Rectangular I/O Connectors

- NFC-UTE C 93-425
- According to MIL-C-24308
- Layouts: 9, 15, 25, 37 and 50
- High reliability
- More than 5000 mating and unmating cycles
- Contact resistance: 5 m max.
- Solder and removable crimp contacts

Technical Characteristics

MATERIAL	
Shell	Plated steel
Insulator	PBT (15%) UL 94 V0
Pin & socket body	Brass
Socket wires	Copper alloy
Plastic hood	ABS, UL 94 VO
Metallized plastic hood	Metallized ABS, UL 94 VO
Metallized hood	Aluminium alloy
PLATING	
Terminations and contact areas	Au/Ni
Shell	GS: tinned shell
	GSD: zinc yellow-chromate plated shell
ELECTRICAL CHARACTERISTICS	
Working Voltage	300 VAC
Current rating	7.5 A
Dielectric withstanding voltage	1000 V_{rms}
Electrical continuity (shell to shell)*	2 mh typical
Contact resistance	5 mh max
	(standard value 8 mh max)
Insulation resistance	5.10^3 Mh max

* Only for tin plated shells with dimples

GENERAL CHARACTERISTICS						
Housing	E	A	B	C	D	
Number of contacts	9	15	25	37	50	
Pitch between contacts	2.77 mm (25, 37 & 50 contacts)					
Pitch between rows	2.84 mm					
Crimp termination	AWG 26-28 (0.093 to 0.14 mm^2)					
ENVIRONMENTAL CHARACTERISTICS						
Temperature range	-55 °C, + 125 °C					
Dry heat	1000h at +125 °C					
Salt spray	GS series : 48h			GSD series : 500h		
Damped heat	56 days (40 °C, relative humidity: 90-95 %)					
MECHANICAL CHARACTERISTICS						
Contact retention	40N min (max displacement: 0.3 mm)					
Mating and unmating cycles	5000					
Vibrations and shocks	no discontinuity 20 ns					
• Sinusoidal vibrations	10/2000 Hz, 1.5 mm, 20g					
• Shocks	50 g					
INSULATOR RETENTION IN HOUSING						
Housing	E	A	B	C	D	
Number of contacts	9	15	25	37	50	
Min retention	53N	80N	124N	180N	233N	

Ordering Information

G	S	-	009	13	10	110

SERIES

MODEL

SHELL TYPE

-	tin plated shell* (salt spray 48h)
D	zinc yellow chromate plated shell** (salt spray 500h)

LAYOUT

009	015	025	037	050

PART – POLARITY – PLATING

13	male plug, gold plated terminations
17	male plug, pretinned terminations
22	female receptacle, gold plated terminations
26	female receptacle, pretinned terminations

TERMINATIONS

10	right angle termination CI
20	crimp contacts AWG 20 to 24
22	crimp contacts AWG 26 to 28
30	straight termination

MOUNTING

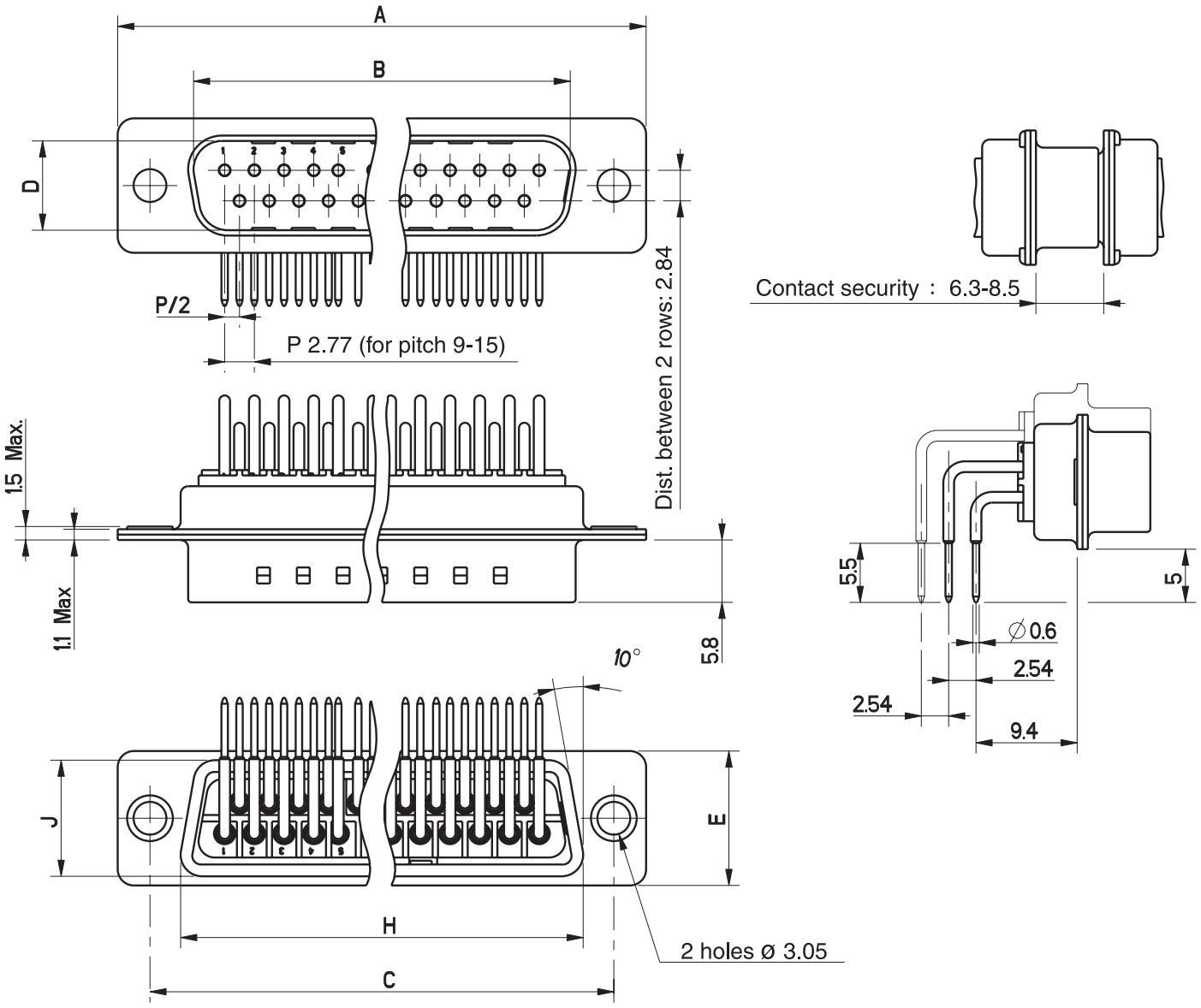
110	mounting for D Sub 90° (M3-6G)
150	float mounting
111	right angle D Sub mounting (4-40 UNC)

