IN2CONNECT
ELECTRONIC CONNECTORS

Section 8

IP67 D-SUB Connectors

Connector systems able to meet special demands are needed for industrial use in harsh environments.

The water resistant connector system developed by CONEC is intended for applications where dust and water are factors.

The system includes D-Subminiature Connectors in standard and high density configurations as well as corresponding accessories, such as water resistant hoods and protective caps.

The type of protection is defined by IEC 60529 which also specifies the suitability of electrical components for various ambient conditions.

CONEC water resistant connectors ensure a continuously secure connection compliant with the IP67 rating. They are dustproof and protect against temporary submersion in water.

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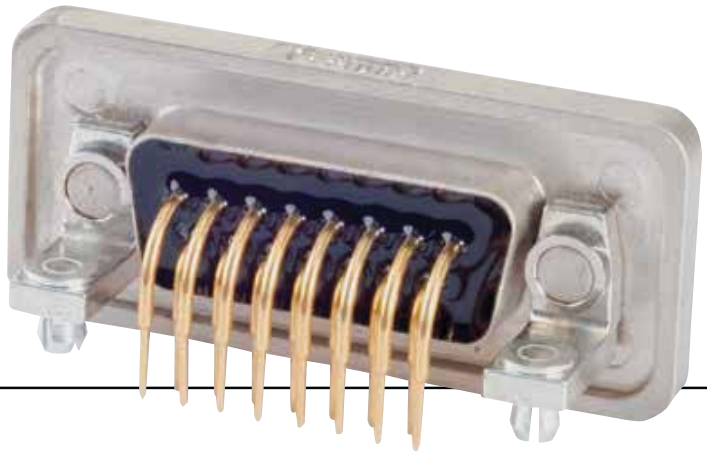


System details:

- Standard design with metal shell and O-ring
- One piece "solid body" design available for increased mechanical stresses
- Seal in the connector, water cannot penetrate into the housing
- Available for front and rear side panel mounting
- Connector without frame for cable housing
- Special threaded parts, 4-40 UNC and M 3
- Plastic materials comply with UL 94 V0
- Machined precision contacts for heavy duty usage
- Various gold plating options available
- Basic connector dimensions - without frame - in compliance with DIN 41652 / MIL-C-24308
- All conventional contact termination types available
- Various accessories, including waterproof hoods and protective caps

Part Number Creator

6	S	T	D	0	9	S	A	M	9	9	B	3	O	X

Product Line
6 = Shell brass tin plated with die-cast frame
4 = Shell brass tin plated with plastic frame or without frame
8* = Shell stainless steel with or without die-cast frame
9* = Shell stainless steel with plastic frame
* on request

Variations
STD = D-SUBMINIATURE, Standard
HDD = D-SUBMINIATURE, High Density

Position for STD
09 = 9 pos.
15 = 15 pos.
25 = 25 pos.
37 = 37 pos.
50 = 50 pos.

Position for HDD
15 = 15 pos.
26 = 26 pos.
44 = 44 pos.
62 = 62 pos.
78 = 78 pos.

Contact type
P = Plug connector
S = Socket connector
A = Adapter

Quality class for contacts
A = Quality class 3 = 50 mating cycles
B = Quality class 2 = 200 mating cycles
C = Quality class 1 = 500 mating cycles

Termination
M = Solder cup
R = Solder pin, straight
T = Solder pin, angled, .189" / 4.80 mm
U = Solder pin, angled, .276" / 7.00 mm
Z = Solder pin, angled, .465" / 11.8 mm
Y = Solder pin, angled, .220" / 5.60 mm (high density design only)
A = Adapter

Capacitance
99 = Without filter for STD and HDD

Mounting style
A1 = Riveted for wire assembly shell without sealing frame
B2 = M3 threaded insert
B3 = 4-40 UNC threaded insert
B4 = M3 front spacer
B5 = 4-40 UNC front spacer
B7 = 4-40 UNC front spacer and rear mounting stud
B8 = M3 threaded lock for adapter
B9 = 4-40 UNC front spacer for adapter
E1 = M3 threaded rear spacer with PCB clip .063" / 1.60 mm
E2 = 4-40 UNC Threaded rear spacer with PCB clip, PCB 1,60 mm
S1 = Metal bracket, M3 threaded insert
S2 = Metal bracket, 4-40 UNC threaded insert
S3 = Metal bracket, M3 threaded insert and PCB clip
S4 = Metal bracket, 4-40 UNC threaded insert and PCB clip
R1 = Metal bracket, M3 threaded insert
R2 = Metal bracket, 4-40 UNC threaded insert
R3 = Metal bracket, M3 threaded insert and PCB clip
R4 = Metal bracket, 4-40 UNC threaded insert and PCB clip

OX = Standard

Panel Mounting

Front panel mounting

Rear panel mounting

The hex bolts illustrated here (4-40 UNC or M3 threads) are included in the delivery complement of every connector with a sealing frame. The length of this spacer has been selected to accommodate a panel thickness of .063"/1.6 mm such that it does not extend beyond the plug-in height. Furthermore, the hex bolts outside threads are shorter than standard hex bolts. Material: stainless steel.

IP67 D-SUB Standard

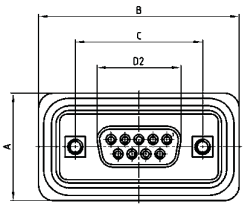
Solder cup – Precision machined contacts – For wire size AWG 20

RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

Description

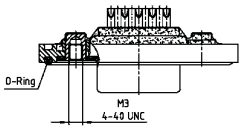
- Suitable for wire size **AWG 20**
- Mounting style:
  with 4-40 UNC or M3 threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame
  (Black plastic frame on request)

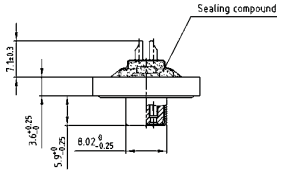
Socket connector



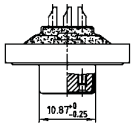
No. of pos.	A +0.3	B +0.3	C	D2 -0.25
09	21.10	39.40	25.00 +0.12	16.46
15	21.10	47.70	33.30 +0.15 -0.10	24.79
25	21.10	61.40	47.04 ±0.13	38.50
37	21.10	77.90	63.50 ±0.13	54.96
50	23.90	75.50	61.10 +0.14 -0.11	52.55

Mounting style: Threaded insert



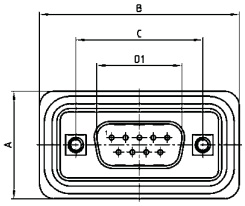


9-37 pos.



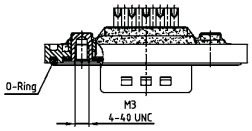
50 pos.

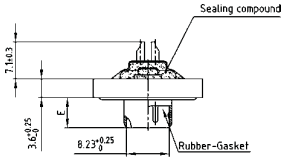
Plug connector



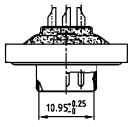
No. of pos.	A +0.3	B +0.3	C	D1 +0.25	E -0.30
9	21.10	39.40	25.00 +0.12 -0.13	16.79	5.82
15	21.10	47.70	33.30 +0.15 -0.10	25.12	5.82
25	21.10	61.40	47.04 ±0.13	38.84	5.69
37	21.10	77.90	63.50 ±0.13	55.30	5.69
50	23.90	75.50	61.10 +0.14 -0.11	52.68	5.69

Mounting style: Threaded insert





9-37 pos.



50 pos.

Order data

Socket connector

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09SAM99B20X
15	M3 Threaded insert	6STD15SAM99B20X
25	M3 Threaded insert	6STD25SAM99B20X
37	M3 Threaded insert	6STD37SAM99B20X
50	M3 Threaded insert	6STD50SAM99B20X
09	4-40 UNC Threaded insert	6STD09SAM99B30X
15	4-40 UNC Threaded insert	6STD15SAM99B30X
25	4-40 UNC Threaded insert	6STD25SAM99B30X
37	4-40 UNC Threaded insert	6STD37SAM99B30X
50	4-40 UNC Threaded insert	6STD50SAM99B30X

Plug connector

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09PAM99B20X
15	M3 Threaded insert	6STD15PAM99B20X
25	M3 Threaded insert	6STD25PAM99B20X
37	M3 Threaded insert	6STD37PAM99B20X
50	M3 Threaded insert	6STD50PAM99B20X
09	4-40 UNC Threaded insert	6STD09PAM99B30X
15	4-40 UNC Threaded insert	6STD15PAM99B30X
25	4-40 UNC Threaded insert	6STD25PAM99B30X
37	4-40 UNC Threaded insert	6STD37PAM99B30X
50	4-40 UNC Threaded insert	6STD50PAM99B30X

IP67 D-SUB Standard

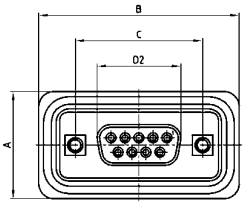
Solder pin – Straight – Precision machined contacts

RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

Description

- Mounting styles:
  - with 4-40 UNC or M3 threaded insert including hex locking bolt
  - with 4-40 UNC or M3 threaded rear spacer and PCB clip including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

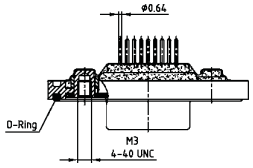
Socket connector

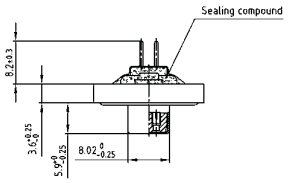


No. of pos.	A +0.3	B +0.3	C	D2 -0.25
09	21.10	39.40	25.00 +0.12	16.46
15	21.10	47.70	33.30 +0.15 -0.10	24.79
25	21.10	61.40	47.04 ±0.13	38.50
37	21.10	77.90	63.50 ±0.13	54.96
50	23.90	75.50	61.10 +0.14 -0.11	52.55

PCB-Layout: Kat1kFVA / Kat1kFUA

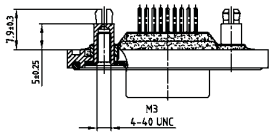
Mounting style: Threaded insert

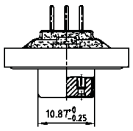




9-37 pos.

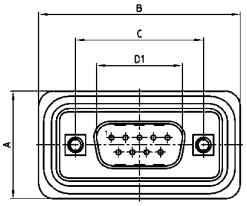
Mounting style:
Threaded rear spacer with PCB clip





50 pos.

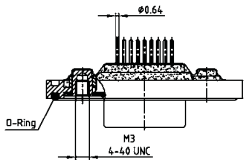
Plug connector

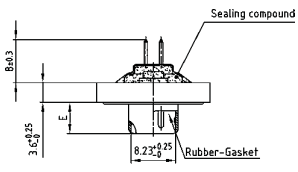


No. of pos.	A +0.3	B +0.3	C	D1 +0.25	E -0.30
9	21.10	39.40	25.00 +0.12 -0.13	16.79	5.82
15	21.10	47.70	33.30 +0.15 -0.10	25.12	5.82
25	21.10	61.40	47.04 ±0.13	38.84	5.69
37	21.10	77.90	63.50 ±0.13	55.30	5.69
50	23.90	75.50	61.10 +0.14 -0.11	52.68	5.69

PCB-Layout: Kat1kFVA / Kat1kFUA

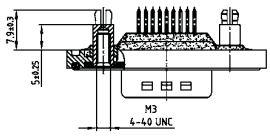
Mounting style: Threaded insert

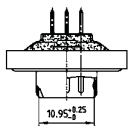




9-37 pos.

Mounting style:
Threaded rear spacer with PCB clip





50 pos.

Order data

Socket connector

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09SAR99B20X
15	M3 Threaded insert	6STD15SAR99B20X
25	M3 Threaded insert	6STD25SAR99B20X
37	M3 Threaded insert	6STD37SAR99B20X
50	M3 Threaded insert	6STD50SAR99B20X
09	4-40 UNC Threaded insert	6STD09SAR99B30X
15	4-40 UNC Threaded insert	6STD15SAR99B30X
25	4-40 UNC Threaded insert	6STD25SAR99B30X
37	4-40 UNC Threaded insert	6STD37SAR99B30X
50	4-40 UNC Threaded insert	6STD50SAR99B30X
09	M3 Threaded rear spacer PCB clip	6STD09SAR99E10X
15	M3 Threaded rear spacer PCB clip	6STD15SAR99E10X
25	M3 Threaded rear spacer PCB clip	6STD25SAR99E10X
37	M3 Threaded rear spacer PCB clip	6STD37SAR99E10X
50	M3 Threaded rear spacer PCB clip	6STD50SAR99E10X
09	4-40 UNC Threaded rear spacer PCB clip	6STD09SAR99E20X
15	4-40 UNC Threaded rear spacer PCB clip	6STD15SAR99E20X
25	4-40 UNC Threaded rear spacer PCB clip	6STD25SAR99E20X
37	4-40 UNC Threaded rear spacer PCB clip	6STD37SAR99E20X
50	4-40 UNC Threaded rear spacer PCB clip	6STD50SAR99E20X

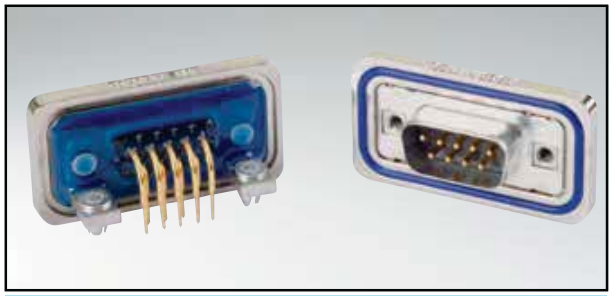
Plug connector

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09PAR99B20X
15	M3 Threaded insert	6STD15PAR99B20X
25	M3 Threaded insert	6STD25PAR99B20X
37	M3 Threaded insert	6STD37PAR99B20X
50	M3 Threaded insert	6STD50PAR99B20X
09	4-40 UNC Threaded insert	6STD09PAR99B30X
15	4-40 UNC Threaded insert	6STD15PAR99B30X
25	4-40 UNC Threaded insert	6STD25PAR99B30X
37	4-40 UNC Threaded insert	6STD37PAR99B30X
50	4-40 UNC Threaded insert	6STD50PAR99B30X
09	M3 Threaded rear spacer PCB clip	6STD09PAR99E10X
15	M3 Threaded rear spacer PCB clip	6STD15PAR99E10X
25	M3 Threaded rear spacer PCB clip	6STD25PAR99E10X
37	M3 Threaded rear spacer PCB clip	6STD37PAR99E10X
50	M3 Threaded rear spacer PCB clip	6STD50PAR99E10X
09	4-40 UNC Threaded rear spacer PCB clip	6STD09PAR99E20X
15	4-40 UNC Threaded rear spacer PCB clip	6STD15PAR99E20X
25	4-40 UNC Threaded rear spacer PCB clip	6STD25PAR99E20X
37	4-40 UNC Threaded rear spacer PCB clip	6STD37PAR99E20X
50	4-40 UNC Threaded rear spacer PCB clip	6STD50PAR99E20X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

IP67 D-SUB Standard

Solder pin – Angled – .189"/4.8 mm – Precision machined contacts – Metal bracket

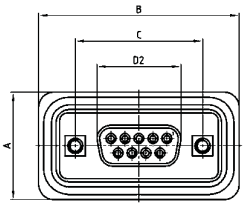


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

Description

- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert including hex locking bolt
  - with mounting bracket, PCB clip and M3 or UNC 4-40 threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

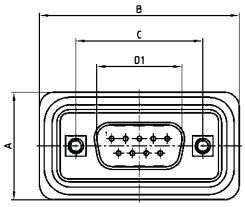
Socket connector



No. of pos.	A +0.3	B +0.3	C	D2 -0.25
09	21.10	39.40	25.00 +0.12	16.46
15	21.10	47.70	33.30 +0.15 -0.10	24.79
25	21.10	61.40	47.04 ±0.13	38.50
37	21.10	77.90	63.50 ±0.13	54.96
50	23.90	75.50	61.10 +0.14 -0.11	52.55

PCB-Layout: Kat1kGSA

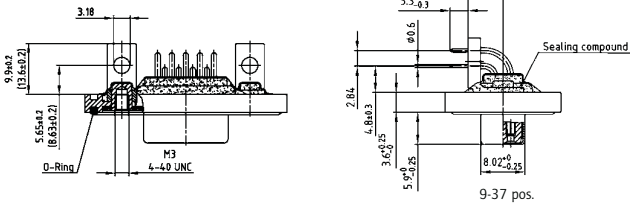
Plug connector



No. of pos.	A +0.3	B +0.3	C	D1 +0.25	E -0.30
9	21.10	39.40	25.00 +0.12 -0.13	16.79	5.82
15	21.10	47.70	33.30 +0.15 -0.10	25.12	5.82
25	21.10	61.40	47.04 ±0.13	38.84	5.69
37	21.10	77.90	63.50 ±0.13	55.30	5.69
50	23.90	75.50	61.10 +0.14 -0.11	52.68	5.69

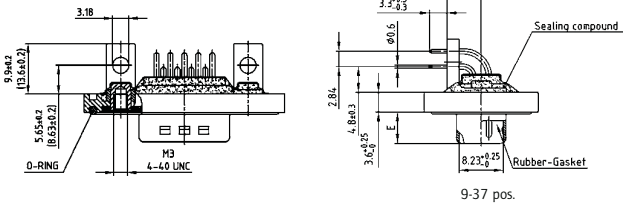
PCB-Layout: Kat1kGSA

Mounting style: Mounting bracket, threaded insert



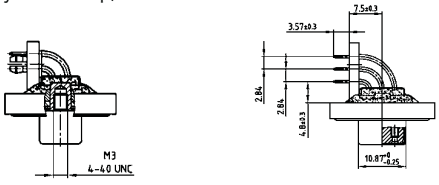
9-37 pos.

Mounting style: Mounting bracket, threaded insert



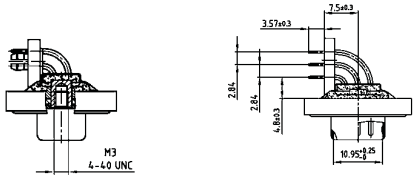
9-37 pos.

Mounting style: PCB clip, threaded insert



50 pos.

Mounting style: PCB clip, threaded insert



50 pos.

Order data

Socket connector

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09SAT99S10X
15	M3 Threaded insert	6STD15SAT99S10X
25	M3 Threaded insert	6STD25SAT99S10X
37	M3 Threaded insert	6STD37SAT99S10X
50	M3 Threaded insert	6STD50SAT99S10X
09	4-40 UNC Threaded insert	6STD09SAT99S20X
15	4-40 UNC Threaded insert	6STD15SAT99S20X
25	4-40 UNC Threaded insert	6STD25SAT99S20X
37	4-40 UNC Threaded insert	6STD37SAT99S20X
50	4-40 UNC Threaded insert	6STD50SAT99S20X
09	PCB clip/M3 Threaded insert	6STD09SAT99S30X
15	PCB clip/M3 Threaded insert	6STD15SAT99S30X
25	PCB clip/M3 Threaded insert	6STD25SAT99S30X
37	PCB clip/M3 Threaded insert	6STD37SAT99S30X
50	PCB clip/M3 Threaded insert	6STD50SAT99S30X
09	PCB clip/4-40 UNC Threaded insert	6STD09SAT99S40X
15	PCB clip/4-40 UNC Threaded insert	6STD15SAT99S40X
25	PCB clip/4-40 UNC Threaded insert	6STD25SAT99S40X
37	PCB clip/4-40 UNC Threaded insert	6STD37SAT99S40X
50	PCB clip/4-40 UNC Threaded insert	6STD50SAT99S40X

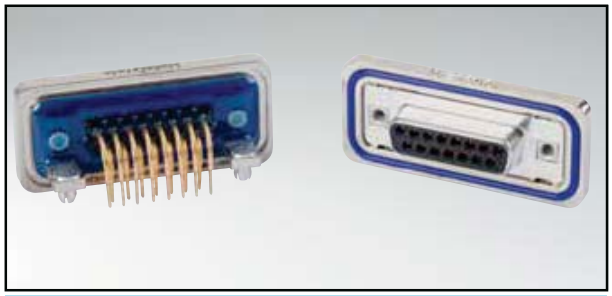
Plug connector

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09PAT99S10X
15	M3 Threaded insert	6STD15PAT99S10X
25	M3 Threaded insert	6STD25PAT99S10X
37	M3 Threaded insert	6STD37PAT99S10X
50	M3 Threaded insert	6STD50PAT99S10X
09	4-40 UNC Threaded insert	6STD09PAT99S20X
15	4-40 UNC Threaded insert	6STD15PAT99S20X
25	4-40 UNC Threaded insert	6STD25PAT99S20X
37	4-40 UNC Threaded insert	6STD37PAT99S20X
50	4-40 UNC Threaded insert	6STD50PAT99S20X
09	PCB clip/M3 Threaded insert	6STD09PAT99S30X
15	PCB clip/M3 Threaded insert	6STD15PAT99S30X
25	PCB clip/M3 Threaded insert	6STD25PAT99S30X
37	PCB clip/M3 Threaded insert	6STD37PAT99S30X
50	PCB clip/M3 Threaded insert	6STD50PAT99S30X
09	PCB clip/4-40 UNC Threaded insert	6STD09PAT99S40X
15	PCB clip/4-40 UNC Threaded insert	6STD15PAT99S40X
25	PCB clip/4-40 UNC Threaded insert	6STD25PAT99S40X
37	PCB clip/4-40 UNC Threaded insert	6STD37PAT99S40X
50	PCB clip/4-40 UNC Threaded insert	6STD50PAT99S40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

IP67 D-SUB Standard

Solder pin – Angled – .276"/7.0 mm – Precision machined contacts – Metal bracket

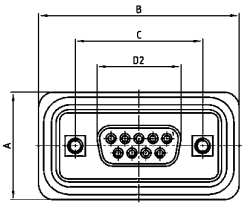


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

Description

- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert including hex locking bolt
  - with mounting bracket, PCB clip and M3 or UNC 4-40 threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

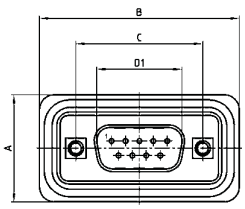
Socket connector



No. of pos.	A +0.3	B +0.3	C	D2 -0.25
09	21.10	39.40	25.00 +0.12	16.46
15	21.10	47.70	33.30 +0.15 -0.10	24.79
25	21.10	61.40	47.04 ±0.13	38.50
37	21.10	77.90	63.50 ±0.13	54.96
50	23.90	75.50	61.10 +0.14 -0.11	52.55

PCB-Layout: Kat1kGTA

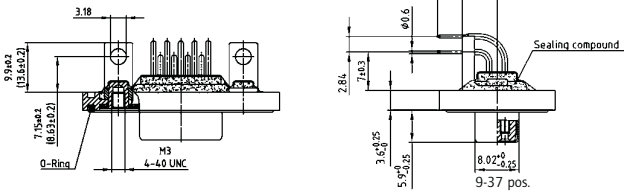
Plug connector



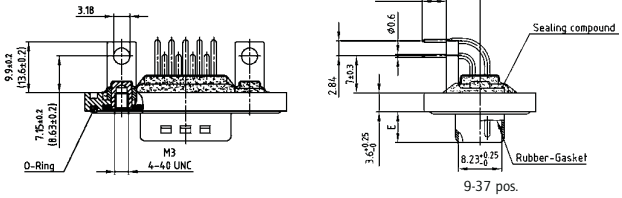
No. of pos.	A +0.3	B +0.3	C	D1 +0.25	E -0.30
9	21.10	39.40	25.00 +0.12 -0.13	16.79	5.82
15	21.10	47.70	33.30 +0.15 -0.10	25.12	5.82
25	21.10	61.40	47.04 ±0.13	38.84	5.69
37	21.10	77.90	63.50 ±0.13	55.30	5.69
50	23.90	75.50	61.10 +0.14 -0.11	52.68	5.69

