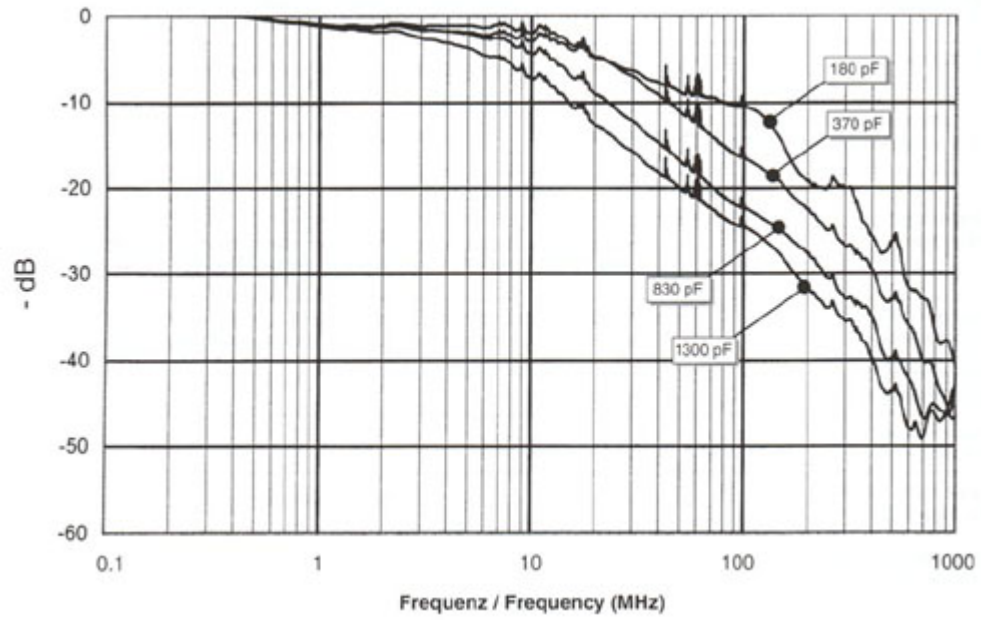


Technical Data	C-Filter D-Subminiature Standard 9,15,25,37, and 50 pos.	C-Filter D-Subminiature High Density 15,26,44, and 62 pos.
Insulators	Polyester GF UL 94 V-O	
Contacts	Copper alloy	
Contact Finish	hard-gold-plated over nickel, solder area tin plated	
Shell	Brass / Steel tin plated	
Dielectric withstanding voltage	standard.....424 VDC	standard.....300 VDC
Working voltage	100 VDC	60 VDC
	depending on isolation coordination (refer to DIN VDE 0110/IEC 664-1)	
Contact Resistance	max 10 m $\Omega$ before usage $\Delta R$ max. 10 m $\Omega$ after usage according to DIN 41652 Part 2	
Insulation resistance	1 $\geq$ 1G $\Omega$	
Current rating	5,0 A (20° C)	3,0 A (20° C)
Voltage surge 10/700 $\mu$ s	standard.....300 V	standard.....300 V
Temperature range working	-25 ° C /to +105 ° C	-25 ° C to +85 ° C
Capacitor Values	180 pF $\pm$ 20% Tolerance 370 pF $\pm$ 20% Tolerance 830 pF $\pm$ 20% Tolerance 1300 pF $\pm$ 20% Tolerance	180 pF $\pm$ 20% Tolerance 370 pF $\pm$ 20% Tolerance 830 pF $\pm$ 20% Tolerance
Mating-/ unmating forces	9-positions $\leq$ 30 N 15-positions $\leq$ 50 N 25-positions $\leq$ 83 N 37-positions $\leq$ 123 N 50-positions $\leq$ 167 N	15-positions $\leq$ 50 N 26-positions $\leq$ 84 N 44-positions $\leq$ 120 N 62-positions $\leq$ 170 N
Quality class	A = Quality class 3 = 50 /mating cycles B = Quality class 2 = 200 /mating cycles C = Quality class 1 = 500 /mating cycles J = Quality class 1 > = 500 /mating cycles	
Degree of Protection	Requirements according to ICE 529 - IP 67	

# Technical Data for Water Resistant D-Sub Connectors

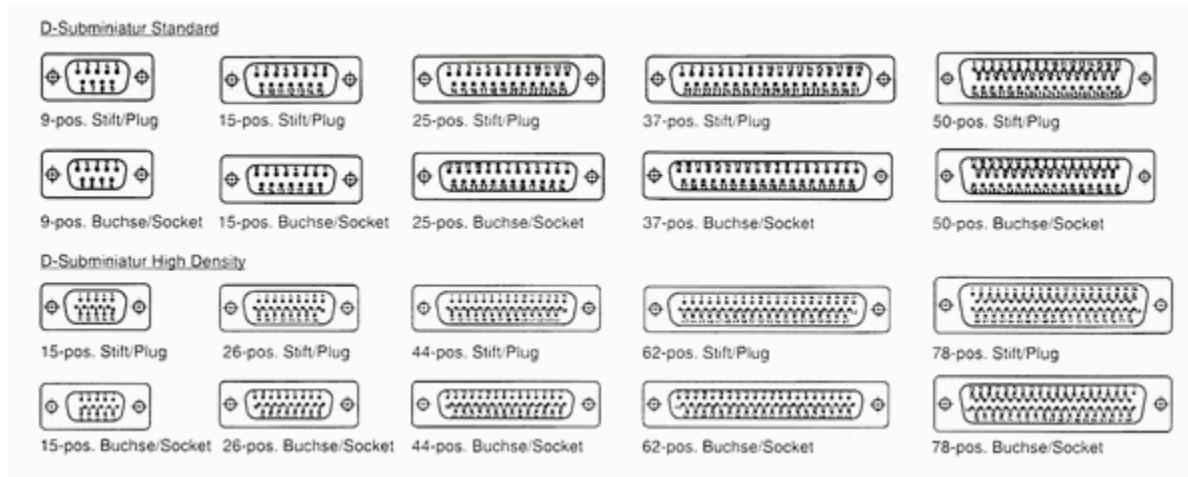
Technical Data	D-Subminiature Standard 9, 15, 25, 37 and 50 position	D-Subminiature High Density 15, 25, 44, 62 and 78 position
Insulators	Polyester GF UL 94 V0	
Contacts	Copper alloy	
Contact finish	hard gold plated over nickel	
Shell	Brass / Steel	
Shell plating	Tin plated or yellow chromate	
Test voltage V.r.m.s./NM	1000 V	
Working voltage	125 V $\approx$	60 V $\approx$
	Depending on isolation coordination (refer to DIN VDE 0110 / IEC 664-1)	
Current Rating	5 A (20°)	3 A (20°)
Contact resistance	max. 10 m after load in accordance DIN 41652, Part 2 $\Delta R$ max. 10 m $\Omega$ after load according to DIN 41652, Part 2	
Insulation resistance	$\geq 5 \text{ G } \Omega$	
Clearance and creepage distance	contact - contact $\geq 1.0 \text{ mm}$ contact - ground $\geq 1.2 \text{ mm}$	$\geq 0.6 \text{ mm}$
Operating temperature	- 40 °C to + 105 °C	
Mating/Unmating forces	9-positions $\leq 30 \text{ N}$ 15-positions $\leq 50 \text{ N}$ 25-positions $\leq 83 \text{ N}$ 37-positions $\leq 123 \text{ N}$ 50-positions $\leq 167 \text{ N}$	15-positions $\leq 50 \text{ N}$ 26-positions $\leq 84 \text{ N}$ 44-positions $\leq 120 \text{ N}$ 62-positions $\leq 170 \text{ N}$ 78-positions $\leq 200 \text{ N}$
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles J = Quality class 1 $\geq 500$ mating cycles ( telecom quality )	
Degree of protection	Requirements according to ICE 529 - IP 67	

