

D-Sub – Standard subminiature D connectors

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Versions with straight solder pins **02.04**



Mounting details for angled solder connectors **02.08**

Original Versions **02.10**

Mounting height 7.3 mm 9-37 way
8.7 mm 50 way



Standard Versions **02.12**

Mounting height 7.3 mm 9-37 way
8.7 mm 50 way



Low-Profile Versions **02.18**

Mounting height 3.6 mm 9-37 way
6.2 mm 50 way



U.S. Footprint Versions **02.22**

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Mounting details **02.24**

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Versions with solder buckets **02.36**

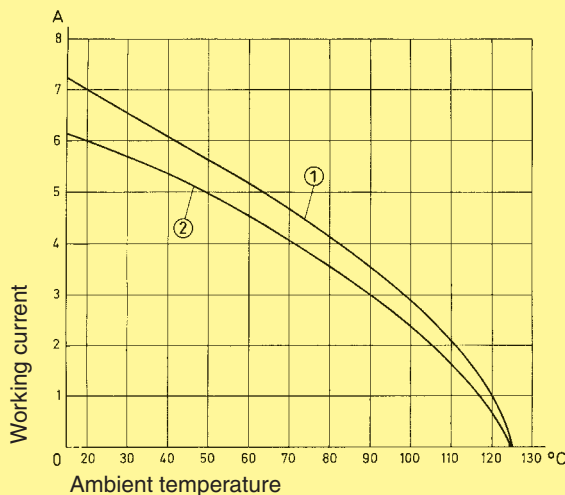


Number of contacts	9, 15, 25, 37, 50 UL recognized
Working current	see current carrying capacity chart Turned contacts 7.5 A max. Stamped contacts 6.5 A max.
Test voltage $U_{r.m.s.}$	1 kV
Clearance and creepage	≥ 1.0 mm
Contact resistance	≤ 10 m Ω
Insulation resistance	$\geq 10^{10}$ Ω
Temperature range	-55 °C ... + 125 °C The higher temperature limit includes the local ambient and heating effect of the contacts under load
Terminations	a) Solder pins \varnothing 0.6 mm for P.C.B. holes \varnothing 0.8/1 mm b) Solder pins, angled 90° \varnothing 0.6 mm for P.C.B. holes \varnothing 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.

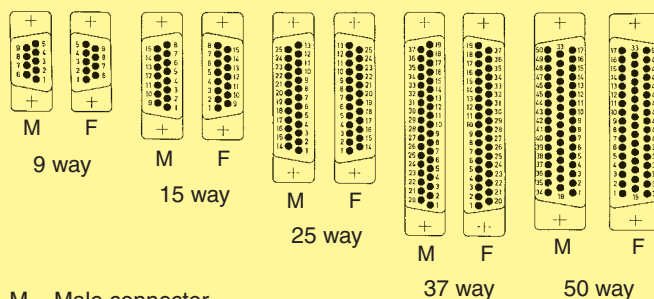
Control and test procedures according to DIN IEC 60 512.



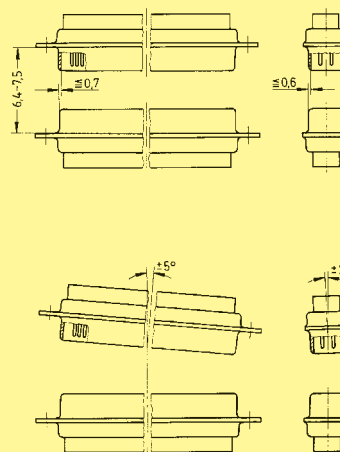
Example: 25 way connector

- ① Turned contacts
- ② Stamped contacts

Contact arrangement View from termination side



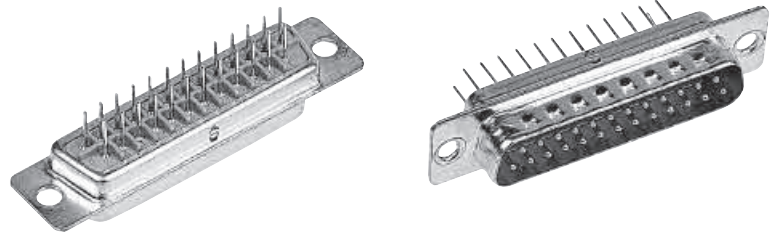
Mating conditions as per DIN 41 652



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

Number of contacts

9-50

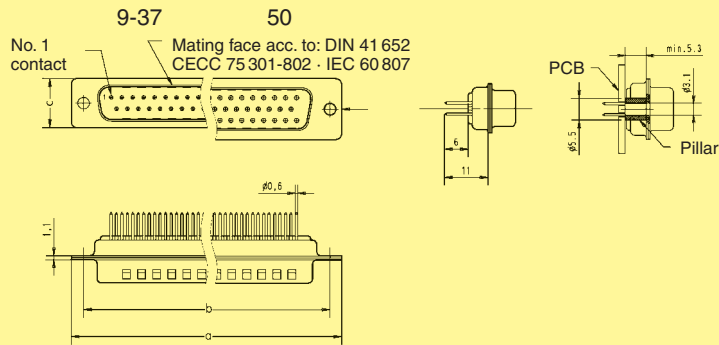


Turned solder pins, straight

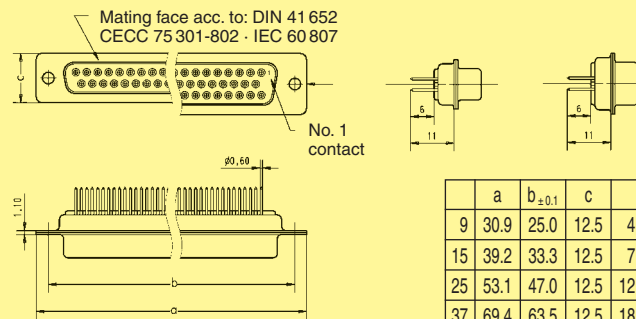
D-Sub - S

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 15 25 37 50	09 67 009 5654 09 67 015 5654 09 67 025 5654 09 67 037 5654 09 67 050 5654 ¹⁾	09 67 009 5655 09 67 015 5655 09 67 025 5655 09 67 037 5655 09 67 050 5655 ¹⁾
Female connector metal shell	9 15 25 37 50	09 67 009 4754 09 67 015 4754 09 67 025 4754 09 67 037 4754 09 67 050 4754 ¹⁾	09 67 009 4755 09 67 015 4755 09 67 025 4755 09 67 037 4755 09 67 050 4755 ¹⁾

Male connector

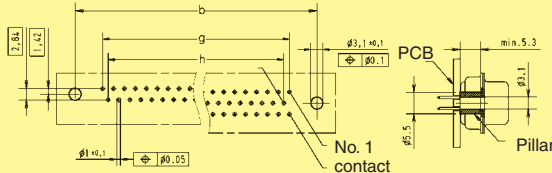


Female connector



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

Board drillings

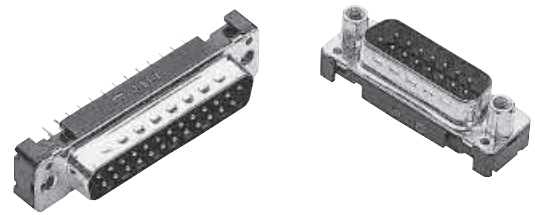


Dimensions in mm

¹⁾ Not normally kept in stock

Number of contacts

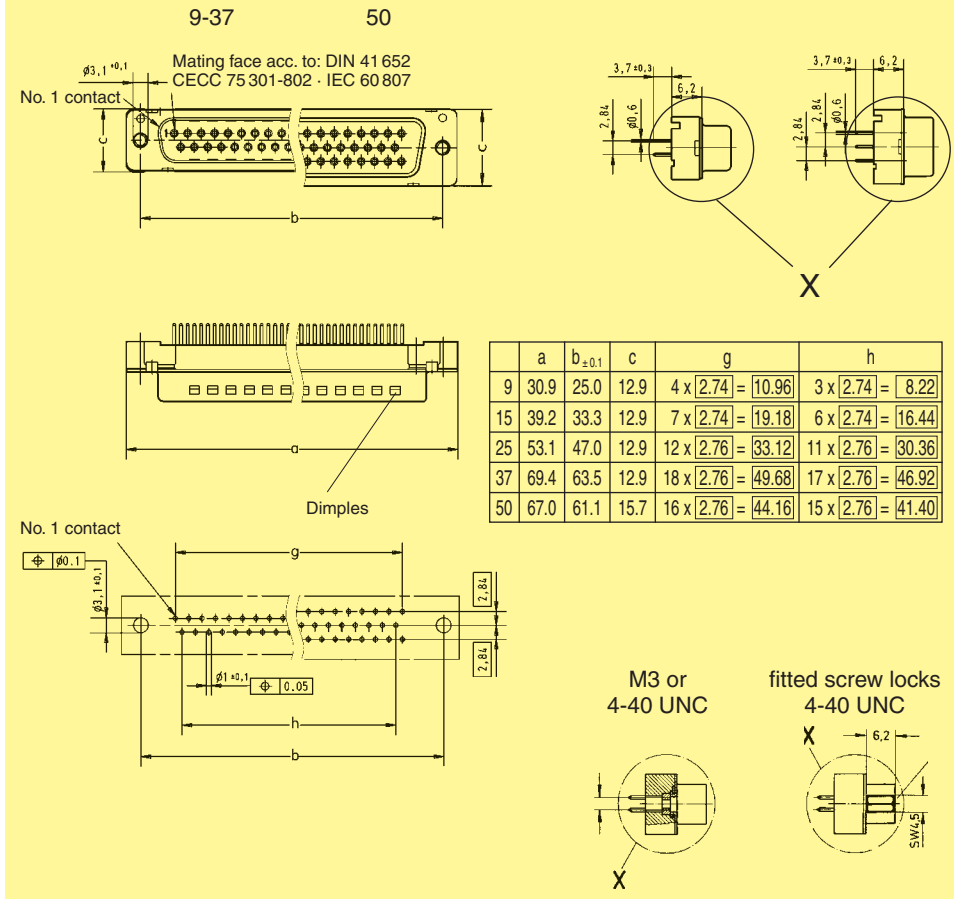
9-50



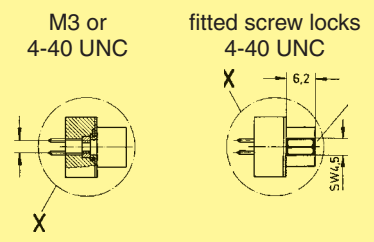
Turned solder pins, straight without grounding-pins

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 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		

Male connector



Board drillings

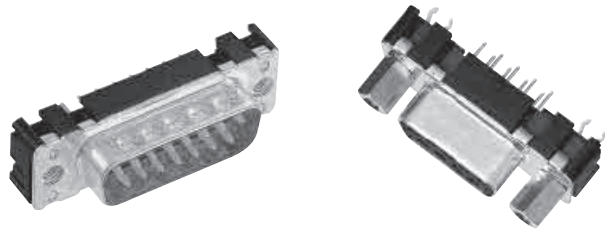


Dimensions in mm

Mating conditions see page 02.02

Number of contacts

9-37



Stamped solder pins, straight with/without grounding board locks

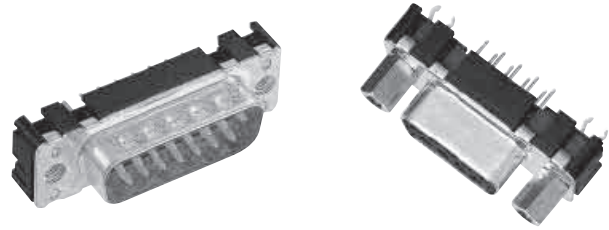
D-Sub - S

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			
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.

