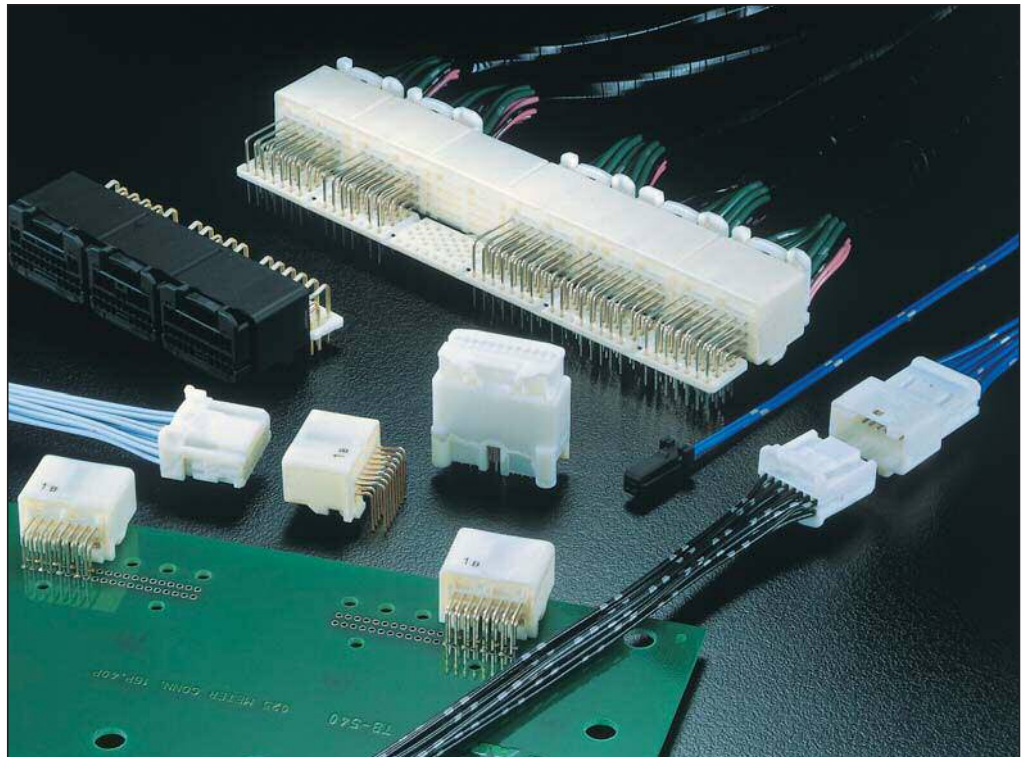


Introduction



Highlights

- Automotive connector series: 30% smaller size than the existing .040 III connectors and designed to resist fretting corrosion.

Product Features

- .025 Connectors with a full range of product lines.
- .025 Connectors were designed to provide better connections and performance while securing higher density in limited spaces as required in advanced electronic automotive control systems.
- .025 Connectors feature a pitch of just 2.2 mm, compared to the current standard pitch of 2.5 mm. This small pitch can help customers reduce space and weight.
- Another feature is a unique contact design to resist fretting corrosion effectively while employing a lower contact force. As a result, the low insertion force of .025 Connectors allows a lower connector mating force while offering high density for easy handling.
- .025 Connectors are available in a full range from 2 to 200 positions, assuring customers a wide choice of products.

Advantages

- Contact Pitch: 2.2 mm
- No. of Positions: 2 to 200
- Connector Mating Force: Max. 70 N
- To meet smaller space requirements
- Combination of .025/.040 and .025/.090 available

Applications

- Wire-to-Wire and Wire-to-Board/ECU Applications

Receptacle Contacts

Technical Features

Temperature Range:
-30 °C up to +105 °C

Dielectric Strength:
1000 V AC / 1 min.

