

M27 Signal Connectors • Series HC

Technical Data

Mechanical data:

Housing material:	Machined component: copper-zinc alloy (CuZn), die-cast part: zinc (GD-Zn)
Housing surface:	Nickel-plated
Insulating body:	Polyamide (PA 66); storage at 15 – 35 °C, 40 – 70 % rel. humidity
Contact material:	Copper-zinc alloy (CuZn)
Contact surface:	Nickel-plated (Ni) with gold layer (Au)
Contact connection type:	Solder cup, crimp versions, dip solder pin
Gasket and O-ring:	Fluorine rubber (FPM)
Flat gasket:	Perbunane (NBR); fluorine rubber (FPM)
Ambient temperature:	-20°C up to +125°C
Conductor entry:	EMC design for external cable diameters 2 – 14.5 mm
Locking method:	M27 screw locking
Mechanical insertion/ with drawal cycles:	Standard: 50, more upon request
Degree of protection:	IP67 in locked state

Electrical Data:

Number of positions	26	26 (25 + PE)	28
Contacts	26	25 + PE	28
Contact Ø [mm]	1	1	1
Conductor cross sections			
Solder connection max. [mm ²]	1.0	–	1.0
Crimp connection [mm ²]	0.08 – 1.0	0.08 – 1.0	–
Nominal current per contacts at 25 °C ¹⁾ [A]	8	8	8

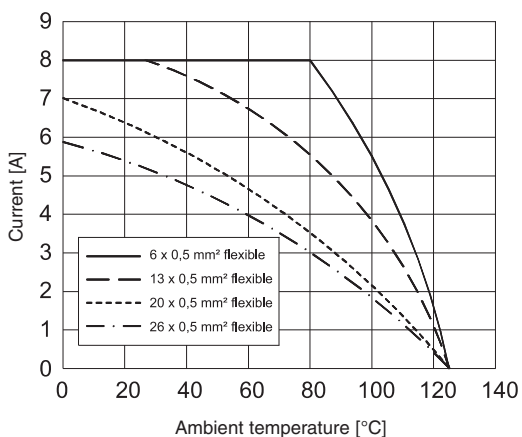
Data according to DIN EN 61984:2001

Nominal/operating voltage [V AC / DC]	150	150	150
Test/surge voltage [kV AC]	1.5	1.5	1.5
Surge voltage category	II	II	II
Contamination class ²⁾	3	3	3
Installation altitude [m]	up to 2000	up to 2000	up to 2000

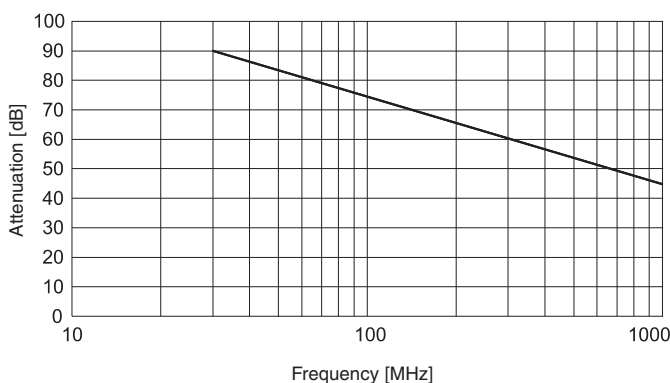
1) The effective current carrying capacity is to be determined via a derating curve depending on the application, if necessary.

2) The specified values assume that the connector pair is correctly locked and is only disconnected for testing and maintenance purposes. If the connector is unlocked and exposed to ambient conditions and if there is a danger of contamination, the connector must be sealed using a protective cap \geq IP54.

Derating curve based on DIN EN 60512-5-2 (26-pos. cable connector)



Shield attenuation curve based on DIN EN 50289-1-6



Unlike plugs, connectors must not be plugged in or unplugged under load.

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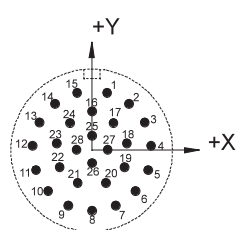
Pin assignments and coding

Number of positions	Contact chamber numbering (view of plug-in side)			
	Clockwise (standard)		Counter-clockwise (standard)	
	Male	Female		
26-pos. Solder/Crimp Dip solder (male only)				
26-pos. (25+PE) Crimp				
28-pos. Solder/ Dip solder (male only)				

The M27 signal connectors of the HC series can be provided for assembly with male or female contacts depending on the application. **For safety reasons, only female contacts may be used in the live part of the connector.**

PC Board layout 26-/28-pos. (dip solder contacts)

Deviation from center ± 0.1 mm



(X / Y)	(X / Y)	(X / Y)
Pos. 1 = (+1.95/ +7.47)	Pos. 11 = (-7.28/ -2.53)	Pos. 21 = (-1.83/ -4.17)
Pos. 2 = (+4.8 / +6.05)	Pos. 12 = (-7.7 / +0.6)	Pos. 22 = (-4.2 / -2.13)
Pos. 3 = (+6.82/ +3.65)	Pos. 13 = (-6.82/ +3.65)	Pos. 23 = (-4.55/ +0.97)
Pos. 4 = (+7.7 / +0.6)	Pos. 14 = (-4.8 / +6.05)	Pos. 24 = (-2.82/ +3.6)
Pos. 5 = (+7.28/ -2.53)	Pos. 15 = (-1.95/ +7.47)	Pos. 25 = (0 / +1.88)
Pos. 6 = (+5.67/ -5.2)	Pos. 16 = (0 / +5.03)	Pos. 26 = (0 / -1.6)
Pos. 7 = (+3.08/ -7.08)	Pos. 17 = (+2.82/ +3.6)	
Pos. 8 = (0 / -7.73)	Pos. 18 = (+4.55/ +0.97)	Pos. 27 = (+2.02/ +0.14)
Pos. 9 = (-3.08/ -7.08)	Pos. 19 = (+4.2 / -2.13)	Pos. 28 = (-2.02/ +0.14)
Pos. 10 = (-5.67/ -5.2)	Pos. 20 = (+1.83/ -4.17)	