

FEATURES AND SPECIFICATIONS



2.54mm (.100") Pitch MX64 Single Row Sealed Connectors

31402, 31403, 31404

MX64 Single Row Female Connectors Are Designed to USCAR-Approved Footprints and Meet USCAR Testing Requirements

Small and compact, the MX64 single row female connectors set the standard for 2.54mm (.100") pitch sealed connectors. Available sizes include the 1-by-2, 1-by-3, 1-by-4, 1-by-5, 1-by-6 and 1-by-8. These connectors also allow for the greatest level of flexibility by accommodating three different female terminal systems. These include the GET female terminal (Series 34230), commonly used at Ford Motor Company, the Kaizen female terminal, commonly used at General Motors and the MX64 female terminals (Series 33467 and 33468), commonly used at Daimler Chrysler and the general market. In addition, by working with USCAR to optimize the overall size of these connectors, Molex tooled the 1-by-4, 1-by-5, 1-by-6 and 1-by-8 parts to the USCAR-defined Z02 footprint resulting in up to a 25% size reduction in the mating interfaces.

For additional information on USCAR footprints and performance specifications, visit the USCAR website at www.USCARTEAMS.org.



Features and Benefits

- Meets all USCAR footprints and testing requirements for 0.64mm (.025") pitch square pin connector systems in compliance with OEM directives
- Ability to accommodate Ford, GM or DCX approved female terminals provides design flexibility
- Matte seal design eliminates secondary operation and costs associated with cable seals
- Available with or without CPA for added locking protection when CPA is used
- Accommodates 18-22 AWG wire and metric wires to support US or offshore wire requirements
- Circuit sizes 1-by-4, 1-by-5, 1-by-6 and 1-by-8 meet the USCAR Z02 optimized footprints and are up to 25% smaller in size as compared to the Z01 footprints
- Four polarization options available protect against mis-mating
- Special polarization color (black) in B, C, D configurations is available for use when earth-toned connectors (black, brown and gray) are used in high visibility packaging area

SPECIFICATIONS

Reference Information

Packaging: Bulk
Mates With: Sensors, other USCAR interfaces
Designed In: Millimeters
Recommended Automotive Applications:
31402 (Ford Motor)
31403 (Daimler Chrysler/General Market)
31404 (General Motors)

Electrical

Voltage: 250V
Current: 0.64mm (.025") Terminals – 7.0 to 10.0A
(depending on manufacturer of female terminals)
Dielectric Withstanding Voltage: DC500V
Resistance: 100 M Ω min.
Isolation: 20 M Ω min.

Mechanical

Insertion Force: Less than 75N (16.9 lb) per connector
Unmate Efforts: Less than 75N (16.9 lb) per connector
Connector Lock Strength: 110N (24.7 lb) min.
Female Terminal Retention: Greater than 75N (16.9) with the TPA engaged

Physical

Terminal Pitch:
Horizontal 2.54mm (.100");
Vertical 2.54mm (.100")
Housing: PBT + 30% Glass Filled
Female Terminals:
For 31402 Series use 34230 GET, Tin Plated
For 31403 Series use 33467 MX64, Gold Plated
or 33468 MX64, Tin plated
For 31404 Series, terminals are manufactured by Yazaki
Operating Temperature:
USCAR Class III -40 to +125°C