**C-Filter**  
**Insertion Loss for standard and High Density connectors**

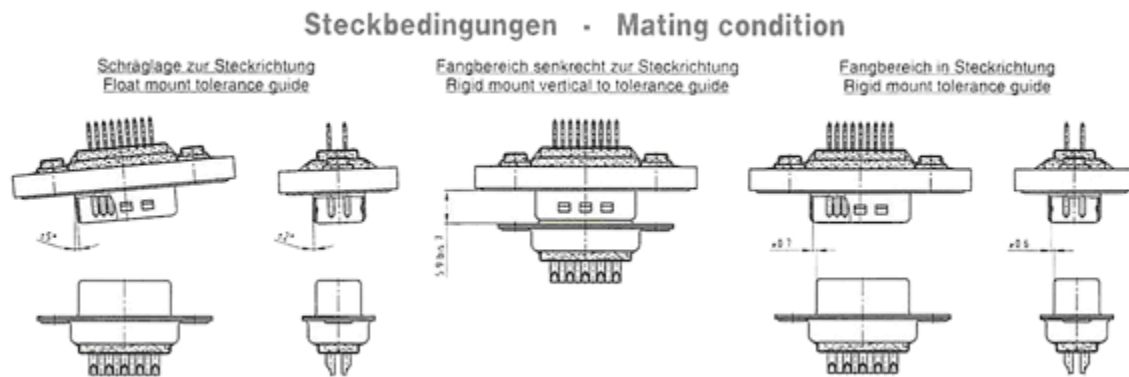


Capacitor Values Standard	Capacitor Values High Density	Tolerance	Ordering Code
180 pF	180 pF	± 20%	01
370 pF	370 pF	± 20%	03
830 pF	830 pF	± 20%	04
1300 pF		± 20%	05

