Amphenol®

Standard M12 vs Max-M12 Connectors

Amphenol Corporation has offered a standard IEC 61076-2-101 compliant M12 connector for some time now. They were designed for use in sensor connections for Industrial Machinery, Factory Automation and other applications where a compact, reliable connection system with environmental protection was required.

Over time, the world has started to demand high speed datalink connections in extremely rugged or harsh environment applications. High speed data transmission connection systems have traditionally been implemented into commercial applications with little regard to high vibration, high temperature and overall harsh environmental demands, thus the SAE J 2839 compliant Max-M12 was born. Based on IEC 61076-2-101 and SAE J 2839 standards, the Max-M12 connection system is the perfect solution for the ultra rugged applications that sometimes exist in markets dealing with Heavy Equipment, Rail & Mass Transit, Process Control, Factory Automation, etc.

The differences between Amphenol Industrial Products Group's Max-M12 and a Standard M12 are highlighted below.

	Standard M12	Max-M12
Features:		
Circuit Count	4, 5, or 8	3, 4 or 5
Impact Resistant Shell		HDM 12 version
Protection Class	IP67	IP67 or Above
Current Rating	1.5A to 4A	4A max
Voltage Rating	30V AC/DC - 250V/AC or 300V/DC	60V AC/DC - 250V AC/DC
Operating Temperature	-25°C - +90°C	-55°C - +125°C -55°C - +150°C (with Viton Seals)
Contact Resistance	<=5 mΩ	<10mΩ
Insulation Resistance	>20 MΩ	>20 MΩ
SAE J 2839		✔
IEC 61076-2-101	✔	✔
-Note: the Max-M12 has a cable pull force of 444 N.		
Markets:		
Industrial Machinery	✔	✔
Factory Automation	✔	✔
Heavy Equipment		✔
Rail Mass Transit		✔
Process Control		✔

Standard M12

Max-M12