL recognized

Working current

see current carrying capacity chart

Turned contacts	7.5 A max.
Stamped contacts	6.5 A max.
Insulation displacement	2 A max.

Test voltage $U_{r.m.s.}$

1 kV

Clearance and creepage

≥ 1.0 mm
≥ 0.7 mm (insulation displacement)

Contact resistance

≤ 10 mΩ

Insulation resistance

≥ 10^{10} Ω

Temperature range

turned version	-55 °C … + 125 °C
stamped solder bucket version	-25 °C … + 85 °C

Terminations

a) Solder buckets
AWG 20
b) Crimp contacts
0.09-0.25 mm²
AWG 28-24
max. insulation Ø 1.02 mm
0.25-0.56 mm²
AWG 24-20
max. insulation Ø 1.52 mm
c) Insulation displacement
AWG 28/7 and AWG 26/7
AWG 28/1 and AWG 30/1
d) Wrap posts 0.6 x 0.6 mm
diagonal 0.8-0.86 mm
length 13 mm

Materials

Mouldings and hoods	Thermoplastic resin, glass-fibre filled (PBTP), UL 94-V0
Contacts	Copper alloy

Contact surface

Contact zone	selectively gold-plated according to performance level[1)]
Metal shell	Plated steel

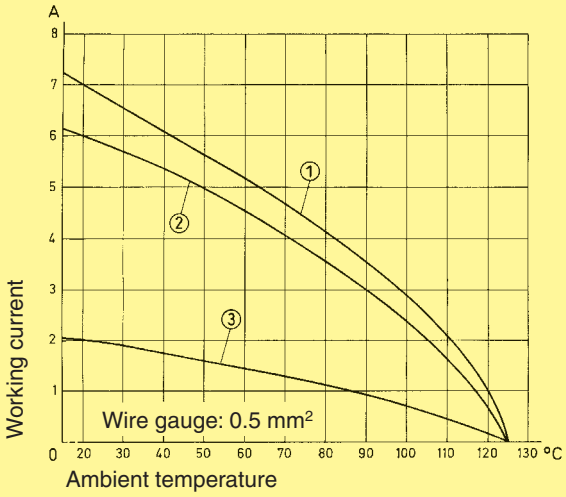
Mating force

9 way	≤ 30 N
15 way	≤ 50 N
25 way	≤ 83 N
37 way	≤ 123 N
50 way	≤ 167 N

Current carrying capacity

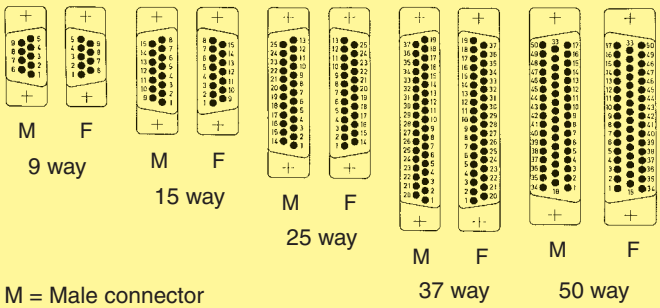
The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN IEC 60 512.



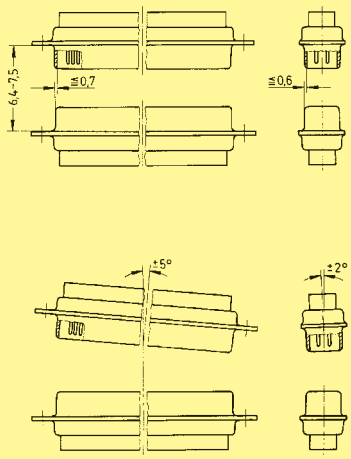
Example: 25 way connector
① Turned contacts
② Stamped contacts
③ Insulation displacement contacts

Contact arrangement View from termination side



M = Male connector
F = Female connector

Mating conditions as per DIN 41 652

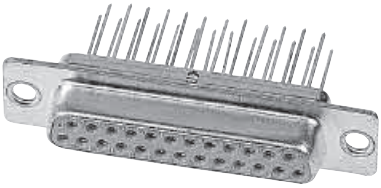


[1)] Performance level 3, 50 mating cycles, no gas test
Performance level 2 as per CECC 75 301-802, 250 mating cycles, 4 days 4 mixed gas test – IEC 60 512
Performance level 1 as per CECC 75 301-802, 500 mating cycles, 10 days 4 mixed gas test – IEC 60 512

Downloaded from Arrow.com.