Insulation Resistance:
>100 MΩ

Contact Material Receptacle:
Copper-Alloy

Tab:
Brass

Plating:
Pre-tinned and selective gold

Connector Mating Force:
Max. 70 N

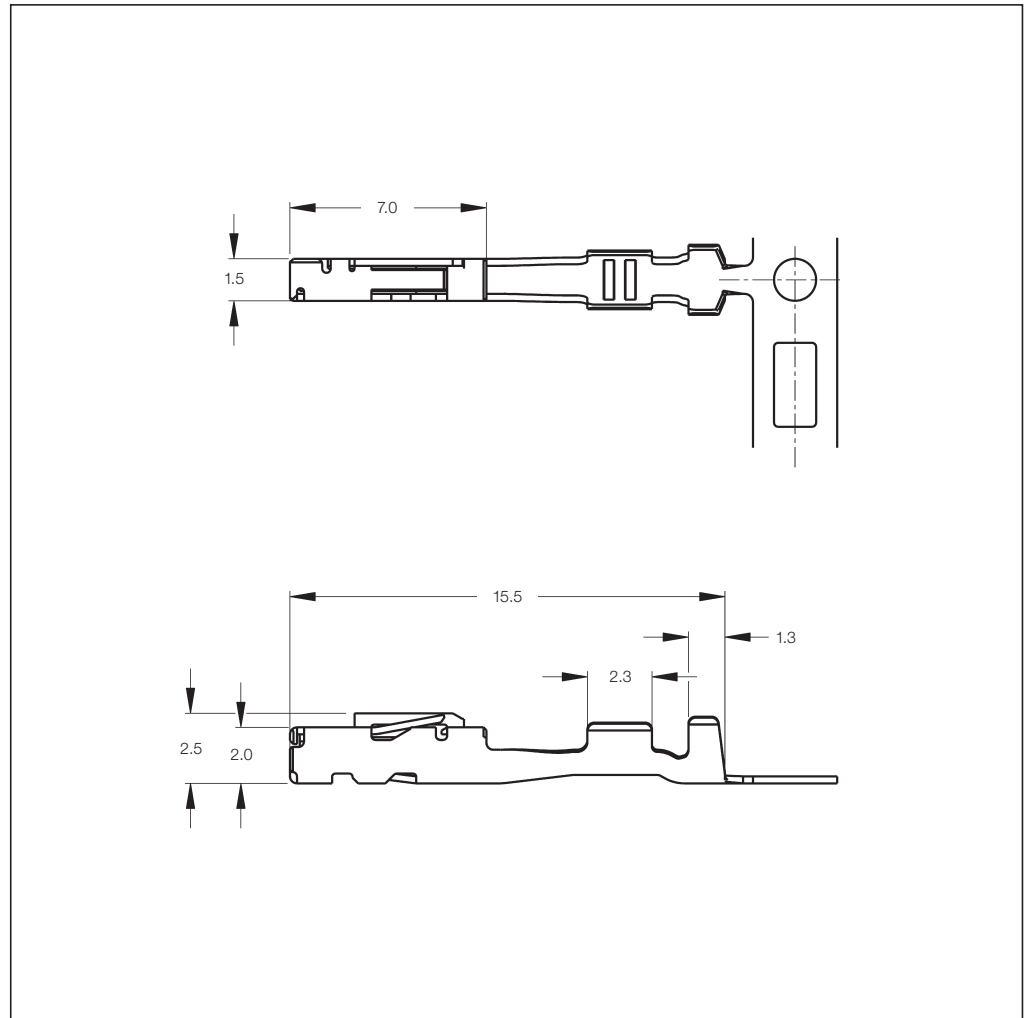
Contact Retention Force:
Min. 100 N (Secondary Lock)

Extraction Tool:
Part No. **1276565-1**

Instruction Sheet:
411-5966-1

Product Specifications:
108-5664 (.025 Conn. 1 Row)
108-5668 (.025 Conn. 2 Row)
108-5674 (.025/.040 Conn.)
108-5677 (.025/.090 Conn.)

Application Specification:
114-5250 (Receptacle Contact)



Receptacle Contacts

| Wire Size Range | Insulation Diameter | Material and Finish * | Part Numbers | | | | Applicator | Hand Tool with Die Set |
|----------------------|--------------------------|--|--------------|------------------|-------------|------------------|------------|------------------------|
| | | | Strip Form | Package Quantity | Loose-Piece | Package Quantity | | |
| 0.22-0.50 (24-20) | 0.95-1.70 (.037-.067) | Copper alloy, pre-tin plated | 1123343-1 | - | 1318143-1 | - | 937762 | 1463260-1 |
| | | Copper alloy, selective gold plated | 1123343-2 | - | 1318143-2 | - | | |

