

# METRI-PACK SERIES 280



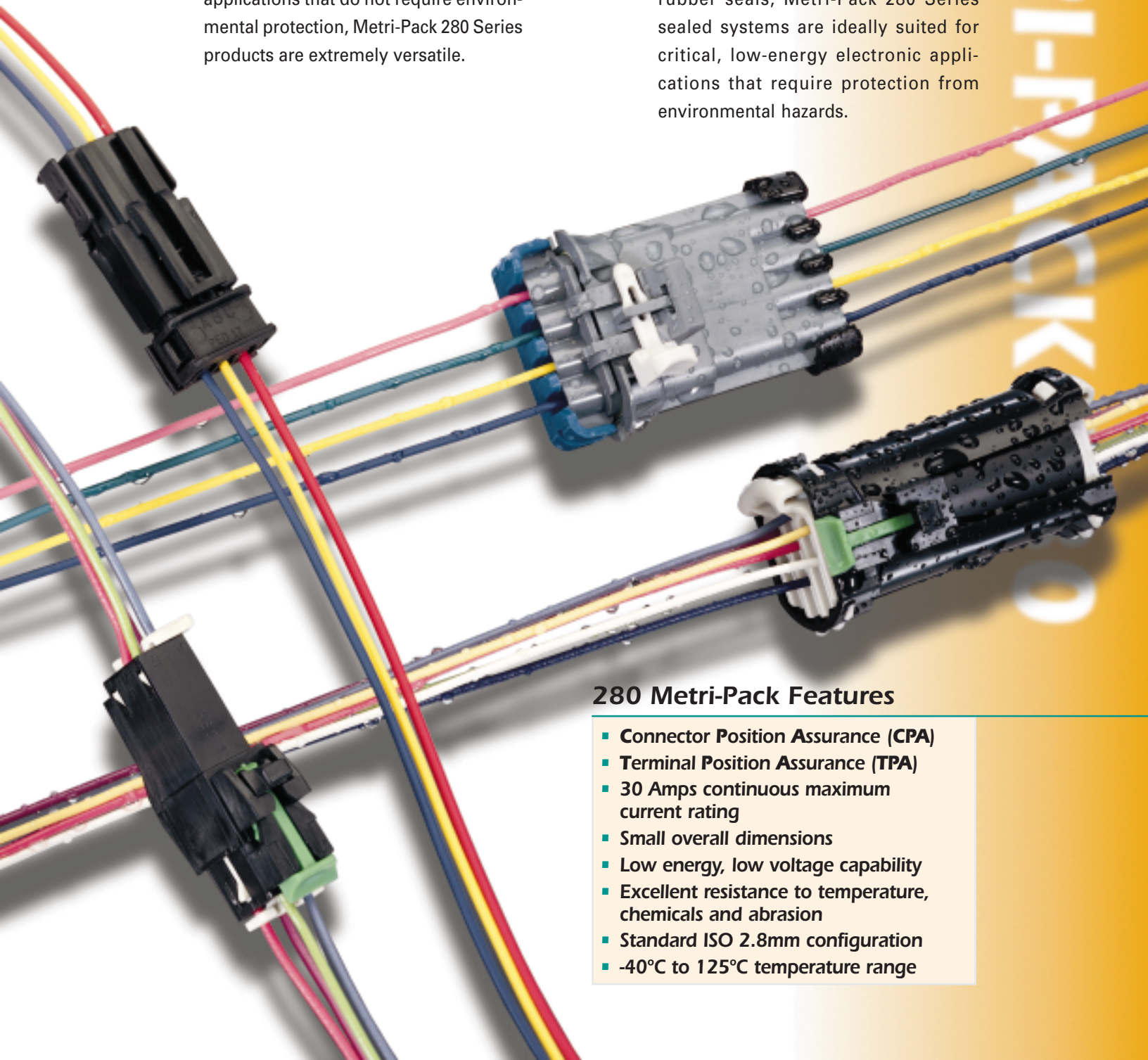
Available in device and in-line connections for vehicle applications, Metri-Pack 280 Series connectors can meet or exceed the requirements for most marine, appliance, and industrial control applications.

Ideally suited for limited space applications that do not require environmental protection, Metri-Pack 280 Series products are extremely versatile.



Available in device and in-line connections for underhood vehicle applications, Metri-Pack 280 Series sealed connectors can meet or exceed the requirements for most marine, appliance, and industrial control applications.

Utilizing triple-rib peripheral silicone rubber seals, Metri-Pack 280 Series sealed systems are ideally suited for critical, low-energy electronic applications that require protection from environmental hazards.

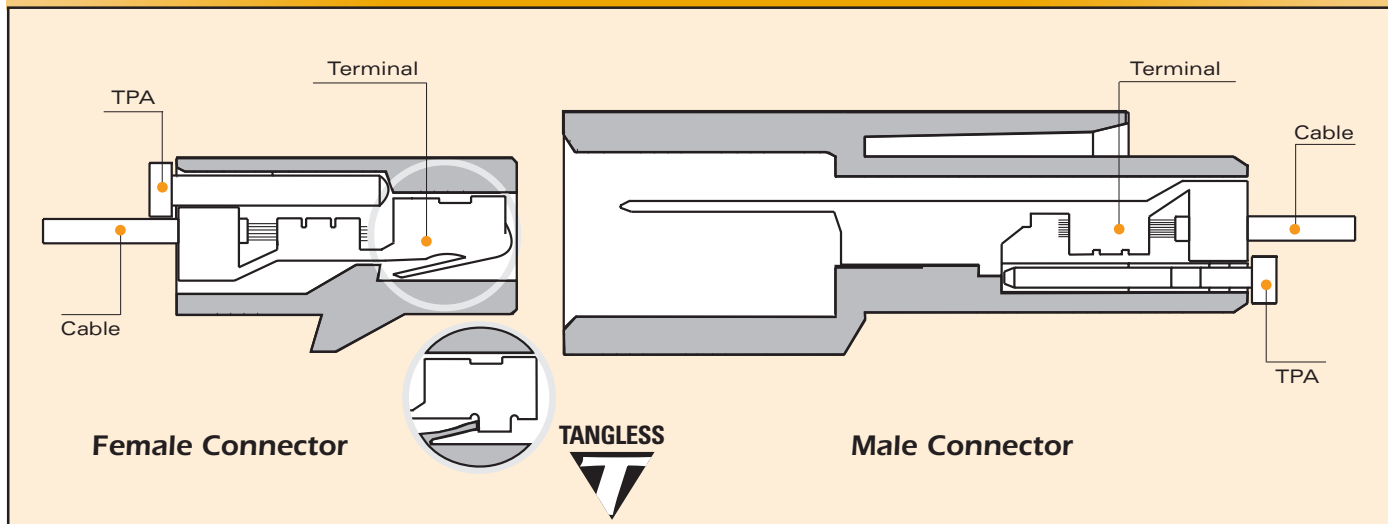


## 280 Metri-Pack Features

- Connector Position Assurance (CPA)
- Terminal Position Assurance (TPA)
- 30 Amps continuous maximum current rating
- Small overall dimensions
- Low energy, low voltage capability
- Excellent resistance to temperature, chemicals and abrasion
- Standard ISO 2.8mm configuration
- -40°C to 125°C temperature range



## Cross Sectional View



TANGLESS

### 280 TANGLESS FEMALE TERMINALS UNSEALED

| Part #    | Cable Range (mm <sup>2</sup> ) | Material  | Plating |
|-----------|--------------------------------|-----------|---------|
| 12129425  | 5.0                            | Tin Brass | Tin     |
| 12129663  | 3.0                            | Tin Brass | Tin     |
| 12129424  | 2.0-1.0                        | Tin Brass | Tin     |
| 12110842* | 3.0-2.0                        | Tin Brass | Tin     |
| 12110844* | 1.0-0.80                       | Tin Brass | Tin     |
| 12110843* | 0.50-0.35                      | Tin Brass | Tin     |
| 12129061* | 0.35 (2 Req'd.)                | Tin Brass | Tin     |

\*Thin Stock—Electrical current restrictions apply, contact your regional support representative at the number listed below.

TPA  
(Terminal Position Assurance)

Tangless Female Terminal

CPA  
(Connector Position Assurance)

Female Connector

### 280 FEMALE TERMINALS UNSEALED

| Part #    | Cable Range (mm <sup>2</sup> ) | Material  | Plating |
|-----------|--------------------------------|-----------|---------|
| 12015858  | 5.0                            | Tin Brass | Tin     |
| 12129494  | 3.0-2.0                        | Tin Brass | Tin     |
| 12066214  | 2.0-1.0                        | Tin Brass | Tin     |
| 12034046  | 1.0-0.80                       | Tin Brass | Tin     |
| 12052217  | 0.50-0.35                      | Tin Brass | Tin     |
| 12162597* | 3.0-2.0                        | Tin Brass | Tin     |
| 12162595* | 1.0-0.80                       | Tin Brass | Tin     |
| 12162596* | 0.50-0.35                      | Tin Brass | Tin     |

\*Thin Stock—Electrical current restrictions apply, contact your regional support representative at the number listed below.

