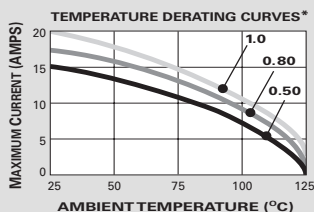
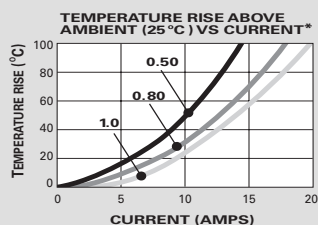




## Mixed

## Sealed System Application Information

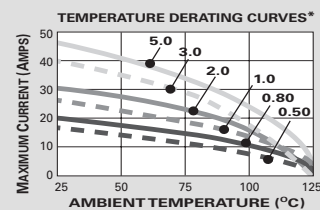
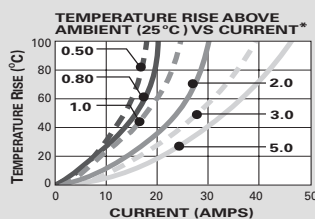
## 150 Series Terminals – Tin Plated



CABLE RANGE (mm²): ..... 0.35-1.0  
 CURRENT RANGE (AMPS): ..... 0-14  
 TEMP RANGE °C: ..... -40 to 125  
 RESISTANCE: ..... <10mΩ@20mV

VOLTAGE DROP: ... <10.0mV/amp  
 CENTERLINE SPACING (mm): .....  
 ..... Connector Dependent  
 BLADE WIDTH (mm): ..... 1.5

## 280 Series Terminals – Tin Plated



CABLE RANGE (mm²): ..... 0.35-5.0  
 CURRENT RANGE (AMPS): ..... 0-30  
 TEMP RANGE °C: ..... -40 to 125  
 RESISTANCE: ..... <10mΩ@20mV

VOLTAGE DROP: ..... <3.0mV/amp  
 CENTERLINE SPACING (mm): .....  
 ..... Connector Dependent  
 BLADE WIDTH (mm): ..... 2.8

\*The test data are based on single circuits in free space and were generated using a "Lumped Resistance" model. This model does not account for all of the variables that would be present in an actual application. For actual product performance, contact your regional support representative.



## 150 Female Terminals Sealed

| Part #   | Cable Range (mm²) | Material         | Plating       |
|----------|-------------------|------------------|---------------|
| 12048074 | 1.0-0.80-0.50     | Silicon Bronze   | Tin           |
| 12084200 | 0.50-0.35         | Silicon Bronze   | Tin           |
| 12160223 | 1.0-0.80          | Beryllium Copper | Silver/Nickel |
| 12160222 | 0.50-0.35         | Beryllium Copper | Silver/Nickel |

## 280 Female Terminals Sealed

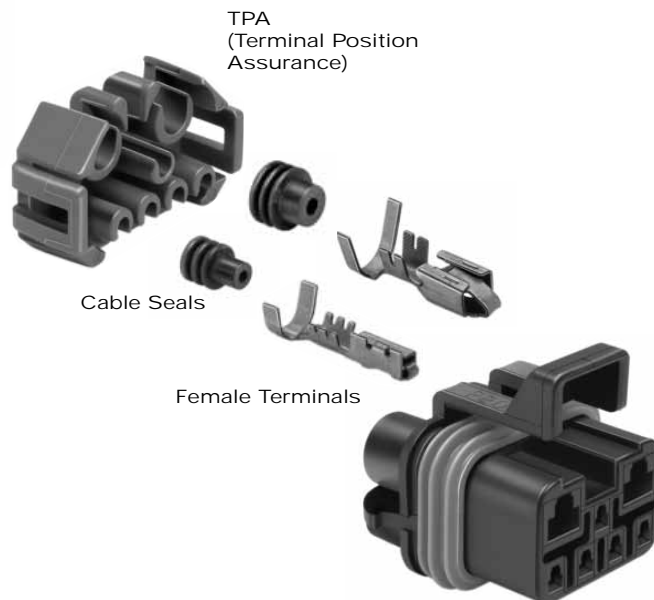
| Part #   | Cable Range (mm²) | Material  | Plating |
|----------|-------------------|-----------|---------|
| 12077413 | 3.0               | Tin Brass | Tin     |
| 12129493 | 3.0-2.0           | Tin Brass | Tin     |
| 12077411 | 1.0-0.80-0.50     | Tin Brass | Tin     |
| 12084201 | 0.50-0.35         | Tin Brass | Tin     |

