Amphenol®

Max-M12 Connector

Amphenol Industrial Products Group introduces our ruggedized M12 high speed data connector, the Max-M12. High speed data transmission connection systems have traditionally been implemented into commercial applications with little regard to high vibration, high temperature and overall harsh environment demands. With the increased implementation of these high speed Datalink connection systems into more heavy duty / harsh environment surroundings, the need for a more robust and ruggedized connection system has surfaced.

Based on the IEC 61076-2-101 and SAE J 2839 standards the Max-M12 connection system makes it 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.

Features:

- HDM 12 Versions Available
  - Plastic or Metal (for shielding)
  - 90° right angle and straight connector offerings
  - 3, 4, and 5 way circuit patterns
  - A, B, D & P polarity codes – based on IEC 61076-2-101
  - Terminals for solder to wire or pins for PCB applications
- Available as stand-alone connectors & cable assemblies (standard and overmolded)
- Terminals capable of being terminated to:
  - 0.8 mm2 (18 AWG) or 0.5 mm2 (20 AWG) conductors as defined by SAE J1128 and 0.75 mm2 and 0.50 mm2 conductors as defined by ISO 6722
- 444 N (100 LBF) pull force on cable
- Backward compatible with IEC 61076-2-101 (M12)
- More resistant to terminal damage
- Extreme environmental testing based on J2839 requirements
  - High pressure wash down
- Provisions for overall cable shield or drain wire to the connector plug housing
- RoHS compliant

Max-M12 Connector

SPECIFICATION		
Operating Voltage	5 pin - 60V AC/DC 3 & 4 pin - 250V AC/DC	IEC 60664
Current Rating	4A MAX.	IEC 60512 TEST 5B
Temperature Rating	-55ºC - +125ºC -55ºC - +150ºC (with Viton Seals)	SAE J2839, 4 . 2 . 3 . 13
Dielectric Withstanding Voltage	1000V	IEC 60512, TEST 4A
Insulation Resistance	>20 Megohms	SAE J2839, 4 . 2 . 3 . 3
Rated Impulse Voltage	1500V	IEC 60664-1
Contact Resistance	<10 mΩ	IEC 60512
Vibration, Sine	10 - 2000 Hz, 20g, <1 us	SAE J2839, 4 . 2 . 3 . 15
Shock, Half Sine	10 CYCLES, 50g, 11ms, <1 us	SAE J2839, 4 . 2 . 3 . 16
Temperature Life	1000H AT 125ºC + 3ºC	SAE J2839, 4 . 2 . 3 . 7
Durability	100 CYCLES MIN.	SAE J2839, 4 . 2 . 3 . 11
Salt Fog	240H	SAE J2839, 4 . 2 . 3 . 12
Protection Class	IP67 or Above	IEC 60529
Wire Gauge	0.5 mm2 (20AWG) or 0.8 mm2 (18AWG)/ 0.75 mm2	SAE J1128 / ISO 6722
Cable OD.	ø 12.7 MAX.	
Recommended Torque	M12 THREAD, 0.8 - 1.0 Nm	
Connector Retention	444 N MIN	SAE J2839, 4 . 2 . 3 . 20
Contact Retention	110 N MIN	SAE J2839, 4 . 2 . 3 . 18
Panel Thickness	1-6 mm	
Shell Plating	Nickel	

HOW TO ORDER

1	2	3	4	5	6	7	8	9	10	11
HDM12 +	P +	M +	05 +	D +	1 +	ST +	M +	V +	H +	P

1	2		3		4		5		6		7		8		9		10		11	
HDM12	P		M		05		D		1		ST		M		V		H		P	
Product Line	Shell Line		Gender		Insert Arrangement		Coding		Contact Finish		Backshell		Backshell Material		Seal		Voltage Rating		Contact Style	
HDM12	P	Plug	M	Male	03	3 Pole	A	A-Coding	1	Gold	ST	Straight	M	Metal	V	Viton Rubber Seal	H	240V AC/ DC	PR	PC Tail Contacts Right Angle
	R	Receptacle	F	Female	04	4 Pole	B	B-Coding	2	Silver	RA	Right Angle	P	Plastic		Omit for Standard Rubber Seal		Omit for Standard 60V AC/ DC	PS	PC Tail Contacts Straight
					05	5 Pole	D	D-Coding	4	Nickel	XX	No Backshell		Omit for no Backshell						Omit for Solder Contacts
							P	P-Coding												

Example Order: HDM12, Receptacle, Female, 4 Pole, A-Coding, Silver, Straight, Metal, Standard Rubber Seal, 240V AC/DC, Straight PC Tail Contacts: **HDM12 R F 04 A 2 ST M H PS**

Notice: Specifications are subject to change without notice. Contact your nearest Amphenol Corporation Sales Office for the latest specifications. All statements, information and data given herein are believed to be accurate and reliable but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied. Statements of suggestions concerning possible use of our products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should assume that all safety measures are indicated or that other measures may not be required. Specifications are typical and may not apply to all connectors.

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