* male plug with dimples
** male plug without dimples

The other accessories are sold separately
Sealed connectors: consult us.

Dimensions: 90° PC tail plugs

Pin ø 1.02

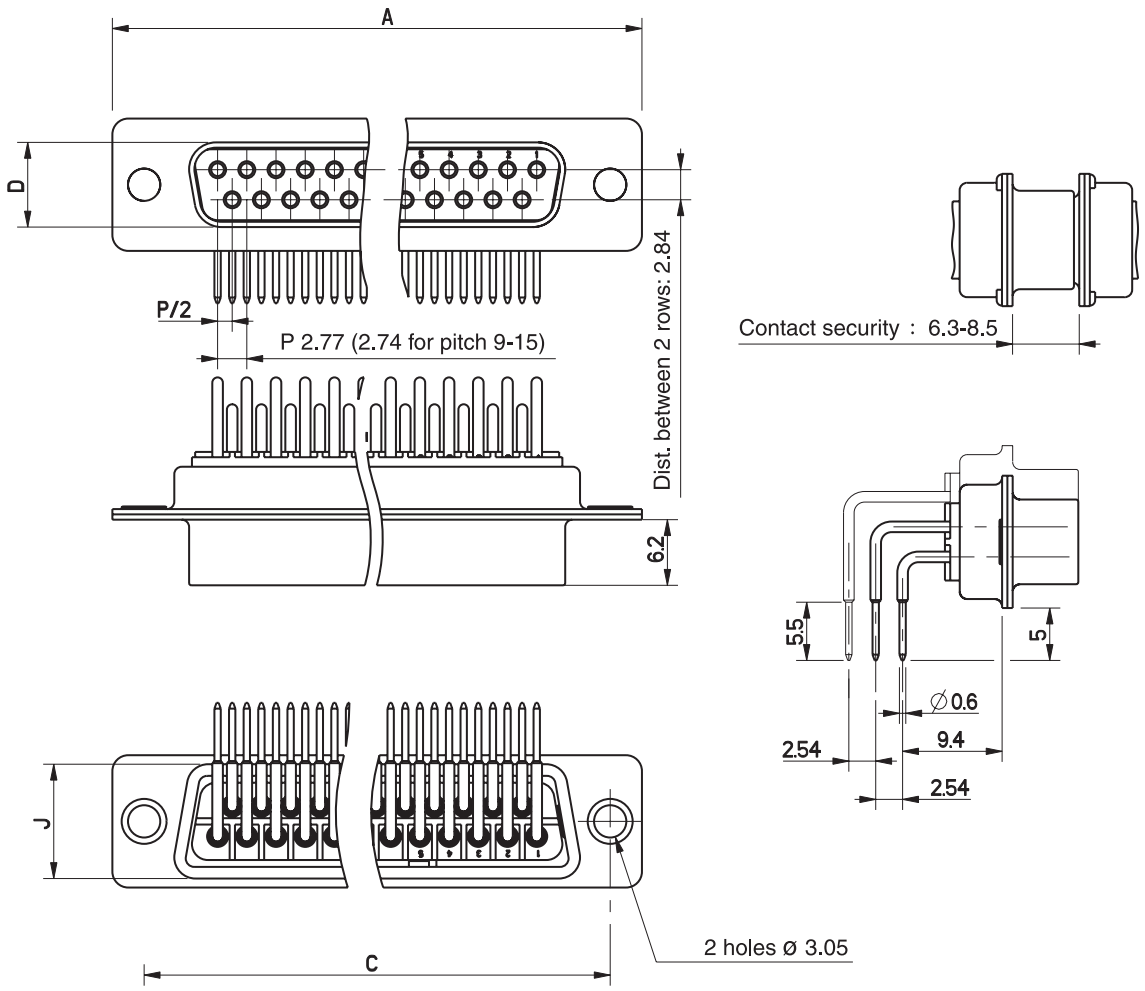


Part Number	No. of contacts	Dimensions (mm)						
		A ± 0.2	B ± 0.2	C ± 0.2	D ± 0.2	E ± 0.2	H ± 0.2	J ± 0.2
GS-009..10...	9	30.7	16.9	25	8.4	12.3	19.3	10.8
GS-015..10...	15	39.1	25.2	33.3	8.4	12.3	27.5	10.8
GS-025..10...	25	52.9	38.9	47.05	8.4	12.3	41.3	10.8
GS-037..10...	37	69.3	55.4	63.5	8.4	12.3	57.7	10.8
GS-050..10...	50	66.7	52.8	61.1	11.2	15.3	55.3	13.6