APPLICATIONS

- Automotive
 - Sensors
- Commercial
 - Sensors



Color Coded
Polarization Options



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1-by-2 Connectors

| Order No. | Description | Color | Terminal System Used |
|------------|--------------------------------|-------|-------------------------|
| 31402-2100 | 1x2 Polarization A without CPA | Black | GET 34230 Series |
| 31402-2200 | 1x2 Polarization B without CPA | Gray | GET 34230 Series |
| 31402-2300 | 1x2 Polarization C without CPA | Brown | GET 34230 Series |
| 31402-2400 | 1x2 Polarization D without CPA | Green | GET 34230 Series |
| 31402-2110 | 1x2 Polarization A with CPA | Black | GET 34230 Series |
| 31402-2210 | 1x2 Polarization B with CPA | Gray | GET 34230 Series |
| 31402-2310 | 1x2 Polarization C with CPA | Brown | GET 34230 Series |
| 31402-2410 | 1x2 Polarization D with CPA | Green | GET 34230 Series |
| 31403-2100 | 1x2 Polarization A without CPA | Black | MX64 33467/33468 Series |
| 31403-2200 | 1x2 Polarization B without CPA | Gray | MX64 33467/33468 Series |
| 31403-2300 | 1x2 Polarization C without CPA | Brown | MX64 33467/33468 Series |
| 31403-2400 | 1x2 Polarization D without CPA | Green | MX64 33467/33468 Series |
| 31403-2110 | 1x2 Polarization A with CPA | Black | MX64 33467/33468 Series |
| 31403-2210 | 1x2 Polarization B with CPA | Gray | MX64 33467/33468 Series |
| 31403-2310 | 1x2 Polarization C with CPA | Brown | MX64 33467/33468 Series |
| 31403-2410 | 1x2 Polarization D with CPA | Green | MX64 33467/33468 Series |
| 31404-2100 | 1x2 Polarization A without CPA | Black | Kaizen |
| 31404-2200 | 1x2 Polarization B without CPA | Gray | Kaizen |
| 31404-2300 | 1x2 Polarization C without CPA | Brown | Kaizen |
| 31404-2400 | 1x2 Polarization D without CPA | Green | Kaizen |
| 31404-2110 | 1x2 Polarization A with CPA | Black | Kaizen |
| 31404-2210 | 1x2 Polarization B with CPA | Gray | Kaizen |
| 31404-2310 | 1x2 Polarization C with CPA | Brown | Kaizen |
| 31404-2410 | 1x2 Polarization D with CPA | Green | Kaizen |

1-by-3 Connectors

| Order No. | Description | Color | Terminal System Used |
|------------|--------------------------------|-------|-------------------------|
| 31402-3100 | 1x3 Polarization A without CPA | Black | GET 34230 Series |
| 31402-3200 | 1x3 Polarization B without CPA | Gray | GET 34230 Series |
| 31402-3300 | 1x3 Polarization C without CPA | Brown | GET 34230 Series |
| 31402-3400 | 1x3 Polarization D without CPA | Green | GET 34230 Series |
| 31402-3110 | 1x3 Polarization A with CPA | Black | GET 34230 Series |
| 31402-3210 | 1x3 Polarization B with CPA | Gray | GET 34230 Series |
| 31402-3310 | 1x3 Polarization C with CPA | Brown | GET 34230 Series |
| 31402-3410 | 1x3 Polarization D with CPA | Green | GET 34230 Series |
| 31403-3100 | 1x3 Polarization A without CPA | Black | MX64 33467/33468 Series |
| 31403-3200 | 1x3 Polarization B without CPA | Gray | MX64 33467/33468 Series |
| 31403-3300 | 1x3 Polarization C without CPA | Brown | MX64 33467/33468 Series |
| 31403-3400 | 1x3 Polarization D without CPA | Green | MX64 33467/33468 Series |
| 31403-3110 | 1x3 Polarization A with CPA | Black | MX64 33467/33468 Series |
| 31403-3210 | 1x3 Polarization B with CPA | Gray | MX64 33467/33468 Series |
| 31403-3310 | 1x3 Polarization C with CPA | Brown | MX64 33467/33468 Series |
| 31403-3410 | 1x3 Polarization D with CPA | Green | MX64 33467/33468 Series |
| 31404-3100 | 1x3 Polarization A without CPA | Black | Kaizen |
| 31404-3200 | 1x3 Polarization B without CPA | Gray | Kaizen |
| 31404-3300 | 1x3 Polarization C without CPA | Brown | Kaizen |
| 31404-3400 | 1x3 Polarization D without CPA | Green | Kaizen |
| 31404-3110 | 1x3 Polarization A with CPA | Black | Kaizen |
| 31404-3210 | 1x3 Polarization B with CPA | Gray | Kaizen |
| 31404-3310 | 1x3 Polarization C with CPA | Brown | Kaizen |
| 31404-3410 | 1x3 Polarization D with CPA | Green | Kaizen |