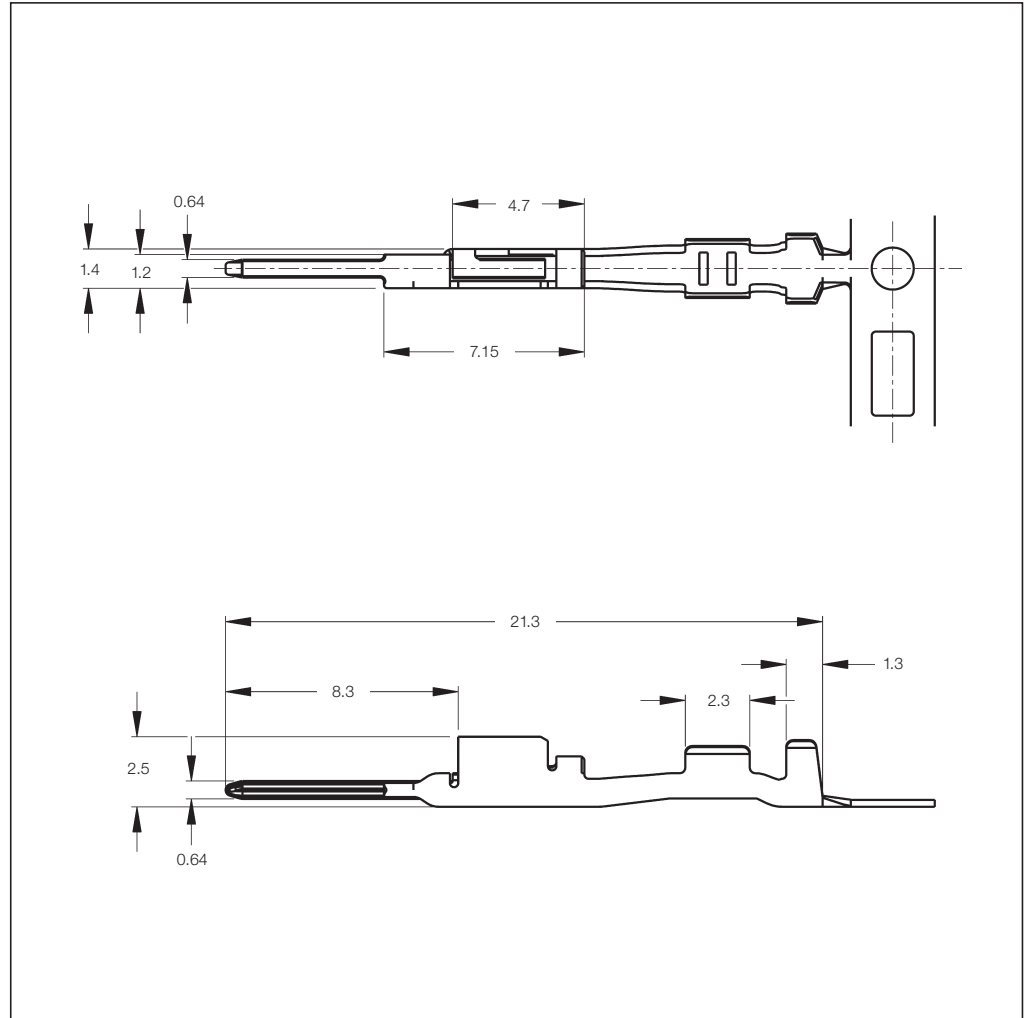
Tab Contacts

**Tab 0.64 x 0.64 mm,
Mates with .025 (0.64 mm)
Receptacle Contact**

Extraction Tool:
Part No. **1366865-1**
Instruction Sheet:
411-5966-1

Product Specifications:
108-5664 (.025 Conn. 1 Row)
108-5668 (.025 Conn. 2 Row)
108-5674 (.025/.040 Conn.)
108-5677 (.025/.090 Conn.)