## Contact Arrangement



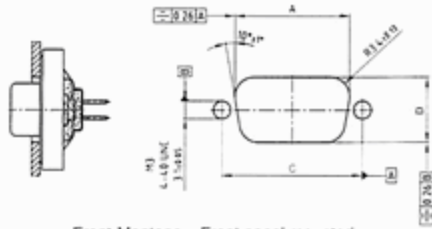
## Mating Condition



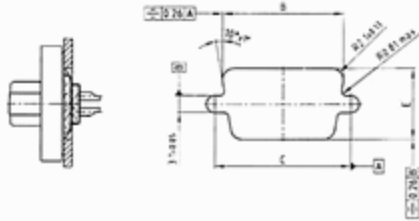
## Panel Cutout

## Montageausschnitt - Panel cutout

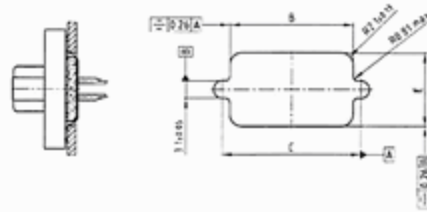
Hinterwand-Montage - Rear panel mounted



Front-Montage - Front panel mounted

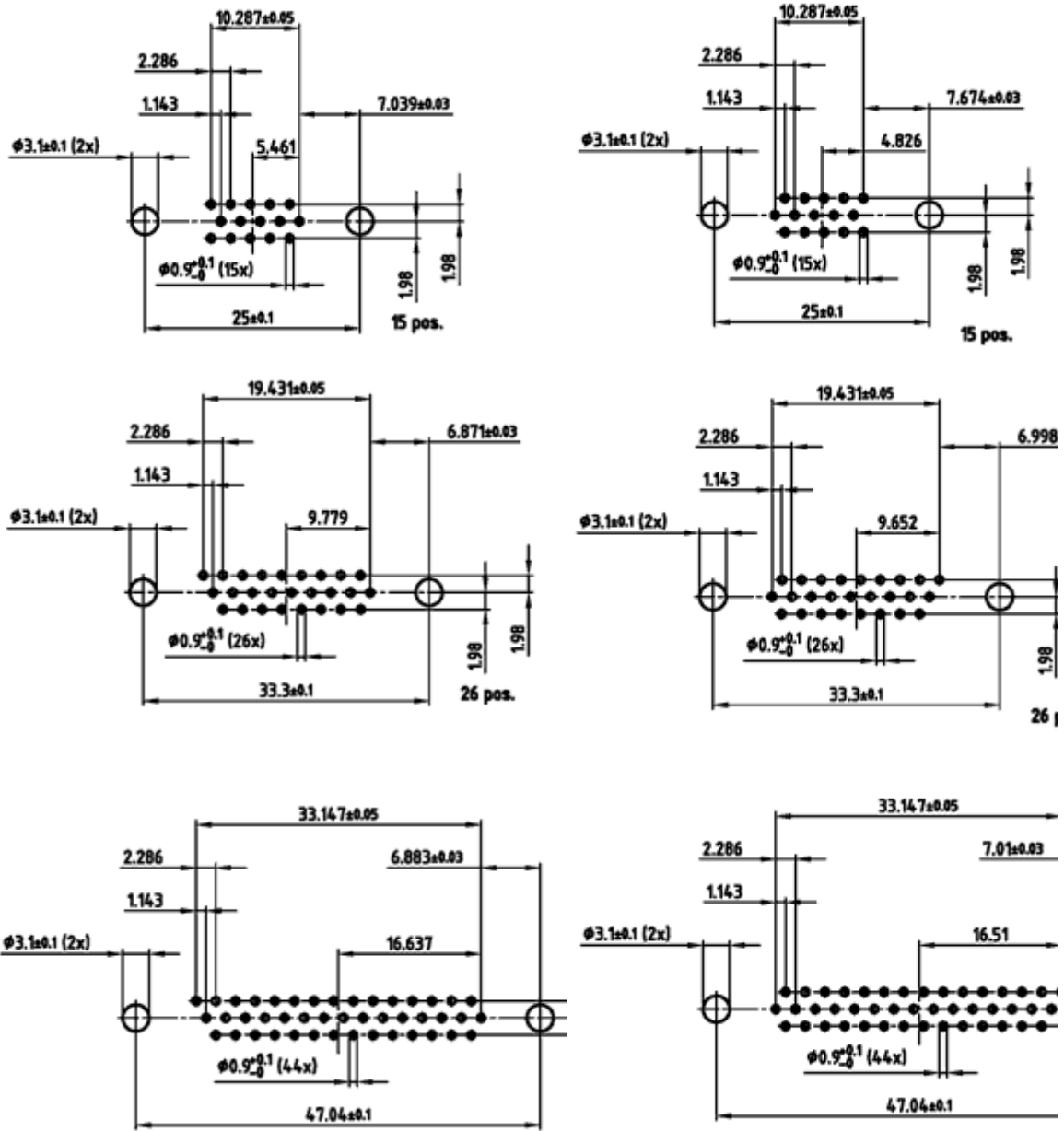


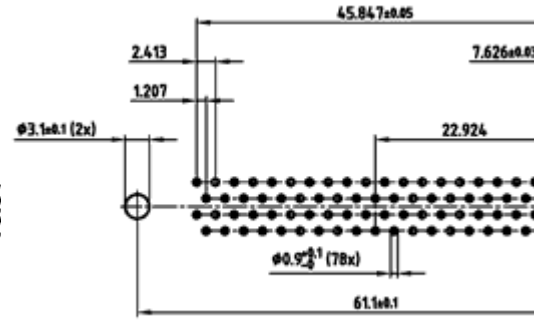
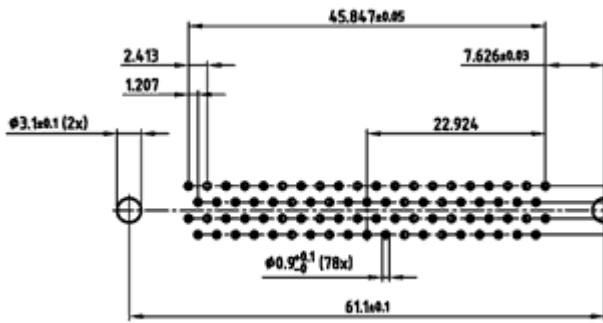
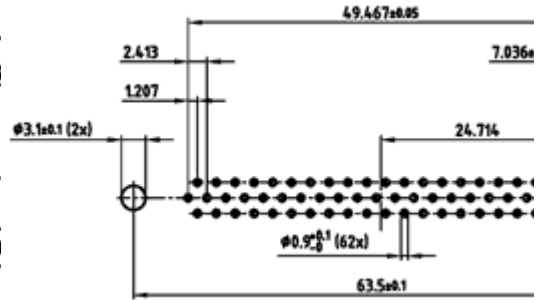
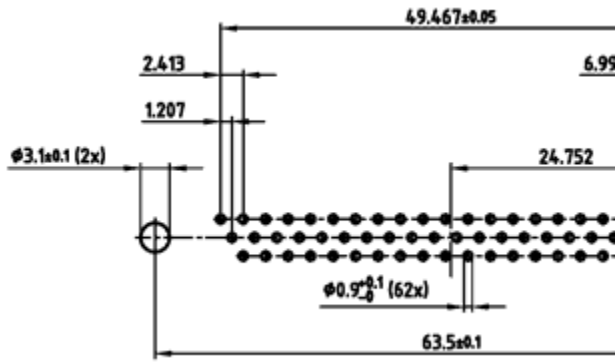
Front-Montage D-Sub Filter  
Front panel mounted D-Sub Filter



Größe Shell size	A ± 0.13	B ± 0.13	C ± 0.13	D ± 0.13	E ± 0.13
9 15 1	20.5	22.2	25.0	11.40	13.0
15 26 2	29.8	30.5	33.3	11.40	13.0
25 44 3	42.5	44.3	47.04	11.40	13.0
37 62 4	59.1	60.7	63.50	11.40	13.0
50 78 5	66.30	61.10	61.10	14.10	15.8

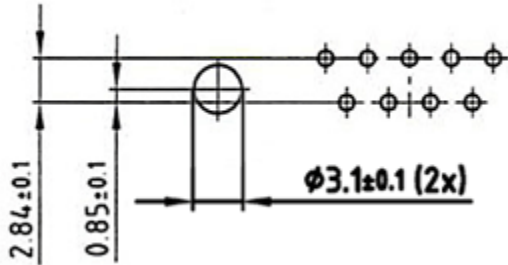
Hole Pattern for straight solder pins D-Sub standard and filter high density



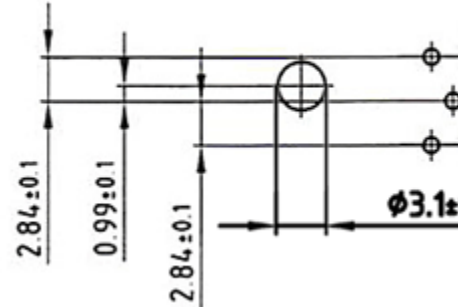


Hole Pattern for straight solder pins D-Sub standard and filter high density  
Termination type T = .188"