## 480 Female Terminals Sealed

| Part #   | Cable Range (mm²) | Material  | Plating |
|----------|-------------------|-----------|---------|
| 12052139 | 5.0-3.0           | Tin Brass | Tin     |
| 12048451 | 2.0-1.0           | Tin Brass | Tin     |
| 12048450 | 0.80-0.50         | Tin Brass | Tin     |

## 630 Female Terminals Sealed

| Part #   | Cable Range (mm²) | Material  | Plating |
|----------|-------------------|-----------|---------|
| 12052456 | 5.0-3.0           | Tin Brass | Tin     |
| 12052455 | 2.0-1.0           | Tin Brass | Tin     |
| 12052457 | 0.80-0.50         | Tin Brass | Tin     |



Female Connector Assembly

## Mixed Metri-Pack Female Connector Assembly Sealed

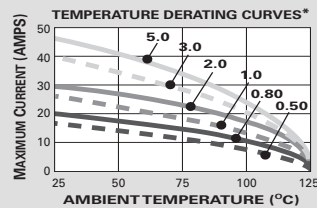
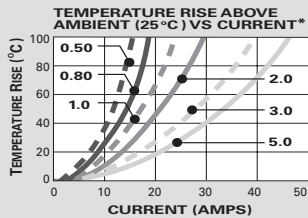
| # Cavities | Conn. Asm. | Color | Material   | TPA      |
|------------|------------|-------|------------|----------|
| 7          | 12059472   | Black | PA66 HS IM | 12052486 |

**NOTE:** Specifications in this catalog are for general reference only and are subject to change without notice. To verify product information, please contact a Delphi representative.

## Mixed

## Sealed System Application Information

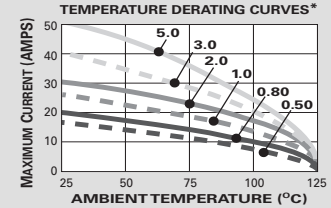
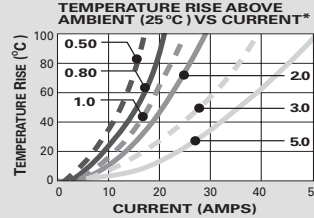
## 480 Series Terminals – Tin Plated



CABLE RANGE (mm<sup>2</sup>): ..... 0.35-5.0  
 CURRENT RANGE (AMPS): ..... 0-42  
 TEMP RANGE °C: ..... -40 to 125  
 RESISTANCE: ..... <10mΩ@20mV

VOLTAGE DROP: ..... <3.0mV/amp  
 CENTERLINE SPACING (mm): .....  
 ..... Connector Dependent  
 BLADE WIDTH (mm): ..... 4.8

## 630 Series Terminals – Tin Plated



CABLE RANGE (mm<sup>2</sup>): ..... 0.35-5.0  
 CURRENT RANGE (AMPS): ..... 0-46  
 TEMP RANGE °C: ..... -40 to 125  
 RESISTANCE: ..... <10mΩ@20mV

VOLTAGE DROP: ..... <3.0mV/amp  
 CENTERLINE SPACING (mm): .....  
 ..... Connector Dependent  
 BLADE WIDTH (mm): ..... 6.3

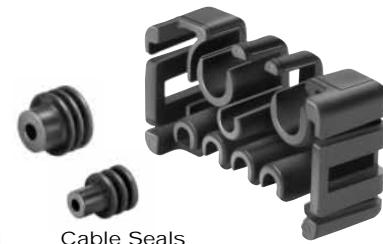
\*The test data are based on single circuits in free space and were generated using a "Lumped Resistance" model. This model does not account for all of the variables that would be present in an actual application. For actual product performance, contact your regional support representative.



Male Connector



Male Terminals



Cable Seals

TPA  
(Terminal Position Assurance)

150



480

## Mixed Metri-Pack Male Connector Sealed

| # Cavities | Connector | Color | Material   | TPA      |
|------------|-----------|-------|------------|----------|
| 7          | 12052200  | Black | PA66 HS IM | 12052199 |

## 150 Male Terminals Sealed

| Part #   | Cable Range (mm <sup>2</sup> ) | Material  | Plating |
|----------|--------------------------------|-----------|---------|
| 12045773 | 0.80-0.50                      | Tin Brass | Tin     |
| 12077628 | 0.50-0.35                      | Tin Brass | Tin     |

## 480 Male Terminals Sealed

| Part #   | Cable Range (mm <sup>2</sup> ) | Material  | Plating |
|----------|--------------------------------|-----------|---------|
| 12052172 | 5.0                            | Tin Brass | Tin     |
| 12065197 | 3.0                            | Tin Brass | Tin     |
| 12065196 | 2.0-1.0                        | Tin Brass | Tin     |

## SECTION NOTES:

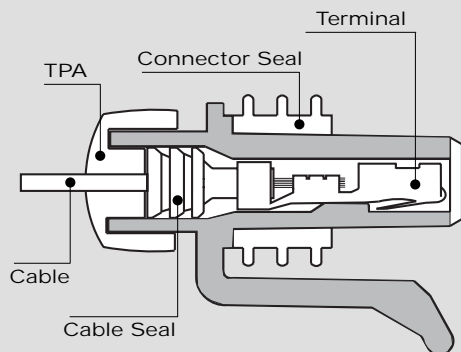
- Due to rigid tolerances of connector cavities, it is critical to meet all crimp dimensions as specified.
- Female connections for device applications, see pages 2.77 and 2.78.

