

## SECTION 2

# IP67 D-SUB CONNECTORS

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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.





#### 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 0 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 | E2 = Threaded rear spacer with PCB clip, PCB 1,60 mm      |
| B2 = M3 threaded insert                                    | S1 = Metal bracket, M3 threaded insert                    |
| B3 = 4-40 UNC threaded insert                              | S2 = Metal bracket, 4-40 UNC threaded insert              |
| B4 = M3 front spacer                                       | S3 = Metal bracket, M3 threaded insert and PCB clip       |
| B5 = 4-40 UNC front spacer                                 | S4 = Metal bracket, 4-40 UNC threaded insert and PCB clip |
| B7 = 4-40 UNC front spacer and rear mounting stud          | R1 = Metal bracket, M3 threaded insert                    |
| B8 = M3 threaded lock                                      | R2 = Metal bracket, 4-40 UNC threaded insert              |
| B9 = 4-40 UNC front spacer                                 | R3 = Metal bracket, M3 threaded insert and PCB clip       |
| E1 = M3 threaded rear spacer with PCB clip .063"/1.60 mm   | R4 = Metal bracket, 4-40 UNC threaded insert and PCB clip |

- OX = Standard

# TECHNICAL DATA

| Materials                                 | D-Subminiature, Standard<br>9, 15, 25, 37 and 50 position  | D-Subminiature, High Density<br>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)<br>Stainless steel on request  |  |
| Mechanical and electrical characteristics |  |  |
| Test voltage U eff/NN                     | 1000 V   |  |
| Working voltage                           | 125 V ≈ 60 V ≈<br>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<br>per DIN 41652, Part 2                                       |  |
| Insulation resistance                     | ≥ 5 GΩ   |  |
| Clearance and creepage distance           | contact – contact ≥ .004" / 1.0 mm<br>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<br>15 pos. ≤ 50 N<br>25 pos. ≤ 83 N<br>37 pos. ≤ 123 N<br>50 pos. ≤ 167 N                                      | 15 pos. ≤ 50 N<br>26 pos. ≤ 84 N<br>44 pos. ≤ 120 N<br>62 pos. ≤ 70 N<br>78 pos. ≤ 200 N |
| Quality class                             | A = Quality class 3 = 50 mating cycles<br>B = Quality class 2 = 200 mating cycles<br>C = Quality class 1 = 500 mating cycles |  |

Technical alterations are subject to change without notice.

## 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.<br>Protected against fixed foreign objects $\varnothing \geq 1.969'' / 50$ mm. |  |
| 2              | Protected against access to hazardous parts with a finger.<br>Protected against fixed foreign objects $\varnothing \geq .492'' / 12.5$ mm.          |  |
| 3              | Protected against access to hazardous parts with a tool.<br>Protected against fixed foreign objects $\varnothing \geq .098'' / 2.5$ mm.             |  |
| 4              | Protected against access to hazardous parts with a wire.<br>Protected against fixed foreign objects $\varnothing \geq .039'' / 1$ mm.               |  |
| 5              | Protected against access to hazardous parts with a wire.<br>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.<br>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.<br>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.

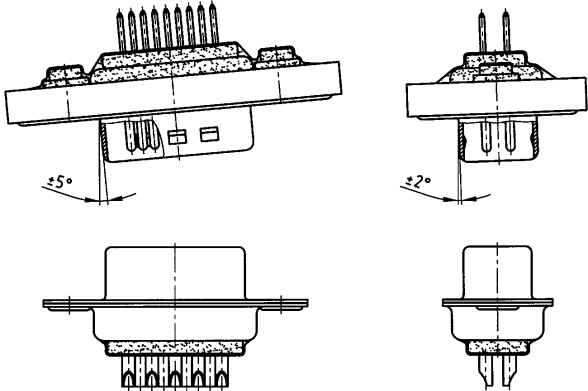
This system, described in IEC 60529, was developed to represent standard values for respective protection:

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

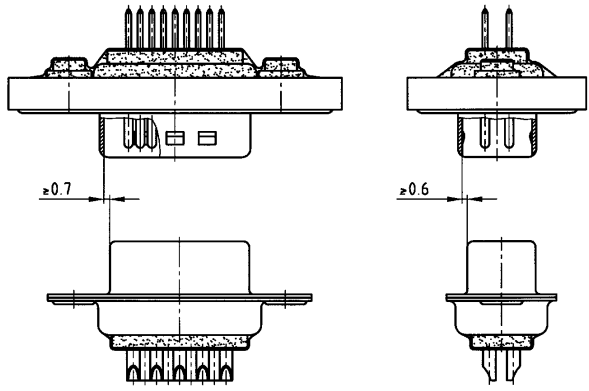
The first digit describes the level of protection for life, contacting objects and the intrusion of foreign bodies. The second digit describes the level of protection against the ingress of liquids. The larger the first and second digits are, the greater afforded protection is, e.g. IP55 must also meet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

# MATING CONDITIONS

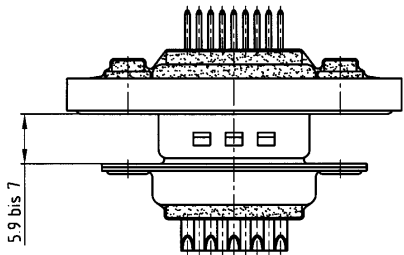
Float mount tolerance guide



Rigid mount tolerance guide



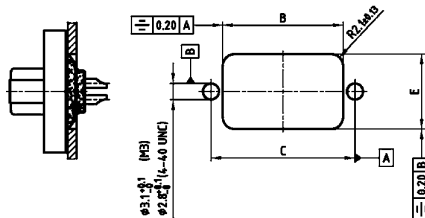
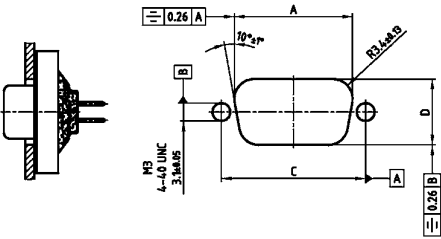
Rigid mount vertical to tolerance guide



PANEL CUT-OUT

Rear panel mounting IP67 D-SUB Connectors

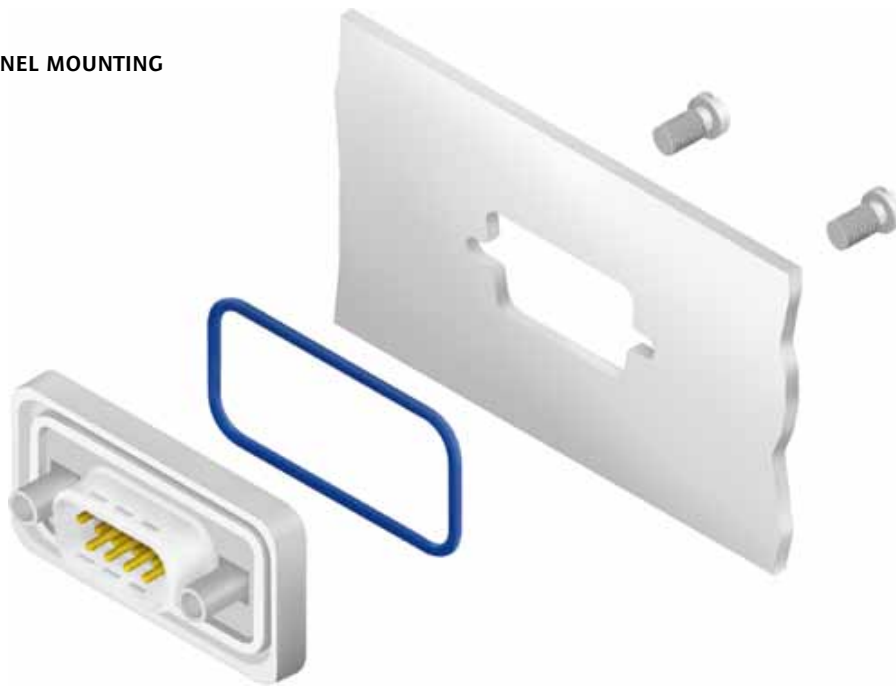
Front panel mounting IP67 D-SUB Connectors



| Shell size | A $\pm 0.1$ | B $\pm 0.1$ | C $\pm 0.1$ | D $\pm 0.1$ | E $\pm 0.1$ |
|------------|-------------|-------------|-------------|-------------|-------------|
| 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       |

## PANEL MOUNTING

### FRONT PANEL MOUNTING



### REAR PANEL MOUNTING

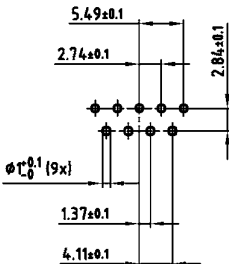


The hex bolts illustrated here (4-40 UNC or M3 threads) are included in the delivery complement of every connector with a sealing frame. The length of this spacer has been selected to accommodate a panel thickness of .063"/1.6 mm such that it does not extend beyond the plug-in height. Furthermore, the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

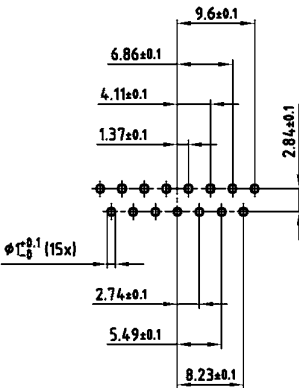
# PCB LAYOUT, D-SUB STANDARD

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

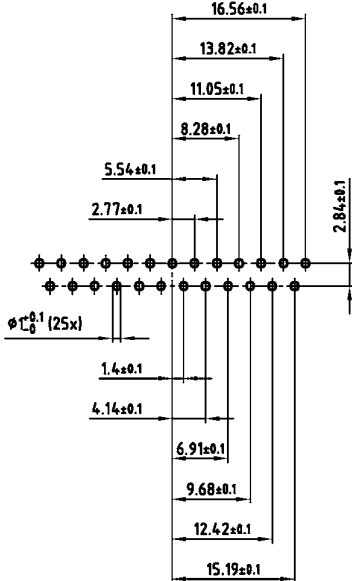
9 POS.



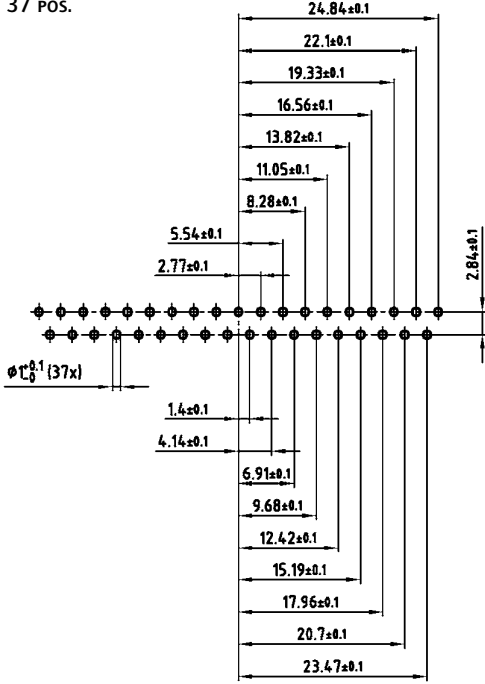
15 POS.



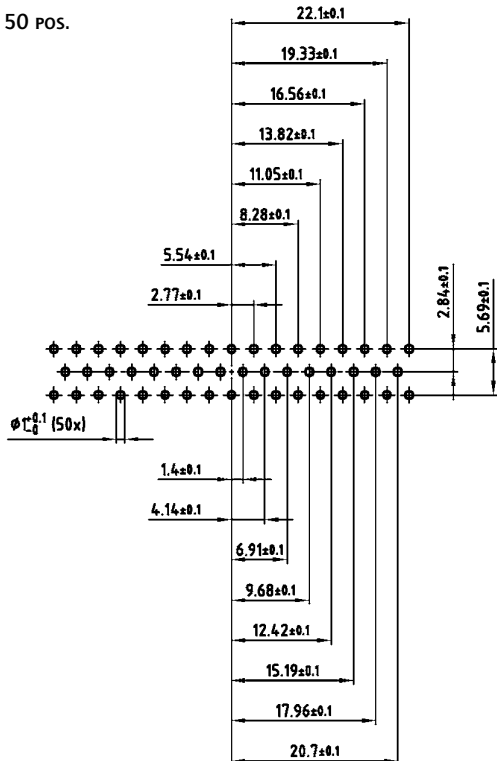
25 POS.



37 POS.



50 POS.



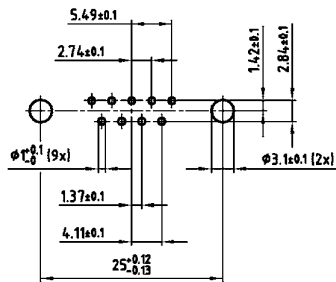
PCB layout Kat1kFVA (View: component side)



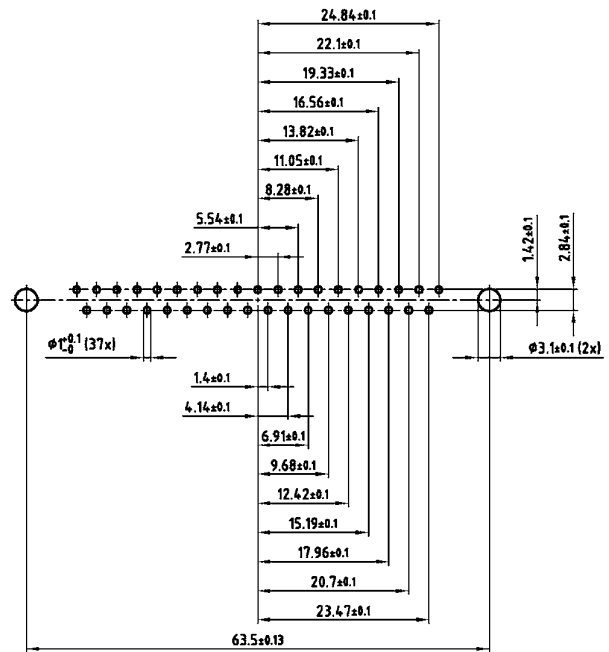
# PCB LAYOUT, D-SUB STANDARD

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

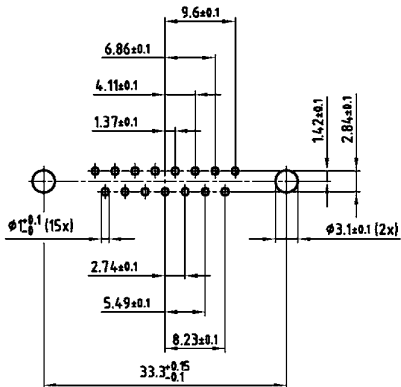
9 POS.



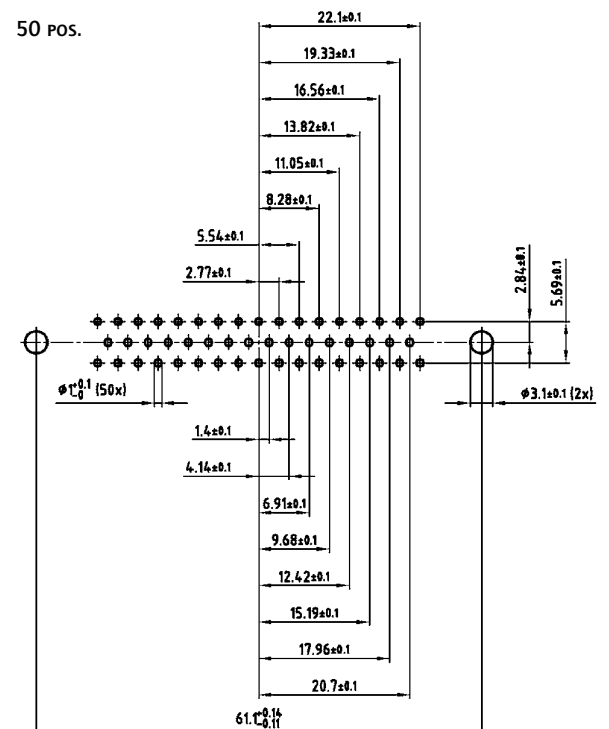
37 POS.



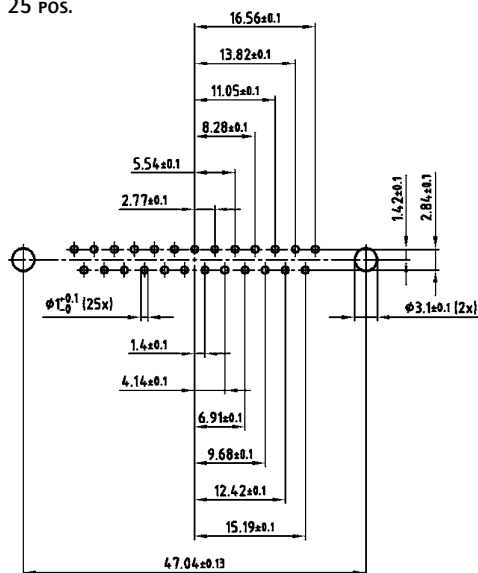
15 POS.



50 POS.



25 POS.

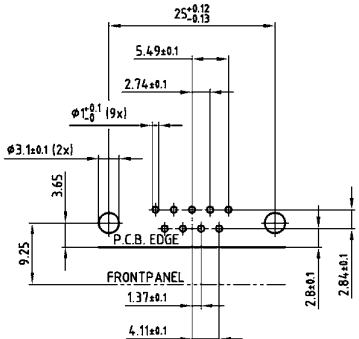


PCB layout Kat1kFUA (View: component side)

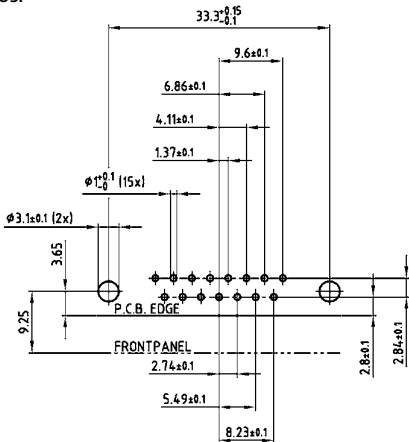
# PCB LAYOUT, D-SUB STANDARD

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

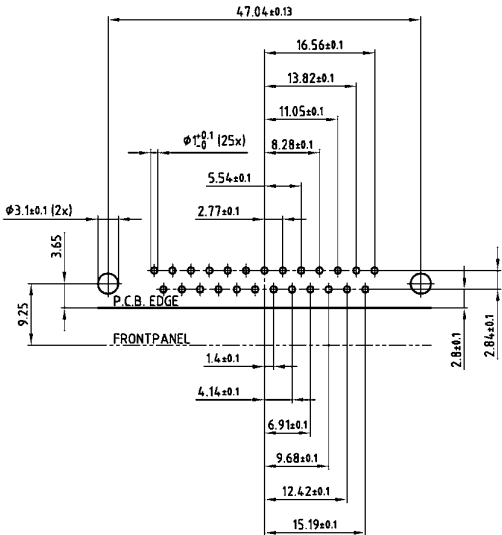
9 POS.



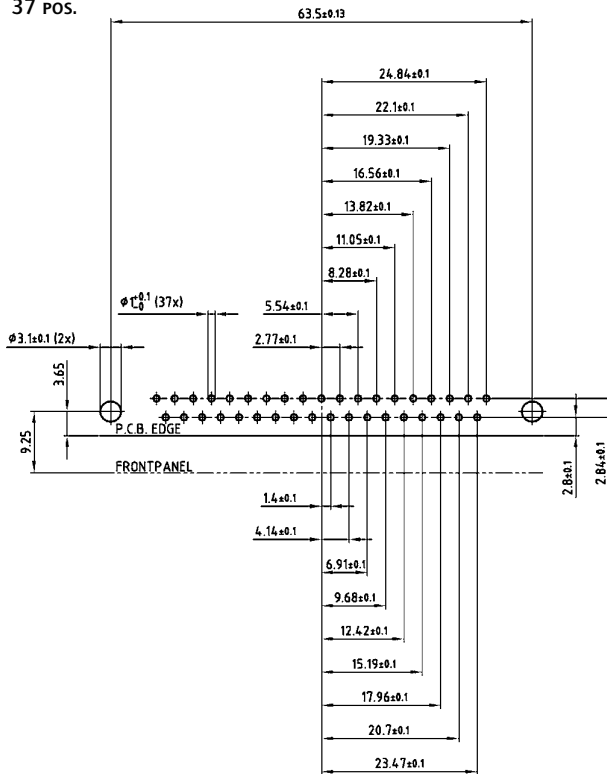
15 POS.



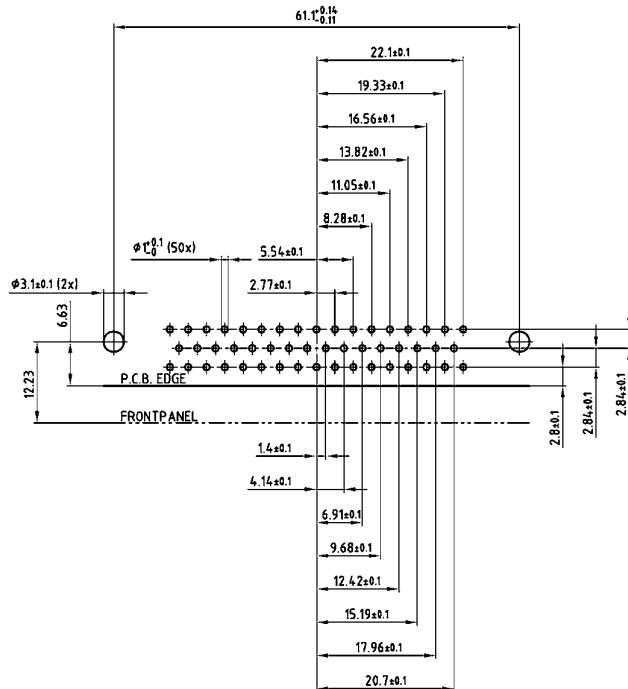
25 POS.



