



**The rugged ML-XT connection system with market-leading high-performance seal technology is a cost-competitive solution offering superior reliability for critical vehicle-wiring applications in harsh environments**

### Features and Advantages

Covalently interlocked one-piece plug housing and interfacial seal formed by 2-shot LSR (liquid silicone rubber) molding technology

Prevents fluid ingress; system is IP69K-rated and J2030 power-wash test capable  
Prevents loss/ misalignment of seal; ensures repeatable retention during unmating and mating of plug and receptacle

Drop in replacement for defacto-standard industry connectors

Achieves superior reliability without the need for costly re-design

Rear seals made from HCR (high consistency rubber)

Provides greater tear-resistance over LSR material; prevents damage to rear seal during terminal insertion/extraction

Latched rear covers lock-in rear HCR seals without exceeding the perimeter of the housings

Allows for flexible cable exits and cable movement whilst maintaining optimum seal position to prevent leak paths

Plug and receptacle housings are supplied pre-assembled with internal HCR rear seals and covers

Reduces inventory, assembly time and costs for harness manufacturers. Prevents loss of rear seals for a cost-competitive mated system

Stamped and Formed, and Solid Contact terminal options

Stamped and formed contacts provide a proven, standard, economic option. Solid contact option provides performance geared to larger wire sizes and heavy-duty applications

Plug housing features integral locking latch with finger grip

Enables easy handling and secure mating of plug and receptacle

Colour-coded housings available

Facilitates easy visual mating of harnesses to prevent mis-mating

### Specifications

#### REFERENCE INFORMATION

Packaging: Bags in Boxes

Terminal:

Stamped & Formed, 84525, 84524

Solid Contact: 93640, 93641

Designed In: Millimeters RoHS: Yes

Halogen Free: Yes

Cable Gauges: 1.40 to 2.80mm

2.70 to 3.60mm

#### ELECTRICAL

Voltage (max.): 500V DC

Current (max.): 13.0A

Contact Resistance:

30 milliohm max.

Insulation Resistance:

20 Megaohms min.

#### MECHANICAL

Contact Retention to Housing:

111N min.

Mating Force: 135N max.

Unmating Force: 135N max.

with latches disengaged

Durability (min.): 100 cycles

Operating Temperature:

-55 to +125°C

Sealed rating: IP69K and J2030 power-wash test capable

## ML-XT Sealed Connection System

93444 Receptacle

93447 Receptacle

Wedglock (TPA)

93445 Plug

93448 Plug Wedglock (TPA)



2-Circuit ML-XT System



3-Circuit ML-XT System



4-Circuit ML-XT System



6-Circuit ML-XT System



8-Circuit ML-XT System



12-Circuit ML-XT System



18-Circuit ML-XT System



Solid Contact Terminals



## Applications

### Commercial Vehicle

Agricultural machines  
Construction and mining equipment  
Forest and garden equipment  
Generator sets (Gensets)  
Search, detection and navigation equipment  
Trains and rail equipment  
Bus, coach, caravan  
Material handling equipment

### Military vehicles

### Marine

### Aeronautical

Commercial Aviation

### Automotive

Cars  
Motorcycles

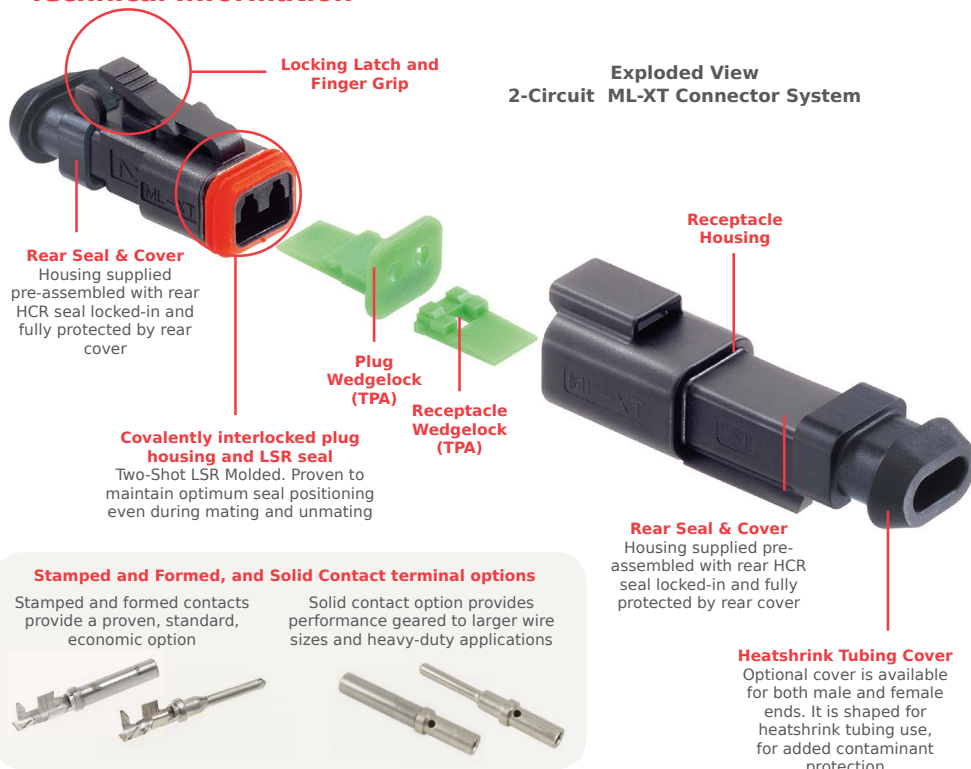
### Sealed Application Examples

Sensors – Electrical, fluid, velocity, magnetic, moisture, navigation, position angle, optical, pressure, proximity...  
Engine Control Units (ECUs)  
Airbag Control Units (ACUs)  
Diagnostics  
Alternators  
Starters  
Air conditioning  
Lights, lamps  
Pumps  
Power steering modules  
Alarms, horns  
Infotainment and telematics  
Electric seats  
Brakes  
Hydraulics

## ML-XT Sealed Connection System



## Technical Information



## Ordering Information

Circuits	Description	Series No.	Terminals	Wedgelock (Green†)
2, 3, 4, 6, 8, 12, 18	Receptacle Assembly‡	93444	84524 (Stamped and Formed) 93640 (Solid Contact)	93447
	Plug Assembly‡	93445	84525 (Stamped and Formed) 93641 (Solid Contact)	93448

Notes: ‡ Receptacle and plug assemblies include housing + rear seal locked-in by rear cover. Supplied pre-assembled.

† Green = standard coding. For other colours contact Molex.

[www.molex.com/link/mlxt.html](http://www.molex.com/link/mlxt.html)