



Max M12

Amphenol Max M12

Features & Benefits

- Plastic and metal versions available
- Right angle and straight versions available
- 3, 4, and 5way circuit patterns for all versions
- Codes A, B, D, and P. Additional Indexes available upon request
- Solder terminals in tin, nickel, silver, or gold
- Wire sizes— 18 AWG & 20 AWG
- Backward compatible with IEC 61076–2–101 (M12)
- 444 N (100 lbs.) pull force on cable in all directions for 1 minute minimum
- Rated for 250V AC/DC, 4.0A
- -55 to +125°C temperature range
- Vibration-resistant mounting nut
- High pressure wash down, IP67 or Above
- Upwards to 100 mating cycle capable
- More resistant to terminal damage
- Meets J2839



Standard M12 vs. Max M12

	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		✓

Max M12 Specification

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	-55°C - +125°C -55°C - +150°C (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 125°C ± 3°C	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 mm ² (20AWG) or 0.8 mm ² (18AWG)/ 0.75 mm ²	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	

Markets / Applications

Markets:

- Heavy Equipment
- Rail Mass Transit
- Mining
- Process Controls



Applications:

Industrial Process Measurement/Control
Sensors
Actuators
Electric motors
Console lights
Switches
Valves
Contactors
PLC (Programmable logic controllers)
Junction boxes
Manufacturing assembly lines

Controllers
Construction Machinery/Equipment
Agricultural Machinery/Equipment
Mining Machinery/Equipment
Navigation, GPS systems
Telematics applications
Factory Automation
Robotics
Scanners
Vehicle controls

How to Order

HDM12 P M 05 D 1 ST M (V)

LETTER DENOTING THE
TYPE OF CONNECTOR

PLUG
RECEPTACLE

P
R

MALE
FEMALE

M
F

INSERT ARRANGEMENT

03: 3 POLE
04: 4 POLE
05: 5 POLE

VITON RUBBER SEALS
OMIT FOR STANDARD
RUBBER SEALS

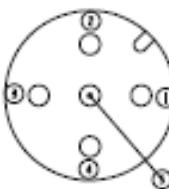
METAL BACK SHELL M

STRAIGHT ST
RIGHT ANGLE RA
NO BACKSHELL XX

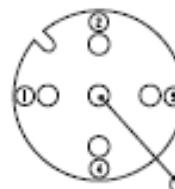
CONTACT FINISH:
GOLD 1 *
SILVER 2
NICKEL 4

CODING:
A-CODING A
B-CODING B
D-CODING D
P-CODING P

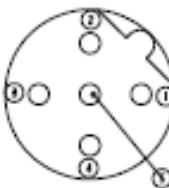
Male



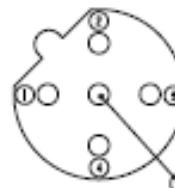
Female



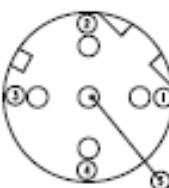
A - coding



B - coding

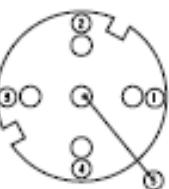


D - coding



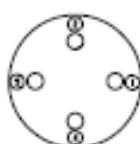
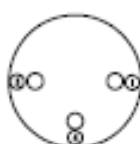
A circular component with six numbered holes (1-6) arranged in a hexagonal pattern. A diagonal line passes through holes 1, 3, and 5.