Number of contacts

9–50

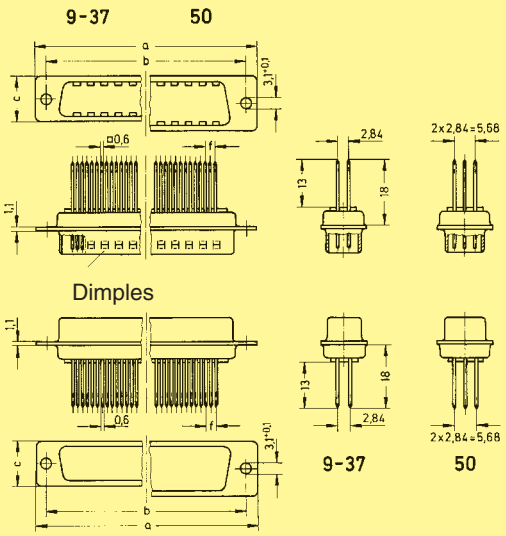


Turned wrap posts 0.6 x 0.6 mm

Identification	No. of contacts	Part No.	
Performance levels Explanations see page 02.26 Other performance levels on request		Performance level 3	Performance level 2
Male connector metal shell with dimples	9	09 67 009 5607	09 67 009 5616[1)]
	15	09 67 015 5607	09 67 015 5616[1)]
	25	09 67 025 5607	09 67 025 5616[1)]
	37	09 67 037 5607	09 67 037 5616[1)]
	50	09 67 050 5607	09 67 050 5616[1)]
Female connector metal shell	9	09 67 009 4707	09 67 009 4716[1)]
	15	09 67 015 4707	09 67 015 4716[1)]
	25	09 67 025 4707	09 67 025 4716[1)]
	37	09 67 037 4707	09 67 037 4716[1)]
	50	09 67 050 4707	09 67 050 4716[1)]

Male connector

Female connector



	a	b ±0.1	c	f
9	30.9	25.0	12.5	2.74
15	39.2	33.3	12.5	2.74
25	53.1	47.0	12.5	2.76
37	69.4	63.5	12.5	2.76
50	67.0	61.1	15.4	2.76

Panel cut out for front/rear mount

Values are taken from the CECC 75 301-802

see page 02.24

Dimensions in mm

[1)] Not normally kept in stock

Mating conditions see page 02.26

Downloaded from Arrow.com.

