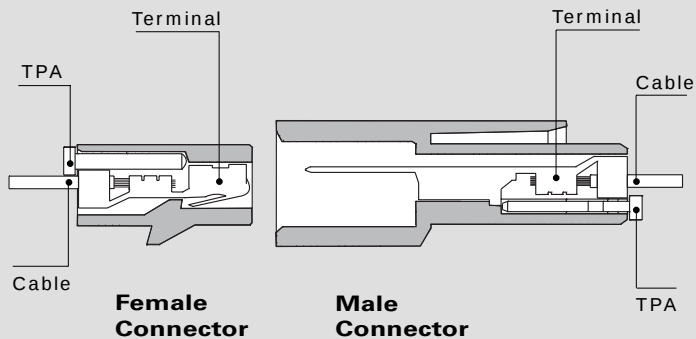


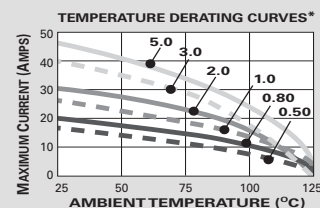
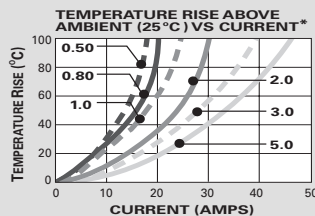


Mixed

Unsealed System Application Information



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.

280 Female Terminals Unsealed

Part #	Cable Range (mm²)	Material	Plating
12015858	5.0-3.0	Tin Brass	Tin
12129494	3.0-2.0	Tin Brass	Tin
12066214	2.0-1.0	Tin Brass	Tin
12034046	0.80-0.50	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 may apply.

480 Female Terminals Unsealed

Part #	Cable Range (mm²)	Material	Plating
12084595	5.0-3.0	Tin Brass	Tin
12052221	3.0	Tin Brass	Tin
12124304	2.0-1.0	Tin Brass	Tin
12015860	0.80-0.50	Tin Brass	Tin
12052219	0.50-0.35	Tin Brass	Tin
12020366	2.0-1.0 (1 Req'd.)	Tin Brass	Tin
	0.80-0.50 (1 Req'd.)		

630 Female Terminals Unsealed

Part #	Cable Range (mm²)	Material	Plating
12084590	5.0-3.0	Tin Brass	Tin
12052224	3.0	Tin Brass	Tin
12084596	5.0-3.0 (2 Req'd.)	Tin Brass	Tin
12015870	2.0-1.0	Tin Brass	Tin
12015869	0.80-0.50	Tin Brass	Tin
12020035	0.80-0.50 (2 Req'd.)	Tin Brass	Tin
12052222	0.50-0.35	Tin Brass	Tin

Female Terminals



Female Connector

Mixed Metri-Pack Female Connector Unsealed

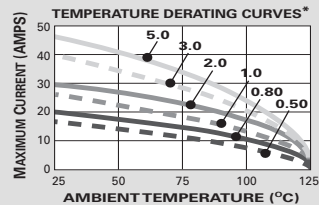
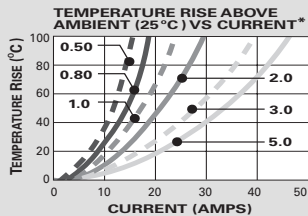
# Cavities	Connector	Color	Material
3	12020014	Black	PA66 HS IM

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

Unsealed System Application Information

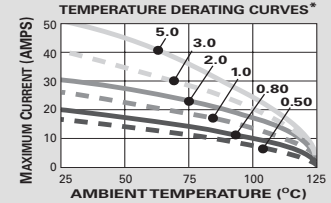
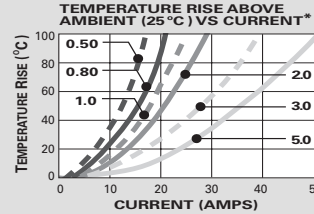
480 Series Terminals – Tin Plated



