



The high-performance, compact MXP120™ Sealed Connection System is designed to perform in harsh environments and can replace common 1.50mm systems in space-constrained in-line harness applications

The MXP120™ Sealed Connector System is a high-performance 1.20mm terminal in-line connection system for automotive and commercial vehicles. The use of 1.20mm terminals minimises the connector interface and connector package size versus larger 1.50mm terminals while offering more current carrying capacity and robustness in assembly than is possible with the use of 0.64mm terminal systems.

Connectors in yellow housings are validated to meet T3-V2-S2 performance level for in-vehicle safety system applications. Black housings with standard USCAR polarisation options will follow. These housings are being validated to meet T4-V4-S3 specifications (per GMW3191) for high-performance (temperatures up to 155°C / vibration up to 300 m/s²) for use in space-constrained powertrain applications.

New applications are also emerging in vehicle body-electronics for compact direct or in-line connections with lower performance requirements (125°C and 30 m/s² vibration resistance). These connectors will also be suitable for many industrial and consumer applications where sealing is required and package size is a constraint. For additional information visit: www.molex.com/link/120sealedconnections.html

Features and Benefits

4.00mm pitch connection system based on 1.20mm terminals	Meets medium-power application requirements up to 13.0A Suitable for most sealed harnessing applications
Single wire seal (SWS) connection system with robust perimeter seal	Withstands high-pressure spray environments
Reduced package size when compared to existing 1.50mm connection systems	Offers significant space-savings for confined design parameters
Accommodates wire gauges up to 1.00mm²	Limits connector pitch to 4.00mm with SWS
Compatible with AK and USCAR interfaces; designed using worldwide AK cavity definition	Confirms global acceptance and marketability
Female receptacles feature long shrouds for 1 by 4 circuit and above (short shrouds for below 4-circuit)	Ensures all circuit sizes and keying options are scoop proof
Female receptacles with Independent Secondary Locking (ISL) Male blade connectors with Primary Lock Reinforcement (PLR)	Ensures efficient terminal positioning and detection of partial installation of terminals
Female receptacles feature integral locking-latch with bridge protection and audible click	Secure mating performance Avoids damage to the latch during packaging and transit

MXP120™ Sealed Connector System

- 34900** Single-Row Receptacles
- 34899** Single-Row Blade Connectors



1 by 2-Circuit MXP120™ Sealed Connector System for Safety Applications



1 by 6-Circuit MXP120™ Sealed Connector System for Safety Applications

Applications

Sealed applications in automotive and commercial vehicles

Yellow Housings:

Safety Systems - T3-V2-S2 125°C
on-engine vibration

- Supplemental Inflatable Restraints (SIR)
- Safety Restraint Systems (SRS)
- Seat-belt pretensioners
- Airbags - steering wheel / side / curtain



In-vehicle safety systems

Specifications

REFERENCE INFORMATION

Packaging:

Housings – 4-cell bulk pack

Terminals – Reels

Use With:

Receptacle terminals – 1.2 LL SWS
from Tyco and Kostal

Blade terminals – 1.2 CB SWS
from Tyco

Designed In: Millimeters

RoHS: Yes

Halogen Free: Yes

ELECTRICAL

Voltage (max.): 500V DC

Current (max.): 13.0A

Contact Resistance:
8 milliohms max.

Dielectric Withstanding Voltage:
1000V AC min for 60sec.

Insulation Resistance:
100 Megohms min.

PHYSICAL

Housing: PA SPS resin

Operating Temperature:
-40 to +125°C

Flammability:

Per ISO3795 or GMW3191

Burn rate: 100mm/ Mn max.

Material self-extinguishing

Key Product Features



Integral latch provides excellent mating performance and audible click

Bridge protection guarantees optimal mating performance

Integral Locking Latch and Bridge Protection

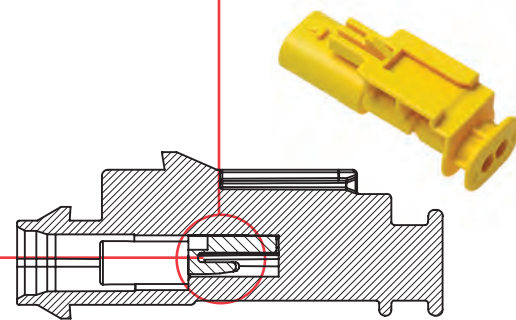


ISL improves terminal servicing, checks correct terminal position and reinforces primary terminal retention

Independent Secondary Locking (ISL)

Male blade connectors utilise a preassembled front-loaded PLR to minimise the number of components used, improve terminal servicing and reinforce terminal retention

PLR shown in the final lock position



Primary Lock Reinforcement (PLR)

Robust CPA design limits the risk of breakage or pre-seating of terminals prior to mating



Enlarged and Robust CPA for Superior Ergonomics

Receptacles and Blade Connectors:

Housing Colour Application	Circuits	Polarization	Color Coding	Receptacle Order No.	Male Blade Connector with 7mm Clip-Slot†
Yellow SIR	2	A	Black	34900-2001	34899-2010
		B	Light Grey	34900-2002	34899-2011
	6	A	Black	34900-6010	34899-6010
		B	Light Grey	34900-6011	34899-6011

† Custom clip-slots available upon request to Product Manager; volume depending

Future Target Applications

Black Housings:

Body electronics connections in wet areas (T3-V2-S2 - 125°C on-engine vibration):

- Exterior lighting
- Turn signals (indicators)
- Door-lock mechanisms

Powertrain (T4-V4-S3 - 155°C on-engine vibration, high-pressure jets)

- Fuel injection
- Emission controls
- Ignition coil



Additional circuit sizes for safety applications and further performance validation for a wider range of applications to follow