37 POS.



50 POS.

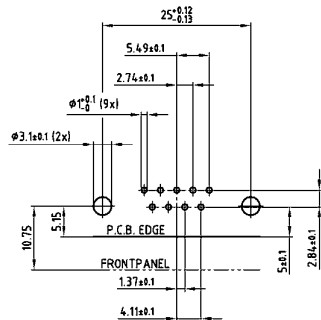


PCB layout Kat1kGSA (View: component side)

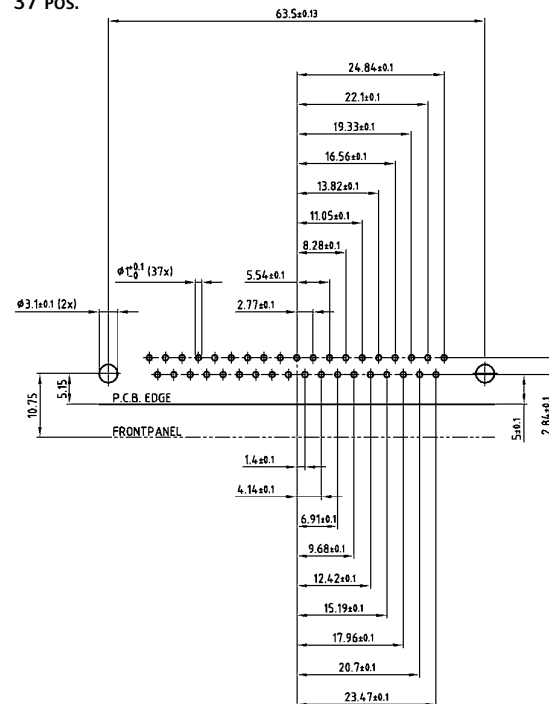
# PCB LAYOUT, D-SUB STANDARD

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

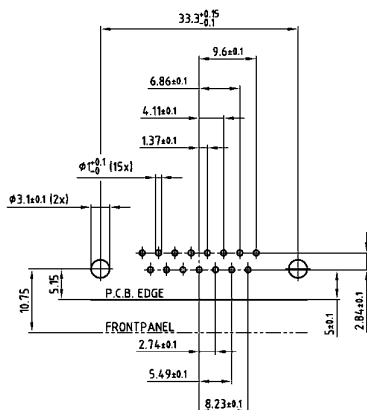
9 POS.



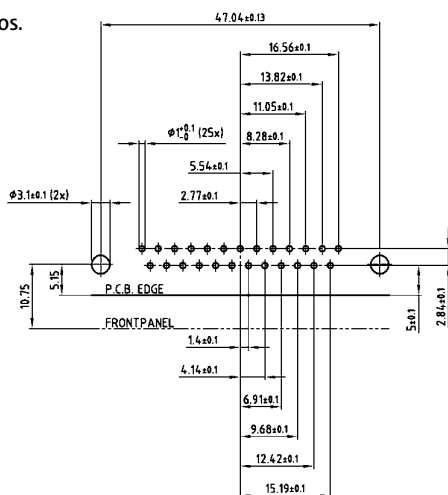
37 POS.



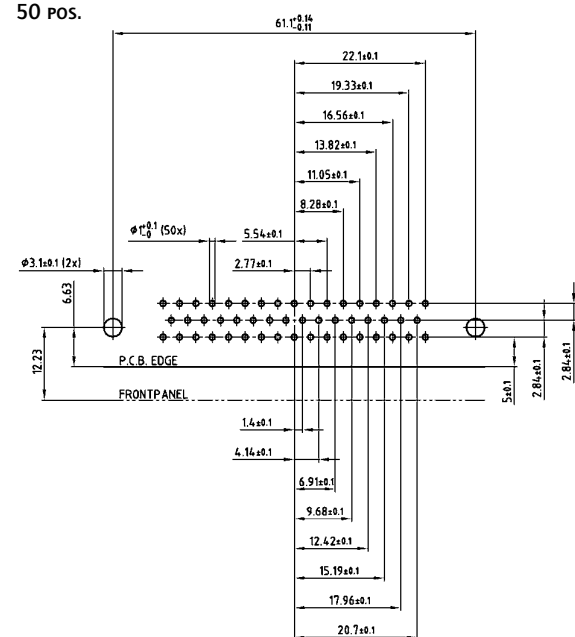
15 POS.



25 POS.



50 POS.

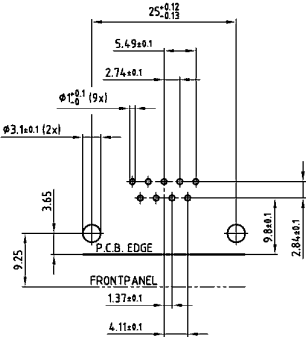


PCB layout Kat1kGTA (View: component side)

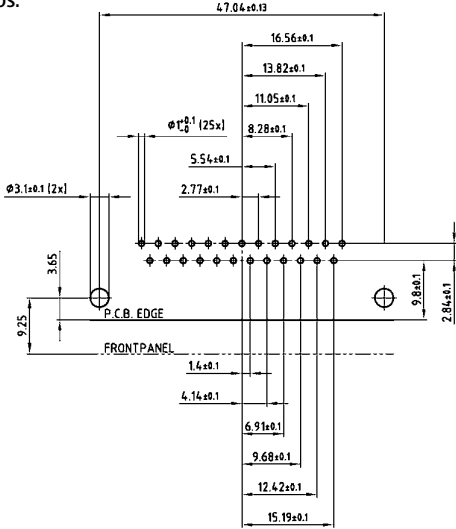
# PCB LAYOUT, D-SUB STANDARD

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

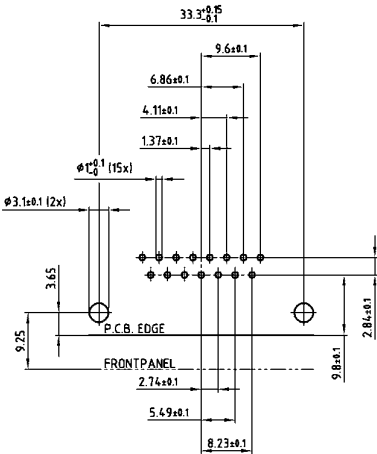
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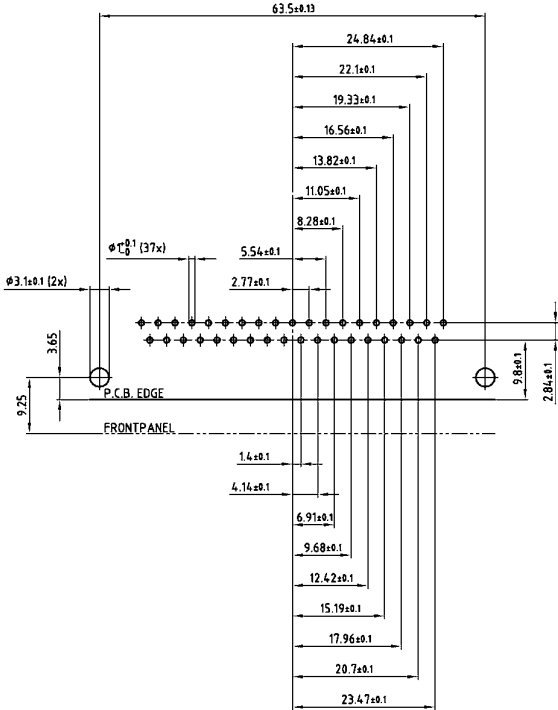
25 POS.



15 POS.



37 POS.

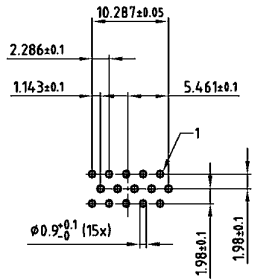


PCB layout Kat1kGUA (View: component side)

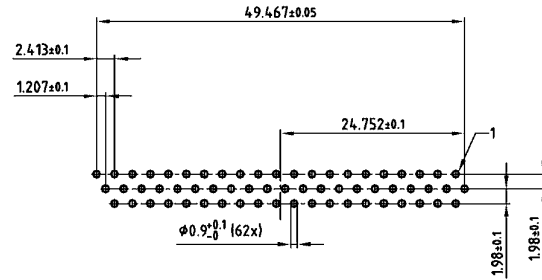
# PCB LAYOUT, D-SUB HIGH DENSITY

Solder pin, straight – Socket connector

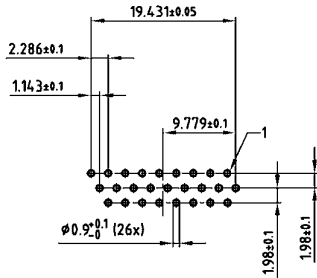
15 POS.



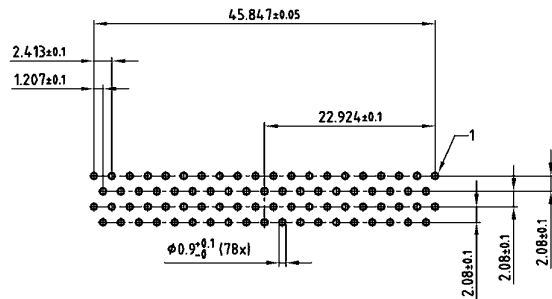
62 POS.



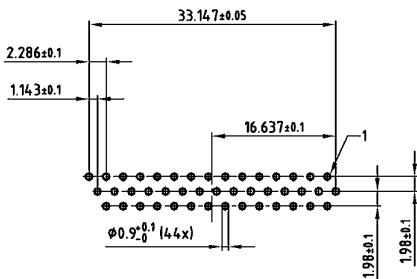
26 POS.



78 POS.



44 POS.

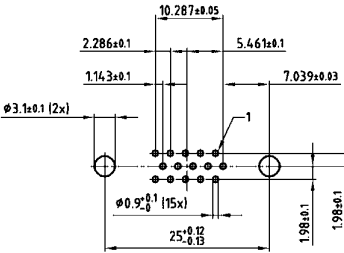


PCB layout Kat1kGDA (View: component side)

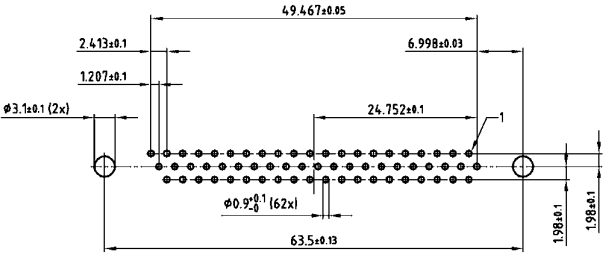
# PCB LAYOUT, D-SUB HIGH DENSITY

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

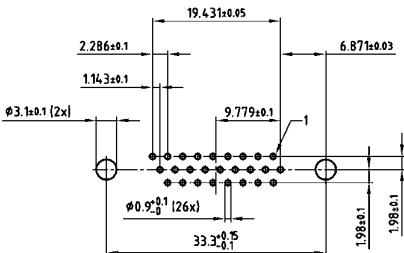
15 POS.



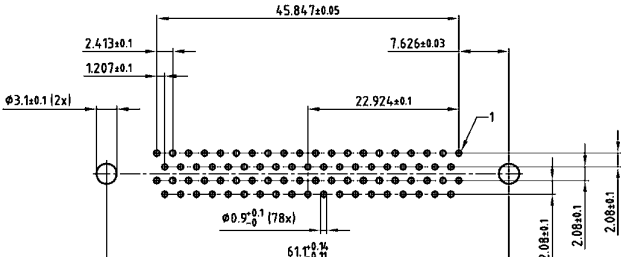
62 POS.



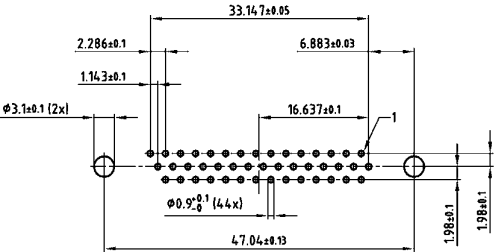
26 POS.



78 POS.



44 POS.

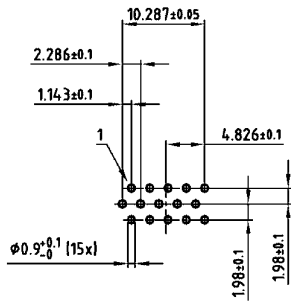


PCB layout Kat1iT9A (View: component side)

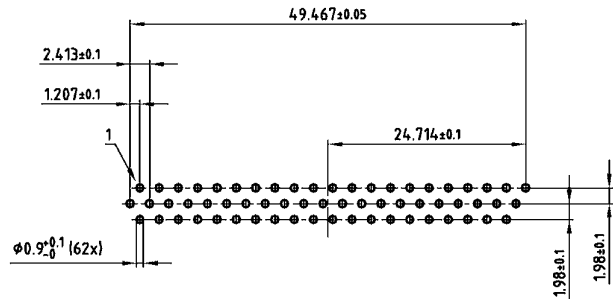
# PCB LAYOUT, D-SUB HIGH DENSITY

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

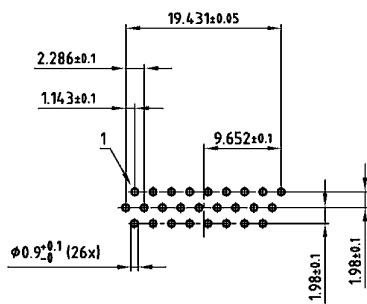
15 POS.



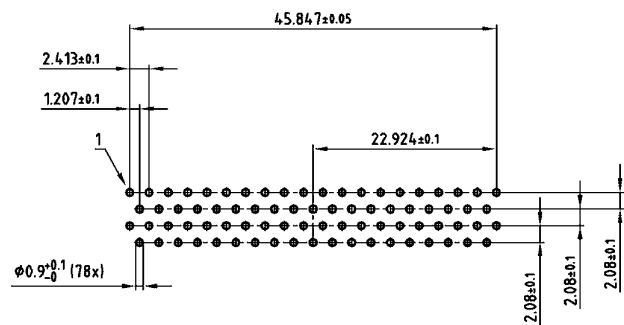
62 POS.



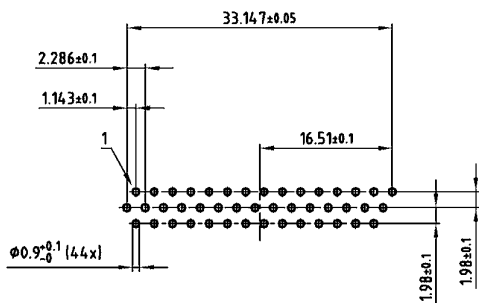
26 POS.



78 POS.



44 POS.

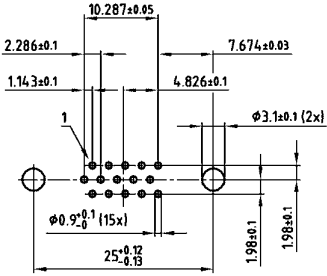


PCB layout Kat1kFWA (View: component side)

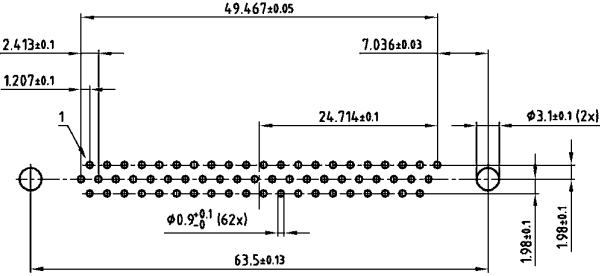
# PCB LAYOUT, D-SUB HIGH DENSITY

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

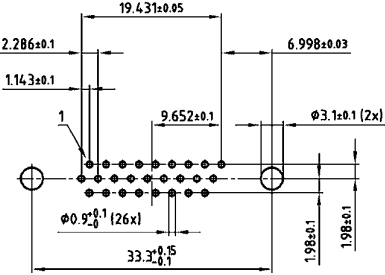
15 POS.



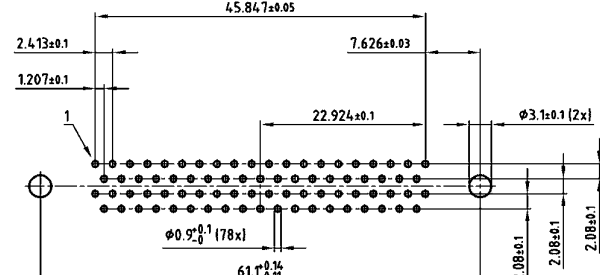
62 POS.



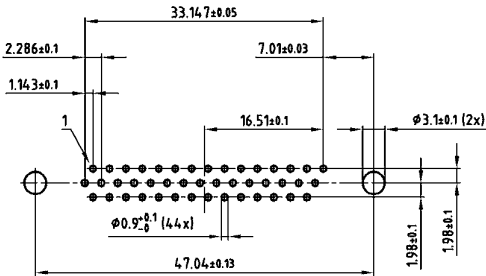
26 POS.



78 POS.



44 POS.



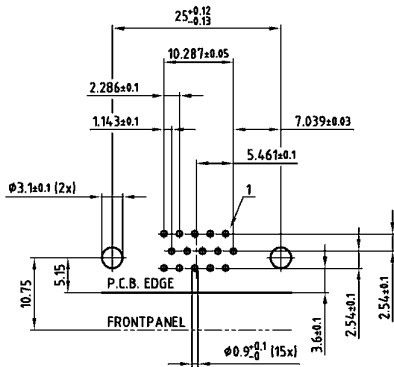
PCB layout Kat1iU0A (View: component side)



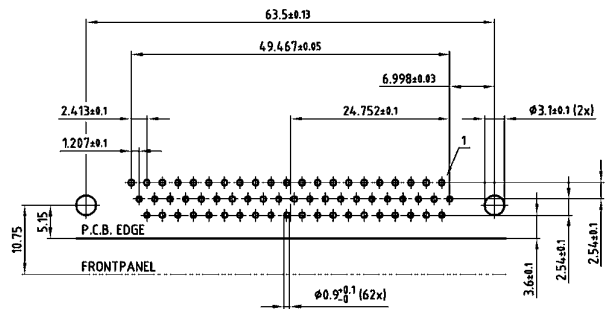
# PCB LAYOUT, D-SUB HIGH DENSITY

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

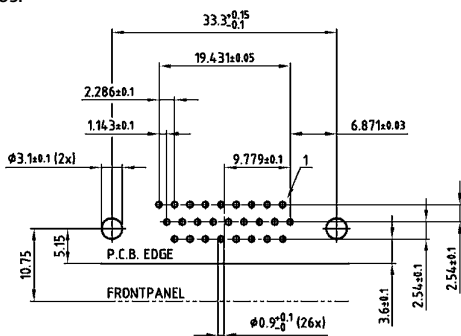
15 POS.



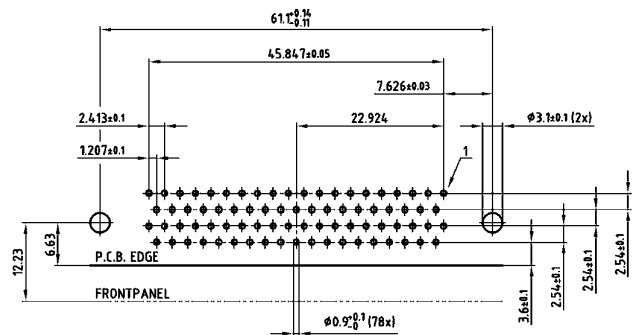
62 POS.



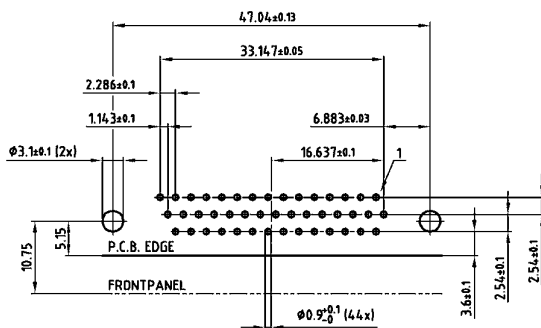
26 POS.



78 POS.



44 POS.

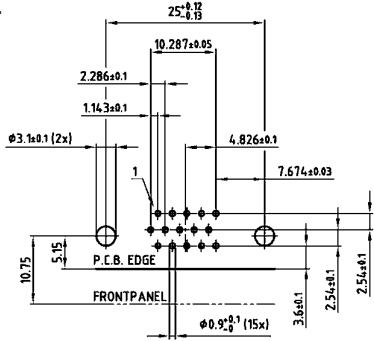


PCB layout Kat1kGVA (View: component side)

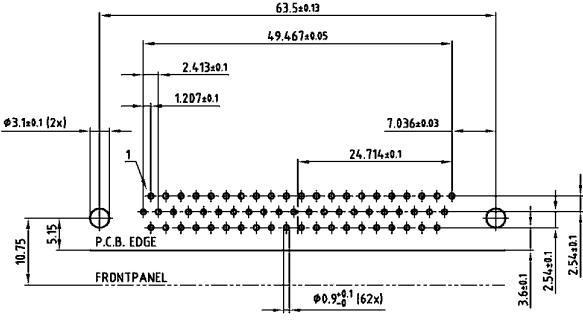
# PCB LAYOUT, D-SUB HIGH DENSITY

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

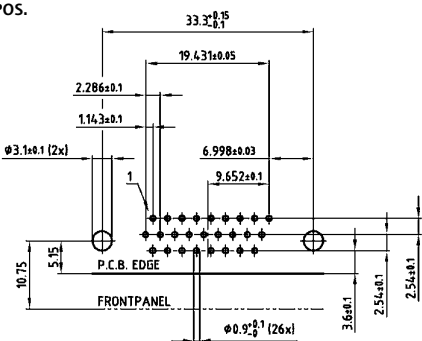
15 POS.