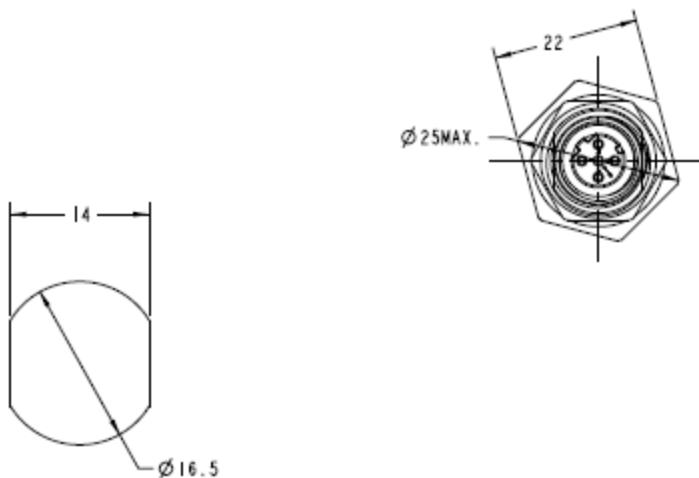
P - coding



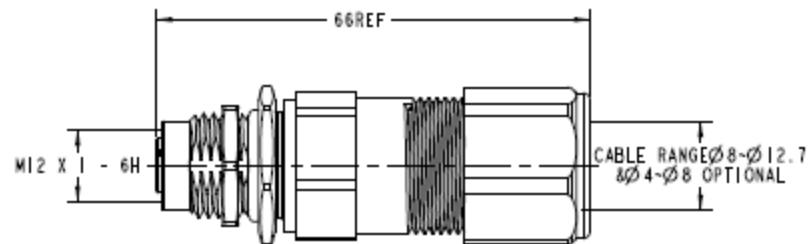
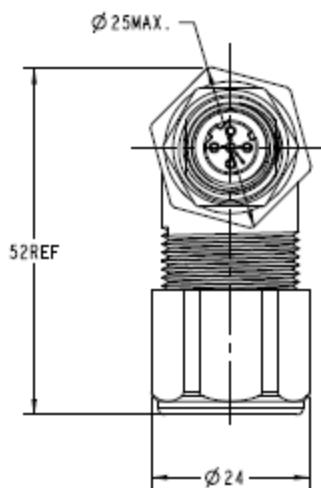
A circular component with six numbered holes (1-6) and a central slot. Hole 1 is at the top left, hole 2 is at the top, hole 3 is at the top right, hole 4 is at the bottom right, hole 5 is at the bottom, and hole 6 is at the bottom left. A central slot is located between hole 3 and hole 5.

Insert arrangement

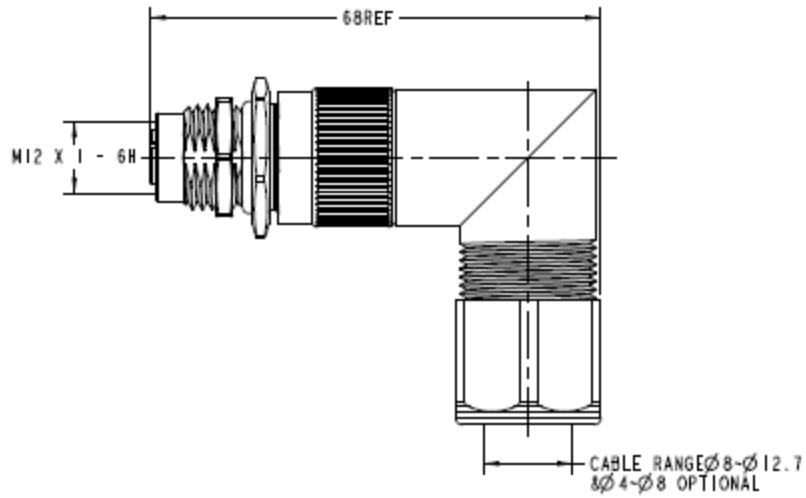




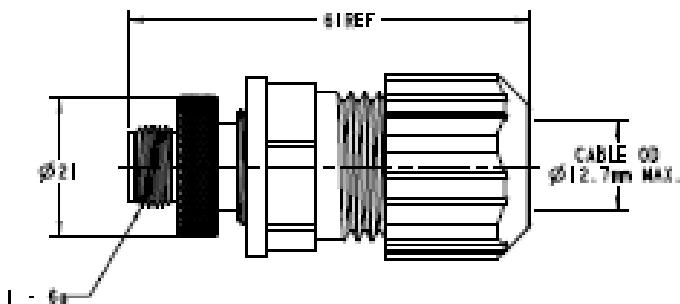
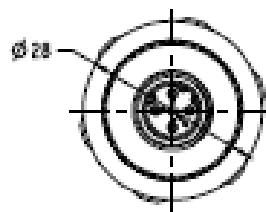
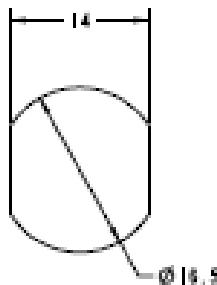
RECOMMENDATION PANEL CUT OUT



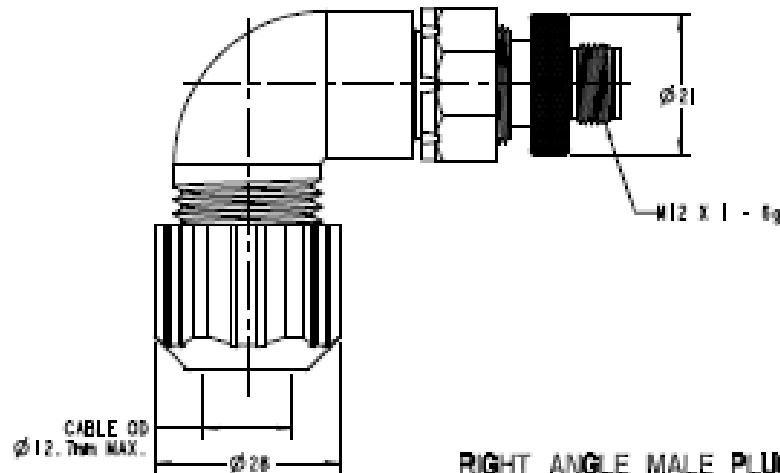
HDM12RFD1STM



HDM12RFD1RAM



STRAIGHT MALE PLUG



RIGHT ANGLE MALE PLUG