CABLE RANGE (mm²): 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

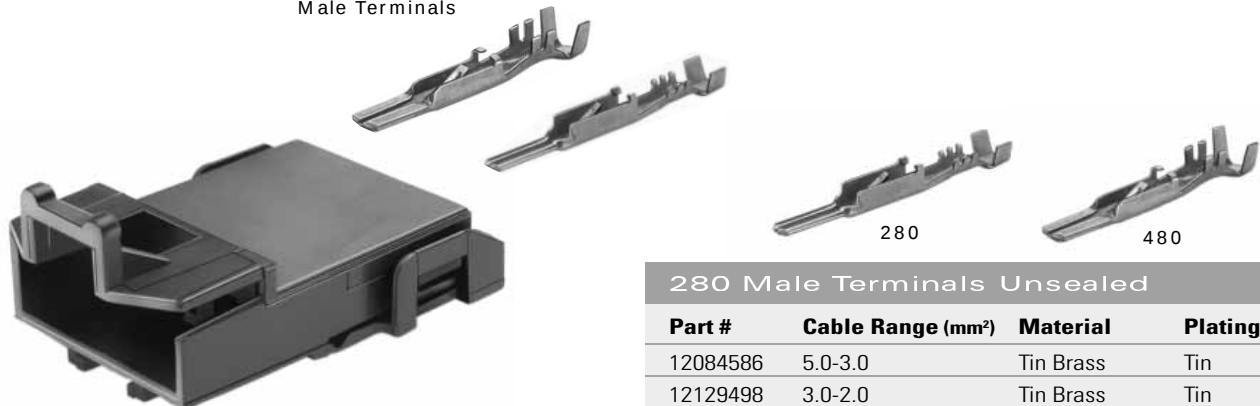


CABLE RANGE (mm²): 0.35-5.0
 CURRENT RANGE (AMPS): 0-46
 TEMP RANGE °C: -40 to 125
 RESISTANCE: <10mΩ@20mV

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 Terminals



Male Connector

280 Male Terminals Unsealed

Part #	Cable Range (mm²)	Material	Plating
12084586	5.0-3.0	Tin Brass	Tin
12129498	3.0-2.0	Tin Brass	Tin
12020116	2.0-1.0	Tin Brass	Tin
12034047	0.80-0.50	Tin Brass	Tin
12066271	0.50-0.35	Tin Brass	Tin
12020782	0.35 (2 Req'd.)	Tin Brass	Tin

480 Male Terminals Unsealed

Part #	Cable Range (mm²)	Material	Plating
12033820	5.0-3.0	Tin Brass	Tin over Copper
12052827	3.0	Tin Brass	Tin over Copper
12020120	2.0-1.0	Tin Brass	Tin over Copper
12020119	0.80-0.50	Tin Brass	Tin over Copper
12066269	0.50-0.35	Tin Brass	Tin over Copper
12020784	0.35 (2 Req'd.)	Tin Brass	Tin over Copper

Mixed Metri-Pack Male Connector Unsealed

# Cavities	Connector	Color	Material
3	12045681	Black	PA66 HS IM

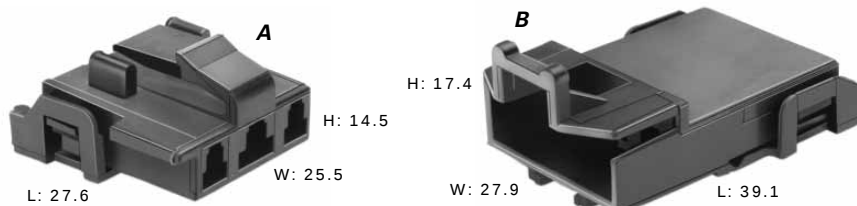
SECTION NOTES:

- Due to rigid tolerances of connector cavities, it is critical to meet all crimp dimensions as specified.
- Female connections for device applications, see page 2.76.