Application Specification:
114-5291 (Tab Contact)



Tab Contacts

| Wire Size Range | Insulation Diameter | Material and Finish * | Part Numbers | | | | Applicator | Hand Tool with Die Set |
|--------------------|------------------------|--|--------------|------------------|-------------|------------------|------------|------------------------|
| | | | Strip Form | Package Quantity | Loose-Piece | Package Quantity | | |
| 0.3-0.5 (22-20) | 1.1-1.7 (.043-.067) | Copper alloy, pre-tin plated | 1376109-1 | - | 1376607-1 | - | 1366787-2 | 1463260-1 |
| | | Copper alloy, selective gold plated | 1376109-2 | - | 1376607-2 | - | | |

Engineering Notes

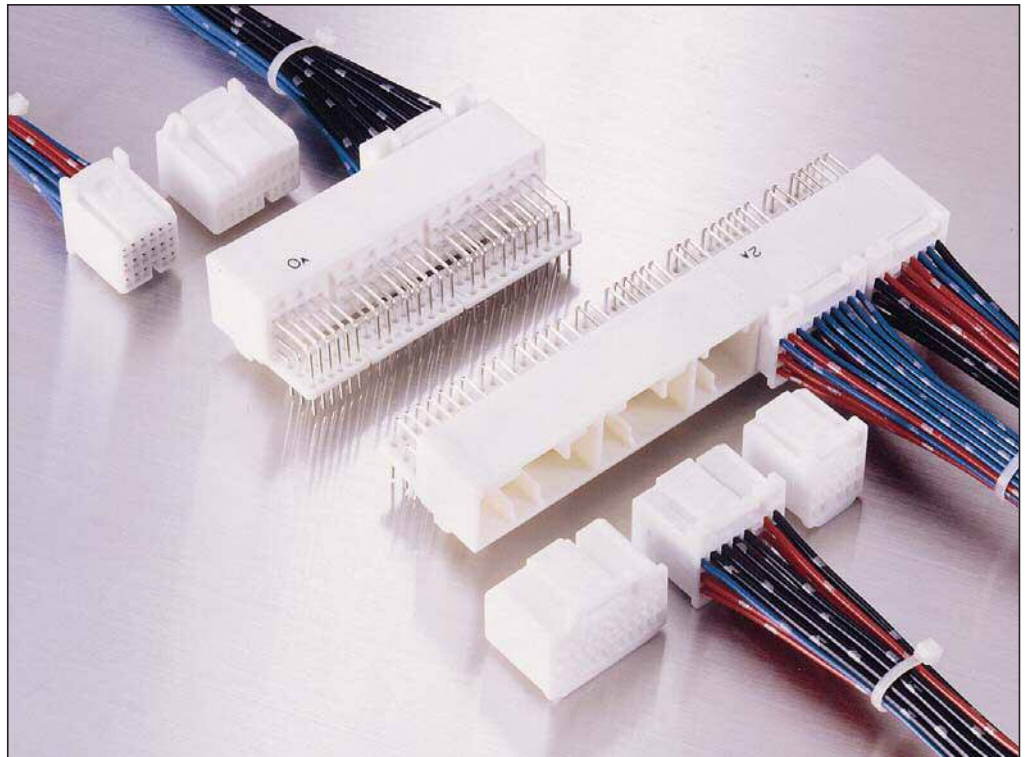


Introduction

.040 Mark II and Mark III Receptacle Contacts

.040 MULTILOCK Connector Series

Both .040 Mark II and Mark III receptacle contacts are designed to improve Kojiri protection and to provide better secondary locking design with side lock from hinge type (Original .040 receptacle contacts).



Product Features

- .040 Mark II and Mark III receptacle contacts are designed to improve the original .040 receptacle ones in along with their connector housings design improvements in MULTILOCK connectors.
- Better Kojiri Protection Design.
- Pre-tinned and selective gold plating available.
- To provide a higher contact retention force with side lock design for secondary locking.
- Base material of .040 Mark III receptacle contacts is employed with a higher heat resistance to improve anti-creep characteristics.
- .040 Mark III receptacle contacts have its unique contact design inside to avoid its contact points by stabbing of tab contacts.
- .040 Mark II and Mark III can be compatible with their connector series.

Advantages

- Contact Pitch: 2.5 mm
- Lower Contact Insertion Force: 4 N Max. (Gold), 6 N Max. (Tin)
- Better Kojiri Protection
- Higher Secondary Locking Force applied

Applications

Wire-to-Board/ECU Applications

Application for .040 Contacts

- .040 Mark II Connectors
- .040 Mark II/.070 Mark II Hybrid (108-5452)
- .040 Mark III I/O Connectors (108-5529)

Remarks:

Key design feature of contacts

.040 Mark II:

- Better Kojiri Protection
- Secondary Locking (side lock) is applied with a higher contact retention force

.040 Mark III:

- Better Kojiri Protection
- Secondary Locking (side lock) is applied with a higher contact retention force
- Base material of the contact provides higher heat resistance with anti-creep characteristics

Receptacle Contacts – Mark II

Technical Features

Temperature Range:
-40 °C up to +120 °C

Dielectric Strength:
1000 V AC / 1 min.