Number of contacts

9-37



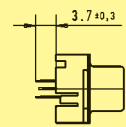
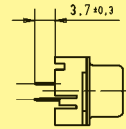
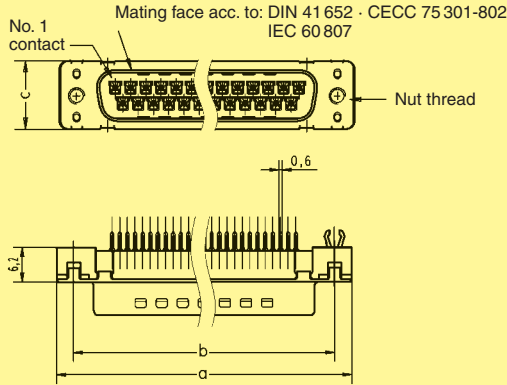
Stamped solder pins, straight with/without grounding board locks

Identification

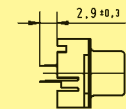
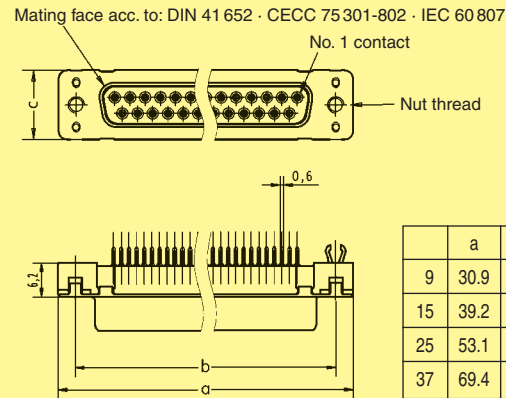
Drawing

Dimensions in mm

Male connector
9 – 37 contacts

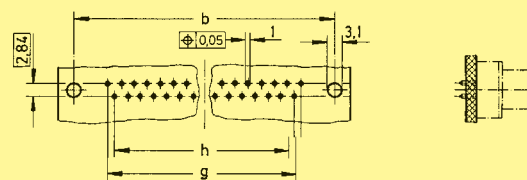


Female connector
9 – 37 contacts

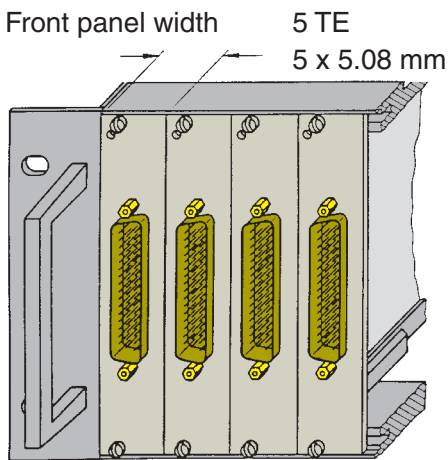
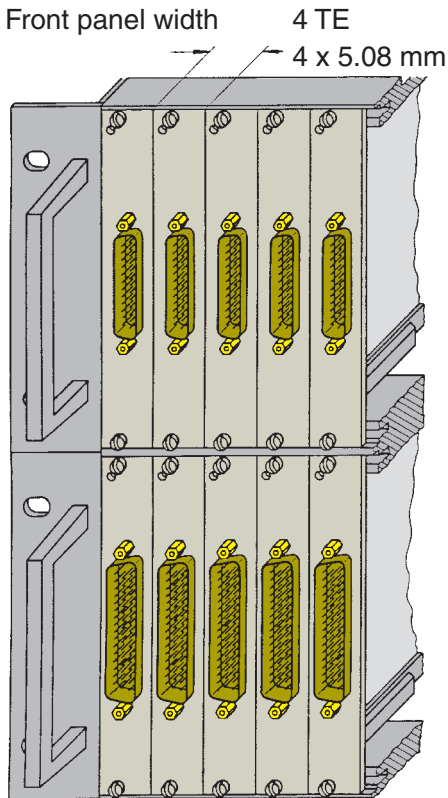
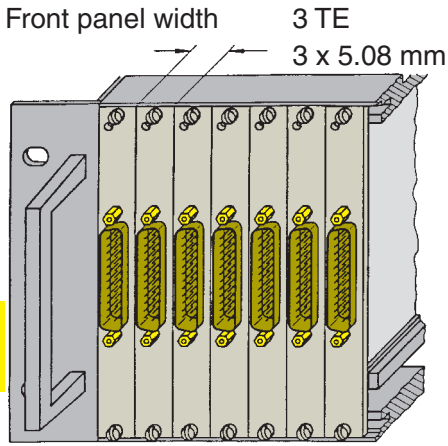


	a	b _{±0,1}	c	g	h
9	30.9	25.0	12.5	4 x 2.74 = 10.96	3 x 2.74 = 8.22
15	39.2	33.3	12.5	7 x 2.74 = 19.18	6 x 2.74 = 16.44
25	53.1	47.0	12.5	12 x 2.76 = 33.12	11 x 2.76 = 30.36
37	69.4	63.5	12.5	18 x 2.76 = 49.68	17 x 2.76 = 46.92

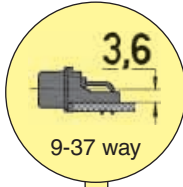
Board drillings
9 – 37 contacts



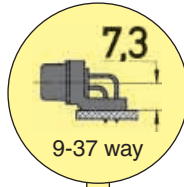
D-Sub - S



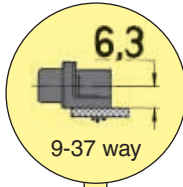
Low-Profile Versions
pages 02.18 – 02.21



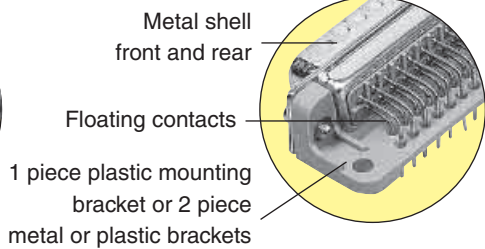
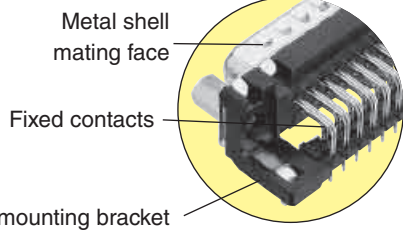
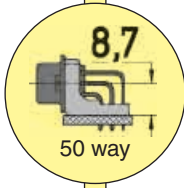
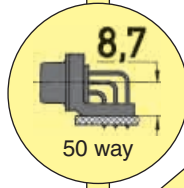
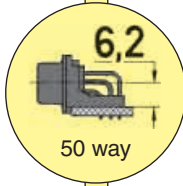
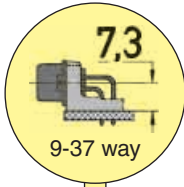
Standard Versions
pages 02.12 – 02.17



U.S. Footprint Versions
pages 02.22 – 02.23



Original Versions
pages 02.10 – 02.11

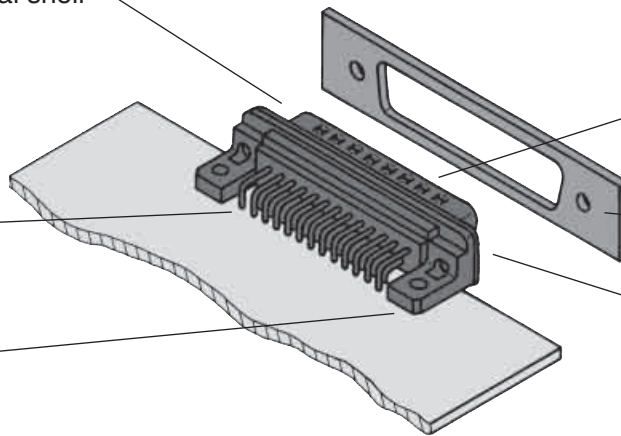


Advantages

- 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



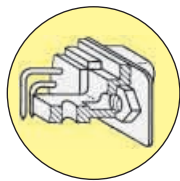
Contact surface finish to different performance levels

Panel

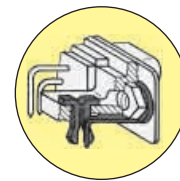
Different metal threads possible in flange area

- M3
- 4-40 UNC
- fitted female screw locks 4-40 UNC
- max. torque ≤ 0.8 Nm

Integrated plastic mounting bracket



Mounting bracket



Mounting bracket with snap-in-clips and grounding pin

Mounting height

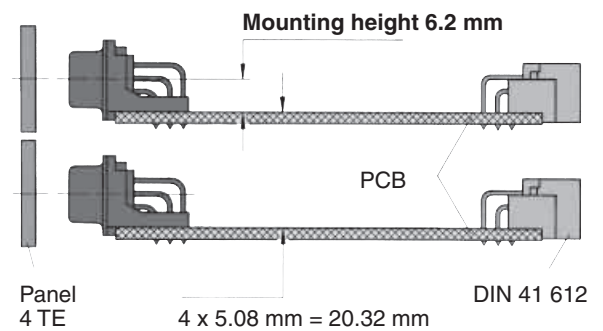
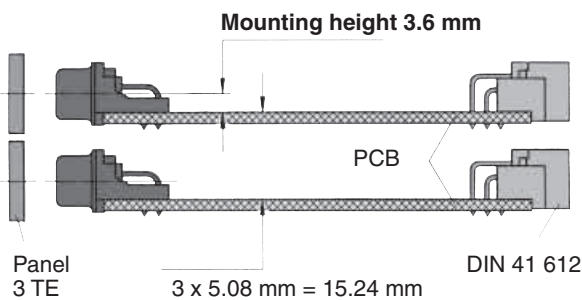
Low-Profile Versions

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.