Dimensions are in mm

Dimensions: 90° PC tail receptacles

Socket ø 1.02

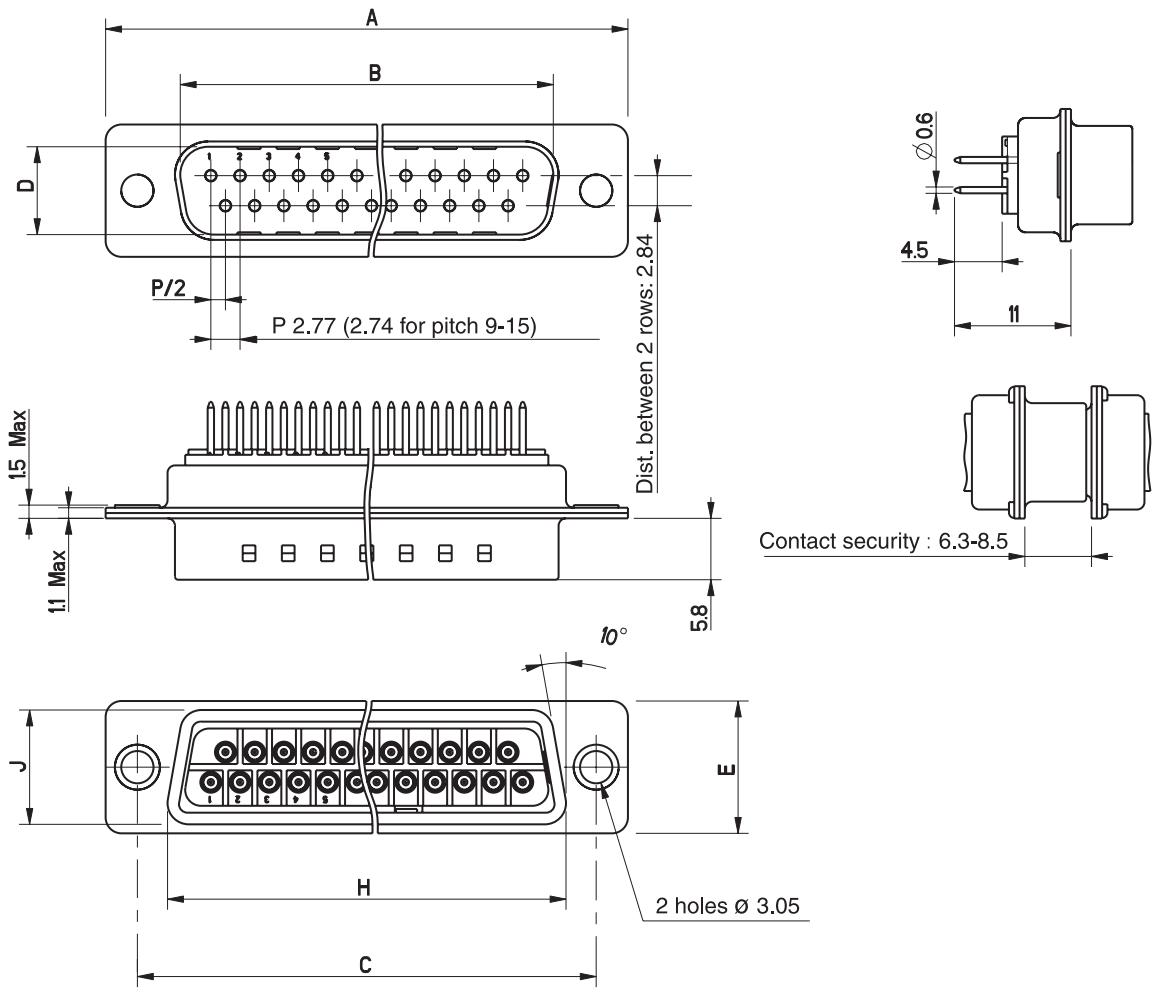


Part Number	No. of contacts	Dimensions (mm)						
		A ± 0.2	B ± 0.2	C ± 0.2	D ± 0.2	E ± 0.2	H ± 0.2	J ± 0.2
GS-009..10…	9	30.7	16.2	25	7.8	12.3	19.3	10.8
GS-015..10…	15	39.1	24.7	33.3	7.8	12.3	27.5	10.8
GS-025..10…	25	52.9	38.4	47.05	7.8	12.3	41.3	10.8
GS-037..10…	37	69.3	54.7	63.5	7.8	12.3	57.7	10.8
GS-050..10…	50	66.7	52.3	61.1	10.8	15.3	55.3	13.6