Insulation Resistance:
>100 MΩ Min.

Contact Material:
Copper-Alloy

Contact Plating:
Pre-tinned and selective gold

Lance:
Housing lance applied

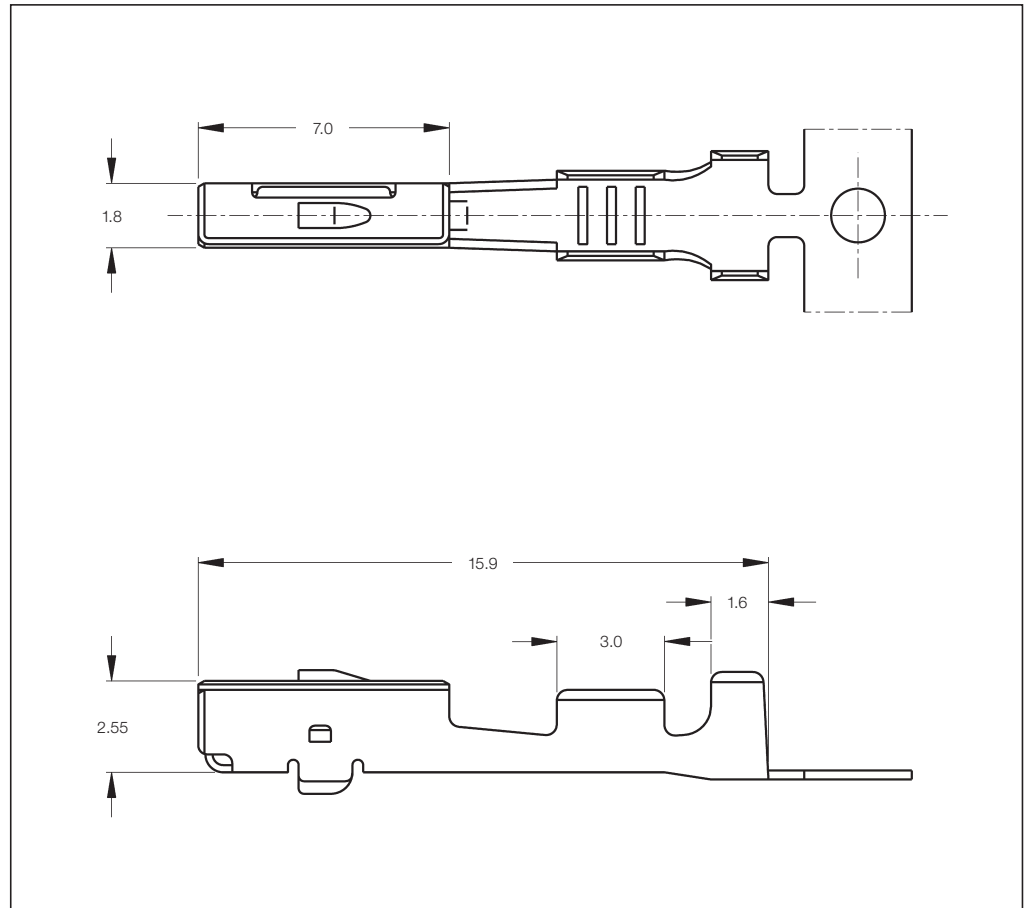
Contact Mating Force:
6 N Max. (Tin)
4 N Max. (Gold)

Extraction Tool:
Part No. **715131-1**

Instruction Sheet:
411-5761

Product Specification:
108-5452 (Mark II)

Application Specification:
114-5159 (Mark II)



.040 Mark II Receptacle Contacts

| Wire Size Range | Insulation Diameter | Material and Finish* | Part Numbers | | | | Applicator | Hand Tool with Die Set |
|----------------------|------------------------|--|--------------|------------------|-------------|------------------|------------|------------------------|
| | | | Strip Form | Package Quantity | Loose-Piece | Package Quantity | | |
| 0.30–0.85 (22–18) | 1.1–1.8 (.043–.071) | Copper alloy, pre-tin plated | 175265-1 | – | 179417-1 | – | 915767-2 | 934192-1 |
| | | Copper alloy, selective gold plated | 175266-2 | – | 179418-2 | – | | |

Receptacle Contacts – Mark III

Technical Features

Temperature Range:
-40 °C up to +120 °C

Dielectric Strength:
1000 V AC / 1 min.

