LMD Modular Connectors

The LMD 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.

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 in two materials
  - standard black thermoplastic
  - high performance composite material for EMI shielding
  - white thermoplastic nylon material with increased solvent resistance
- 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 Receptacle and Plug

LMD Benefits

- Reduces assembly and production costs
- Eliminates costly PC board and associated hardware
- Reduces inventory levels and associated costs
- Allows for a variety of circuit configurations
- Permits ease of circuit upgrading
- Facilitates equipment maintenance

LMD Performance Characteristics

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

LMS Modular Connectors

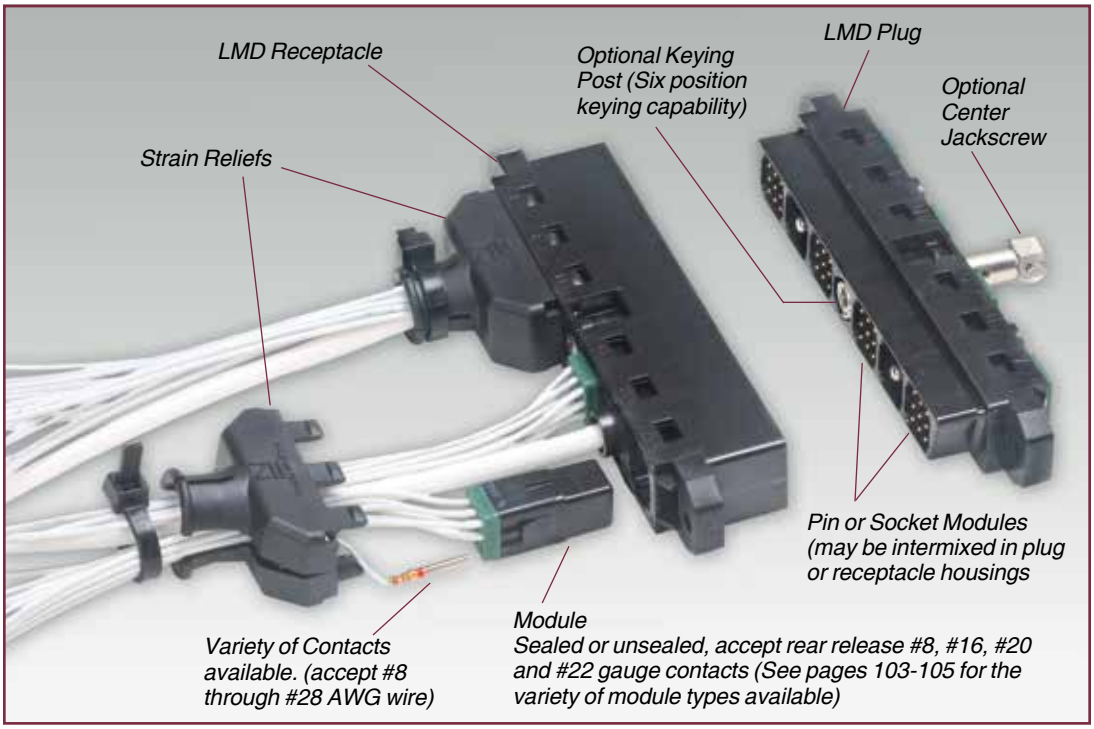
Supplementing the LMD connector family, Amphenol/Pyle National offers the LMS in-line splice connector; a low cost interconnects that incorporates the LMD modules and contacts.

- Standard LMS splice connector - 3-piece assembly with module removal tool access
- Tool-less splice connector - 3-piece assembly with a push-button module release for easy module removal
- Two-piece bracket available for panel mounting
- Used in wire harness, instrument and equipment terminations and test points



LMS Tool-less Splice Connector

FEATURES, OPTIONS & CONTACT DATA



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. (See page 107).
- 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; consult Amphenol Aerospace.
- 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. (See pg. 107).
- Pin or socket modules may be intermixed in plug or receptacle housings.

Contact Data

Contact Size	Wire Size	Contact Resistance		Dielectric Withstanding Voltage AC (RMS)	Max. Recommended Working Voltage AC (RMS)
		Test Current (amperes)	Max. Millivolts		
22	22 28	5.0 1.5	73 54	1800	600
20	20 24	7.5 3.0	55 45	1800	600
16	16 20	13.0 7.5	49 46	2300	900
8*	12 14	23 17	42 40	2300	900
8	8 10	46 33	26 28	2300	900

Contact Size	Wire Size	Contact Crimp Tensile Strength Lbs. Min.	Max. Wire Insulation
22	28 26 24 22	3 5 8 12	.054
20	24 22 20	8 12 20	.083
16	20 18 16	20 30 50	.103
8*	14 12	70 110	.255
8	10 8	150 220	.255

* with #12 wire well