No. of pos. 9-37

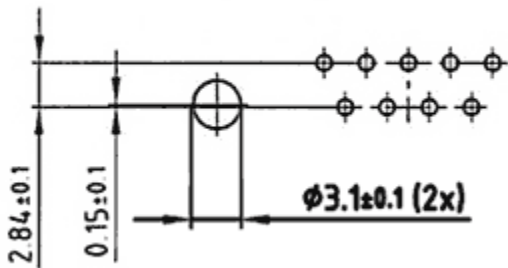


No. of pos. 50

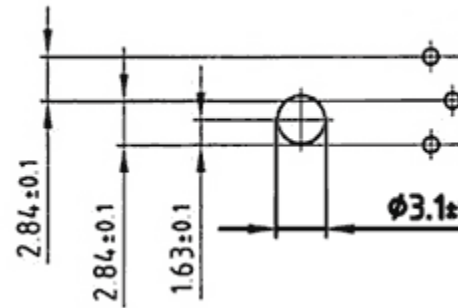


Termination type U = .276"

No. of pos. 9-37

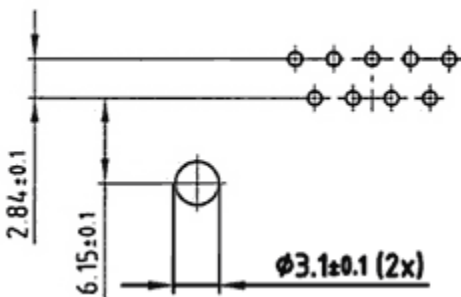


No. of pos. 50



Termination type Z = .463"

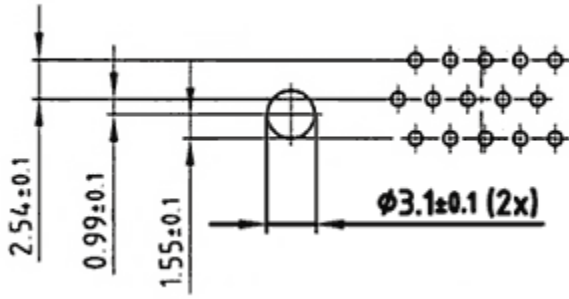
No. of pos. 9-37



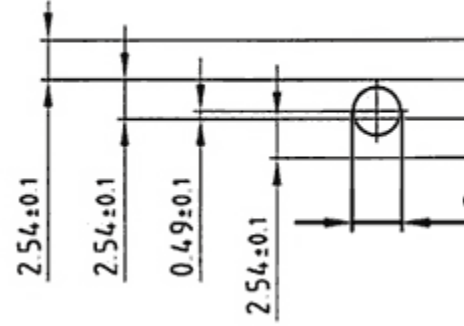
Termination type Y = .220"



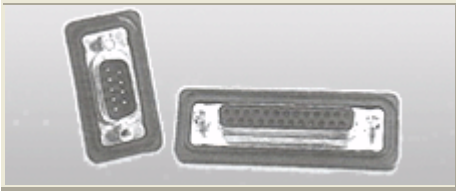
No. of pos. 15-62



No. of pos. 78

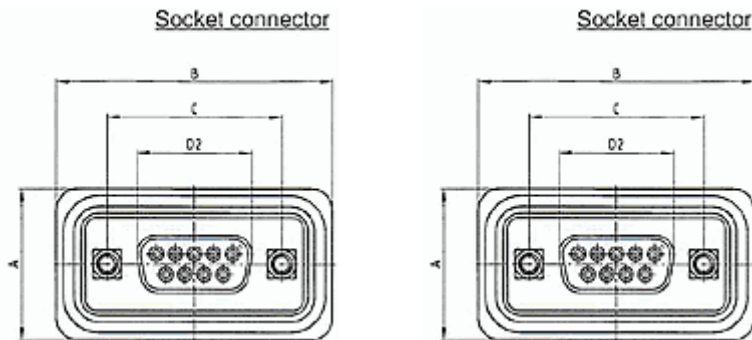






Solder cup  
for front panel mounting  
accepts cable AWG 20  
Termination type M

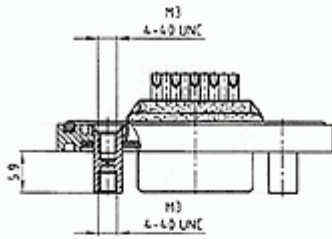
No. of pos.	A +0,2	B +0,2	C	D1 +0,25	D2 -0,25	E -0,30
9	21,10	39,40	25,00 <sup>+0,12</sup> <sub>-0,13</sub>	16,79	16,46	5,62
15	21,10	47,70	33,30 <sup>+0,15</sup> <sub>-0,10</sub>	25,12	24,79	5,62
25	21,10	61,40	47,04 <sup>±0,13</sup>	38,84	38,50	5,49
37	21,10	77,90	63,50 <sup>±0,13</sup>	55,30	54,96	5,49
50	23,90	75,50	61,10 <sup>+0,14</sup> <sub>-0,11</sub>	52,68	52,55	5,49



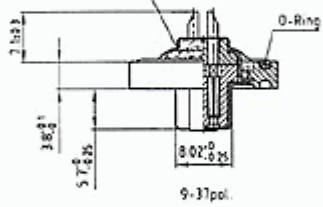
Mounting Type

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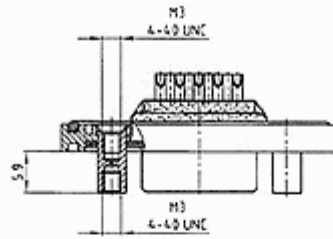
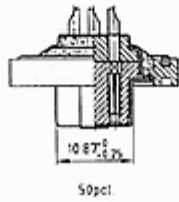
M3 B4  
threaded lock 4-40 UNC B5



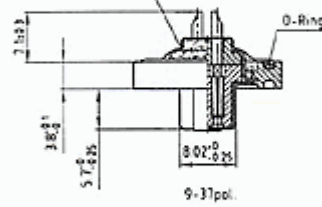
Sealing compound No. of pos. 9-37



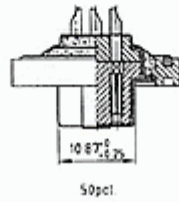
No. of pos. 50

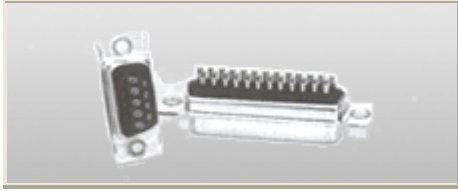


Sealing compound No. of pos. 9-37



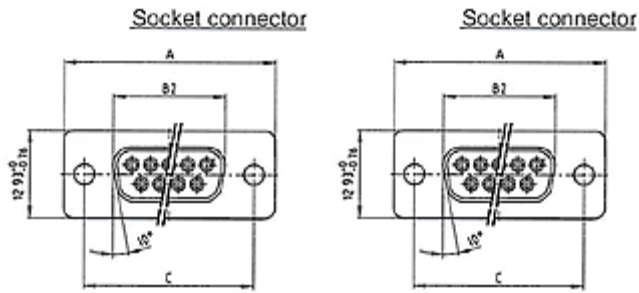
No. of pos. 50





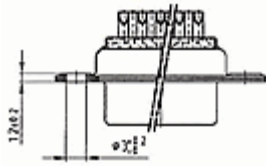
Solder cup  
without frame  
for hood assembly  
accepts cable AWG 20  
Termination type M