<http://delphi.com/products/connect>

TANGLESS

### 280 FLEXLOCK FEMALE CONNECTORS UNSEALED

| # Cavities | Connector | Color | Material   | TPA      |
|------------|-----------|-------|------------|----------|
| 2          | 12129081  | Black | PA66 HS IM | 12129083 |
| 3          | 12129489  | Black | PA66 HS IM | 12129491 |
| 4          | 12129136  | Black | PA66 HS IM | 12129138 |

### 280 FEMALE CONNECTORS UNSEALED

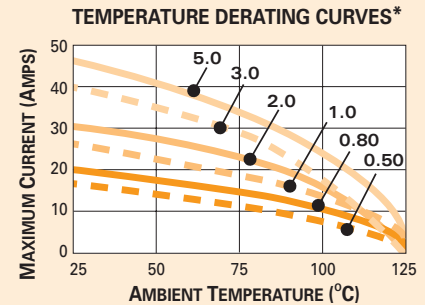
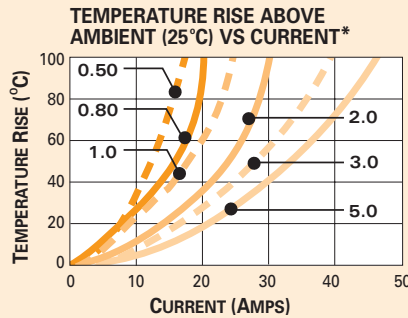
| # Cavities | Connector | Color | Material   | TPA      |
|------------|-----------|-------|------------|----------|
| 6          | 12064752  | Black | PA66 HS IM | 12064753 |
| 8          | 12064998  | Black | PBT        | 12064999 |



## Unsealed System Application Information

**CABLE RANGE (mm<sup>2</sup>):** ..... 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):** ..... 5.0  
**BLADE WIDTH (mm):** ..... 2.8

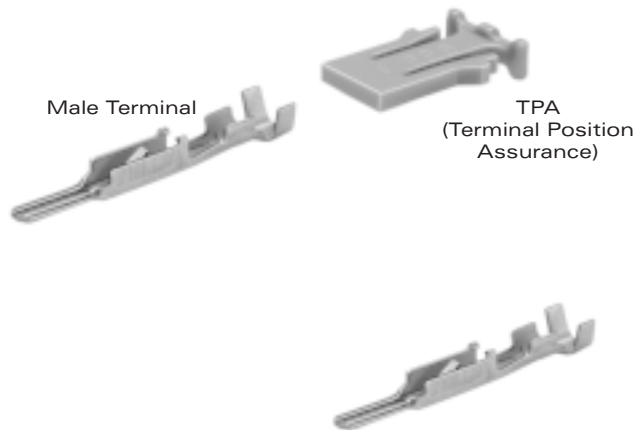
### 280 SERIES TERMINALS - Tin Plated



\*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 at the number listed below.



Male Connector



### 280 MALE TERMINALS UNSEALED

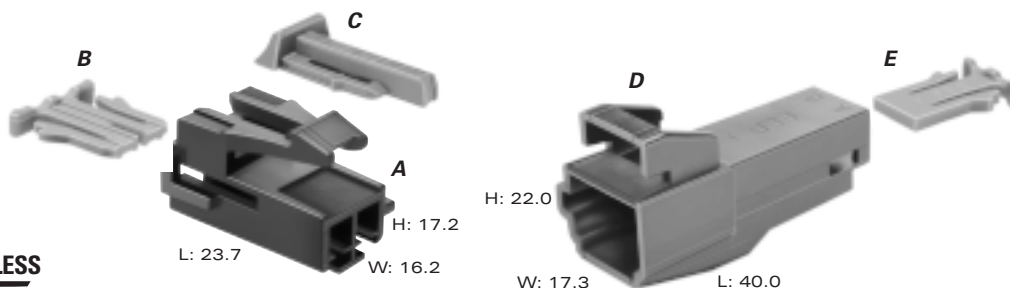
| Part #   | Cable Range (mm <sup>2</sup> ) | Material  | Plating |
|----------|--------------------------------|-----------|---------|
| 12084586 | 5.0                            | Tin Brass | Tin     |
| 12129498 | 3.0-2.0                        | Tin Brass | Tin     |
| 12020116 | 2.0-1.0                        | Tin Brass | Tin     |
| 12034047 | 1.0-0.80                       | Tin Brass | Tin     |
| 12066271 | 0.50-0.35                      | Tin Brass | Tin     |
| 12020782 | 0.35 (2 Req'd.)                | Tin Brass | Tin     |

### 280 MALE CONNECTORS UNSEALED

| # Cavities | Connector | Color | Material   | TPA      |
|------------|-----------|-------|------------|----------|
| 2          | 12129155  | Black | PA66 HS IM | 12129157 |
| 3          | 12129490  | Black | PA66 HS IM | 12129492 |
| 4          | 12129135  | Black | PA66 HS IM | 12129137 |
| 6          | 12064754  | Black | PA6        | 12064755 |
| 8          | 12066195  | Black | PBT        | 12065141 |

### SECTION NOTES:

- Contact your regional support representative at the number listed below.
- Due to rigid tolerances of connector cavities, it is critical to meet all crimp dimensions as specified.
- Different color and connector indexing features are also available.
- Female connections for device applications, see page 91.



Total Mated Length: 54.3mm

## A PART NO: 12129081 (Black) 12129082 (Md. Gray)

DESCRIPTION: Connector 2F  
SIZE: 23.7L x 17.2H x 16.2W  
MATERIAL: PA66 HS IM  
TERMINALS: See Page 78

## D PART NO: 12129155 (Black) 12129156 (Md. Gray)

DESCRIPTION: Connector 2M (Clip Slot-Self Locking)  
SIZE: 40.0L x 22.0H x 17.3W  
MATERIAL: PA66 HS IM  
TERMINALS: See Page 79

## B PART NO: 12129083

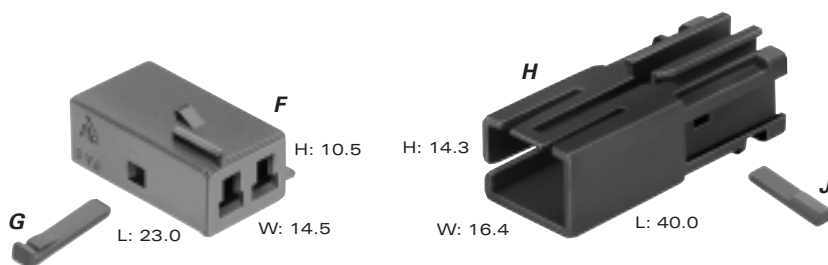
DESCRIPTION: TPA  
COLOR: Lt. Gray  
MATERIAL: PA66 HS IM

## E PART NO: 12129157

DESCRIPTION: TPA  
COLOR: Lt. Gray  
MATERIAL: PA66 HS IM

## C PART NO: 12052834

DESCRIPTION: CPA  
COLOR: Green  
MATERIAL: PP



Total Mated Length: 49.3mm

## F PART NO: 12147503 (Black) 12111456 (Green)

DESCRIPTION: Connector 2F  
SIZE: 23.0L x 10.5H x 14.5W  
MATERIAL: PA6  
TERMINALS: See Page 78

## H PART NO: 12147517 (Black) 10717650 (Green)

DESCRIPTION: Connector 2M  
SIZE: 40.0L x 14.3H x 16.4W  
MATERIAL: PA6  
TERMINALS: See Page 79