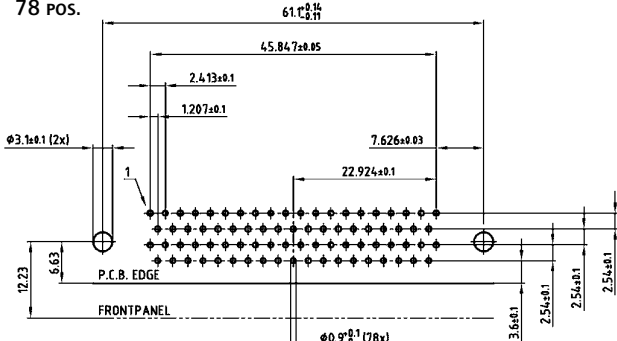
62 POS.



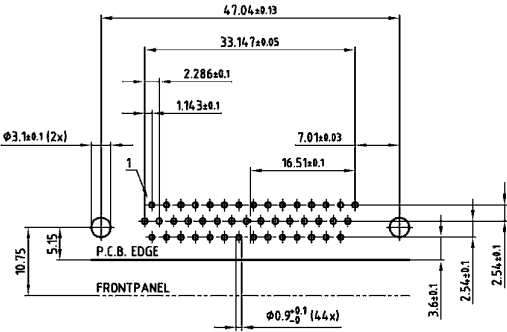
26 POS.



78 POS.



44 POS.

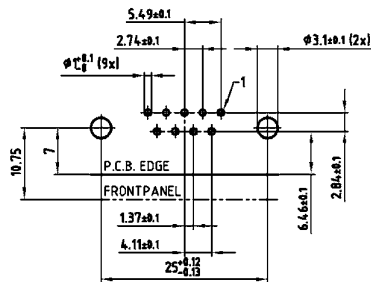


PCB layout Kat1kGWA (View: component side)

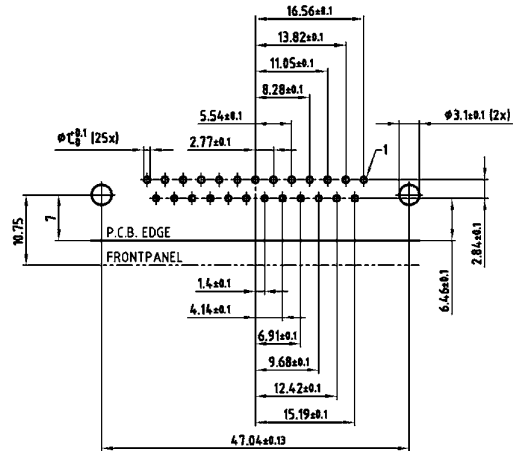
# PCB LAYOUT, D-SUB SOLID BODY

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

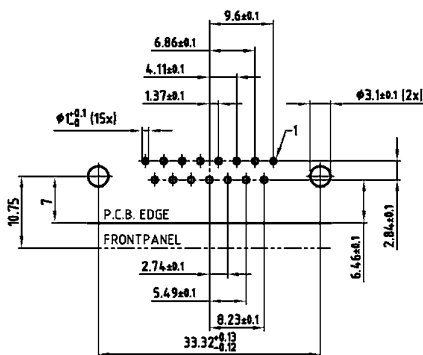
9 POS.



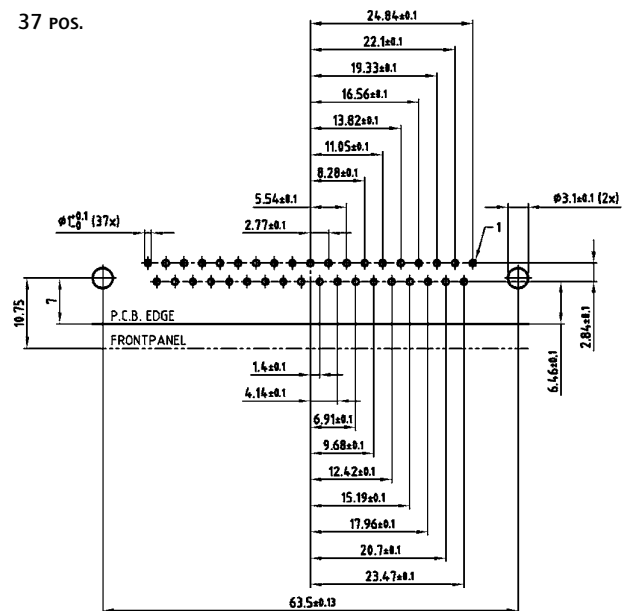
25 POS.



15 POS.



37 POS.

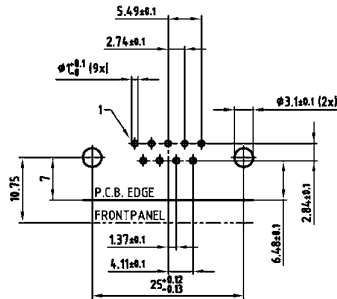


PCB layout Kat1kGMA (View: component side)

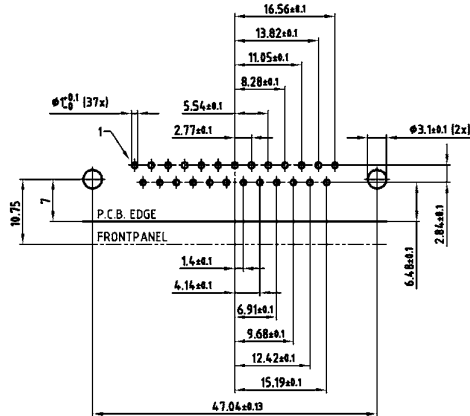
# PCB LAYOUT, D-SUB SOLID BODY

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

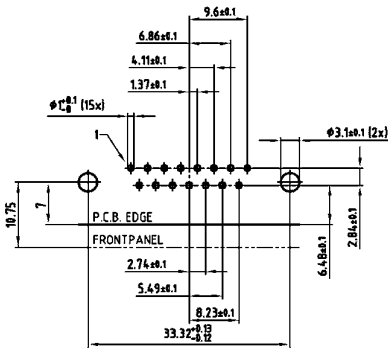
9 POS.



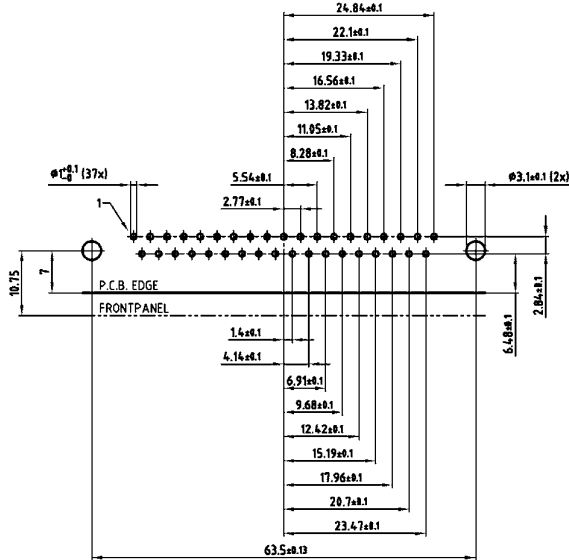
25 POS.



15 POS.



37 POS.

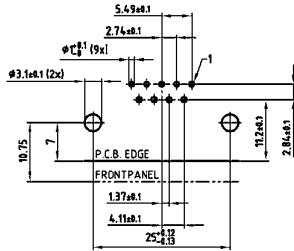


PCB layout Kat1kGNA (View: component side)

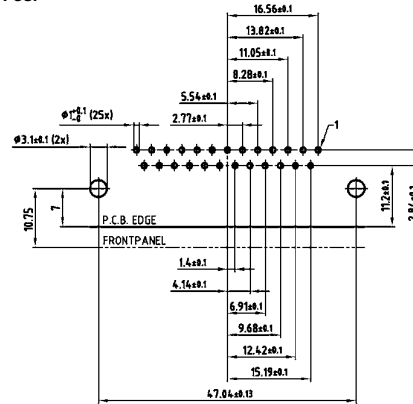
# PCB LAYOUT, D-SUB SOLID BODY

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

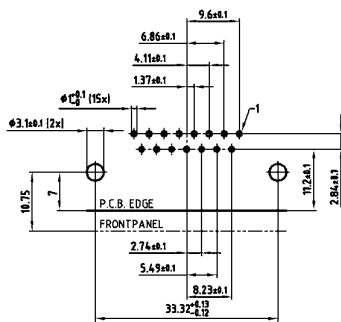
9 POS.



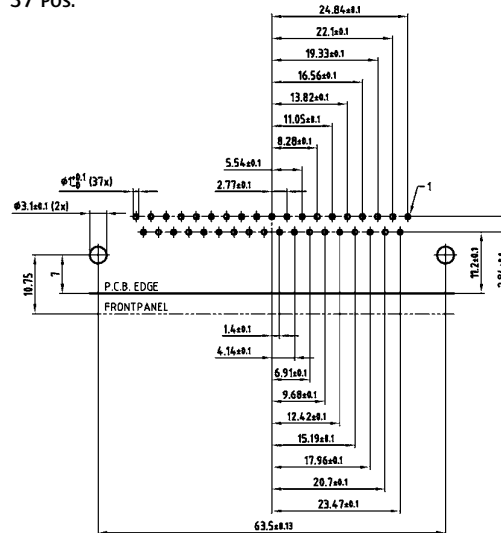
25 POS.



15 POS.



37 POS.

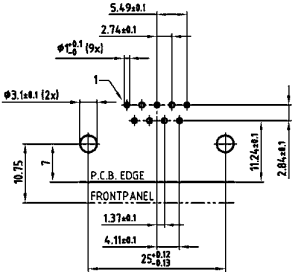


PCB layout Kat1kGOA (View: component side)

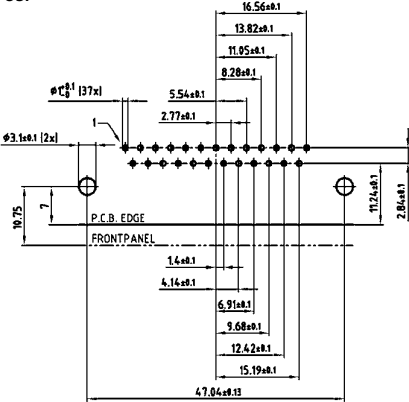
# PCB LAYOUT, D-SUB SOLID BODY

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

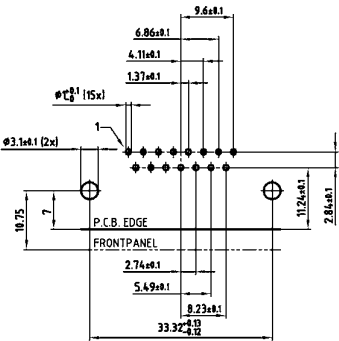
9 POS.



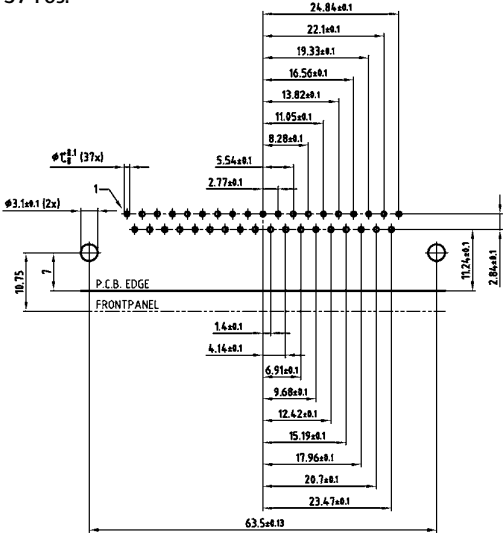
25 POS.



15 POS.



37 POS.

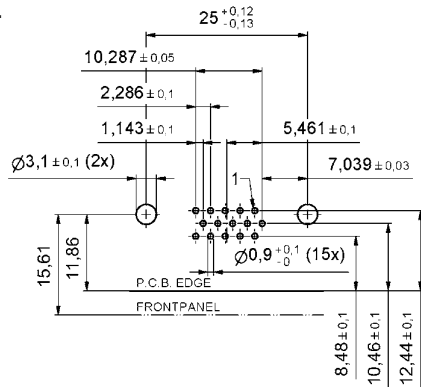


PCB layout Kat1kGPA (View: component side)

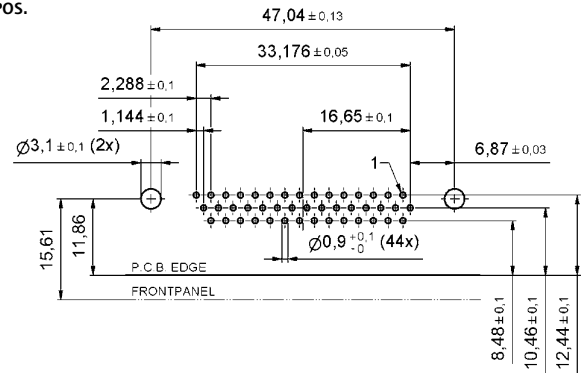
# PCB LAYOUT, D-SUB SOLID BODY – HIGH DENSITY

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

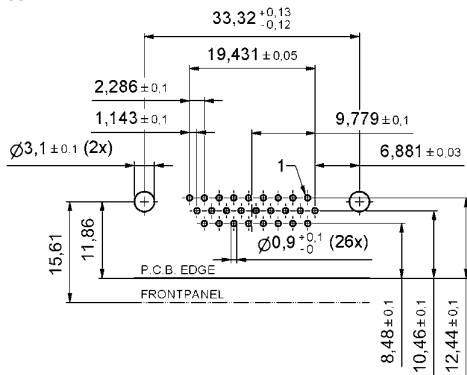
15 pos.



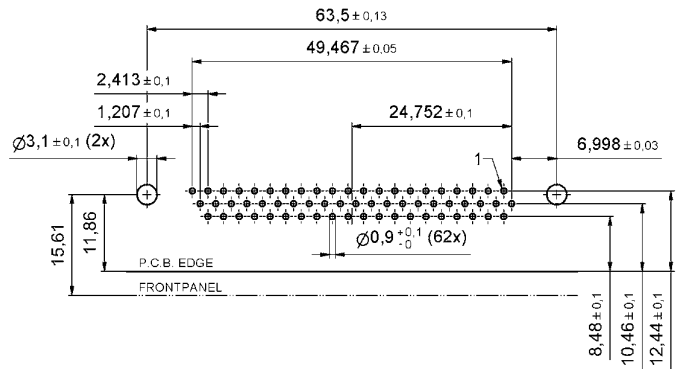
44 pos.



26 pos.



62 pos.

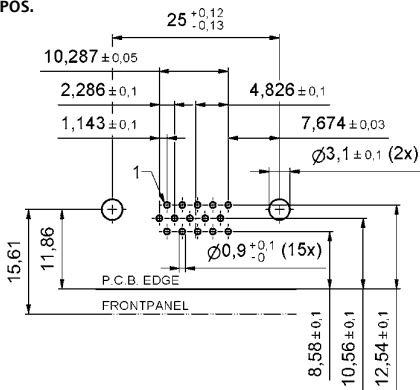


PCB layout Kat1kGQA (View: component side)

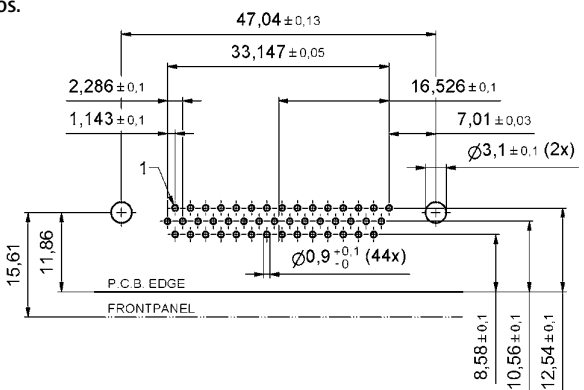
# PCB LAYOUT, D-SUB SOLID BODY – HIGH DENSITY

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

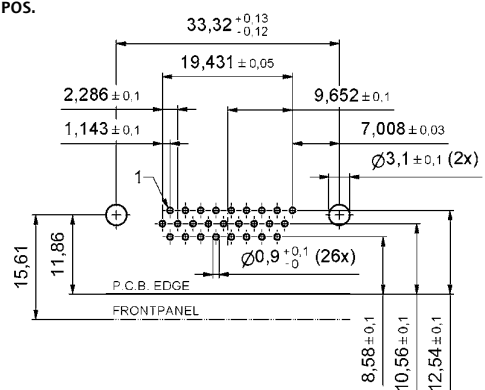
15 POS.



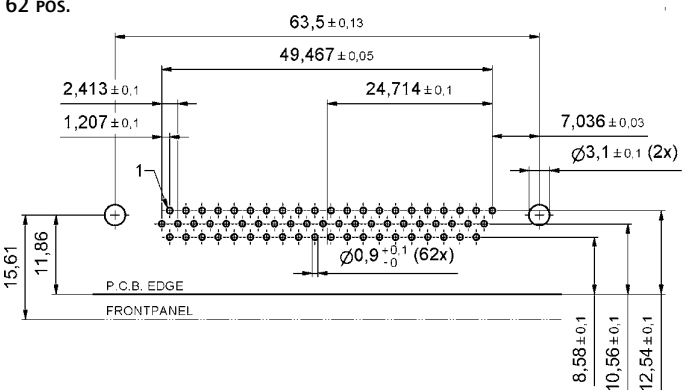
44 POS.



26 POS.



62 POS.



PCB layout Kat1kGRA (View: component side)



## SOLDER PROFILE

| Connector Type                        | Preheating       |          | Solder terminal dipping parameters |                              |
|---------------------------------------|------------------|----------|------------------------------------|------------------------------|
|                                       | max. Temperature | Duration | max. Solder bath Temperature       | max. Terminal Immersion Time |
| Filter D-SUB                          | 100°C            | 30s      | 260°C                              | 5s                           |
| Combo D-SUB Filter                    | 120°C            | 120s     | 260°C                              | 5s                           |
| Filter D-SUB Water Resistant          | 100°C            | 30s      | 240°C                              | 5s                           |
| Combo D-SUB Water Resistant           | 120°C            | 120s     | 240°C                              | 5s                           |
| D-SUB Water Resistant                 | 120°C            | 120s     | 240°C                              | 5s                           |
| D-SUB Solid Body Type Water Resistant | 150°C            | 180s     | 265°C                              | 8s                           |
| RJ45 Modular Jack Filtered            | 150°C            | 180s     | 265°C                              | 8s                           |
| Filter Plates                         | 150°C            | 180s     | 265°C                              | 8s                           |

Recommended wave-solder parameters for CONEC connectors.