No. of pos.	A -0,76	B <sub>1</sub> +0,25	B <sub>2</sub> -0,25	C	D -0,30
9	31,19	16,79	16,46	25,00 <sup>+0,12</sup> <sub>-0,13</sub>	6,12
15	39,52	25,12	24,79	33,30 <sup>+0,15</sup> <sub>-0,10</sub>	6,12
25	53,42	38,84	38,50	47,04 <sup>+0,13</sup>	5,99
37	69,70	55,30	54,96	63,50 <sup>+0,13</sup>	5,99
50	67,31	52,68	52,55	61,10 <sup>+0,14</sup> <sub>-0,11</sub>	5,99



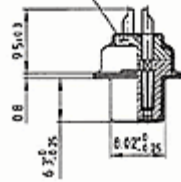
Mounting Type

riveted A1

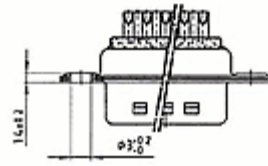


No. of pos. 9-37

Sealing compound

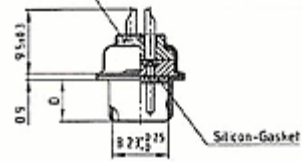


No. of pos. 50

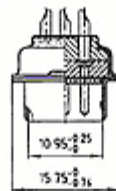


No. of pos. 9-37

Sealing compound



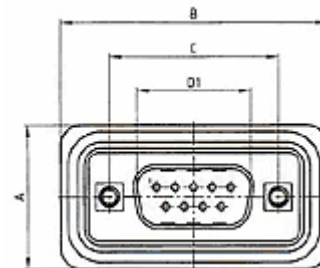
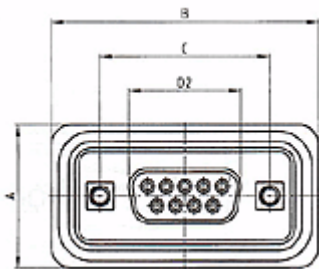
No. of pos. 50





Water resistant D-Sub Connector  
 Solder pin straight  
 Termination type R

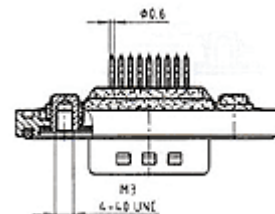
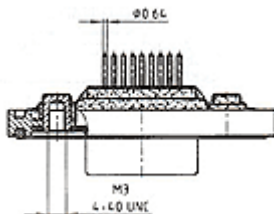
No. of pos.	A +0,2	B +0,2	C	D1 +0,25	D2 -0,25	E -0,30
9	21,10	39,40	25,00 <sup>+0,12</sup> <sub>-0,13</sub>	16,79	16,46	5,62
15	21,10	47,70	33,30 <sup>+0,15</sup> <sub>-0,10</sub>	25,12	24,79	5,62
25	21,10	61,40	47,04 <sup>±0,13</sup>	38,84	38,50	5,49
37	21,10	77,90	63,50 <sup>±0,13</sup>	55,30	54,96	5,49
50	23,90	75,50	61,10 <sup>+0,14</sup> <sub>-0,11</sub>	52,68	52,55	5,49