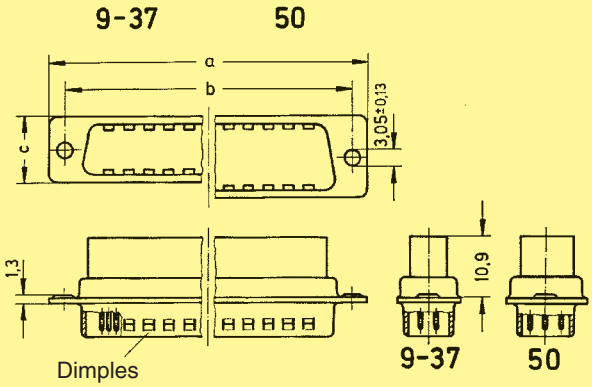
Number of contacts

9–50

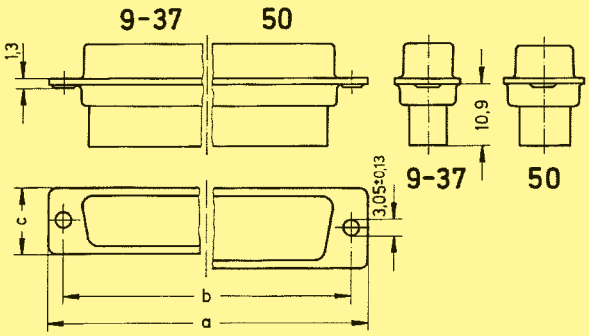
Crimp terminal

Identification	No. of contacts	Part No.
Male connector Order contacts separately metal shell with dimples	9	09 67 009 5601
	15	09 67 015 5601
	25	09 67 025 5601
	37	09 67 037 5601
	50	09 67 050 5601
Female connector Order contacts separately metal shell	9	09 67 009 4701
	15	09 67 015 4701
	25	09 67 025 4701
	37	09 67 037 4701
	50	09 67 050 4701

Male connector



Female connector



	a	$b_{\pm 0.1}$	c
9	30.9	25.0	12.5
15	39.2	33.3	12.5
25	53.1	47.0	12.5
37	69.4	63.5	12.5
50	67.0	61.1	15.4

Panel cut out
for front/rear mount
Values are taken from the CECC 75 301-802

see page 02.24

Dimensions in mm

Tooling see chapter 31

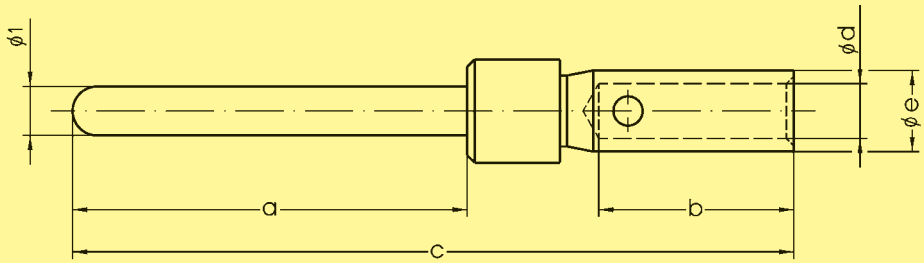
Crimp contacts see pages 02.29 ff
Mating conditions see page 02.26

Downloaded from Arrow.com.

Crimp contacts

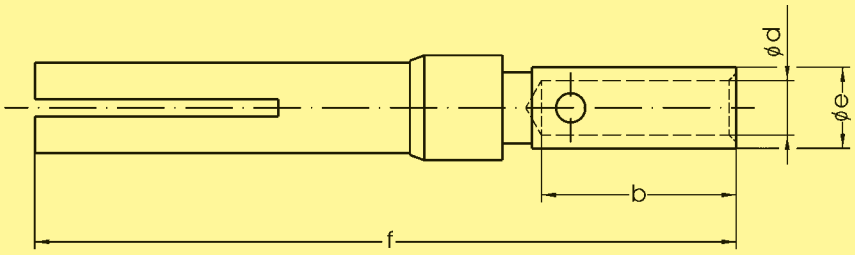
Identification	Wire gauge (mm^2)	Part No.	
		turned male contacts	turned female contacts
		Performance level 1*	Performance level 1*
Individual contacts	AWG 22-18 0.33-0.82	61 03 000 0112	61 03 000 0113
	AWG 22-20 0.33-0.52	61 03 000 0073	61 03 000 0074
	AWG 26-22 0.13-0.33	61 03 000 0094	61 03 000 0096
	AWG 28-24 0.09-0.25	61 03 000 0078	61 03 000 0080

Male contacts



	a	b	c	d	e	f
AWG 22-18	8.23	4.2	14.0	1.35	1.75	13.6
AWG 22-20	8.10	4.0	14.8	1.12	1.66	14.4
AWG 26-22	8.10	4.0	14.8	0.90	1.66	14.4
AWG 28-24	8.10	4.0	14.8	0.64	1.66	14.4

Female contacts



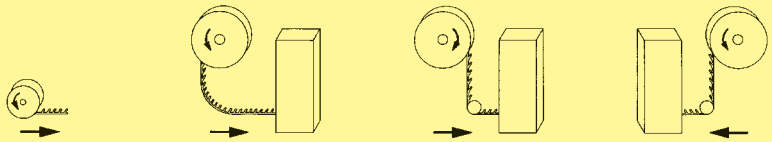
* Performance level 1 as per CECC 75 301-802, 500 mating cycles, 10 days 4 mixed gas test – IEC 60 512

Downloaded from Arrow.com.

