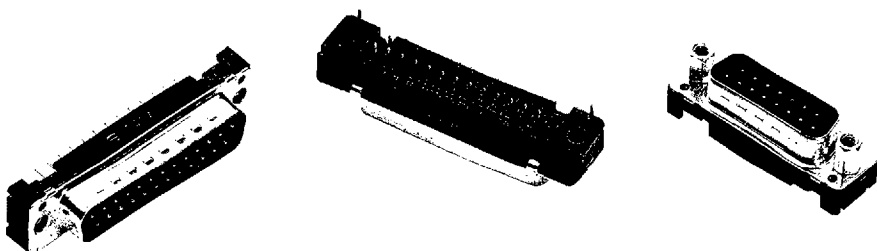




Number of contacts
9–50



Solder pins, straight – with/without grounding-pins

Identification	No. of contacts	Part No.
Performance Levels Explanations page 6 Other performance levels on request		
		Performance Level 3
		Performance Level 2
Male connector		
– straight solder pins		
tinned metal shell		
with dimples		
	9	without grounding
	15	09 66 121 770 .
	25	09 66 221 770 .
	37	09 66 321 770 .
	50	09 66 421 770 .
		09 66 521 770 . *
	9	with grounding- pins
	15	09 66 161 770 .
	25	09 66 261 770 .
	37	09 66 361 770 .
	50	09 66 461 770 .
		09 66 561 770 . *
Female connector		
– straight solder pins		
tinned metal shell		
	9	without grounding
	15	09 66 111 750 .
	25	09 66 211 750 .
	37	09 66 311 750 .
	50	09 66 411 750 .
		09 66 511 750 . *
	9	with grounding- pins
	15	09 66 151 750 .
	25	09 66 251 750 .
	37	09 66 351 750 .
	50	09 66 451 750 .
		09 66 551 750 . *
		without grounding
		09 66 121 670 .
		09 66 221 670 .
		09 66 321 670 .
		09 66 421 670 .
		09 66 521 670 .
		with grounding- pins
		09 66 161 670 .
		09 66 261 670 .
		09 66 361 670 .
		09 66 461 670 .
		09 66 561 670 .
		without grounding
		09 66 111 650 .
		09 66 211 650 .
		09 66 311 650 .
		09 66 411 650 .
		09 66 511 650 .
		with grounding- pins
		09 66 151 650 .
		09 66 251 650 .
		09 66 351 650 .
		09 66 451 650 .
		09 66 551 650 .

Please insert digit for
flange thread or fitted M3 ▶ 1
female screw locks 4-40 UNC ▶ 2
fitted screw locks 4-40 UNC ▶ 3**

Dimensions

9-37 50

Male connector

Female connector

Board drillings
straight solder pins

option

Dimensions in mm

	a	b±0.1	c	c ₁	g	h
9	30.9	25	12.9	12.5	4 x [2.74] = [10.96]	3 x [2.74] = [8.22]
15	39.2	33.3	12.9	12.5	7 x [2.74] = [19.18]	6 x [2.74] = [16.44]
25	53.1	47	12.9	12.5	12 x [2.74] = [33.12]	11 x [2.74] = [30.36]
37	69.4	63.5	12.9	12.5	18 x [2.74] = [49.68]	17 x [2.74] = [46.92]
50	87	81.1	15.7	15.4	16 x [2.74] = [44.16]	15 x [2.74] = [41.4]

Mating conditions page 6

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 $\leq 10 \text{ m}\Omega$

Insulation resistance	$\geq 10^{10} \Omega$
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Temperature range -55 °C + 125 °C
 -55 °C > + 200 °C *

* solder high temperature and press in

The higher temperature limit includes the local ambient and heating effect of the contacts under load