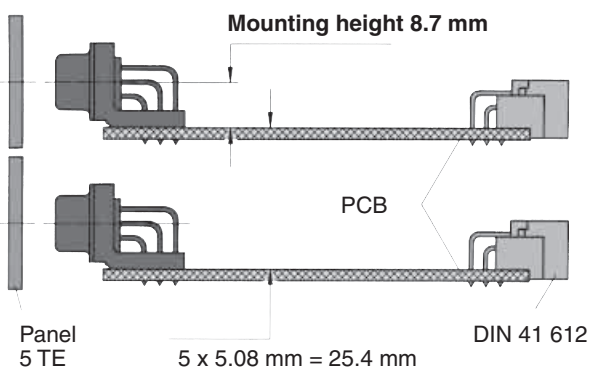
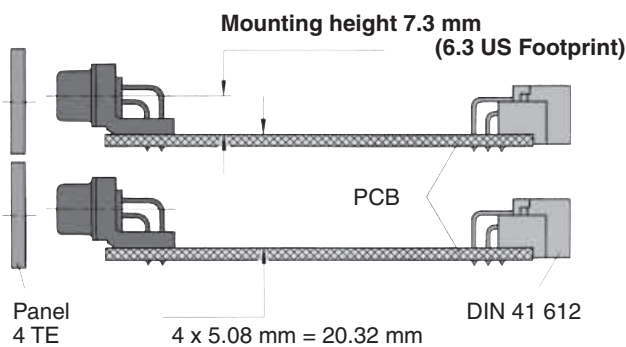
Standard Versions

Original Versions

US Footprint

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

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



D-Sub - S

Number of contacts

9–50



Original Versions

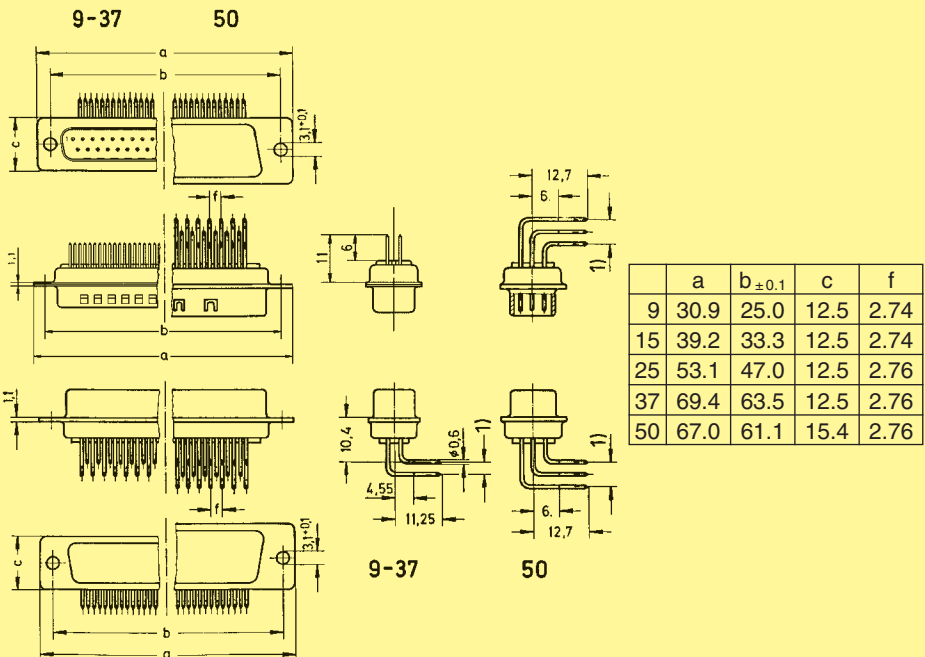
Turned solder pins, angled without fixing bracket

D-Sub - S

Identification	No. of contacts	Part No.		
Performance levels Explanations see page 02.02 Other performance levels on request		<table border="1"> <tr> <th>Performance level 3</th> <th>Performance level 2</th> </tr> </table>	Performance level 3	Performance level 2
Performance level 3	Performance level 2			
Male connector metal shell with dimples	9	09 67 009 5663		
	15	09 67 015 5663		
	25	09 67 025 5663		
	37	09 67 037 5663		
	50	09 67 050 5663		
	9	09 67 009 5658 ²⁾		
	15	09 67 015 5657 ²⁾		
	25	09 67 025 5657 ²⁾		
	37	09 67 037 5657 ²⁾		
	50	09 67 050 5657 ²⁾		
Female connector metal shell	9	09 67 009 4763		
	15	09 67 015 4763		
	25	09 67 025 4763		
	37	09 67 037 4763		
	50	09 67 050 4763		
	9	09 67 009 4757 ²⁾		
	15	09 67 015 4757 ²⁾		
	25	09 67 025 4757 ²⁾		
	37	09 67 037 4757 ²⁾		
	50	09 67 050 4757 ²⁾		

Male connector

Female connector



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



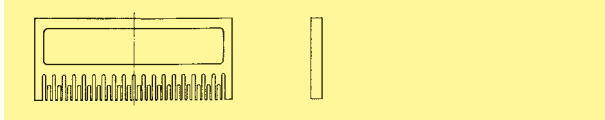
Accessories for turned solder pins, angled

D-Sub - S

Identification	No. of contacts	Part No.	Drawing	Dimensions in mm
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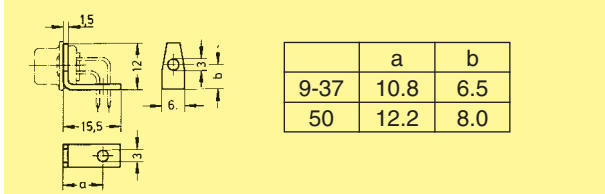
Mounting comb
for alignment of floating angled solder pins

9-50
09 99 000 0097



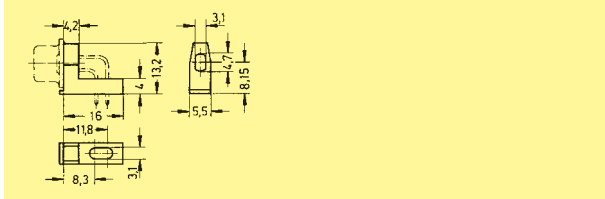
Fixing bracket
Metal bracket

9-37
09 67 000 9910¹⁾
50
09 67 000 9911¹⁾



Plastic bracket

9-50
09 67 000 9913¹⁾



Mounting bracket
for row separation 2.54/2.84 mm

threaded flange M3

9
15
25
37
50

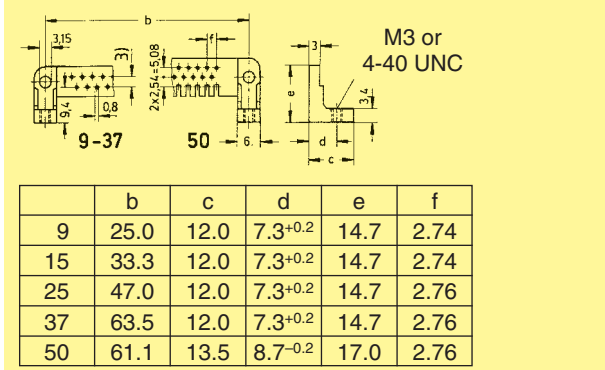
09 67 000 9935
09 67 000 9997
09 67 000 9998
09 67 000 9938
09 67 000 9939²⁾

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 9991²⁾

M3 or 4-40 UNC



Board drillings
angled solder pins

Mounting height

9-37

	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

50

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

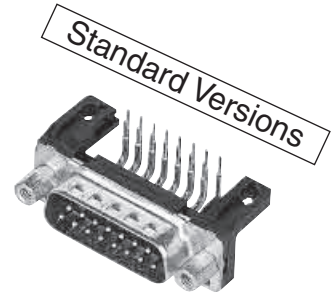
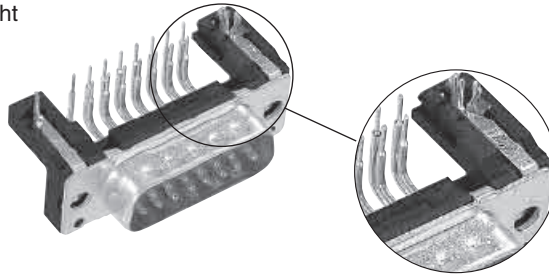
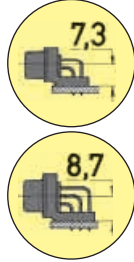
1) order 2 per connector
2) only row separation 2.54 mm

3) for 2.54/2.84 mm row separation
4) Not in conjunction with mounting bracket

Number of contacts

Mounting height

9–37
50



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

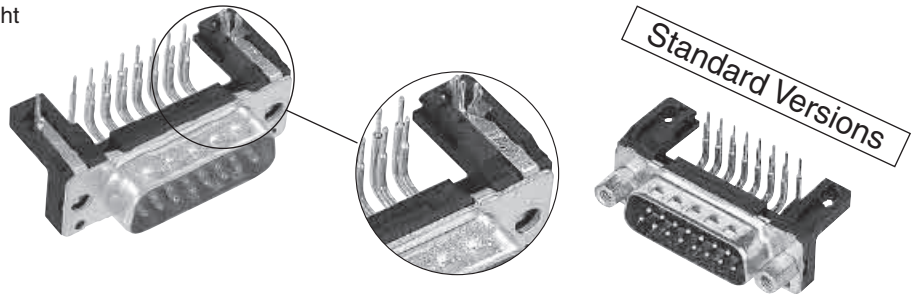
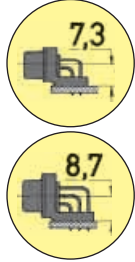
D-Sub - S

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 15 25 37 50	09 66 163 781 09 66 263 781 09 66 363 781 09 66 463 781 09 66 563 781	09 66 163 681 09 66 263 681 09 66 363 681 09 66 463 681 09 66 563 681
		2.54 mm pitch	2.54 mm pitch
	9 15 25 37 50	09 66 162 781 09 66 262 781 09 66 362 781 09 66 462 781 09 66 562 781	09 66 162 681 09 66 262 681 09 66 362 681 09 66 462 681 09 66 562 681
Without snap-in clips and grounding board locks	9 15 25 37 50	09 66 123 780 09 66 223 780 09 66 323 780 09 66 423 780 09 66 523 780	09 66 123 680 09 66 223 680 09 66 323 680 09 66 423 680 09 66 523 680
		2.54 mm pitch	2.54 mm pitch
	9 15 25 37 50	09 66 122 780 09 66 222 780 09 66 322 780 09 66 422 780 09 66 522 780	09 66 122 680 09 66 222 680 09 66 322 680 09 66 422 680 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			