Dimensions are in mm

Dimensions: straight PC tail plugs

Pin ø 1.02



Part Number	No. of contacts	Dimensions (mm)						
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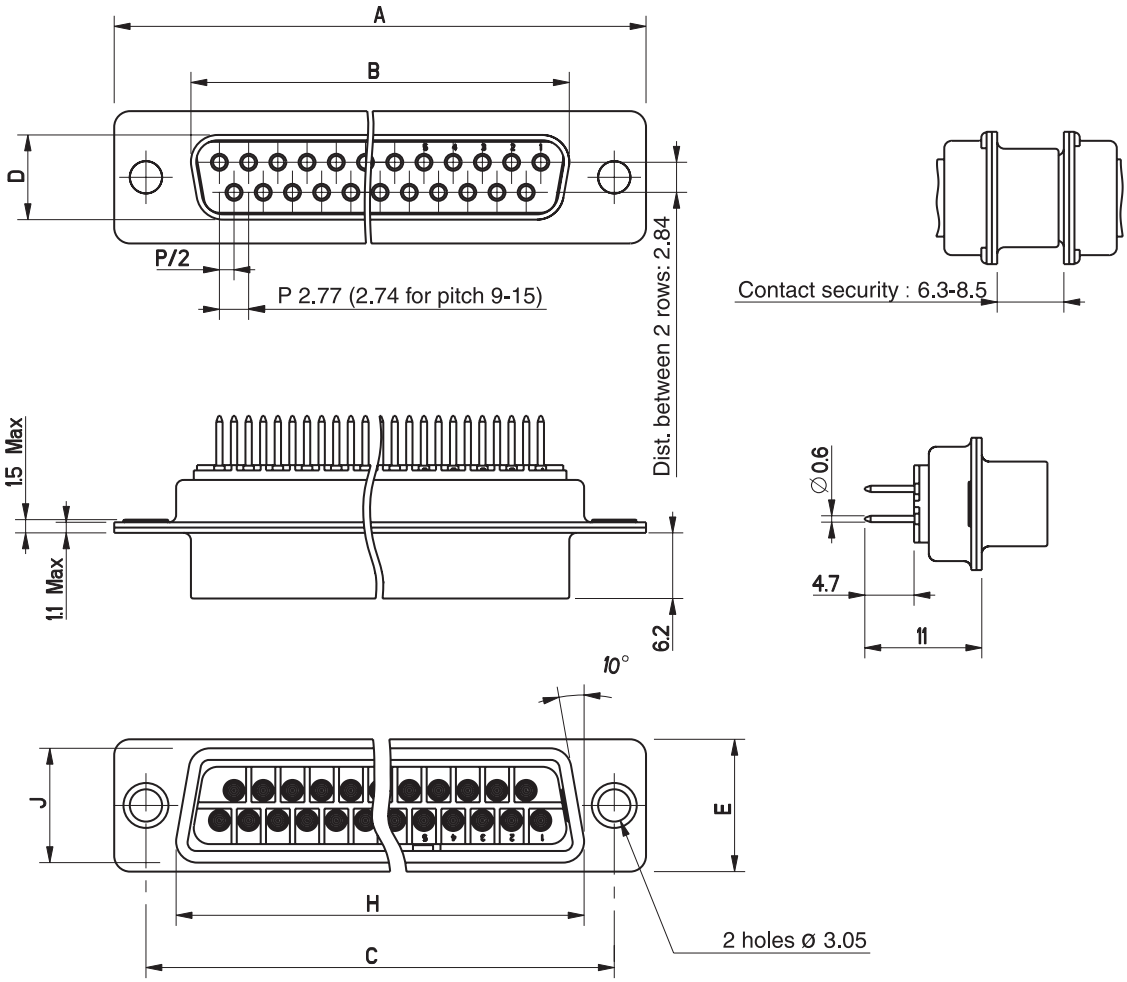
GS-009..30...	9	30.7	16.9	25	8.4	12.3	19.3	10.8
GS-015..30...	15	39.1	25.2	33.3	8.4	12.3	27.5	10.8
GS-025..30...	25	52.9	38.9	47.05	8.4	12.3	41.3	10.8
GS-037..30...	37	69.3	55.4	63.5	8.4	12.3	57.7	10.8
GS-050..30...	50	66.7	52.8	61.1	11.2	15.3	55.3	13.6

Dimensions are in mm

Dimensions: straight PC tail receptacles

Socket ø 1.02



Part Number	No. of contacts	Dimensions (mm)						
		A ± 0.2	B ± 0.2	C ± 0.2	D ± 0.2	E ± 0.2	H ± 0.2	J ± 0.2
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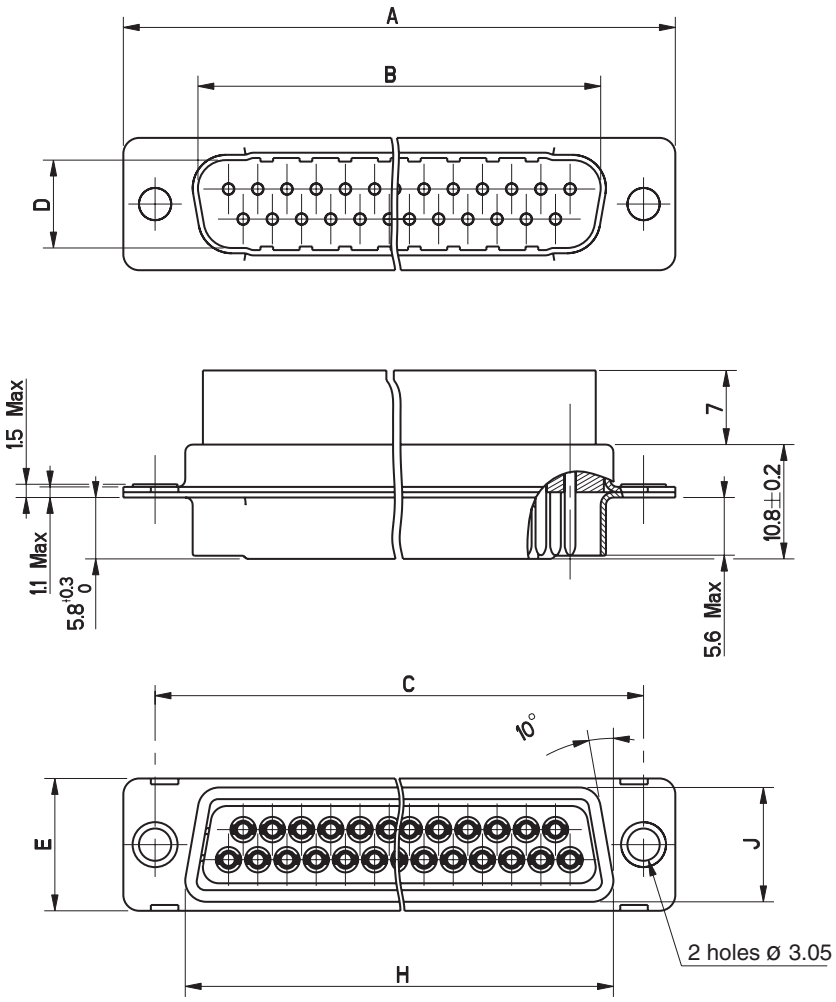
GS-015..30…	15	39.1	24.7	33.3	7.8	12.3	27.5	10.8
GS-025..30…	25	52.9	38.4	47.05	7.8	12.3	41.3	10.8
GS-037..30…	37	69.3	54.7	63.5	7.8	12.3	57.7	10.8
GS-050..30…	50	66.7	52.3	61.1	10.8	15.3	55.3	13.6