Crimp contacts

Identification	Wire gauge (mm²)	Part No.		
Performance levels Explanations see page 02.26 Other performance levels on request		stamped male contacts		
		Performance level 3	Performance level 2	Performance level 1
Individual contacts	0.09-0.25 AWG 28-24 stranded	09 67 000 7177[1)]	09 67 000 7178[1)]	09 67 000 7176[1)]
500 pieces/reel Unrolling left		09 67 000 7167	09 67 000 7168	09 67 000 7166
10 000 pieces/reel Unrolling left		09 67 000 7157	09 67 000 7158	09 67 000 7156
Unrolling left reversed		09 67 000 7147	09 67 000 7148	09 67 000 7146
Unrolling right reversed		09 67 000 7137	09 67 000 7138	09 67 000 7136
Individual contacts	0.25-0.56 AWG 24-20 stranded	09 67 000 8177[1)]	09 67 000 8178[1)]	09 67 000 8176[1)]
500 pieces/reel Unrolling left		09 67 000 8167	09 67 000 8168	09 67 000 8166
10 000 pieces/reel Unrolling left		09 67 000 8157	09 67 000 8158	09 67 000 8156
Unrolling left reversed		09 67 000 8147	09 67 000 8148	09 67 000 8146
Unrolling right reversed		09 67 000 8137	09 67 000 8138	09 67 000 8136

Unrolling direction



500 pieces/reel Unrolling left	10 000 pieces/reel Unrolling left	10 000 pieces/reel Unrolling left reversed	10 000 pieces/reel Unrolling right reversed

for HARTING tools

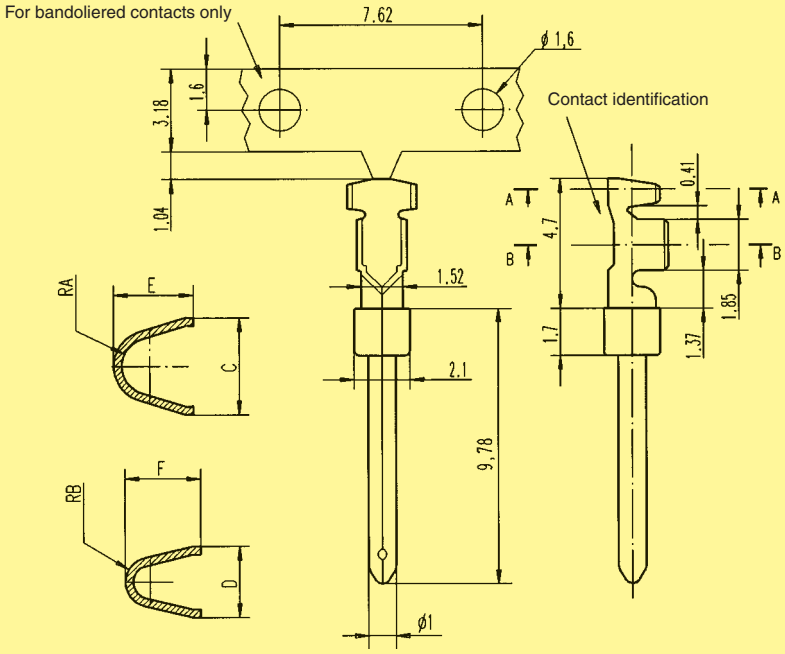
[1)] Minimum order 500 pieces or multiples of 500
Insertion and removal tool see chapter 31
Contact dimensions see page 02.31

Downloaded from Arrow.com.