## CONVERSION TABLE

| $\mu\text{m}$<br>1/1000 mm | $\mu\text{inch}$<br>1/1000 inch | mm    | inch | mm    | inch | mm    | inch  | mm    | inch  | mm     | inch  |
|----------------------------|---------------------------------|-------|------|-------|------|-------|-------|-------|-------|--------|-------|
| 0,10                       | 4                               | 3,30  | .130 | 10,16 | .400 | 19,50 | .768  | 30,90 | 1.217 | 49,50  | 1.949 |
| 0,20                       | 8                               | 3,40  | .134 | 10,26 | .402 | 19,70 | .776  | 31,00 | 1.220 | 49,90  | 1.965 |
| 0,25                       | 10                              | 3,50  | .138 | 10,36 | .406 | 19,80 | .780  | 31,20 | 1.228 | 50,10  | 1.972 |
| 0,30                       | 12                              | 3,60  | .142 | 10,56 | .413 | 19,90 | .783  | 31,50 | 1.240 | 50,30  | 1.980 |
| 0,50                       | 20                              | 3,70  | .146 | 10,66 | .417 | 20,00 | .787  | 31,70 | 1.248 | 50,50  | 1.988 |
| 0,70                       | 28                              | 3,80  | .150 | 10,76 | .421 | 20,10 | .791  | 32,00 | 1.260 | 50,70  | 1.996 |
| 0,75                       | 30                              | 3,81  | .150 | 11,00 | .433 | 20,30 | .799  | 32,20 | 1.268 | 50,80  | 2.000 |
| 0,80                       | 32                              | 3,90  | .154 | 11,20 | .441 | 20,32 | .800  | 32,30 | 1.272 | 51,40  | 2.024 |
| 1,00                       | 39                              | 4,00  | .158 | 11,40 | .449 | 20,50 | .807  | 32,50 | 1.280 | 51,50  | 2.028 |
| 1,27                       | 50                              | 4,10  | .161 | 11,50 | .453 | 21,00 | .827  | 32,80 | 1.291 | 52,00  | 2.047 |
| 2,00                       | 79                              | 4,20  | .165 | 11,60 | .457 | 21,10 | .831  | 33,00 | 1.299 | 52,30  | 2.059 |
| 2,50                       | 98                              | 4,30  | .169 | 11,90 | .469 | 21,70 | .854  | 33,10 | 1.303 | 52,80  | 2.079 |
| 3,00                       | 118                             | 4,30  | .169 | 11,90 | .469 | 21,70 | .854  | 33,10 | 1.303 | 52,80  | 2.079 |
| 4,00                       | 157                             | 4,50  | .177 | 12,00 | .472 | 22,00 | .866  | 33,30 | 1.311 | 53,00  | 2.087 |
| 5,00                       | 197                             | 4,70  | .185 | 12,20 | .480 | 22,10 | .870  | 33,80 | 1.331 | 53,20  | 2.095 |
|                            |                                 | 4,90  | .193 | 12,30 | .484 | 22,20 | .874  | 34,00 | 1.339 | 53,80  | 2.118 |
|                            |                                 | 5,00  | .197 | 12,40 | .488 | 22,30 | .878  | 34,20 | 1.346 | 54,00  | 2.126 |
|                            |                                 | 5,08  | .200 | 12,50 | .492 | 22,40 | .882  | 34,40 | 1.354 | 54,20  | 2.134 |
| 0,10                       | .004                            | 5,10  | .201 | 12,70 | .500 | 22,50 | .886  | 35,00 | 1.378 | 54,90  | 2.161 |
| 0,20                       | .008                            | 5,20  | .205 | 12,90 | .508 | 22,60 | .890  | 35,40 | 1.394 | 55,00  | 2.165 |
| 0,25                       | .012                            | 5,30  | .209 | 13,00 | .512 | 22,80 | .898  | 35,50 | 1.398 | 55,40  | 2.181 |
| 0,35                       | .014                            | 5,40  | .213 | 13,10 | .516 | 22,86 | .900  | 35,56 | 1.400 | 55,70  | 2.193 |
| 0,40                       | .016                            | 5,40  | .213 | 13,10 | .516 | 22,86 | .900  | 35,56 | 1.400 | 55,70  | 2.193 |
| 0,45                       | .018                            | 5,50  | .217 | 13,20 | .520 | 22,90 | .902  | 35,60 | 1.402 | 56,60  | 2.228 |
| 0,50                       | .020                            | 5,60  | .220 | 13,50 | .532 | 23,00 | .906  | 36,00 | 1.417 | 57,40  | 2.260 |
| 0,55                       | .022                            | 5,70  | .224 | 13,60 | .535 | 23,10 | .909  | 36,50 | 1.437 | 57,80  | 2.276 |
| 0,60                       | .024                            | 5,80  | .228 | 13,70 | .539 | 23,30 | .917  | 36,60 | 1.441 | 57,90  | 2.280 |
| 0,64                       | .025                            | 6,00  | .236 | 13,90 | .547 | 23,50 | .925  | 36,70 | 1.445 | 58,42  | 2.300 |
| 0,65                       | .026                            | 6,10  | .240 | 14,00 | .551 | 24,00 | .945  | 37,00 | 1.457 | 59,00  | 2.323 |
| 0,70                       | .028                            | 6,40  | .252 | 14,30 | .563 | 24,30 | .957  | 37,30 | 1.469 | 59,20  | 2.331 |
| 0,75                       | .030                            | 6,50  | .256 | 14,40 | .567 | 24,60 | .969  | 37,50 | 1.476 | 59,80  | 2.354 |
| 0,80                       | .032                            | 6,60  | .260 | 14,50 | .571 | 24,90 | .980  | 37,60 | 1.480 | 59,90  | 2.358 |
| 0,85                       | .034                            | 6,70  | .264 | 14,70 | .579 | 25,00 | .984  | 37,70 | 1.484 | 60,00  | 2.362 |
| 0,90                       | .035                            | 6,80  | .268 | 14,80 | .583 | 25,10 | .988  | 37,90 | 1.492 | 60,96  | 2.400 |
| 1,00                       | .039                            | 6,90  | .272 | 14,90 | .587 | 25,40 | 1.000 | 38,00 | 1.496 | 61,10  | 2.406 |
| 1,20                       | .047                            | 7,00  | .276 | 14,98 | .590 | 25,60 | 1.008 | 38,10 | 1.500 | 62,00  | 2.441 |
| 1,25                       | .049                            | 7,10  | .280 | 15,00 | .591 | 25,90 | 1.020 | 39,00 | 1.535 | 63,00  | 2.480 |
| 1,27                       | .050                            | 7,20  | .283 | 15,20 | .598 | 26,00 | 1.024 | 39,20 | 1.543 | 63,50  | 2.500 |
| 1,30                       | .051                            | 7,40  | .291 | 15,24 | .600 | 26,30 | 1.035 | 39,30 | 1.547 | 64,00  | 2.520 |
| 1,35                       | .053                            | 7,50  | .295 | 15,40 | .606 | 26,60 | 1.047 | 39,90 | 1.571 | 65,00  | 2.560 |
| 1,40                       | .055                            | 7,60  | .299 | 15,50 | .610 | 26,70 | 1.051 | 40,00 | 1.575 | 67,00  | 2.638 |
| 1,45                       | .057                            | 7,62  | .300 | 15,60 | .614 | 27,00 | 1.063 | 40,30 | 1.587 | 68,00  | 2.677 |
| 1,50                       | .059                            | 7,70  | .303 | 15,90 | .626 | 27,20 | 1.071 | 40,40 | 1.591 | 69,00  | 2.717 |
| 1,60                       | .063                            | 7,80  | .307 | 16,00 | .630 | 27,40 | 1.079 | 40,60 | 1.598 | 70,00  | 2.756 |
| 1,70                       | .067                            | 7,98  | .314 | 16,20 | .638 | 27,50 | 1.093 | 41,00 | 1.614 | 71,00  | 2.795 |
| 1,80                       | .071                            | 8,00  | .315 | 16,50 | .650 | 27,90 | 1.098 | 41,60 | 1.638 | 74,00  | 2.913 |
| 1,85                       | .073                            | 8,18  | .318 | 16,60 | .654 | 27,94 | 1.100 | 42,70 | 1.681 | 75,00  | 2.953 |
| 1,90                       | .075                            | 8,20  | .323 | 16,80 | .661 | 28,00 | 1.102 | 43,18 | 1.700 | 76,20  | 3.000 |
| 2,00                       | .079                            | 8,30  | .327 | 17,00 | .669 | 28,20 | 1.110 | 44,20 | 1.740 | 77,00  | 3.032 |
| 2,10                       | .083                            | 8,40  | .331 | 17,20 | .677 | 28,50 | 1.122 | 44,80 | 1.764 | 78,74  | 3.100 |
| 2,20                       | .087                            | 8,50  | .335 | 17,30 | .681 | 28,70 | 1.130 | 45,80 | 1.803 | 80,00  | 3.150 |
| 2,30                       | .091                            | 8,60  | .339 | 17,50 | .689 | 29,00 | 1.142 | 46,30 | 1.823 | 81,28  | 3.200 |
| 2,40                       | .095                            | 8,90  | .350 | 17,60 | .693 | 29,20 | 1.150 | 46,70 | 1.839 | 84,00  | 3.307 |
| 2,50                       | .098                            | 9,00  | .354 | 17,70 | .697 | 29,40 | 1.158 | 47,00 | 1.850 | 85,00  | 3.346 |
| 2,54                       | .100                            | 9,10  | .358 | 17,78 | .700 | 29,50 | 1.161 | 47,20 | 1.858 | 86,36  | 3.400 |
| 2,60                       | .102                            | 9,20  | .362 | 17,80 | .701 | 29,70 | 1.169 | 47,30 | 1.862 | 88,90  | 3.500 |
| 2,70                       | .106                            | 9,30  | .366 | 17,90 | .705 | 29,90 | 1.177 | 47,50 | 1.870 | 90,00  | 3.543 |
| 2,80                       | .110                            | 9,40  | .370 | 18,00 | .709 | 30,00 | 1.181 | 47,80 | 1.882 | 91,44  | 3.600 |
| 2,84                       | .112                            | 9,50  | .374 | 18,10 | .713 | 30,20 | 1.189 | 48,00 | 1.890 | 94,00  | 3.701 |
| 2,90                       | .114                            | 9,60  | .378 | 18,30 | .721 | 30,40 | 1.197 | 48,10 | 1.894 | 95,00  | 3.740 |
| 3,00                       | .118                            | 9,70  | .382 | 18,60 | .732 | 30,48 | 1.200 | 48,26 | 1.900 | 100,00 | 3.937 |
| 3,10                       | .122                            | 9,90  | .390 | 19,00 | .748 | 30,50 | 1.201 | 48,80 | 1.921 | 110,00 | 4.331 |
| 3,20                       | .126                            | 10,00 | .395 | 19,20 | .756 | 30,80 | 1.213 | 49,10 | 1.933 | 120,00 | 4.724 |

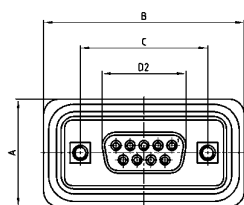
# D-SUB STANDARD – IP67

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

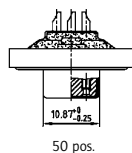
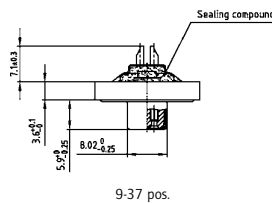
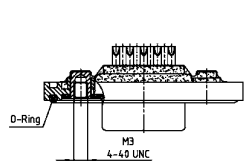


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## SOCKET CONNECTOR



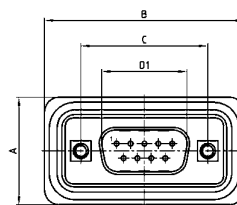
| No. of pos. | A +0.2 | B +0.2 | C                    | D2 -0.25 |
|-------------|--------|--------|----------------------|----------|
| 09          | 21.10  | 39.40  | 25.00 +0.12          | 16.46    |
| 15          | 21.10  | 47.70  | 33.30 +0.15<br>-0.10 | 24.79    |
| 25          | 21.10  | 61.40  | 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<br>-0.11 | 52.55    |



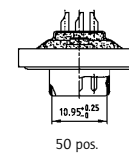
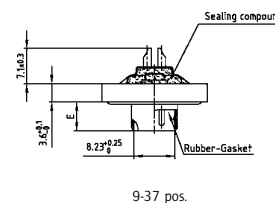
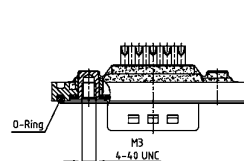
## DESCRIPTION

- 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)

## PLUG CONNECTOR



| No. of pos. | A +0.2 | B +0.2 | C                    | D1 +0.25 | E -0.30 |
|-------------|--------|--------|----------------------|----------|---------|
| 9           | 21.10  | 39.40  | 25.00 +0.12<br>-0.13 | 16.79    | 5.82    |
| 15          | 21.10  | 47.70  | 33.30 +0.15<br>-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<br>-0.11 | 52.68    | 5.69    |



## ORDER DATA

| SOCKET CONNECTOR |                          |                   |
|------------------|--------------------------|-------------------|
| No. of pos.      | Mounting style           | Part Number       |
| 09               | M3 Threaded insert       | 6 STD09SAM99B20 X |
| 15               | M3 Threaded insert       | 6 STD15SAM99B20 X |
| 25               | M3 Threaded insert       | 6 STD25SAM99B20 X |
| 37               | M3 Threaded insert       | 6 STD37SAM99B20 X |
| 50               | M3 Threaded insert       | 6 STD50SAM99B20 X |
| 09               | 4-40 UNC Threaded insert | 6 STD09SAM99B30 X |
| 15               | 4-40 UNC Threaded insert | 6 STD15SAM99B30 X |
| 25               | 4-40 UNC Threaded insert | 6 STD25SAM99B30 X |
| 37               | 4-40 UNC Threaded insert | 6 STD37SAM99B30 X |
| 50               | 4-40 UNC Threaded insert | 6 STD50SAM99B30 X |

| PLUG CONNECTOR |                          |                   |
|----------------|--------------------------|-------------------|
| No. of pos.    | Mounting style           | Part Number       |
| 09             | M3 Threaded insert       | 6 STD09PAM99B20 X |
| 15             | M3 Threaded insert       | 6 STD15PAM99B20 X |
| 25             | M3 Threaded insert       | 6 STD25PAM99B20 X |
| 37             | M3 Threaded insert       | 6 STD37PAM99B20 X |
| 50             | M3 Threaded insert       | 6 STD50PAM99B20 X |
| 09             | 4-40 UNC Threaded insert | 6 STD09PAM99B30 X |
| 15             | 4-40 UNC Threaded insert | 6 STD15PAM99B30 X |
| 25             | 4-40 UNC Threaded insert | 6 STD25PAM99B30 X |
| 37             | 4-40 UNC Threaded insert | 6 STD37PAM99B30 X |
| 50             | 4-40 UNC Threaded insert | 6 STD50PAM99B30 X |

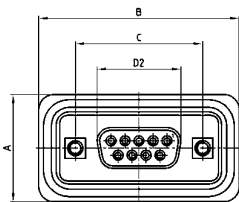
# D-SUB STANDARD – IP67

Solder pin – Straight – Precision machined contacts



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

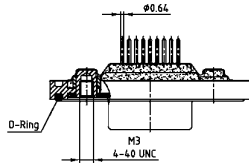
## SOCKET CONNECTOR



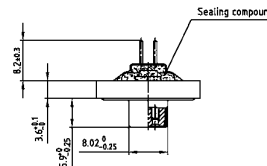
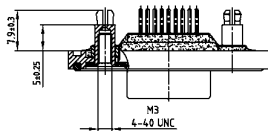
| No. of pos. | A +0.2 | B +0.2 | C                      | D2 -0.25 |
|-------------|--------|--------|------------------------|----------|
| 09          | 21.10  | 39.40  | 25.00 <sup>+0.12</sup> | 16.46    |
| 15          | 21.10  | 47.70  | 33.30 <sup>+0.10</sup> | 24.79    |
| 25          | 21.10  | 61.40  | 47.04 <sup>+0.13</sup> | 38.50    |
| 37          | 21.10  | 77.90  | 63.50 <sup>+0.13</sup> | 54.96    |
| 50          | 23.90  | 75.50  | 61.10 <sup>+0.14</sup> | 52.55    |

PCB layout Kat1kFVA / Kat1kFUA

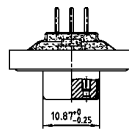
Mounting style: Threaded insert



Mounting style:  
Threaded rear spacer with PCB clip



9-37 pos.

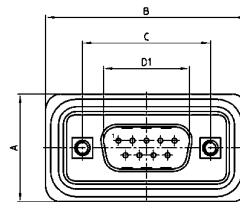


50 pos.

## 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)

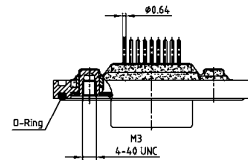
## PLUG CONNECTOR



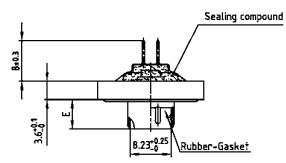
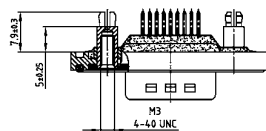
| No. of pos. | A +0.2 | B +0.2 | C                      | D1 +0.25 | E -0.30 |
|-------------|--------|--------|------------------------|----------|---------|
| 9           | 21.10  | 39.40  | 25.00 <sup>+0.12</sup> | 16.79    | 5.82    |
| 15          | 21.10  | 47.70  | 33.30 <sup>+0.10</sup> | 25.12    | 5.82    |
| 25          | 21.10  | 61.40  | 47.04 <sup>+0.13</sup> | 38.84    | 5.69    |
| 37          | 21.10  | 77.90  | 63.50 <sup>+0.13</sup> | 55.30    | 5.69    |
| 50          | 23.90  | 75.50  | 61.10 <sup>+0.14</sup> | 52.68    | 5.69    |

PCB layout Kat1kFVA / Kat1kFUA

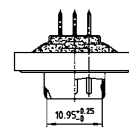
Mounting style: Threaded insert



Mounting style:  
Threaded rear spacer with PCB clip



9-37 pos.



50 pos.

## ORDER DATA

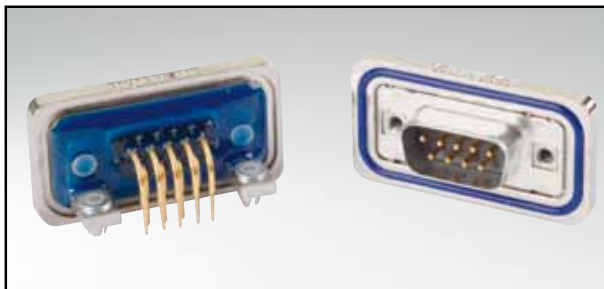
| SOCKET CONNECTOR |  |                   |
|------------------|--|-------------------|
| No. of pos.      | Mounting style                         | Part Number       |
| 09               | M3 Threaded insert                     | 6 STD09SAR99B20 X |
| 15               | M3 Threaded insert                     | 6 STD15SAR99B20 X |
| 25               | M3 Threaded insert                     | 6 STD25SAR99B20 X |
| 37               | M3 Threaded insert                     | 6 STD37SAR99B20 X |
| 50               | M3 Threaded insert                     | 6 STD50SAR99B20 X |
| 09               | 4-40 UNC Threaded insert               | 6 STD09SAR99B30 X |
| 15               | 4-40 UNC Threaded insert               | 6 STD15SAR99B30 X |
| 25               | 4-40 UNC Threaded insert               | 6 STD25SAR99B30 X |
| 37               | 4-40 UNC Threaded insert               | 6 STD37SAR99B30 X |
| 50               | 4-40 UNC Threaded insert               | 6 STD50SAR99B30 X |
| 09               | M3 Threaded rear spacer PCB clip       | 6 STD09SAR99E10 X |
| 15               | M3 Threaded rear spacer PCB clip       | 6 STD15SAR99E10 X |
| 25               | M3 Threaded rear spacer PCB clip       | 6 STD25SAR99E10 X |
| 37               | M3 Threaded rear spacer PCB clip       | 6 STD37SAR99E10 X |
| 50               | M3 Threaded rear spacer PCB clip       | 6 STD50SAR99E10 X |
| 09               | 4-40 UNC Threaded rear spacer PCB clip | 6 STD09SAR99E20 X |
| 15               | 4-40 UNC Threaded rear spacer PCB clip | 6 STD15SAR99E20 X |
| 25               | 4-40 UNC Threaded rear spacer PCB clip | 6 STD25SAR99E20 X |
| 37               | 4-40 UNC Threaded rear spacer PCB clip | 6 STD37SAR99E20 X |
| 50               | 4-40 UNC Threaded rear spacer PCB clip | 6 STD50SAR99E20 X |

| PLUG CONNECTOR |  |                   |
|----------------|--|-------------------|
| No. of pos.    | Mounting style                         | Part Number       |
| 09             | M3 Threaded insert                     | 6 STD09PAR99B20 X |
| 15             | M3 Threaded insert                     | 6 STD15PAR99B20 X |
| 25             | M3 Threaded insert                     | 6 STD25PAR99B20 X |
| 37             | M3 Threaded insert                     | 6 STD37PAR99B20 X |
| 50             | M3 Threaded insert                     | 6 STD50PAR99B20 X |
| 09             | 4-40 UNC Threaded insert               | 6 STD09PAR99B30 X |
| 15             | 4-40 UNC Threaded insert               | 6 STD15PAR99B30 X |
| 25             | 4-40 UNC Threaded insert               | 6 STD25PAR99B30 X |
| 37             | 4-40 UNC Threaded insert               | 6 STD37PAR99B30 X |
| 50             | 4-40 UNC Threaded insert               | 6 STD50PAR99B30 X |
| 09             | M3 Threaded rear spacer PCB clip       | 6 STD09PAR99E10 X |
| 15             | M3 Threaded rear spacer PCB clip       | 6 STD15PAR99E10 X |
| 25             | M3 Threaded rear spacer PCB clip       | 6 STD25PAR99E10 X |
| 37             | M3 Threaded rear spacer PCB clip       | 6 STD37PAR99E10 X |
| 50             | M3 Threaded rear spacer PCB clip       | 6 STD50PAR99E10 X |
| 09             | 4-40 UNC Threaded rear spacer PCB clip | 6 STD09PAR99E20 X |
| 15             | 4-40 UNC Threaded rear spacer PCB clip | 6 STD15PAR99E20 X |
| 25             | 4-40 UNC Threaded rear spacer PCB clip | 6 STD25PAR99E20 X |
| 37             | 4-40 UNC Threaded rear spacer PCB clip | 6 STD37PAR99E20 X |
| 50             | 4-40 UNC Threaded rear spacer PCB clip | 6 STD50PAR99E20 X |

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

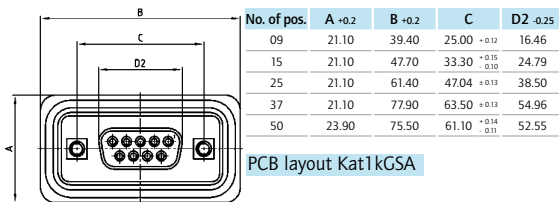
# D-SUB STANDARD – IP67

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

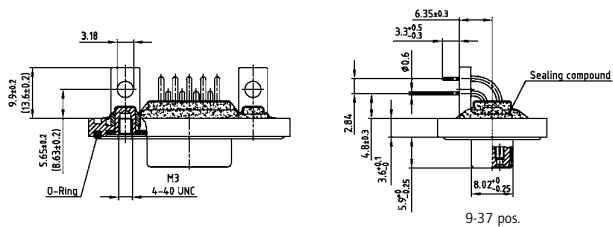


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

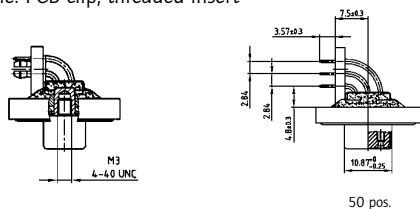
## SOCKET CONNECTOR



Mounting style: Mounting bracket, threaded insert



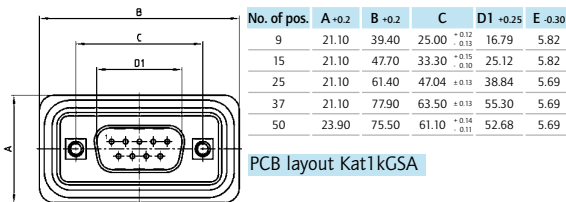
Mounting style: PCB clip, threaded insert