Dimensions are in mm

Dimensions: crimp terminations

Pin ø 1.02

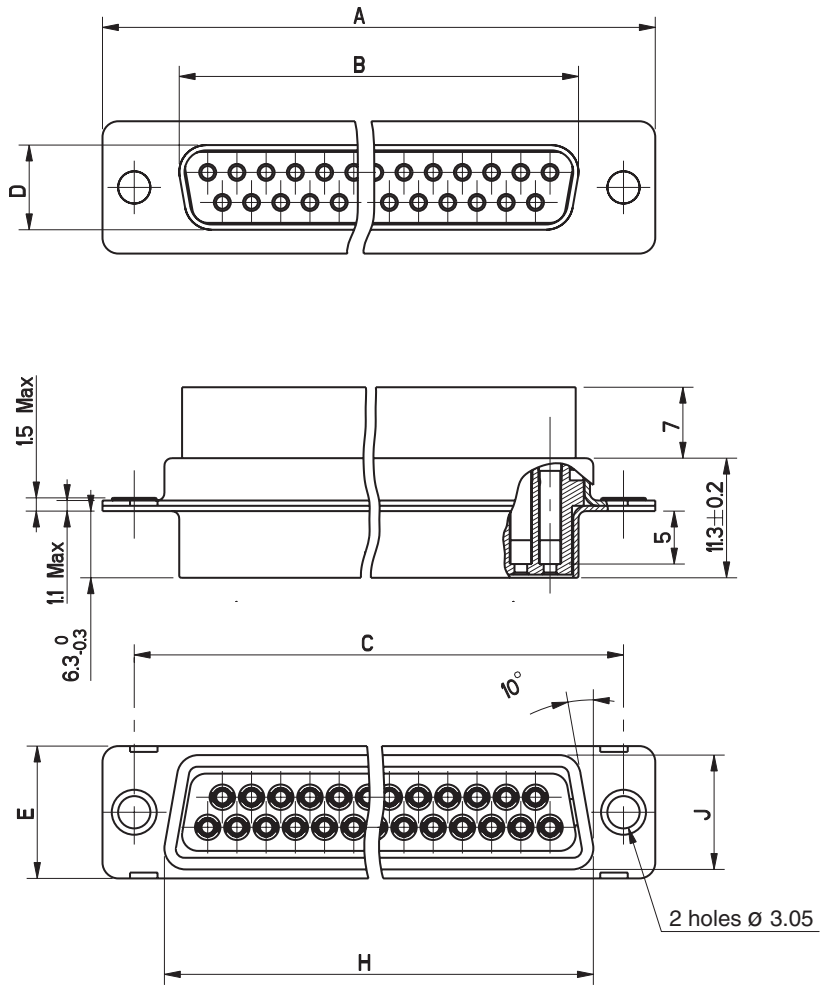


Part Number	No. of contacts	Dimensions (mm)						
		A ± 0.2	B ± 0.2	C ± 0.2	D ± 0.2	E ± 0.2	H ± 0.2	J ± 0.2
GS-009..20...	9	30.8	16.8	25	8.3	12.5	19.3	10.8
GS-009..22...	9	30.8	16.8	25	8.3	12.5	19.3	10.8
GS-015..20...	15	39.1	25.1	33.3	8.3	12.5	27.5	10.8
GS-015..22...	15	39.1	25.1	33.3	8.3	12.5	27.5	10.8
GS-025..20...	25	53	38.9	47	8.3	12.5	41.3	10.8
GS-025..22...	25	53	38.9	47	8.3	12.5	41.3	10.8
GS-037..20...	37	69.3	55.3	63.5	8.3	12.5	57.7	10.8
GS-037..22...	37	69.3	55.3	63.5	8.3	12.5	57.7	10.8
GS-050..20...	50	67	52.7	61.1	11	15.4	55.3	13.6
GS-050..22...	50	67	52.7	61.1	11	15.4	55.3	13.6

Dimensions are in mm

Dimensions: crimp terminations receptacles

Socket ø 1.02



Part Number	No. of contacts	Dimensions (mm)						
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GS-009..20...	9	30.8	16.4	25	8	12.5	19.3	10.8
GS-009..22...	9	30.8	16.4	25	8	12.5	19.3	10.8
GS-015..20...	15	39.1	24.7	33.3	8	12.5	27.5	10.8
GS-015..22...	15	39.1	24.7	33.3	8	12.5	27.5	10.8
GS-025..20...	25	53	38.5	47	8	12.5	41.3	10.8
GS-025..22...	25	53	38.5	47	8	12.5	41.3	10.8
GS-037..20...	37	69.3	54.9	63.5	8	12.5	57.7	10.8
GS-037..22...	37	69.3	54.9	63.5	8	12.5	57.7	10.8
GS-050..20...	50	67	52.5	61.1	10.8	15.4	55.3	13.6
GS-050..22...	50	67	52.5	61.1	10.8	15.4	55.3	13.6

