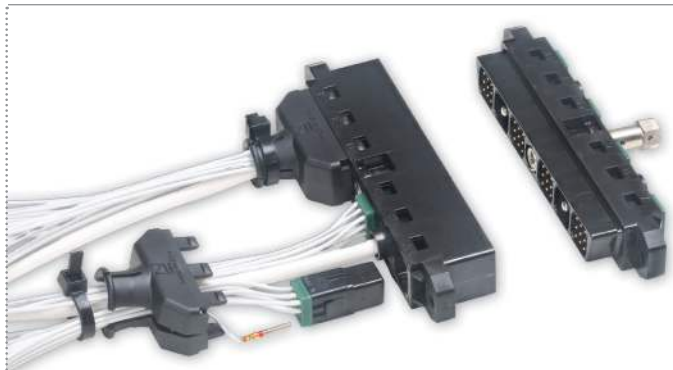


Amphenol LMD/LMS Modular Connectors



NO NEED FOR EXPENSIVE PC BOARDS AND HARDWARE

The LMD/LMS Connector Series was designed by Amphenol Pyle-National to provide flexibility in the assembly of wire harnesses that are used in instrumentation and avionic control environments. The modular design of the LMD provides rack and panel or cable to cable attachment. LMS allows an in-line splice using the same modules.

APPLICATIONS

- Cockpit
- Airline Seats/Power Distribution
- Interior Lighting / LED
- Aircraft Galley
- In-flight Entertainment
- Railway
- Heavy Equipment
- Business Jets

FEATURES

DESIGN FEATURES OF LMD CONNECTORS

An LMD Connector is comprised of a housing, modules and contacts - each ordered separately, requiring assembly

- Lightweight housings are offered black thermoplastic
- Four standard modules are available with the following contact arrangements: 1 #8, 4 #16, 9 #20, 16 #22
- Modules are available in sealed and unsealed versions
- Linear module design may be used for rack and panel or cable to cable applications
- Bussing modules available to allow for a plurality of circuit network configurations without extra hardware
- Diode modules provide a current protection system for avionic instrumentation packages and eliminate the need for dedicated PC boards and other hardware
- Miniature relay modules can be added which eliminate the need for printed circuit boards and hardware

LMD FEATURES AND OPTIONS

LMD's module options provide a mix of both active and passive devices within one connector. The features and options of this series describe the design flexibility in this connector series:

- LMD Standard components are molded of a U/L rated 94VO flame retardant, light-weight thermoplastic material. Alternate white nylon material (provides resistance to industrial oils and solvents) is available; consult Amphenol Aerospace for availability.
- The linear LMD connector may be used for rack and panel or cable-to-cable applications.
- Plug and receptacle housings may be front or rear panel mounted.
- Optional keying post provides six position keying capability.
- The optional center jackscrew provides ease of mating and unmating and insures high reliability under vibration.
- Cable strain reliefs are available for internal attachment.
- Variety of module types. Sealed and unsealed modules accept rear release #8, #16, #20 and #22 gauge contacts. Bussing, diode and relay modules available. PC tail contacts are also available.
- A variety of contacts accept #8 through #28 AWG wire. Commercially available automated crimp terminating equipment may be used.
- Wired or unwired modules are rear inserted and held by two retention tines. With the aid of a front release tool, the modules are easily removed from the rear.
- Pin or socket modules may be intermixed in plug or receptacle housings.

MATERIALS AND FINISHES

Housing	Thermoplastic
Module	Thermoplastic UL94VO
Retention Tines	Thermoplastic Nylon
Module Seals	Silicone
Contacts	Copper Alloy
Plating	50 microinches Gold Plate

ELECTRICAL DATA

Contact Data

CONTACT SIZE	WIRE SIZE	TEST CURRENT (AMPERES)	DIELECTRIC WITHSTANDING VOLTAGE AC (RMS)	MAX. RECOMMENDED WORKING VOLTAGE AC (RMS)
22	22	5.0	1800	600
	28	1.5		
20	20	7.5	1800	600
	24	3.0		
16	16	13.0	2300	900
	20	7.5		
8*	12	23	2300	900
	14	17		
8	8	46	2300	900
	10	33		

Wire sealing range

CONTACT SIZE	WIRE SIZE	CONTACT CRIMP TENSILE STRENGTH LBS. MIN.
22	28	3
	26	5
	24	8
	22	12
20	24	8
	22	12
	20	20
16	20	20
	18	30
	16	50
8*	14	70
	12	110
8	10	150
	8	220

*with #12 wire well

Contact Resistance of Mated Contacts End to-End

CONTACT SIZE	MAXIMUM MILLIVOLT DROP
22	73
20	55
16	49
8	26

MECHANICAL DATA

Temperature Rating	-55 °C to +140 °C (-67 °F to + 284 °F)
Insulation Resistance (min.)	5000 megohms initial: 1000 megohms after 96 hours humidity
Durability	250 cycles (mating and unmating)
Vibration	Maximum discontinuity of one microsecond when subjected to sinusoidal vibration of 10 to 2000 Hz at 15 gravity units
Physical Shock	Maximum discontinuity of one microsecond when subjected to 1/2 -sine-wave transient shock of 50 gravity units with pulse duration of 11 milliseconds
Module Insertion & Removal Force	5 lbs. maximum
Module Retention	70 lbs. minimum

CROSS SECTION