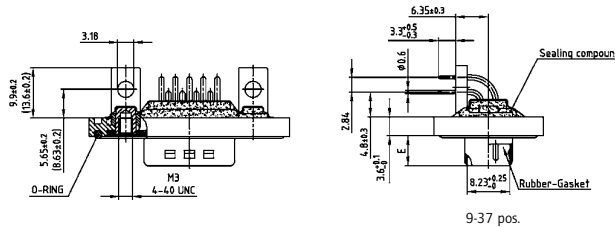
## DESCRIPTION

- 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)

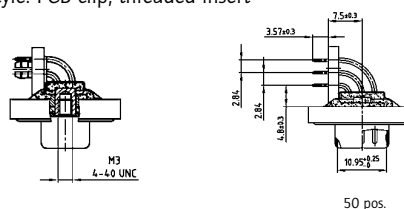
## PLUG CONNECTOR



Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

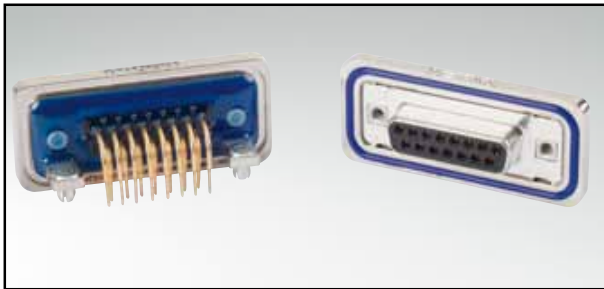
| SOCKET CONNECTOR |                                     |                   |
|------------------|-------------------------------------|-------------------|
| No. of pos.      | Mounting style                      | Part Number       |
| 09               | M3 Threaded insert                  | 6 STD09SAT99S10 X |
| 15               | M3 Threaded insert                  | 6 STD15SAT99S10 X |
| 25               | M3 Threaded insert                  | 6 STD25SAT99S10 X |
| 37               | M3 Threaded insert                  | 6 STD37SAT99S10 X |
| 50               | M3 Threaded insert                  | 6 STD50SAT99S10 X |
| 09               | 4-40 UNC Threaded insert            | 6 STD09SAT99S20 X |
| 15               | 4-40 UNC Threaded insert            | 6 STD15SAT99S20 X |
| 25               | 4-40 UNC Threaded insert            | 6 STD25SAT99S20 X |
| 37               | 4-40 UNC Threaded insert            | 6 STD37SAT99S20 X |
| 50               | 4-40 UNC Threaded insert            | 6 STD50SAT99S20 X |
| 09               | PCB clip / M3 Threaded insert       | 6 STD09SAT99S30 X |
| 15               | PCB clip / M3 Threaded insert       | 6 STD15SAT99S30 X |
| 25               | PCB clip / M3 Threaded insert       | 6 STD25SAT99S30 X |
| 37               | PCB clip / M3 Threaded insert       | 6 STD37SAT99S30 X |
| 50               | PCB clip / M3 Threaded insert       | 6 STD50SAT99S30 X |
| 09               | PCB clip / 4-40 UNC Threaded insert | 6 STD09SAT99S40 X |
| 15               | PCB clip / 4-40 UNC Threaded insert | 6 STD15SAT99S40 X |
| 25               | PCB clip / 4-40 UNC Threaded insert | 6 STD25SAT99S40 X |
| 37               | PCB clip / 4-40 UNC Threaded insert | 6 STD37SAT99S40 X |
| 50               | PCB clip / 4-40 UNC Threaded insert | 6 STD50SAT99S40 X |

| PLUG CONNECTOR |                                     |                   |
|----------------|-------------------------------------|-------------------|
| No. of pos.    | Mounting style                      | Part Number       |
| 09             | M3 Threaded insert                  | 6 STD09PAT99S10 X |
| 15             | M3 Threaded insert                  | 6 STD15PAT99S10 X |
| 25             | M3 Threaded insert                  | 6 STD25PAT99S10 X |
| 37             | M3 Threaded insert                  | 6 STD37PAT99S10 X |
| 50             | M3 Threaded insert                  | 6 STD50PAT99S10 X |
| 09             | 4-40 UNC Threaded insert            | 6 STD09PAT99S20 X |
| 15             | 4-40 UNC Threaded insert            | 6 STD15PAT99S20 X |
| 25             | 4-40 UNC Threaded insert            | 6 STD25PAT99S20 X |
| 37             | 4-40 UNC Threaded insert            | 6 STD37PAT99S20 X |
| 50             | 4-40 UNC Threaded insert            | 6 STD50PAT99S20 X |
| 09             | PCB clip / M3 Threaded insert       | 6 STD09PAT99S30 X |
| 15             | PCB clip / M3 Threaded insert       | 6 STD15PAT99S30 X |
| 25             | PCB clip / M3 Threaded insert       | 6 STD25PAT99S30 X |
| 37             | PCB clip / M3 Threaded insert       | 6 STD37PAT99S30 X |
| 50             | PCB clip / M3 Threaded insert       | 6 STD50PAT99S30 X |
| 09             | PCB clip / 4-40 UNC Threaded insert | 6 STD09PAT99S40 X |
| 15             | PCB clip / 4-40 UNC Threaded insert | 6 STD15PAT99S40 X |
| 25             | PCB clip / 4-40 UNC Threaded insert | 6 STD25PAT99S40 X |
| 37             | PCB clip / 4-40 UNC Threaded insert | 6 STD37PAT99S40 X |
| 50             | PCB clip / 4-40 UNC Threaded insert | 6 STD50PAT99S40 X |

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

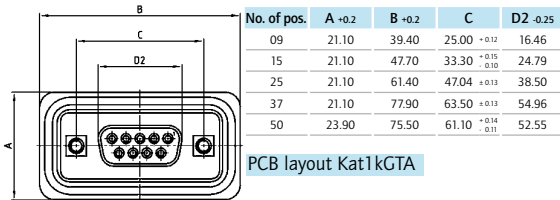
# D-SUB STANDARD – IP67

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

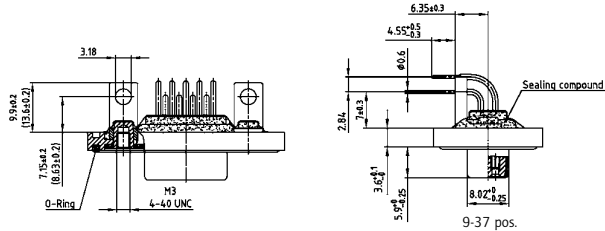


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

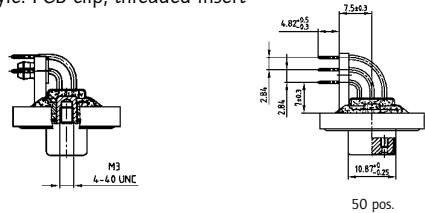
## SOCKET CONNECTOR



Mounting style: Mounting bracket, threaded insert



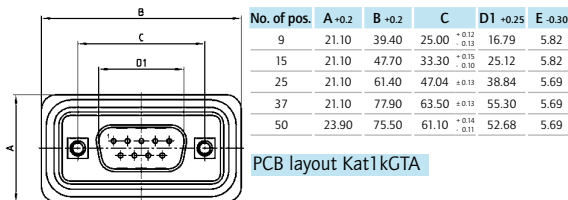
Mounting style: PCB clip, threaded insert



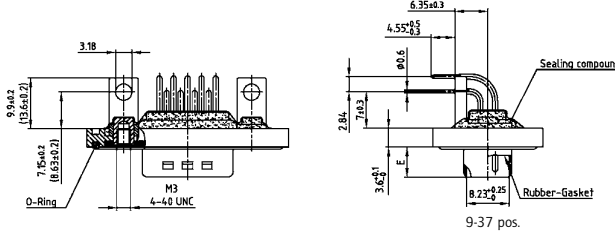
## DESCRIPTION

- 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)

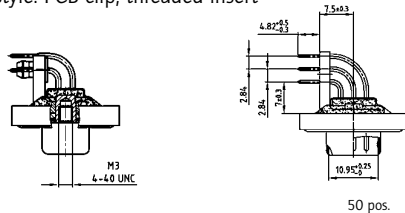
## PLUG CONNECTOR



Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

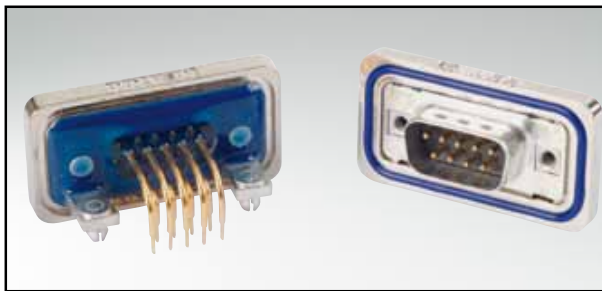
| SOCKET CONNECTOR |                                     |                   |
|------------------|-------------------------------------|-------------------|
| No. of pos.      | Mounting style                      | Part Number       |
| 09               | M3 Threaded insert                  | 6 STD09SAU99R10 X |
| 15               | M3 Threaded insert                  | 6 STD15SAU99R10 X |
| 25               | M3 Threaded insert                  | 6 STD25SAU99R10 X |
| 37               | M3 Threaded insert                  | 6 STD37SAU99R10 X |
| 50               | M3 Threaded insert                  | 6 STD50SAU99R10 X |
| 09               | 4-40 UNC Threaded insert            | 6 STD09SAU99R20 X |
| 15               | 4-40 UNC Threaded insert            | 6 STD15SAU99R20 X |
| 25               | 4-40 UNC Threaded insert            | 6 STD25SAU99R20 X |
| 37               | 4-40 UNC Threaded insert            | 6 STD37SAU99R20 X |
| 50               | 4-40 UNC Threaded insert            | 6 STD50SAU99R20 X |
| 09               | PCB clip / M3 Threaded insert       | 6 STD09SAU99R30 X |
| 15               | PCB clip / M3 Threaded insert       | 6 STD15SAU99R30 X |
| 25               | PCB clip / M3 Threaded insert       | 6 STD25SAU99R30 X |
| 37               | PCB clip / M3 Threaded insert       | 6 STD37SAU99R30 X |
| 50               | PCB clip / M3 Threaded insert       | 6 STD50SAU99R30 X |
| 09               | PCB clip / 4-40 UNC Threaded insert | 6 STD09SAU99R40 X |
| 15               | PCB clip / 4-40 UNC Threaded insert | 6 STD15SAU99R40 X |
| 25               | PCB clip / 4-40 UNC Threaded insert | 6 STD25SAU99R40 X |
| 37               | PCB clip / 4-40 UNC Threaded insert | 6 STD37SAU99R40 X |
| 50               | PCB clip / 4-40 UNC Threaded insert | 6 STD50SAU99R40 X |

| PLUG CONNECTOR |                                     |                   |
|----------------|-------------------------------------|-------------------|
| No. of pos.    | Mounting style                      | Part Number       |
| 09             | M3 Threaded insert                  | 6 STD09PAU99R10 X |
| 15             | M3 Threaded insert                  | 6 STD15PAU99R10 X |
| 25             | M3 Threaded insert                  | 6 STD25PAU99R10 X |
| 37             | M3 Threaded insert                  | 6 STD37PAU99R10 X |
| 50             | M3 Threaded insert                  | 6 STD50PAU99R10 X |
| 09             | 4-40 UNC Threaded insert            | 6 STD09PAU99R20 X |
| 15             | 4-40 UNC Threaded insert            | 6 STD15PAU99R20 X |
| 25             | 4-40 UNC Threaded insert            | 6 STD25PAU99R20 X |
| 37             | 4-40 UNC Threaded insert            | 6 STD37PAU99R20 X |
| 50             | 4-40 UNC Threaded insert            | 6 STD50PAU99R20 X |
| 09             | PCB clip / M3 Threaded insert       | 6 STD09PAU99R30 X |
| 15             | PCB clip / M3 Threaded insert       | 6 STD15PAU99R30 X |
| 25             | PCB clip / M3 Threaded insert       | 6 STD25PAU99R30 X |
| 37             | PCB clip / M3 Threaded insert       | 6 STD37PAU99R30 X |
| 50             | PCB clip / M3 Threaded insert       | 6 STD50PAU99R30 X |
| 09             | PCB clip / 4-40 UNC Threaded insert | 6 STD09PAU99R40 X |
| 15             | PCB clip / 4-40 UNC Threaded insert | 6 STD15PAU99R40 X |
| 25             | PCB clip / 4-40 UNC Threaded insert | 6 STD25PAU99R40 X |
| 37             | PCB clip / 4-40 UNC Threaded insert | 6 STD37PAU99R40 X |
| 50             | PCB clip / 4-40 UNC Threaded insert | 6 STD50PAU99R40 X |

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

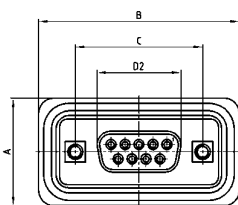
# D-SUB STANDARD – IP67

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

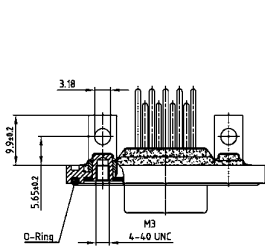
## SOCKET CONNECTOR



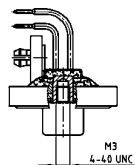
| No. of pos. | A +0.2 | B +0.2 | C   | D2 -0.25 |
|-------------|--------|--------|---|----------|
| 09          | 21.10  | 39.40  | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> | 16.46    |
| 15          | 21.10  | 47.70  | 33.30 <sup>+0.15</sup> / <sub>-0.10</sub> | 24.79    |
| 25          | 21.10  | 61.40  | 47.04 <sup>+0.13</sup> / <sub>-0.10</sub> | 38.50    |
| 37          | 21.10  | 77.90  | 63.50 <sup>+0.13</sup> / <sub>-0.10</sub> | 54.96    |

PCB layout Kat1kGUA

Mounting style: Mounting bracket, threaded insert



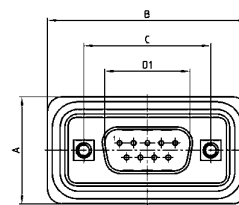
Mounting style: PCB clip, threaded insert



## 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)

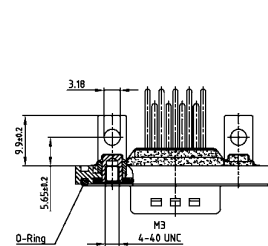
## PLUG CONNECTOR



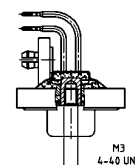
| No. of pos. | A +0.2 | B +0.2 | C   | D1 +0.25 | E -0.30 |
|-------------|--------|--------|---|----------|---------|
| 9           | 21.10  | 39.40  | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> | 16.79    | 5.82    |
| 15          | 21.10  | 47.70  | 33.30 <sup>+0.15</sup> / <sub>-0.10</sub> | 25.12    | 5.82    |
| 25          | 21.10  | 61.40  | 47.04 <sup>+0.13</sup> / <sub>-0.10</sub> | 38.84    | 5.69    |
| 37          | 21.10  | 77.90  | 63.50 <sup>+0.13</sup> / <sub>-0.10</sub> | 55.30    | 5.69    |

PCB layout Kat1kGUA

Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



## ORDER DATA

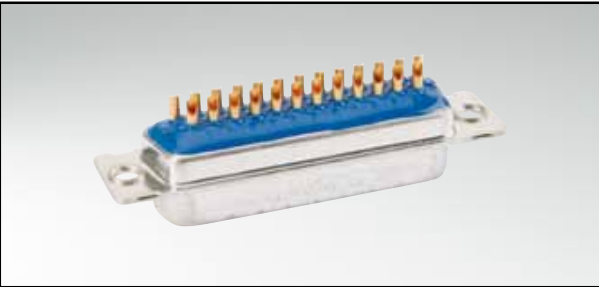
| SOCKET CONNECTOR |                                     |                   |
|------------------|-------------------------------------|-------------------|
| No. of pos.      | Mounting style                      | Part Number       |
| 09               | M3 Threaded insert                  | 6 STD09SAZ99S10 X |
| 15               | M3 Threaded insert                  | 6 STD15SAZ99S10 X |
| 25               | M3 Threaded insert                  | 6 STD25SAZ99S10 X |
| 37               | M3 Threaded insert                  | 6 STD37SAZ99S10 X |
| 09               | 4-40 UNC Threaded insert            | 6 STD09SAZ99S20 X |
| 15               | 4-40 UNC Threaded insert            | 6 STD15SAZ99S20 X |
| 25               | 4-40 UNC Threaded insert            | 6 STD25SAZ99S20 X |
| 37               | 4-40 UNC Threaded insert            | 6 STD37SAZ99S20 X |
| 09               | PCB clip / M3 Threaded insert       | 6 STD09SAZ99S30 X |
| 15               | PCB clip / M3 Threaded insert       | 6 STD15SAZ99S30 X |
| 25               | PCB clip / M3 Threaded insert       | 6 STD25SAZ99S30 X |
| 37               | PCB clip / M3 Threaded insert       | 6 STD37SAZ99S30 X |
| 09               | PCB clip / 4-40 UNC Threaded insert | 6 STD09SAZ99S40 X |
| 15               | PCB clip / 4-40 UNC Threaded insert | 6 STD15SAZ99S40 X |
| 25               | PCB clip / 4-40 UNC Threaded insert | 6 STD25SAZ99S40 X |
| 37               | PCB clip / 4-40 UNC Threaded insert | 6 STD37SAZ99S40 X |

| PLUG CONNECTOR |                                     |                   |
|----------------|-------------------------------------|-------------------|
| No. of pos.    | Mounting style                      | Part Number       |
| 09             | M3 Threaded insert                  | 6 STD09PAZ99S10 X |
| 15             | M3 Threaded insert                  | 6 STD15PAZ99S10 X |
| 25             | M3 Threaded insert                  | 6 STD25PAZ99S10 X |
| 37             | M3 Threaded insert                  | 6 STD37PAZ99S10 X |
| 09             | 4-40 UNC Threaded insert            | 6 STD09PAZ99S20 X |
| 15             | 4-40 UNC Threaded insert            | 6 STD15PAZ99S20 X |
| 25             | 4-40 UNC Threaded insert            | 6 STD25PAZ99S20 X |
| 37             | 4-40 UNC Threaded insert            | 6 STD37PAZ99S20 X |
| 09             | PCB clip / M3 Threaded insert       | 6 STD09PAZ99S30 X |
| 15             | PCB clip / M3 Threaded insert       | 6 STD15PAZ99S30 X |
| 25             | PCB clip / M3 Threaded insert       | 6 STD25PAZ99S30 X |
| 37             | PCB clip / M3 Threaded insert       | 6 STD37PAZ99S30 X |
| 09             | PCB clip / 4-40 UNC Threaded insert | 6 STD09PAZ99S40 X |
| 15             | PCB clip / 4-40 UNC Threaded insert | 6 STD15PAZ99S40 X |
| 25             | PCB clip / 4-40 UNC Threaded insert | 6 STD25PAZ99S40 X |
| 37             | PCB clip / 4-40 UNC Threaded insert | 6 STD37PAZ99S40 X |

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

# D-SUB STANDARD – IP67

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

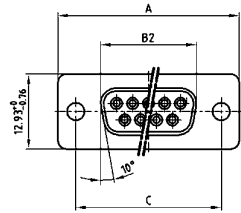


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

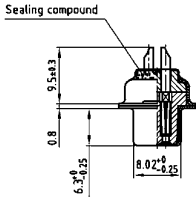
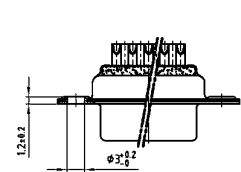
**DESCRIPTION**

- 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)

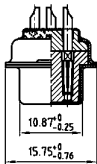
**SOCKET CONNECTOR**



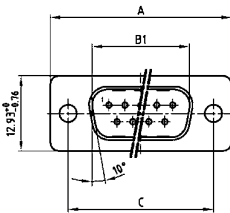
| No. of pos. | A +0.76 | B2 -0.25 | C   |
|-------------|---------|----------|---|
| 09          | 31.19   | 16.46    | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> |
| 15          | 39.52   | 24.79    | 33.30 <sup>+0.15</sup> / <sub>-0.10</sub> |
| 25          | 53.42   | 38.50    | 47.04 <sup>+0.13</sup> / <sub>-0.13</sub> |
| 37          | 69.70   | 54.96    | 63.50 <sup>+0.13</sup> / <sub>-0.14</sub> |
| 50          | 67.31   | 52.55    | 61.10 <sup>+0.18</sup> / <sub>-0.11</sub> |



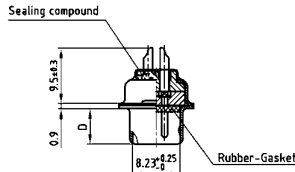
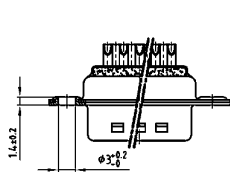
9-37 pos.



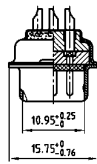
50 pos.



| No. of pos. | A +0.76 | B1 +0.25 | C   |
|-------------|---------|----------|---|
| 09          | 31.19   | 16.79    | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> |
| 15          | 39.52   | 25.12    | 33.30 <sup>+0.15</sup> / <sub>-0.10</sub> |
| 25          | 53.42   | 38.84    | 47.04 <sup>+0.13</sup> / <sub>-0.13</sub> |
| 37          | 69.70   | 55.30    | 63.50 <sup>+0.13</sup> / <sub>-0.14</sub> |
| 50          | 67.31   | 52.68    | 61.10 <sup>+0.18</sup> / <sub>-0.11</sub> |



9-37 pos.