Mounting Type

M3 E2

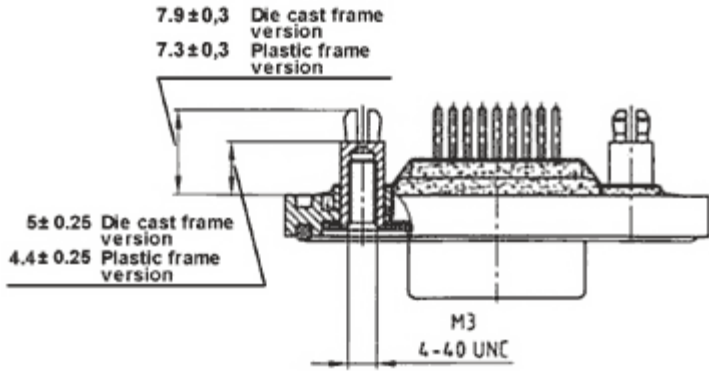
threaded insert 4-40 UNC E3



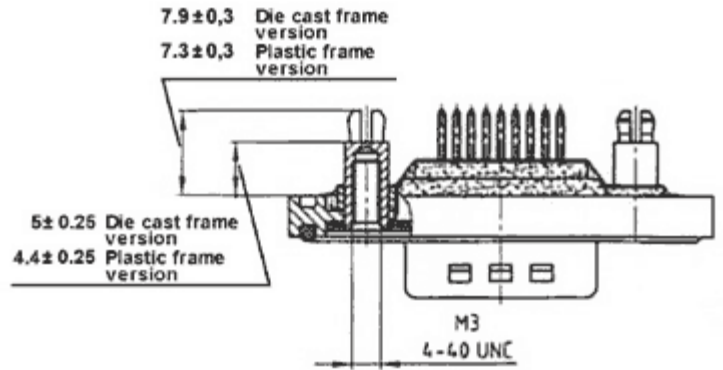
Mounting Type

Clip M3 E1

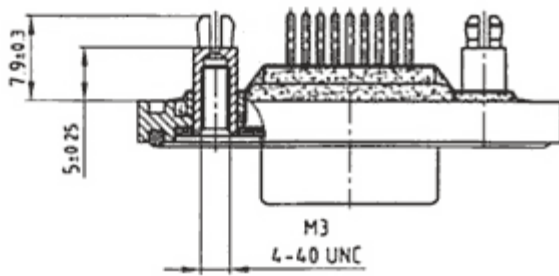
threaded spacer-clip 4-40 UNC E2



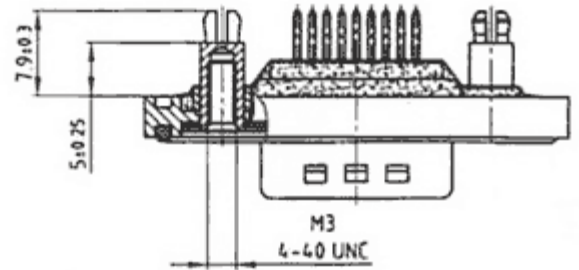
No. of pos. 9-37



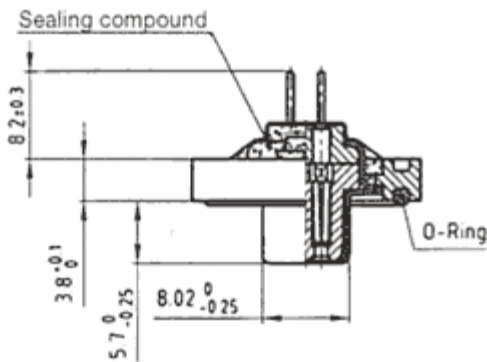
No. of pos. 9-37



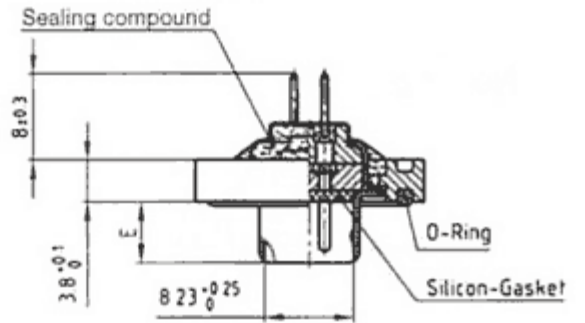
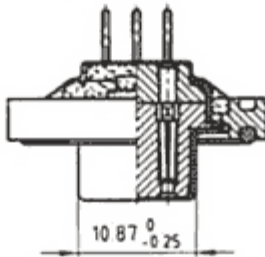
No. of pos. 50



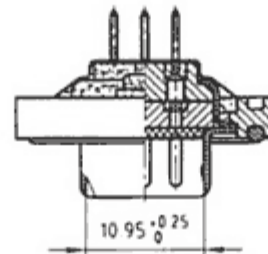
No. of pos. 50



No. of pos. 50



No. of pos. 50

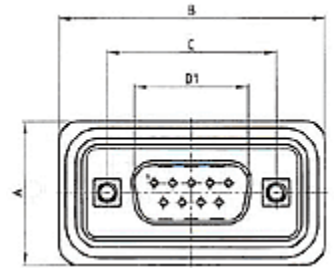
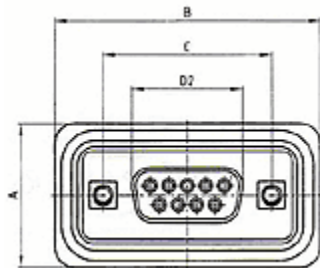






Water resistant D-Sub Connector  
 Solder pin angled .188"  
 metal bracket and threaded insert  
 with or without clip  
 Termination type T

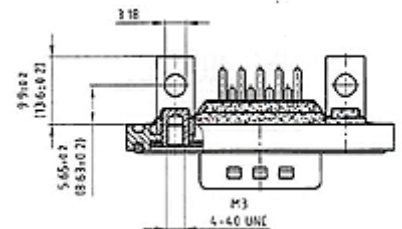
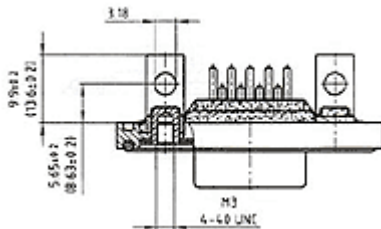
No. of pos.	A +0,2	B +0,2	C	D1 +0,25	D2 -0,25	E -0,30
9	21,10	39,40	25,00 <sup>+0,12</sup> <sub>-0,13</sub>	16,79	16,46	5,62
15	21,10	47,70	33,30 <sup>+0,15</sup> <sub>-0,10</sub>	25,12	24,79	5,62
25	21,10	61,40	47,04 <sup>±0,13</sup>	38,84	38,50	5,49
37	21,10	77,90	63,50 <sup>±0,13</sup>	55,30	54,96	5,49
50	23,90	75,50	61,10 <sup>+0,14</sup> <sub>-0,11</sub>	52,68	52,55	5,49



Mounting Type

M3 S1

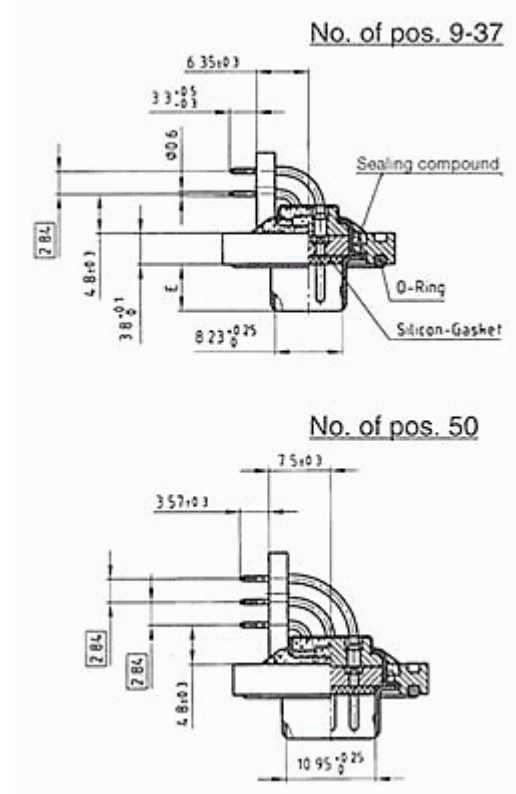
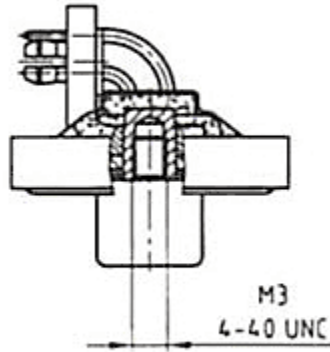
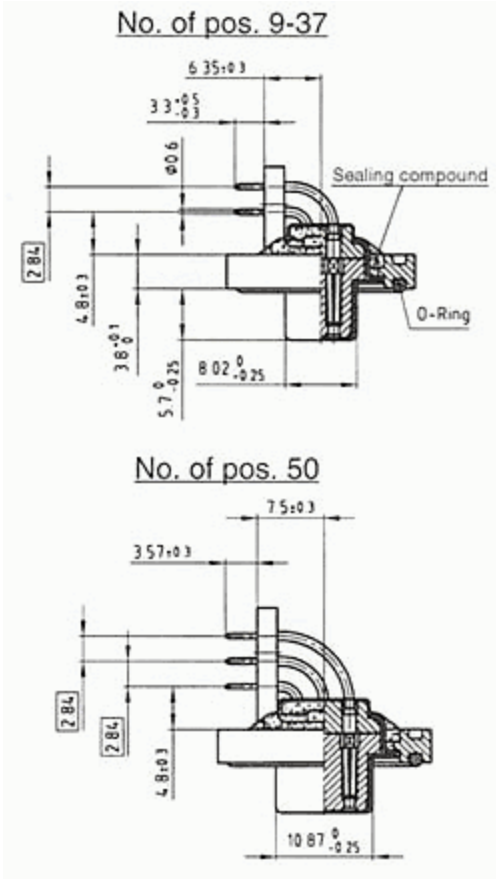
threaded insert and metal bracket 4-40 UNC S2

