



General Electrical Specifications

High Temperature MNR Series Connectors

All values listed are at ambient temperature ($+22 \pm 3^{\circ}\text{C}$) unless noted otherwise.

Working Voltage

150Vrms max. @ sea level
100Vrms max. @ 70,000 feet

Leakage Current

2mA max. @ 600Vrms

Insulation Resistance (500 Vdc test potential)

5000 M Ω min. @ ambient
10 M Ω min. @ 200° C

Contact Resistance

8 milliohms max. with the maximum potential across test sample of 20mV and maximum applied current of 10mA.

Note: The temperature coefficient of copper is +0.393 percent per degree C. That means if the temperature increases 1° C the resistance will increase 0.393% therefore this resistance change must be taken into consideration when designing for high temperature applications.

Contact Current Rating

3 amperes max. but variable depending on the wire size used and the number of wires in connector carrying current. See table 1 below. Values given in table are typical for a 200° C rated wire such as Teflon® (PTFE), in a hard vacuum of 1×10^{-6} torr.

Table 1 - Maximum Current by Wire Size (ambient)

Number Of Current-Carrying Contacts In Connector (Note 1)	Maximum Current Per Contact (A)			
	Wire Size (AWG)			
	24	26	28	30
1	3.0	2.5	1.5	1.3
2 - 4	2.5	2.0	1.4	1.1
5 - 14	2.0	1.8	1.2	0.9
15 and over	1.8	1.4	0.9	0.7

Note 1: The number of current carrying contacts shall not exceed 25% of the total connector contact population and must be evenly distributed within the connector.