PCB-Layout: Kat1kGTA

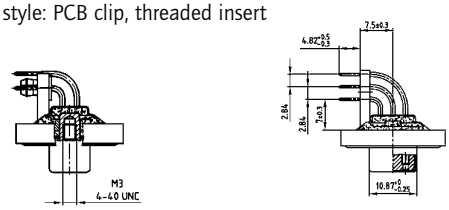
Mounting style: Mounting bracket, threaded insert



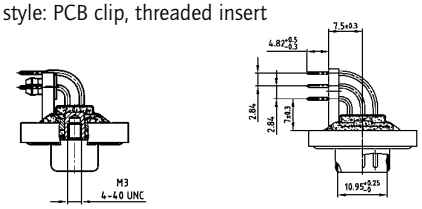
Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



Mounting style: PCB clip, threaded insert



Order data

Socket connector

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09SAU99R10X
15	M3 Threaded insert	6STD15SAU99R10X
25	M3 Threaded insert	6STD25SAU99R10X
37	M3 Threaded insert	6STD37SAU99R10X
50	M3 Threaded insert	6STD50SAU99R10X
09	4-40 UNC Threaded insert	6STD09SAU99R20X
15	4-40 UNC Threaded insert	6STD15SAU99R20X
25	4-40 UNC Threaded insert	6STD25SAU99R20X
37	4-40 UNC Threaded insert	6STD37SAU99R20X
50	4-40 UNC Threaded insert	6STD50SAU99R20X
09	PCB clip/M3 Threaded insert	6STD09SAU99R30X
15	PCB clip/M3 Threaded insert	6STD15SAU99R30X
25	PCB clip/M3 Threaded insert	6STD25SAU99R30X
37	PCB clip/M3 Threaded insert	6STD37SAU99R30X
50	PCB clip/M3 Threaded insert	6STD50SAU99R30X
09	PCB clip/4-40 UNC Threaded insert	6STD09SAU99R40X
15	PCB clip/4-40 UNC Threaded insert	6STD15SAU99R40X
25	PCB clip/4-40 UNC Threaded insert	6STD25SAU99R40X
37	PCB clip/4-40 UNC Threaded insert	6STD37SAU99R40X
50	PCB clip/4-40 UNC Threaded insert	6STD50SAU99R40X

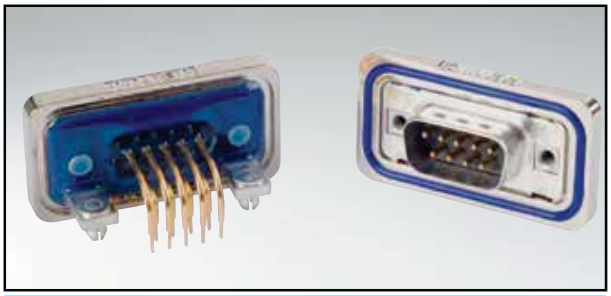
Plug connector

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09PAU99R10X
15	M3 Threaded insert	6STD15PAU99R10X
25	M3 Threaded insert	6STD25PAU99R10X
37	M3 Threaded insert	6STD37PAU99R10X
50	M3 Threaded insert	6STD50PAU99R10X
09	4-40 UNC Threaded insert	6STD09PAU99R20X
15	4-40 UNC Threaded insert	6STD15PAU99R20X
25	4-40 UNC Threaded insert	6STD25PAU99R20X
37	4-40 UNC Threaded insert	6STD37PAU99R20X
50	4-40 UNC Threaded insert	6STD50PAU99R20X
09	PCB clip/M3 Threaded insert	6STD09PAU99R30X
15	PCB clip/M3 Threaded insert	6STD15PAU99R30X
25	PCB clip/M3 Threaded insert	6STD25PAU99R30X
37	PCB clip/M3 Threaded insert	6STD37PAU99R30X
50	PCB clip/M3 Threaded insert	6STD50PAU99R30X
09	PCB clip/4-40 UNC Threaded insert	6STD09PAU99R40X
15	PCB clip/4-40 UNC Threaded insert	6STD15PAU99R40X
25	PCB clip/4-40 UNC Threaded insert	6STD25PAU99R40X
37	PCB clip/4-40 UNC Threaded insert	6STD37PAU99R40X
50	PCB clip/4-40 UNC Threaded insert	6STD50PAU99R40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

IP67 D-SUB Standard

Solder pin – Angled – .464" / 11.8 mm – Precision machined contacts – Metal bracket

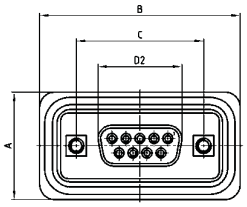


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

Description

- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert including hex locking bolt
  - with mounting bracket, PCB clip and M3 or UNC 4-40 threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

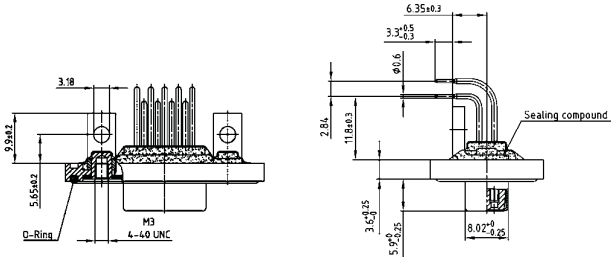
Socket connector



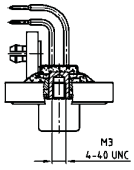
No. of pos.	A +0.3	B +0.3	C	D2 -0.25
09	21.10	39.40	25.00 $^{+0.12}_{-0.13}$	16.46
15	21.10	47.70	33.30 $^{+0.15}_{-0.10}$	24.79
25	21.10	61.40	47.04 ±0.13	38.50
37	21.10	77.90	63.50 ±0.13	54.96

PCB-Layout: Kat1kGUA

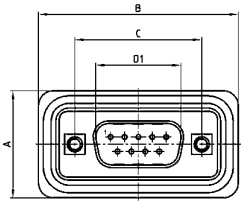
Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



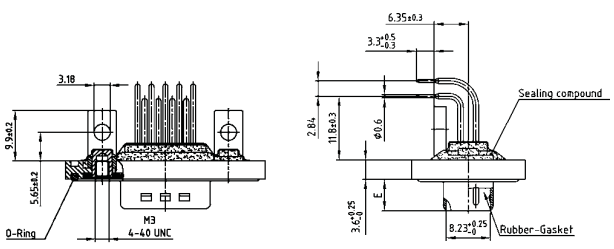
Plug connector



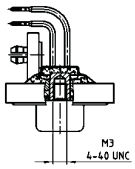
No. of pos.	A +0.3	B +0.3	C	D1 +0.25	E -0.30
9	21.10	39.40	25.00 $^{+0.12}_{-0.13}$	16.79	5.82
15	21.10	47.70	33.30 $^{+0.15}_{-0.10}$	25.12	5.82
25	21.10	61.40	47.04 ±0.13	38.84	5.69
37	21.10	77.90	63.50 ±0.13	55.30	5.69

PCB-Layout: Kat1kGUA

Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



Order data

Socket connector

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09SAZ99S10X
15	M3 Threaded insert	6STD15SAZ99S10X
25	M3 Threaded insert	6STD25SAZ99S10X
37	M3 Threaded insert	6STD37SAZ99S10X
09	4-40 UNC Threaded insert	6STD09SAZ99S20X
15	4-40 UNC Threaded insert	6STD15SAZ99S20X
25	4-40 UNC Threaded insert	6STD25SAZ99S20X
37	4-40 UNC Threaded insert	6STD37SAZ99S20X
09	PCB clip/M3 Threaded insert	6STD09SAZ99S30X
15	PCB clip/M3 Threaded insert	6STD15SAZ99S30X
25	PCB clip/M3 Threaded insert	6STD25SAZ99S30X
37	PCB clip/M3 Threaded insert	6STD37SAZ99S30X
09	PCB clip/4-40 UNC Threaded insert	6STD09SAZ99S40X
15	PCB clip/4-40 UNC Threaded insert	6STD15SAZ99S40X
25	PCB clip/4-40 UNC Threaded insert	6STD25SAZ99S40X
37	PCB clip/4-40 UNC Threaded insert	6STD37SAZ99S40X

Plug connector

No. of pos.	Mounting style	Part Number
09	M3 Threaded insert	6STD09PAZ99S10X
15	M3 Threaded insert	6STD15PAZ99S10X
25	M3 Threaded insert	6STD25PAZ99S10X
37	M3 Threaded insert	6STD37PAZ99S10X
09	4-40 UNC Threaded insert	6STD09PAZ99S20X
15	4-40 UNC Threaded insert	6STD15PAZ99S20X
25	4-40 UNC Threaded insert	6STD25PAZ99S20X
37	4-40 UNC Threaded insert	6STD37PAZ99S20X
09	PCB clip/M3 Threaded insert	6STD09PAZ99S30X
15	PCB clip/M3 Threaded insert	6STD15PAZ99S30X
25	PCB clip/M3 Threaded insert	6STD25PAZ99S30X
37	PCB clip/M3 Threaded insert	6STD37PAZ99S30X
09	PCB clip/4-40 UNC Threaded insert	6STD09PAZ99S40X
15	PCB clip/4-40 UNC Threaded insert	6STD15PAZ99S40X
25	PCB clip/4-40 UNC Threaded insert	6STD25PAZ99S40X
37	PCB clip/4-40 UNC Threaded insert	6STD37PAZ99S40X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

IP67 D-SUB Standard

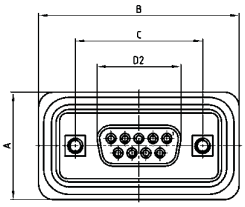
Solder cup – Precision machined contacts – Front mounting – For wire size AWG 20

RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

Description

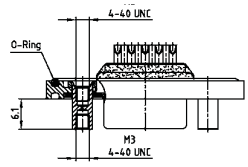
- Suitable for wire size **AWG 20**
- Mounting styles:
  - with M3 or 4-40 UNC front spacer
  - with M3 or 4-40 UNC front spacer and rear mounting stud
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame
  (Black plastic frame on request)

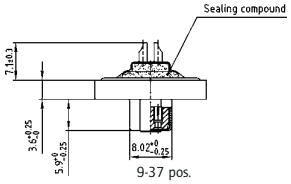
Socket connector



No. of pos.	A +0.3	B +0.3	C	D2 -0.25
09	21.10	39.40	25.00 +0.12	16.46
15	21.10	47.70	33.30 +0.15 -0.10	24.79
25	21.10	61.40	47.04 ±0.13	38.50
37	21.10	77.90	63.50 ±0.13	54.96
50	23.90	75.50	61.10 +0.14 -0.11	52.55

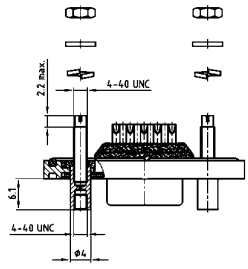
Mounting style: Front spacer

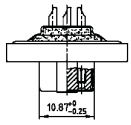




9-37 pos.

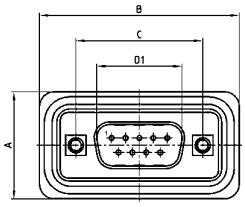
Mounting style: Front spacer and rear mounting stud





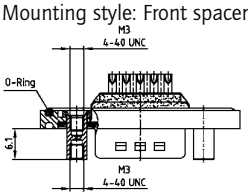
50 pos.

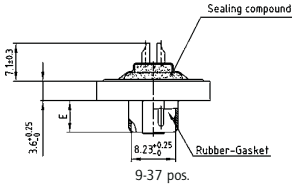
Plug connector



No. of pos.	A +0.3	B +0.3	C	D1 +0.25	E -0.30
9	21.10	39.40	25.00 +0.12 -0.13	16.79	5.82
15	21.10	47.70	33.30 +0.15 -0.10	25.12	5.82
25	21.10	61.40	47.04 ±0.13	38.84	5.69
37	21.10	77.90	63.50 ±0.13	55.30	5.69
50	23.90	75.50	61.10 +0.14 -0.11	52.68	5.69

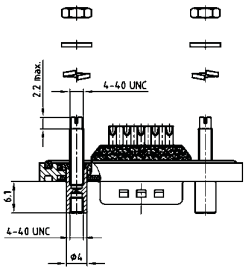
Mounting style: Front spacer

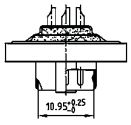




9-37 pos.

Mounting style: Front spacer and rear mounting stud





50 pos.

Order data

Socket connector

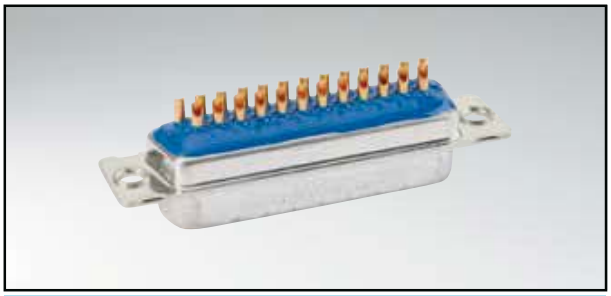
No. of pos.	Mounting style	Part Number
09	M3 Front spacer	6STD09SAM99B40X
15	M3 Front spacer	6STD15SAM99B40X
25	M3 Front spacer	6STD25SAM99B40X
37	M3 Front spacer	6STD37SAM99B40X
50	M3 Front spacer	6STD50SAM99B40X
09	4-40 UNC Front spacer	6STD09SAM99B50X
15	4-40 UNC Front spacer	6STD15SAM99B50X
25	4-40 UNC Front spacer	6STD25SAM99B50X
37	4-40 UNC Front spacer	6STD37SAM99B50X
50	4-40 UNC Front spacer	6STD50SAM99B50X
09	4-40 UNC Front spacer and rear mounting stud	6STD09SAM99B70X
15	4-40 UNC Front spacer and rear mounting stud	6STD15SAM99B70X
25	4-40 UNC Front spacer and rear mounting stud	6STD25SAM99B70X
37	4-40 UNC Front spacer and rear mounting stud	6STD37SAM99B70X
50	4-40 UNC Front spacer and rear mounting stud	6STD50SAM99B70X

Plug connector

No. of pos.	Mounting style	Part Number
09	M3 Front spacer	6STD09PAM99B40X
15	M3 Front spacer	6STD15PAM99B40X
25	M3 Front spacer	6STD25PAM99B40X
37	M3 Front spacer	6STD37PAM99B40X
50	M3 Front spacer	6STD50PAM99B40X
09	4-40 UNC Front spacer	6STD09PAM99B50X
15	4-40 UNC Front spacer	6STD15PAM99B50X
25	4-40 UNC Front spacer	6STD25PAM99B50X
37	4-40 UNC Front spacer	6STD37PAM99B50X
50	4-40 UNC Front spacer	6STD50PAM99B50X
09	4-40 UNC Front spacer and rear mounting stud	6STD09PAM99B70X
15	4-40 UNC Front spacer and rear mounting stud	6STD15PAM99B70X
25	4-40 UNC Front spacer and rear mounting stud	6STD25PAM99B70X
37	4-40 UNC Front spacer and rear mounting stud	6STD37PAM99B70X
50	4-40 UNC Front spacer and rear mounting stud	6STD50PAM99B70X

IP67 D-SUB Standard

Solder cup – Precision machined contacts – For hood Assembly – For wire size AWG 20

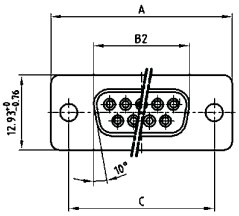


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

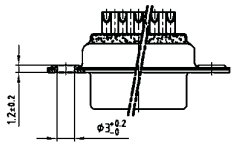
Description

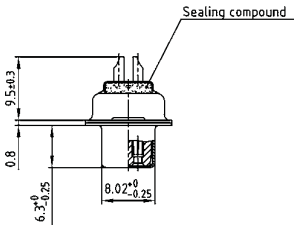
- Suitable for wire size **AWG 20**
- Mounting style:
  with through-hole, Ø .118" / 3.0 mm
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)

Socket connector

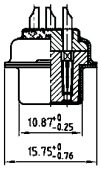


No. of pos.	A -0.76	B2 -0.25	C
09	31.19	16.46	25.00 +0.12 -0.13
15	39.52	24.79	33.30 +0.15 -0.10
25	53.42	38.50	47.04 ±0.13
37	69.70	54.96	63.50 ±0.13
50	67.31	52.55	61.10 +0.14 -0.11



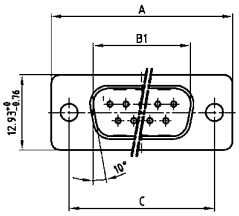


9-37 pos.

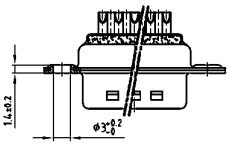


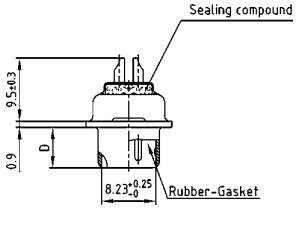
50 pos.

Plug connector

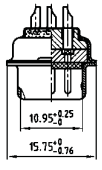


No. of pos.	A	B1 +0.25	C	D -0.30
09	31.19	16.79	25.00 +0.12 -0.13	6.12
15	39.52	25.12	33.30 +0.15 -0.10	6.12
25	53.42	38.84	47.04 ±0.13	5.99
37	69.70	55.30	63.50 ±0.13	5.99
50	67.31	52.68	61.10 +0.14 -0.11	5.99





9-37 pos.



50 pos.

Order data

Socket connector

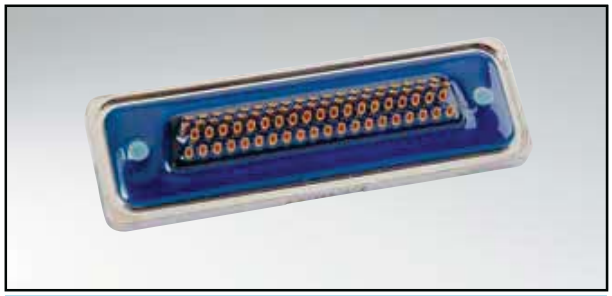
No. of pos.	Mounting style	Part Number
09	Through-hole	4STD09SAM99A10X
15	Through-hole	4STD15SAM99A10X
25	Through-hole	4STD25SAM99A10X
37	Through-hole	4STD37SAM99A10X
50	Through-hole	4STD50SAM99A10X

Plug connector

No. of pos.	Mounting style	Part Number
09	Through-hole	4STD09PAM99A10X
15	Through-hole	4STD15PAM99A10X
25	Through-hole	4STD25PAM99A10X
37	Through-hole	4STD37PAM99A10X
50	Through-hole	4STD50PAM99A10X

IP67 D-SUB High Density

Solder cup – Precision machined contacts – For wire size AWG 22

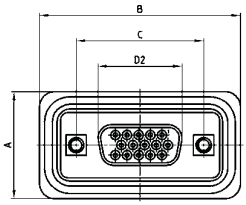


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

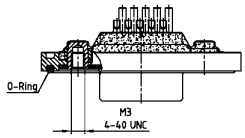
Description

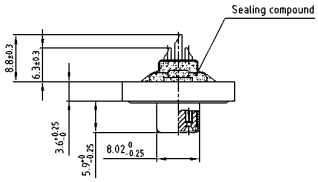
- Suitable for wire size **AWG 22**
- Mounting style:
  with 4-40 UNC or M3 threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame
  (Black plastic frame on request)

Socket connector

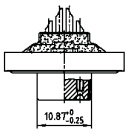


No. of pos.	A +0.3	B +0.3	C	D2 -0.25
15	21.10	39.40	25.00 +0.12 -0.13	16.46
26	21.10	47.70	33.30 +0.15 -0.10	24.79
44	21.10	61.40	47.04 ±0.13	38.50
62	21.10	77.90	63.50 ±0.13	54.96
78	23.90	75.50	61.10 +0.14 -0.11	52.55



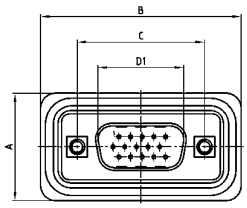


15-62 pos.

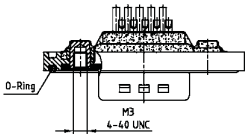


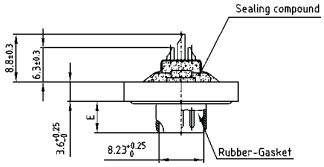
78 pos.

Plug connector

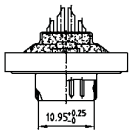


No. of pos.	A +0.3	B +0.3	C	D1 +0.25	E -0.30
15	21.10	39.40	25.00 +0.12 -0.13	16.79	5.82
26	21.10	47.70	33.30 +0.15 -0.10	25.12	5.82
44	21.10	61.40	47.04 ±0.13	38.84	5.69
62	21.10	77.90	63.50 ±0.13	55.30	5.69
78	23.90	75.50	61.10 +0.14 -0.11	52.68	5.69





15-62 pos.



78 pos.

Order data

Socket connector

No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDD15SAM99B20X
26	M3 Threaded insert	6HDD26SAM99B20X
44	M3 Threaded insert	6HDD44SAM99B20X
62	M3 Threaded insert	6HDD62SAM99B20X
78	M3 Threaded insert	6HDD78SAM99B20X
15	4-40 UNC Threaded insert	6HDD15SAM99B30X
26	4-40 UNC Threaded insert	6HDD26SAM99B30X
44	4-40 UNC Threaded insert	6HDD44SAM99B30X
62	4-40 UNC Threaded insert	6HDD62SAM99B30X
78	4-40 UNC Threaded insert	6HDD78SAM99B30X

Plug connector

No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDD15PAM99B20X
26	M3 Threaded insert	6HDD26PAM99B20X
44	M3 Threaded insert	6HDD44PAM99B20X
62	M3 Threaded insert	6HDD62PAM99B20X
78	M3 Threaded insert	6HDD78PAM99B20X
15	4-40 UNC Threaded insert	6HDD15PAM99B30X
26	4-40 UNC Threaded insert	6HDD26PAM99B30X
44	4-40 UNC Threaded insert	6HDD44PAM99B30X
62	4-40 UNC Threaded insert	6HDD62PAM99B30X
78	4-40 UNC Threaded insert	6HDD78PAM99B30X

IP67 D-SUB High Density

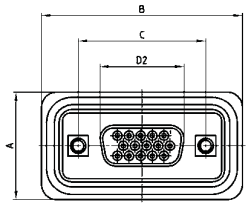
Solder pin – Straight – Precision machined contacts

RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

Description

- Mounting styles:
  - with 4-40 UNC or M3 threaded insert including hex locking bolt
  - with M3 or 4-40 UNC threaded rear spacer and PCB clip including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

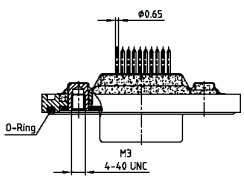
Socket connector

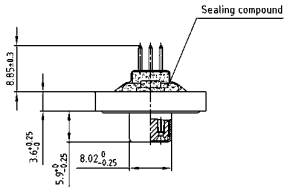


No. of pos.	A +0.3	B +0.3	C	D2 -0.25
15	21.10	39.40	25.00 +0.12 +0.13	16.46
26	21.10	47.70	33.30 +0.15 -0.10	24.79
44	21.10	61.40	47.04 ±0.13	38.50
62	21.10	77.90	63.50 ±0.13	54.96
78	23.90	75.50	61.10 +0.14 -0.11	52.55

PCB-Layout: Kat1kGDA / Kat1iT9A

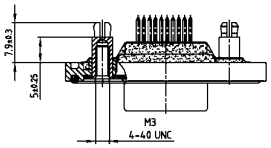
Mounting style: Threaded insert

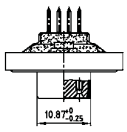




15-62 pos.