50 pos.

**ORDER DATA**

| SOCKET CONNECTOR |                |                   |
|------------------|----------------|-------------------|
| No. of pos.      | Mounting style | Part Number       |
| 09               | Through-hole   | 4 STD09SAM99A10 X |
| 15               | Through-hole   | 4 STD15SAM99A10 X |
| 25               | Through-hole   | 4 STD25SAM99A10 X |
| 37               | Through-hole   | 4 STD37SAM99A10 X |
| 50               | Through-hole   | 4 STD50SAM99A10 X |

| PLUG CONNECTOR |                |                   |
|----------------|----------------|-------------------|
| No. of pos.    | Mounting style | Part Number       |
| 09             | Through-hole   | 4 STD09PAM99A10 X |
| 15             | Through-hole   | 4 STD15PAM99A10 X |
| 25             | Through-hole   | 4 STD25PAM99A10 X |
| 37             | Through-hole   | 4 STD37PAM99A10 X |
| 50             | Through-hole   | 4 STD50PAM99A10 X |



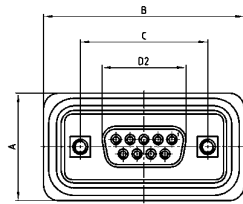
# D-SUB STANDARD – IP67

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

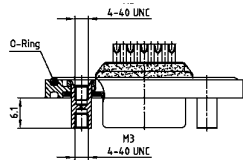


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

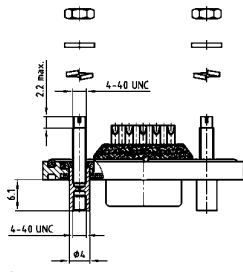
## SOCKET CONNECTOR



Mounting style: Front spacer



Mounting style: Front spacer and rear mounting stud

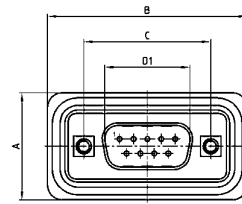


| No. of pos. | A +0.2 | B +0.2 | C           | D2 -0.25 |
|-------------|--------|--------|-------------|----------|
| 09          | 21.10  | 39.40  | 25.00 +0.12 | 16.46    |
| 15          | 21.10  | 47.70  | 33.30 +0.10 | 24.79    |
| 25          | 21.10  | 61.40  | 47.04 +0.13 | 38.50    |
| 37          | 21.10  | 77.90  | 63.50 +0.13 | 54.96    |
| 50          | 23.90  | 75.50  | 61.10 +0.14 | 52.55    |

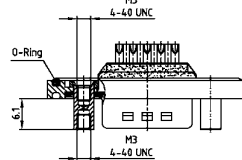
## DESCRIPTION

- 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)

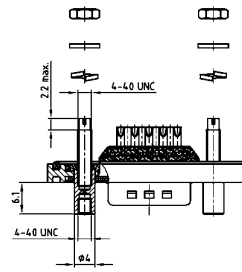
## PLUG CONNECTOR



Mounting style: Front spacer



Mounting style: Front spacer and rear mounting stud



| No. of pos. | A +0.2 | B +0.2 | C           | D1 +0.25 | E -0.30 |
|-------------|--------|--------|-------------|----------|---------|
| 9           | 21.10  | 39.40  | 25.00 +0.12 | 16.79    | 5.82    |
| 15          | 21.10  | 47.70  | 33.30 +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 | 52.68    | 5.69    |

## ORDER DATA

| SOCKET CONNECTOR |  |                   |
|------------------|--|-------------------|
| No. of pos.      | Mounting style                               | Part Number       |
| 09               | M3 Front spacer                              | 6 STD09SAM99B40 X |
| 15               | M3 Front spacer                              | 6 STD15SAM99B40 X |
| 25               | M3 Front spacer                              | 6 STD25SAM99B40 X |
| 37               | M3 Front spacer                              | 6 STD37SAM99B40 X |
| 50               | M3 Front spacer                              | 6 STD50SAM99B40 X |
| 09               | 4-40 UNC Front spacer                        | 6 STD09SAM99B50 X |
| 15               | 4-40 UNC Front spacer                        | 6 STD15SAM99B50 X |
| 25               | 4-40 UNC Front spacer                        | 6 STD25SAM99B50 X |
| 37               | 4-40 UNC Front spacer                        | 6 STD37SAM99B50 X |
| 50               | 4-40 UNC Front spacer                        | 6 STD50SAM99B50 X |
| 09               | 4-40 UNC Front spacer and rear mounting stud | 6 STD09SAM99B70 X |
| 15               | 4-40 UNC Front spacer and rear mounting stud | 6 STD15SAM99B70 X |
| 25               | 4-40 UNC Front spacer and rear mounting stud | 6 STD25SAM99B70 X |
| 37               | 4-40 UNC Front spacer and rear mounting stud | 6 STD37SAM99B70 X |
| 50               | 4-40 UNC Front spacer and rear mounting stud | 6 STD50SAM99B70 X |

| PLUG CONNECTOR |  |                   |
|----------------|--|-------------------|
| No. of pos.    | Mounting style                               | Part Number       |
| 09             | M3 Front spacer                              | 6 STD09PAM99B40 X |
| 15             | M3 Front spacer                              | 6 STD15PAM99B40 X |
| 25             | M3 Front spacer                              | 6 STD25PAM99B40 X |
| 37             | M3 Front spacer                              | 6 STD37PAM99B40 X |
| 50             | M3 Front spacer                              | 6 STD50PAM99B40 X |
| 09             | 4-40 UNC Front spacer                        | 6 STD09PAM99B50 X |
| 15             | 4-40 UNC Front spacer                        | 6 STD15PAM99B50 X |
| 25             | 4-40 UNC Front spacer                        | 6 STD25PAM99B50 X |
| 37             | 4-40 UNC Front spacer                        | 6 STD37PAM99B50 X |
| 50             | 4-40 UNC Front spacer                        | 6 STD50PAM99B50 X |
| 09             | 4-40 UNC Front spacer and rear mounting stud | 6 STD09PAM99B70 X |
| 15             | 4-40 UNC Front spacer and rear mounting stud | 6 STD15PAM99B70 X |
| 25             | 4-40 UNC Front spacer and rear mounting stud | 6 STD25PAM99B70 X |
| 37             | 4-40 UNC Front spacer and rear mounting stud | 6 STD37PAM99B70 X |
| 50             | 4-40 UNC Front spacer and rear mounting stud | 6 STD50PAM99B70 X |

# D-SUB HIGH DENSITY – IP67

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

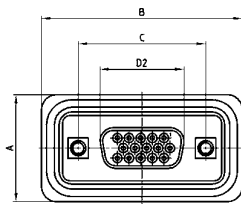


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

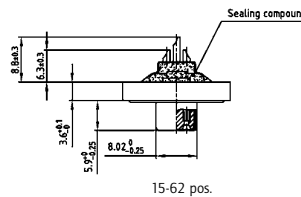
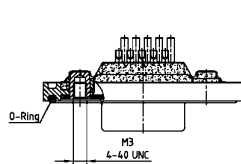
## DESCRIPTION

- 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)

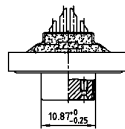
## SOCKET CONNECTOR



| No. of pos. | A ±0.2 | B ±0.2 | C                                       | D2 ±0.25 |
|-------------|--------|--------|---|----------|
| 15          | 21.10  | 39.40  | 25.00 <sup>+0.12</sup> <sub>-0.13</sub> | 16.46    |
| 26          | 21.10  | 47.70  | 33.30 <sup>+0.15</sup> <sub>-0.10</sub> | 24.79    |
| 44          | 21.10  | 61.40  | 47.04 <sup>+0.13</sup>                  | 38.50    |
| 62          | 21.10  | 77.90  | 63.50 <sup>+0.13</sup>                  | 54.96    |
| 78          | 23.90  | 75.50  | 61.10 <sup>+0.14</sup> <sub>-0.11</sub> | 52.55    |

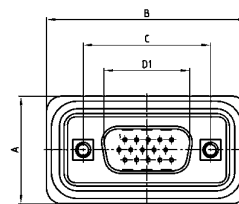


15-62 pos.

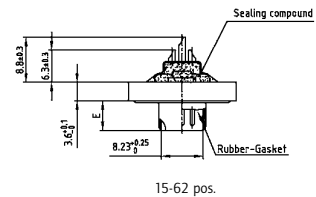
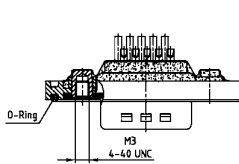


78 pos.

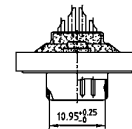
## PLUG CONNECTOR



| No. of pos. | A ±0.2 | B ±0.2 | C                                       | D1 ±0.25 | E ±0.30 |
|-------------|--------|--------|---|----------|---------|
| 15          | 21.10  | 39.40  | 25.00 <sup>+0.12</sup> <sub>-0.13</sub> | 16.79    | 5.82    |
| 26          | 21.10  | 47.70  | 33.30 <sup>+0.15</sup> <sub>-0.10</sub> | 25.12    | 5.82    |
| 44          | 21.10  | 61.40  | 47.04 <sup>+0.13</sup>                  | 38.84    | 5.69    |
| 62          | 21.10  | 77.90  | 63.50 <sup>+0.13</sup>                  | 55.30    | 5.69    |
| 78          | 23.90  | 75.50  | 61.10 <sup>+0.14</sup> <sub>-0.11</sub> | 52.68    | 5.69    |



15-62 pos.



78 pos.

## ORDER DATA

| SOCKET CONNECTOR |                          |                   |
|------------------|--------------------------|-------------------|
| No. of pos.      | Mounting style           | Part Number       |
| 15               | M3 Threaded insert       | 6 HDD15SAM99B20 X |
| 26               | M3 Threaded insert       | 6 HDD26SAM99B20 X |
| 44               | M3 Threaded insert       | 6 HDD44SAM99B20 X |
| 62               | M3 Threaded insert       | 6 HDD62SAM99B20 X |
| 78               | M3 Threaded insert       | 6 HDD78SAM99B20 X |
| 15               | 4-40 UNC Threaded insert | 6 HDD15SAM99B30 X |
| 26               | 4-40 UNC Threaded insert | 6 HDD26SAM99B30 X |
| 44               | 4-40 UNC Threaded insert | 6 HDD44SAM99B30 X |
| 62               | 4-40 UNC Threaded insert | 6 HDD62SAM99B30 X |
| 78               | 4-40 UNC Threaded insert | 6 HDD78SAM99B30 X |

| PLUG CONNECTOR |                          |                   |
|----------------|--------------------------|-------------------|
| No. of pos.    | Mounting style           | Part Number       |
| 15             | M3 Threaded insert       | 6 HDD15PAM99B20 X |
| 26             | M3 Threaded insert       | 6 HDD26PAM99B20 X |
| 44             | M3 Threaded insert       | 6 HDD44PAM99B20 X |
| 62             | M3 Threaded insert       | 6 HDD62PAM99B20 X |
| 78             | M3 Threaded insert       | 6 HDD78PAM99B20 X |
| 15             | 4-40 UNC Threaded insert | 6 HDD15PAM99B30 X |
| 26             | 4-40 UNC Threaded insert | 6 HDD26PAM99B30 X |
| 44             | 4-40 UNC Threaded insert | 6 HDD44PAM99B30 X |
| 62             | 4-40 UNC Threaded insert | 6 HDD62PAM99B30 X |
| 78             | 4-40 UNC Threaded insert | 6 HDD78PAM99B30 X |

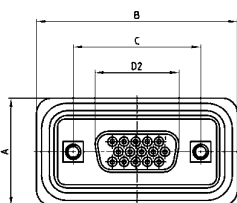
# D-SUB HIGH DENSITY – IP67

Solder pin – Straight – Precision machined contacts



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

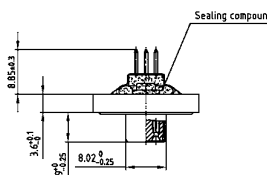
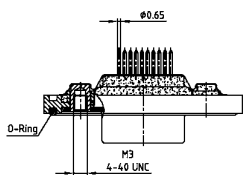
## SOCKET CONNECTOR



| No. of pos. | A -0.2 | B -0.2 | C   | D2 -0.25 |
|-------------|--------|--------|---|----------|
| 15          | 21.10  | 39.40  | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> | 16.46    |
| 26          | 21.10  | 47.70  | 33.30 <sup>+0.15</sup> / <sub>-0.10</sub> | 24.79    |
| 44          | 21.10  | 61.40  | 47.04 <sup>+0.13</sup> / <sub>-0.13</sub> | 38.50    |
| 62          | 21.10  | 77.90  | 63.50 <sup>+0.13</sup> / <sub>-0.13</sub> | 54.96    |
| 78          | 23.90  | 75.50  | 61.10 <sup>+0.14</sup> / <sub>-0.11</sub> | 52.55    |

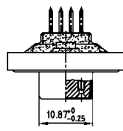
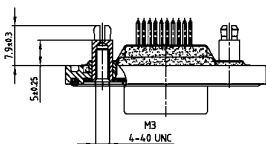
PCB layout Kat1kGDA / Kat1iT9A

Mounting style: Threaded insert



15-62 pos.

Mounting style: Threaded rear spacer with PCB clip

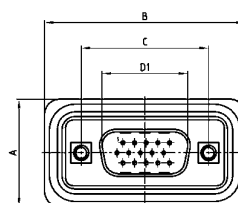


78 pos.

## 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)

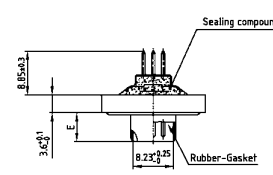
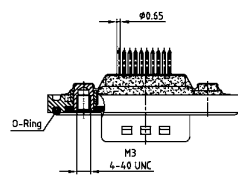
## PLUG CONNECTOR



| No. of pos. | A -0.2 | B -0.2 | C   | D1 +0.25 | E -0.30 |
|-------------|--------|--------|---|----------|---------|
| 15          | 21.10  | 39.40  | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> | 16.79    | 5.82    |
| 26          | 21.10  | 47.70  | 33.30 <sup>+0.15</sup> / <sub>-0.10</sub> | 25.12    | 5.82    |
| 44          | 21.10  | 61.40  | 47.04 <sup>+0.13</sup> / <sub>-0.13</sub> | 38.84    | 5.69    |
| 62          | 21.10  | 77.90  | 63.50 <sup>+0.13</sup> / <sub>-0.13</sub> | 55.30    | 5.69    |
| 78          | 23.90  | 75.50  | 61.10 <sup>+0.14</sup> / <sub>-0.11</sub> | 52.68    | 5.69    |

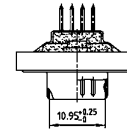
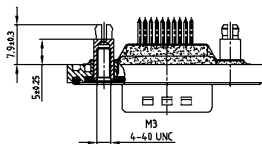
PCB layout Kat1kFWA / Kat1iU0A

Mounting style: Threaded insert



15-62 pos.

Mounting style: Threaded rear spacer with PCB clip



78 pos.

## ORDER DATA

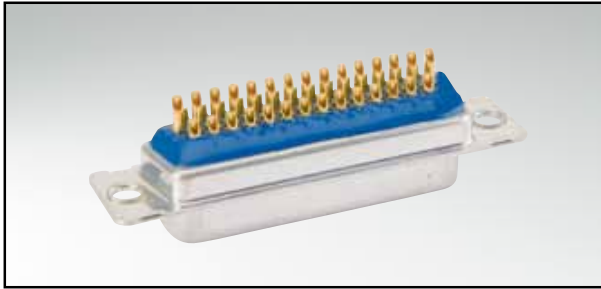
| SOCKET CONNECTOR |  |                   |
|------------------|--|-------------------|
| No. of pos.      | Mounting style                         | Part Number       |
| 15               | M3 Threaded insert                     | 6 HDD15SAR99B20 X |
| 26               | M3 Threaded insert                     | 6 HDD26SAR99B20 X |
| 44               | M3 Threaded insert                     | 6 HDD44SAR99B20 X |
| 62               | M3 Threaded insert                     | 6 HDD62SAR99B20 X |
| 78               | M3 Threaded insert                     | 6 HDD78SAR99B20 X |
| 15               | 4-40 UNC Threaded insert               | 6 HDD15SAR99B30 X |
| 26               | 4-40 UNC Threaded insert               | 6 HDD26SAR99B30 X |
| 44               | 4-40 UNC Threaded insert               | 6 HDD44SAR99B30 X |
| 62               | 4-40 UNC Threaded insert               | 6 HDD62SAR99B30 X |
| 78               | 4-40 UNC Threaded insert               | 6 HDD78SAR99B30 X |
| 15               | M3 Threaded rear spacer PCB clip       | 6 HDD15SAR99E10 X |
| 26               | M3 Threaded rear spacer PCB clip       | 6 HDD26SAR99E10 X |
| 44               | M3 Threaded rear spacer PCB clip       | 6 HDD44SAR99E10 X |
| 62               | M3 Threaded rear spacer PCB clip       | 6 HDD62SAR99E10 X |
| 78               | M3 Threaded rear spacer PCB clip       | 6 HDD78SAR99E10 X |
| 15               | 4-40 UNC Threaded rear spacer PCB clip | 6 HDD15SAR99E20 X |
| 26               | 4-40 UNC Threaded rear spacer PCB clip | 6 HDD26SAR99E20 X |
| 44               | 4-40 UNC Threaded rear spacer PCB clip | 6 HDD44SAR99E20 X |
| 62               | 4-40 UNC Threaded rear spacer PCB clip | 6 HDD62SAR99E20 X |
| 78               | 4-40 UNC Threaded rear spacer PCB clip | 6 HDD78SAR99E20 X |

| PLUG CONNECTOR |  |                   |
|----------------|--|-------------------|
| No. of pos.    | Mounting style                         | Part Number       |
| 15             | M3 Threaded insert                     | 6 HDD15PAR99B20 X |
| 26             | M3 Threaded insert                     | 6 HDD26PAR99B20 X |
| 44             | M3 Threaded insert                     | 6 HDD44PAR99B20 X |
| 62             | M3 Threaded insert                     | 6 HDD62PAR99B20 X |
| 78             | M3 Threaded insert                     | 6 HDD78PAR99B20 X |
| 15             | 4-40 UNC Threaded insert               | 6 HDD15PAR99B30 X |
| 26             | 4-40 UNC Threaded insert               | 6 HDD26PAR99B30 X |
| 44             | 4-40 UNC Threaded insert               | 6 HDD44PAR99B30 X |
| 62             | 4-40 UNC Threaded insert               | 6 HDD62PAR99B30 X |
| 78             | 4-40 UNC Threaded insert               | 6 HDD78PAR99B30 X |
| 15             | M3 Threaded rear spacer PCB clip       | 6 HDD15PAR99E10 X |
| 26             | M3 Threaded rear spacer PCB clip       | 6 HDD26PAR99E10 X |
| 44             | M3 Threaded rear spacer PCB clip       | 6 HDD44PAR99E10 X |
| 62             | M3 Threaded rear spacer PCB clip       | 6 HDD62PAR99E10 X |
| 78             | M3 Threaded rear spacer PCB clip       | 6 HDD78PAR99E10 X |
| 15             | 4-40 UNC Threaded rear spacer PCB clip | 6 HDD15PAR99E20 X |
| 26             | 4-40 UNC Threaded rear spacer PCB clip | 6 HDD26PAR99E20 X |
| 44             | 4-40 UNC Threaded rear spacer PCB clip | 6 HDD44PAR99E20 X |
| 62             | 4-40 UNC Threaded rear spacer PCB clip | 6 HDD62PAR99E20 X |
| 78             | 4-40 UNC Threaded rear spacer PCB clip | 6 HDD78PAR99E20 X |

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

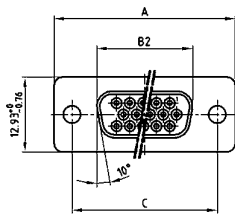
# D-SUB HIGH DENSITY – IP67

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

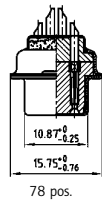
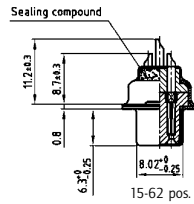
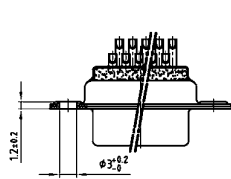


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## SOCKET CONNECTOR



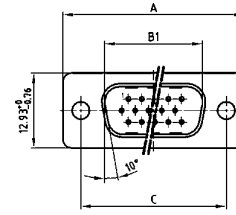
| No. of pos. | A +0.76 | B2 -0.25 | C   |
|-------------|---------|----------|---|
| 15          | 31.19   | 16.46    | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> |
| 26          | 39.52   | 24.79    | 33.30 <sup>+0.15</sup> / <sub>-0.10</sub> |
| 44          | 53.42   | 38.50    | 47.04 <sup>+0.13</sup> / <sub>-0.13</sub> |
| 62          | 69.70   | 54.96    | 63.50 <sup>+0.13</sup> / <sub>-0.13</sub> |
| 78          | 67.31   | 52.55    | 61.10 <sup>+0.14</sup> / <sub>-0.11</sub> |



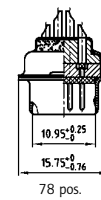
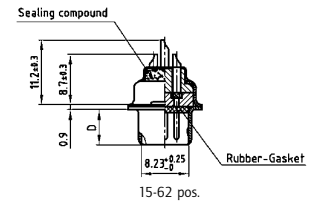
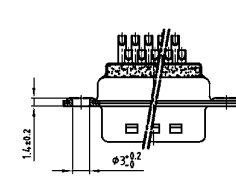
## DESCRIPTION

- 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)