Terminations

- a) Solder buckets max 0.5 mm²
- b) Solder pins Ø 0.6 mm for P.C.B. holes Ø 0.8/1 mm
- c) Press-in terminations
Recommended P.C.B. trough holes

	press-in pin	Grounding pin
Hole:	1.15 ^{+0.03} mm	3.15 ^{+0.025} mm
Cu:	25-75 μ m	25-75 μ m
Sn:	5-15 μ m	4-10 μ m
Plated hole	0.94-1.09 mm	3.0-3.15 mm

P.C.B. board thickness: 1.4-3.2 mm

- d) Solder pins, angled 90°
Ø 0.6 mm for P.C.B. holes Ø 1 mm
- e) Wrap posts 0.6 x 0.6 mm
diagonal 0.8-0.86 mm length 13 mm
- f) Crimp contacts 0.09-0.56 mm²
AWG 28-20
- g) Insulation displacement
AWG 28/7 and AWG 26/7
AWG 28/1 and AWG 30/1

Materials

Mouldings and hoods

Thermoplastic resin, glass-fibre filled (PBTP), except solder high temperature and press-in version, which are in Liquid Crystal Polymer (LCP), UL 94-VO

Contacts	Copper alloy	
Part. No. 09 66 . . .	Male und Female	: stamped
Part. No. 09 67 0 . .	Male and Female	: turned
Part. No. 09 67 2 . .	Male and Female	: stamped
Part. No. 09 68 . . .	Male and Female	: stamped

Contact surface¹⁾

Contact surface:	selectively gold-plated according to performance level ¹⁾
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Termination zone:

Metal shell	Steel surface, tinned
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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

Press-in without grounding pins	insertion max. per contact:	120 N
	withdrawal min. per contact:	20 N

Press-in with
grounding pins

insertion max. per grounding pin: 250 N
withdrawal min. per grounding pin: 30 N

Female connector with male connector 9 way ≤ 30 N, 15 way ≤ 50 N, 25 way ≤ 83 N, 37 way ≤ 123 N, 50 way ≤ 167 N

¹⁾ Performance Level 3 as per DIN 41 652, part 2
≥ 50 mating cycles, no gas test

1) Performance Level 2 as per DIN 41 652, part 2
≥ 200 mating cycles, 4 days gas test using 10 ppm SO₂

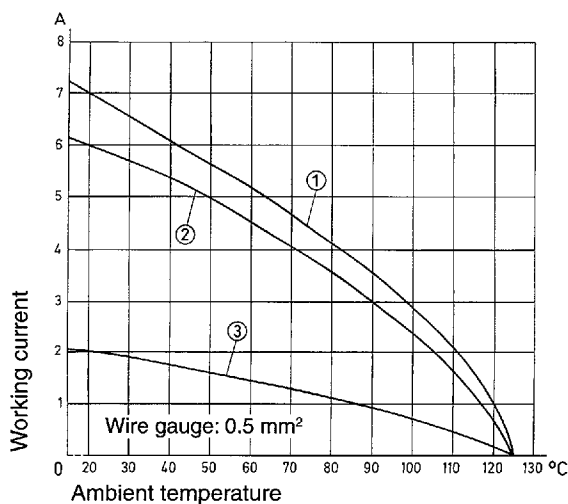
Other performance levels on request

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.

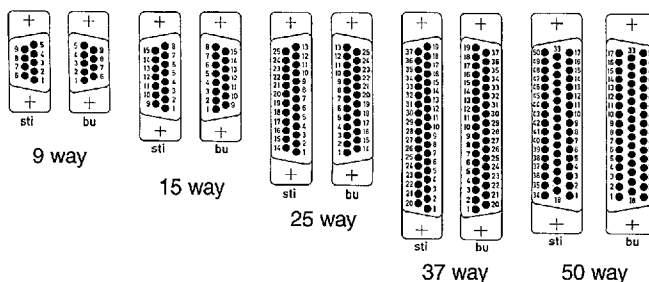
Control and test procedures according to DIN 41 640, part 3.



Example: 25 way connector

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

Contact arrangement View from termination side



sti = Male connector
bu = Female connector

Mating conditions as per DIN 41 652

