

Amphenol

Amphenol-Tuchel Electronics GmbH

C 091 A/B/D Series Circular Connectors



C 091 D



Main Features

- Metal locking ring; screw locking according to DIN EN 60130-9 / IEC 60130-9
- Full metal construction
- Protection class IP 65 and IP 67
- Number of contacts: 3 – 8, 12 and 14 contacts
- Internal strain relief
- Good shielding effectiveness when mated and locked
- Male and female cable connectors
 - Straight or right angled
 - Solder connection: 3 – 8, 12 and 14 contacts
 - Crimp connection: 3 – 8 contacts
 - With cable glands for cable diameter 4 – 6 mm or 6 – 8 mm
- Male and female receptacles
 - Panel mount types for front or rear panel mounting
 - Pcb mount types, straight
 - With 4-hole flange
 - With dip solder contacts of various contact lengths
 - Solder connection: 3 – 8, 12 and 14 contacts
 - Crimp connection: 3 – 8 contacts
- UL registered under file number E 63 093 UL



UNDERWRITERS LABORATORIES INC.

¹⁾ In general approvals refer to representative versions of the connector series. Test report upon request.

C 091 D

Characteristics

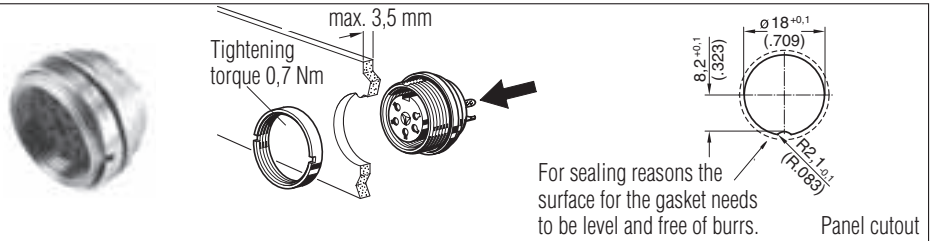
General Characteristics	Standard	Characteristics									
Number of contacts		3	4	5	5 Stereo	6	7	7	8	12	14
View on termination side of contact insert											
Contact arrangement acc. to DIN		41 524	–	–	41 524	45 322	–	45 329	45 326	–	–
Contact arrangement acc. to IEC		60130-9	60130-9	–	60130-9	60130-9	–	60130-9	60130-9	–	–
Electrical Characteristics											
Rated voltage	IEC 60664-1	300 V ≈			100V ≈	300 V ≈			100 V ≈		150 V ≈
Rated voltage	UL 1977	250 V								60 V	
Rated impulse withstand voltage	IEC 60664-1	1500 V			1200 V	1500 V			1200 V		
Pollution degree	IEC 60664-1	1									
Installation category	IEC 60664-1	I									
Insulation group	IEC 60664-1	II, 400 ≤ CTI < 600									
Current rating	IEC 60512-5-2 Test 5 b UL 1977	5 A / + 40 °C / + 104 °F please refer also to current derating curves page 45								3 A / + 40 °C / + 104 °F	
Insulation resistance	IEC 60512-3-1 Test 3 a	> 10 ¹⁰ Ω									
Contact resistance	IEC 60512-2-1 Test 2 a	< 5 m Ω									
Climatic Characteristics											
Climatic category	IEC 60668-1	40 / 100 / 56									
Temperature range	IEC 60668-1	- 40 °C ... + 100 °C / - 40 °F ... + 212 °F									
Mechanical Characteristics											
IP-degree	IEC 60529	IP 67 / IP 65									
Insertion and withdrawal forces	IEC 60512-13-2 Test 13 b	25 N 90.oz	30 N 110.oz	35 N 125.oz	50 N 180.oz	55 N 200.oz	60 N 220.oz	50 N 180.oz			
Mechanical operation	IEC 60512 Test 9 a	Silver ≥ 500 mating cycles Gold ≥ 1000 mating cycles									
Materials											
Housing material		die cast, nickel plated									
Dielectric material		thermoplastic									
Sealing material		neoprene									
Contact plating		silver plated / gold plated *									
Further Characteristics											
Termination technique		solder, crimp								solder	
Wire gauge		solder: ≤ 0,5 mm ² / 20 AWG crimp: 2 - 6 pol (excluding 5S): 0,09 - 1,00 mm ² / 28 - 18 AWG crimp: 5S, 7, 7S and 8-pol.: 0,09 - 0,75 mm ² / 28 - 20 AWG								≤ 0,25 mm ² /24 AWG	
Flammability		UL 94 V0									
Locking system	IEC 60130-9	metal screw coupling; tightening torque 0,5 - 0,7 Nm									
UL	UL 1977	Conditions of acceptability									

Caution: Do not connect or disconnect under load. Metal housing parts shall be securely incorporated to protected ground.