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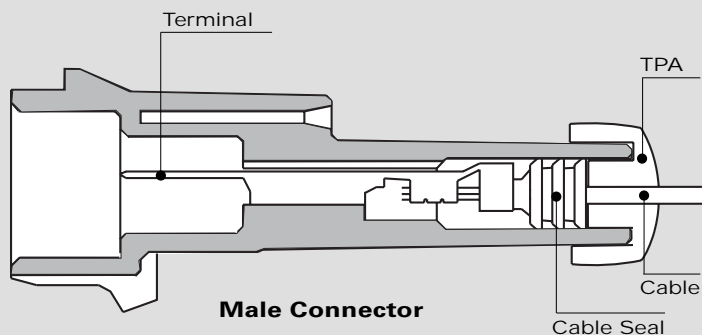


## Mixed

## Cross Sectional View



Female Connector Assembly



Male Connector

## 150 Metri-Pack Cable Seals

| Reel Part# | Loose Part# | Cable Dia.  | Material | Color   |
|------------|-------------|-------------|----------|---------|
| 12052924   | 15324973    | 2.85-2.03   | Silicone | Dk. Red |
| 12089442   | 15324976    | 2.15-1.60   | Silicone | White   |
| 12052925   | 15324974    | 1.70-1.29   | Silicone | Blue    |
| 12124669   | 15324975    | 1.009-0.995 | Silicone | Tan     |

## 280 Metri-Pack Cable Seals

| Reel Part # | Loose Part # | Cable Dia. | Material | Color   |
|-------------|--------------|------------|----------|---------|
| 12015360    | 15324981     | 4.30-3.45  | Silicone | Blue    |
| 12015359    | 15324980     | 3.49-2.81  | Silicone | Gray    |
| 12015284    | 15324982     | 2.85-2.03  | Silicone | Green   |
| 12041352    | 15324984     | 2.42-2.03  | Silicone | Tan     |
| 12089444    | 15324985     | 2.15-1.60  | Silicone | Purple  |
| 12034365    | 15324983     | 1.70-1.29  | Silicone | Dk. Red |

## 480 Metri-Pack Cable Seals

| Reel Part # | Loose Part # | Cable Dia. | Material | Color  |
|-------------|--------------|------------|----------|--------|
| 12065703    | 15324987     | 5.16-4.40  | Silicone | Orange |
| 12052453    | 15324990     | 4.50-3.61  | Silicone | Purple |
| 12052452    | 15324989     | 3.76-2.81  | Silicone | Red    |
| 12048433    | 15324988     | 2.85-2.01  | Silicone | White  |
| 12052931    | 15324991     | 2.15-1.60  | Silicone | Yellow |
| 12162068    | 15324992     | 1.70-1.29  | Silicone | Pink   |

## 630 Metri-Pack Cable Seals

| Reel Part # | Loose Part # | Cable Dia. | Material | Color    |
|-------------|--------------|------------|----------|----------|
| 12059257    | 15324993     | 5.15-4.40  | Silicone | Green    |
| 12059260    | 15324996     | 4.50-3.61  | Silicone | Blue     |
| 12059258    | 15324994     | 3.75-2.81  | Silicone | Lt. Gray |
| 12059259    | 15324995     | 2.85-2.01  | Silicone | Dk. Red  |
| 12077760    | 15324997     | 2.40-1.65  | Silicone | Tan      |

## 150 Metri-Pack Cavity Plug\*

| Part #   | Cavity Inside Diameter | Material | Color   |
|----------|------------------------|----------|---------|
| 12059168 | 5.2mm                  | Silicone | Dk. Red |

\*Cavity plugs seal unused female and male cavities.

## 280 Metri-Pack Cavity Plug\*

| Part #   | Cavity Inside Diameter | Material | Color |
|----------|------------------------|----------|-------|
| 12010300 | 6.7mm                  | Silicone | Green |

\*Cavity plugs seal unused female and male cavities.