Number of contacts

9-37
50

Mounting height



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

Identification

Drawing

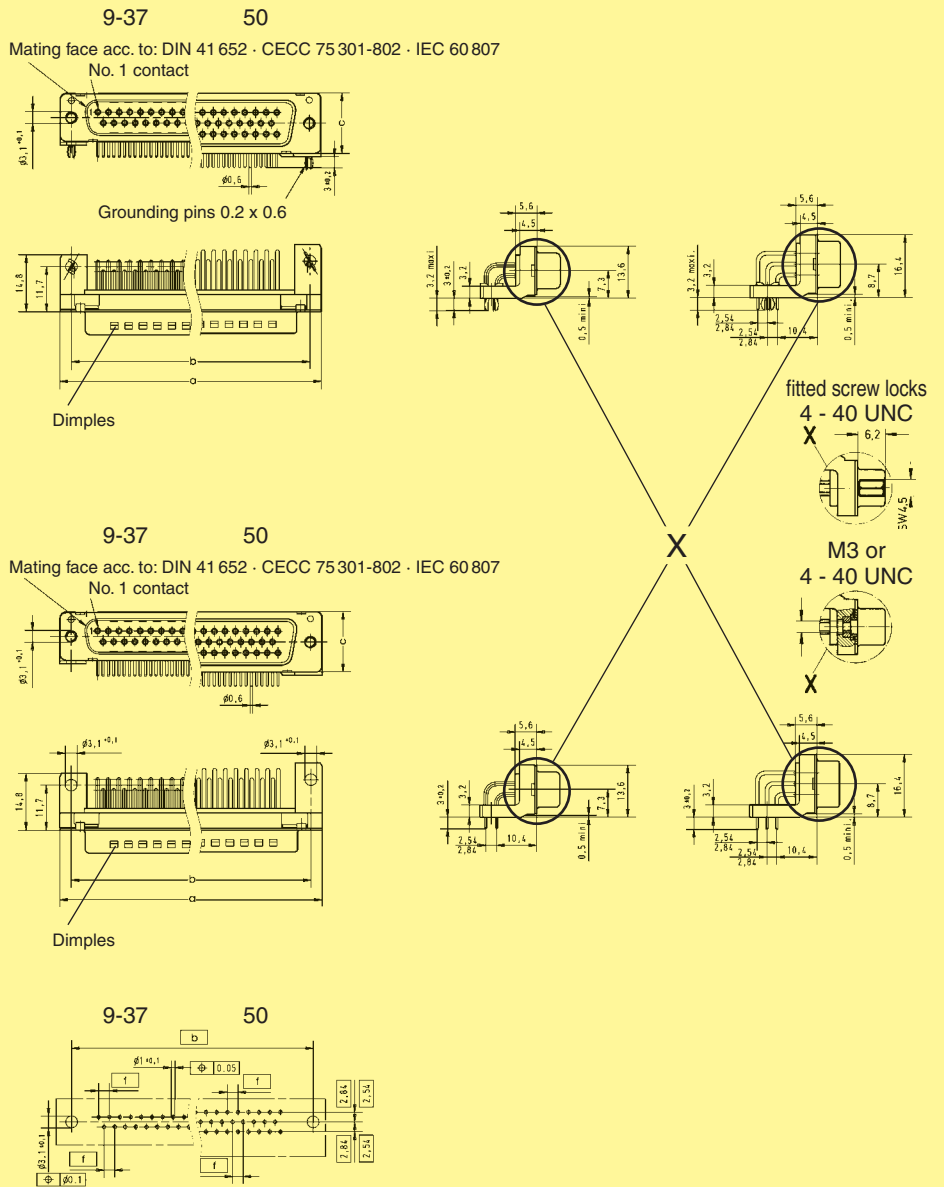
Dimensions in mm

Male connector

With snap-in clips and grounding board locks

Without snap-in clips and grounding board locks

Board drillings

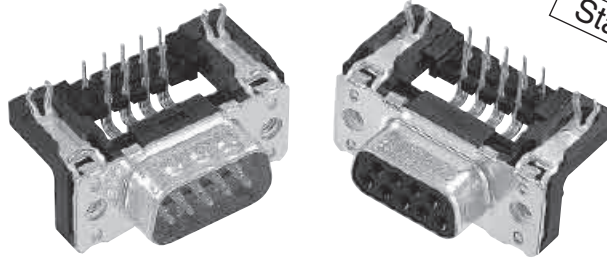
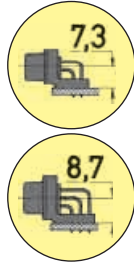


	a	b±0.1	c	f
9	30.90	25.00	12.90	2.74
15	39.20	33.30	12.90	2.74
25	53.10	47.00	12.90	2.76
37	69.40	63.50	12.90	2.76
50	67.00	61.10	15.70	2.76

Number of contacts

Mounting height

9-37
50



Standard Versions

Stamped solder pins, angled with grounding board locks

D-Sub - S

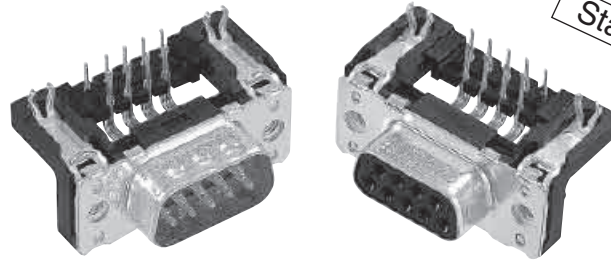
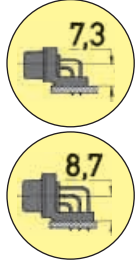
Identification	No. of contacts	Part No.		
Performance levels Explanations see page 02.02 Other performance levels on request		Performance level 3	Performance level 2	
Male connector metal shell with dimples		2.84 mm pitch	2.84 mm pitch	
	9	09 65 163 781 . 1)	09 65 163 681 . 1)	
	15	09 65 263 781 . 1)	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

Number of contacts

Mounting height

9-37
50



Stamped solder pins, angled with grounding board locks

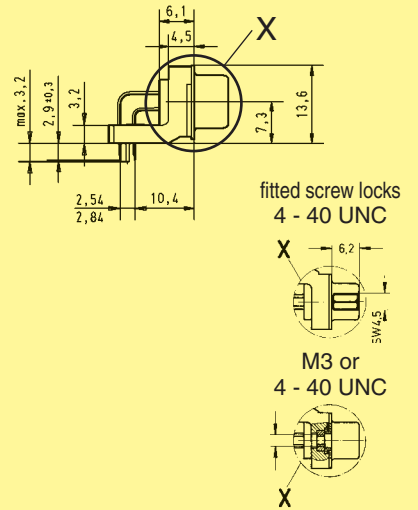
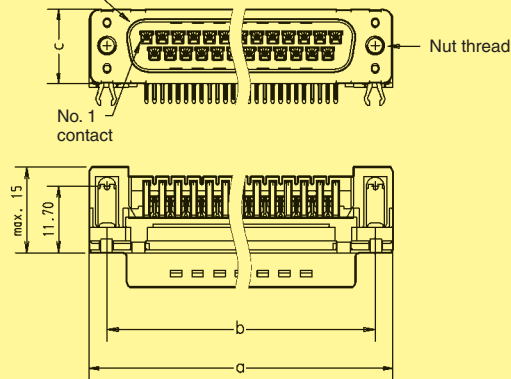
Identification

Drawing

Dimensions in mm

Male connector

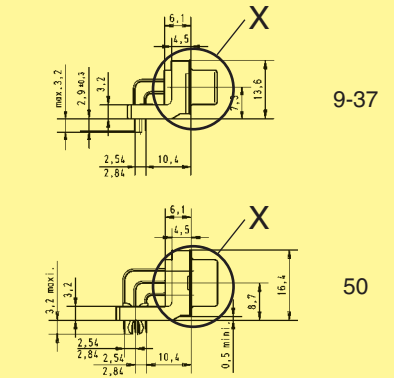
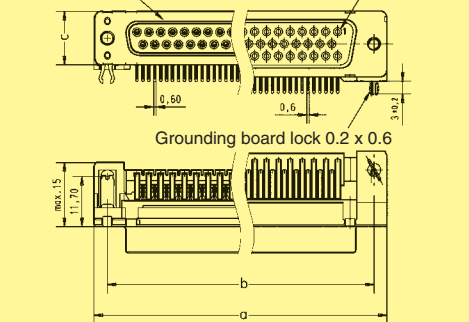
Mating face acc. to: DIN 41 652 · CECC 75 301-802
IEC 60 807



Female connector

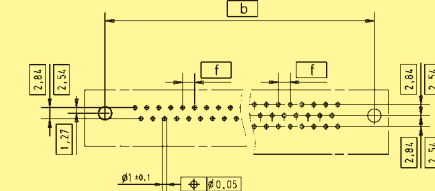
9-37 50

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



Board drillings

9-37 50

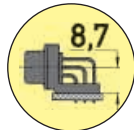
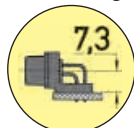


	a	b±0.1	c	f
9	30.90	25.00	12.50	2.74
15	39.20	33.30	12.50	2.74
25	53.10	47.00	12.50	2.76
37	69.40	63.50	12.50	2.76
50	67.00	61.10	15.40	2.76

Number of contacts

Mounting height

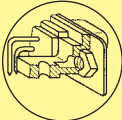
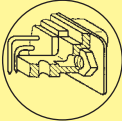
9-37
50



Standard Versions

Stamped solder pins, angled without grounding board locks

D-Sub - S

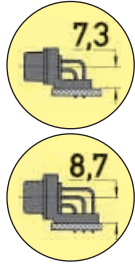
Identification	No. of contacts	Part No.		
Performance levels Explanations see page 02.02 Other performance levels on request		Performance level 3	Performance level 2	
Male connector metal shell with dimples 		2.84 mm pitch	2.84 mm pitch	
	9	09 65 123 780	09 65 123 680	
	15	09 65 223 780	09 65 223 680	
	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