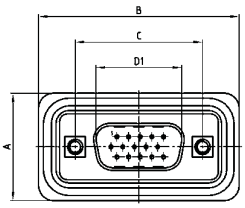
Mounting style: Threaded rear spacer with PCB clip





78 pos.

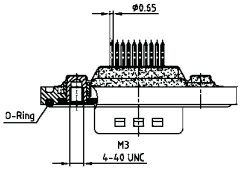
Plug connector

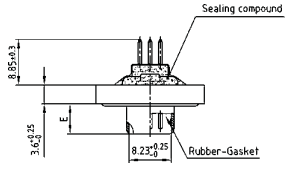


No. of pos.	A +0.3	B +0.3	C	D1 +0.25	E -0.30
15	21.10	39.40	25.00 +0.12 +0.13	16.79	5.82
26	21.10	47.70	33.30 +0.15 +0.10	25.12	5.82
44	21.10	61.40	47.04 ±0.13	38.84	5.69
62	21.10	77.90	63.50 ±0.13	55.30	5.69
78	23.90	75.50	61.10 +0.14 -0.11	52.68	5.69

PCB-Layout: Kat1kFWA / Kat1iU0A

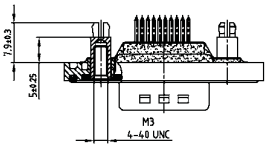
Mounting style: Threaded insert

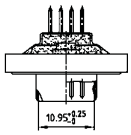




15-62 pos.

Mounting style: Threaded rear spacer with PCB clip





78 pos.

Order data

Socket connector

No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDD15SAR99B20X
26	M3 Threaded insert	6HDD26SAR99B20X
44	M3 Threaded insert	6HDD44SAR99B20X
62	M3 Threaded insert	6HDD62SAR99B20X
78	M3 Threaded insert	6HDD78SAR99B20X
15	4-40 UNC Threaded insert	6HDD15SAR99B30X
26	4-40 UNC Threaded insert	6HDD26SAR99B30X
44	4-40 UNC Threaded insert	6HDD44SAR99B30X
62	4-40 UNC Threaded insert	6HDD62SAR99B30X
78	4-40 UNC Threaded insert	6HDD78SAR99B30X
15	M3 Threaded rear spacer PCB clip	6HDD15SAR99E10X
26	M3 Threaded rear spacer PCB clip	6HDD26SAR99E10X
44	M3 Threaded rear spacer PCB clip	6HDD44SAR99E10X
62	M3 Threaded rear spacer PCB clip	6HDD62SAR99E10X
78	M3 Threaded rear spacer PCB clip	6HDD78SAR99E10X
15	4-40 UNC Threaded rear spacer PCB clip	6HDD15SAR99E20X
26	4-40 UNC Threaded rear spacer PCB clip	6HDD26SAR99E20X
44	4-40 UNC Threaded rear spacer PCB clip	6HDD44SAR99E20X
62	4-40 UNC Threaded rear spacer PCB clip	6HDD62SAR99E20X
78	4-40 UNC Threaded rear spacer PCB clip	6HDD78SAR99E20X

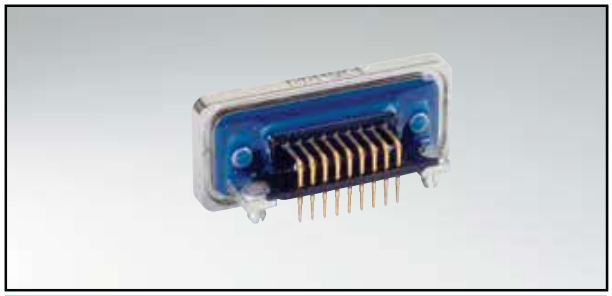
Plug connector

No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDD15PAR99B20X
26	M3 Threaded insert	6HDD26PAR99B20X
44	M3 Threaded insert	6HDD44PAR99B20X
62	M3 Threaded insert	6HDD62PAR99B20X
78	M3 Threaded insert	6HDD78PAR99B20X
15	4-40 UNC Threaded insert	6HDD15PAR99B30X
26	4-40 UNC Threaded insert	6HDD26PAR99B30X
44	4-40 UNC Threaded insert	6HDD44PAR99B30X
62	4-40 UNC Threaded insert	6HDD62PAR99B30X
78	4-40 UNC Threaded insert	6HDD78PAR99B30X
15	M3 Threaded rear spacer PCB clip	6HDD15PAR99E10X
26	M3 Threaded rear spacer PCB clip	6HDD26PAR99E10X
44	M3 Threaded rear spacer PCB clip	6HDD44PAR99E10X
62	M3 Threaded rear spacer PCB clip	6HDD62PAR99E10X
78	M3 Threaded rear spacer PCB clip	6HDD78PAR99E10X
15	4-40 UNC Threaded rear spacer PCB clip	6HDD15PAR99E20X
26	4-40 UNC Threaded rear spacer PCB clip	6HDD26PAR99E20X
44	4-40 UNC Threaded rear spacer PCB clip	6HDD44PAR99E20X
62	4-40 UNC Threaded rear spacer PCB clip	6HDD62PAR99E20X
78	4-40 UNC Threaded rear spacer PCB clip	6HDD78PAR99E20X

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

IP67 D-SUB High Density

Solder pin – Angled – .220"/5,6 mm – Precision machined contacts – Metal Bracket

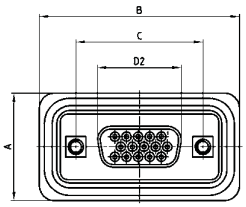


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

Description

- Mounting styles:
  - with mounting bracket and 4-40 UNC or M3 threaded insert including hex locking bolt
  - with mounting bracket, PCB clip and 4-40 UNC or M3 threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame (Black plastic frame on request)

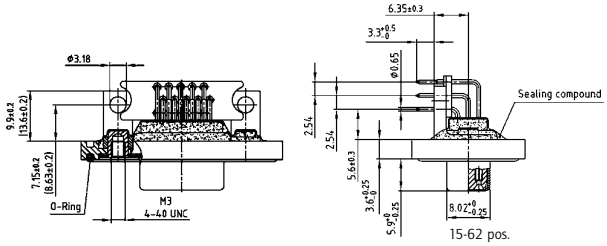
Socket connector



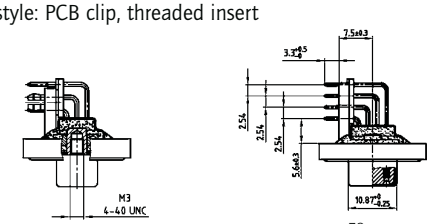
No. of pos.	A +0.3	B +0.3	C	D2 -0.25
15	21.10	39.40	25.00 +0.12 +0.13	16.46
26	21.10	47.70	33.30 +0.15 -0.10	24.79
44	21.10	61.40	47.04 ±0.13	38.50
62	21.10	77.90	63.50 ±0.13	54.96
78	23.90	75.50	61.10 +0.14 -0.11	52.55

PCB-Layout: Kat1kGVA

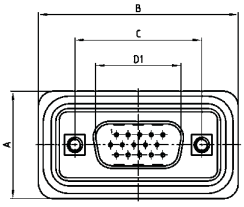
Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



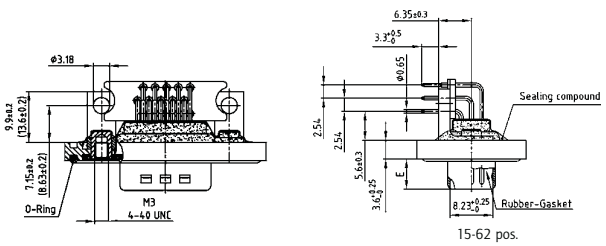
Plug connector



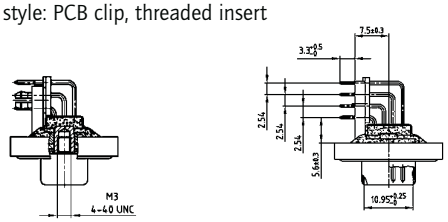
No. of pos.	A +0.3	B +0.3	C	D1 +0.25	E -0.30
15	21.10	39.40	25.00 +0.12 +0.13	16.79	5.82
26	21.10	47.70	33.30 +0.15 -0.10	25.12	5.82
44	21.10	61.40	47.04 ±0.13	38.84	5.69
62	21.10	77.90	63.50 ±0.13	55.30	5.69
78	23.90	75.50	61.10 +0.14 -0.11	52.68	5.69

PCB-Layout: Kat1kGWA

Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



Order data

Socket connector

No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDD15SAY99R10X
26	M3 Threaded insert	6HDD26SAY99R10X
44	M3 Threaded insert	6HDD44SAY99R10X
62	M3 Threaded insert	6HDD62SAY99R10X
78	M3 Threaded insert	6HDD78SAY99R10X
15	4-40 UNC Threaded insert	6HDD15SAY99R20X
26	4-40 UNC Threaded insert	6HDD26SAY99R20X
44	4-40 UNC Threaded insert	6HDD44SAY99R20X
62	4-40 UNC Threaded insert	6HDD62SAY99R20X
78	4-40 UNC Threaded insert	6HDD78SAY99R20X
15	PCB clip/M3 Threaded insert	6HDD15SAY99R30X
26	PCB clip/M3 Threaded insert	6HDD26SAY99R30X
44	PCB clip/M3 Threaded insert	6HDD44SAY99R30X
62	PCB clip/M3 Threaded insert	6HDD62SAY99R30X
78	PCB clip/M3 Threaded insert	6HDD78SAY99R30X
15	PCB clip/4-40 UNC Threaded insert	6HDD15SAY99R40X
26	PCB clip/4-40 UNC Threaded insert	6HDD26SAY99R40X
44	PCB clip/4-40 UNC Threaded insert	6HDD44SAY99R40X
62	PCB clip/4-40 UNC Threaded insert	6HDD62SAY99R40X
78	PCB clip/4-40 UNC Threaded insert	6HDD78SAY99R40X

Plug connector

No. of pos.	Mounting style	Part Number
15	M3 Threaded insert	6HDD15PAY99R10X
26	M3 Threaded insert	6HDD26PAY99R10X
44	M3 Threaded insert	6HDD44PAY99R10X
62	M3 Threaded insert	6HDD62PAY99R10X
78	M3 Threaded insert	6HDD78PAY99R10X
15	4-40 UNC Threaded insert	6HDD15PAY99R20X
26	4-40 UNC Threaded insert	6HDD26PAY99R20X
44	4-40 UNC Threaded insert	6HDD44PAY99R20X
62	4-40 UNC Threaded insert	6HDD62PAY99R20X
78	4-40 UNC Threaded insert	6HDD78PAY99R20X
15	PCB clip/M3 Threaded insert	6HDD15PAY99R30X
26	PCB clip/M3 Threaded insert	6HDD26PAY99R30X
44	PCB clip/M3 Threaded insert	6HDD44PAY99R30X
62	PCB clip/M3 Threaded insert	6HDD62PAY99R30X
78	PCB clip/M3 Threaded insert	6HDD78PAY99R30X
15	PCB clip/4-40 UNC Threaded insert	6HDD15PAY99R40X
26	PCB clip/4-40 UNC Threaded insert	6HDD26PAY99R40X
44	PCB clip/4-40 UNC Threaded insert	6HDD44PAY99R40X
62	PCB clip/4-40 UNC Threaded insert	6HDD62PAY99R40X
78	PCB clip/4-40 UNC Threaded insert	6HDD78PAY99R40X

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

IP67 D-SUB High Density

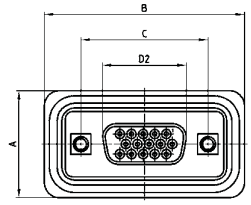
Solder cup – Precision machined contacts – Front mounting – For wire size AWG 22

RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

Description

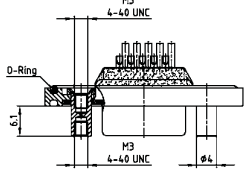
- Suitable for wire size **AWG 22**
- Mounting styles:
  - with M3 or 4-40 UNC front spacer
  - with M3 or 4-40 UNC front spacer and rear mounting stud
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame
  (Black plastic frame on request)

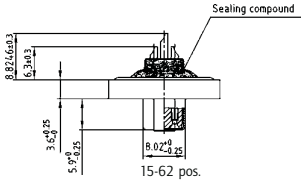
Socket connector



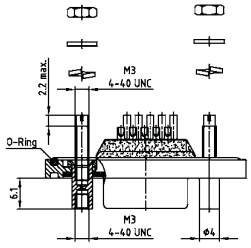
No. of pos.	A +0.3	B +0.3	C	D2 -0.25
15	21.10	39.40	25.00 +0.12 -0.13	16.46
26	21.10	47.70	33.30 +0.15 -0.10	24.79
44	21.10	61.40	47.04 ±0.13	38.50
62	21.10	77.90	63.50 ±0.13	54.96
78	23.90	75.50	61.10 +0.14 -0.11	52.55

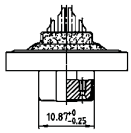
Mounting style: Front spacer



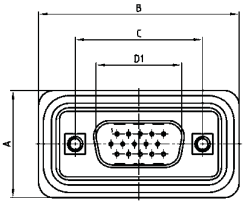


Mounting style: Front spacer and rear mounting stud



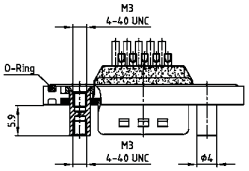


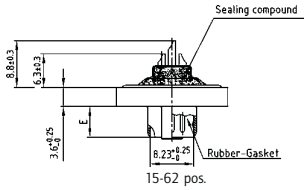
Plug connector



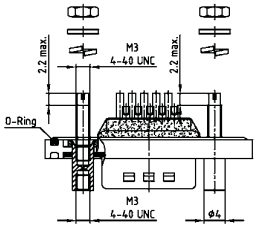
No. of pos.	A +0.3	B +0.3	C	D1 +0.25	E -0.30
15	21.10	39.40	25.00 +0.12 -0.13	16.79	5.82
26	21.10	47.70	33.30 +0.15 -0.10	25.12	5.82
44	21.10	61.40	47.04 ±0.13	38.84	5.69
62	21.10	77.90	63.50 ±0.13	55.30	5.69
78	23.90	75.50	61.10 +0.14 -0.11	52.68	5.69

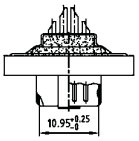
Mounting style: Front spacer





Mounting style: Front spacer and rear mounting stud





Order data

Socket connector

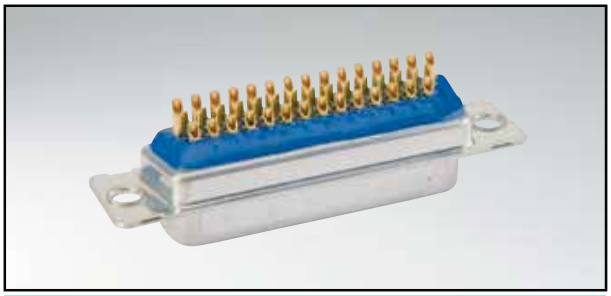
No. of pos.	Mounting style	Part Number
15	M3 Front spacer	6HDD15SAM99B40X
26	M3 Front spacer	6HDD26SAM99B40X
44	M3 Front spacer	6HDD44SAM99B40X
62	M3 Front spacer	6HDD62SAM99B40X
78	M3 Front spacer	6HDD78SAM99B40X
15	4-40 UNC Front spacer	6HDD15SAM99B50X
26	4-40 UNC Front spacer	6HDD26SAM99B50X
44	4-40 UNC Front spacer	6HDD44SAM99B50X
62	4-40 UNC Front spacer	6HDD62SAM99B50X
78	4-40 UNC Front spacer	6HDD78SAM99B50X
15	4-40 UNC Front spacer and rear mounting stud	6HDD15SAM99B70X
26	4-40 UNC Front spacer and rear mounting stud	6HDD26SAM99B70X
44	4-40 UNC Front spacer and rear mounting stud	6HDD44SAM99B70X
62	4-40 UNC Front spacer and rear mounting stud	6HDD62SAM99B70X
78	4-40 UNC Front spacer and rear mounting stud	6HDD78SAM99B70X

Plug connector

No. of pos.	Mounting style	Part Number
15	M3 Front spacer	6HDD15PAM99B40X
26	M3 Front spacer	6HDD26PAM99B40X
44	M3 Front spacer	6HDD44PAM99B40X
62	M3 Front spacer	6HDD62PAM99B40X
78	M3 Front spacer	6HDD78PAM99B40X
15	4-40 UNC Front spacer	6HDD15PAM99B50X
26	4-40 UNC Front spacer	6HDD26PAM99B50X
44	4-40 UNC Front spacer	6HDD44PAM99B50X
62	4-40 UNC Front spacer	6HDD62PAM99B50X
78	4-40 UNC Front spacer	6HDD78PAM99B50X
15	4-40 UNC Front spacer and rear mounting stud	6HDD15PAM99B70X
26	4-40 UNC Front spacer and rear mounting stud	6HDD26PAM99B70X
44	4-40 UNC Front spacer and rear mounting stud	6HDD44PAM99B70X
62	4-40 UNC Front spacer and rear mounting stud	6HDD62PAM99B70X
78	4-40 UNC Front spacer and rear mounting stud	6HDD78PAM99B70X

IP67 D-SUB High Density

Solder cup – Precision machined contacts – For hood Assembly – For wire size AWG 22

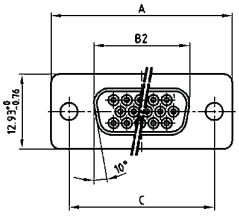


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

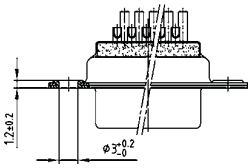
Description

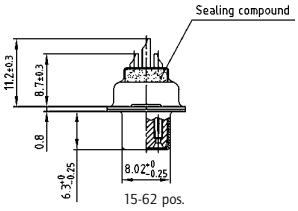
- Suitable for wire size **AWG 22**
- Mounting style:
  with through-hole, Ø .118" / 3.0 mm
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)

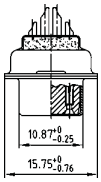
Socket connector



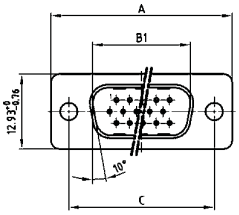
No. of pos.	A -0.76	B2 -0.25	C
15	31.19	16.46	25.00
26	39.52	24.79	33.30
44	53.42	38.50	47.04
62	69.70	54.96	63.50
78	67.31	52.55	61.10



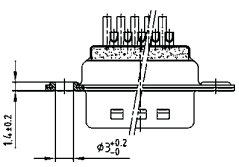


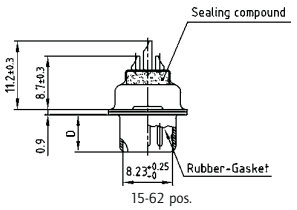


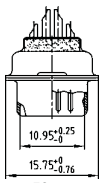
Plug connector



No. of pos.	A -0.76	B1 +0.25	C	D -0.30
15	31.19	16.79	25.00	6.12
26	39.52	25.12	33.30	6.12
44	53.42	38.84	47.04	5.99
62	69.70	55.30	63.50	5.99
78	67.31	62.68	61.10	5.99







Order data

Socket connector

No. of pos.	Mounting style	Part Number
15	Through-hole	4HDD15SAM99A10X
26	Through-hole	4HDD26SAM99A10X
44	Through-hole	4HDD44SAM99A10X
62	Through-hole	4HDD62SAM99A10X
78	Through-hole	4HDD78SAM99A10X

Plug connector

No. of pos.	Mounting style	Part Number
15	Through-hole	4HDD15PAM99A10X
26	Through-hole	4HDD26PAM99A10X
44	Through-hole	4HDD44PAM99A10X
62	Through-hole	4HDD62PAM99A10X
78	Through-hole	4HDD78PAM99A10X

IP67 D-SUB Standard Solid Body

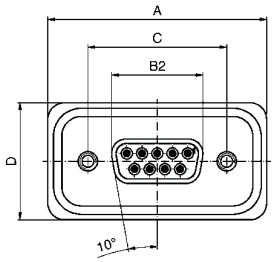
Solder cup – Precision machined contacts – For wire size AWG 20

RoHS compliant - UL listed, File No. E202784

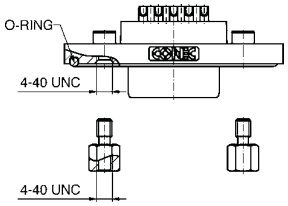
Description

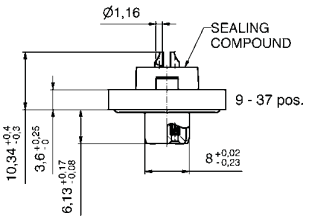
- Suitable for wire size **AWG 20**
- Mounting style:
  4-40 UNC threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

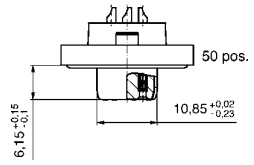
Socket connector



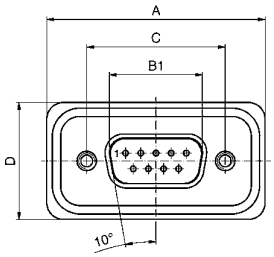
No. of pos.	A	B2	C	D
09	39.40	16.46	25.00	21.10
15	47.70	24.79	33.32	21.10
25	61.40	38.50	47.04	21.10
37	78.00	54.96	63.50	21.10
50	75.60	52.55	61.10	23.90



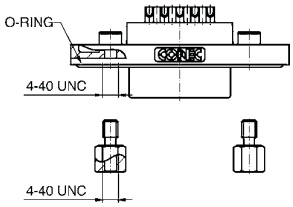


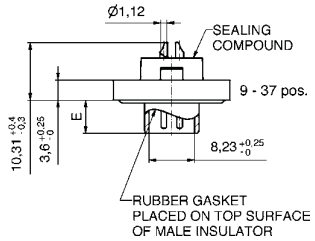


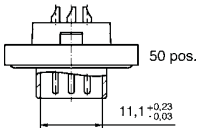
Plug connector



No. of pos.	A	B1	C	D	E
09	39.4	16.81	25.00	21.1	6.00
15	47.7	25.14	33.32	21.1	6.00
25	61.4	38.86	47.04	21.1	5.99
37	78.0	55.32	63.50	21.1	5.99
50	75.6	52.80	61.10	23.9	5.99







Order data

Socket connector

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	15-000613
15	Threaded insert	15-000623
25	Threaded insert	15-000633
37	Threaded insert	15-000643
50	Threaded insert	15-002103

Plug connector

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded insert	15-000573
15	Threaded insert	15-000583
25	Threaded insert	15-000593
37	Threaded insert	15-000603
50	Threaded insert	15-002093

IP67 D-SUB Standard Solid Body

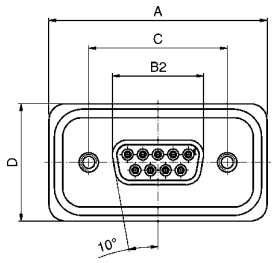
Solder pin – Straight – Precision machined contacts