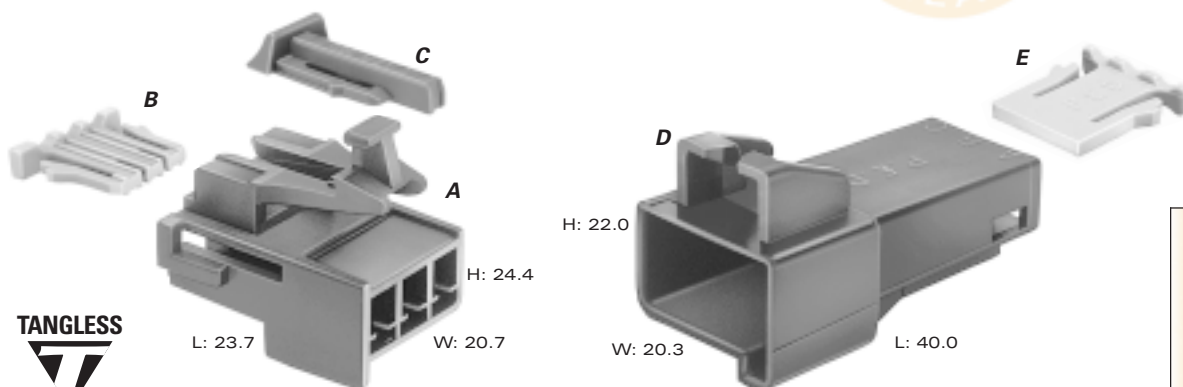
## G PART NO: 12147502

DESCRIPTION: TPA  
COLOR: Gray  
MATERIAL: PA6 % GF

## J PART NO: 12147771

DESCRIPTION: TPA  
COLOR: Gray  
MATERIAL: PA6 % GF





Total Mated Length: 54.3mm

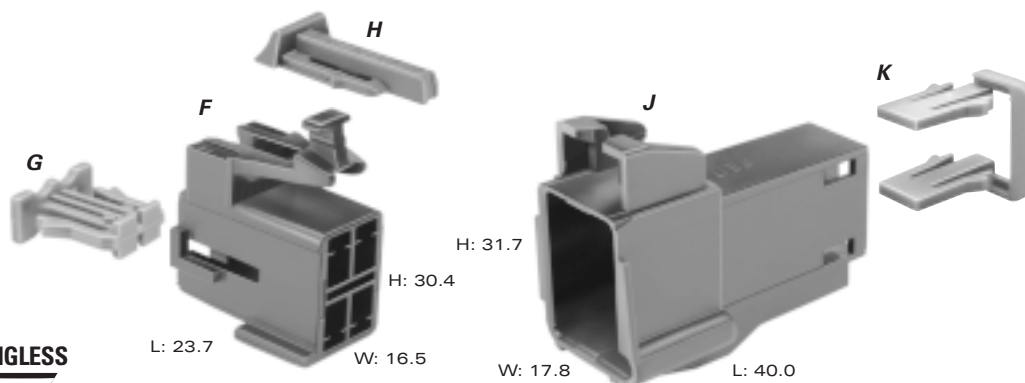
**A PART NO: 12129489**  
 DESCRIPTION: Connector 3F  
 SIZE: 23.7L x 24.4H x 20.7W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 78

**D PART NO: 12129490**  
 DESCRIPTION: Connector 3M  
 SIZE: 40.0L x 22.0H x 20.3W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 79

**B PART NO: 12129491**  
 DESCRIPTION: TPA  
 COLOR: Lt. Gray  
 MATERIAL: PA66 HS IM

**E PART NO: 12129492**  
 DESCRIPTION: TPA  
 COLOR: Lt. Gray  
 MATERIAL: PA66 HS IM

**C PART NO: 12052834**  
 DESCRIPTION: CPA  
 COLOR: Green  
 MATERIAL: PP



Total Mated Length: 54.0mm

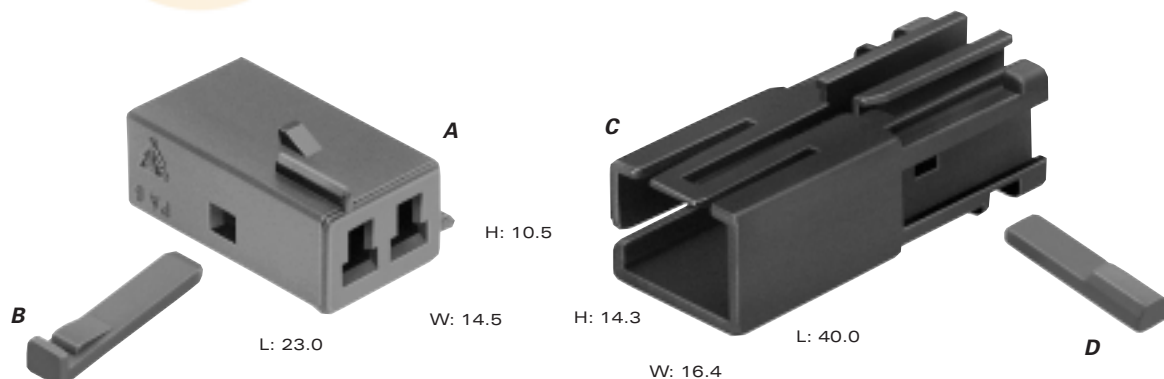
**F PART NO: 12129136**  
 DESCRIPTION: Connector 4F  
 SIZE: 23.7L x 30.4H x 16.5W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 78

**J PART NO: 12129135**  
 DESCRIPTION: Connector 4M (Clip Slot-Self Locking)  
 SIZE: 40.0L x 31.7H x 17.8W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 79

**G PART NO: 12129138**  
 DESCRIPTION: TPA  
 COLOR: Lt. Gray  
 MATERIAL: PA66 HS IM

**K PART NO: 12129137**  
 DESCRIPTION: TPA  
 COLOR: Lt. Gray  
 MATERIAL: PA66 HS IM

**H PART NO: 12052834**  
 DESCRIPTION: CPA  
 COLOR: Green  
 MATERIAL: PP



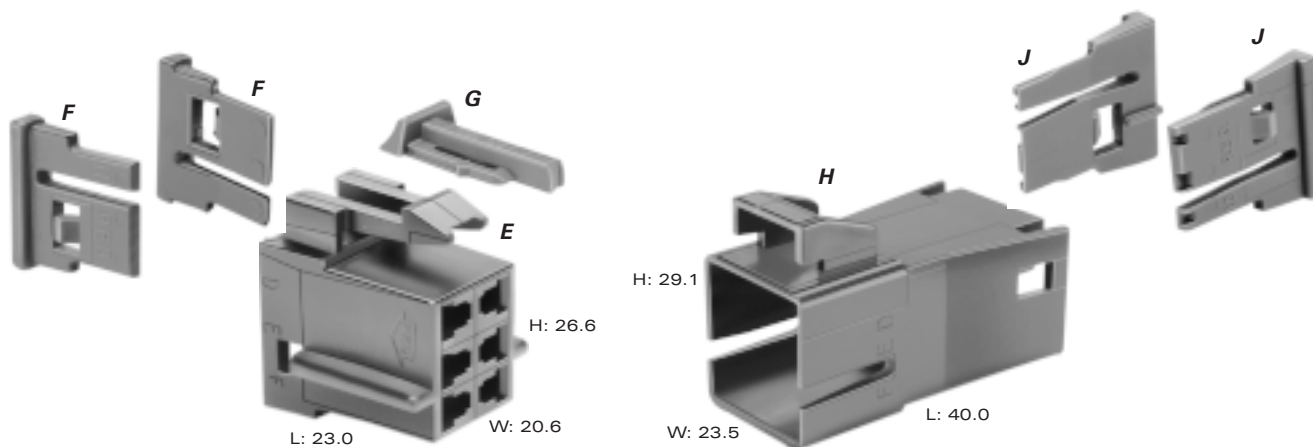
Total Mated Length: 50.0mm

**A PART NO: 15318080**  
 DESCRIPTION: Connector 2F  
 SIZE: 23.0L x 10.5H x 14.5W  
 COLOR: Black  
 MATERIAL: PA6  
 TERMINALS: See Page 78

**C PART NO: 12147517**  
 DESCRIPTION: Connector 2M  
 SIZE: 40.0L x 14.3H x 16.4W  
 COLOR: Black  
 MATERIAL: PA6  
 TERMINALS: See Page 79

**B PART NO: 12147502**  
 DESCRIPTION: Secondary Lock  
 SIZE: 2.6L x 2.3H x 12.6W  
 COLOR: Gray  
 MATERIAL: PA6%GF

**D PART NO: 12147771**  
 DESCRIPTION: Secondary Lock  
 SIZE: 2.7L x 2.2H x 11.8W  
 COLOR: Gray  
 MATERIAL: PA6%GF



Total Mated Length: 57.0mm

**E PART NO: 12064752**  
 DESCRIPTION: Connector 6F  
 SIZE: 23.0L x 26.6H x 20.6W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 78