## 480 Metri-Pack Cavity Plug\*

| Part #   | Cavity Inside Diameter | Material | Color |
|----------|------------------------|----------|-------|
| 12066082 | 8.5mm                  | Silicone | Green |

\*Cavity plugs seal unused female and male cavities.

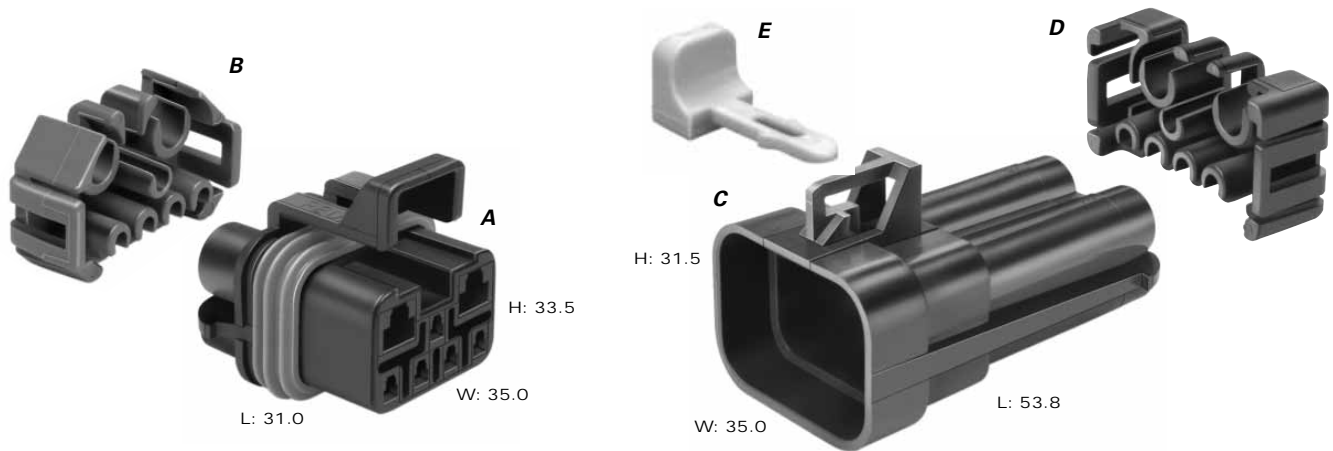
## 630 Metri-Pack Cavity Plug\*

| Part #   | Cavity Inside Diameter | Material | Color |
|----------|------------------------|----------|-------|
| 12059255 | 9.8mm                  | Silicone | Green |

\*Cavity plugs seal unused female and male cavities.

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# Mixed



Total Mated Length: 69.3mm

## A. Part No: 12059472

|              |                       |
|--------------|-----------------------|
| Description: | Connector Assembly 7F |
| Size:        | 31.0L x 33.5H x 35.0W |
| Color:       | Black                 |
| Material:    | PA66 HS IM            |
| Terminals:   | See Page 2.72         |
| Seals/Plugs: | See Page 2.74         |

## B. Part No: 12052486

|              |            |
|--------------|------------|
| Description: | TPA        |
| Color:       | Md. Gray   |
| Material:    | PA66 HS IM |

## C. Part No: 12052200

|              |                          |
|--------------|--------------------------|
| Description: | Connector 7M (Clip Slot) |
| Size:        | 53.8L x 31.5H x 35.0W    |
| Color:       | Black                    |
| Material:    | PA66 HS IM               |
| Terminals:   | See Page 2.73            |
| Seals/Plugs: | See Page 2.74            |

## D. Part No: 12052199

|              |       |
|--------------|-------|
| Description: | TPA   |
| Color:       | Black |
| Material:    | PA6   |

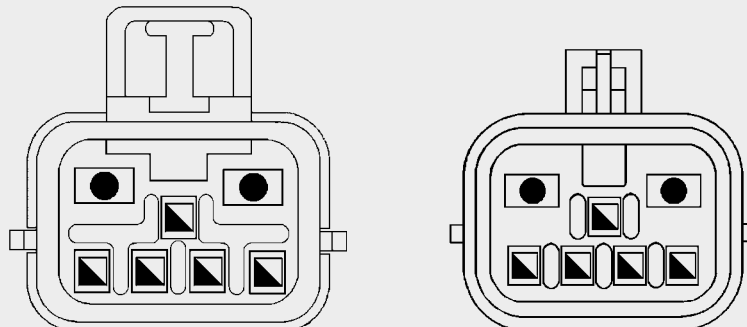
## E. Part No: 12020833

|              |      |
|--------------|------|
| Description: | CPA  |
| Color:       | Gray |
| Material:    | PBT  |

### KEY:

- 150 SERIES
- 480 SERIES

Mixed connectors feature a combination of different terminal cavities, as indicated by the key.



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