

SECTION 2

COMBINATION D-SUB CONNECTORS

Combination D-SUB Connectors provide the ideal solution for applications to require power, signal and coaxial connections within one connector. This series of connectors achieves space saving on PCB's and I/O designs.

Within this product family are various pin out configurations possible. Almost endless selections can be created mixing power, signal and coaxial contacts.



Examples are coaxial contacts handling frequencies up to 2 GHz. Power contacts from 10 amp to 40 amp current handling. Signal contacts in various styles complete the product offering.



Industry standard terminations types, solder cup, PCB contacts in straight and angled pin configurations. Crimp types and wire wrap contacts.

Here are just a few Product characteristics:

- Space savings on the PCB
- Different wire terminations are possible in a single connector
- Cost savings - mixed layout
- Insertable and removable coaxial, power, high voltage and signal contacts
- Precision machined contacts
- Various quality classes are available
- Wide product range

A wide range of standard pin configurations fully loaded with signal contacts are available. Specially configured contacts with power, coaxial and signal contacts can be constructed. Please use the Part Number Creator on page 2 | 2 and 2 | 3 or contact technical support at your closest CONEC office.



TECHNICAL DATA

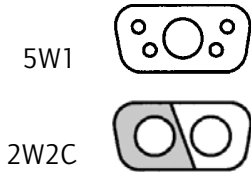
Standard version

Materials	Connector with signal contacts	Coaxial contacts	High power contacts	High voltage contacts
Insulator Green standard / black crimp	PBTP, GV (UL94 V-0)			
Shell	steel tin plated brass tin / stainless steel on request			
Contact plating	Gold plated over nickel			
Contact material	CU alloy			
Retaining clip	CU alloy			
Insulator		PTFE/PBTP/PI		PTFE
Mechanical and electrical characteristics				
Current rating	7,5A (UL) / 5A (CSA, VDE)			
Test voltage between 2 contacts contact and shell	1000 V, 50Hz 1 min.		1000 V, 50Hz 1 min.	
Resistance between mated contacts	max. 8 mΩ	max. 2.7 mΩ	max. 1 mΩ	max. 2.7 mΩ
Insulation resistance	≥5 GΩ	≥ 10 GΩ	≥ 5 GΩ	≥ 2x10 ⁷ MΩ
Volume resistivity	10 ¹⁶ Ωcm			
Dielectric impedance	50KV/mm			
Characteristic impedance		50/75 Ω		
VSWR-value at according MIL-C-39012	1.2GHz 1.5GHz 2.0GHz	≤1,2 ≤1,3 ≤1,5		
Dielectric voltage		750V 50Hz		3.8kV
Frequency range		0-2GHz		
Working voltage	250 V	250 V	250 V	max. 2.8kV
Temperature range	-55°C to +125°C			
Insertion force per contact	3.4N	7N	7N	5N
Extraction force per contact	0.2N	7N	approx. 5N	approx. 2.5N
Mating cycles	A = Quality class 3 = 50 mating cycles, B = Quality class 2 = 200 mating cycles, C = Quality class 1 = 500 mating cycles			

Technical specifications are subject to change without notice.

PIN CONFIGURATION – MATING SIDE OF SOCKET CONNECTOR

SHELL SIZE 1



SHELL SIZE 2



SHELL SIZE 3



SHELL SIZE 4



SHELL SIZE 5



Connectors 3W3, 5W5 and 8W8 with female insulators: Socket contacts are fingerprobe safe according to UL 1950 and CSA 22.2.950.

TECHNICAL INFORMATION

SKIN EFFECT

Alternating currents do not uniformly occupy the entire cross section of the conductor, rather inductance effect in the conductor deflects the current towards the surface of the conductor, whereby this deflection increases with the frequency.

The resistive attenuation of a transmission line increases with the frequency as a result of this skin effect.