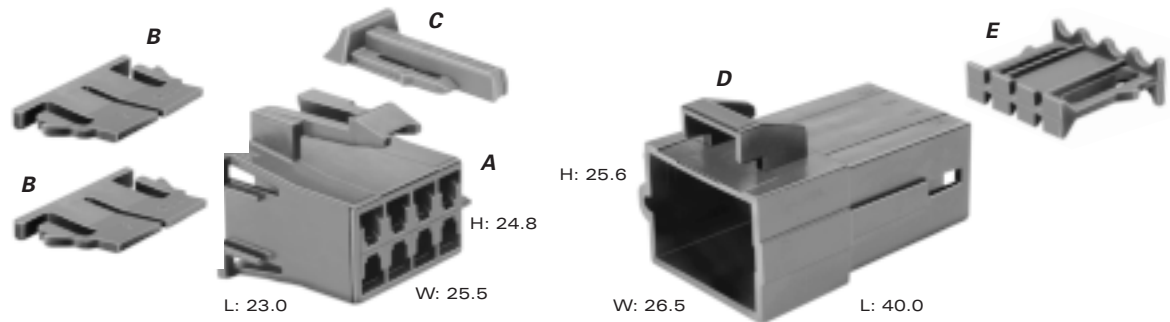
**H PART NO: 12064754**  
 DESCRIPTION: Connector 6M (Clip Slot-Self Locking)  
 SIZE: 40.0L x 29.1H x 23.5W  
 COLOR: Black  
 MATERIAL: PA6  
 TERMINALS: See Page 79

**F PART NO: 12064753**  
 DESCRIPTION: TPA  
 NUMBER REQ.: 2  
 COLOR: Md. Gray  
 MATERIAL: PA66 HS IM

**J PART NO: 12064755**  
 DESCRIPTION: TPA  
 NUMBER REQ.: 2  
 COLOR: Blue  
 MATERIAL: PA66 HS IM

**G PART NO: 12052834**  
 DESCRIPTION: CPA  
 COLOR: Green  
 MATERIAL: PP

<http://delphi.com/products/connect>



Total Mated Length: 54.0mm

**A PART NO: 12064998**  
 DESCRIPTION: Connector 8F  
 SIZE: 23.0L x 24.8H x 25.5W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 78

**D PART NO: 12066195**  
 DESCRIPTION: Connector 8M (Clip Slot)  
 SIZE: 40.0L x 25.6H x 26.5W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 79

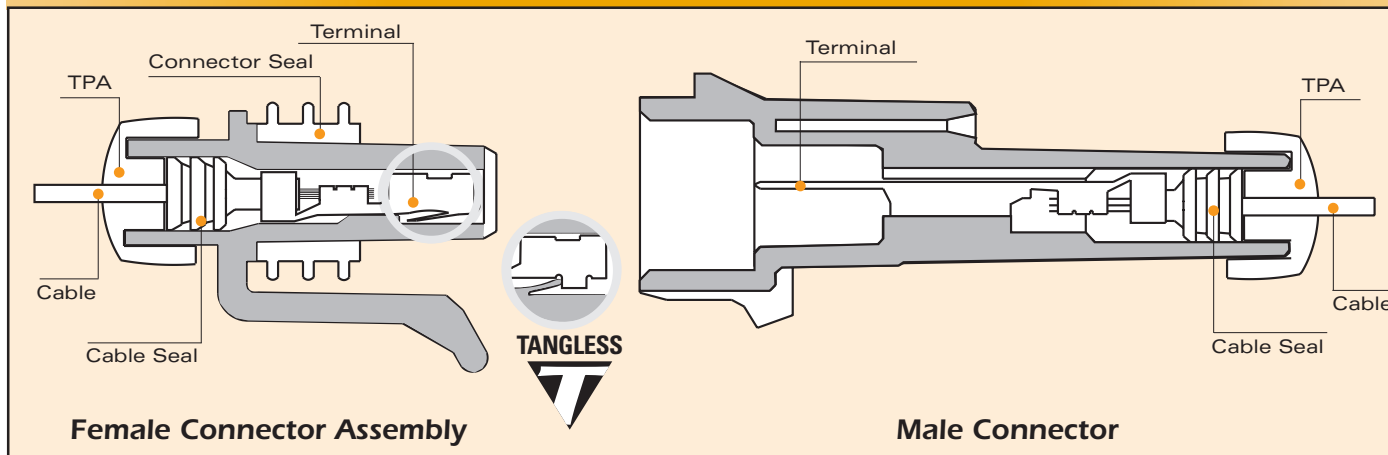
**B PART NO: 12064999**  
 DESCRIPTION: TPA  
 NUMBER REQ.: 2  
 COLOR: Blue  
 MATERIAL: PBT

**E PART NO: 12065141**  
 DESCRIPTION: TPA  
 COLOR: Md. Gray  
 MATERIAL: PA66 HS IM

**C PART NO: 12052834**  
 DESCRIPTION: CPA  
 COLOR: Green  
 MATERIAL: PP



## Cross Sectional View



TANGLESS

### 280 TANGLESS FEMALE TERMINALS SEALED

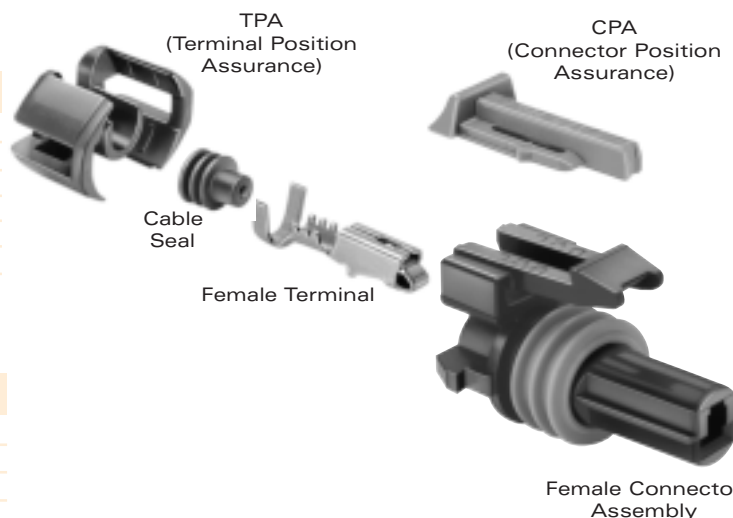
| Part #    | Cable Range (mm <sup>2</sup> ) | Material  | Plating |
|-----------|--------------------------------|-----------|---------|
| 12110853  | 5.0-3.0                        | Tin Brass | Tin     |
| 12129409  | 2.0-1.0                        | Tin Brass | Tin     |
| 12110845* | 3.0-2.0                        | Tin Brass | Tin     |
| 12110847* | 1.0-0.80                       | Tin Brass | Tin     |
| 12110846* | 0.50-0.35                      | Tin Brass | Tin     |

\*Thin Stock—Electrical current restrictions apply, contact your regional support representative at the number listed below.

TANGLESS

### 280 FLEXLOCK FEMALE CONNECTOR ASSEMBLIES SEALED

| # Cavities | Conn. Asm. | Color | Material   | TPA      |
|------------|------------|-------|------------|----------|
| 7          | 12110751   | Black | PA66 HS IM | 12110754 |
| 15         | 12161186   | Black | PA66 HS IM | 12176865 |



### 280 FEMALE TERMINALS SEALED

| Part #   | Cable Range (mm <sup>2</sup> ) | Material         | Plating       |
|----------|--------------------------------|------------------|---------------|
| 12077413 | 5.0                            | Tin Brass        | Tin           |
| 12129493 | 3.0-2.0                        | Tin Brass        | Tin           |
| 12077411 | 1.0-0.80                       | Tin Brass        | Tin           |
| 12084201 | 0.50-0.35                      | Tin Brass        | Tin           |
| 12176387 | 5.0                            | Beryllium Copper | Silver/Nickel |
| 12176388 | 3.0-2.0                        | Beryllium Copper | Silver/Nickel |
| 12176389 | 1.0-0.80                       | Beryllium Copper | Silver/Nickel |

### 280 FEMALE CONNECTOR ASSEMBLIES SEALED

| # Cavities | Conn. Asm. | Color    | Material   | TPA      |
|------------|------------|----------|------------|----------|
| 1          | 12065172   | Black    | PA66 HS IM | 12065249 |
| 2          | 15300027   | Black    | PA66 HS IM | 15300014 |
| 2          | 12124819   | Black    | PBT        | 12020807 |
| 3          | 12040977   | Black    | PA66 HS IM | 12034145 |
| 4          | 12129565   | Md. Gray | PA66 HS IM | 15300016 |
| 5          | 12084891   | Md. Gray | PA66 HS IM | 15300017 |

### 280 METRI-PACK CABLE SEALS

| Reel Part # | Loose Part # | Cable Diameter | Material | Color    |
|-------------|--------------|----------------|----------|----------|
| 12015360    | 12015193     | 4.30-3.45      | Silicone | Blue     |
| 12015359    | 12010293     | 3.49-2.81      | Silicone | Lt. Gray |
| 12015284    | 12015323     | 2.85-2.03      | Silicone | Green    |
| 12041352    | 12041351     | 2.42-2.03      | Silicone | Tan      |
| 12089444    | 12089679     | 2.15-1.60      | Silicone | Purple   |
| 12034365    | 12015899     | 1.70-1.29      | Silicone | Dk. Red  |