RoHS compliant - UL listed, File No. E202784

Description

- Mounting style:
  4-40 UNC threaded rear spacer with PCB clip
  including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

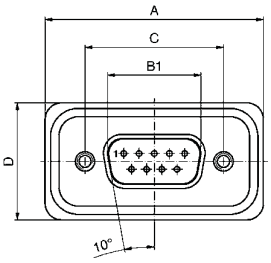
Socket connector



No. of pos.	A	B2 $^{+0}_{-0.25}$	C	D
09	39.40 $^{+0.30}_{-0.00}$	16.46	25.00 $^{+0.12}_{-0.13}$	21.10 $^{+0.3}_{0}$
15	47.70 $^{+0.30}_{-0.00}$	24.79	33.32 $^{+0.13}_{-0.12}$	21.10 $^{+0.3}_{0}$
25	61.40 $^{+0.30}_{-0.00}$	38.50	47.04 ± 0.13	21.10 $^{+0.3}_{0}$
37	78.00 $^{+0.30}_{-0.00}$	54.96	63.50 ± 0.13	21.10 $^{+0.3}_{0}$
50	75.60 $^{+0.30}_{-0.10}$	52.55	61.10 $^{+0.14}_{-0.11}$	23.90 $^{+0.3}_{0.1}$

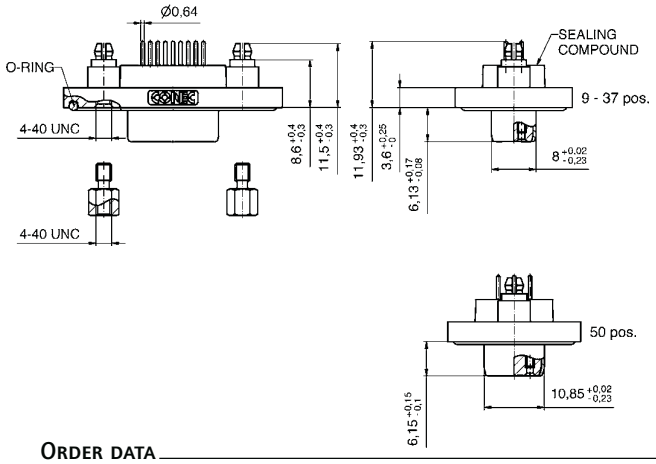
PCB-Layout: Kat1kFUA

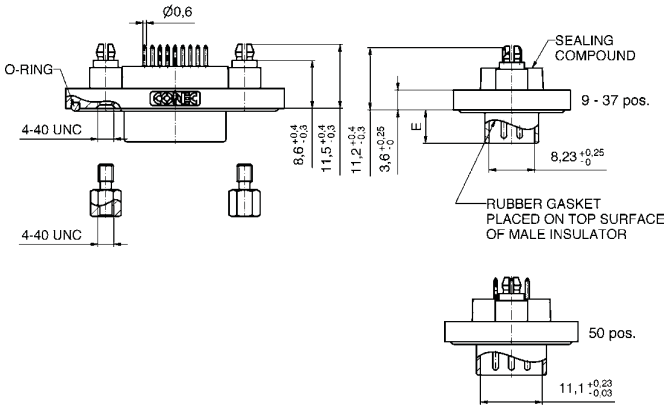
Plug connector



No. of pos.	A	B1	C	D	E
09	39.4 $^{+0.30}_{-0.00}$	16.81 $^{+0.22}_{0.02}$	25.00 $^{+0.12}_{-0.13}$	21.1 $^{+0.3}_{-0}$	6.00 $^{+0.12}_{0.18}$
15	47.7 $^{+0.30}_{-0.00}$	25.14 $^{+0.22}_{0.02}$	33.32 $^{+0.13}_{-0.12}$	21.1 $^{+0.3}_{0}$	6.00 $^{+0.12}_{0.18}$
25	61.4 $^{+0.30}_{-0.00}$	38.86 $^{+0.22}_{0.02}$	47.04 ± 0.13	21.1 $^{+0.3}_{-0}$	5.99 $^{+0}_{0.3}$
37	78.0 $^{+0.30}_{0.01}$	55.32 $^{+0.22}_{0.02}$	63.50 ± 0.13	21.1 $^{+0.3}_{0}$	5.99 $^{+0}_{0.3}$
50	75.6 $^{+0.30}_{-0.10}$	52.80 $^{+0.13}_{0.12}$	61.10 $^{+0.14}_{-0.11}$	23.9 $^{+0.3}_{-0.1}$	5.99 $^{+0}_{0.3}$

PCB-Layout: Kat1kFUA





Order data

Socket connector

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded rear spacer PCB clip	15-000453
15	Threaded rear spacer PCB clip	15-000463
25	Threaded rear spacer PCB clip	15-000473
37	Threaded rear spacer PCB clip	15-000483
50	Threaded rear spacer PCB clip	15-002063

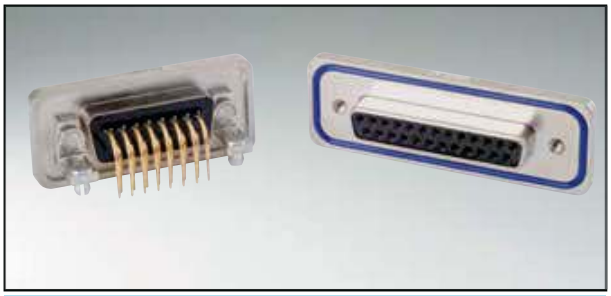
Plug connector

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Threaded rear spacer PCB clip	15-000413
15	Threaded rear spacer PCB clip	15-000423
25	Threaded rear spacer PCB clip	15-000433
37	Threaded rear spacer PCB clip	15-000443
50	Threaded rear spacer PCB clip	15-002053

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

IP67 D-SUB Standard Solid Body

Solder pin – Angled – .402" / 10.2 mm – Precision machined contacts – Metal bracket

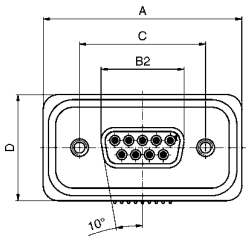


RoHS compliant - UL listed, File No. E202784

Description

- Mounting style:
  mounting bracket, 4-40 UNC PCB clip
  including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

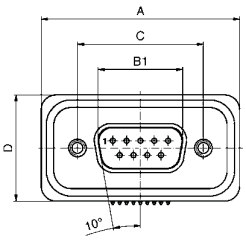
Socket connector



No. of pos.	A	B2 $^{+0}_{-0.25}$	C	D
09	39.40 $^{+0.30}_{-0.00}$	16.46	25.00 $^{+0.12}_{-0.13}$	21.10 $^{+0.3}_{0}$
15	47.70 $^{+0.30}_{-0.00}$	24.79	33.32 $^{+0.13}_{-0.12}$	21.10 $^{+0.3}_{0}$
25	61.40 $^{+0.30}_{-0.00}$	38.50	47.04 ± 0.13	21.10 $^{+0.3}_{0}$
37	78.00 $^{+0.30}_{-0.00}$	54.96	63.50 ± 0.13	21.10 $^{+0.3}_{0}$
50	75.60 $^{+0.30}_{-0.10}$	52.55	61.10 $^{+0.14}_{-0.11}$	23.90 $^{+0.3}_{-0.1}$

PCB-Layout: Kat1kGMA

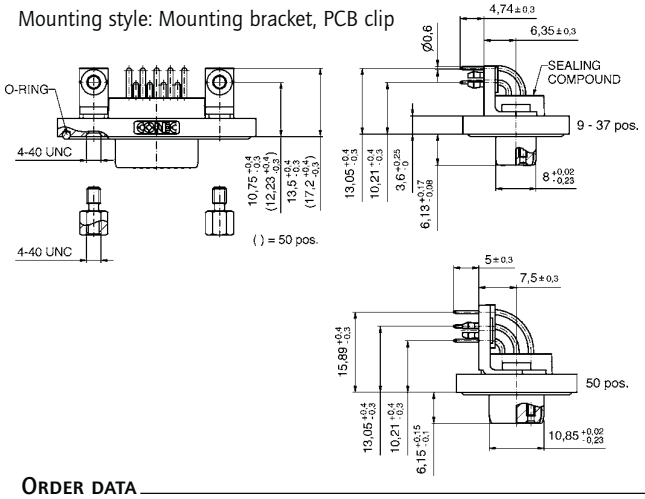
Plug connector



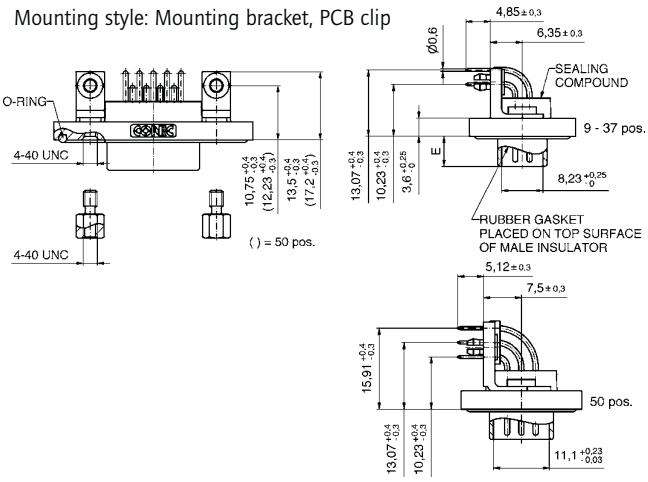
No. of pos.	A	B1	C	D	E
09	39.4 $^{+0.30}_{0.00}$	16.81 $^{+0.22}_{0.02}$	25.00 $^{+0.12}_{0.13}$	21.1 $^{+0.3}_{0}$	6.00 $^{+0.12}_{0.18}$
15	47.7 $^{+0.30}_{0.00}$	25.14 $^{+0.22}_{0.02}$	33.32 $^{+0.13}_{0.12}$	21.1 $^{+0.3}_{0}$	6.00 $^{+0.12}_{0.18}$
25	61.4 $^{+0.30}_{0.00}$	38.86 $^{+0.22}_{0.02}$	47.04 $^{+0.13}$	21.1 $^{+0.3}_{0}$	5.99 $^{+0.0}_{0.3}$
37	78.0 $^{+0.30}_{-0.01}$	55.32 $^{+0.22}_{0.02}$	63.50 $^{+0.13}$	21.1 $^{+0.3}_{-0}$	5.99 $^{+0.0}_{0.3}$
50	75.6 $^{+0.30}_{-0.10}$	52.80 $^{+0.13}_{0.12}$	61.10 $^{+0.14}_{0.11}$	23.9 $^{+0.3}_{-0.1}$	5.99 $^{+0.0}_{0.3}$

PCB-Layout: Kat1kGNA

Mounting style: Mounting bracket, PCB clip



Mounting style: Mounting bracket, PCB clip



Order data

Socket connector

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Mounting bracket / PCB clip	15-000773
15	Mounting bracket / PCB clip	15-000783
25	Mounting bracket / PCB clip	15-000793
37	Mounting bracket / PCB clip	15-000803
50	Mounting bracket / PCB clip	15-002143

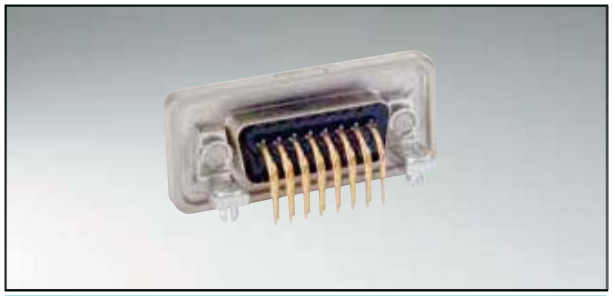
Plug connector

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Mounting bracket / PCB clip	15-000733
15	Mounting bracket / PCB clip	15-000743
25	Mounting bracket / PCB clip	15-000753
37	Mounting bracket / PCB clip	15-000763
50	Mounting bracket / PCB clip	15-002133

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

IP67 D-SUB Standard Solid Body

Solder pin – Angled – .590" / 14.9 mm – Precision machined contacts – Metal bracket

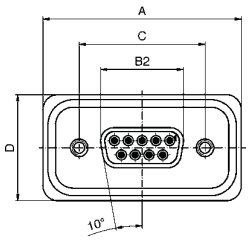


RoHS compliant - UL listed, File No. E202784

Description

- Mounting style:
  mounting bracket, 4-40 UNC PCB clip
  including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

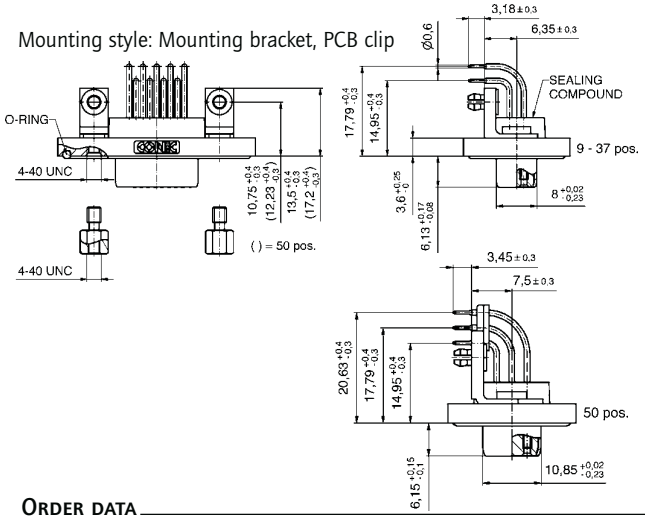
Socket connector



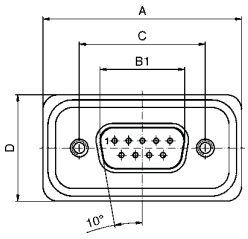
No. of pos.	A	B2	C	D
09	39.40	16.46	25.00	21.10
15	47.70	24.79	33.32	21.10
25	61.40	38.50	47.04	21.10
37	78.00	54.96	63.50	21.10
50	75.60	52.55	61.10	23.90

PCB-Layout: Kat1kGOA

Mounting style: Mounting bracket, PCB clip



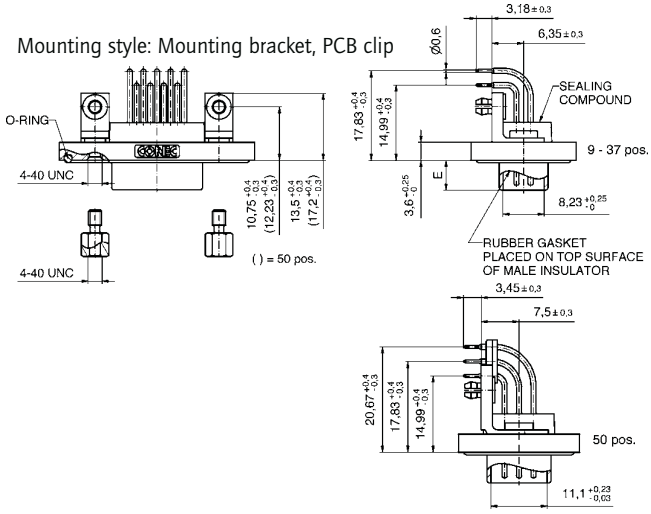
Plug connector



No. of pos.	A	B1	C	D	E
09	39.4	16.81	25.00	21.1	6.00
15	47.7	25.14	33.32	21.1	6.00
25	61.4	38.86	47.04	21.1	5.99
37	78.0	55.32	63.50	21.1	5.99
50	75.6	52.80	61.10	23.9	5.99

PCB-Layout: Kat1kGPA

Mounting style: Mounting bracket, PCB clip



Order data

Socket connector

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Mounting bracket / PCB clip	15-000853
15	Mounting bracket / PCB clip	15-000863
25	Mounting bracket / PCB clip	15-000873
37	Mounting bracket / PCB clip	15-000883
50	Mounting bracket / PCB clip	15-002163

Plug connector

No. of pos.	Mounting style 4-40 UNC	Part Number
09	Mounting bracket / PCB clip	15-000813
15	Mounting bracket / PCB clip	15-000823
25	Mounting bracket / PCB clip	15-000833
37	Mounting bracket / PCB clip	15-000843
50	Mounting bracket / PCB clip	15-002153

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

IP67 D-SUB High Density Solid Body

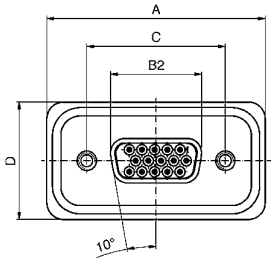
Solder cup – Precision machined contacts – For wire size AWG 22

RoHS compliant - UL listed, File No. E202784

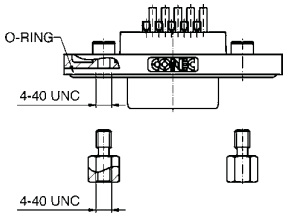
Description

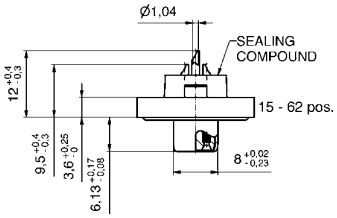
- Suitable for wire size **AWG 22**
- Mounting style:
  4-40 UNC threaded insert including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

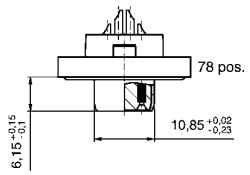
Socket connector



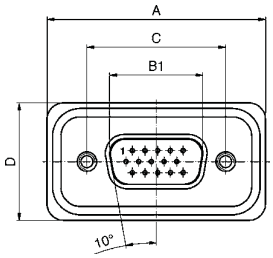
No. of pos.	A	B2 $^{+0}_{-0.25}$	C	D
15	39.40 $^{+0.30}_{-0.00}$	16.46	25.00 $^{+0.12}_{-0.13}$	21.10 $^{+0.3}_{0}$
26	47.70 $^{+0.30}_{-0.00}$	24.79	33.32 $^{+0.13}_{-0.12}$	21.10 $^{+0.3}_{0}$
44	61.40 $^{+0.30}_{-0.00}$	38.50	47.04 ± 0.13	21.10 $^{+0.3}_{0}$
62	78.00 $^{+0.30}_{-0.00}$	54.96	63.50 ± 0.13	21.10 $^{+0.3}_{0}$
78	75.60 $^{+0.30}_{-0.10}$	52.55	61.10 $^{+0.14}_{-0.11}$	23.90 $^{+0.3}_{-0.1}$



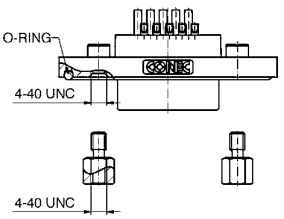


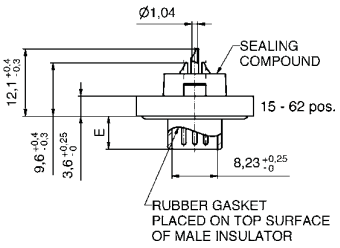


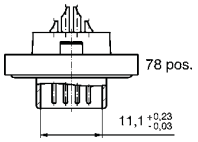
Plug connector



No. of pos.	A	B1	C	D	E
15	39.4 $^{+0.30}_{0.00}$	16.81 $^{+0.23}_{0.02}$	25.00 $^{+0.12}_{0.13}$	21.1 $^{+0.3}_{0}$	6.00 $^{+0.12}_{0.18}$
26	47.7 $^{+0.30}_{0.00}$	25.14 $^{+0.23}_{0.02}$	33.32 $^{+0.13}_{0.12}$	21.1 $^{+0.3}_{0}$	6.00 $^{+0.12}_{0.18}$
44	61.4 $^{+0.30}_{0.00}$	38.86 $^{+0.23}_{0.02}$	47.04 ± 0.13	21.1 $^{+0.3}_{0}$	5.99 $^{+0.0}_{0.3}$
62	78.0 $^{+0.30}_{-0.01}$	55.32 $^{+0.23}_{0.02}$	63.50 ± 0.13	21.1 $^{+0.3}_{-0}$	5.99 $^{+0.0}_{0.3}$
78	75.6 $^{+0.30}_{-0.10}$	52.80 $^{+0.13}_{0.12}$	61.10 $^{+0.14}_{0.11}$	23.9 $^{+0.3}_{-0.1}$	5.99 $^{+0.0}_{0.3}$







Order data

Socket connector

No. of pos.	Mounting style 4-40 UNC	Part Number
15	Threaded insert	15-000693
26	Threaded insert	15-000703
44	Threaded insert	15-000713
62	Threaded insert	15-000723
78	Threaded insert	15-002123

Plug connector

No. of pos.	Mounting style 4-40 UNC	Part Number
15	Threaded insert	15-000653
26	Threaded insert	15-000663
44	Threaded insert	15-000673
62	Threaded insert	15-000683
78	Threaded insert	15-002113

IP67 D-SUB High Density Solid Body

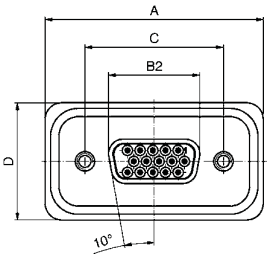
Solder pin – Straight – Precision machined contacts

RoHS compliant - UL listed, File No. E202784

Description

- Mounting style:
  4-40 UNC threaded rear spacer with PCB clip
  including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

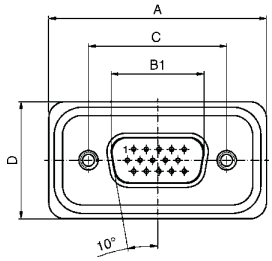
Socket connector



No. of pos.	A	B2 $^{+0}_{-0.25}$	C	D
15	39.40 $^{+0.30}_{-0.00}$	16.46	25.00 $^{+0.12}_{-0.13}$	21.10 $^{+0.3}_{0}$
26	47.70 $^{+0.30}_{-0.00}$	24.79	33.32 $^{+0.13}_{-0.12}$	21.10 $^{+0.3}_{0}$
44	61.40 $^{+0.30}_{-0.00}$	38.50	47.04 ± 0.13	21.10 $^{+0.3}_{0}$
62	78.00 $^{+0.30}_{-0.00}$	54.96	63.50 ± 0.13	21.10 $^{+0.3}_{0}$
78	75.60 $^{+0.30}_{-0.10}$	52.55	61.10 $^{+0.14}_{-0.11}$	23.90 $^{+0.3}_{0.1}$