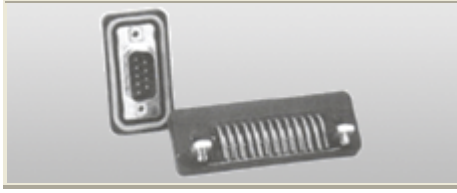


Mounting Type

M3 S3

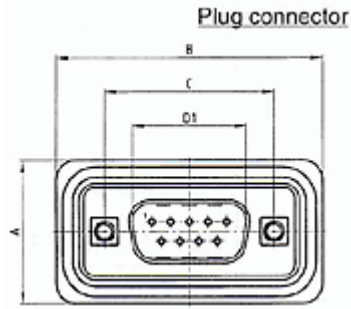
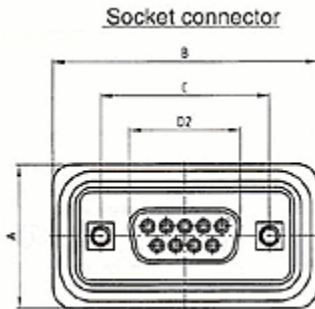
threaded insert, metal bracket and clip 4-40 UNC 84





Water resistant D-Sub Connector  
 Solder pin angled .276"  
 metal bracket and threaded insert  
 with our without clip  
 Termination type U

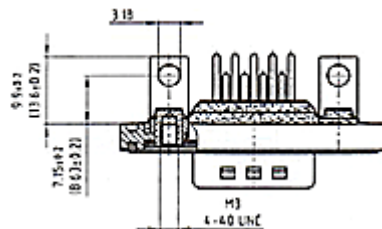
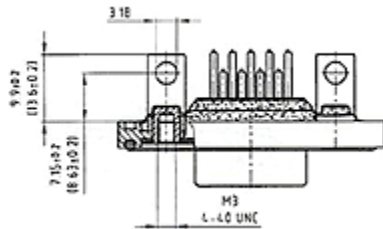
No. of pos.	A +0,2	B +0,2	C	D1 +0,25	D2 -0,25	E -0,30
9	21,10	39,40	25,00 <sup>+0,12</sup> <sub>-0,13</sub>	16,79	16,46	5,62
15	21,10	47,70	33,30 <sup>+0,15</sup> <sub>-0,10</sub>	25,12	24,79	5,62
25	21,10	61,40	47,04 <sup>±0,13</sup>	38,84	38,50	5,49
37	21,10	77,90	63,50 <sup>±0,13</sup>	55,30	54,96	5,49
50	23,90	75,50	61,10 <sup>+0,14</sup> <sub>-0,11</sub>	52,68	52,55	5,49



Mounting Type

M3 R1

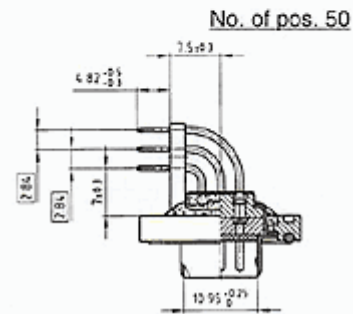
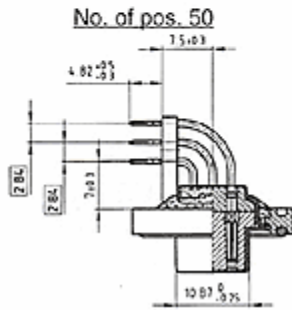
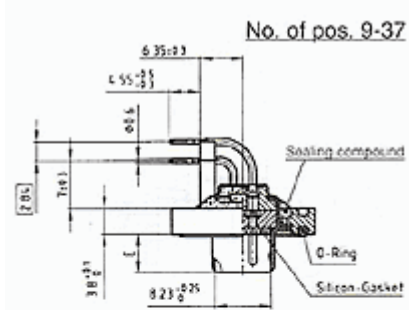
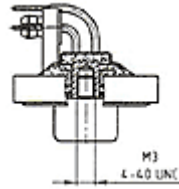
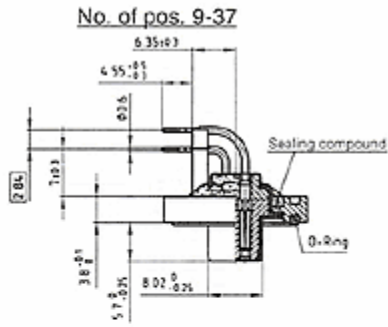
threaded insert and metal bracket 4-40 UNC R2

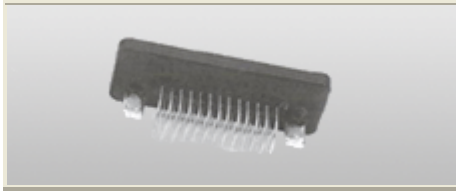


Mounting Type

M3 R3

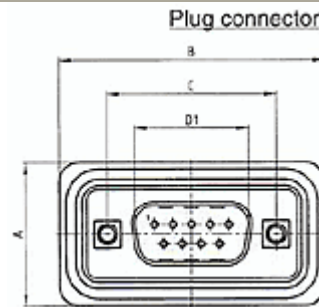
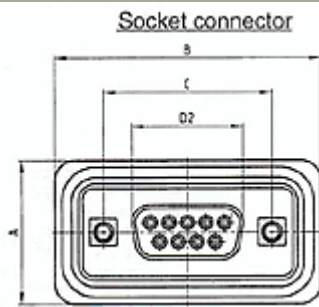
threaded insert, metal bracket and clip 4-40 UNC R4