The skin depth (equivalent thickness of the layer in which current flows) can be determined using

$$\delta = \frac{1}{\sqrt{f \pi \sigma \mu_0 \mu_r}}$$

f = frequency

σ = conductivity of the conductor material

$\sigma_{Ag} = 62 \times 10^6 \text{ S/m}$

$\sigma_{Cu} = 58 \times 10^6 \text{ S/m}$

$\mu_0 = 1,256 \cdot 10^{-6} \text{ Vs / Am}$

μ_r ... relative permeability constant for the employed material

VSWR-VALUE

The ratio between the value of the largest and the smallest voltages on a loss-free line is known as the ripple or voltage standing wave ratio s (where $1 \leq s < \infty$). The reciprocal value of the VSWR is known as the inverse voltage standing wave ratio m (where $0 < m \leq 1$).

(VSWR = Voltage standing wave ratio)

The value of s is linked with the → reflection coefficient r on s transmission line according to the equation

$$s = \frac{(1 + |r|)}{(1 - |r|)}$$

DERATING CURVE

Measurement is according to DIN 41640 part 3 whereas all power contacts are connected in series.

For test procedure – product-no. 3008W8SXX99A has been equipped with 132C11049X and 3008W8PXX99AA10X with 131C11049X.



MATING CONDITIONS

Float mount tolerance guide



Rigid mount tolerance guide

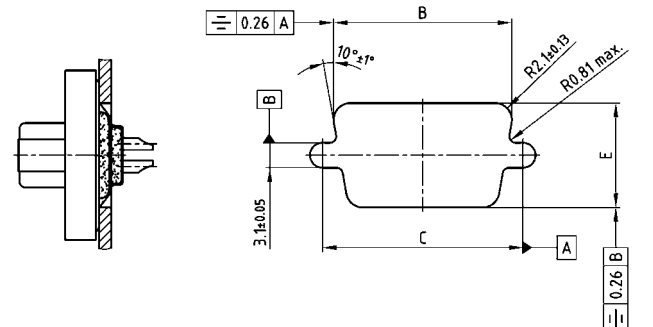
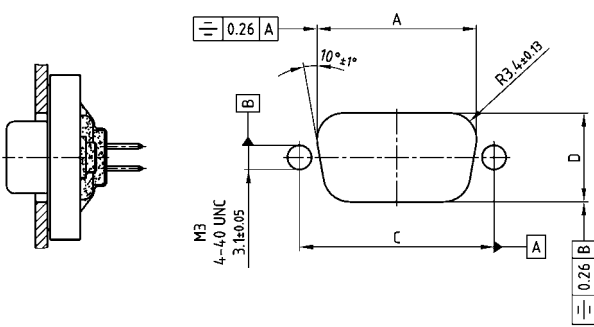


Rigid mount vertical to tolerance guide



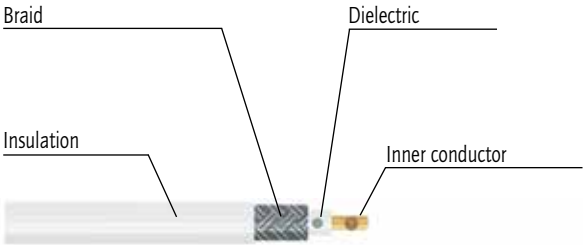
PANEL CUT-OUT

Rear panel mounting	Front panel mounting
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Shell size	A ± 0,13	B ± 0,13	C ± 0,13	D ± 0,13	E ± 0,13
1	20.50	22.20	25.00	11.40	13.00
2	28.80	30.50	33.30	11.40	13.00
3	42.50	44.30	47.04	11.40	13.00
4	59.10	60.70	63.50	11.40	13.00
5	56.30	58.30	61.10	14.10	15.80

CRIMPING INSTRUCTIONS FOR COAX CONTACTS



Strip the wire
Using dimensions shown on the
individual product drawings



Slide sleeve over coax cable



Crimp the inner contact on the
inner conductor



Snap the inner contact into
the outer contact



Slide braid over outer contact



Crimp the sleeve on to outer
contact

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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