Insulation Resistance:
>100 MΩ Min.

Contact Material:
Higher conductivity (Mark III)

Contact Plating:
Pre-tinned and selective gold

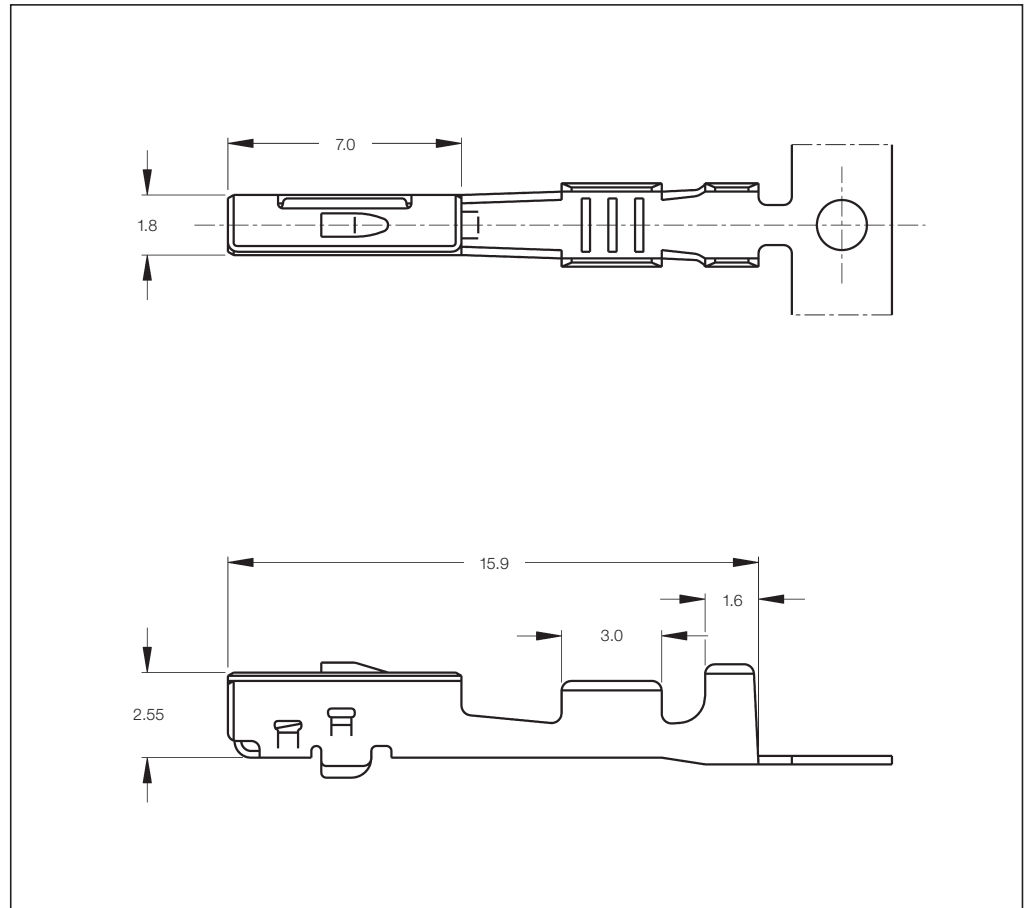
Lance:
Housing lance applied

Contact Mating Force:
6 N Max. (Tin)
4 N Max. (Gold)

Extraction Tool:
See Instruction Sheet: 411-5924

Product Specification:
108-5529 (Mark III)

Application Specification:
114-5217 (Mark III)