Crimp contacts

Identification | Drawing | Dimensions in mm

Male contacts



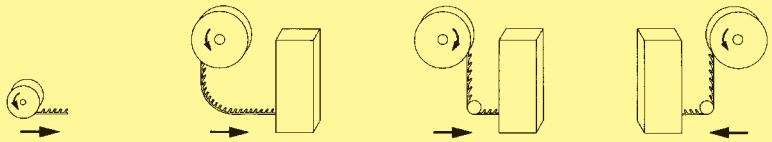
AWG	C	D	E	F	RA	RB	Contact identification
20-24	2.46	1.78	1.98	1.90	0.71	0.43	——
24-28	1.65	1.47	1.52	1.52	0.50	0.33	====

Downloaded from Arrow.com.

Crimp contacts

Identification	Wire gauge (mm²)	Part No.		
Performance levels Explanations see page 02.26 Other performance levels on request		stamped female contacts		
		Performance level 3	Performance level 2	Performance level 1
Individual contacts	0.09-0.25 AWG 28-24 stranded	09 67 000 7277[1)]	09 67 000 7278[1)]	09 67 000 7276[1)]
500 pieces/reel Unrolling left		09 67 000 7267	09 67 000 7268	09 67 000 7266
10 000 pieces/reel Unrolling left		09 67 000 7257	09 67 000 7258	09 67 000 7256
Unrolling left reversed		09 67 000 7247	09 67 000 7248	09 67 000 7246
Unrolling right reversed		09 67 000 7237	09 67 000 7238	09 67 000 7236
Individual contacts	0.25-0.56 AWG 24-20 stranded	09 67 000 8277[1)]	09 67 000 8278[1)]	09 67 000 8276[1)]
500 pieces/reel Unrolling left		09 67 000 8267	09 67 000 8268	09 67 000 8266
10 000 pieces/reel Unrolling left		09 67 000 8257	09 67 000 8258	09 67 000 8256
Unrolling left reversed		09 67 000 8247	09 67 000 8248	09 67 000 8246
Unrolling right reversed		09 67 000 8237	09 67 000 8238	09 67 000 8236

Unrolling direction



500 pieces/reel Unrolling left	10 000 pieces/reel Unrolling left	10 000 pieces/reel Unrolling left reversed	10 000 pieces/reel Unrolling right reversed

for HARTING tools

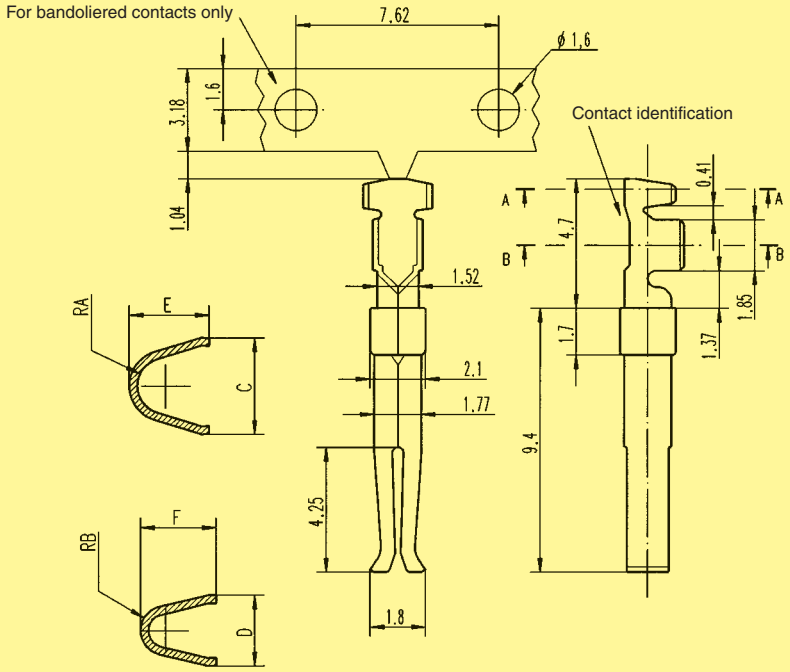
[1)] Minimum order 500 pieces or multiples of 500
Insertion and removal tool see chapter 31
Contact dimensions see page 02.33

Downloaded from Arrow.com.