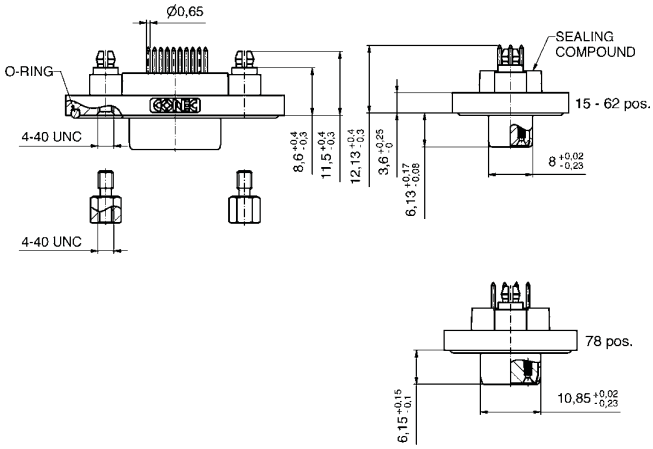
PCB-Layout: Kat1iT9A

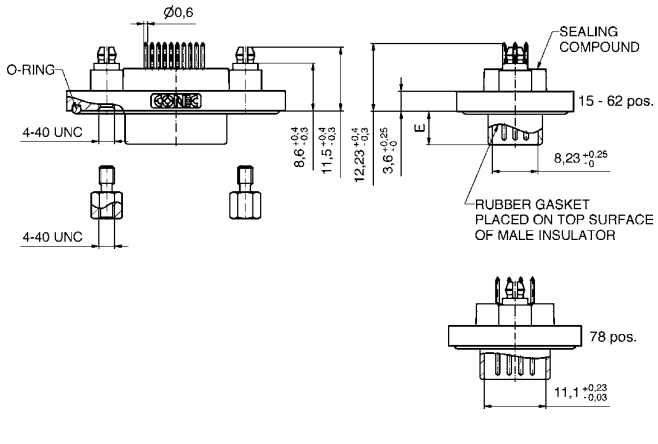
Plug connector



No. of pos.	A	B1	C	D	E
15	39.4 $^{+0.30}_{-0.00}$	16.81 $^{+0.22}_{-0.02}$	25.00 $^{+0.12}_{-0.13}$	21.1 $^{+0.3}_{-0}$	6.00 $^{+0.12}_{-0.18}$
26	47.7 $^{+0.30}_{-0.00}$	25.14 $^{+0.22}_{-0.02}$	33.32 $^{+0.13}_{-0.12}$	21.1 $^{+0.3}_{0}$	6.00 $^{+0.12}_{-0.18}$
44	61.4 $^{+0.30}_{-0.00}$	38.86 $^{+0.22}_{-0.02}$	47.04 ± 0.13	21.1 $^{+0.3}_{0}$	5.99 $^{+0}_{-0.3}$
62	78.0 $^{+0.30}_{-0.01}$	55.32 $^{+0.22}_{-0.02}$	63.50 ± 0.13	21.1 $^{+0.3}_{0}$	5.99 $^{+0}_{-0.3}$
78	75.6 $^{+0.30}_{-0.10}$	52.80 $^{+0.13}_{-0.12}$	61.10 $^{+0.14}_{-0.11}$	23.9 $^{+0.3}_{-0.1}$	5.99 $^{+0}_{-0.3}$

PCB-Layout: Kat1iUOA





Order data

Socket connector

No. of pos.	Mounting style 4-40 UNC	Part Number
15	Threaded rear spacer PCB clip	15-000533
26	Threaded rear spacer PCB clip	15-000543
44	Threaded rear spacer PCB clip	15-000553
62	Threaded rear spacer PCB clip	15-000563
78	Threaded rear spacer PCB clip	15-002183

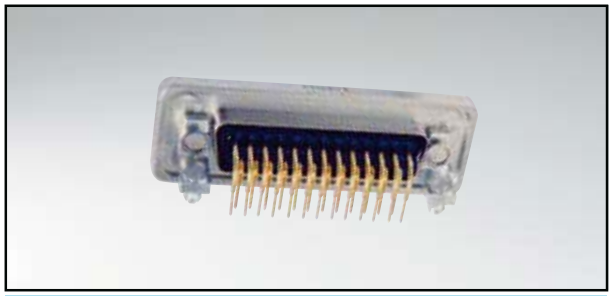
Plug connector

No. of pos.	Mounting style 4-40 UNC	Part Number
15	Threaded rear spacer PCB clip	15-000493
26	Threaded rear spacer PCB clip	15-000503
44	Threaded rear spacer PCB clip	15-000513
62	Threaded rear spacer PCB clip	15-000523
78	Threaded rear spacer PCB clip	15-002073

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

IP67 D-SUB High Density Solid Body

Solder pin – Angled – .362"/9,2 mm – Precision machined contacts – Metal bracket

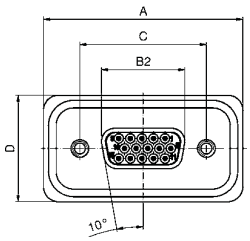


RoHS compliant - UL listed, File No. E202784

Description

- Mounting style:
  Mounting bracket, 4-40 UNC PCB clip
  including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

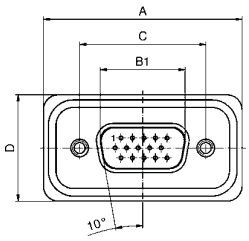
Socket connector



No. of pos.	A	B2 $^{+0}_{-0,25}$	C	D
15	39.40 $^{+0.30}_{-0.00}$	16.46	25.00 $^{+0.12}_{-0.13}$	21.10 $^{+0.3}_{0}$
26	47.70 $^{+0.30}_{-0.00}$	24.79	33.32 $^{+0.13}_{-0.12}$	21.10 $^{+0.3}_{0}$
44	61.40 $^{+0.30}_{-0.00}$	38.50	47.04 ± 0.13	21.10 $^{+0.3}_{0}$
62	78.00 $^{+0.30}_{-0.00}$	54.96	63.50 ± 0.13	21.10 $^{+0.3}_{0}$
78	75.60 $^{+0.30}_{-0.10}$	52.55	61.10 $^{+0.14}_{-0.11}$	23.90 $^{+0.3}_{0.1}$

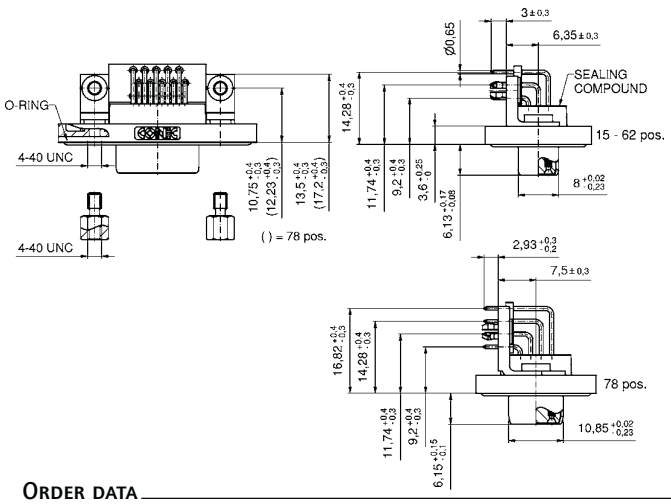
PCB-Layout: Kat1kHRA

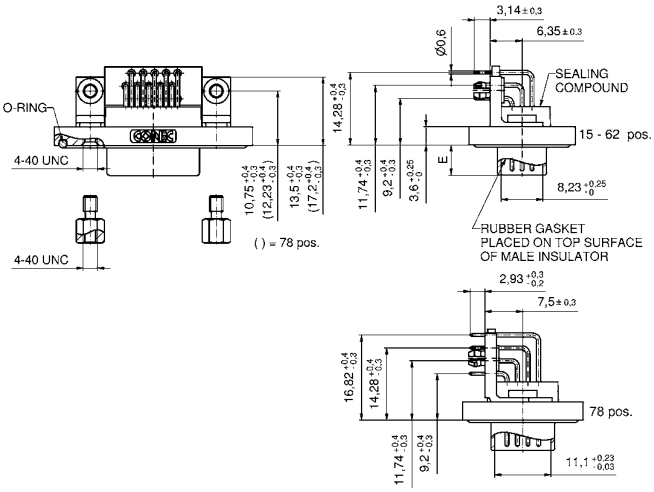
Plug connector



No. of pos.	A	B1	C	D	E
15	39.4 $^{+0.30}_{-0.00}$	16.81 $^{+0.22}_{0.02}$	25.00 $^{+0.12}_{-0.13}$	21.1 $^{+0.3}_{0}$	6.00 $^{+0.12}_{0.18}$
26	47.7 $^{+0.30}_{0.00}$	25.14 $^{+0.22}_{0.02}$	33.32 $^{+0.13}_{-0.12}$	21.1 $^{+0.3}_{0}$	6.00 $^{+0.12}_{0.18}$
44	61.4 $^{+0.30}_{0.00}$	38.86 $^{+0.22}_{0.02}$	47.04 ± 0.13	21.1 $^{+0.3}_{0}$	5.99 $^{+0}_{0.3}$
62	78.0 $^{+0.30}_{0.01}$	55.32 $^{+0.22}_{0.02}$	63.50 ± 0.13	21.1 $^{+0.3}_{0}$	5.99 $^{+0}_{0.3}$
78	75.6 $^{+0.30}_{-0.10}$	52.80 $^{+0.13}_{0.12}$	61.10 $^{+0.14}_{-0.11}$	23.9 $^{+0.3}_{-0.1}$	5.99 $^{+0}_{0.3}$

PCB-Layout: Kat1kHQA





Order data

Socket connector

No. of pos.	Mounting style 4-40 UNC	Part Number
15	Mounting bracket/PCB clip	15-002243
26	Mounting bracket/PCB clip	15-002253
44	Mounting bracket/PCB clip	15-002263
62	Mounting bracket/PCB clip	15-002273
78	Mounting bracket/PCB clip	15-002283

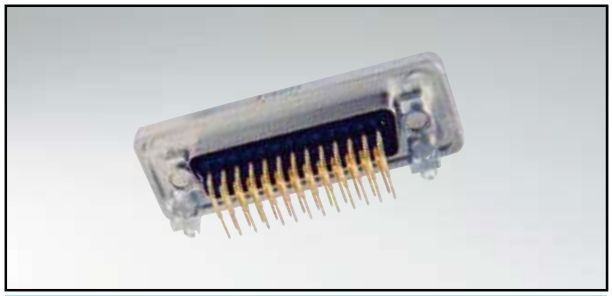
Plug connector

No. of pos.	Mounting style 4-40 UNC	Part Number
15	Mounting bracket/PCB clip	15-002193
26	Mounting bracket/PCB clip	15-002203
44	Mounting bracket/PCB clip	15-002213
62	Mounting bracket/PCB clip	15-002223
78	Mounting bracket/PCB clip	15-002233

PCB clip .122"/3.1 ± .004"/0.10 mm hole diameter and .063"/1.6 mm circuit board thickness

IP67 D-SUB High Density Solid Body

Solder pin – Angled – .484" / 12,3 mm – Precision machined contacts – Metal bracket

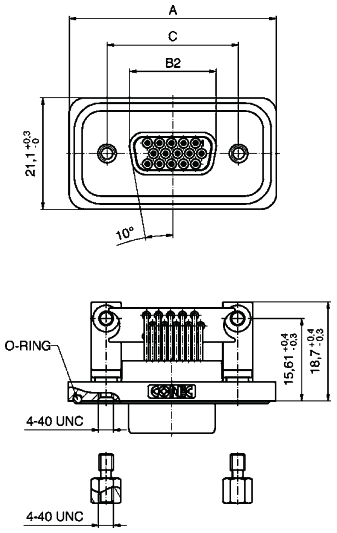


RoHS compliant - UL listed, File No. E202784

Description

- Mounting style:
  Mounting bracket, 4-40 UNC PCB clip
  including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

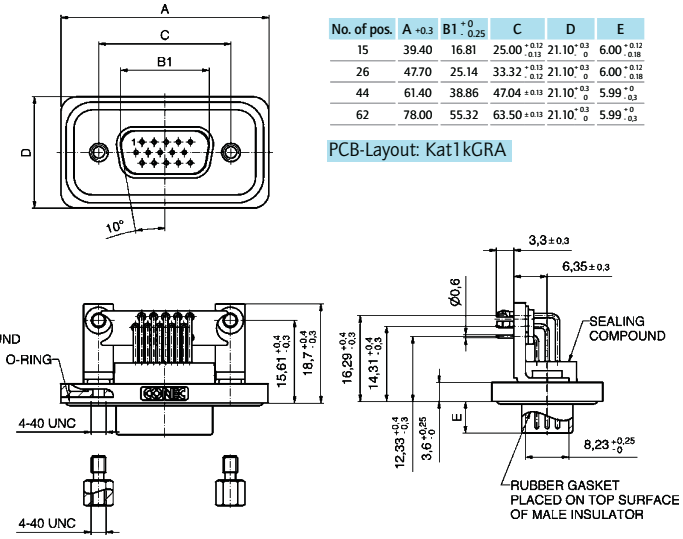
Socket connector



No. of pos.	A ±0.3	B2 +0 -0.25	C
15	39.40	16.46	25.00 +0.12 -0.13
26	47.70	24.79	33.32 +0.13 -0.12
44	61.40	38.50	47.04 ±0.13
62	78.00	54.96	63.50 ±0.13

PCB-Layout: Kat1kGQA

Plug connector



No. of pos.	A ±0.3	B1 +0 -0.25	C	D	E
15	39.40	16.81	25.00 +0.12 -0.13	21.10 +0.3 0	6.00 +0.12 -0.18
26	47.70	25.14	33.32 +0.13 -0.12	21.10 +0.3 0	6.00 +0.12 -0.18
44	61.40	38.86	47.04 ±0.13	21.10 +0.3 0	5.99 +0 -0.3
62	78.00	55.32	63.50 ±0.13	21.10 +0.3 0	5.99 +0 -0.3

PCB-Layout: Kat1kGRA

Order data

Socket connector

No. of pos.	Mounting style 4-40 UNC	Part Number
15	Mounting bracket / PCB clip	15-000933
26	Mounting bracket / PCB clip	15-000943
44	Mounting bracket / PCB clip	15-000953
62	Mounting bracket / PCB clip	15-000963

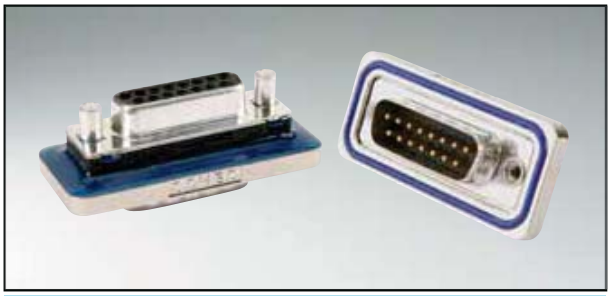
Plug connector

No. of pos.	Mounting style 4-40 UNC	Part Number
15	Mounting bracket / PCB clip	15-000893
26	Mounting bracket / PCB clip	15-000903
44	Mounting bracket / PCB clip	15-000913
62	Mounting bracket / PCB clip	15-000923

PCB clip .122" / 3.1 ± .004" / 0.10 mm hole diameter and .063" / 1.6 mm circuit board thickness

IP67 D-SUB Standard

Interface adapter – Connector Saver

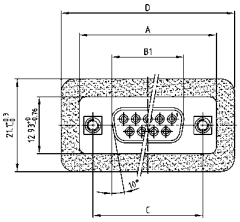


RoHS compliant - UL listed, File No. E202784

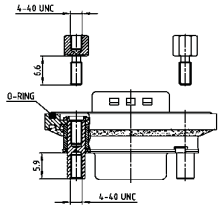
Description

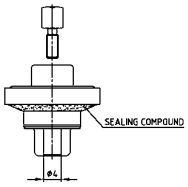
- Plug to socket adapter
- Mounting style:
  4-40 UNC threaded rear spacer including hex locking bolt
- Precision machined contacts
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated
- Nickel plated die-cast frame

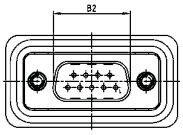
Product drawing



No. of Pos.	A -0.76	B1 -0.25	B2 +0.25	C	D +0.3
9	31.19	16.46	16.79	25.00 $^{+0.12}_{-0.13}$	39.40
15	39.52	24.79	25.12	33.30 $^{+0.15}_{-0.10}$	47.70
25	53.42	38.50	38.84	47.04 ±0.13	61.40
37	69.70	54.96	55.30	63.50 ±0.13	77.90







Order data

Adapter Plug connector - Socket connector		
No. of pos.	**Mounting style 4-40 UNC**	**Part Number**
09	Threaded rear spacer	6STD09AAA99B90X
15	Threaded rear spacer	6STD15AAA99B90X
25	Threaded rear spacer	6STD25AAA99B90X
37	Threaded rear spacer	6STD37AAA99B90X

Conversion table

µm 1/1000 mm	µinch 1/1000 inch
0,10	4
0,20	8
0,25	10
0,30	12
0,50	20
0,70	28
0,75	30
0,80	32
1,00	39
1,27	50
2,00	79
2,50	98
3,00	118
4,00	157
5,00	197

mm	inch
0,10	.004
0,20	.008
0,25	.012
0,35	.014
0,40	.016
0,45	.018
0,50	.020
0,55	.022
0,60	.024
0,64	.025
0,65	.026
0,70	.028
0,75	.030
0,80	.032
0,85	.034
0,90	.035
1,00	.039
1,20	.047
1,25	.049
1,27	.050
1,30	.051
1,35	.053
1,40	.055
1,45	.057
1,50	.059
1,60	.063
1,70	.067
1,80	.071
1,85	.073
1,90	.075
2,00	.079
2,10	.083
2,20	.087
2,30	.091
2,40	.095
2,50	.098
2,54	.100
2,60	.102
2,70	.106
2,80	.110
2,84	.112
2,90	.114
3,00	.118
3,10	.122
3,20	.126

mm	inch
3,30	.130
3,40	.134
3,50	.138
3,60	.142
3,70	.146
3,80	.150
3,81	.150
3,90	.154
4,00	.158
4,10	.161
4,20	.165
4,30	.169
4,50	.177
4,70	.185
4,90	.193
5,00	.197
5,08	.200
5,10	.201
5,20	.205
5,30	.209
5,40	.213
5,50	.217
5,60	.220
5,70	.224
5,80	.228
6,00	.236
6,10	.240
6,40	.252
6,50	.256
6,60	.260
6,70	.264
6,80	.268
6,90	.272
7,00	.276
7,10	.280
7,20	.283
7,40	.291
7,50	.295
7,60	.299
7,62	.300
7,70	.303
7,80	.307
7,98	.314
8,00	.315
8,18	.318
8,20	.323
8,30	.327
8,40	.331
8,50	.335
8,60	.339
8,90	.350
9,00	.354
9,10	.358
9,20	.362
9,30	.366
9,40	.370
9,50	.374
9,60	.378
9,70	.382
9,90	.390
10,00	.395

mm	inch
10,16	.400
10,26	.402
10,36	.406
10,56	.413
10,66	.417
10,76	.421
11,00	.433
11,20	.441
11,40	.449
11,50	.453
11,60	.457
11,90	.469
12,00	.472
12,20	.480
12,30	.484
12,40	.488
12,50	.492
12,70	.500
12,90	.508
13,00	.512
13,10	.516
13,20	.520
13,50	.532
13,60	.535
13,70	.539
13,90	.547
14,00	.551
14,30	.563
14,40	.567
14,50	.571
14,70	.579
14,80	.583
14,90	.587
14,98	.590
15,00	.591
15,20	.598
15,24	.600
15,40	.606
15,50	.610
15,60	.614
15,90	.626
16,00	.630
16,20	.638
16,50	.650
16,60	.654
16,80	.661
17,00	.669
17,20	.677
17,30	.681
17,50	.689
17,60	.693
17,70	.697
17,78	.700
17,80	.701
17,90	.705
18,00	.709
18,10	.713
18,30	.721
18,60	.732
19,00	.748
19,20	.756

mm	inch
19,50	.768
19,70	.776
19,80	.780
19,90	.783
20,00	.787
20,10	.791
20,30	.799
20,32	.800
20,50	.807
21,00	.827
21,10	.831
21,70	.854
22,00	.866
22,10	.870
22,20	.874
22,30	.878
22,40	.882
22,50	.886
22,60	.890
22,80	.898
22,86	.900
22,90	.902
23,00	.906
23,10	.909
23,30	.917
23,50	.925
24,00	.945
24,30	.957
24,60	.969
24,90	.980
25,00	.984
25,10	.998
25,40	1.000
25,60	1.008
25,90	1.020
26,00	1.024
26,30	1.035
26,60	1.047
26,70	1.051
27,00	1.063
27,20	1.071
27,40	1.079
27,50	1.093
27,90	1.098
27,94	1.100
28,00	1.102
28,20	1.110
28,50	1.122
28,70	1.130
29,00	1.142
29,20	1.150
29,40	1.158
29,50	1.161
29,70	1.169
29,90	1.177
30,00	1.181
30,20	1.189
30,40	1.197
30,48	1.200
30,50	1.201
30,80	1.213

mm	inch
30,90	1.217
31,00	1.220
31,20	1.228
31,50	1.240
31,70	1.248
32,00	1.260
32,20	1.268
32,30	1.272
32,50	1.280
32,80	1.291
33,00	1.299
33,10	1.303
33,30	1.311
33,80	1.331
34,00	1.339
34,20	1.346
34,40	1.354
35,00	1.378
35,40	1.394
35,50	1.398
35,56	1.400
35,60	1.402
36,00	1.417
36,50	1.437
36,60	1.441
36,70	1.445
37,00	1.457
37,30	1.469
37,50	1.476
37,60	1.480
37,70	1.484
37,90	1.492
38,00	1.496
38,10	1.500
39,00	1.535
39,20	1.543
39,30	1.547
39,90	1.571
40,00	1.575
40,30	1.587
40,40	1.591
40,60	1.598
41,00	1.614
41,60	1.638
42,70	1.681
43,18	1.700
44,20	1.740
44,80	1.764
45,80	1.803
46,30	1.823
46,70	1.839
47,00	1.850
47,20	1.858
47,30	1.862
47,50	1.870
47,80	1.882
48,00	1.890
48,10	1.894
48,26	1.900
48,80	1.921
49,10	1.933

mm	inch
49,50	1.949
49,90	1.965
50,10	1.972
50,30	1.980
50,50	1.988
50,70	1.996
50,80	2.000
51,40	2.024
51,50	2.028
52,00	2.047
52,30	2.059
52,80	2.079
53,00	2.087
53,20	2.095
53,80	2.118
54,00	2.126
54,20	2.134
54,90	2.161
55,00	2.165
55,40	2.181
55,70	2.193
56,60	2.228
57,40	2.260
57,80	2.276
57,90	2.280
58,42	2.300
59,00	2.323
59,20	2.331
59,80	2.354
59,90	2.358
60,00	2.362
60,96	2.400
61,10	2.406
62,00	2.441
63,00	2.480
63,50	2.500
64,00	2.520
65,00	2.560
67,00	2.638
68,00	2.677
69,00	2.717
70,00	2.756
71,00	2.795
74,00	2.913
75,00	2.953
76,20	3.000
77,00	3.032
78,74	3.100
80,00	3.150
81,28	3.200
84,00	3.307
85,00	3.346
86,36	3.400
88,90	3.500
90,00	3.543
91,44	3.600
94,00	3.701
95,00	3.740
100,00	3.937
110,00	4.331
120,00	4.724

IP-Code figure definitions

1. Code figure	Definition	Remark
0	Not protected	
1	Protected against access to hazardous parts by the back of the hand. Protected against fixed foreign objects Ø ≥ 1.969"/50 mm.	
2	Protected against access to hazardous parts with a finger. Protected against fixed foreign objects Ø ≥ .492"/12.5 mm.	
3	Protected against access to hazardous parts with a tool. Protected against fixed foreign objects Ø ≥ .098"/2.5 mm.	
4	Protected against access to hazardous parts with a wire. Protected against fixed foreign objects Ø ≥ .039"/1 mm.	
5	Protected against access to hazardous parts with a wire. Dust protected.	Ingress of dust is not completely blocked. But dust may not penetrate to the extent that satisfactory operation of the device or safety is impaired.
6	Protected against access to hazardous parts with a wire. Dustproof. No ingress of dust.	

2. Code figure	Definition	Remark
0	Not protected	
1	Protected against dropper.	
2	Protected against dropper when the shell is tipped as much as 15°.	
3	Protected against spray water	Up to 60° of either side of the vertical, such spray water shall have no harmful effects.
4	Protected against splash water	On the shell from all directions, no harmful effects shall be incurred.
5	Protected against jets of water.	
6	Protected against strong jets of water.	
7	Protected against the effects of temporary submersion in water.	Water may not ingress in a volume that would cause harmful effects when the shell is submerged in water for 30 min at a depth of 1 m.
8	Protected against the effects of continuous submersion in water.	Water may not ingress in a volume that would cause harmful effects when the shell is continuously submerged in water under conditions agreed between manufacturer and user. However, these conditions must be more stringent than those described under code figure 7.
9k	Protected against water from high-pressure or steam cleaning.	