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



Total Mated Length: 55.6 mm

A. Part No: 12020014*

Description:	Connector 3F
Size:	27.6L x 14.5H x 25.5W
Color:	Black
Material:	PA66 HS IM
Terminals:	See Page 2.68

*Hinged secondary lock.

B. Part No: 12045681*

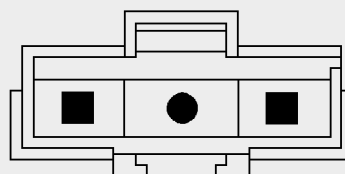
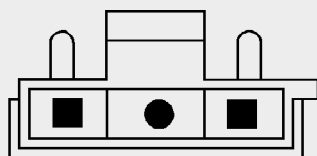
Description:	Connector 3M (Clip Slot)
Size:	39.1L x 17.4H x 27.9W
Color:	Black
Material:	PA66 HS IM
Terminals:	See Page 2.69

*Hinged secondary lock.

KEY:

- 280 SERIES
- 480 SERIES

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



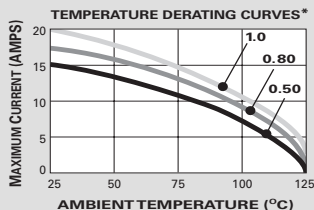
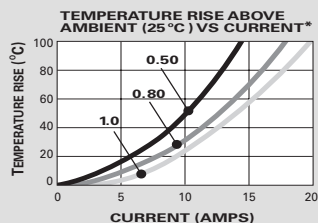
NOTE: Specifications in this catalog are for general reference only and are subject to change without notice. To verify product information, please contact a Delphi representative.



Mixed

Sealed System Application Information

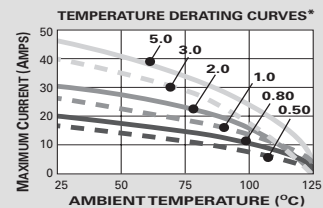
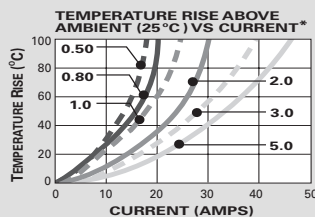
150 Series Terminals – Tin Plated



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

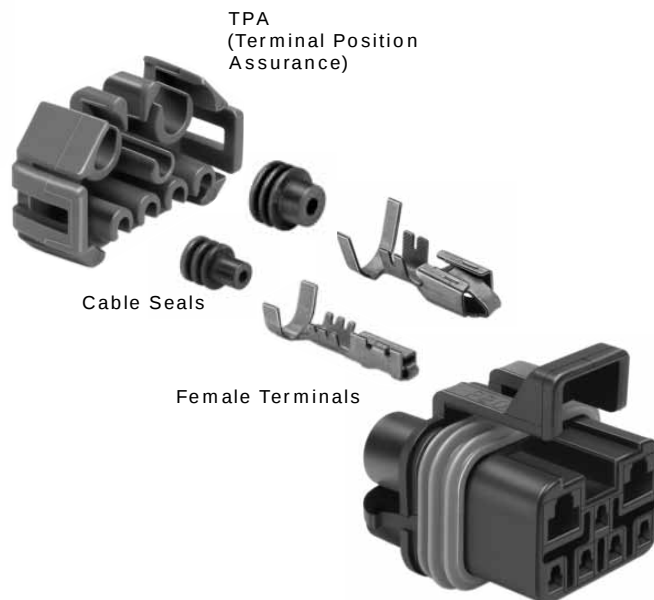
Part #	Cable Range (mm²)	Material	Plating
12077413	3.0	Tin Brass	Tin
12129493	3.0-2.0	Tin Brass	Tin
12077411	1.0-0.80-0.50	Tin Brass	Tin
12084201	0.50-0.35	Tin Brass	Tin