## PLUG CONNECTOR



| No. of pos. | A -0.76 | B1 -0.25 | C   | D1 -0.30 |
|-------------|---------|----------|---|----------|
| 15          | 31.19   | 16.79    | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> | 6.12     |
| 26          | 39.52   | 25.12    | 33.30 <sup>+0.15</sup> / <sub>-0.10</sub> | 6.12     |
| 44          | 53.42   | 38.84    | 47.04 <sup>+0.13</sup> / <sub>-0.13</sub> | 5.99     |
| 62          | 69.70   | 55.30    | 63.50 <sup>+0.13</sup> / <sub>-0.13</sub> | 5.99     |
| 78          | 37.31   | 62.68    | 61.10 <sup>+0.14</sup> / <sub>-0.11</sub> | 5.99     |



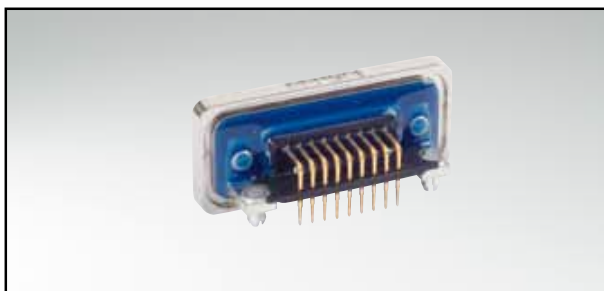
## ORDER DATA

| SOCKET CONNECTOR |                |                   |
|------------------|----------------|-------------------|
| No. of pos.      | Mounting style | Part Number       |
| 15               | Through-hole   | 4 HDD15SAM99A10 X |
| 26               | Through-hole   | 4 HDD26SAM99A10 X |
| 44               | Through-hole   | 4 HDD44SAM99A10 X |
| 62               | Through-hole   | 4 HDD62SAM99A10 X |
| 78               | Through-hole   | 4 HDD78SAM99A10 X |

| PLUG CONNECTOR |                |                   |
|----------------|----------------|-------------------|
| No. of pos.    | Mounting style | Part Number       |
| 15             | Through-hole   | 4 HDD15PAM99A10 X |
| 26             | Through-hole   | 4 HDD26PAM99A10 X |
| 44             | Through-hole   | 4 HDD44PAM99A10 X |
| 62             | Through-hole   | 4 HDD62PAM99A10 X |
| 78             | Through-hole   | 4 HDD78PAM99A10 X |

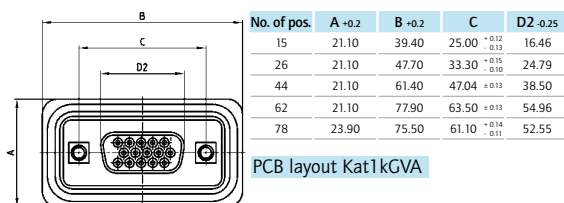
# D-SUB HIGH DENSITY – IP67

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

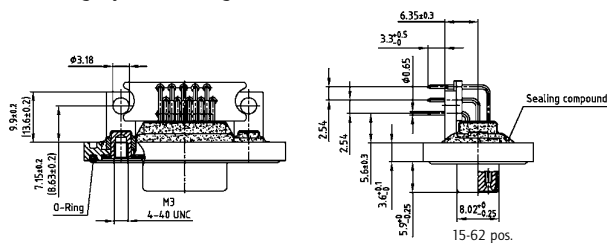


RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

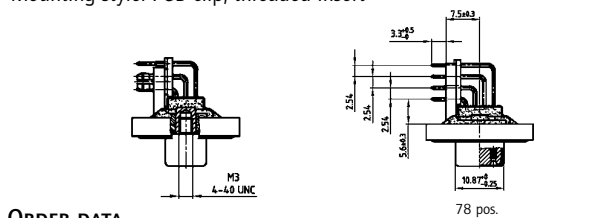
## SOCKET CONNECTOR



Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



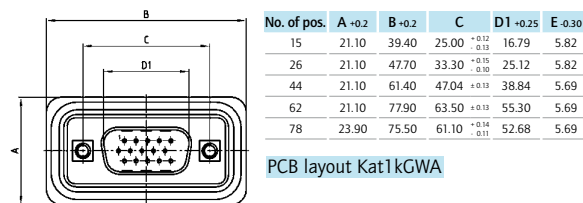
## ORDER DATA

| SOCKET CONNECTOR |                                     |                   |
|------------------|-------------------------------------|-------------------|
| No. of pos.      | Mounting style                      | Part Number       |
| 15               | M3 Threaded insert                  | 6 HDD15SAY99R10 X |
| 26               | M3 Threaded insert                  | 6 HDD26SAY99R10 X |
| 44               | M3 Threaded insert                  | 6 HDD44SAY99R10 X |
| 62               | M3 Threaded insert                  | 6 HDD62SAY99R10 X |
| 78               | M3 Threaded insert                  | 6 HDD78SAY99R10 X |
| 15               | 4-40 UNC Threaded insert            | 6 HDD15SAY99R20 X |
| 26               | 4-40 UNC Threaded insert            | 6 HDD26SAY99R20 X |
| 44               | 4-40 UNC Threaded insert            | 6 HDD44SAY99R20 X |
| 62               | 4-40 UNC Threaded insert            | 6 HDD62SAY99R20 X |
| 78               | 4-40 UNC Threaded insert            | 6 HDD78SAY99R20 X |
| 15               | PCB clip / M3 Threaded insert       | 6 HDD15SAY99R30 X |
| 26               | PCB clip / M3 Threaded insert       | 6 HDD26SAY99R30 X |
| 44               | PCB clip / M3 Threaded insert       | 6 HDD44SAY99R30 X |
| 62               | PCB clip / M3 Threaded insert       | 6 HDD62SAY99R30 X |
| 78               | PCB clip / M3 Threaded insert       | 6 HDD78SAY99R30 X |
| 15               | PCB clip / 4-40 UNC Threaded insert | 6 HDD15SAY99R40 X |
| 26               | PCB clip / 4-40 UNC Threaded insert | 6 HDD26SAY99R40 X |
| 44               | PCB clip / 4-40 UNC Threaded insert | 6 HDD44SAY99R40 X |
| 62               | PCB clip / 4-40 UNC Threaded insert | 6 HDD62SAY99R40 X |
| 78               | PCB clip / 4-40 UNC Threaded insert | 6 HDD78SAY99R40 X |

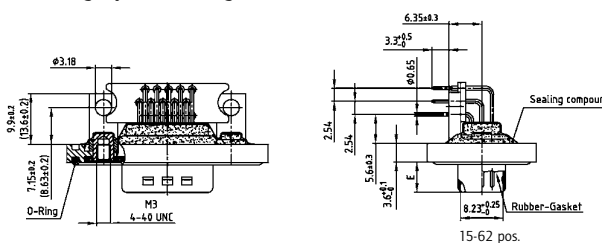
## DESCRIPTION

- 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)

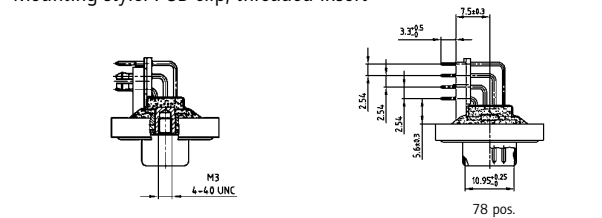
## PLUG CONNECTOR



Mounting style: Mounting bracket, threaded insert



Mounting style: PCB clip, threaded insert



| PLUG CONNECTOR |                                     |                   |
|----------------|-------------------------------------|-------------------|
| No. of pos.    | Mounting style                      | Part Number       |
| 15             | M3 Threaded insert                  | 6 HDD15PAY99R10 X |
| 26             | M3 Threaded insert                  | 6 HDD26PAY99R10 X |
| 44             | M3 Threaded insert                  | 6 HDD44PAY99R10 X |
| 62             | M3 Threaded insert                  | 6 HDD62PAY99R10 X |
| 78             | M3 Threaded insert                  | 6 HDD78PAY99R10 X |
| 15             | 4-40 UNC Threaded insert            | 6 HDD15PAY99R20 X |
| 26             | 4-40 UNC Threaded insert            | 6 HDD26PAY99R20 X |
| 44             | 4-40 UNC Threaded insert            | 6 HDD44PAY99R20 X |
| 62             | 4-40 UNC Threaded insert            | 6 HDD62PAY99R20 X |
| 78             | 4-40 UNC Threaded insert            | 6 HDD78PAY99R20 X |
| 15             | PCB clip / M3 Threaded insert       | 6 HDD15PAY99R30 X |
| 26             | PCB clip / M3 Threaded insert       | 6 HDD26PAY99R30 X |
| 44             | PCB clip / M3 Threaded insert       | 6 HDD44PAY99R30 X |
| 62             | PCB clip / M3 Threaded insert       | 6 HDD62PAY99R30 X |
| 78             | PCB clip / M3 Threaded insert       | 6 HDD78PAY99R30 X |
| 15             | PCB clip / 4-40 UNC Threaded insert | 6 HDD15PAY99R40 X |
| 26             | PCB clip / 4-40 UNC Threaded insert | 6 HDD26PAY99R40 X |
| 44             | PCB clip / 4-40 UNC Threaded insert | 6 HDD44PAY99R40 X |
| 62             | PCB clip / 4-40 UNC Threaded insert | 6 HDD62PAY99R40 X |
| 78             | PCB clip / 4-40 UNC Threaded insert | 6 HDD78PAY99R40 X |

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

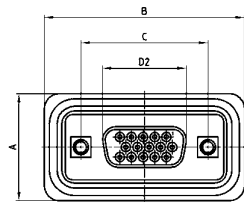
# D-SUB HIGH DENSITY – IP67

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



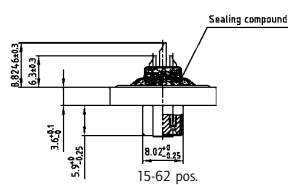
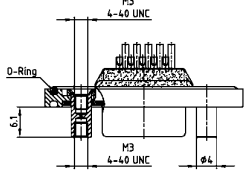
RoHS compliant - CSA listed, File No.LR115000-1 UL listed, File No. E202784

## SOCKET CONNECTOR

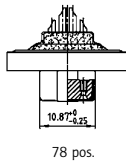
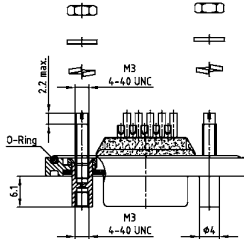


| No. of pos. | A -0.2 | B -0.2 | C   | D2 -0.25 |
|-------------|--------|--------|---|----------|
| 15          | 21.10  | 39.40  | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> | 16.46    |
| 26          | 21.10  | 47.70  | 33.30 <sup>+0.15</sup> / <sub>-0.10</sub> | 24.79    |
| 44          | 21.10  | 61.40  | 47.04 <sup>+0.13</sup>                    | 38.50    |
| 62          | 21.10  | 77.90  | 63.50 <sup>+0.13</sup>                    | 54.96    |
| 78          | 23.90  | 75.50  | 61.10 <sup>+0.14</sup> / <sub>-0.11</sub> | 52.55    |

Mounting style: Front spacer



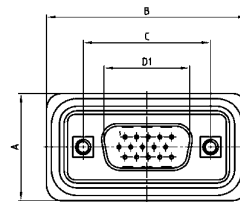
Mounting style: Front spacer and rear mounting stud



## DESCRIPTION

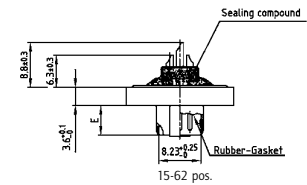
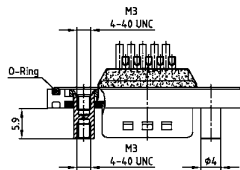
- Suitable for wire size **AWG 22**
- Mounting styles:
  - with M3 or 4-40 UNC front spacer
  - with M3 or 4-40 UNC front spacer and rear mounting stud
- Quality class 3 (also available in quality class 1)
- Shell: Brass tin plated (stainless steel available on request)
- Nickel plated die-cast frame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

## PLUG CONNECTOR

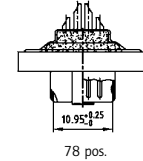
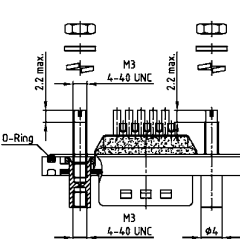


| No. of pos. | A -0.2 | B -0.2 | C   | D1 +0.25 | E -0.30 |
|-------------|--------|--------|---|----------|---------|
| 15          | 21.10  | 39.40  | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> | 16.79    | 5.82    |
| 26          | 21.10  | 47.70  | 33.30 <sup>+0.15</sup> / <sub>-0.10</sub> | 25.12    | 5.82    |
| 44          | 21.10  | 61.40  | 47.04 <sup>+0.13</sup>                    | 38.84    | 5.69    |
| 62          | 21.10  | 77.90  | 63.50 <sup>+0.13</sup>                    | 55.30    | 5.69    |
| 78          | 23.90  | 75.50  | 61.10 <sup>+0.14</sup> / <sub>-0.11</sub> | 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                              | 6 HDD15SAM99B40 X |
| 26          | M3 Front spacer                              | 6 HDD26SAM99B40 X |
| 44          | M3 Front spacer                              | 6 HDD44SAM99B40 X |
| 62          | M3 Front spacer                              | 6 HDD62SAM99B40 X |
| 78          | M3 Front spacer                              | 6 HDD78SAM99B40 X |
| 15          | 4-40 UNC Front spacer                        | 6 HDD15SAM99B50 X |
| 26          | 4-40 UNC Front spacer                        | 6 HDD26SAM99B50 X |
| 44          | 4-40 UNC Front spacer                        | 6 HDD44SAM99B50 X |
| 62          | 4-40 UNC Front spacer                        | 6 HDD62SAM99B50 X |
| 78          | 4-40 UNC Front spacer                        | 6 HDD78SAM99B50 X |
| 15          | 4-40 UNC Front spacer and rear mounting stud | 6 HDD15SAM99B70 X |
| 26          | 4-40 UNC Front spacer and rear mounting stud | 6 HDD26SAM99B70 X |
| 44          | 4-40 UNC Front spacer and rear mounting stud | 6 HDD44SAM99B70 X |
| 62          | 4-40 UNC Front spacer and rear mounting stud | 6 HDD62SAM99B70 X |
| 78          | 4-40 UNC Front spacer and rear mounting stud | 6 HDD78SAM99B70 X |

### PLUG CONNECTOR

| No. of pos. | Mounting style                               | Part Number       |
|-------------|--|-------------------|
| 15          | M3 Front spacer                              | 6 HDD15PAM99B40 X |
| 26          | M3 Front spacer                              | 6 HDD26PAM99B40 X |
| 44          | M3 Front spacer                              | 6 HDD44PAM99B40 X |
| 62          | M3 Front spacer                              | 6 HDD62PAM99B40 X |
| 78          | M3 Front spacer                              | 6 HDD78PAM99B40 X |
| 15          | 4-40 UNC Front spacer                        | 6 HDD15PAM99B50 X |
| 26          | 4-40 UNC Front spacer                        | 6 HDD26PAM99B50 X |
| 44          | 4-40 UNC Front spacer                        | 6 HDD44PAM99B50 X |
| 62          | 4-40 UNC Front spacer                        | 6 HDD62PAM99B50 X |
| 78          | 4-40 UNC Front spacer                        | 6 HDD78PAM99B50 X |
| 15          | 4-40 UNC Front spacer and rear mounting stud | 6 HDD15PAM99B70 X |
| 26          | 4-40 UNC Front spacer and rear mounting stud | 6 HDD26PAM99B70 X |
| 44          | 4-40 UNC Front spacer and rear mounting stud | 6 HDD44PAM99B70 X |
| 62          | 4-40 UNC Front spacer and rear mounting stud | 6 HDD62PAM99B70 X |
| 78          | 4-40 UNC Front spacer and rear mounting stud | 6 HDD78PAM99B70 X |

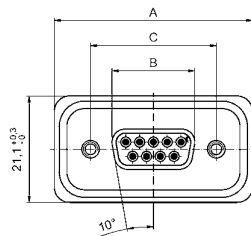
# D-SUB STANDARD – IP67 SOLID BODY

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

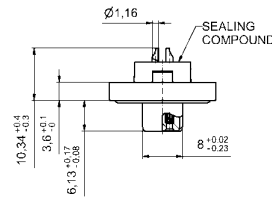
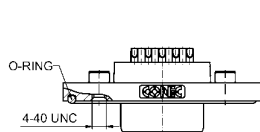


RoHS compliant

## SOCKET CONNECTOR



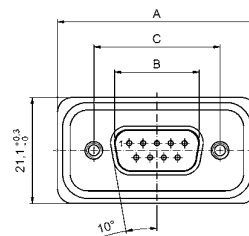
| No. of pos. | A $\begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$ | B $\begin{smallmatrix} +0 \\ -0.25 \end{smallmatrix}$ | C  |
|-------------|---|---|--|
| 09          | 39.40   | 16.46   | 25.00 $\begin{smallmatrix} +0.12 \\ -0.13 \end{smallmatrix}$ |
| 15          | 47.70   | 24.79   | 33.32 $\begin{smallmatrix} +0.13 \\ -0.12 \end{smallmatrix}$ |
| 25          | 61.40   | 38.50   | 47.04 $\begin{smallmatrix} +0.13 \\ -0.13 \end{smallmatrix}$ |
| 37          | 78.00   | 54.96   | 63.50 $\begin{smallmatrix} +0.13 \\ -0.13 \end{smallmatrix}$ |



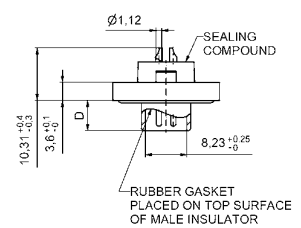
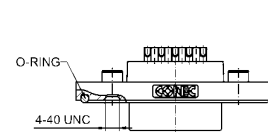
## DESCRIPTION

- 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

## PLUG CONNECTOR



| No. of pos. | A $\begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$ | B $\begin{smallmatrix} +0 \\ -0.25 \end{smallmatrix}$ | C  | D   |
|-------------|---|---|--|---|
| 09          | 39.40   | 16.81   | 25.00 $\begin{smallmatrix} +0.12 \\ -0.13 \end{smallmatrix}$ | 6.00 $\begin{smallmatrix} +0.12 \\ -0.18 \end{smallmatrix}$ |
| 15          | 47.70   | 25.14   | 33.32 $\begin{smallmatrix} +0.13 \\ -0.12 \end{smallmatrix}$ | 6.00 $\begin{smallmatrix} +0.12 \\ -0.18 \end{smallmatrix}$ |
| 25          | 61.40   | 38.86   | 47.04 $\begin{smallmatrix} +0.13 \\ -0.13 \end{smallmatrix}$ | 5.99 $\begin{smallmatrix} +0 \\ -0.3 \end{smallmatrix}$     |
| 37          | 78.00   | 55.32   | 63.50 $\begin{smallmatrix} +0.13 \\ -0.13 \end{smallmatrix}$ | 5.99 $\begin{smallmatrix} +0 \\ -0.3 \end{smallmatrix}$     |



## 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   |

| 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   |

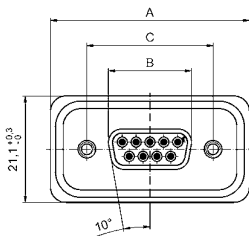
# D-SUB STANDARD – IP67 SOLID BODY

Solder pin – Straight – Precision machined contacts



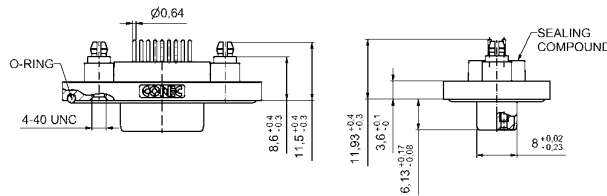
RoHS compliant

## SOCKET CONNECTOR



| No. of pos. | A -0.2 | B -0.2 | C   |
|-------------|--------|--------|---|
| 09          | 39.40  | 16.46  | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> |
| 15          | 47.70  | 24.79  | 33.32 <sup>+0.13</sup> / <sub>-0.12</sub> |
| 25          | 61.40  | 38.50  | 47.04 <sup>+0.13</sup>                    |
| 37          | 78.00  | 54.96  | 63.50 <sup>+0.13</sup>                    |

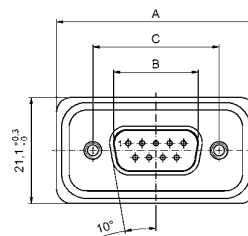
PCB layout Kat1kFUA



## DESCRIPTION

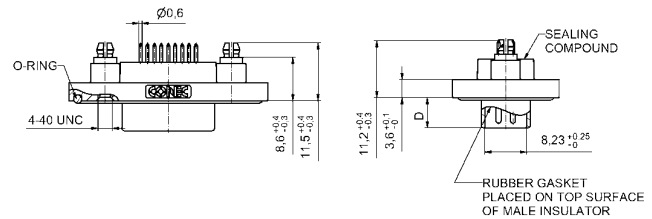
- Mounting style:  
4-40 UNC threaded rear spacer with PCB clip including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

## PLUG CONNECTOR



| No. of pos. | A -0.2 | B -0.2 | C   | D  |
|-------------|--------|--------|---|--|
| 09          | 39.40  | 16.81  | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> | 6.00 <sup>+0.12</sup> / <sub>-0.18</sub> |
| 15          | 47.70  | 25.14  | 33.32 <sup>+0.13</sup> / <sub>-0.12</sub> | 6.00 <sup>+0.12</sup> / <sub>-0.18</sub> |
| 25          | 61.40  | 38.86  | 47.04 <sup>+0.13</sup>                    | 5.99 <sup>-0.3</sup>                     |
| 37          | 78.00  | 55.32  | 63.50 <sup>+0.13</sup>                    | 5.99 <sup>-0.3</sup>                     |