Crimp contacts

Identification | Drawing | Dimensions in mm

Female contacts

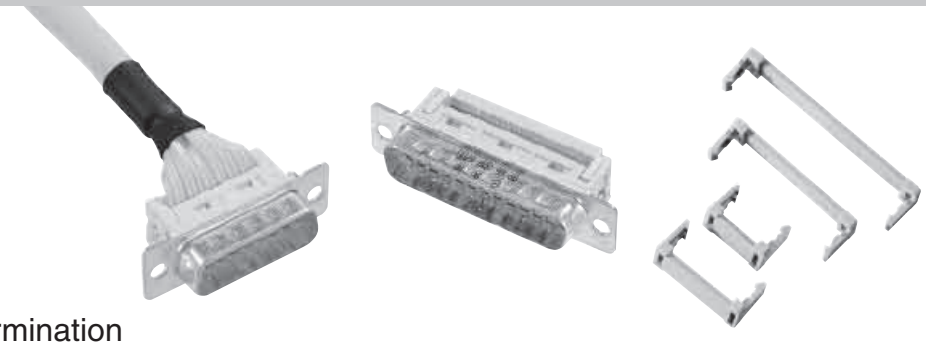


AWG	C	D	E	F	RA	RB	Contact identification
20-24	2.46	1.78	1.98	1.90	0.71	0.43	——
24-28	1.65	1.47	1.52	1.52	0.50	0.33	====

Downloaded from Arrow.com.

Number of contacts

9–37



Insulation displacement termination

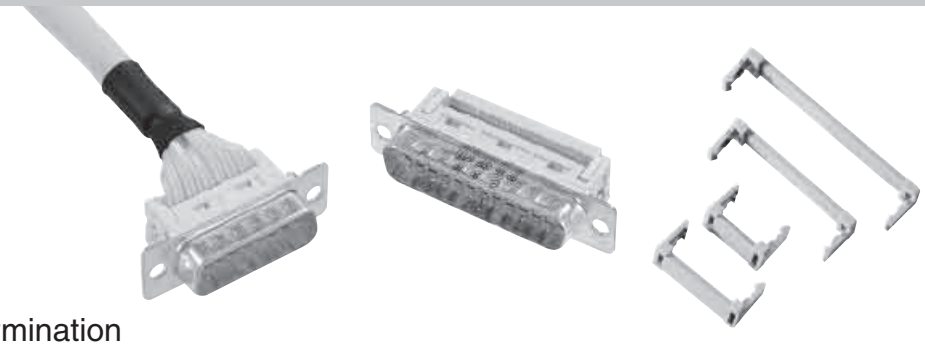
Identification	No. of contacts	Part No.	
Performance levels ▶ Explanations see page 02.26 Other performance levels on request		Performance level 3	Performance level 2
Male connector pitch 1.27 mm metal shell with dimples	9	09 66 128 770 .	09 66 128 670 .
	15	09 66 228 770 .	09 66 228 670 .
	25	09 66 328 770 .	09 66 328 670 .
	37	09 66 428 770 .	09 66 428 670 .
Female connector pitch 1.27 mm metal shell	9	09 66 118 750 .	09 66 118 650 .
	15	09 66 218 750 .	09 66 218 650 .
	25	09 66 318 750 .	09 66 318 650 .
	37	09 66 418 750 .	09 66 418 650 .
Please insert digit for flange thread or fitted female screw locks ø 3.1 mm hole ▶ 0 M3 ▶ 1[1)] 4-40 UNC ▶ 2			
Strain relief clamp plastic for male and female connector	9	09 66 108 0001	09 66 108 0001
	15	09 66 208 0001	09 66 208 0001
	25	09 66 308 0001	09 66 308 0001
	37	09 66 408 0001	09 66 408 0001

[1)] Not normally kept in stock

Downloaded from Arrow.com.