### 280.1 FEMALE PULL-TO-SEAT TERMINALS SEALED

| Part #   | Cable Range (mm <sup>2</sup> ) | Material       | Plating |
|----------|--------------------------------|----------------|---------|
| 12077939 | 1.0-0.80                       | Silicon Bronze | Tin     |
| 12103360 | 0.50-0.35                      | Silicon Bronze | Tin     |

<http://delphi.com/products/connect>

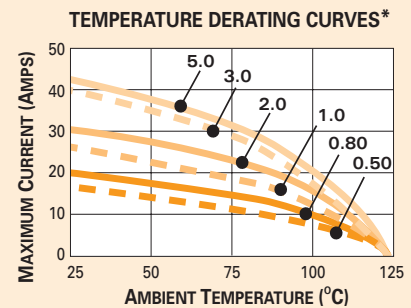
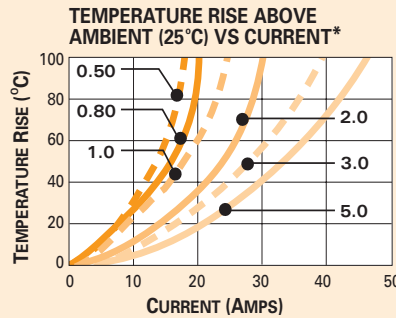




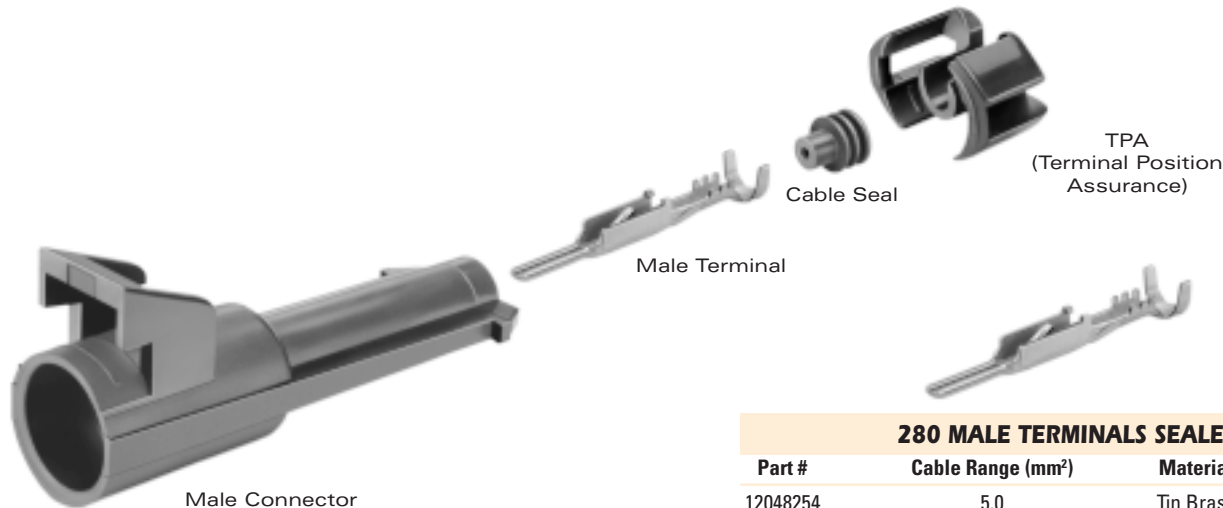
## Sealed System Application Information

CABLE RANGE (mm<sup>2</sup>): ..... 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): ..... 7.7  
 BLADE WIDTH (mm): ..... 2.8

### 280 SERIES TERMINALS - Tin Plated



\*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 at the number listed below.



### 280 MALE TERMINALS SEALED

| Part #   | Cable Range (mm <sup>2</sup> ) | Material  | Plating |
|----------|--------------------------------|-----------|---------|
| 12048254 | 5.0                            | Tin Brass | Tin     |
| 12129497 | 3.0-2.0                        | Tin Brass | Tin     |
| 12048159 | 1.0-0.80                       | Tin Brass | Tin     |
| 12124977 | 0.50-0.35                      | Tin Brass | Tin     |

### 280 MALE CONNECTORS SEALED

| # Cavities | Connector | Color    | Material   | TPA      |
|------------|-----------|----------|------------|----------|
| 1          | 12065171  | Black    | PA66 HS IM | 12065249 |
| 2          | 15300002  | Black    | PA66 HS IM | 15300014 |
| 2          | 12059450  | Black    | PA66 HS IM | 12065279 |
| 3          | 15300003  | Black    | PA66 HS IM | 15300015 |
| 4          | 12129600  | Dk. Gray | PBT 30% GF | 12092733 |
| 5          | 12186400  | Gray     | PBT 30% GF | 12084673 |
| 7          | 12110753  | Black    | PA66 HS IM | 12110754 |
| 15         | 12161187  | Black    | PA66 HS IM | 12110782 |

### 280 METRI-PACK CAVITY PLUG\*

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

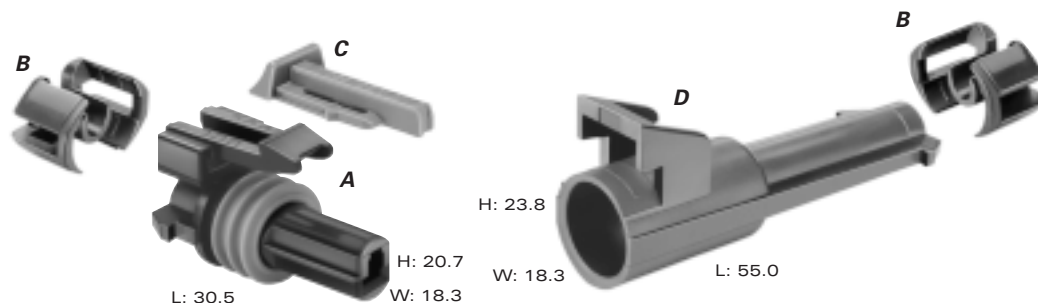
\*Cavity plugs seal unused female and male cavities.

### SECTION NOTES:

Contact your regional support representative at the number listed below.

- Due to rigid tolerances of connector cavities, it is critical to meet all crimp dimensions as specified.
- Female Connections for device applications, see page 92.

<http://delphi.com/products/connect>



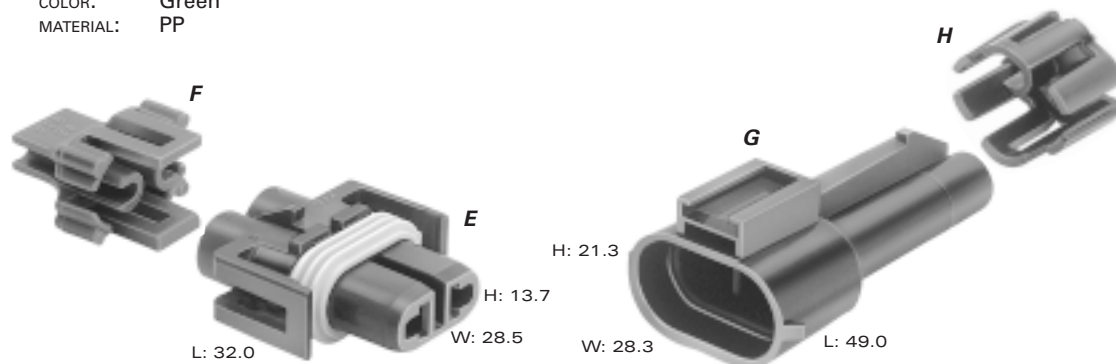
Total Mated Length: 70.3mm

**A PART NO: 12065172**  
 DESCRIPTION: Connector Assembly 1F  
 SIZE: 30.5L x 20.7H x 18.3W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 84  
 SEALS/PLUGS: See Page 84, 85

**D PART NO: 12065171**  
 DESCRIPTION: Connector 1M  
 SIZE: 55.0L x 23.8H x 18.3W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 85  
 SEALS/PLUGS: See Page 84, 85