Number of contacts

Mounting height

9-37
50



Standard Versions

Stamped solder pins, angled without grounding board locks

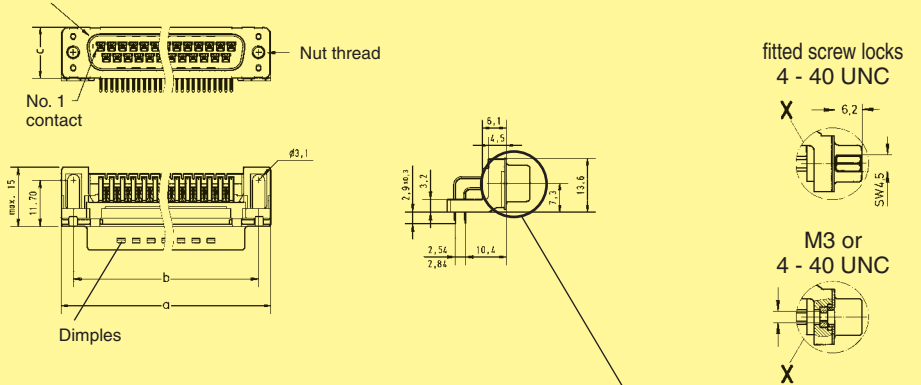
Identification

Drawing

Dimensions in mm

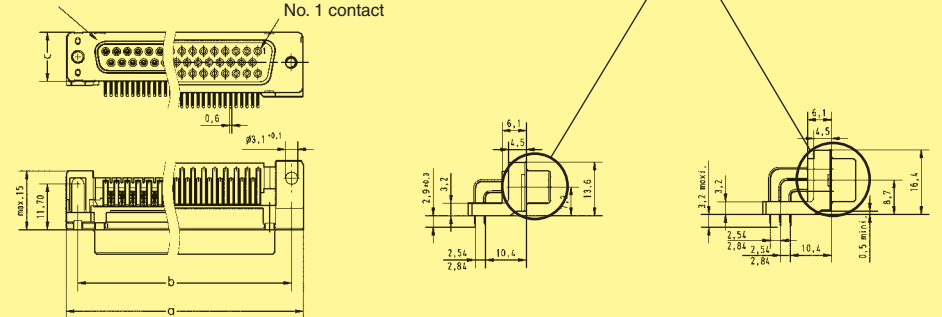
Male connector

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

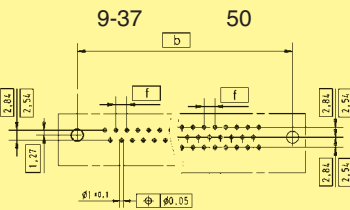


Female connector

9-37 50
Mating face acc. to: DIN 41 652 · CECC 75 301-802 · IEC 60 807



Board drillings



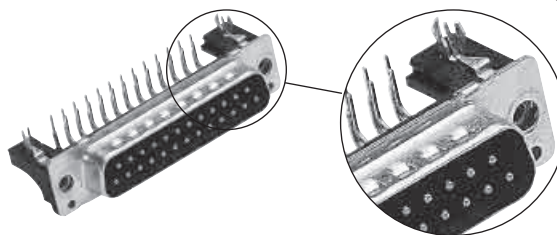
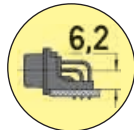
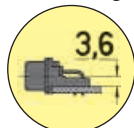
	a	b±0.1	c	f
9	30.90	25.00	12.50	2.74
15	39.20	33.30	12.50	2.74
25	53.10	47.00	12.50	2.76
37	69.40	63.50	12.50	2.76
50	67.00	61.10	15.40	2.76

D-Sub - S

Number of contacts

Mounting height

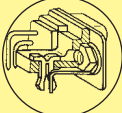

9-37
50



Low-Profile Versions

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

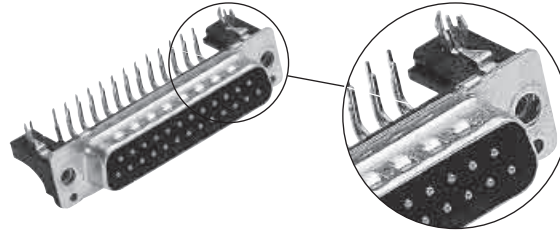
D-Sub - S

Identification	No. of contacts	Part No.																									
Performance levels Explanations see page 02.02 Other performance levels on request		<table border="1"> <thead> <tr> <th data-bbox="619 584 1038 674">Performance level 3</th> <th data-bbox="1038 584 1469 674">Performance level 2</th> </tr> </thead> </table>		Performance level 3	Performance level 2																						
Performance level 3	Performance level 2																										
Male connector metal shell with dimples  	9 15 25 37 50	<table border="1"> <thead> <tr> <th colspan="2" data-bbox="619 674 1038 920">2.54 mm pitch</th> <th colspan="2" data-bbox="1038 674 1469 920">2.54 mm pitch</th> </tr> </thead> <tbody> <tr> <td data-bbox="619 920 1038 987">09 66 162 781</td> <td data-bbox="1038 920 1469 987">09 66 162 681</td> <td></td> <td></td> </tr> <tr> <td data-bbox="619 987 1038 1021">09 66 262 781</td> <td data-bbox="1038 987 1469 1021">09 66 262 681</td> <td></td> <td></td> </tr> <tr> <td data-bbox="619 1021 1038 1055">09 66 362 781</td> <td data-bbox="1038 1021 1469 1055">09 66 362 681</td> <td></td> <td></td> </tr> <tr> <td data-bbox="619 1055 1038 1088">09 66 462 781</td> <td data-bbox="1038 1055 1469 1088">09 66 462 681</td> <td></td> <td></td> </tr> <tr> <td data-bbox="619 1088 1038 1122">09 66 562 781</td> <td data-bbox="1038 1088 1469 1122">09 66 562 681</td> <td></td> <td></td> </tr> </tbody> </table>		2.54 mm pitch		2.54 mm pitch		09 66 162 781	09 66 162 681			09 66 262 781	09 66 262 681			09 66 362 781	09 66 362 681			09 66 462 781	09 66 462 681			09 66 562 781	09 66 562 681		
2.54 mm pitch		2.54 mm pitch																									
09 66 162 781	09 66 162 681																										
09 66 262 781	09 66 262 681																										
09 66 362 781	09 66 362 681																										
09 66 462 781	09 66 462 681																										
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																											

Number of contacts

Mounting height

9-37
50



Low-Profile Versions

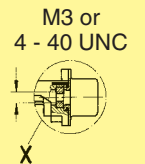
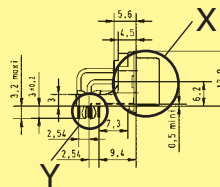
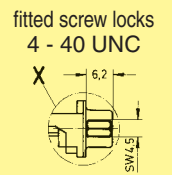
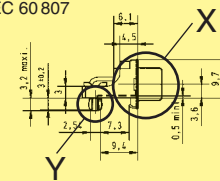
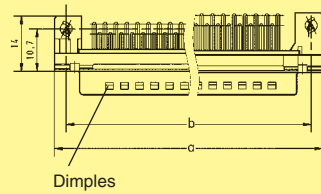
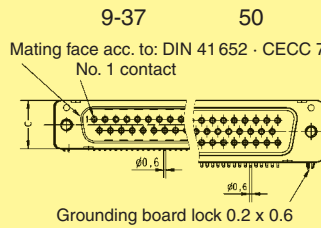
Turned solder pins, angled with snap-in-clips and grounding board locks

Identification

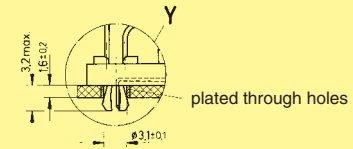
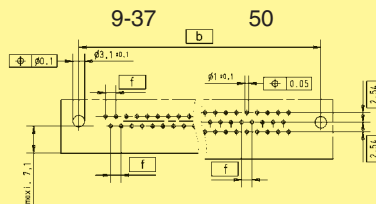
Drawing

Dimensions in mm

Male connector



Board drillings

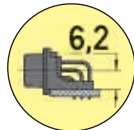
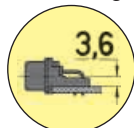


	a	b ± 0.1	c	f
9	30.90	25.00	12.50	2.74
15	39.20	33.30	12.50	2.74
25	53.10	47.00	12.50	2.76
37	69.40	63.50	12.50	2.76
50	67.00	61.10	15.70	2.76

Number of contacts

Mounting height

9-37
50



Low-Profile Versions

Stamped solder pins, angled with grounding board locks

D-Sub - S

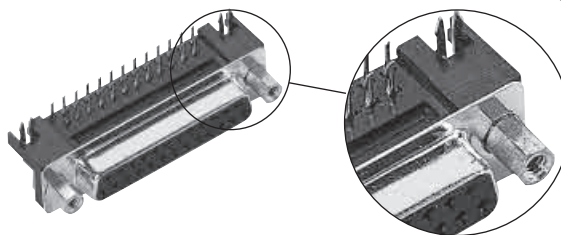
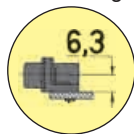
Identification	No. of contacts	Part No.	
Performance levels Explanations see page 02.02 Other contact surfaces on request		Performance level 3	Performance level 2
Male connector metal shell with dimples	9 15 25 37	09 65 162 781 . 09 65 262 781 . 09 65 362 781 . 09 65 462 781 .	09 65 162 681 . 09 65 262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

Number of contacts

Mounting height

9-37



U.S. Footprint

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

D-Sub - S

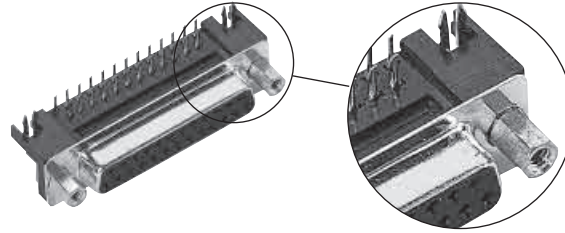
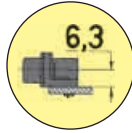
Identification	No. of contacts	Part No.	
Performance levels Explanations see page 02.02 Other performance levels on request		Performance level 3	S4¹⁾
Male connector metal shell with dimples		2.84 mm pitch	2.84 mm pitch
	9	09 68 163 781 .	09 68 163 581 .
	15	09 68 263 781 .	09 68 263 581 .
	25	09 68 363 781 .	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

Number of contacts

9-37

Mounting height



U.S. Footprint

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

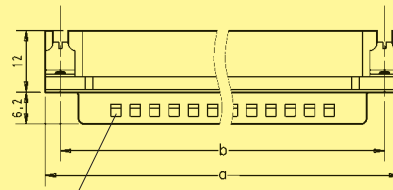
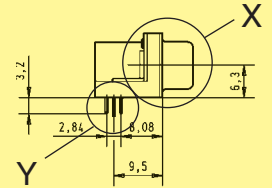
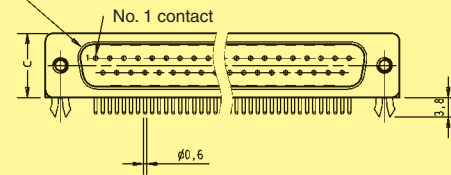
Identification