.040 Mark III Receptacle Contacts

| Wire Size Range | Insulation Diameter | Material and Finish* | Part Numbers | | | | Applicator | Hand Tool with Die Set |
|-----------------------|---------------------|-------------------------------------|--------------|------------------|-------------|------------------|------------|------------------------|
| | | | Strip Form | Package Quantity | Loose-Piece | Package Quantity | | |
| mm ² (AWG) | mm (Inch) | | | | | | | |
| 0.3–0.5 (22–20) | 1.4–1.7 (.055–.067) | Copper alloy, pre-tin plated | 316836-1 | – | 1376700-1 | – | 234588-2 | 1463383-1 |
| | | Copper alloy, selective gold plated | 316837-2 | – | 1376701-1 | – | | |
| 0.85–1.25 (18–16) | 1.8–2.2 (.071–.087) | Copper alloy, pre-tin plated | 316838-1 | – | 1376704-1 | – | 919171-2 | 934193-2 |

Engineering Notes

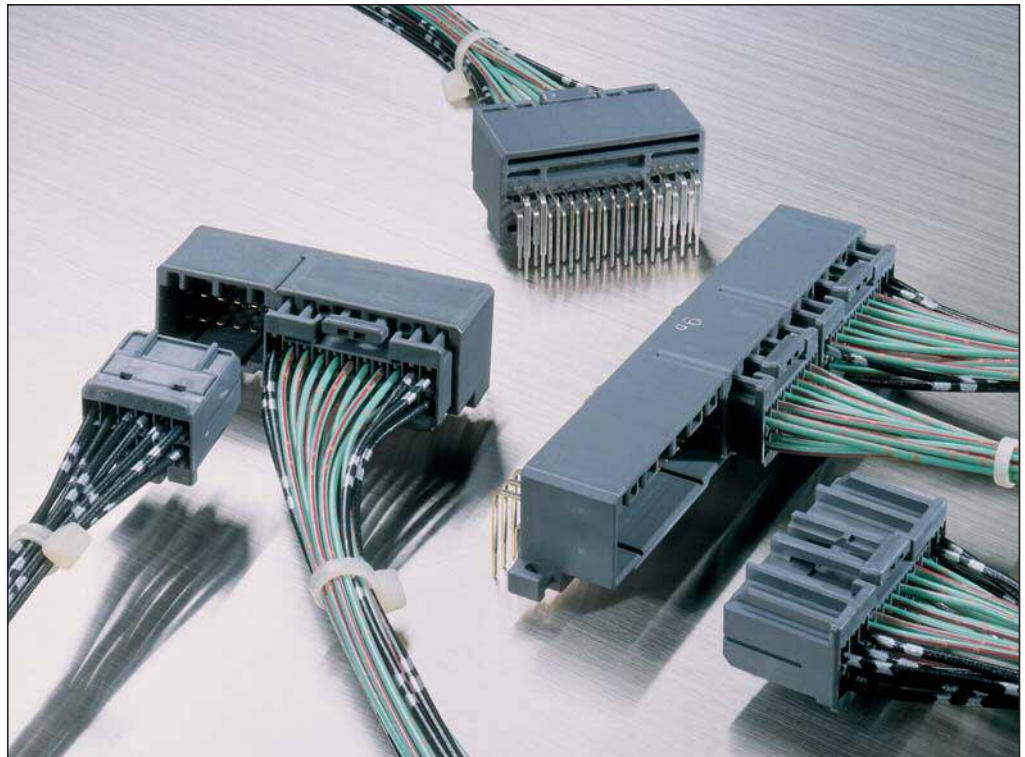


Introduction

.070 Mark II Receptacle Contacts

.040 Mark II/.070 Mark II Hybrid I/O Connectors (108-5342)

.070 Mark II receptacle contacts are designed to improve Kojiri protection and to provide better secondary locking design with side lock from hinge type (Original .070 receptacle contacts).



Product Features

- .070 Mark II receptacle contacts are designed to improve the original .070 receptacle ones in along with their connector housings design improvement in .040/.070 Hybrid Connector series.
- Better Kojiri Protection Design.
- Pre-tinned and selective gold plating available.
- To provide a higher contact retention force with side lock design for secondary locking.
- From signal to power use applications.
- Combination of .040 Mark II/.070 Mark II Hybrid Connector series.

Advantages

- Contact Pitch: 3.5 mm
- Lower Contact Insertion Force: 4 N Max. (Au), 6 N Max. (Sn)
- Better Kojiri Protection
- Higher Secondary Locking Force applied

Applications

- Wire-to-Board/ECU Applications

Remarks:

- Key design feature of contacts
- Better Kojiri Protection
 - Secondary Locking (side lock) is applied with a higher contact retention force

Receptacle Contacts – Mark II

Technical Features

Temperature Range:
-40 °C up to +120 °C

Dielectric Strength:
1000 V AC / 1 min.