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   |

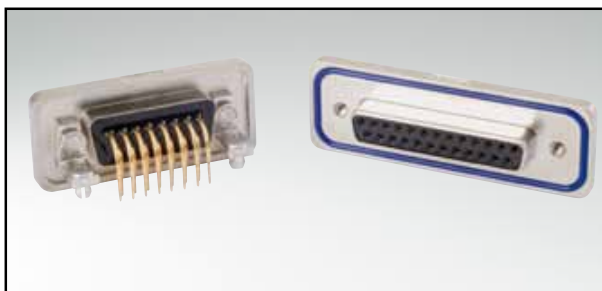
| PLUG CONNECTOR |                               |             |
|----------------|-------------------------------|-------------|
| No. of pos.    | Mounting style 4-40 UNC       | Part Number |
| 09             | Threaded rear spacer PCB clip | 15-000413   |
| 15             | Threaded rear spacer PCB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

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



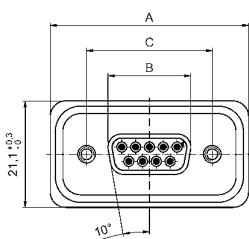
# D-SUB STANDARD – IP67 SOLID BODY

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



RoHS compliant

## SOCKET CONNECTOR



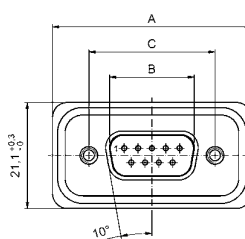
| No. of pos. | A $\begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$ | B $\begin{smallmatrix} +0 \\ -0.25 \end{smallmatrix}$ | C $\begin{smallmatrix} +0.12 \\ -0.12 \end{smallmatrix}$ |
|-------------|---|---|--|
| 09          | 39.40   | 16.46   | 25.00  |
| 15          | 47.70   | 24.79   | 33.32  |
| 25          | 61.40   | 38.50   | 47.04  |
| 37          | 78.00   | 54.96   | 63.50  |

PCB layout Kat1kGMA

## 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

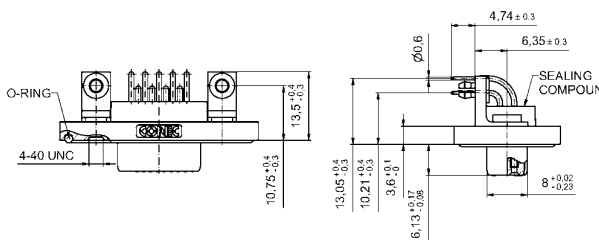
## PLUG CONNECTOR



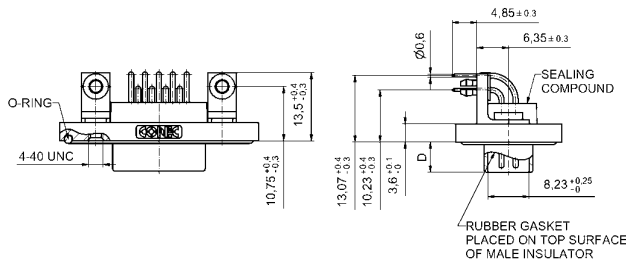
| No. of pos. | A $\begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$ | B $\begin{smallmatrix} +0 \\ -0.25 \end{smallmatrix}$ | C $\begin{smallmatrix} +0.12 \\ -0.12 \end{smallmatrix}$ | D $\begin{smallmatrix} +0.12 \\ -0.18 \end{smallmatrix}$ |
|-------------|---|---|--|--|
| 09          | 39.40   | 16.81   | 25.00  | 6.00   |
| 15          | 47.70   | 25.14   | 33.32  | 6.00   |
| 25          | 61.40   | 38.86   | 47.04  | 5.99   |
| 37          | 78.00   | 55.32   | 63.50  | 5.99   |

PCB layout Kat1kGNA

Mounting style: Mounting bracket, PCB clip



Mounting style: Mounting bracket, PCB clip



## ORDER DATA

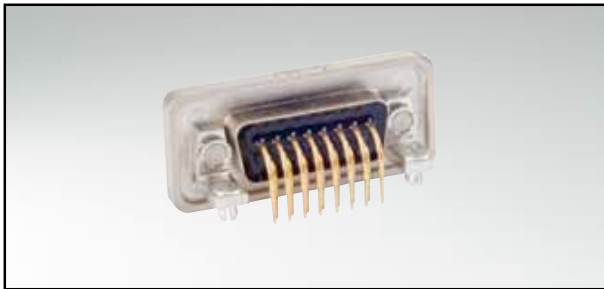
| SOCKET CONNECTOR |                             |             |
|------------------|-----------------------------|-------------|
| No. of pos.      | Mounting style 4-40 UNC     | Part Number |
| 09               | Mounting bracket / PCB clip | 15-000773   |
| 15               | Mounting bracket / PCB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

| 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   |

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

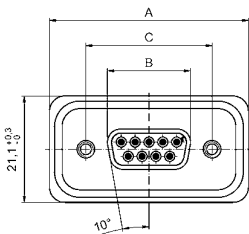
# D-SUB STANDARD – IP67 SOLID BODY

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



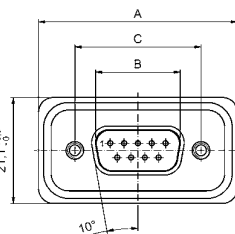
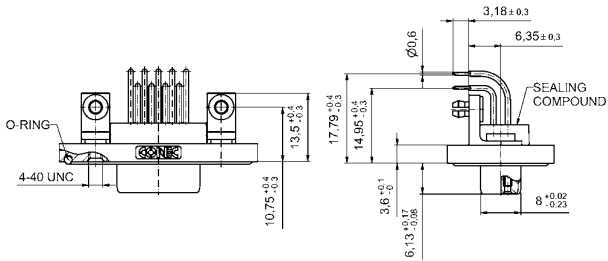
RoHS compliant

## SOCKET CONNECTOR



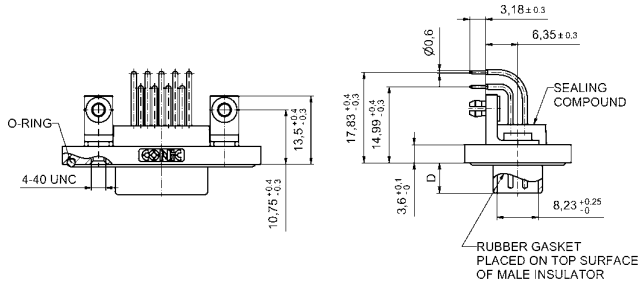
| No. of pos. | A $\begin{smallmatrix} +0.2 \\ -0 \end{smallmatrix}$ | B $\begin{smallmatrix} +0 \\ -0.25 \end{smallmatrix}$ | C  |
|-------------|--|---|--|
| 09          | 39.40  | 16.46   | 25.00 $\begin{smallmatrix} +0.12 \\ -0.13 \end{smallmatrix}$ |
| 15          | 47.70  | 24.79   | 33.32 $\begin{smallmatrix} +0.13 \\ -0.12 \end{smallmatrix}$ |
| 25          | 61.40  | 38.50   | 47.04 $\begin{smallmatrix} +0.13 \\ -0.13 \end{smallmatrix}$ |
| 37          | 78.00  | 54.96   | 63.50 $\begin{smallmatrix} +0.13 \\ -0.13 \end{smallmatrix}$ |

PCB layout Kat1kGOA



| No. of pos. | A $\begin{smallmatrix} +0.2 \\ -0 \end{smallmatrix}$ | B $\begin{smallmatrix} +0 \\ -0.25 \end{smallmatrix}$ | C  | D   |
|-------------|--|---|--|---|
| 09          | 39.40  | 16.81   | 25.00 $\begin{smallmatrix} +0.12 \\ -0.13 \end{smallmatrix}$ | 6.00 $\begin{smallmatrix} +0.12 \\ -0.18 \end{smallmatrix}$ |
| 15          | 47.70  | 25.14   | 33.32 $\begin{smallmatrix} +0.13 \\ -0.12 \end{smallmatrix}$ | 6.00 $\begin{smallmatrix} +0.12 \\ -0.18 \end{smallmatrix}$ |
| 25          | 61.40  | 38.86   | 47.04 $\begin{smallmatrix} +0.13 \\ -0.13 \end{smallmatrix}$ | 5.99 $\begin{smallmatrix} +0 \\ -0.3 \end{smallmatrix}$     |
| 37          | 78.00  | 55.32   | 63.50 $\begin{smallmatrix} +0.13 \\ -0.13 \end{smallmatrix}$ | 5.99 $\begin{smallmatrix} +0 \\ -0.3 \end{smallmatrix}$     |

PCB layout Kat1kGPA



## ORDER DATA

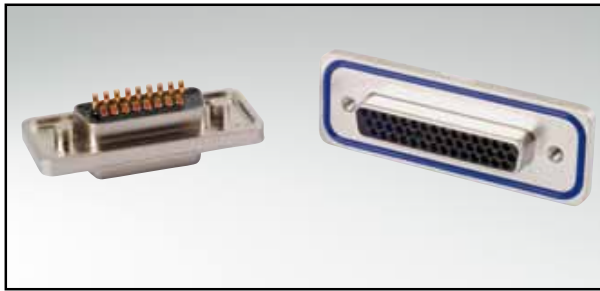
| SOCKET CONNECTOR |                             |             |
|------------------|-----------------------------|-------------|
| No. of pos.      | Mounting style 4-40 UNC     | Part Number |
| 09               | Mounting bracket / PCB clip | 15-000853   |
| 15               | Mounting bracket / PCB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

| 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   |

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

# D-SUB HIGH DENSITY – IP67 SOLID BODY

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

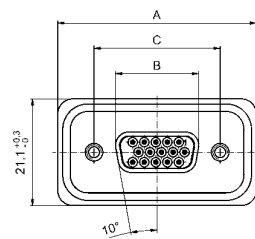


RoHS compliant

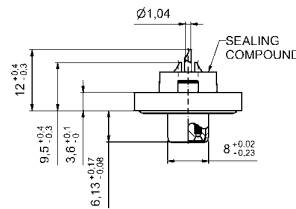
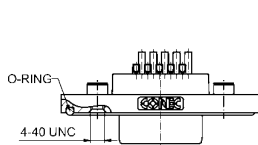
## DESCRIPTION

- 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

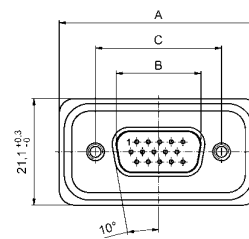
## SOCKET CONNECTOR



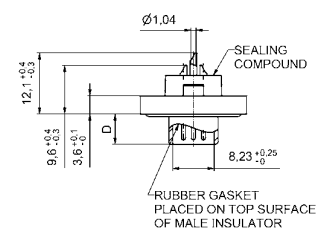
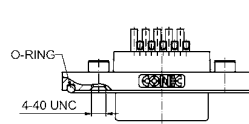
| No. of pos. | A $^{+0.2}_0$ | B $^{+0}_{-0.25}$ | C                        |
|-------------|---------------|-------------------|--------------------------|
| 15          | 39.40         | 16.46             | 25.00 $^{+0.12}_{-0.13}$ |
| 26          | 47.70         | 24.79             | 33.32 $^{+0.13}_{-0.12}$ |
| 44          | 61.40         | 38.50             | 47.04 $^{+0.13}_{-0.12}$ |
| 62          | 78.00         | 54.96             | 63.50 $^{+0.13}_{-0.12}$ |



## PLUG CONNECTOR



| No. of pos. | A $^{+0.2}_0$ | B $^{+0}_{-0.25}$ | C                        | D                       |
|-------------|---------------|-------------------|--------------------------|-------------------------|
| 15          | 39.40         | 16.81             | 25.00 $^{+0.12}_{-0.13}$ | 6.00 $^{+0.12}_{-0.18}$ |
| 26          | 47.70         | 25.14             | 33.32 $^{+0.13}_{-0.12}$ | 6.00 $^{+0.12}_{-0.18}$ |
| 44          | 61.40         | 38.86             | 47.04 $^{+0.13}_{-0.12}$ | 5.99 $^{+0}_{-0.3}$     |
| 62          | 78.00         | 55.32             | 63.50 $^{+0.13}_{-0.12}$ | 5.99 $^{+0}_{-0.3}$     |



## 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   |

| 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   |

# D-SUB HIGH DENSITY – IP67 SOLID BODY

Solder pin – Straight – Precision machined contacts

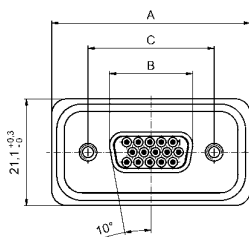


RoHS compliant

## 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

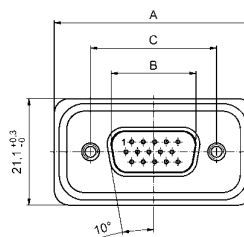
## SOCKET CONNECTOR



| No. of pos. | A <sup>+0.2</sup> / <sub>0</sub> | B <sup>+0</sup> / <sub>-0.25</sub> | C   |
|-------------|----------------------------------|------------------------------------|---|
| 15          | 39.40                            | 16.46                              | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> |
| 26          | 47.70                            | 24.79                              | 33.32 <sup>+0.12</sup> / <sub>-0.12</sub> |
| 44          | 61.40                            | 38.50                              | 47.04 <sup>+0.13</sup> / <sub>-0.13</sub> |
| 62          | 78.00                            | 54.96                              | 63.50 <sup>+0.13</sup> / <sub>-0.13</sub> |

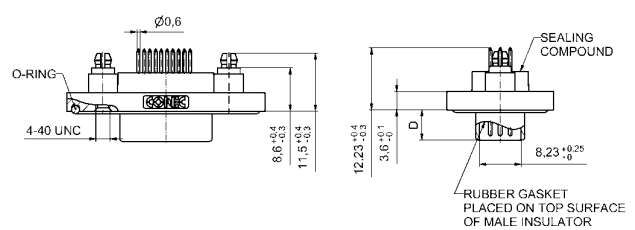
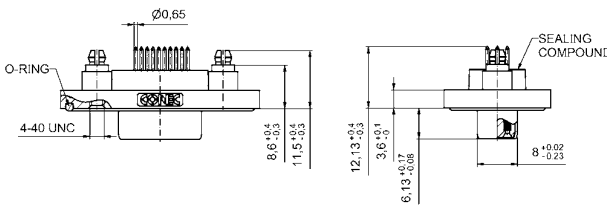
PCB layout Kat1i19A

## PLUG CONNECTOR



| No. of pos. | A <sup>+0.2</sup> / <sub>0</sub> | B <sup>+0</sup> / <sub>-0.25</sub> | C   | D  |
|-------------|----------------------------------|------------------------------------|---|--|
| 15          | 39.40                            | 16.81                              | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> | 6.00 <sup>+0.12</sup> / <sub>-0.18</sub> |
| 26          | 47.70                            | 25.14                              | 33.32 <sup>+0.12</sup> / <sub>-0.12</sub> | 6.00 <sup>+0.12</sup> / <sub>-0.18</sub> |
| 44          | 61.40                            | 38.86                              | 47.04 <sup>+0.13</sup> / <sub>-0.13</sub> | 5.99 <sup>+0</sup> / <sub>-0.3</sub>     |
| 62          | 78.00                            | 55.32                              | 63.50 <sup>+0.13</sup> / <sub>-0.13</sub> | 5.99 <sup>+0</sup> / <sub>-0.3</sub>     |

PCB layout Kat1iU0A



## 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   |

| 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   |

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

# D-SUB HIGH DENSITY – IP67 SOLID BODY

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

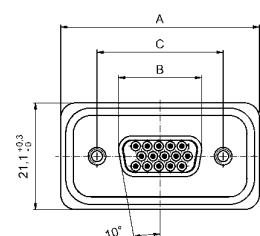


RoHS compliant

## DESCRIPTION

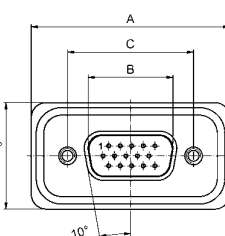
- Mounting style:  
Mounting bracket, 4-40 UNC PCB clip including hex locking bolt
- Quality class 3 (also available in quality class 1)
- One-piece zinc die-cast nickel plated shell
- IP67 for harsh environments, pressure-proof up to 1.45 PSI
- Higher protection on request

## SOCKET CONNECTOR



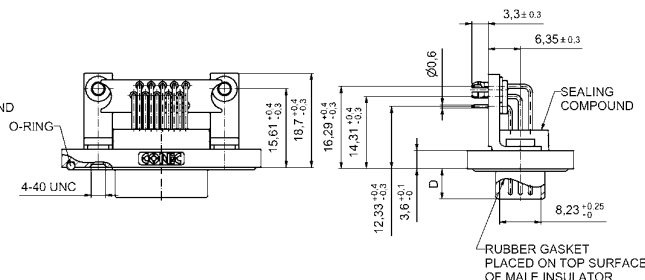
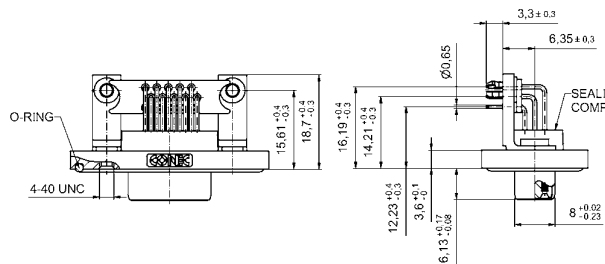
| No. of pos. | A $^{-0.2}$ <sub>0</sub> | B $^{+0}$ <sub>-0.25</sub> | C $^{+0.12}$ <sub>-0.13</sub> |
|-------------|--------------------------|----------------------------|-------------------------------|
| 15          | 39.40                    | 16.46                      | 25.00                         |
| 26          | 47.70                    | 24.79                      | 33.32                         |
| 44          | 61.40                    | 38.50                      | 47.04                         |
| 62          | 78.00                    | 54.96                      | 63.50                         |

PCB layout Kat1kGQA



| No. of pos. | A $^{+0.2}$ <sub>0</sub> | B $^{+0}$ <sub>-0.25</sub> | C $^{+0.12}$ <sub>-0.13</sub> | D $^{+0.12}$ <sub>-0.18</sub> |
|-------------|--------------------------|----------------------------|-------------------------------|-------------------------------|
| 15          | 39.40                    | 16.81                      | 25.00                         | 6.00                          |
| 26          | 47.70                    | 25.14                      | 33.32                         | 6.00                          |
| 44          | 61.40                    | 38.86                      | 47.04                         | 5.99                          |
| 62          | 78.00                    | 55.32                      | 63.50                         | 5.99                          |

PCB layout Kat1kGRA



## ORDER DATA

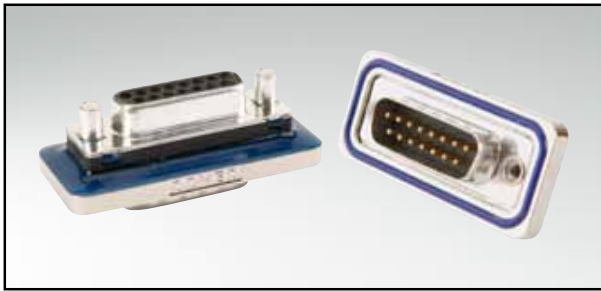
| SOCKET CONNECTOR |                             |             |
|------------------|-----------------------------|-------------|
| No. of pos.      | Mounting style 4-40 UNC     | Part Number |
| 15               | Mounting bracket / PCB clip | 15-000933   |
| 26               | Mounting bracket / PCB 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

# D-SUB STANDARD – IP67

## Interface adapter – Connector Saver

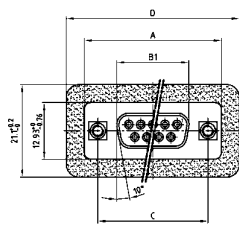


RoHS compliant

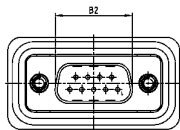
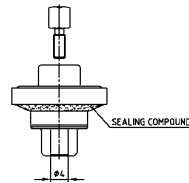
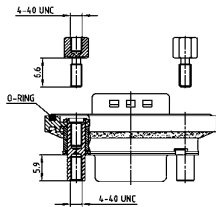
### DESCRIPTION

- 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 -0.75 | B1 -0.25 | B2 +0.25 | C   | D +0.2 |
|-------------|---------|----------|----------|---|--------|
| 9           | 31.19   | 16.46    | 16.79    | 25.00 <sup>+0.12</sup> / <sub>-0.13</sub> | 39.40  |
| 15          | 39.52   | 24.79    | 25.12    | 33.30 <sup>+0.15</sup> / <sub>-0.10</sub> | 47.70  |
| 25          | 53.42   | 38.50    | 38.84    | 47.04 <sup>+0.13</sup> / <sub>-0.10</sub> | 61.40  |
| 37          | 69.70   | 54.96    | 55.30    | 63.50 <sup>+0.13</sup> / <sub>-0.10</sub> | 77.90  |



### ORDER DATA

#### ADAPTER PLUG CONNECTOR - SOCKET CONNECTOR

| No. of pos. | Mounting style 4-40 UNC | Part Number       |
|-------------|-------------------------|-------------------|
| 09          | Threaded rear spacer    | 6 STD09AAA99B90 X |
| 15          | Threaded rear spacer    | 6 STD15AAA99B90 X |
| 25          | Threaded rear spacer    | 6 STD25AAA99B90 X |
| 37          | Threaded rear spacer    | 6 STD37AAA99B90 X |