Drawing

Dimensions in mm

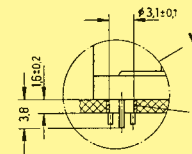
Male connector

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



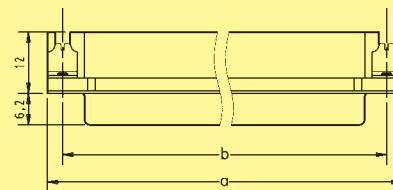
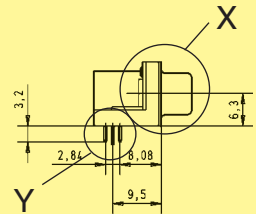
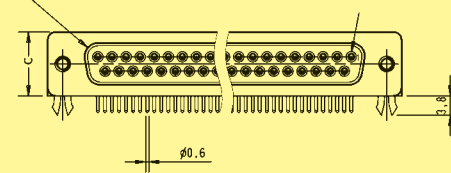
Dimples

plated through holes

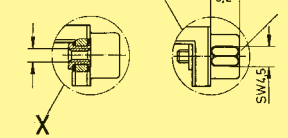


Female connector

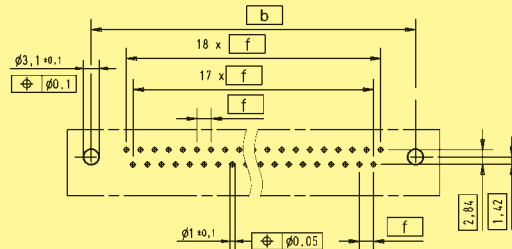
Mating face acc. to: DIN 41 652 · CECC 75 301-802
IEC 60 807



M3 or 4 - 40 UNC fitted screw locks



Board drillings



	a	b±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

Identification

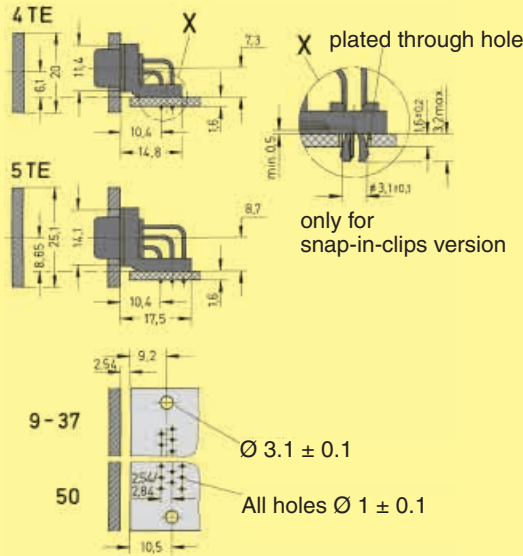
Drawing

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)

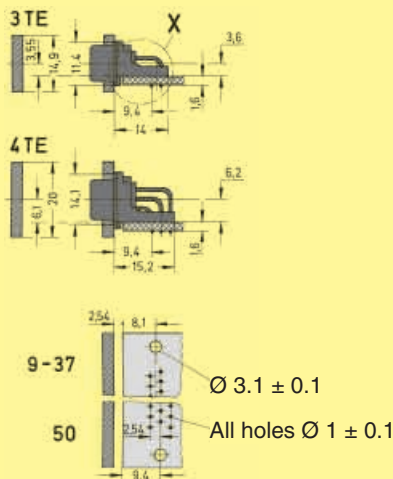


for connectors see pages 02.12 – 02.17

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)



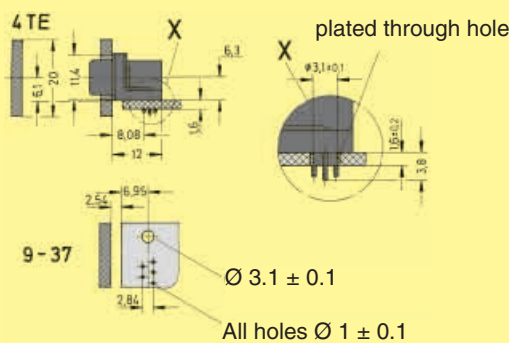
When used in a wave soldering process the mating face of the connector must be protected with adhesive tape.



for connectors see pages 02.18 – 02.21

U.S. Footprint Versions

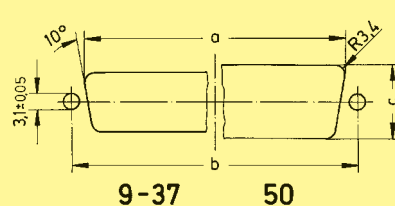
Mounting height 6.3 mm
9-37 way
for front panel
4 units of width (TE)



for connectors see pages 02.22 – 02.23

Panel cut out
for front/rear mount

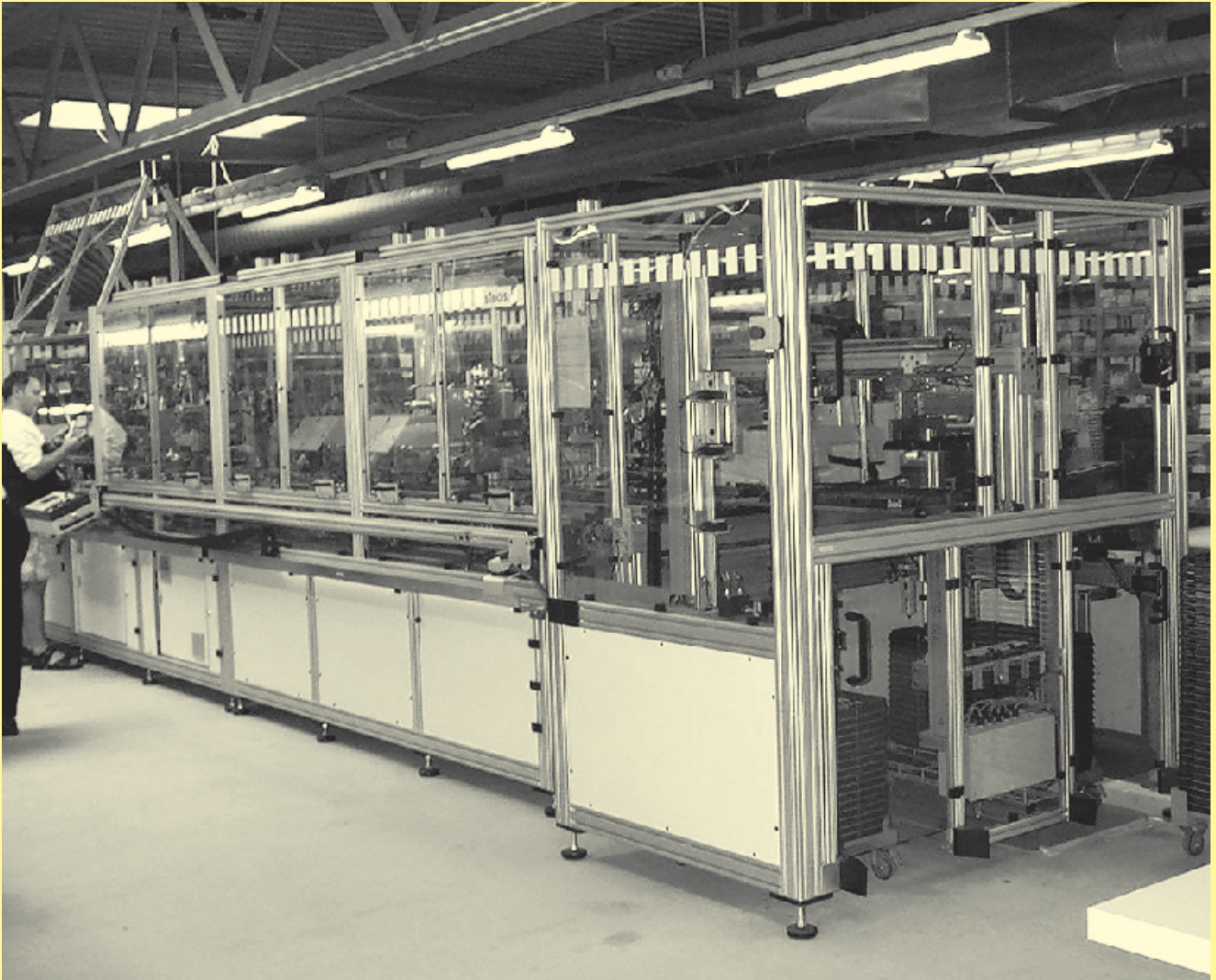
Values are taken from the
CECC 75 301-802



Front mount

Rear mount

	a±0.2	b±0.13	c±0.2		a±0.2	b±0.13	c±0.2
9	22.2	25.0	12.3	9	20.5	25.0	11.4
15	30.5	33.3	12.3	15	28.8	33.3	11.4
25	44.3	47.0	12.3	25	42.5	47.0	11.4
37	60.7	63.5	12.3	37	59.1	63.5	11.4
50	58.3	61.1	15.1	50	56.3	61.1	14.1



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

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

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.

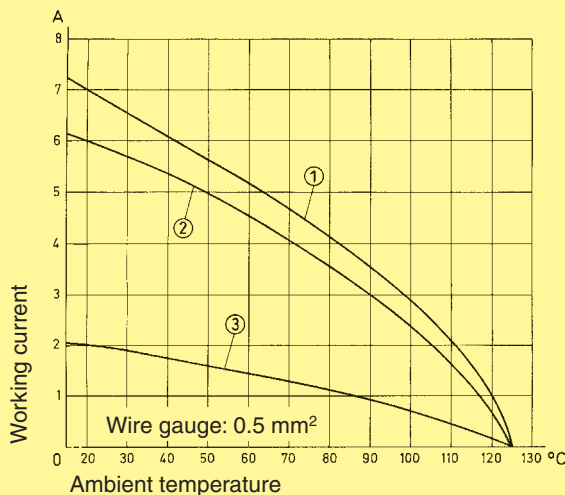
Our challenge is to improve quality from day to day.

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 m Ω
Insulation resistance	$\geq 10^{10}$ Ω
Temperature range	
turned version	-55 °C ... + 125 °C
stamped solder bucket version	-25 °C ... + 85 °C
Terminations	<ul style="list-style-type: none"> a) Solder buckets AWG 20 b) Crimp contacts 0.09-0.25 mm² AWG 28-24 max. insulation \varnothing 1.02 mm 0.25-0.56 mm² AWG 24-20 max. insulation \varnothing 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	<ul style="list-style-type: none"> 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.