**B PART NO: 12065249**  
 DESCRIPTION: TPA  
 NUMBER REQ.: 2  
 COLOR: Black  
 MATERIAL: PA66 HS IM

**C PART NO: 12052834**  
 DESCRIPTION: CPA  
 COLOR: Green  
 MATERIAL: PP



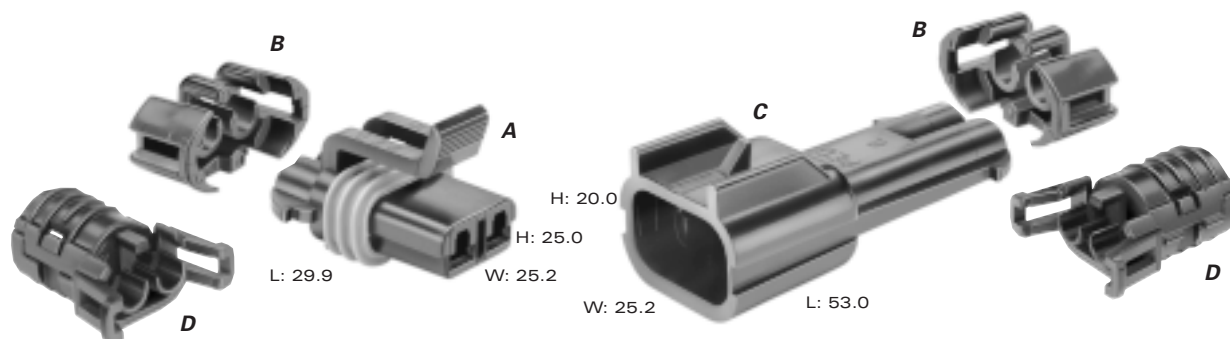
Total Mated Length: 81.9mm

**E PART NO: 12124819**  
 DESCRIPTION: Connector Assembly 2F  
 SIZE: 32.0L x 13.7H x 28.5W  
 COLOR: Black  
 MATERIAL: PBT  
 TERMINALS: See Page 84  
 SEALS/PLUGS: See Page 84, 85

**G PART NO: 12059450**  
 DESCRIPTION: Connector 2M (Clip Slot)  
 SIZE: 49.0L x 21.3H x 28.3W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 85  
 SEALS/PLUGS: See Page 84, 85

**F PART NO: 12020807**  
 DESCRIPTION: TPA  
 COLOR: Md. Gray  
 MATERIAL: PA6

**H PART NO: 12065279**  
 DESCRIPTION: TPA  
 COLOR: Black  
 MATERIAL: PA6



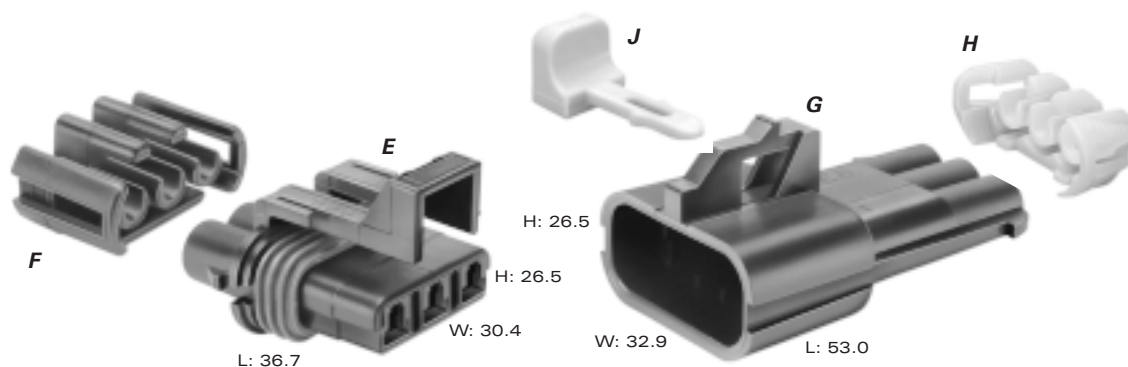
Total Mated Length: 66.8mm

**A PART NO: 15300027**  
 DESCRIPTION: Connector Assembly 2F  
 SIZE: 29.9L x 25.0H x 25.2W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 84  
 SEALS/PLUGS: See Page 84, 85

**C PART NO: 15300002**  
 DESCRIPTION: Connector 2M  
 SIZE: 53.0L x 20.0H x 25.2W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 85  
 SEALS/PLUGS: See Page 84, 85

**B PART NO: 15300014**  
 DESCRIPTION: TPA  
 NUMBER REQ.: 2  
 COLOR: Blue  
 MATERIAL: PA6

**D PART NO: 15327747 (Optional)**  
 DESCRIPTION: Conduit TPA  
 NUMBER REQ.: 2  
 COLOR: Black  
 MATERIAL: PA6



Total Mated Length: 76.1mm

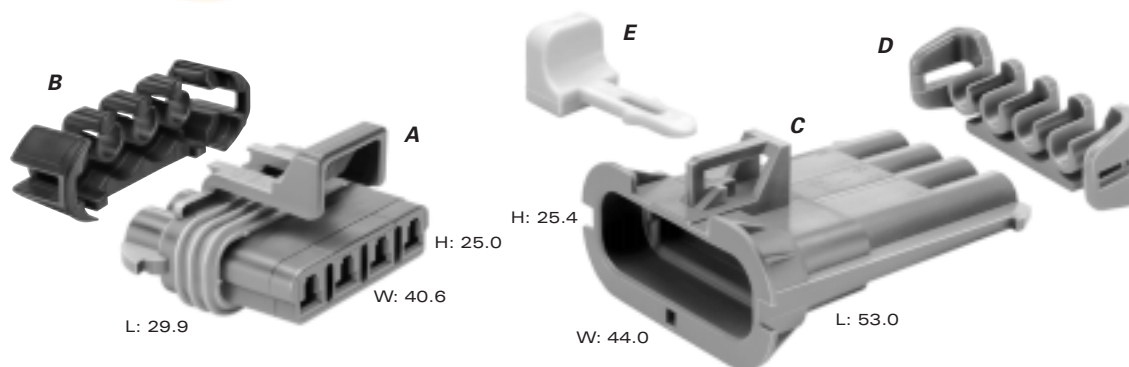
**E PART NO: 12040977**  
 DESCRIPTION: Connector Assembly 3F  
 SIZE: 36.7L x 26.5H x 30.4W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 84  
 SEALS/PLUGS: See Page 84, 85

**G PART NO: 15300003**  
 DESCRIPTION: Connector 3M (Clip Slot)  
 SIZE: 53.0L x 26.5H x 32.9W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 85  
 SEALS/PLUGS: See Page 84, 85

**F PART NO: 12034145**  
 DESCRIPTION: TPA  
 COLOR: Black  
 MATERIAL: PA6

**H PART NO: 15300015**  
 DESCRIPTION: TPA  
 COLOR: Natural  
 MATERIAL: PA6

**J PART NO: 12020833**  
 DESCRIPTION: CPA  
 COLOR: Gray  
 MATERIAL: PBT



Total Mated Length: 66.7mm

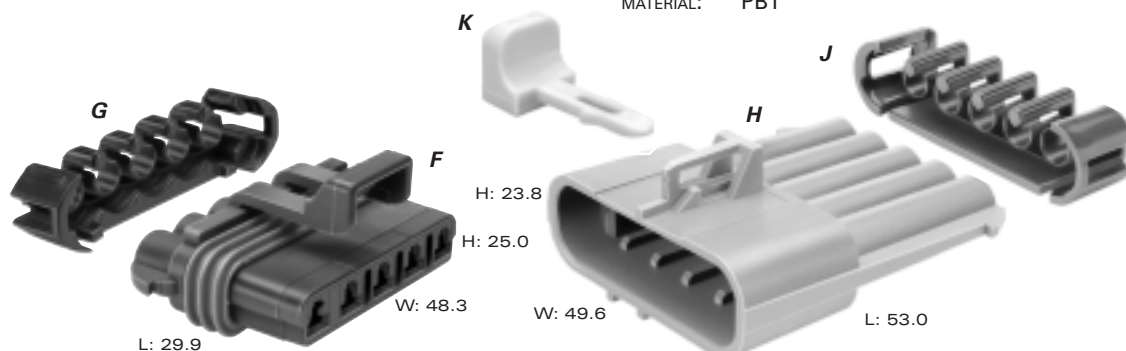
**A** PART NO: **12129565**  
DESCRIPTION: Connector Assembly 4F  
SIZE: 29.9L x 25.0H x 40.6W  
COLOR: Md. Gray  
MATERIAL: PA66 HS IM  
TERMINALS: See Page 84  
SEALS/PLUGS: See Page 84, 85

**C** PART NO: **12129600**  
DESCRIPTION: Connector 4M (Clip Slot-Self Locking)  
SIZE: 53.0L x 25.4H x 44.0W  
COLOR: Dk. Gray  
MATERIAL: PBT 30% GF  
TERMINALS: See Page 85  
SEALS/PLUGS: See Page 84, 85