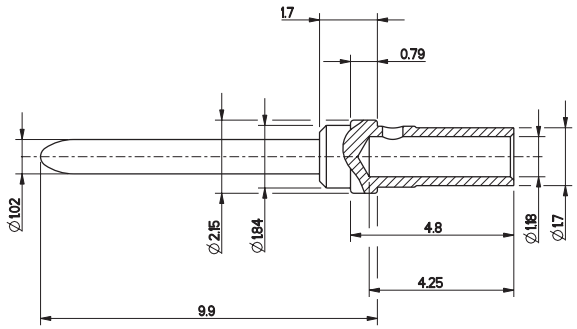
Dimensions are in mm

Dimensions: crimp termination contacts

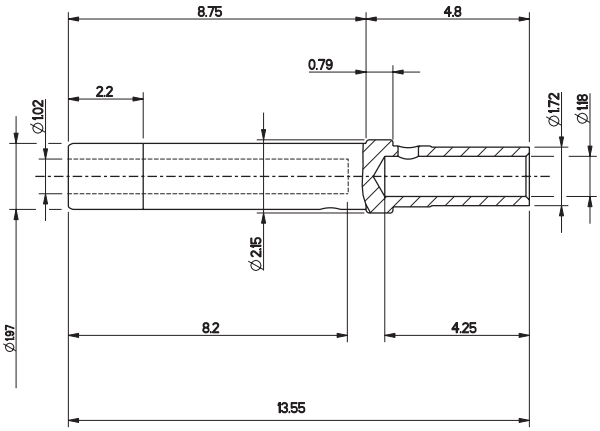
Pins

Socket

ø 1.02, AWG 24 to 20



Ref. 0100 901-20-OG*

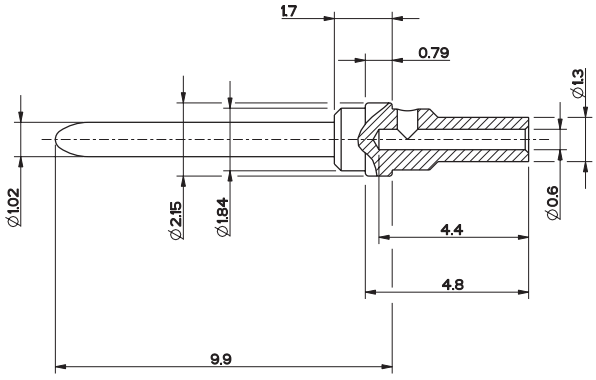


Ref. 0100 902-20-G2*

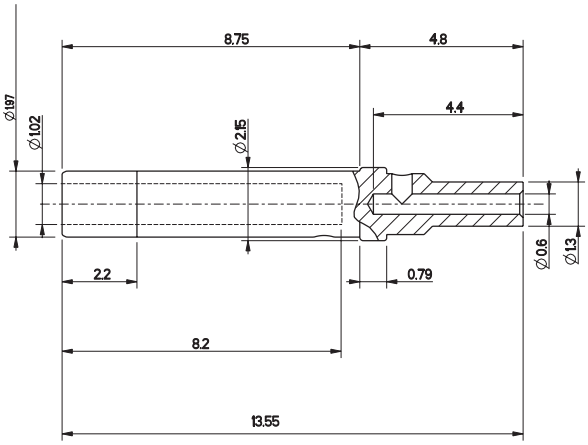
Pins

Socket

ø 1.02, AWG 28 to 26



Ref. 0100 931-22-OG*

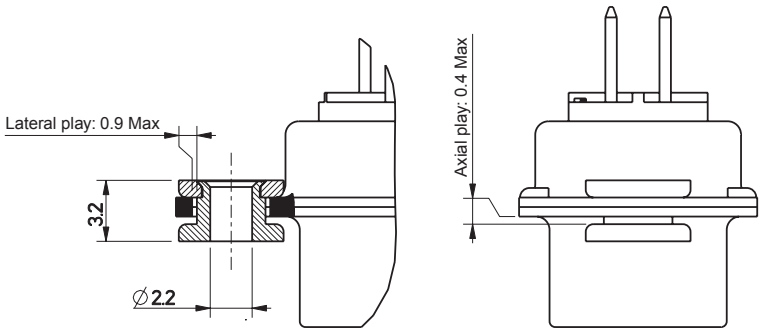


Ref. 0100 932-22-G2*

Dimensions are in mm

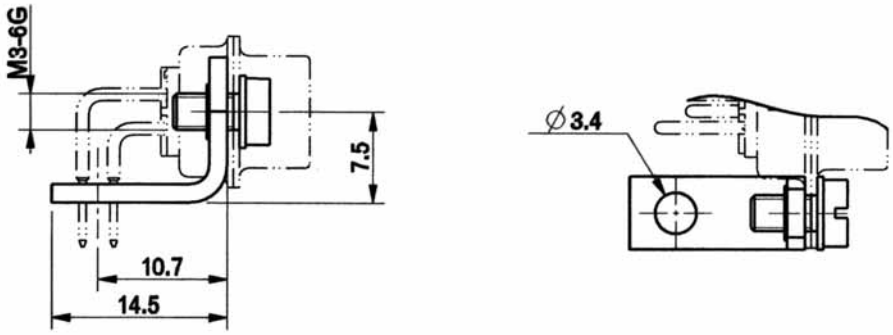
Mounting

Float Mounting



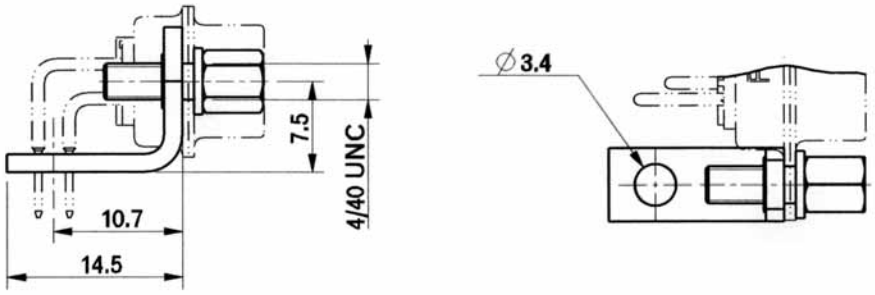
Ref. GS- --- -- -- 150

Bracket and screw for D SUB 90° - 9 to 37



Ref. GS- --- -- -- 110

Bracket and female screw lock for D SUB 90° - 9 to 37

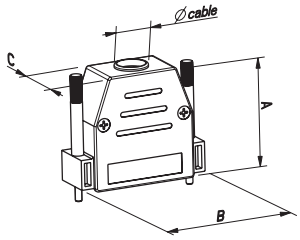


Ref. GS- --- -- -- 111

Dimensions are in mm

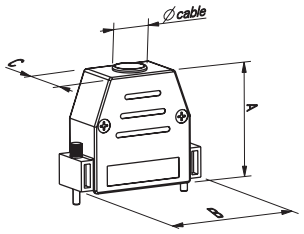
Hoods with screw locks

Plastic, 38mm screws



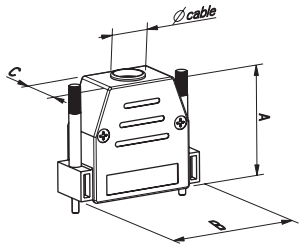
Part Number	Dimensions (mm)			Ø Cable
	A	B	C	
GS-009 300	31	31.5	15.2	8.5
GS-015 300	35	40	15.2	8.5
GS-025 300	38	53.5	15.2	11
GS-037 300	40	70	15.2	11
GS-050 300	40	67.5	18.2	12