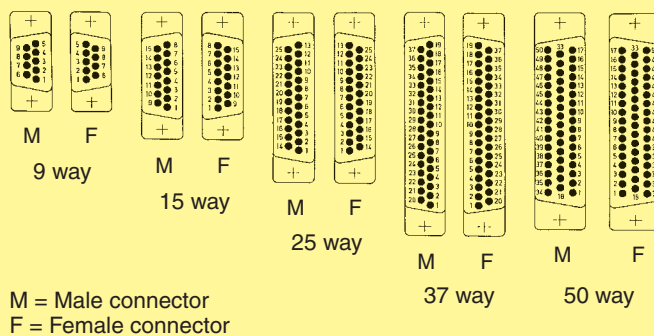
Control and test procedures according to DIN IEC 60512.



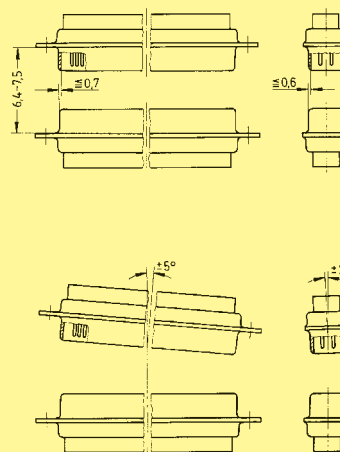
Example: 25 way connector

- ① Turned contacts
- ② Stamped contacts
- ③ Insulation displacement contacts

Contact arrangement View from termination side



Mating conditions as per DIN 41 652



¹⁾ Performance level 3, 50 mating cycles, no gas test
Performance level 2 as per CECC 75301-802, 250 mating cycles, 4 days 4 mixed gas test – IEC 60512
Performance level 1 as per CECC 75301-802, 500 mating cycles, 10 days 4 mixed gas test – IEC 60512

Number of contacts

9-50

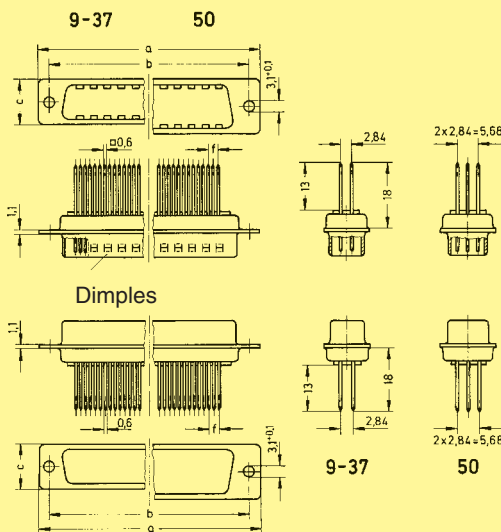


Turned wrap posts 0.6 x 0.6 mm

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 15 25 37 50	09 67 009 5607 09 67 015 5607 09 67 025 5607 09 67 037 5607 09 67 050 5607	09 67 009 5616 ¹⁾ 09 67 015 5616 ¹⁾ 09 67 025 5616 ¹⁾ 09 67 037 5616 ¹⁾ 09 67 050 5616 ¹⁾
Female connector metal shell	9 15 25 37 50	09 67 009 4707 09 67 015 4707 09 67 025 4707 09 67 037 4707 09 67 050 4707	09 67 009 4716 ¹⁾ 09 67 015 4716 ¹⁾ 09 67 025 4716 ¹⁾ 09 67 037 4716 ¹⁾ 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

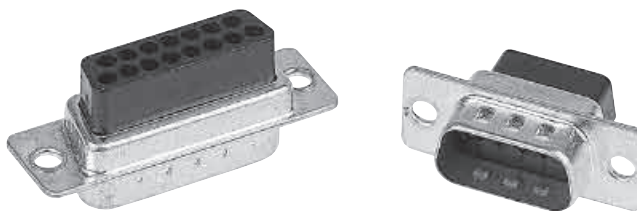
D-Sub-S

¹⁾ Not normally kept in stock

Mating conditions see page 02.26

Number of contacts

9-50

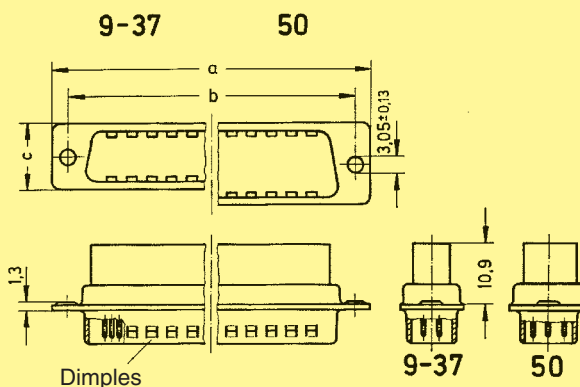


Crimp terminal

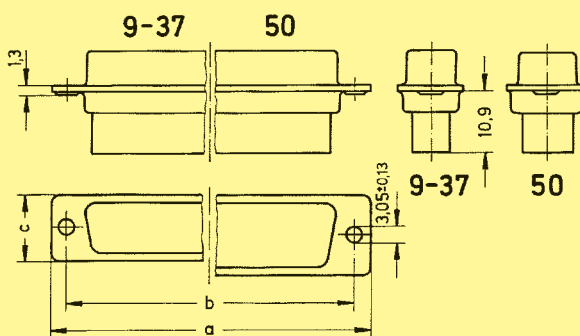
D-Sub - S

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 _{±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

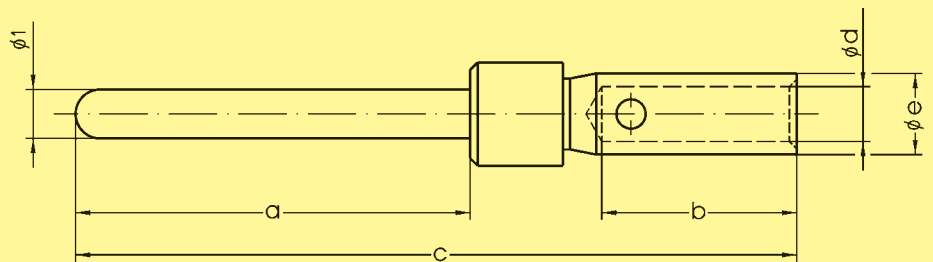


Crimp contacts

D-Sub-S

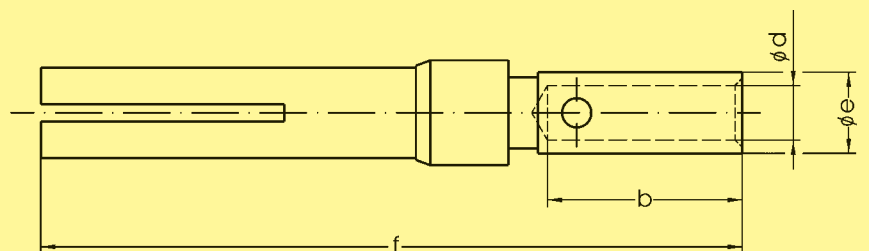
Identification	Wire gauge (mm ²)	Part No.	
		turned male contacts	turned female contacts
		Performance level 1*	Performance level 1*
Individual contacts	AWG 22-18 0.33-0.82	61 03 000 0112	61 03 000 0113
	AWG 22-20 0.33-0.52	61 03 000 0073	61 03 000 0074
	AWG 26-22 0.13-0.33	61 03 000 0094	61 03 000 0096
	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 60512

Crimp contacts

D-Sub - S

Identification	Wire gauge (mm ²)	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 500 pieces/reel Unrolling left 10 000 pieces/reel Unrolling left Unrolling left reversed Unrolling right reversed	0.09-0.25 AWG 28-24 stranded	09 67 000 7177 ¹⁾ 09 67 000 7167 09 67 000 7157 09 67 000 7147 09 67 000 7137	09 67 000 7178 ¹⁾ 09 67 000 7168 09 67 000 7158 09 67 000 7148 09 67 000 7138	09 67 000 7176 ¹⁾ 09 67 000 7166 09 67 000 7156 09 67 000 7146 09 67 000 7136
Individual contacts 500 pieces/reel Unrolling left 10 000 pieces/reel Unrolling left Unrolling left reversed Unrolling right reversed	0.25-0.56 AWG 24-20 stranded	09 67 000 8177 ¹⁾ 09 67 000 8167 09 67 000 8157 09 67 000 8147 09 67 000 8137	09 67 000 8178 ¹⁾ 09 67 000 8168 09 67 000 8158 09 67 000 8148 09 67 000 8138	09 67 000 8176 ¹⁾ 09 67 000 8166 09 67 000 8156 09 67 000 8146 09 67 000 8136
Unrolling direction		<p style="text-align: center;">for HARTING tools</p>		

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



Crimp contacts

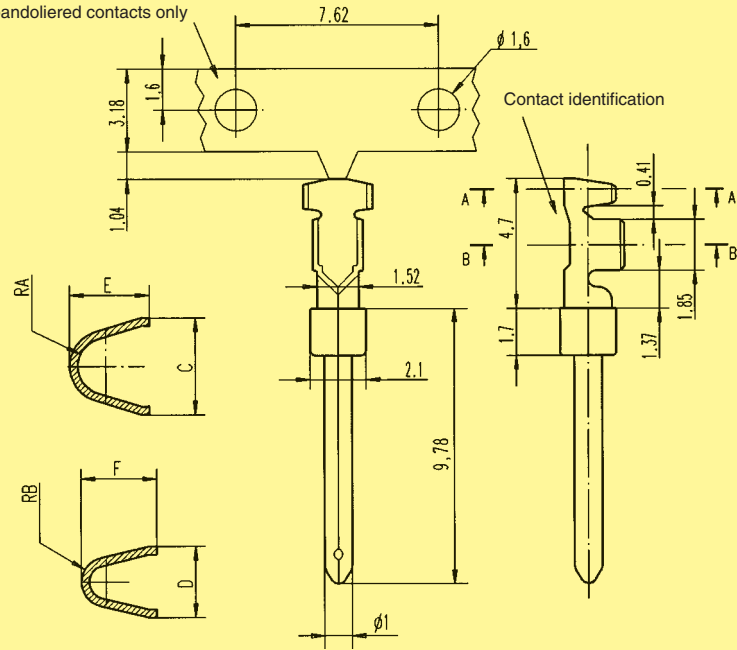
Identification

Drawing

Dimensions in mm

Male contacts

For bandoliered contacts only



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	≡≡≡

Crimp contacts

D-Sub - S

Identification	Wire gauge (mm ²)	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 500 pieces/reel Unrolling left	0.09-0.25 AWG 28-24 stranded	09 67 000 7277 ¹⁾	09 67 000 7278 ¹⁾	09 67 000 7276 ¹⁾
10 000 pieces/reel Unrolling left Unrolling left reversed Unrolling right reversed		09 67 000 7267	09 67 000 7268	09 67 000 7266
Individual contacts 500 pieces/reel Unrolling left	0.25-0.56 AWG 24-20 stranded	09 67 000 8277 ¹⁾	09 67 000 8278 ¹⁾	09 67 000 8276 ¹⁾
10 000 pieces/reel Unrolling left Unrolling left reversed Unrolling right reversed		09 67 000 8267	09 67 000 8268	09 67 000 8266
Unrolling direction		<p>500 pieces/reel Unrolling left</p>	<p>10 000 pieces/reel Unrolling left</p>	<p>10 000 pieces/reel Unrolling left reversed</p>
		<p>10 000 pieces/reel Unrolling right reversed</p>	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