Number of contacts

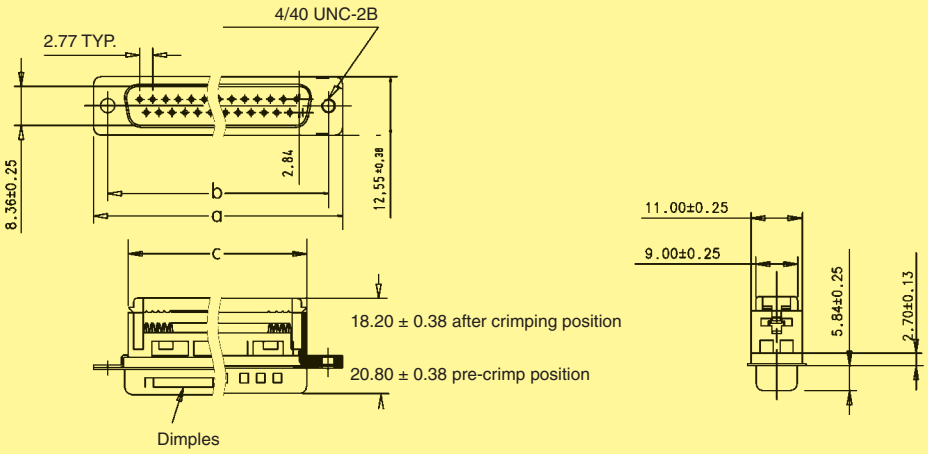
9–37



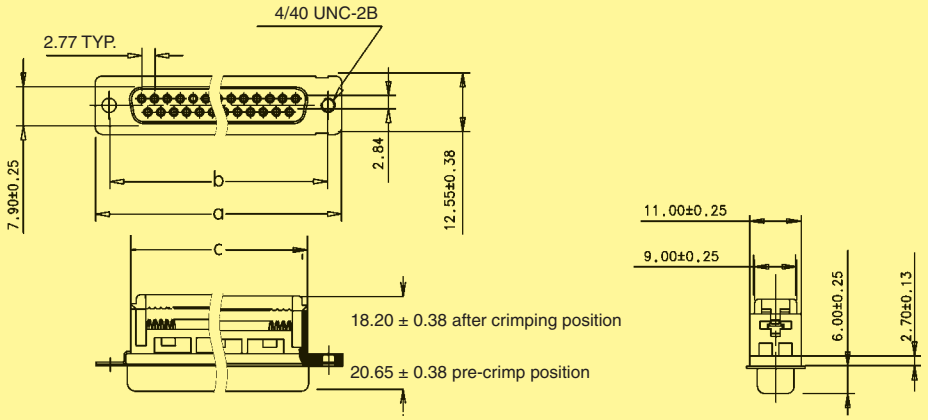
Insulation displacement termination

Identification	Drawing	Dimensions in mm

Male connector



Female connector



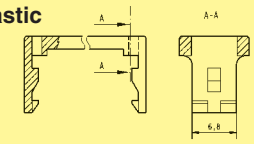
Male and female connectors

	a	$b_{\pm 0.1}$	c
9	30.80	24.99	16.10
15	39.10	33.32	24.00
25	53.09	47.04	38.14
37	69.40	63.50	54.60

Specified conductors
stranded wires – AWG 28/7
– AWG 26/7
solid wires – AWG 30/1
– AWG 28/1

Strain relief clamps

plastic



Panel cut out for front/rear mount

Values are taken from the CECC 75 301-802

see page 02.24

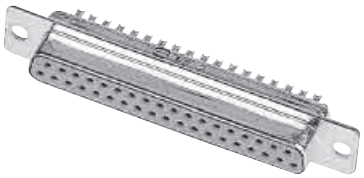
Cables see chapter 40
Tooling see chapter 32

Mating conditions see page 02.26
Mounting details see page 02.24

Downloaded from Arrow.com.

