Part Number Creator

	6 S T D O 9 S A M 9 9 B 3 O
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 * on request	
Variations STD = D-SUBMINIATURE, Standard HDD = D-SUBMINIATURE, High Density	
Position for STDPosition for HDD $09 = 9 \text{ pos.}$ $15 = 15 \text{ pos.}$ $15 = 15 \text{ pos.}$ $26 = 26 \text{ pos.}$ $25 = 25 \text{ pos.}$ $44 = 44 \text{ pos.}$ $37 = 37 \text{ pos.}$ $62 = 62 \text{ pos.}$ $50 = 50 \text{ pos.}$ $78 = 78 \text{ pos.}$	
Contact typeP= Plug connectorS= Socket connectorA= Adapter	
Quality class for contactsA= Quality class 3= 50 mating cyclesB= Quality class 2= 200 mating cyclesC= Quality class 1= 500 mating cycles	
TerminationM= Solder cupR= Solder pin, straightT= Solder pin, angled, .189"/4.80 mmU= Solder pin, angled, .276"/7.00 mmZ= Solder pin, angled, .465"/11.8 mmY= Solder pin, angled, .220"/5.60 mm (high density design only)A= Adapter	
Capacitance 99 = Without filter for STD and HDD	
Mounting styleA1= Riveted for wire assembly shell without sealing frameB2= M3 threaded insertB3= 4-40 UNC threaded insertB4= M3 front spacerB5= 4-40 UNC front spacerB7= 4-40 UNC front spacer and rear mounting studB8= M3 threaded lockB9= 4-40 UNC front spacerE1= M3 threaded rear spacer with PCB clip .063"/1.60 mm	 E2 = Threaded rear spacer with PCB clip, PCB 1,60 mm S1 = Metal bracket, M3 threaded insert S2 = Metal bracket, 4-40 UNC threaded insert S3 = Metal bracket, M3 threaded insert and PCB clip S4 = Metal bracket, 4-40 UNC threaded insert and PCB clip R1 = Metal bracket, M3 threaded insert R2 = Metal bracket, 4-40 UNC threaded insert R3 = Metal bracket, 4-40 UNC threaded insert R4 = Metal bracket, 4-40 UNC threaded insert and PCB clip R4 = Metal bracket, 4-40 UNC threaded insert and PCB clip
OX = Standard	

TECHNICAL DATA

Materials	D-Subminiature, Sta 9, 15, 25, 37 and 50	ndard) position	D-Subminiature, High Density 15, 26, 44, 62 and 78 position	
Insulator	Polyester GF UL94 V-0			
Contacts	CU alloy			
Contact plating	Gold plated over nickel			
Shell	Brass tin plated (Standard) Stainless steel on request			
Mechanical and electrical characteristics				
Test voltage U eff/NN	1000 V			
Working voltage	125 V ≈ depending on isolation coordination		60 V ≈ n (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 m Ω prior to stressing, Δ R max. 10 m Ω after stressing per DIN 41652, Part 2			
Insulation resistance	≥ 5 GΩ			
Clearance and creepage distance	contact – contact contact – earth	≥ .004"/1.0 mm ≥ .047"/1.2 mm	≥ .024″/0.6 mm	
Operating temperature	– 25 °C to + 105 °C			
Mating and unmating forces	9 pos. \leq 30 N15 pos. \leq 50 N25 pos. \leq 83 N37 pos. \leq 123 N50 pos. \leq 167 N		15 pos. \leq 50 N26 pos. \leq 84 N44 pos. \leq 120 N62 pos. \leq 70 N78 pos. \leq 200 N	
Quality class		B = Quality cla	ss 3 = 50 mating cycles ss 2 = 200 mating cycles ss 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. Protected against fixed foreign objects $\emptyset \ge 1.969''/50$ mm.	
2	Protected against access to hazardous parts with a finger. Protected against fixed foreign objects $\emptyset \ge .492'' / 12.5$ mm.	
3	Protected against access to hazardous parts with a tool. Protected against fixed foreign objects $\emptyset \ge .098'' / 2.5$ mm.	
4	Protected against access to hazardous parts with a wire. Protected against fixed foreign objects $\emptyset \ge .039''/1$ mm.	
5	Protected against access to hazardous parts with a wire. Dust protected.	Ingress of dust is not completely blocked. But dust may not penetrate to the extent that satisfactory operation of the device or safety is impaired.
6	Protected against access to hazardous parts with a wire. Dustproof. No ingress of dust.	
2. Code figure	Definition	Remark
0	Not protected	
1	Protected against dropper.	
2	Protected against dropper when the shell is tipped as much as 15°.	
3	Protected against spray water	Up to 60° of either side of the vertical, such spray water shall have no harmful effects.
4	Protected against splash water	On the shell from all directions, no harmful effects shall be incurred.
5	Protected against jets of water.	
6	Protected against strong jets of water.	
7	Protected against the effects of temporary submersion in water.	Water may not ingress in a volume that would cause harmful effects when the shell is submerged in water for 30 min at a depth of 1 m.
8	Protected against the effects of continuous submersion in water.	Water may not ingress in a volume that would cause harmful effects when the shell is continuously submerged in water under conditions agreed between manufacturer and user. However, these conditions must be more stringent than those described under code figure 7.
9k	Protected against water from high-pressure or steam cleaning.	
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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



AAAA





Rigid mount tolerance guide





Rigid mount vertical to tolerance guide



PANEL CUT-OUT_

Rear panel mounting IP67 D-SUB Connectors



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

Front panel mounting IP67 D-SUB Connectors



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.

Solder profile

Connector Tune	Preheating		Solder terminal dipping parameters	
Connector Type	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.