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1-by-4 Connectors

| Order No. | Description | Color | Terminal System Used |
|------------|--------------------------------|-------|-------------------------|
| 31402-4100 | 1x4 Polarization A without CPA | Black | GET 34230 Series |
| 31402-4200 | 1x4 Polarization B without CPA | Gray | GET 34230 Series |
| 31402-4300 | 1x4 Polarization C without CPA | Brown | GET 34230 Series |
| 31402-4400 | 1x4 Polarization D without CPA | Green | GET 34230 Series |
| 31402-4110 | 1x4 Polarization A with CPA | Black | GET 34230 Series |
| 31402-4210 | 1x4 Polarization B with CPA | Gray | GET 34230 Series |
| 31402-4310 | 1x4 Polarization C with CPA | Brown | GET 34230 Series |
| 31402-4410 | 1x4 Polarization D with CPA | Green | GET 34230 Series |
| 31403-4100 | 1x4 Polarization A without CPA | Black | MX64 33467/33468 Series |
| 31403-4200 | 1x4 Polarization B without CPA | Gray | MX64 33467/33468 Series |
| 31403-4300 | 1x4 Polarization C without CPA | Brown | MX64 33467/33468 Series |
| 31403-4400 | 1x4 Polarization D without CPA | Green | MX64 33467/33468 Series |
| 31403-4110 | 1x4 Polarization A with CPA | Black | MX64 33467/33468 Series |
| 31403-4210 | 1x4 Polarization B with CPA | Gray | MX64 33467/33468 Series |
| 31403-4310 | 1x4 Polarization C with CPA | Brown | MX64 33467/33468 Series |
| 31403-4410 | 1x4 Polarization D with CPA | Green | MX64 33467/33468 Series |
| 31404-4100 | 1x4 Polarization A without CPA | Black | Kaizen |
| 31404-4200 | 1x4 Polarization B without CPA | Gray | Kaizen |
| 31404-4300 | 1x4 Polarization C without CPA | Brown | Kaizen |
| 31404-4400 | 1x4 Polarization D without CPA | Green | Kaizen |
| 31404-4110 | 1x4 Polarization A with CPA | Black | Kaizen |
| 31404-4210 | 1x4 Polarization B with CPA | Gray | Kaizen |
| 31404-4310 | 1x4 Polarization C with CPA | Brown | Kaizen |
| 31404-4410 | 1x4 Polarization D with CPA | Green | Kaizen |

1-by-5 Connectors

| Order No. | Description | Color | Terminal System Used |
|------------|--------------------------------|-------|-------------------------|
| 31402-5100 | 1x5 Polarization A without CPA | Black | GET 34230 Series |
| 31402-5200 | 1x5 Polarization B without CPA | Gray | GET 34230 Series |
| 31402-5300 | 1x5 Polarization C without CPA | Brown | GET 34230 Series |
| 31402-5400 | 1x5 Polarization D without CPA | Green | GET 34230 Series |
| 31402-5110 | 1x5 Polarization A with CPA | Black | GET 34230 Series |
| 31402-5210 | 1x5 Polarization B with CPA | Gray | GET 34230 Series |
| 31402-5310 | 1x5 Polarization C with CPA | Brown | GET 34230 Series |
| 31402-5410 | 1x5 Polarization D with CPA | Green | GET 34230 Series |
| 31403-5100 | 1x5 Polarization A without CPA | Black | MX64 33467/33468 Series |
| 31403-5200 | 1x5 Polarization B without CPA | Gray | MX64 33467/33468 Series |
| 31403-5300 | 1x5 Polarization C without CPA | Brown | MX64 33467/33468 Series |
| 31403-5400 | 1x5 Polarization D without CPA | Green | MX64 33467/33468 Series |
| 31403-5110 | 1x5 Polarization A with CPA | Black | MX64 33467/33468 Series |
| 31403-5210 | 1x5 Polarization B with CPA | Gray | MX64 33467/33468 Series |
| 31403-5310 | 1x5 Polarization C with CPA | Brown | MX64 33467/33468 Series |
| 31403-5410 | 1x5 Polarization D with CPA | Green | MX64 33467/33468 Series |
| 31404-5100 | 1x5 Polarization A without CPA | Black | Kaizen |
| 31404-5200 | 1x5 Polarization B without CPA | Gray | Kaizen |
| 31404-5300 | 1x5 Polarization C without CPA | Brown | Kaizen |
| 31404-5400 | 1x5 Polarization D without CPA | Green | Kaizen |
| 31404-5110 | 1x5 Polarization A with CPA | Black | Kaizen |
| 31404-5210 | 1x5 Polarization B with CPA | Gray | Kaizen |
| 31404-5310 | 1x5 Polarization C with CPA | Brown | Kaizen |
| 31404-5410 | 1x5 Polarization D with CPA | Green | Kaizen |