Plastic 18mm screws



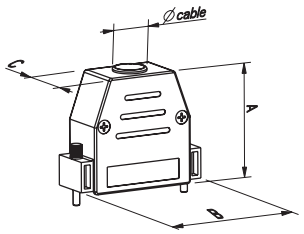
Part Number	Dimensions (mm)			Ø Cable
	A	B	C	
GS-009 301	31	31.5	15.2	8.5
GS-015 301	35	40	15.2	8.5
GS-025 301	38	53.5	15.2	11
GS-037 301	40	70	15.2	11
GS-050 301	40	67.5	18.2	12

Metallized plastic 38mm screws



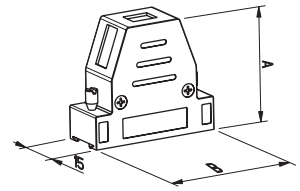
Part Number	Dimensions (mm)			Ø Cable
	A	B	C	
GS-009 302	31	31.5	15.2	8.5
GS-015 302	35	40	15.2	8.5
GS-025 302	38	53.5	15.2	11
GS-037 302	40	70	15.2	11
GS-050 302	40	67.5	18.2	12

Metallized plastic 18mm screws



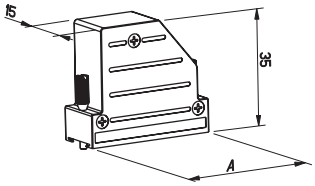
Part Number	Dimensions (mm)			Ø Cable
	A	B	C	
GS-009 303	31	31.5	15.2	8.5
GS-015 303	35	40	15.2	8.5
GS-025 303	38	53.5	15.2	11
GS-037 303	40	70	15.2	11
GS-050 303	40	67.5	18.2	12

Diecast hood with screw locks



Part Number	Dimensions (mm)	
	A	B
GS-009 304	38	31
GS-015 304	35	39.5
GS-025 304	43	53

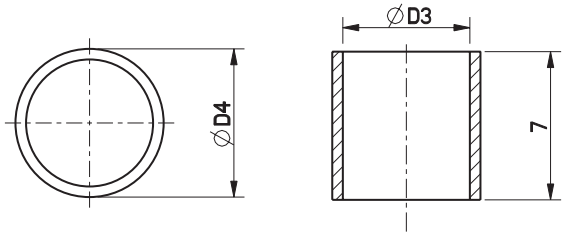
Diecast hood with side cable output and screw locks



Part Number	Dimensions (mm)
	A
GS-009 305	31
GS-015 305	39.3
GS-025 305	53

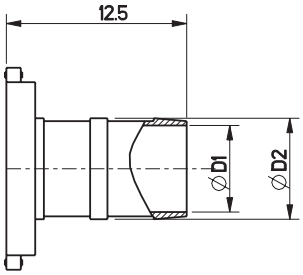
Accessories

Crimp sleeve



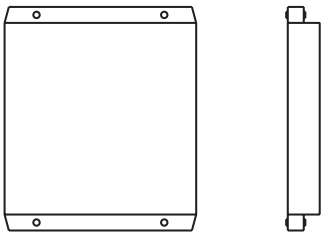
Part Number	Dimensions (mm)	
	Ø D3	Ø D4
GS-060 307	6	7
GS-065 307	6.5	7.5
GS-075 307	7.5	8.5
GS-080 307	8	9
GS-100 307	10	11
GS-105 307	10.5	11.5
GS-110 307	11	12
GS-115 307	11.5	12.5
GS-120 307	12	13
GS-140 307	14	15

Crimp flange



Part Number	Dimensions (mm)	
	Ø D1	Ø D2
GS-030 306	3	4
GS-035 306	3.5	4.5
GS-045 306	4.5	5.5
GS-050 306	5	6
GS-060 306	6	7
GS-070 306	7	8
GS-076 306	7.6	8.6
GS-080 306	8	9
GS-090 306	9	10

Blind plug for diecast hood



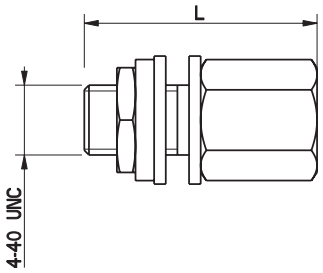
Part Number	Number of contacts
GS-937 308	9 to 37
GS-050 308	50

Accessories

Female screw lock

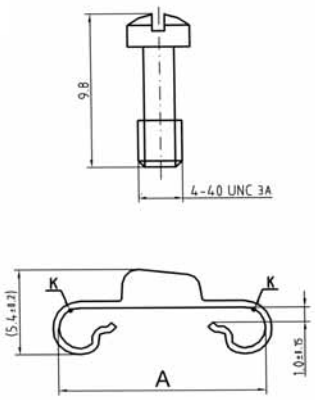
YELLOW-CHROMATE FINISH	
Part Number	**Dimensions (mm)**
GS-002 120	10
GS-002 121	11
GS-002 122	13.2
GS-002 123	16
GS-002 124	18.2
GS-002 125	22

TIN PLATED FINISH	
Part Number	**Dimensions (mm)**
GS-002 130	10
GS-002 131	11
GS-002 132	13.2
GS-002 133	16
GS-002 134	18.2
GS-002 135	22