Explanation to spray water protected (IP) systems and their environment.

This system, described in IEC 60529, was developed to represent standard values for respective protection:

a) Contact with, and ingress of, fixed foreign objects
b) The ingress of liquids to which the inside is to be exposed.

The first digit describes the level of protection for life, contacting objects and the intrusion of foreign bodies. The second digit describes the level of protection against the ingress of liquids. The larger the first and second digits are, the greater afforded protection is, e.g. IP55 must also meet the requirements of all lower protection levels, such as IP22, IP23, IP34 and IP54.

Technical Data

Materials	D-Subminiature, Standard 9, 15, 25, 37 and 50 position	D-Subminiature, High Density 15, 26, 44, 62 and 78 position
Insulator	Polyester GF UL94 V-0	
Contacts	CU alloy	
Contact plating	Gold plated over nickel	
Shell	Brass tin plated (Standard) Stainless steel on request	

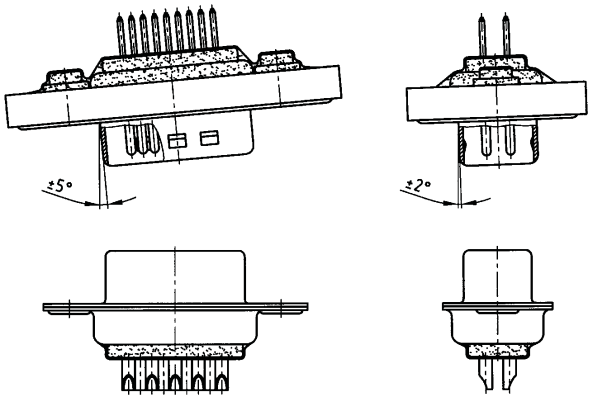
Mechanical and electrical characteristics		
Test voltage U eff/NN	1000 V	
Working voltage	125 V ≈	60 V ≈
	depending on isolation coordination (refer to DIN VDE 0110/IEC 664-1)	
Current rating	7.5 A (UL) / 5 A (CSA,VDE)	3 A (UL,VDE) / 2.5 A (CSA)
Contact resistance	max. 10 mΩ prior to stressing, Δ R max. 10 mΩ after stressing per DIN 41652, Part 2	
Insulation resistance	≥ 5 GΩ	
Clearance and creepage distance	contact – contact ≥ .04" / 1.0 mm contact – earth ≥ .047"/1.2 mm	≥ .024"/0.6 mm
Operating temperature	– 25 °C to + 105 °C	
Mating and unmating forces	9 pos. ≤ 30 N 15 pos. ≤ 50 N 25 pos. ≤ 83 N 37 pos. ≤ 123 N 50 pos. ≤ 167 N	15 pos. ≤ 50 N 26 pos. ≤ 84 N 44 pos. ≤ 120 N 62 pos. ≤ 170 N 78 pos. ≤ 200 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles	

Recommended wave-solder parameters	Preheating		Solder terminal dipping parameters	
	max. Temperature	Duration	max. Solder bath Temperature	max. Terminal Immersion Time
D-SUB Water Resistant	120°C	120s	240°C	5s
D-SUB Solid Body Type Water Resistant	150°C	180s	265°C	8s

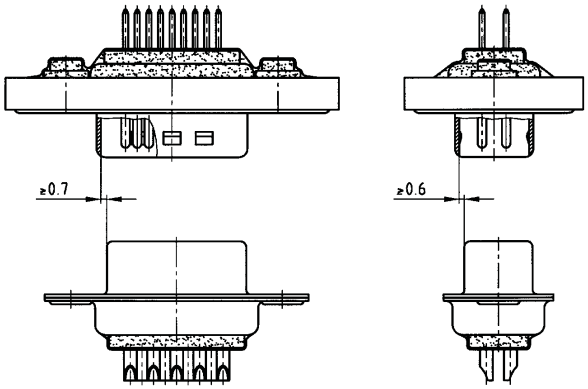
Technical specifications are subject to change without notice.

Mating conditions

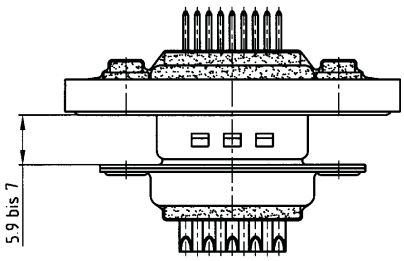
Float mount tolerance guide



Rigid mount tolerance guide

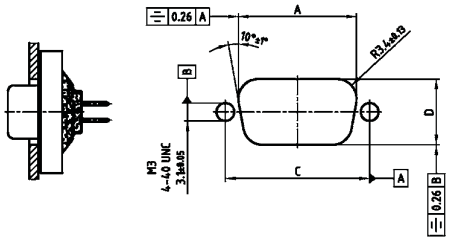


Rigid mount vertical to tolerance guide

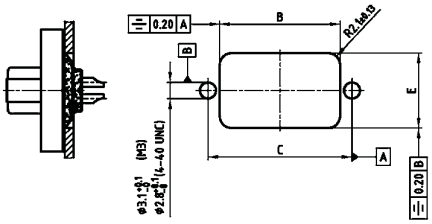


Panel cut-out

Rear panel mounting IP67 D-SUB Connectors



Front panel mounting IP67 D-SUB Connectors

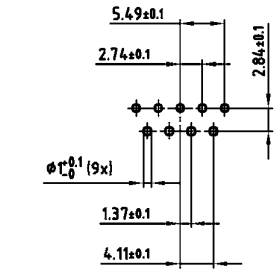


Shell size	A ±0.1	B ±0.1	C ±0.1	D ±0.1	E ±0.1
1	20.50	20.90	25.00	11.40	13.00
2	28.80	29.20	33.30	11.40	13.00
3	42.50	42.90	47.04	11.40	13.00
4	59.10	59.40	63.50	11.40	13.00
5	56.30	57.00	61.10	14.10	15.80

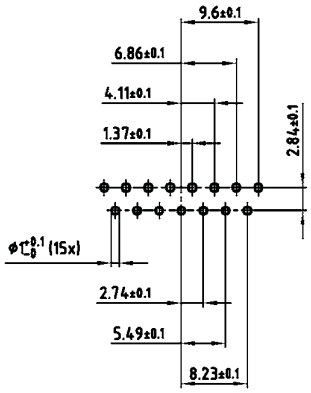
PCB layout D-SUB Standard

Solder pin, straight – without rear spacer PCB clip – Plug and Socket connector

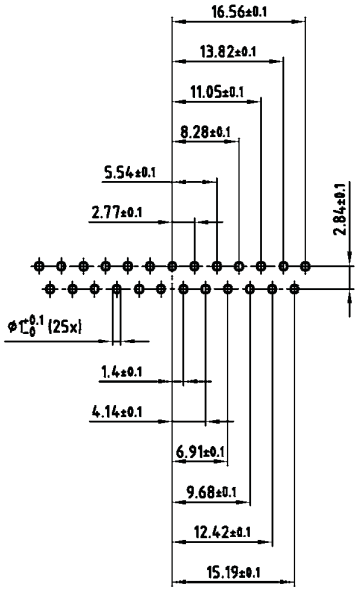
9 pos.



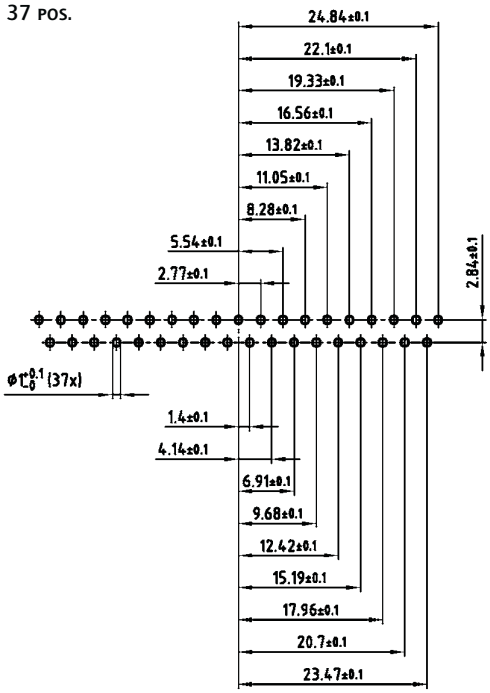
15 pos.



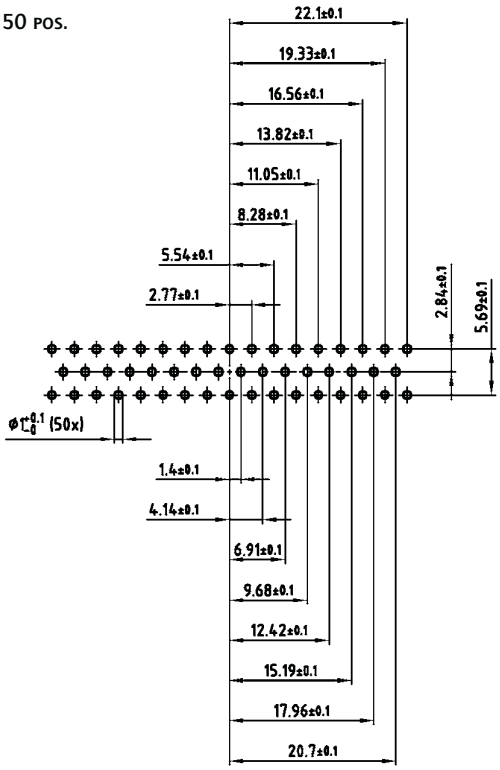
25 pos.



37 pos.



50 pos.

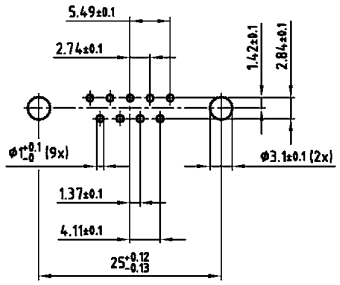


PCB layout Kat1kFVA (View: component side)

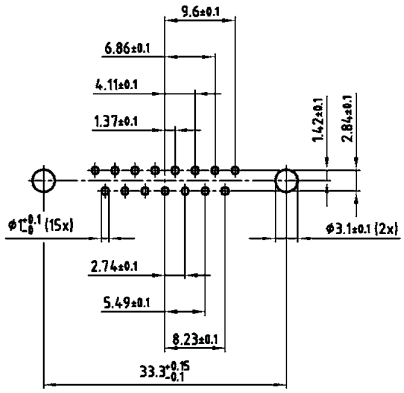
PCB layout D-SUB Standard

Solder pin, straight – With rear spacer PCB clip – Plug and Socket connector

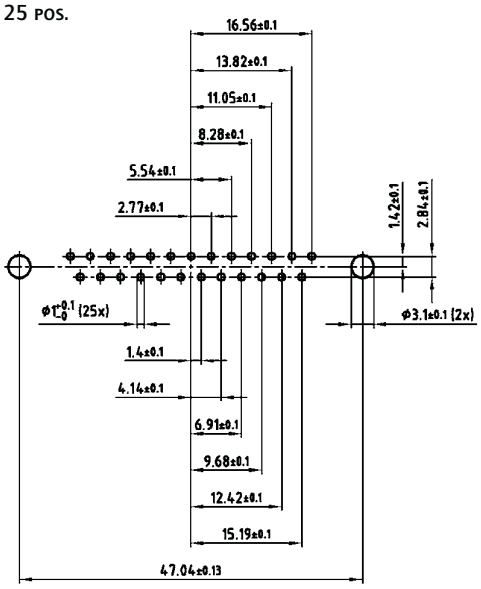
9 pos.



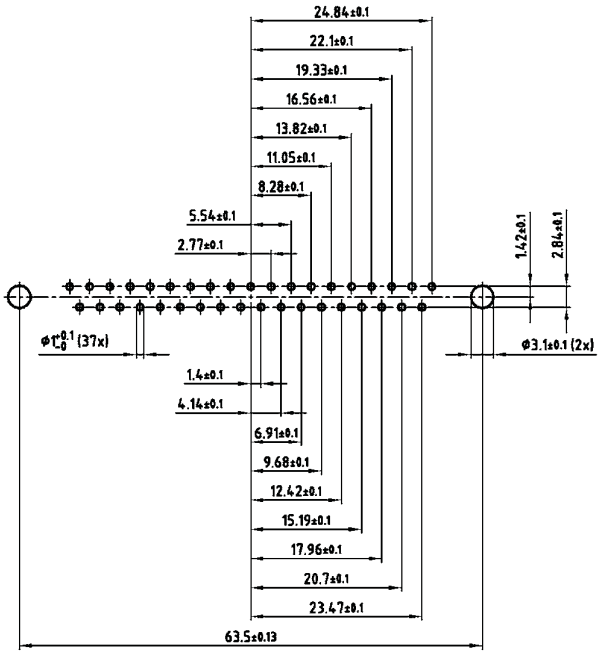
15 pos.



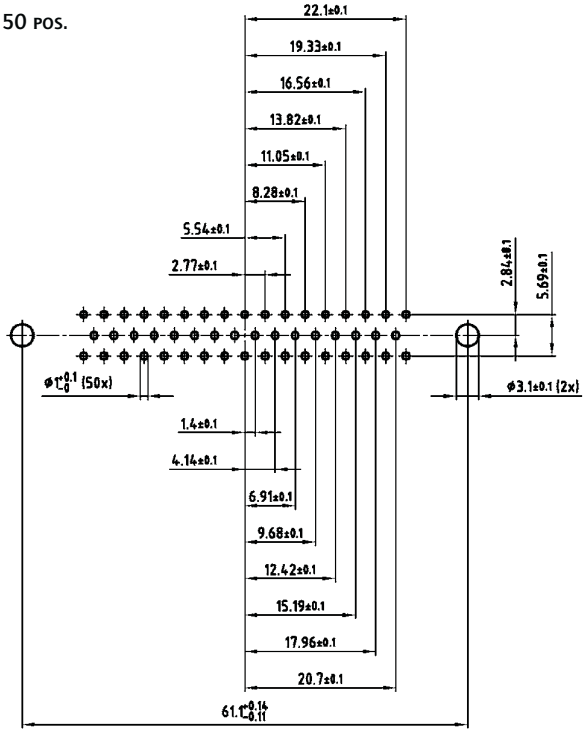
25 pos.



37 pos.



50 pos.

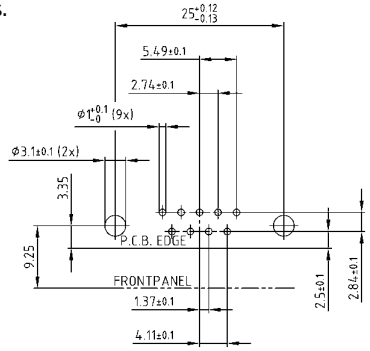


PCB layout Kat1kFUA (View: component side)

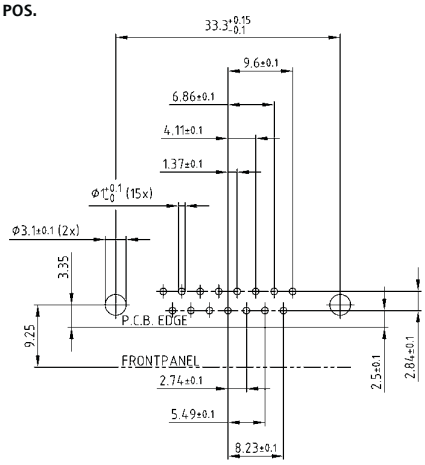
PCB layout D-SUB Standard

Solder pin, angled, .189" / 4.8 mm – Plug and Socket connector

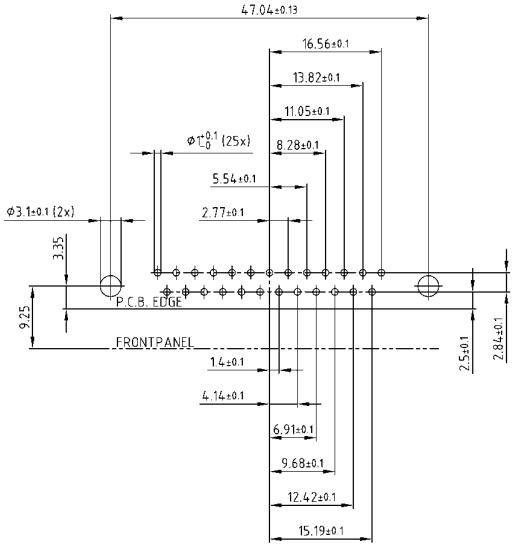
9 pos.



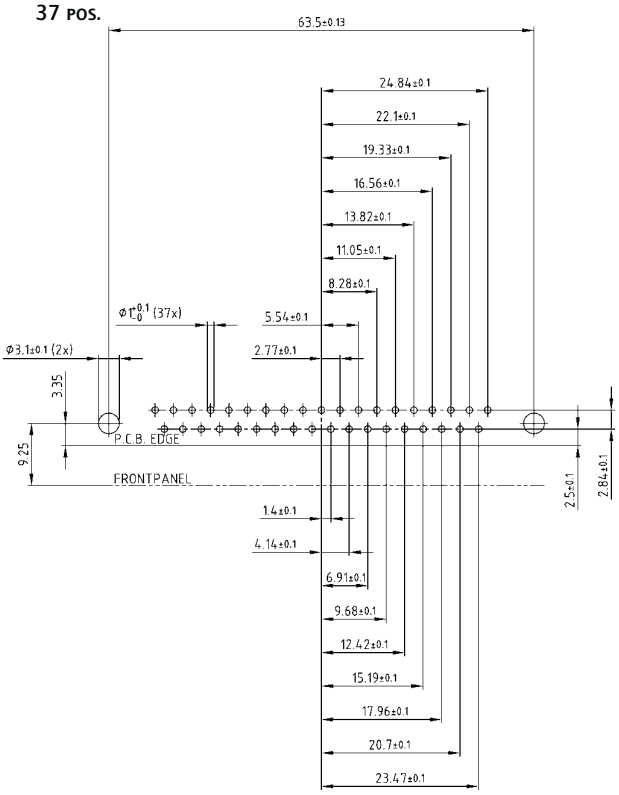
15 pos.



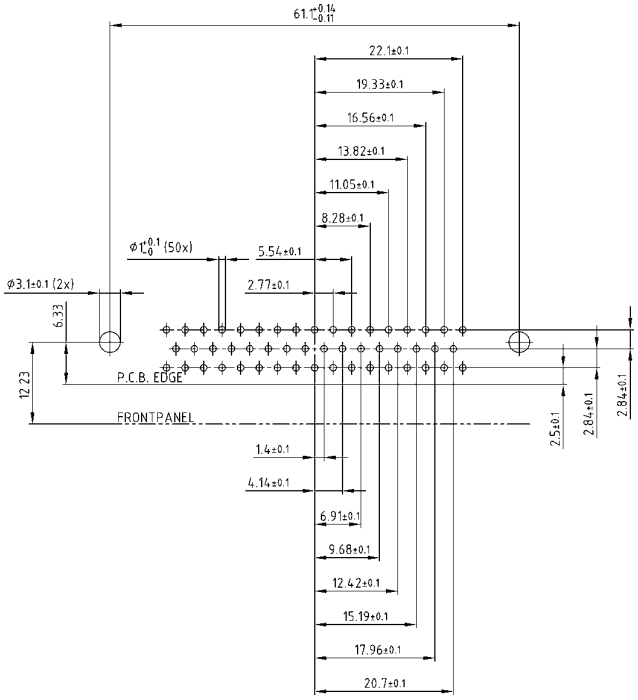
25 pos.



37 pos.



50 pos.

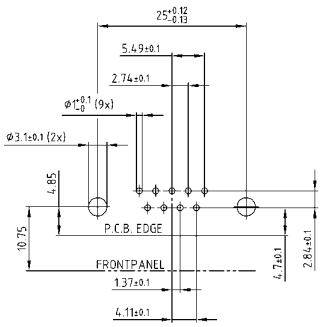


PCB layout Kat1kGSA (View: component side)

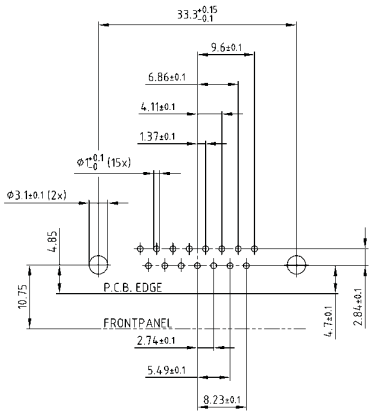
PCB layout D-SUB Standard

Solder pin, angled, .276" / 7.0 mm – Plug and Socket connector

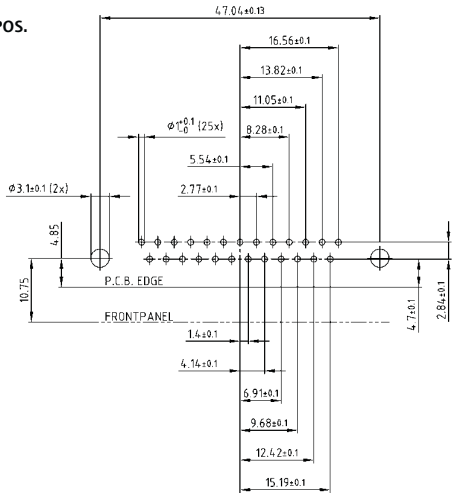
9 pos.



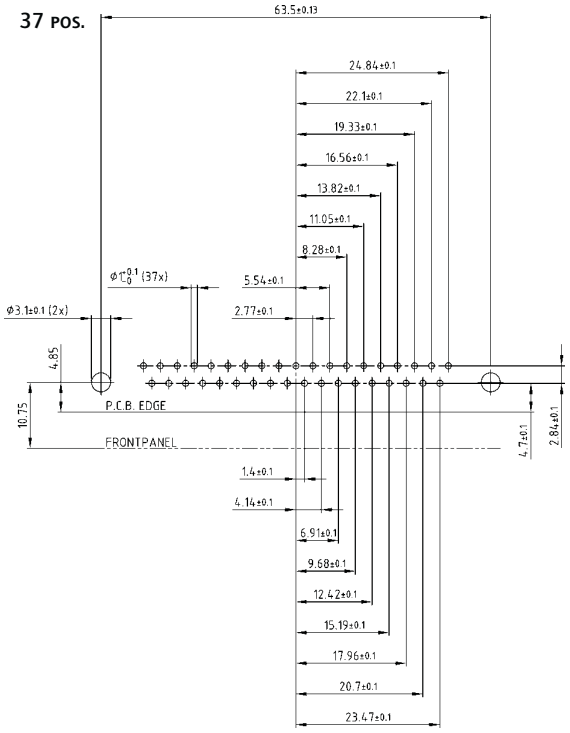
15 pos.