Number of contacts

9–50



Solder buckets

Identification	No. of contacts	Part No.	
Performance levels Explanations see page 02.26 Other performance levels on request		Performance level 3	Performance level 2
Male connector metal shell with dimples			
		turned contacts	turned contacts
	9	09 67 009 5604	09 67 009 5615
	15	09 67 015 5604	09 67 015 5615
	25	09 67 025 5604	09 67 025 5615
	37	09 67 037 5604	09 67 037 5615
	50	09 67 050 5604[1)]	09 67 050 5615
		stamped contacts	stamped contacts
	9	09 67 209 5604	09 67 209 5615
	15	09 67 215 5604	09 67 215 5615
	25	09 67 225 5604	09 67 225 5615
	37	09 67 237 5604	09 67 237 5615
	50	09 67 250 5604[1)]	09 67 250 5615[1)]
Female connector metal shell			
		turned contacts	turned contacts
	9	09 67 009 4704	09 67 009 4715
	15	09 67 015 4704	09 67 015 4715
	25	09 67 025 4704	09 67 025 4715
	37	09 67 037 4704	09 67 037 4715
	50	09 67 050 4704[1)]	09 67 050 4715
		stamped contacts	stamped contacts
	9	09 67 209 4704	09 67 209 4715
	15	09 67 215 4704	09 67 215 4715
	25	09 67 225 4704	09 67 225 4715
	37	09 67 237 4704	09 67 237 4715
	50	09 67 250 4704[1)]	09 67 250 4715[1)]

[1)] Not normally kept in stock

Downloaded from Arrow.com.

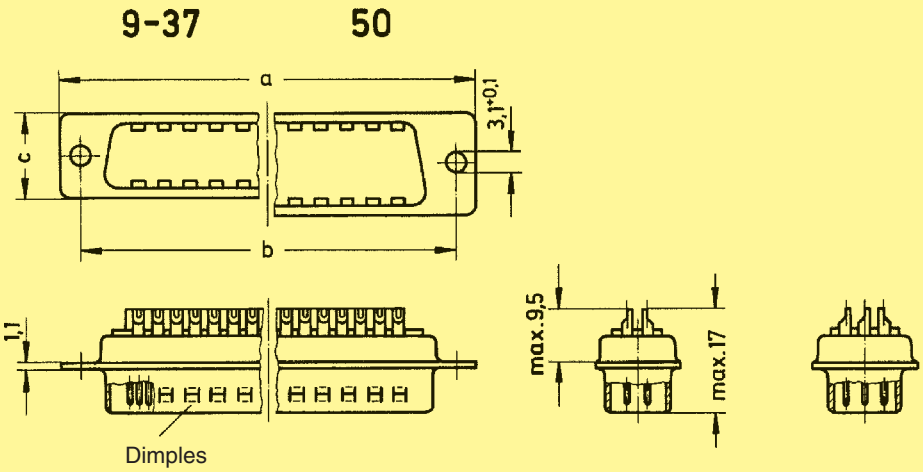
Number of contacts

9–50

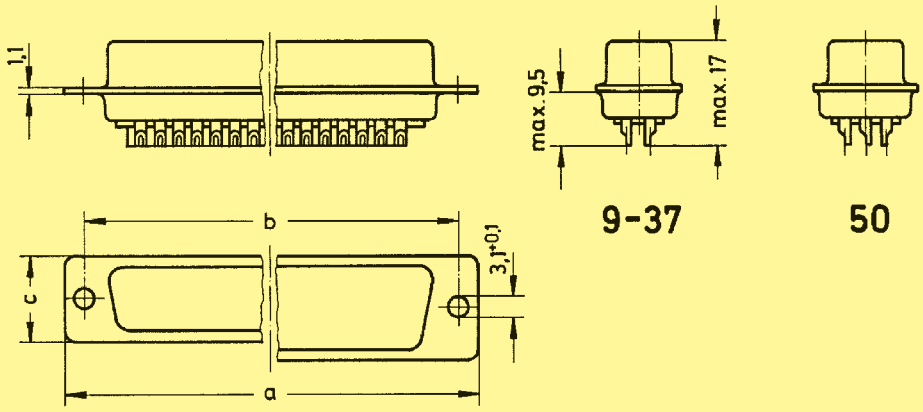
Solder buckets

Identification	Drawing	Dimensions in mm

Male connector



Female connector



	a	$b_{\pm 0.1}$	c
9	30.9	25.0	12.5
15	39.2	33.3	12.5
25	53.1	47.0	12.5
37	69.4	63.5	12.5
50	67.0	61.1	15.4

Panel cut out for front/rear mount

Values are taken from the CECC 75 301-802

see page 02.24

Mating conditions see page 02.26

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