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1-by-6 Connectors

| Order No. | Description | Color | Terminal System Used |
|------------|--------------------------------|-------|-------------------------|
| 31402-6100 | 1x6 Polarization A without CPA | Black | GET 34230 Series |
| 31402-6200 | 1x6 Polarization B without CPA | Gray | GET 34230 Series |
| 31402-6300 | 1x6 Polarization C without CPA | Brown | GET 34230 Series |
| 31402-6400 | 1x6 Polarization D without CPA | Green | GET 34230 Series |
| 31402-6110 | 1x6 Polarization A with CPA | Black | GET 34230 Series |
| 31402-6210 | 1x6 Polarization B with CPA | Gray | GET 34230 Series |
| 31402-6310 | 1x6 Polarization C with CPA | Brown | GET 34230 Series |
| 31402-6410 | 1x6 Polarization D with CPA | Green | GET 34230 Series |
| 31403-6100 | 1x6 Polarization A without CPA | Black | MX64 33467/33468 Series |
| 31403-6200 | 1x6 Polarization B without CPA | Gray | MX64 33467/33468 Series |
| 31403-6300 | 1x6 Polarization C without CPA | Brown | MX64 33467/33468 Series |
| 31403-6400 | 1x6 Polarization D without CPA | Green | MX64 33467/33468 Series |
| 31403-6110 | 1x6 Polarization A with CPA | Black | MX64 33467/33468 Series |
| 31403-6210 | 1x6 Polarization B with CPA | Gray | MX64 33467/33468 Series |
| 31403-6310 | 1x6 Polarization C with CPA | Brown | MX64 33467/33468 Series |
| 31403-6410 | 1x6 Polarization D with CPA | Green | MX64 33467/33468 Series |
| 31404-6100 | 1x6 Polarization A without CPA | Black | Kaizen |
| 31404-6200 | 1x6 Polarization B without CPA | Gray | Kaizen |
| 31404-6300 | 1x6 Polarization C without CPA | Brown | Kaizen |
| 31404-6400 | 1x6 Polarization D without CPA | Green | Kaizen |
| 31404-6110 | 1x6 Polarization A with CPA | Black | Kaizen |
| 31404-6210 | 1x6 Polarization B with CPA | Gray | Kaizen |
| 31404-6310 | 1x6 Polarization C with CPA | Brown | Kaizen |
| 31404-6410 | 1x6 Polarization D with CPA | Green | Kaizen |

1-by-8 Connectors

| Order No. | Description | Color | Terminal System Used |
|------------|--------------------------------|-------|-------------------------|
| 31402-8100 | 1x8 Polarization A without CPA | Black | GET 34230 Series |
| 31402-8200 | 1x8 Polarization B without CPA | Gray | GET 34230 Series |
| 31402-8300 | 1x8 Polarization C without CPA | Brown | GET 34230 Series |
| 31402-8400 | 1x8 Polarization D without CPA | Green | GET 34230 Series |
| 31402-8110 | 1x8 Polarization A with CPA | Black | GET 34230 Series |
| 31402-8210 | 1x8 Polarization B with CPA | Gray | GET 34230 Series |
| 31402-8310 | 1x8 Polarization C with CPA | Brown | GET 34230 Series |
| 31402-8410 | 1x8 Polarization D with CPA | Green | GET 34230 Series |
| 31403-8100 | 1x8 Polarization A without CPA | Black | MX64 33467/33468 Series |
| 31403-8200 | 1x8 Polarization B without CPA | Gray | MX64 33467/33468 Series |
| 31403-8300 | 1x8 Polarization C without CPA | Brown | MX64 33467/33468 Series |
| 31403-8400 | 1x8 Polarization D without CPA | Green | MX64 33467/33468 Series |
| 31403-8110 | 1x8 Polarization A with CPA | Black | MX64 33467/33468 Series |
| 31403-8210 | 1x8 Polarization B with CPA | Gray | MX64 33467/33468 Series |
| 31403-8310 | 1x8 Polarization C with CPA | Brown | MX64 33467/33468 Series |
| 31403-8410 | 1x8 Polarization D with CPA | Green | MX64 33467/33468 Series |
| 31404-8100 | 1x8 Polarization A without CPA | Black | Kaizen |
| 31404-8200 | 1x8 Polarization B without CPA | Gray | Kaizen |
| 31404-8300 | 1x8 Polarization C without CPA | Brown | Kaizen |
| 31404-8400 | 1x8 Polarization D without CPA | Green | Kaizen |
| 31404-8110 | 1x8 Polarization A with CPA | Black | Kaizen |
| 31404-8210 | 1x8 Polarization B with CPA | Gray | Kaizen |
| 31404-8310 | 1x8 Polarization C with CPA | Brown | Kaizen |
| 31404-8410 | 1x8 Polarization D with CPA | Green | Kaizen |

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