Mini50 Sealed Connector

Sealed Single-Row Connector

Now offering a sealed 4-circuit and 10-circuit option, the Mini50 sealed interface delivers 25% space savings over traditional sealed 0.64mm connectors, with smaller terminals to fit more low-current electrical circuits in sealed transportation-vehicle environments

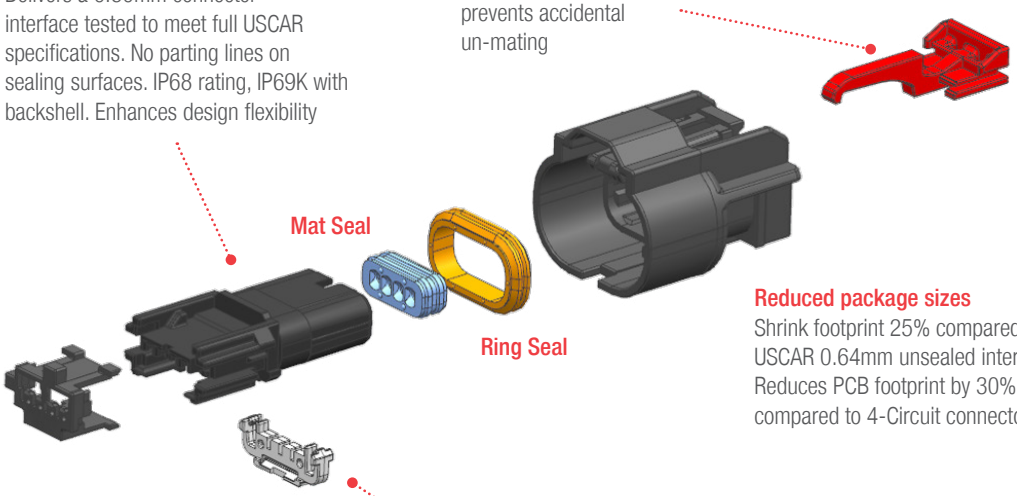
MX64 Sealed 1x4 (USCAR)

Mini50 Sealed 1x4

Features and Benefits

Sealed Receptacle
Delivers a 0.50mm connector interface tested to meet full USCAR specifications. No parting lines on sealing surfaces. IP68 rating, IP69K with backshell. Enhances design flexibility

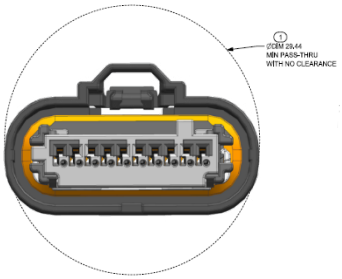
Optional CPA
Mating assurance feedback device that prevents accidental un-mating



Reduced package sizes
Shrink footprint 25% compared to USCAR 0.64mm unsealed interfaces. Reduces PCB footprint by 30% compared to 4-Circuit connectors

Polarization Options
Eliminates mating and assembly errors. Color-coded to correspond to polarity

Independent secondary lock (ISL) terminal-retention feature
Molds into the receptacle housing as one piece for applied cost savings



Rounded Shape
Allows for through-hole routing

Applications

Automotive and Transportation

- Power Steering
- Cameras
- Sensors (parking, radar, etc).
- Braking
- Exterior Lighting
- Mirrors

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Sealed Single-Row Connector

molex®

Specifications

REFERENCE INFORMATION

Packaging:
- Housings – Bulk pack
- Terminals – Reel and loose piece

Use With Terminals:
- Female Series 34905

Designed in: Millimeters

Dimensions:
- 1x4: Height 16.6; Length 18.4; Depth 28.0
- 1x10: Height 16.6; Length 29.2: Depth 28.0

PHYSICAL

Receptacle Housings: High Temperature Thermoplastic

Contact: Copper (Cu) Alloy

Plating:
- Contact Area — Tin (Sn) or Silver (Ag)
- Wire Gauge: 0.13mm² to 0.35mm²

Insulation Diameter: 1.40mm to 0.95mm²

Operating Temperature: -40 to +105°C

ELECTRICAL

Voltage (max.): 500V

Current (max.): 4.0A

Contact Resistance (max.): 20 Milliohms

Dielectric Withstanding Voltage (min.): 1500V AC

Isolation Resistance (min.): 100 Megohms

ELECTRICAL / MECHANICAL

Durability (max.): 20 milliohms
- Mating cycles (max.): 10

High-Temperature Exposure, 1008 hours
- (USCAR-2 , GMW3191):
- Post test resistance (max.) –
- 20 Milliohms @ 500V DC
- Isolation resistance (max.) – 100 Megaohms

Temp / Humidity Cycling, 240 hours
- (USCAR-2 , GMW3191):
- Post test resistance (max.) –
- 20 Milliohms @ 500V DC
- Isolation resistance (max.) – 100 Megohms
- Terminal Retention (min.) = 50N

Thermal Shock; class 2/3 300 cycles
- (USCAR-2 , GMW3191):
- Post test resistance (max.) –
- 20 Milliohms @ 500V DC
- Isolation resistance (max.) – 100 Megohms
- Terminal Retention (min.) = 30N

Vibration / Mechanical Shock (Not Coupled to Engine): (USCAR-2):
- Post test resistance (max.) –
- 20 Milliohms @ 500V DC

Vibration with Thermal Cycling / Mechanical Shock (Not Coupled to Engine): (GMW3191):

Post test resistance (max.) –
- 20 Milliohms @ 500V DC

Thermal Aging at Max Temp
1008 hours @ 125C

28kPa for 15 sec. min.
- Submersion for 30 minutes
- 1R 100Megaohms min @ 500V DC

ELECTRICAL / MECHANICAL

Current Capability: (USCAR-2, GMW3191):
- Temperature rise over ambient < 55C
- Post test resistance (max.) –
- 20 Milliohms @ 500V DC

Terminal – Connector Insertion Force
- (USCAR-2, GMW3191):
- Insertion Force (max.) = 5N
- Primary Retention Force (min.) = 20N
- Secondary Retention Force (min.) = 60N

Mating Force (USCAR-2, GMW3191)
- (max.): 45N (1x4)

Unmating Force (USCAR-2) (max.): 75N

Connector Drop Test: (USCAR-2):

Post test visual inspection

Polarization Feature Effectiveness (USCAR-2):

min = 3 * avg. mate force

SEALING

Sealing Class: 2 (IP68) without Backshell after 2 service cycles

Ordering Information

SEALED RECEPTACLES

Series No.	Component	Rows	Circuit Sizes
34967	Sealed Receptacles	Single	4 and 10

CTX50 SEALED TERMINALS

Series No.	Plating	Wire Gauge (mm²)	Wound Direction / Payoff Direction
34905	Tin or Silver	0.08 to 0.13	D=Left; B=Right
		0.22 to 0.35	

Note: Reference PS-34791-000 for all validated wire types.

www.molex.com/link/mini50.html

Order No. 987651-6273 USA/0k/GF/2017.07