Crimp contacts



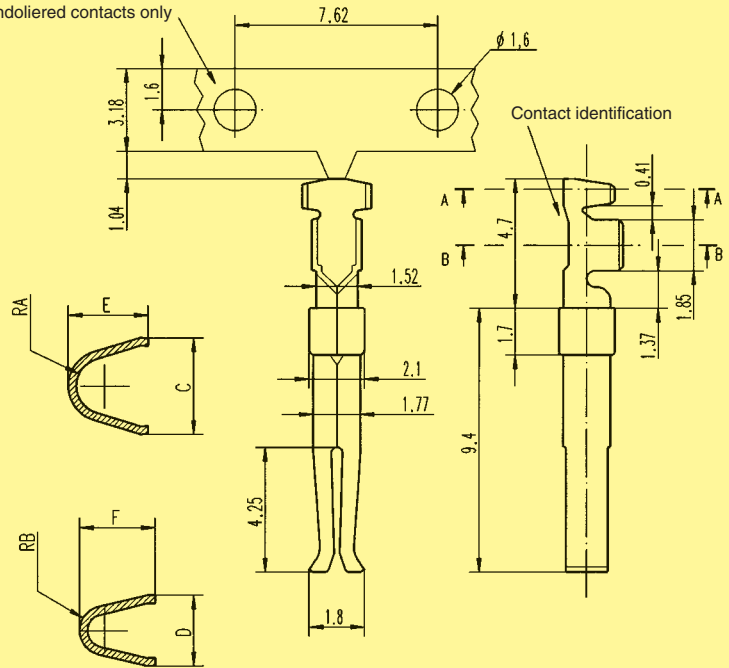
Identification

Drawing

Dimensions in mm

Female contacts

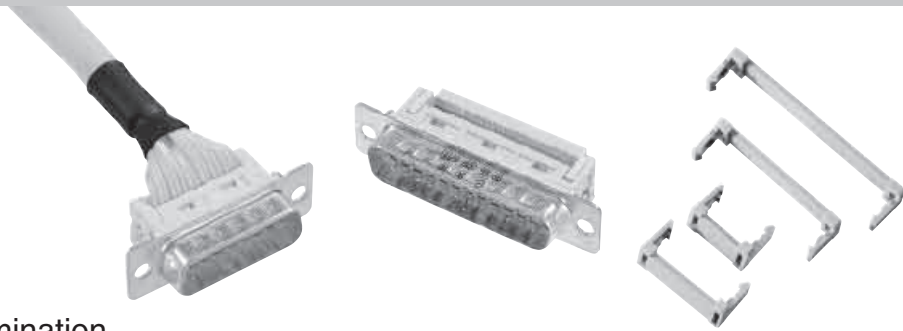
For banded contacts only



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	≡

Number of contacts

9-37



Insulation displacement termination

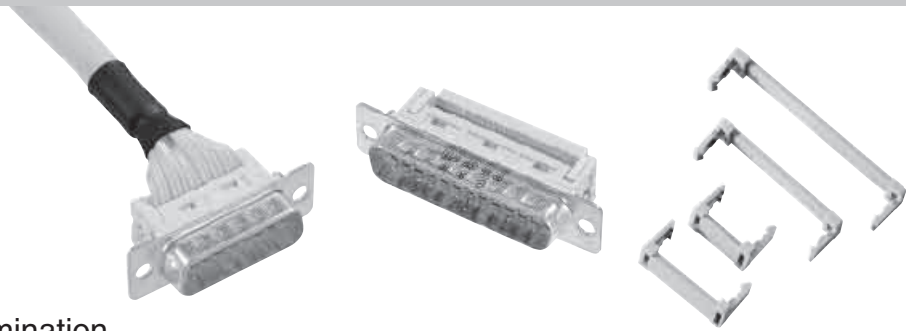
D-Sub - S

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 15 25 37	09 66 128 770 . 09 66 228 770 . 09 66 328 770 . 09 66 428 770 .	09 66 128 670 . 09 66 228 670 . 09 66 328 670 . 09 66 428 670 .
Female connector pitch 1.27 mm metal shell	9 15 25 37	09 66 118 750 . 09 66 218 750 . 09 66 318 750 . 09 66 418 750 .	09 66 118 650 . 09 66 218 650 . 09 66 318 650 . 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 15 25 37	09 66 108 0001 09 66 208 0001 09 66 308 0001 09 66 408 0001	09 66 108 0001 09 66 208 0001 09 66 308 0001 09 66 408 0001

¹⁾ Not normally kept in stock

Number of contacts

9-37



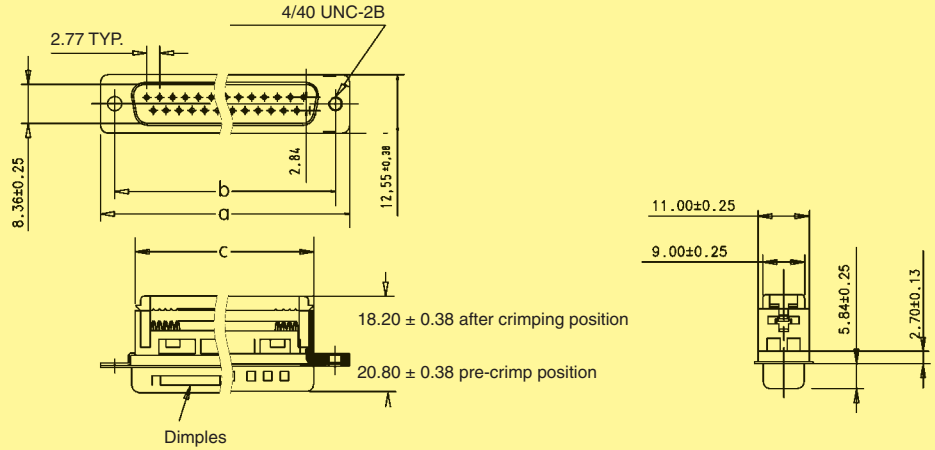
Insulation displacement termination

Identification

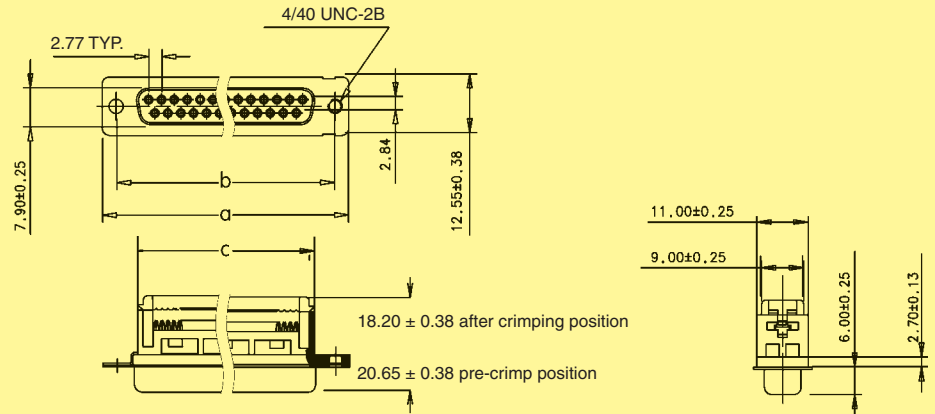
Drawing

Dimensions in mm

Male connector



Female connector

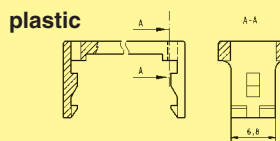


Male and female connectors

	a	b±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



Panel cut out for front/rear mount

Values are taken from the CECC 75 301-802

see page 02.24

D-Sub - S

Number of contacts

9-50



Solder buckets

D-Sub - S

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

Number of contacts

9-50



Solder buckets

Identification

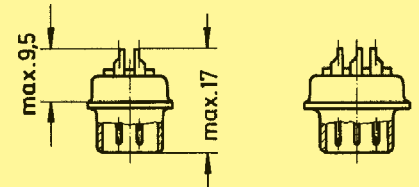
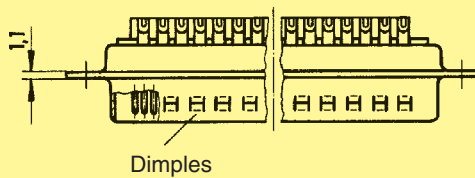
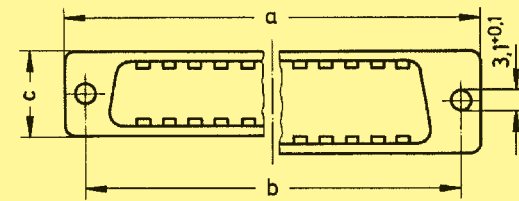
Drawing

Dimensions in mm

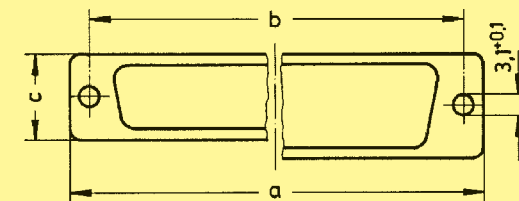
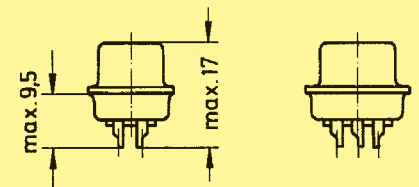
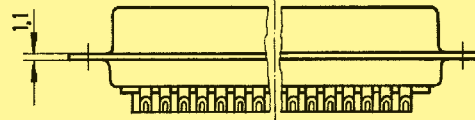
Male connector

9-37

50



Female connector



9-37

50

	a	b _{±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

D-Sub - S