**B** PART NO: **15300016**  
DESCRIPTION: TPA  
COLOR: Black  
MATERIAL: PA6

**D** PART NO: **15324063**  
DESCRIPTION: TPA  
COLOR: Blue  
MATERIAL: PA6

**E** PART NO: **12020833**  
DESCRIPTION: CPA  
COLOR: Gray  
MATERIAL: PBT



Total Mated Length: 67.3mm

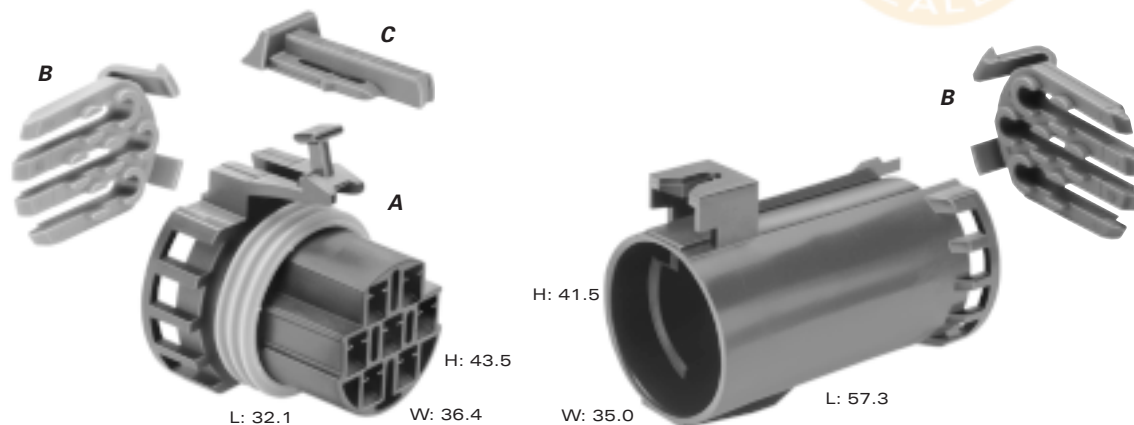
**F** PART NO: **12084891**  
DESCRIPTION: Connector Assembly 5F  
SIZE: 29.9L x 25.0H x 48.3W  
COLOR: Md. Gray  
MATERIAL: PA66 HS IM  
TERMINALS: See Page 84  
SEALS/PLUGS: See Page 84, 85

**H** PART NO: **12186400**  
DESCRIPTION: Connector 5M (Clip Slot-Self Locking)  
SIZE: 53.0L x 23.8H x 49.6W  
COLOR: Gray  
MATERIAL: PBT 30% GF  
TERMINALS: See Page 85  
SEALS/PLUGS: See Page 84, 85

**G** PART NO: **15324857**  
DESCRIPTION: TPA  
COLOR: Black  
MATERIAL: PA6

**J** PART NO: **12084673**  
DESCRIPTION: TPA  
COLOR: Black  
MATERIAL: PA6

**K** PART NO: **12020833**  
DESCRIPTION: CPA  
COLOR: Gray  
MATERIAL: PBT



Total Mated Length: 77.3mm



**A PART NO:** 12110751 (Black)  
12129613 (Md. Gray)  
12146841 (Natural)

DESCRIPTION: Connector Assembly 7F  
SIZE: 32.1L x 43.5H x 36.4W  
MATERIAL: PA66 HS IM  
TERMINALS: See Page 84  
SEALS/PLUGS: See Page 84, 85

**D PART NO:** 12110753 (Black)  
12129614 (Md. Gray)  
12146840 (Natural)

DESCRIPTION: Connector 7M (Clip Slot-Self Locking)  
SIZE: 57.3L x 41.5H x 35.0W  
MATERIAL: PA66 HS IM  
TERMINALS: See Page 85  
SEALS/PLUGS: See Page 84, 85

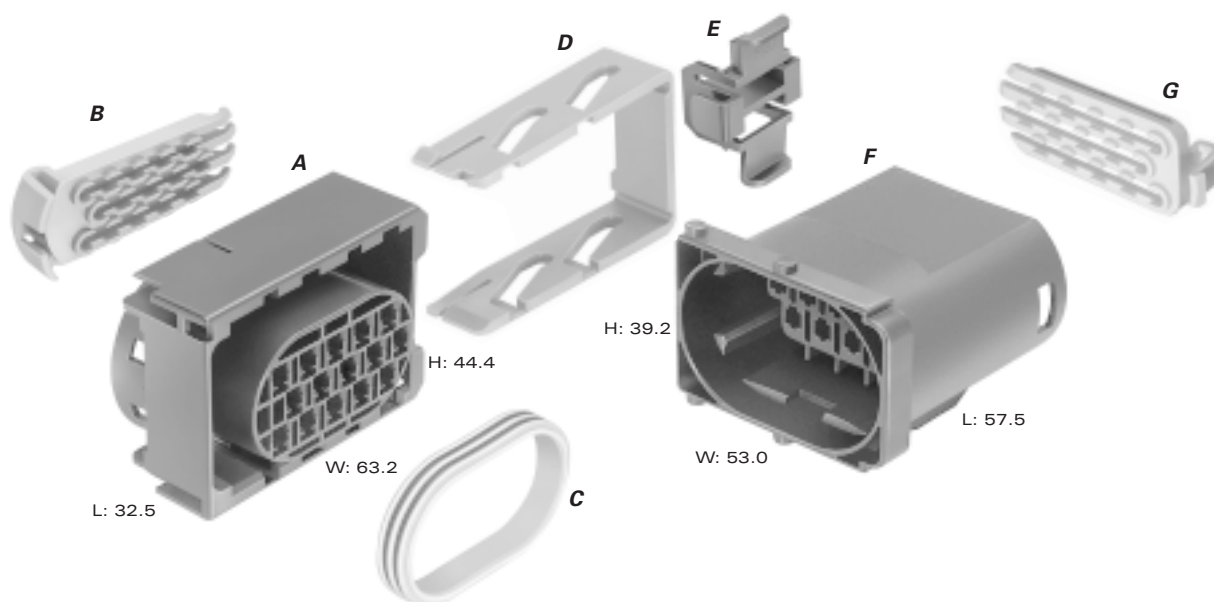
**B PART NO:** 12110754

DESCRIPTION: TPA  
NUMBER REQ.: 2  
COLOR: Lt. Gray  
MATERIAL: PA6

**C PART NO:** 12052834

DESCRIPTION: CPA  
COLOR: Green  
MATERIAL: PP





Total Mated Length: 76.6mm

## A PART NO: 12161186

DESCRIPTION: Connector 15F  
SIZE: 32.5L x 44.4H x 63.2W  
COLOR: Black  
MATERIAL: PA66 HS IM  
TERMINALS: See Page 84  
SEALS/PLUGS: See Page 84, 85

## F PART NO: 12161187

DESCRIPTION: Connector 15M (Clip Slot-Self Locking)  
SIZE: 57.5L x 39.2H x 53.0W  
COLOR: Black  
MATERIAL: PA66 HS IM  
TERMINALS: See Page 85  
SEALS/PLUGS: See Page 84, 85

## B PART NO: 12110782

DESCRIPTION: TPA  
COLOR: Md. Gray  
MATERIAL: PA6

## G PART NO: 12176865

DESCRIPTION: TPA  
COLOR: Lt. Gray  
MATERIAL: PA6

## C PART NO: 12110822

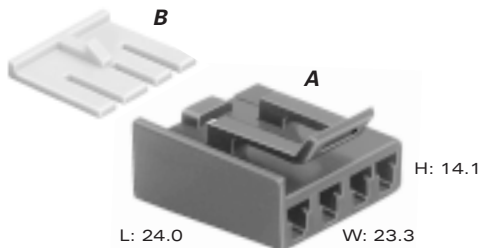
DESCRIPTION: Connector Seal  
COLOR: Green  
MATERIAL: Silicone

## D PART NO: 12161185

DESCRIPTION: CPA Slide Lock Assist  
COLOR: Dk. Gray  
MATERIAL: PA66 HS IM 14% GF

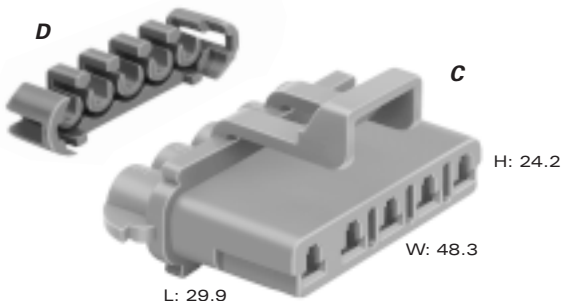
## E PART NO: 12176640

DESCRIPTION: Spacer Lock  
COLOR: Black  
MATERIAL: PP



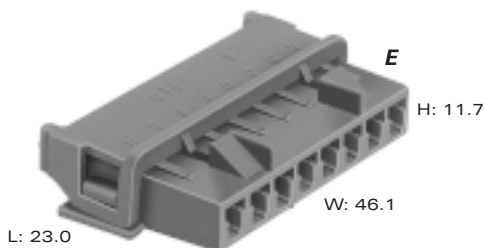
**A PART NO: 12052856**  
 DESCRIPTION: Connector 4F  
 SIZE: 24.0L x 14.1H x 23.3W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 78  
 TYPICAL APP: Dimmer Switch

