



Number of contacts	Standard	3	4	5	5	6	7	7	8	12	14	14	19	
Contact arrangement	IEC 61076-2-106	03-a	04-a	05-a	05-b	06-a	07-a	07-b	08-a	12-a	14-a	14-b	19-a	
Contact arrangement	IEC 60130-9 ¹⁾	yes		no		yes		no		yes				
Rated voltage ²⁾	IEC 60664-1	300 V (100 V)	300 V (63 V)	100 V (32 V)	300 V (63 V)	100 V (32 V)	100 V (32 V)	150 V (32 V)	60 V (32 V)					
Rated voltage	UL 1977	250V								60V				
Rated impulse withstand voltage ²⁾	IEC 60664-1	1500 V (1500 V)	1200 V (800 V)	1500 V (1500 V)					1200 V (800 V)					
Pollution degree ²⁾	IEC 60664-1	1 (3 ³⁾)												
Installation category	IEC 60664-1	I												
Insulation group	IEC 60664-1	II, 400 ≤ CTI < 600												
Current rating	IEC 60512-5-2 UL 1977	10A/+40°C			7A/+40°C					3A/+40°C				
Insulation resistance	IEC 60512-3-1	>10 ¹⁰ Ohm ⁴⁾												
Contact resistance	IEC 60512-2-1	<5mOhm												
Climatic category	IEC 60668-1	40 / 100 / 56												
Temperatur range	IEC 60668-1	-40°C...+100°C / -40°F...+212°F												
Salt spray resistance	DIN IEC 60068-2-11, test Ka	720h												
IP degree	IEC 60529	IP 69K / IP 67 / IP 65 (in mated condition)												
Insertion and withdrawal force	IEC 60512-13-2	25N	30N	35N	35N	50N	55N	55N	60N	50N	50N	50N	60N	
mechanical operation	IEC 60512-9-1	Silver ≥500 mating cycles / Gold ≥1000 mating cycles												
housing material		brass and / or zinc die cast, nickel plated												
dielectric material		thermoplastic												
sealing material		Chloroprene												
contacts		silver or gold plated												
termination technique		solder												
wire gauge		≤0,5mm ² / 20 AWG								≤0,35mm ² / 22 AWG				
flamability		UL 94 V0												
locking system	IEC 60130-9 DIN EN 61076-2-106	metal screw coupling; tightening torque 0,7 - 1,5 Nm												

	19 (19-a)	C091 31F019 101 2 U	C091 31F019 201 2 U
	14 (14-b)	C091 31F114 101 2 U	C091 31F114 201 2 U
	14 (14-a)	C091 31F014 101 2 U	C091 31F014 201 2 U
	12 (12-a)	C091 31F012 101 2 U	C091 31F012 201 2 U
	8 (08-a)	C091 31F008 101 2 U	C091 31F008 201 2 U
	7 (07-b)	C091 31F107 101 2 U	C091 31F107 201 2 U
	7 (07-a)	C091 31F007 101 2 U	C091 31F007 201 2 U
	6 (06-a)	C091 31F006 101 2 U	C091 31F006 201 2 U
	5 (05-b)	C091 31F105 101 2 U	C091 31F105 201 2 U
	5 (05-a)	C091 31F005 101 2 U	C091 31F005 201 2 U
	4 (04-a)	C091 31F004 101 2 U	C091 31F004 201 2 U
	3 (03-a)	C091 31F003 101 2 U	C091 31F003 201 2 U
	2 (Pin 1+3)	C091 31F002 101 2 U	C091 31F002 201 2 U

Contact arrangement View on mating side		Number of contacts (Contact arrangement acc. IEC 61076-2-106)		Part number-Ag		Part number-Au	
Gewicht (errechnet) / Calc WT: 71,2 g		Zul. Abw./Tolerances:		Maßstab / Scale: 1:1		A3	
Prüfmaß / Testdimension		ISO 2768-c		DIN / ISO 13715		CUSTOMER DRAWING	
Teileindex / Partindexnumber:		Gez. 19.08.2020		Drawn MCARLE		Female cable connector r/a	
Bagatelle change:		Status Released		Gepr. 07.09.2023		for cable diameter 6-8mm	
		Checked MCARLE		Name		Blatt/Sheet 1	
04 202300020 07.09.2023 MKELB		Amphenol Tuchel Industrial GmbH		M C091 31FXXX X01 2 U		1 Bl.	
03 202100006 01.03.2021 MCARL							
02 202000083 26.10.2020 MCARL							
Index Änderung/Description Datum/Date Name				Ers. f. l. Replacement for: M-C091 31FXXX X01 2 U Rev01		NXM-V04	

¹⁾ Edition 2000-05
²⁾ values in brackets are according to DIN EN 61076-2-106
³⁾ designed acc. pollution degree 2; can be used under pollution degree 3 when the rules of IEC 60644-1 are fulfilled
⁴⁾ under operating conditions >10⁸ Ohm

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.
 All technical data have been measured in a laboratory environment and can be different during practical usage of the product. Any product information is for descriptive usage only and not legally binding, particularly the information does not constitute or provide any legal guaranties ("Beschaffenheitsgarantie" or "Haltbarkeitsgarantie").

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