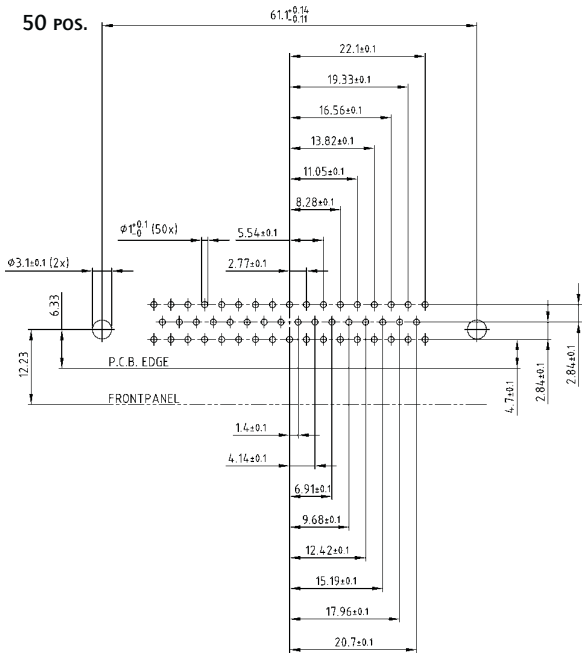
25 pos.



37 pos.



50 pos.

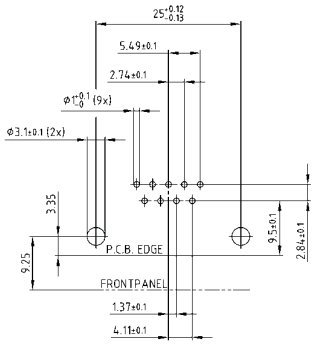


PCB layout Kat1kGTA (View: component side)

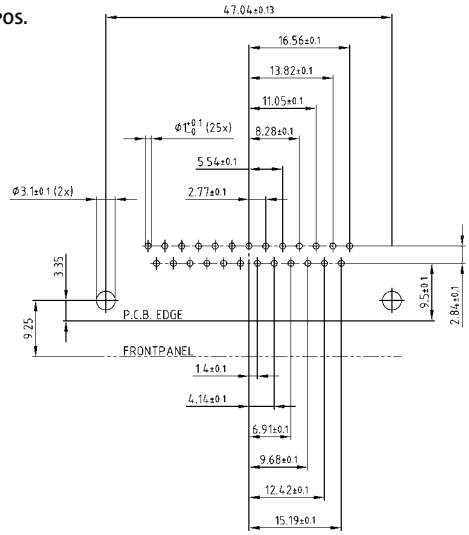
PCB layout D-SUB Standard

Solder pin, angled, .464" / 11.8 mm – Plug and Socket connector

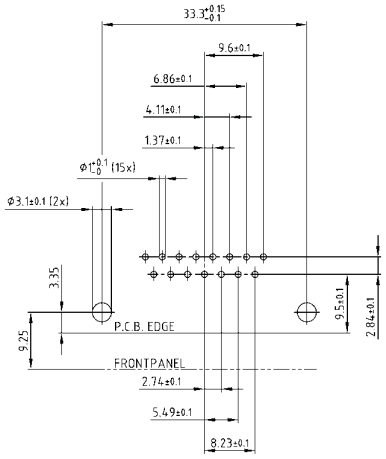
9 pos.



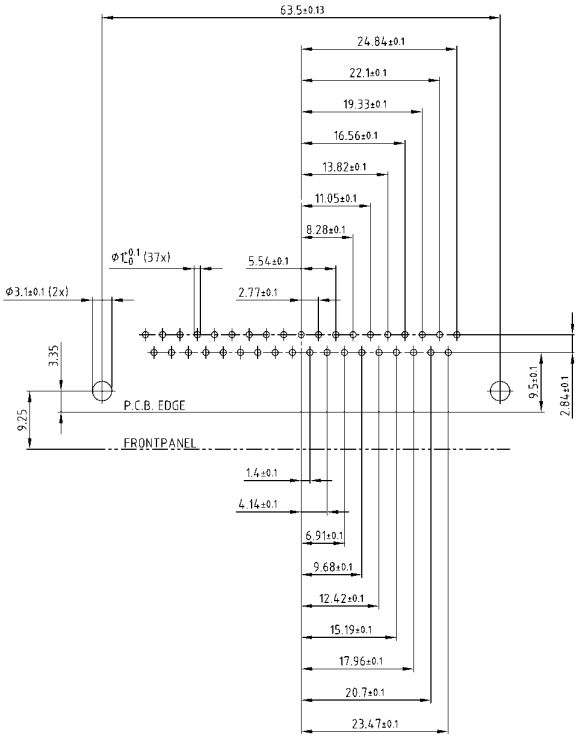
25 pos.



15 pos.



37 pos.

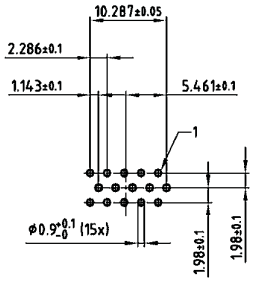


PCB layout Kat1kGUA (View: component side)

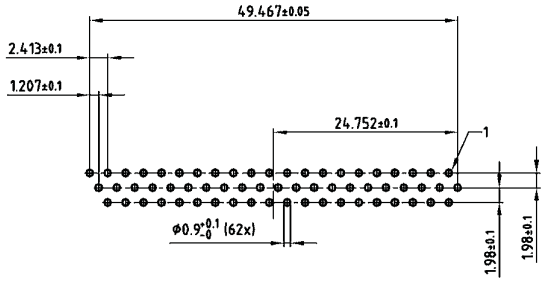
PCB layout D-SUB High Density

Solder pin, straight – without rear spacer PCB clip – Socket connector

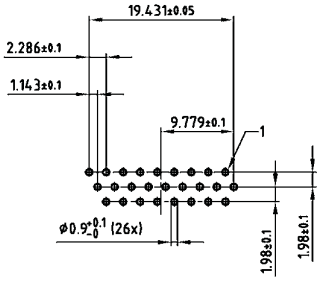
15 pos.



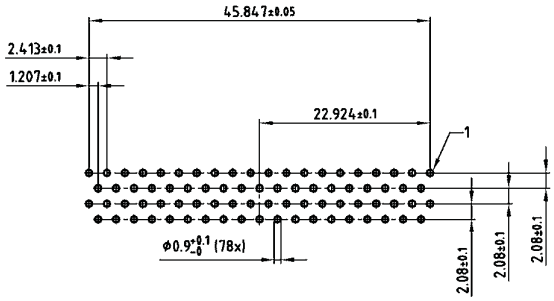
62 pos.



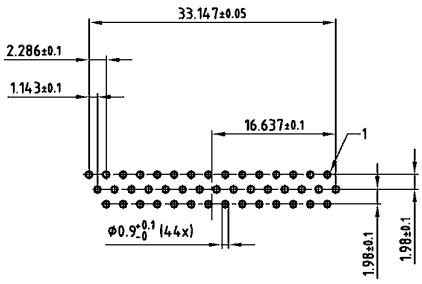
26 pos.



78 pos.



44 pos.

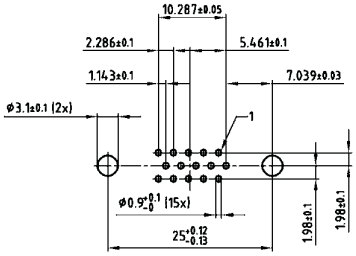


PCB layout Kat1kGDA (View: component side)

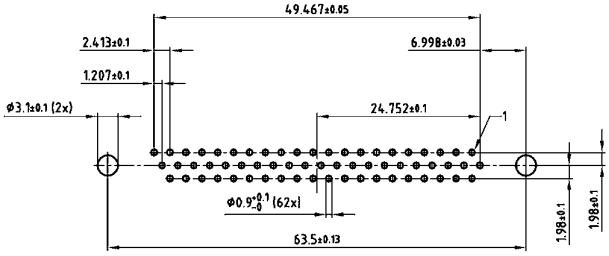
PCB layout D-SUB High Density

Solder pin, straight – With rear spacer PCB clip – Socket connector

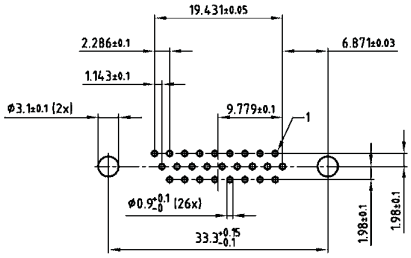
15 pos.



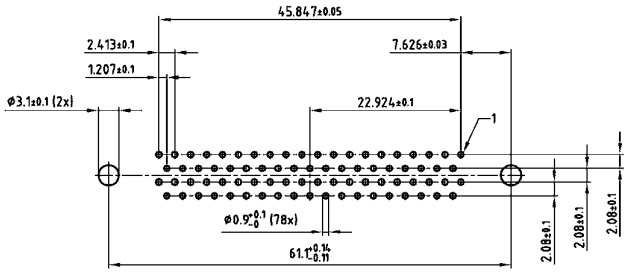
62 pos.



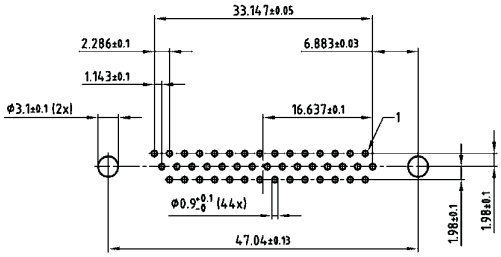
26 pos.



78 pos.



44 pos.

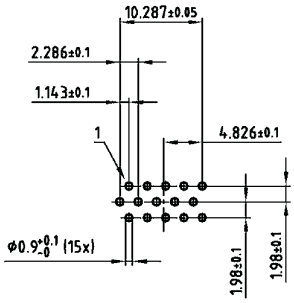


PCB layout Kat1iT9A (View: component side)

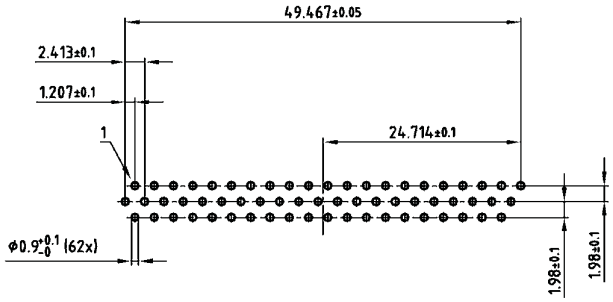
PCB layout D-SUB High Density

Solder pin, straight – Without rear spacer PCB clip – Plug connector

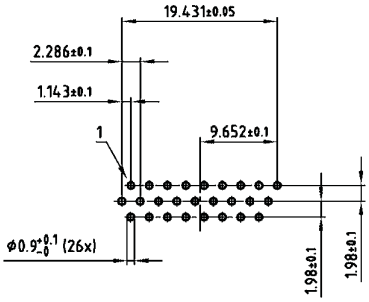
15 pos.



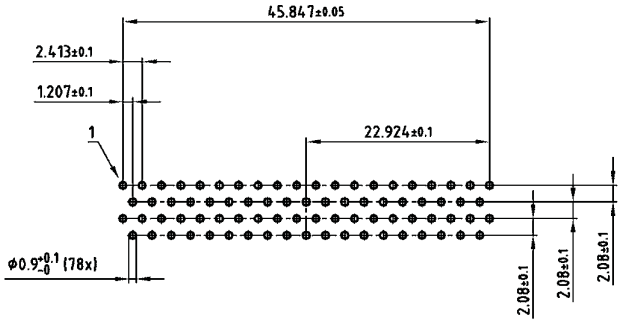
62 pos.



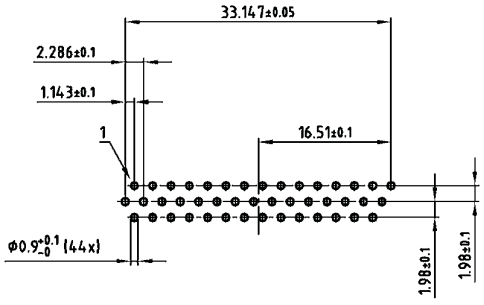
26 pos.



78 pos.



44 pos.

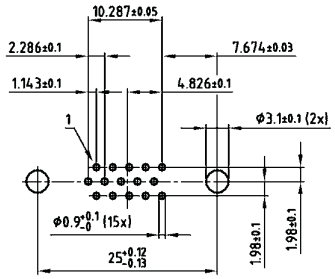


PCB layout Kat1kFWA (View: component side)

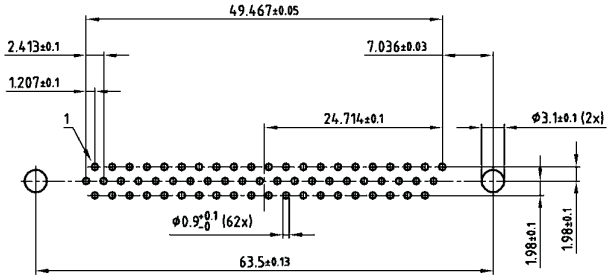
PCB layout D-SUB High Density

Solder pin, straight – With rear spacer PCB clip – Plug connector

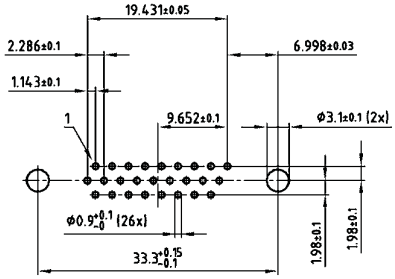
15 pos.



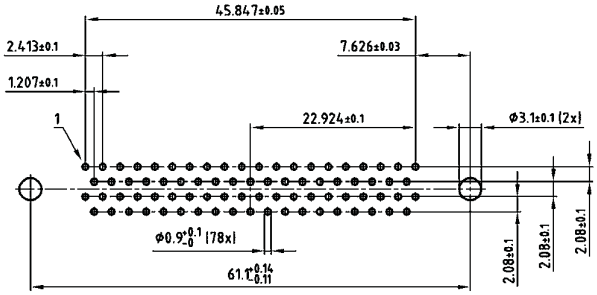
62 pos.



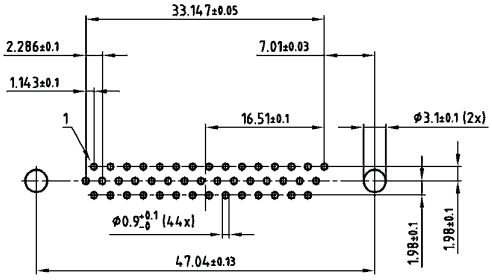
26 pos.



78 pos.



44 pos.

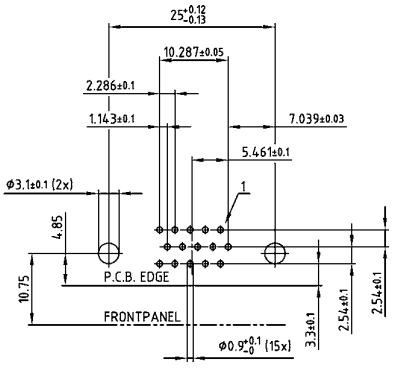


PCB layout Kat1iU0A (View: component side)

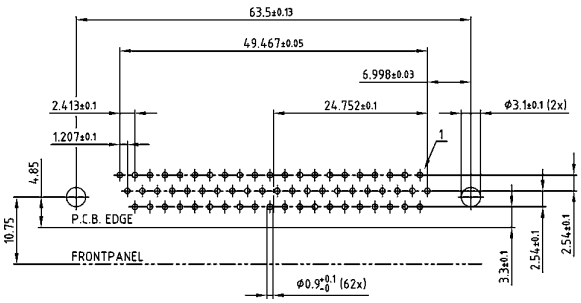
PCB layout D-SUB High Density

Solder pin, angled, .220" / 5.6 mm – Socket connector

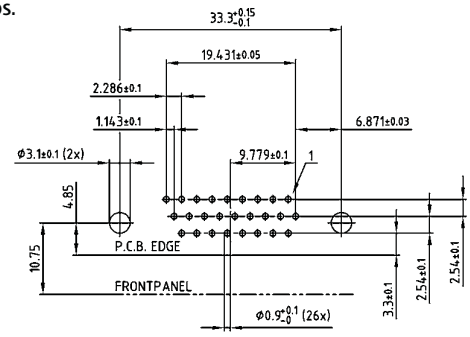
15 pos.



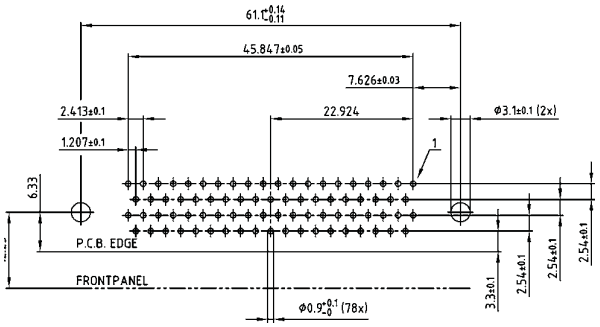
62 pos.



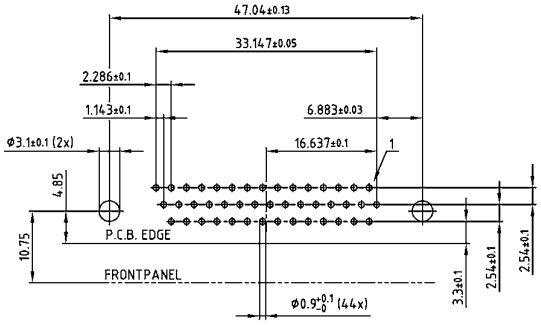
26 pos.



78 pos.



44 pos.

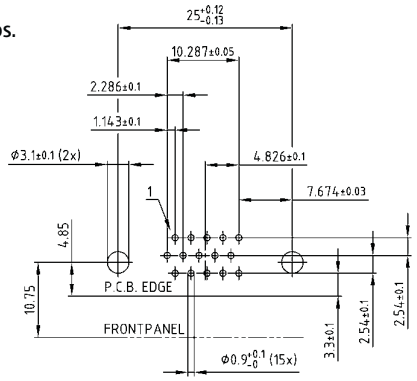


PCB layout Kat1kGVA (View: component side)

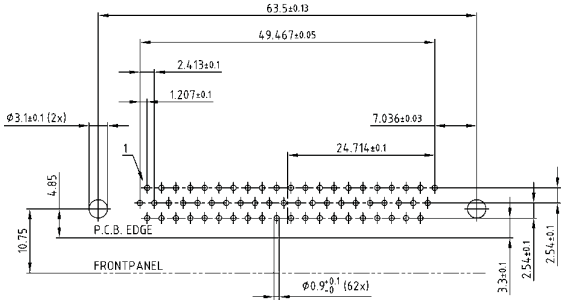
PCB layout D-SUB High Density

Solder pin, angled, .220" / 5.6 mm – Plug connector

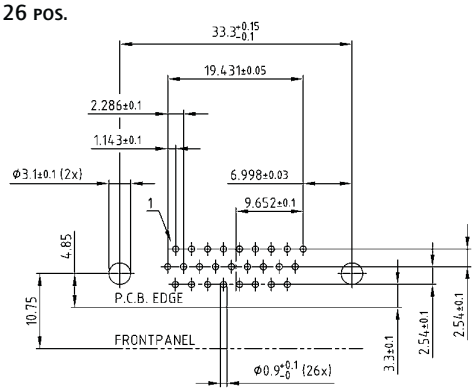
15 pos.



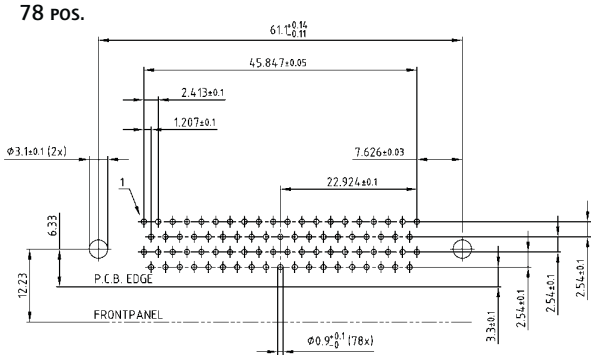
62 pos.



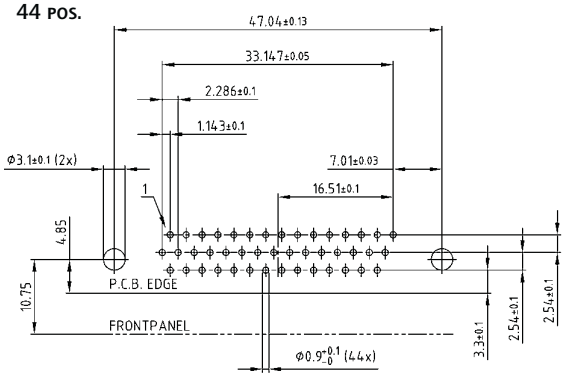
26 pos.



78 pos.



44 pos.

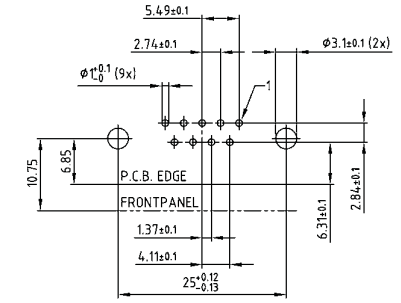


PCB layout Kat1kGWA (View: component side)

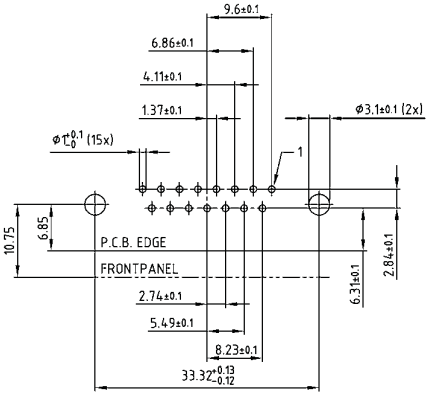
PCB layout D-SUB Solid Body

Solder pin, angled, .402" / 10.2 mm – Socket connector

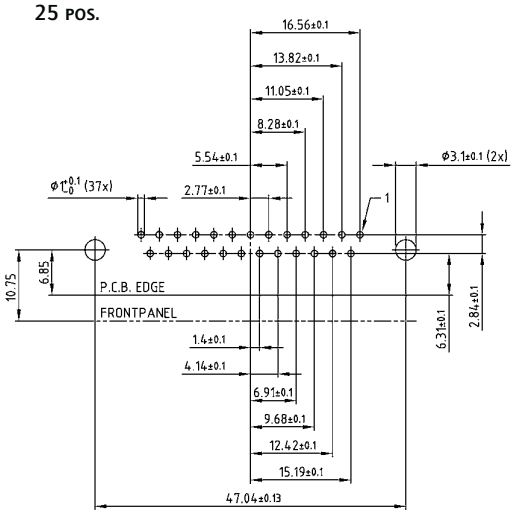
9 pos.



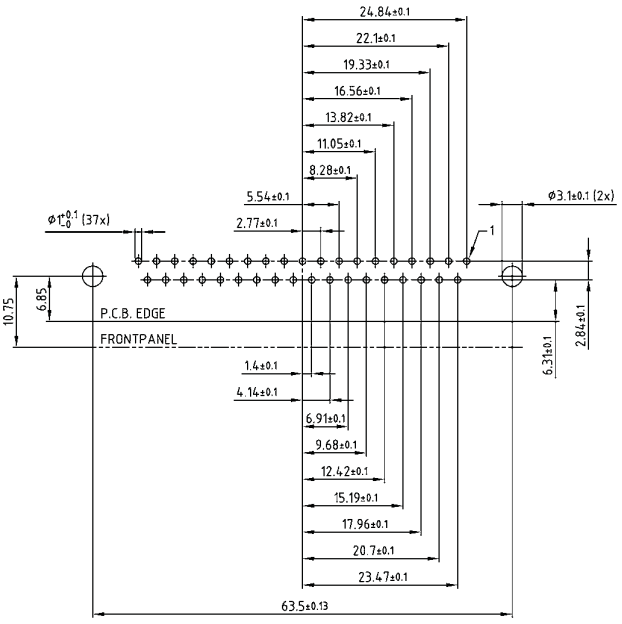
15 pos.