**B PART NO: 15324456**  
 DESCRIPTION: TPA  
 COLOR: Lt. Gray  
 MATERIAL: PA6

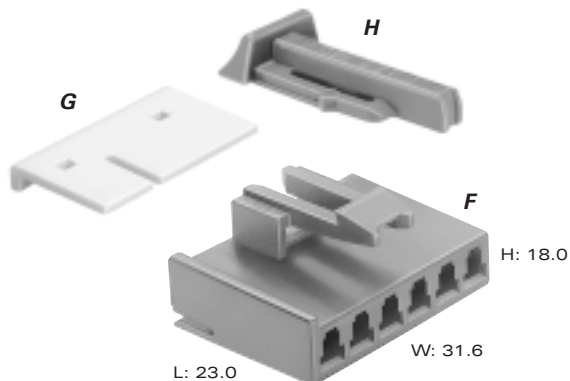


**C PART NO: 12084890**  
 DESCRIPTION: Connector 5F  
 SIZE: 29.9L x 24.2H x 48.3W  
 COLOR: Md. Gray  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 78  
 TYPICAL APP: Tail Lamp Module

**D PART NO: 15324857**  
 DESCRIPTION: TPA  
 COLOR: Black  
 MATERIAL: PA6



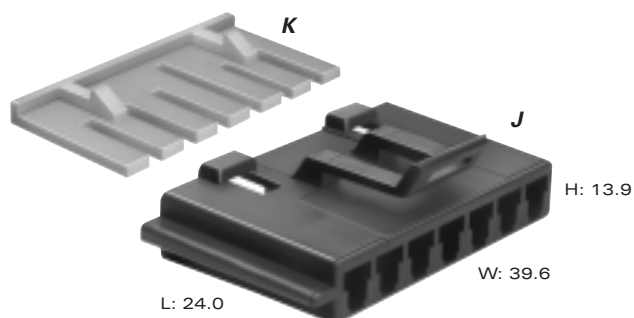
**E PART NO: 12041301\***  
 DESCRIPTION: Connector 8F  
 SIZE: 23.0L x 11.7H x 46.1W  
 COLOR: Black  
 MATERIAL: PP  
 TERMINALS: See Page 78  
 TYPICAL APP: Various  
 \*HINGED SECONDARY LOCK.



**F PART NO: 12092254**  
 DESCRIPTION: Connector 6F  
 SIZE: 23.0L x 18.0H x 31.6W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 78  
 TYPICAL APP: Wiper Switch

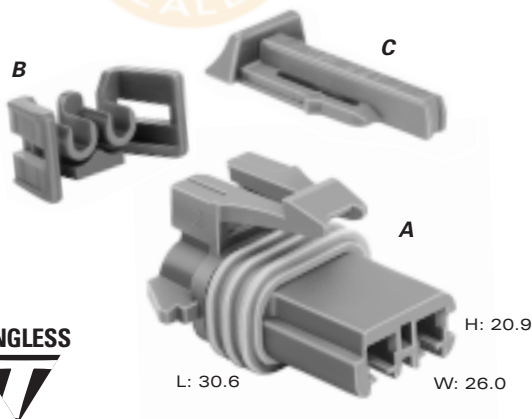
**G PART NO: 12162298**  
 DESCRIPTION: TPA  
 COLOR: Cream  
 MATERIAL: PA6

**H PART NO: 12052834**  
 DESCRIPTION: CPA  
 COLOR: Green  
 MATERIAL: PP



**J PART NO: 12052854**  
 DESCRIPTION: Connector 7F  
 SIZE: 24.0L x 13.9H x 39.6W  
 COLOR: Black  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 78  
 TYPICAL APP: Wiper Switch

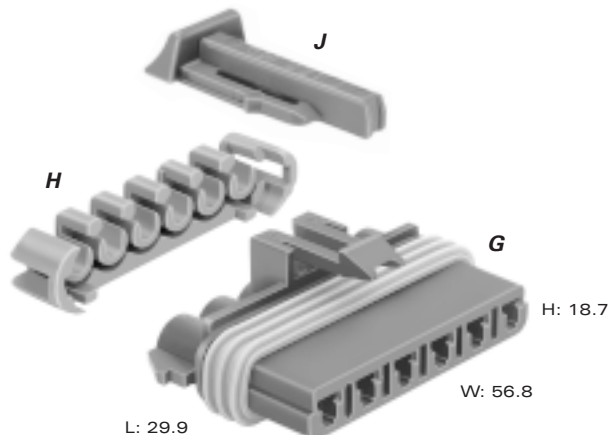
**K PART NO: 12124811**  
 DESCRIPTION: TPA  
 COLOR: Natural  
 MATERIAL: PA6



**A PART NO: 12129487**  
 DESCRIPTION: Connector Assembly 2F  
 SIZE: 30.6L x 20.9H x 26.0W  
 COLOR: Md. Gray  
 MATERIAL: PA66 HS IM  
 TERMINALS: See Page 84  
 SEALS/PLUGS: See Page 84, 85  
 TYPICAL APP: Window Lift Motor

**B PART NO: 12077904**  
 DESCRIPTION: TPA  
 COLOR: Blue  
 MATERIAL: PA6

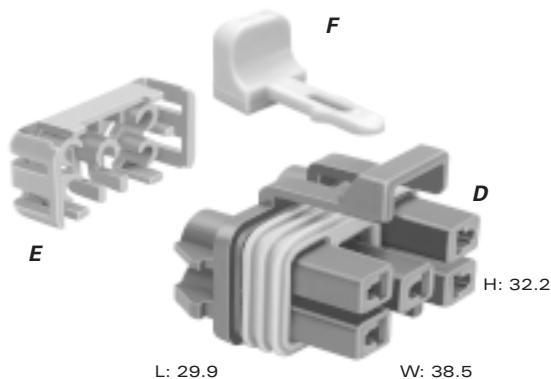
**C PART NO: 12052834**  
 DESCRIPTION: CPA  
 COLOR: Green  
 MATERIAL: PP



**G PART NO: 12059573**  
 DESCRIPTION: Connector Assembly 6F  
 SIZE: 29.9L x 18.7H x 56.8W  
 COLOR: Black  
 MATERIAL: PA66  
 TERMINALS: See Page 84  
 SEALS/PLUGS: See Page 84, 85  
 TYPICAL APP: Various

**H PART NO: 12059195**  
 DESCRIPTION: TPA  
 COLOR: Blue  
 MATERIAL: PA6

**J PART NO: 12052834**  
 DESCRIPTION: CPA  
 COLOR: Green  
 MATERIAL: PP



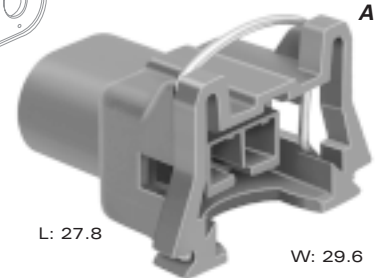
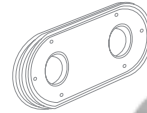
**D PART NO: 12124634**  
 DESCRIPTION: Connector Assembly 5F  
 SIZE: 29.9L x 32.2H x 38.5W  
 COLOR: Black  
 MATERIAL: PA6  
 TERMINALS: See Page 84  
 SEALS/PLUGS: See Page 84, 85  
 TYPICAL APP: Wiper Switch

**E PART NO: 12052816**  
 DESCRIPTION: TPA  
 COLOR: Md. Gray  
 MATERIAL: PA6

**F PART NO: 12020833**  
 DESCRIPTION: CPA  
 COLOR: Gray  
 MATERIAL: PBT



Multiple Cable Seal  
(Included)



L: 27.8

W: 29.6

H: 20.0

|          |                     |                                     |
|----------|---------------------|-------------------------------------|
| <b>A</b> | <b>PART NO:</b>     | <b>12129142 (Black/Gray Seal)</b>   |
|          |                     | 2.66 - 2.0 Cable O.D.               |
|          | <b>PART NO:</b>     | <b>12129140 (Black/Purple Seal)</b> |
|          |                     | 2.15 - 1.65 Cable O.D.              |
|          | <b>PART NO:</b>     | <b>12110179 (Black/Red Seal)</b>    |
|          |                     | 1.85 - 1.47 Cable O.D.              |
|          | <b>DESCRIPTION:</b> | Connector Assembly 2F               |
|          | <b>SIZE:</b>        | 27.8L x 20.0H x 29.6W               |
|          | <b>MATERIAL:</b>    | PA66 HS 33% GF                      |
|          | <b>TERMINALS:</b>   | See Page 84                         |
|          | <b>TYPICAL APP:</b> | Fuel Injector                       |