Insulation Resistance:
>100 MΩ Min.

Contact Material:
Brass

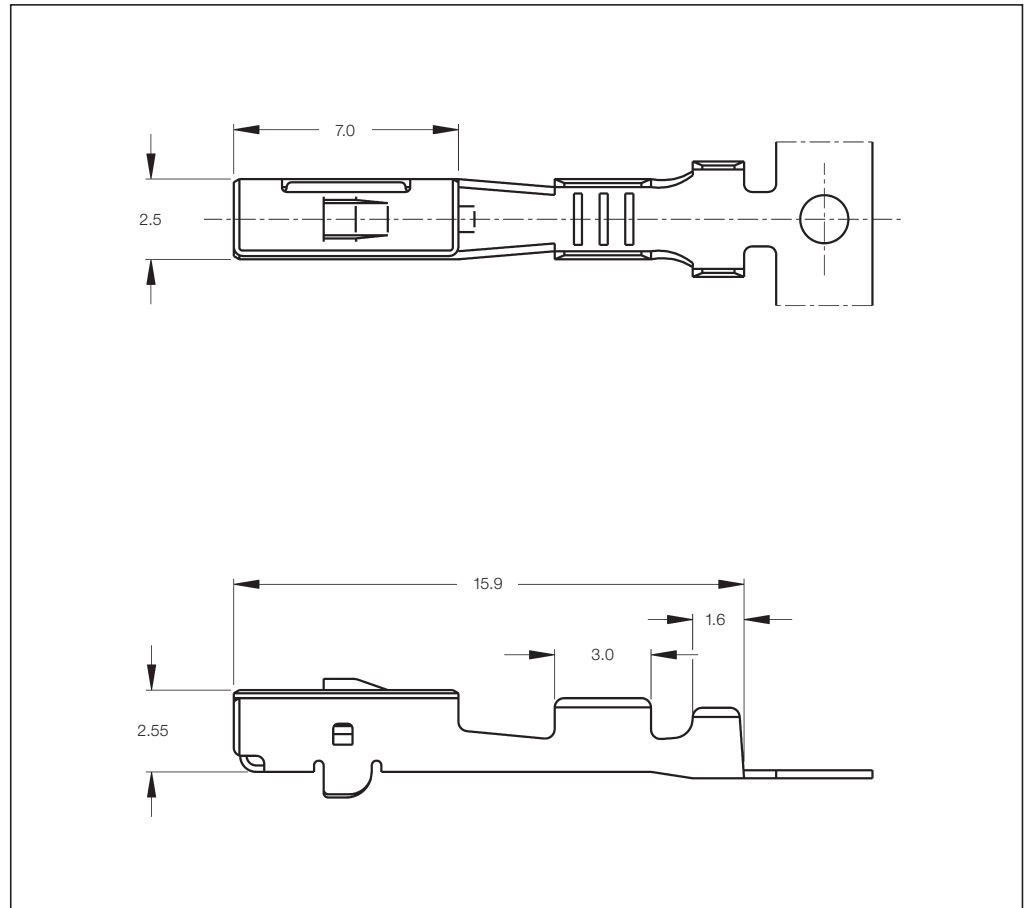
Contact Plating:
Pre-tinned and selective gold

Contact Mating Force:
6 N Max. (Tin)
4 N Max. (Gold)

Extraction Tool:
See Instruction Sheet: 412-5631

Product Specification:
108-5452

Application Specification:
114-5160



.070 Mark II Receptacle Contacts

| Wire Size Range | Insulation Diameter | Material and Finish* | Part Numbers | | | | Applicator | Hand Tool with Die Set |
|---------------------|------------------------|--------------------------|--------------|------------------|-------------|------------------|------------|------------------------|
| | | | Strip Form | Package Quantity | Loose-Piece | Package Quantity | | |
| 0.3-0.85 (22-18) | 1.1-1.8 (.043-.071) | Brass, pre-tin plated | 175268-1 | - | 179423-1 | - | 915762-2 | 934195-1 |
| 0.5-1.25 (20-16) | 1.3-2.5 (.051-.098) | Brass, pre-tin plated | 175269-1 | - | 179425-1 | - | 915763-2 | 934196-1 |