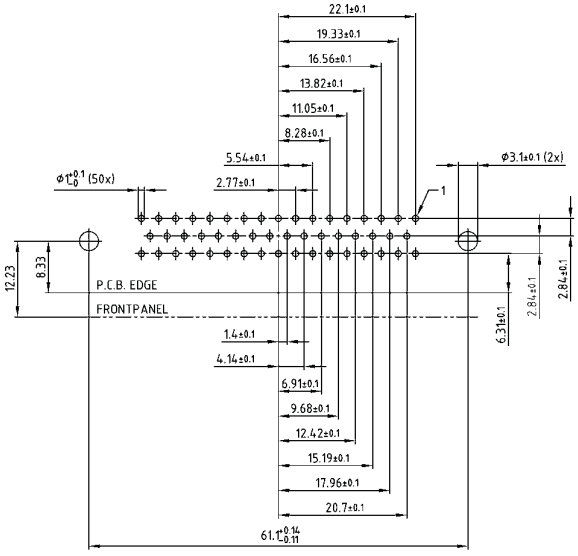
25 pos.



37 pos.



50 pos.

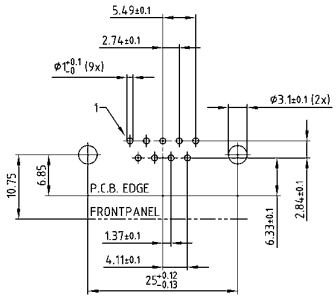


PCB layout Kat1kGMA (View: component side)

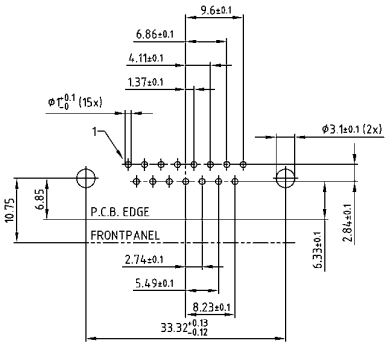
PCB layout D-SUB Solid Body

Solder pin, angled, .402" / 10.2 mm – Plug connector

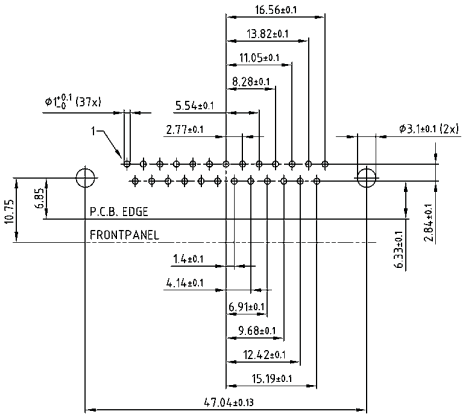
9 pos.



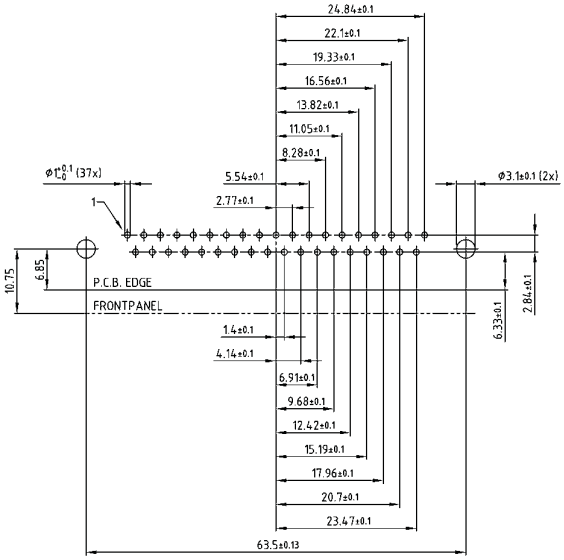
15 pos.



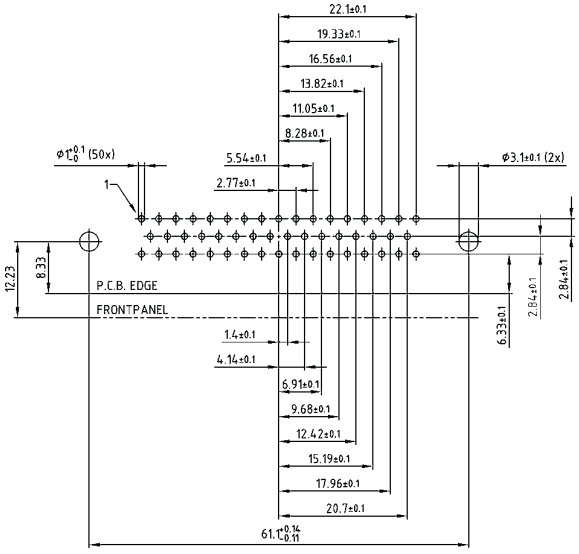
25 pos.



37 pos.



50 pos.

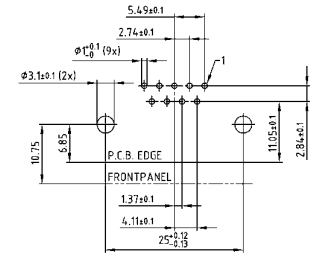


PCB layout Kat1kGNA (View: component side)

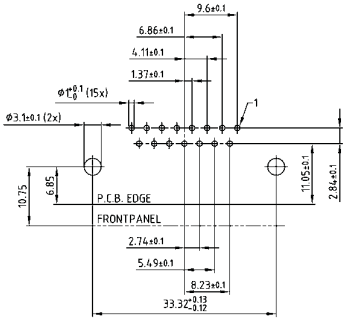
PCB layout D-SUB Solid Body

Solder pin, angled, .587" / 14.9 mm – Socket connector

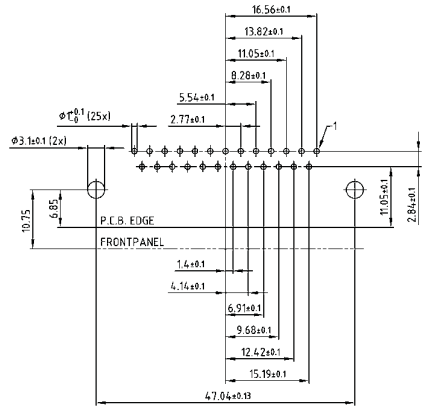
9 pos.



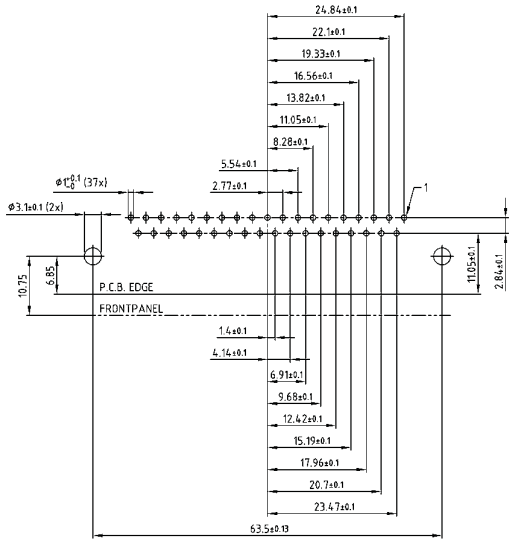
15 pos.



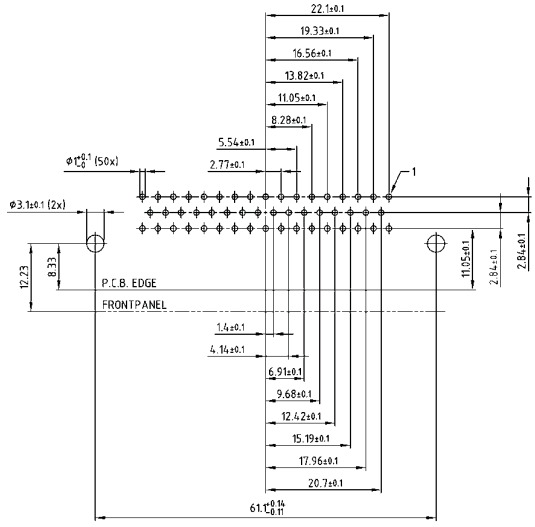
25 pos.



37 pos.



37 pos.

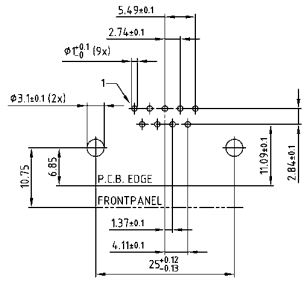


PCB layout Kat1kGOA (View: component side)

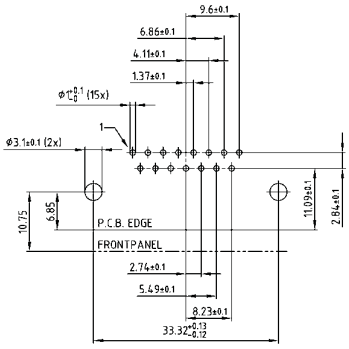
PCB layout D-SUB Solid Body

Solder pin, angled, .587" / 14.9 mm – Plug connector

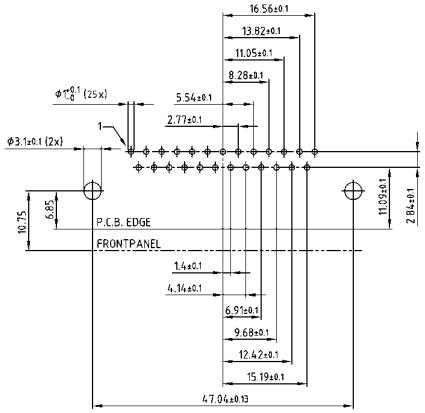
9 pos.



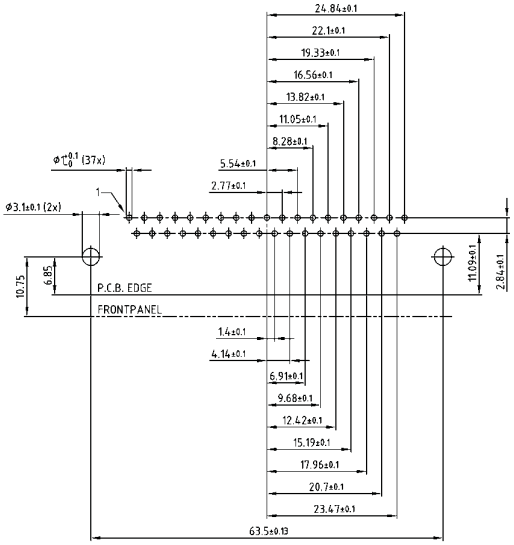
15 pos.



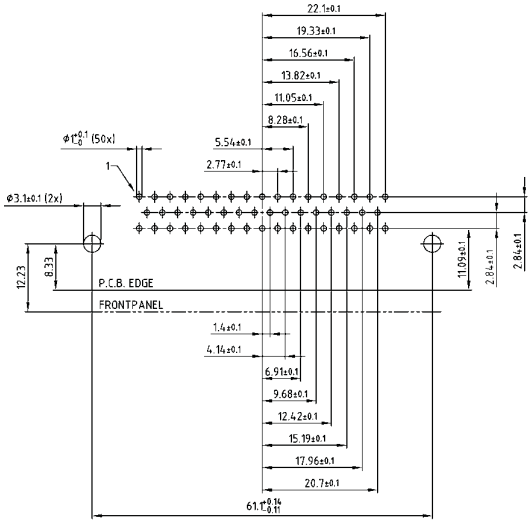
25 pos.



37 pos.



50 pos.

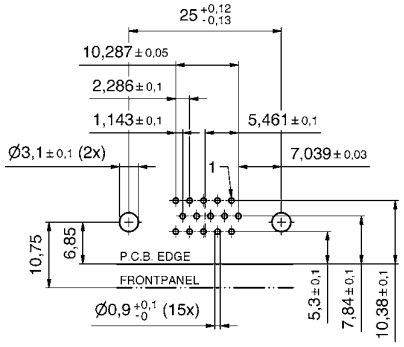


PCB layout Kat1kGPA (View: component side)

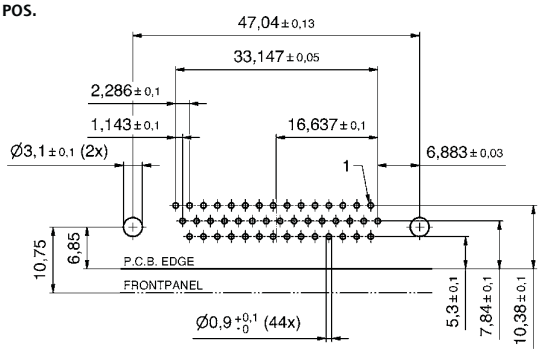
PCB layout D-SUB High Density Solid Body

Solder pin, angled, .484" / 12.3 mm – Socket connector

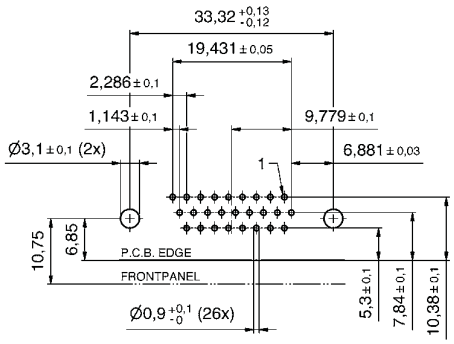
15 pos.



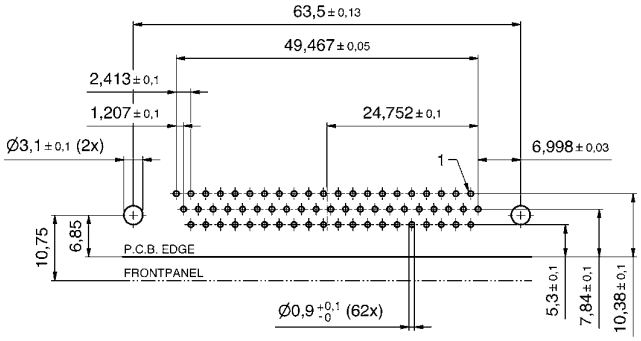
44 pos.



26 pos.



62 pos.

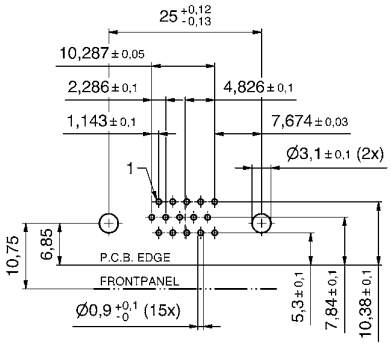


PCB layout Kat1kGQA (View: component side)

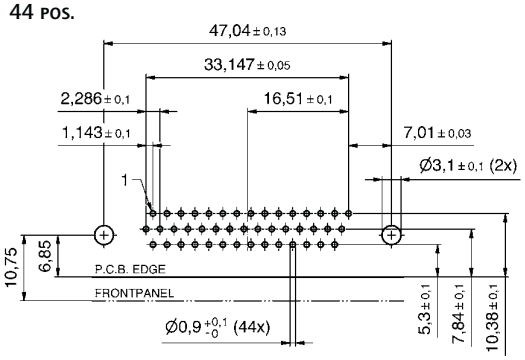
PCB layout D-SUB High Density Solid Body

Solder pin, angled, .484" / 12.3 mm – Plug connector

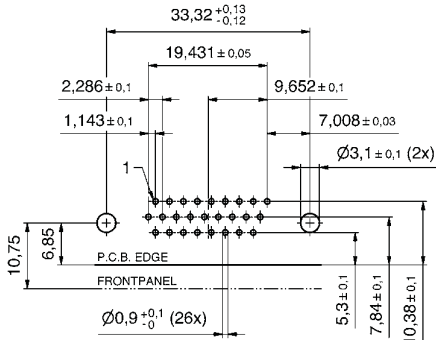
15 pos.



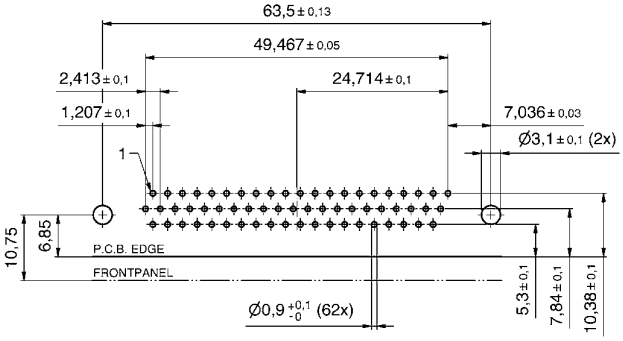
44 pos.



26 pos.



62 pos.

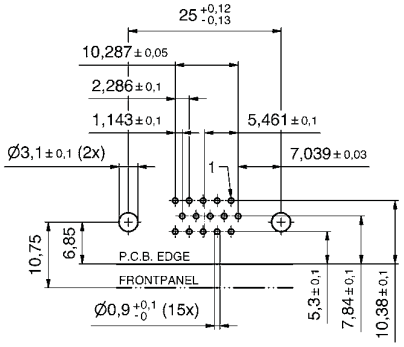


PCB layout Kat1kGRA (View: component side)

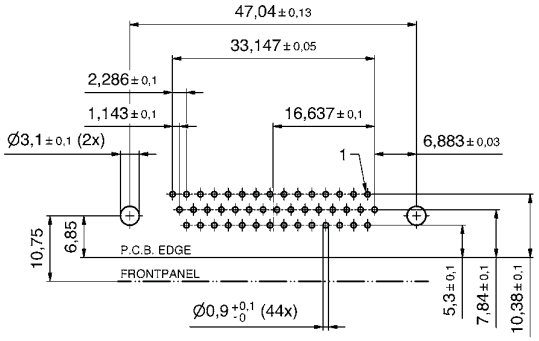
PCB layout D-SUB High Density Solid Body

Solder pin, angled, .362" / 9,2 mm – Socket connector

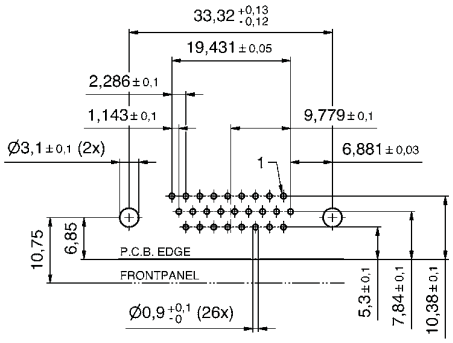
15 pos.



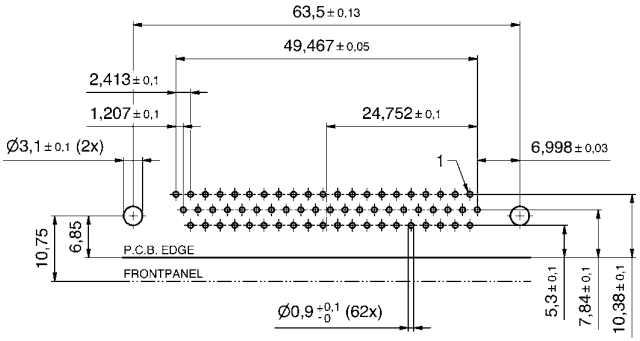
44 pos.



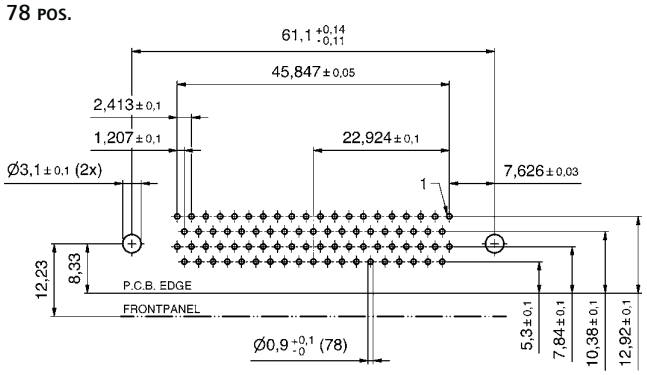
26 pos.



62 pos.



78 pos.

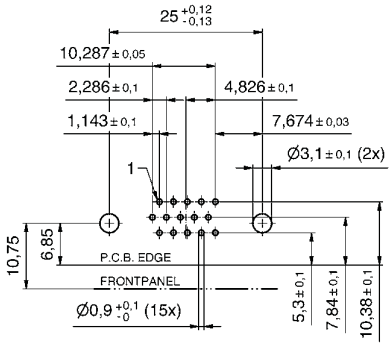


PCB layout Kat1kHRA (View: component side)

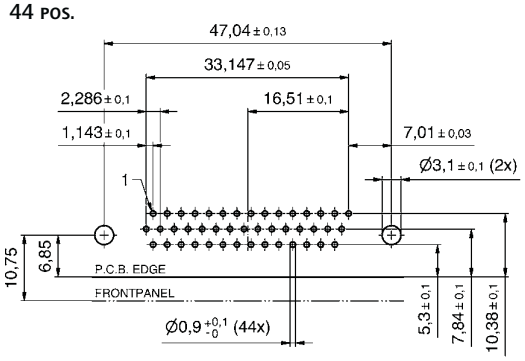
PCB layout D-SUB High Density Solid Body

Solder pin, angled, .362"/9,2 mm – Plug connector

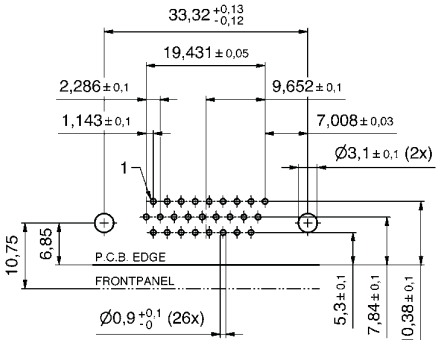
15 pos.



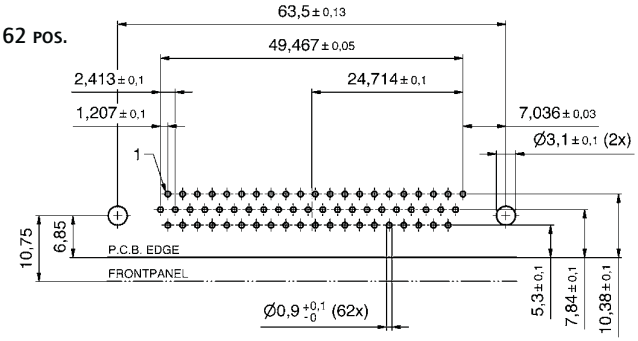
44 pos.



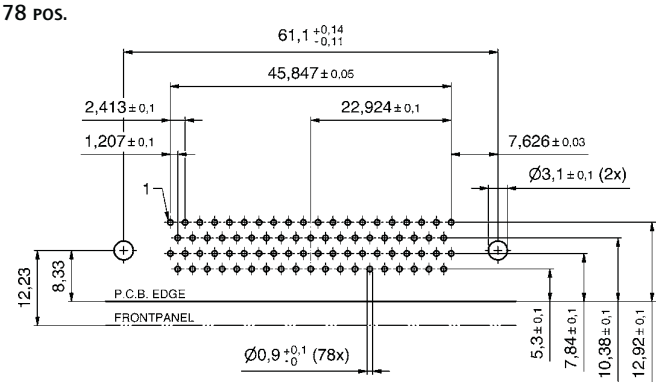
26 pos.



62 pos.



78 pos.



PCB layout Kat1kHQA (View: component side)