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

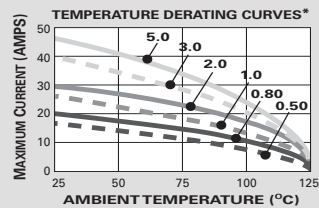
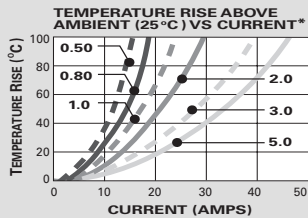
# Cavities	Conn. Asm.	Color	Material	TPA
7	12059472	Black	PA66 HS IM	12052486

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

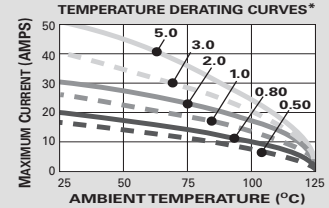
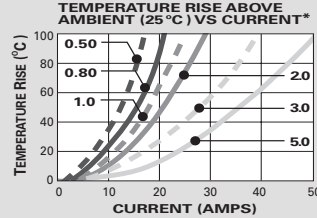
480 Series Terminals – Tin Plated



CABLE RANGE (mm²): 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 (mm²): 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.



CPA
(Connector Position
Assurance)



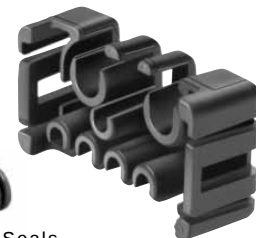
Male Connector



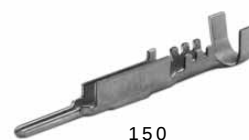
Male Terminals



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 ²)	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 ²)	Material	Plating
12052172	5.0	Tin Brass	Tin
12065197	3.0	Tin Brass	Tin
12065196	2.0-1.0	Tin Brass	Tin

SECTION NOTES:

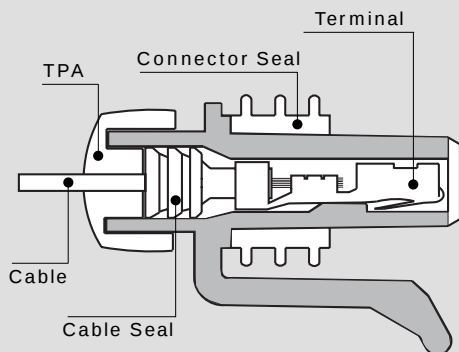
- Due to rigid tolerances of connector cavities, it is critical to meet all crimp dimensions as specified.
- Female connections for device applications, see pages 2.77 and 2.78.

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.

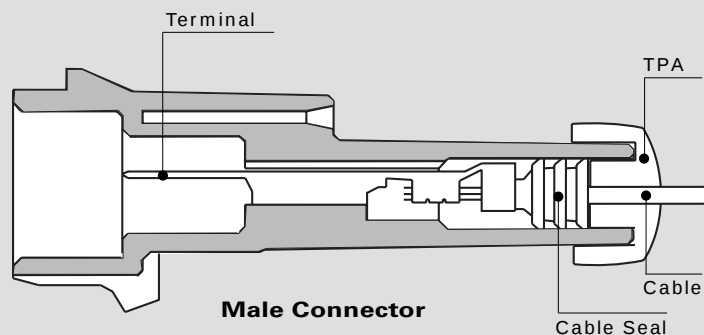


Mixed

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.