Water resistant D-Sub Connector  
 Solder pin angled .463"  
 metal bracket and threaded insert  
 with our without clip  
 Termination type Z

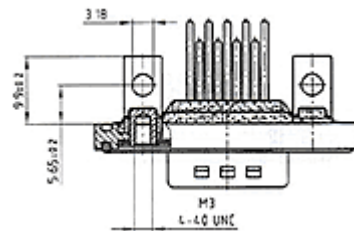
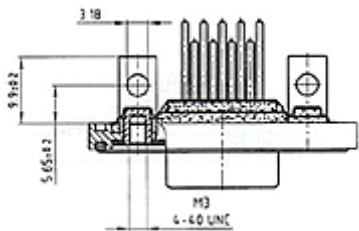
No. of pos.	A +0,2	B +0,2	C	D1 +0,25	D2 -0,25	E -0,30
9	21,10	39,40	25,00 <sup>+0,12</sup> / <sub>-0,13</sub>	16,79	16,46	5,62
15	21,10	47,70	33,30 <sup>+0,15</sup> / <sub>-0,10</sub>	25,12	24,79	5,62
25	21,10	61,40	47,04 <sup>+0,13</sup>	38,84	38,50	5,49
37	21,10	77,90	63,50 <sup>+0,13</sup>	55,30	54,96	5,49



Mounting Type

M3 S1

threaded insert and metal bracket 4-40 UNC S2

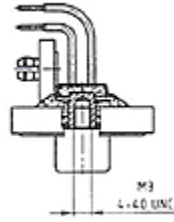
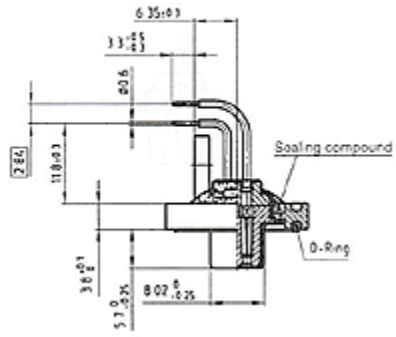


Mounting Type

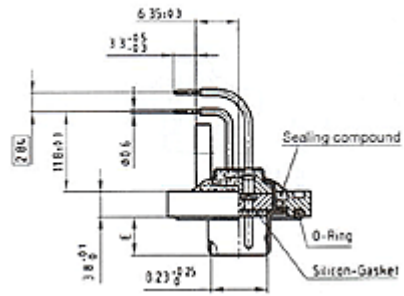
M3 S3

threaded insert, metal bracket and clip 4-40 UNC S4

No. of pos. 9-37



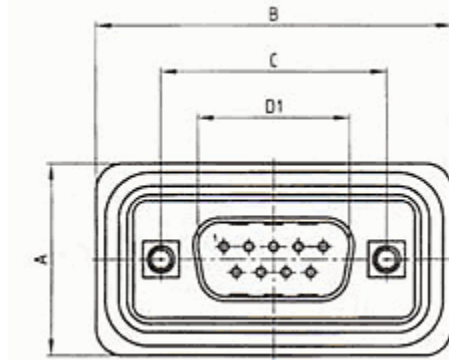
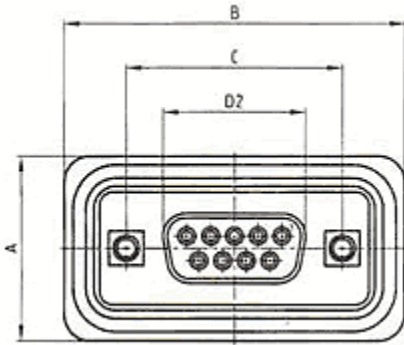
No. of pos. 9-37





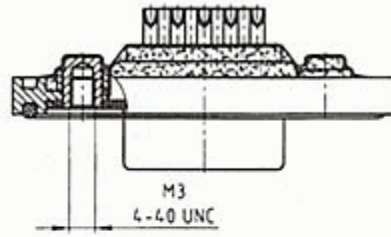
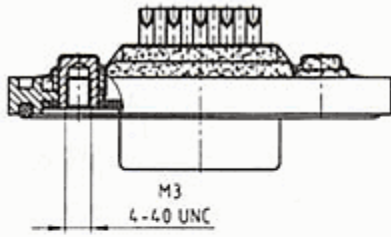
Water resistant D-Sub Connector  
 Solder cup  
 accepts cable AWG 20  
 Termination type M

No. of pos.	A +0,2	B +0,2	C	D1 +0,25	D2 -0,25	E -0,30
9	21,10	39,40	25,00 <sup>+0,12</sup> <sub>-0,13</sub>	16,79	16,46	5,62
15	21,10	47,70	33,30 <sup>+0,15</sup> <sub>-0,10</sub>	25,12	24,79	5,62
25	21,10	61,40	47,04 <sup>±0,13</sup>	38,84	38,50	5,49
37	21,10	77,90	63,50 <sup>±0,13</sup>	55,30	54,96	5,49
50	23,90	75,50	61,10 <sup>+0,14</sup> <sub>-0,11</sub>	52,68	52,55	5,49

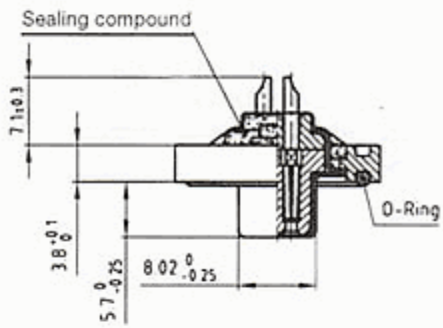


Mounting Type

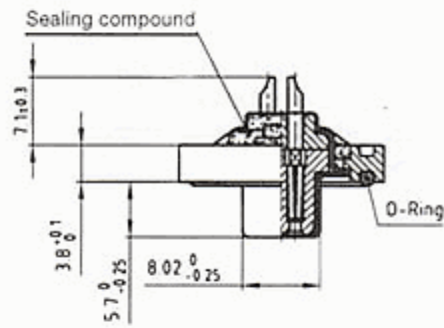
M 3 - B 2  
 4-40 UNC B3



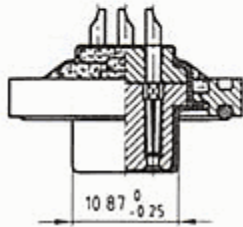
No. of pos. 9-37



No. of pos. 9-37



No. of pos. 50



No. of pos. 50