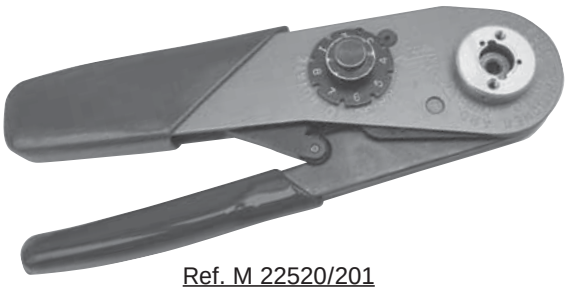
Male screw lockwithout hood

CAPTIVE SCREW



Part Number	Number of contacts	Dimensions
GS-002 937 115	9 to 37	13,2
GS-002 050 115	50	15,7

Crimp tool



Ref. M 22520/201

Locating plug

Ref. M 22520/208

Dust caps

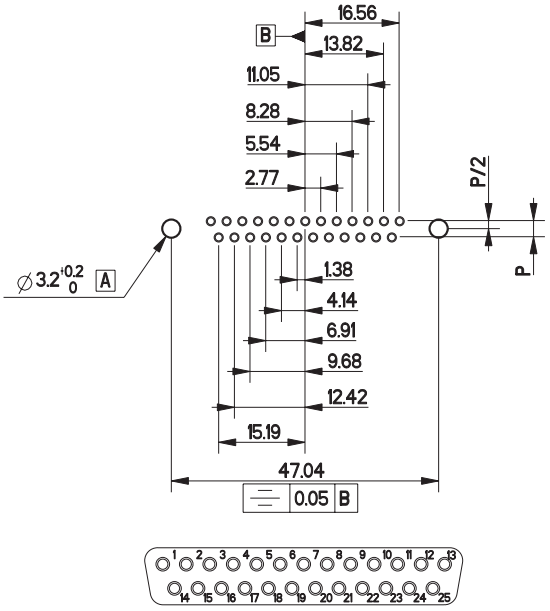
Contact extraction tool

Ref. S-090

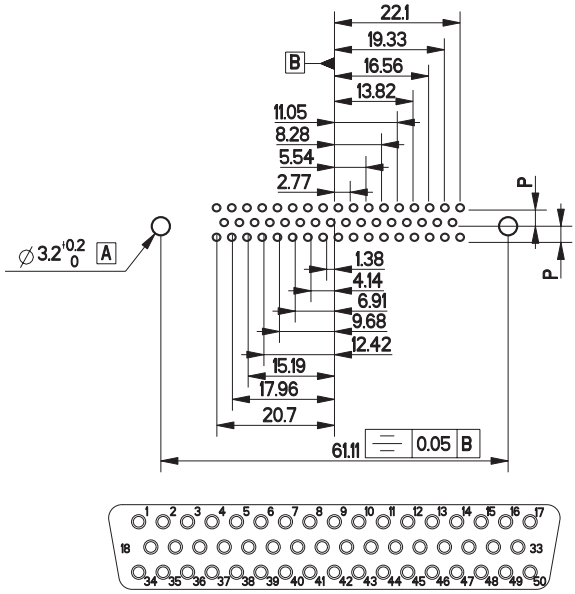
Part Number	Number of female contacts
GS-009-311	9
GS-015-311	15
GS-025-311	25
GS-037-311	37
GS-050-311	50

Part Number	Number of male contacts
GS-009-312	9
GS-015-312	15
GS-025-312	25
GS-037-312	37
GS-050-312	50

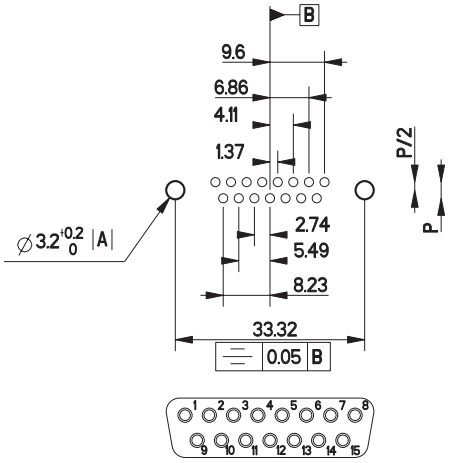
Board preparation details for straight or bent terminations



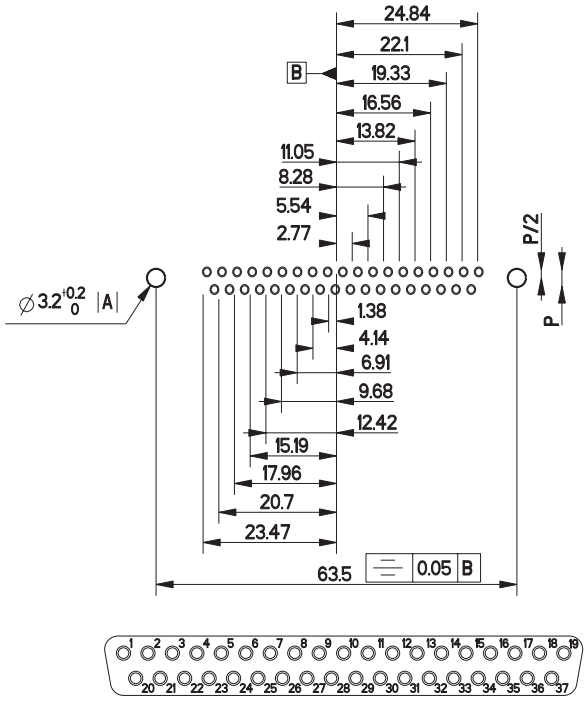
25 Contacts



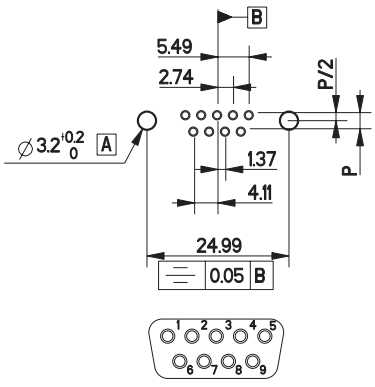
50 Contacts



15 Contacts



37 Contacts



9 Contacts

NOTA: Drilling holes 1+-0.1Ø

Termination style	P 0.05 A
Straight	2.84
90	2.54

Dimensions are in mm