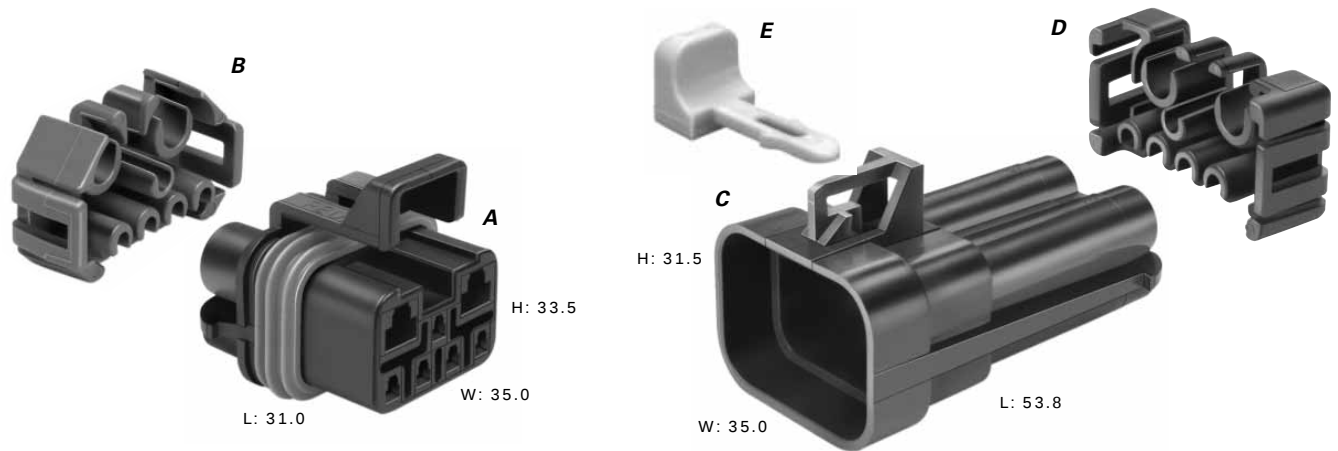
630 Metri-Pack Cavity Plug*

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

*Cavity plugs seal unused female and male cavities.

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



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

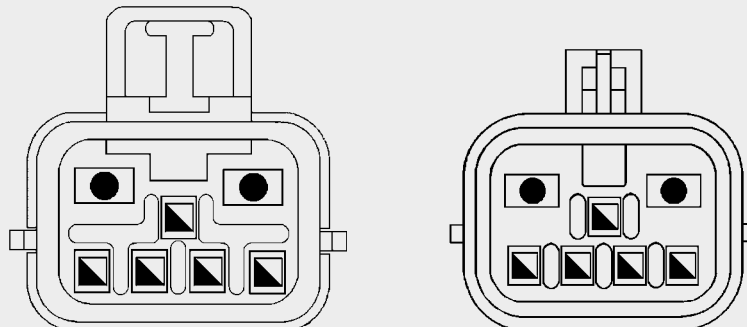
E. Part No: 12020833

Description:	CPA
Color:	Gray
Material:	PBT

KEY:

- 150 SERIES
- 480 SERIES

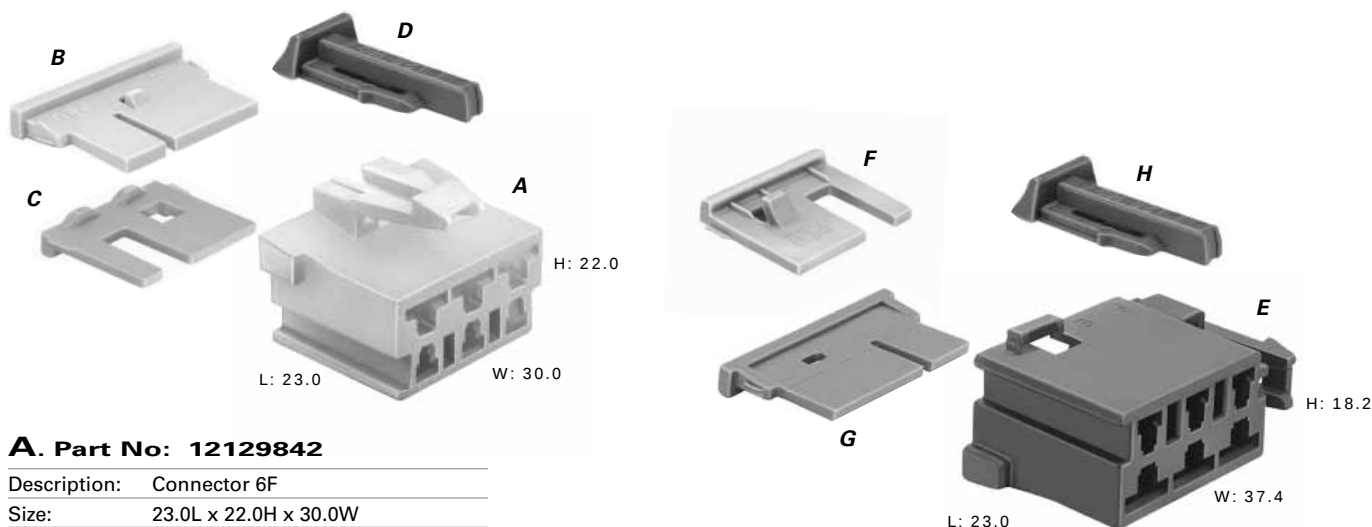
Mixed connectors feature a combination of different terminal cavities, as indicated by the key.



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 Device Connections

**A. Part No: 12129842**

Description: Connector 6F
 Size: 23.0L x 22.0H x 30.0W
 Color: Natural
 Material: PA66 HS IM
 Terminals: See Page 2.68
 Typical App: Switch

B. Part No: 12162301

Description: TPA
 Color: Lt. Gray
 Material: PA66 HS IM

C. Part No: 12162300

Description: TPA
 Color: Blue
 Material: PA66 HS IM

D. Part No: 12052834

Description: CPA
 Color: Green
 Material: PP

**E. Part No: 12162229 (Black)
12110075 (Cream)***

Description: Connector 6F
 Size: 23.0L x 18.2H x 37.4W
 Material: PA66 HS IM
 Terminals: See Page 2.68
 Typical App: Switch
 *Reversed locking feature.

F. Part No: 12162300

Description: TPA
 Color: Blue
 Material: PA66 HS IM

G. Part No: 12162299

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

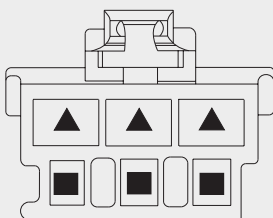
H. Part No: 12052834

Description: CPA
 Color: Green
 Material: PP

KEY:

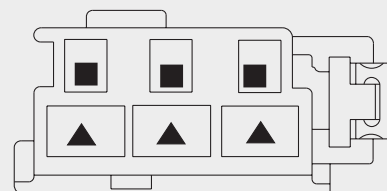
- 280 SERIES
- ▲ 630 SERIES

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

**KEY:**

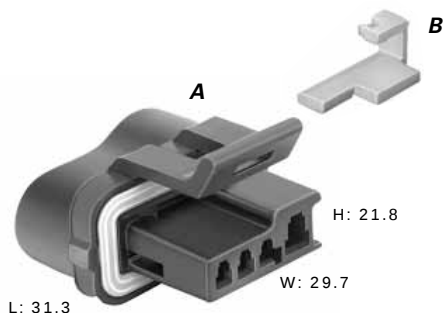
- 280 SERIES
- ▲ 630 SERIES

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



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 Device Connections

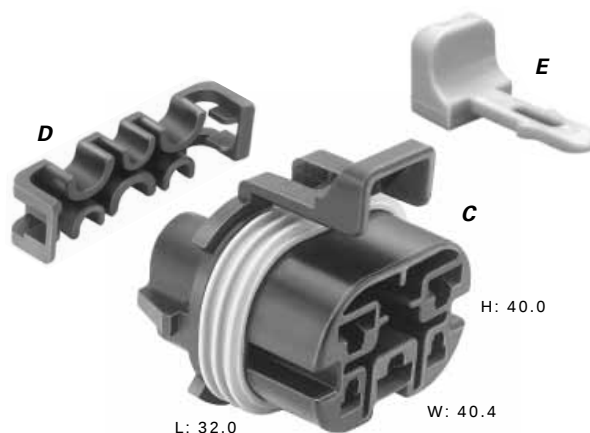


A. Part No: 12124898

Description:	Connector Assembly 4F
Size:	31.3L x 21.8H x 29.7W
Color:	Black
Material:	PBT
Terminals:	See Page 2.72
Seals/Plugs:	See Page 2.74
Typical App:	Alternator

B. Part No: 12045897

Description:	Secondary Lock
Color:	Natural
Material:	PBT



C. Part No: 12052287

Description:	Connector Assembly 5F
Size:	32.0L x 40.0H x 40.4W
Color:	Black
Material:	PA66 HS IM
Terminals:	See Page 2.72
Seals/Plugs:	See Page 2.74
Typical App:	Switch

D. Part No: 12052290

Description:	TPA
Color:	Black
Material:	PA66 HS IM

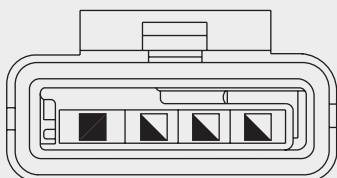
E. Part No: 12020833

Description:	CPA
Color:	Gray
Material:	PBT

KEY:

- ▣ 150 SERIES
- 280 SERIES

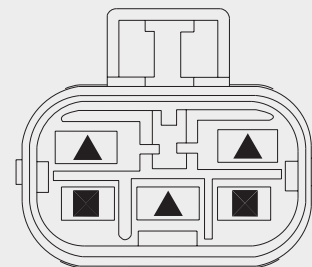
Mixed connectors feature a combination of different terminal cavities, as indicated by the key.



KEY:

- 280 SERIES
- ▲ 630 SERIES

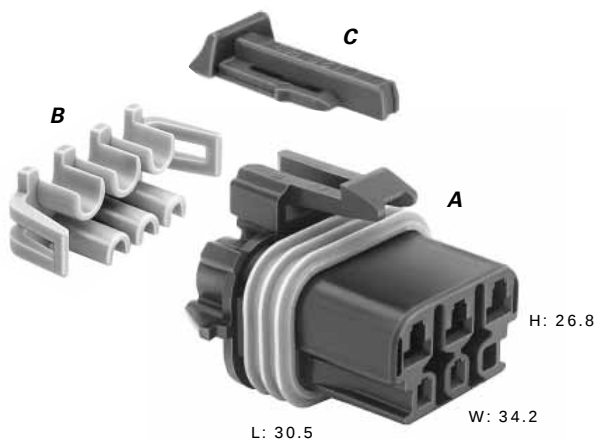
Mixed connectors feature a combination of different terminal cavities, as indicated by the key.



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 Device Connections



A. Part No: 12186347

Description: Connector Assembly 6F

Size: 30.5L x 26.8H x 34.2W

Color: Md. Gray

Material: PA66 HS IM

Terminals: See Page 2.72

Seals/Plugs: See Page 2.74

Typical App: Wiper Motor

B. Part No: 12129124

Description: TPA

Color: Lt. Gray

Material: PA66 HS IM

C. Part No: 12052834

Description: CPA

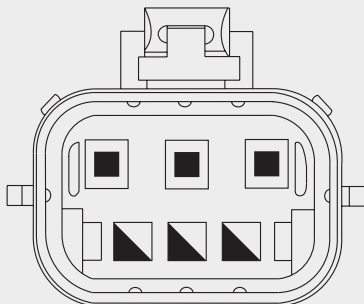
Color: Green

Material: PP

KEY:

- 150 SERIES
- 280 SERIES

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



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.