* **Remark for gold plated contacts:** In order to avoid brittle inter-metallic connections, gold-plated terminals have to be tin-plated in the solder area.

C 091 D

Female receptacle for rear mounting



Description	Drawing	No. of cont.	Part Number solder termination		Part Number Crimp termination ¹⁾		
			Contact plating silver	Contact plating gold ²⁾			
Female receptacle, termination: solder or crimp, contact plating: silver or gold, panel mounting with ring nut, sealing with O-Ring.		3 ³⁾	C091 31G003 100 2	–	C091 11G003 000 2		
		4 ³⁾	C091 31G004 100 2	C091 31G004 200 2	C091 11G004 000 2		
		5	C091 31G005 100 2	C091 31G005 200 2	C091 11G005 000 2		
		5S ³⁾	C091 31G105 100 2	–	C091 11G105 000 2		
		6 ³⁾	C091 31G006 100 2	–	C091 11G006 000 2		
		7	C091 31G007 100 2	C091 31G007 200 2	C091 11G007 000 2		
		7 ³⁾	C091 31G107 100 2	–	C091 11G107 000 2		
		8 ³⁾	C091 31G008 100 2	C091 31G008 200 2	C091 11G008 000 2		
		12	C091 31G012 100 2	C091 31G012 200 2	–		
		14	C091 31G014 100 2	C091 31G014 200 2	–		
		Female receptacle, termination: straight dip solder, contact plating: silver or gold, pin length 10,5 mm from flange, panel mounting with ring nut, sealing with O-Ring, solder area: tin plated.		3 ³⁾	C091 61G003 110 2	–	–
				4 ³⁾	C091 61G004 110 2	–	–
				5	C091 61G005 110 2	–	–
				5S ³⁾	C091 61G105 110 2	–	–
6 ³⁾	C091 61G006 110 2			C091 G006 210 2	–		
7	C091 61G007 110 2			–	–		
7 ³⁾	C091 61G107 110 2			–	–		
8 ³⁾	C091 61G008 110 2			–	–		
12	C091 61G012 110 2			C091 61G012 210 2	–		
14	C091 61G014 110 2			C091 61G014 210 2	–		
Female receptacle, termination: straight dip solder, contact plating: silver, pin length 14,5 mm from flange, panel mounting with ring nut, sealing with O-Ring, solder area: tin plated.				3 ³⁾	C091 61G003 120 2	–	–
				4 ³⁾	C091 61G004 120 2	–	–
				5	C091 61G005 120 2	–	–
				5S ³⁾	C091 61G105 120 2	–	–
		6 ³⁾	C091 61G006 120 2	–	–		
		7	C091 61G007 120 2	–	–		
		7 ³⁾	C091 61G107 120 2	–	–		
		8 ³⁾	C091 61G008 120 2	–	–		
		12	–	–	–		
		14	–	–	–		
		Female receptacle, termination: straight dip solder, contact plating: silver, pin length 19,5 mm from flange, panel mounting with ring nut, sealing with O-Ring, solder area: tin plated.		3 ³⁾	C091 61G003 130 2	–	–
				4 ³⁾	C091 61G004 130 2	–	–
				5	C091 61G005 130 2	–	–
				5S ³⁾	C091 61G105 130 2	–	–
6 ³⁾	C091 61G006 130 2			–	–		
7	C091 61G007 130 2			–	–		
7 ³⁾	C091 61G107 130 2			–	–		
8 ³⁾	C091 61G008 130 2			–	–		
12	–			–	–		
14	–			–	–		

¹⁾ Please order crimp contacts separately, see page 43

²⁾ see remark page 34

³⁾ Contact order for DIN EN 60 130-9

⁴⁾ Available upon request.