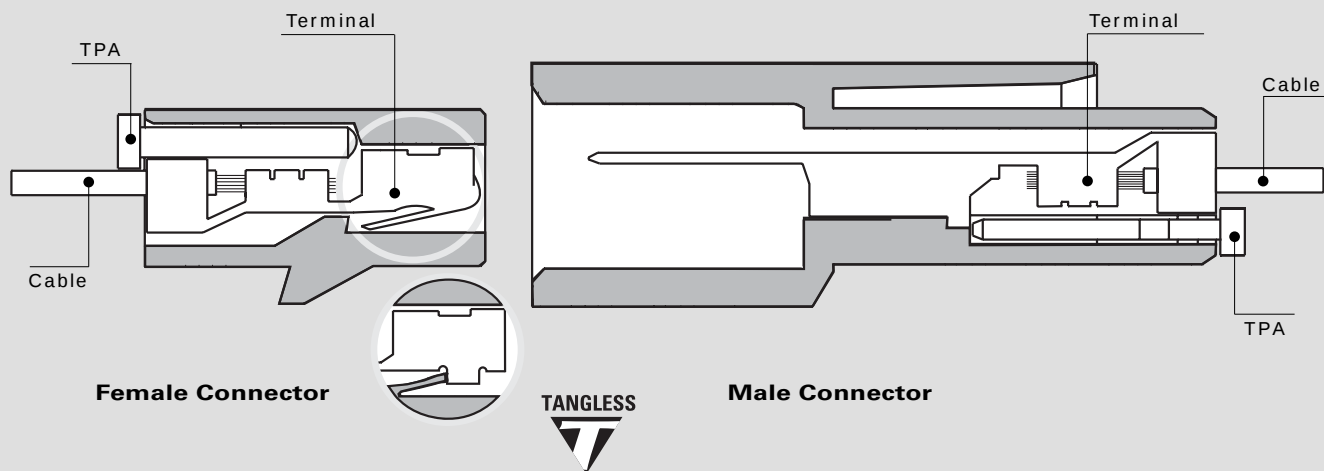




280

Cross Sectional View



280 Tangless Female Terminals Unsealed

Part #	Cable Range (mm ²)	Material	Plating
12129425	5.0-3.0	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*	2.0-0.35	Tin Brass	Tin

*Thin Stock—Electrical current restrictions apply.



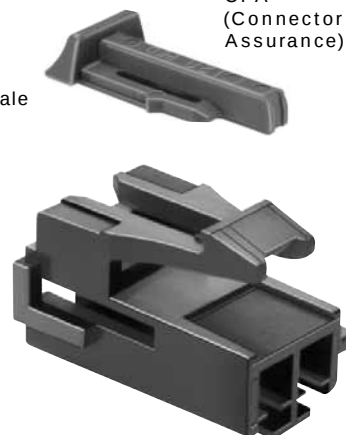
280 Female Terminals Unsealed

Part #	Cable Range (mm ²)	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 apply.

CPA
(Connector Position Assurance)

Tangless Female Terminal



Female Connector



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	PA66 HS IM	12064999

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.

280

Unsealed System Application Information

280 Series Terminals – Tin Plated

CABLE RANGE (mm²): 0.35-5.0

CURRENT RANGE (AMPS): 0-30

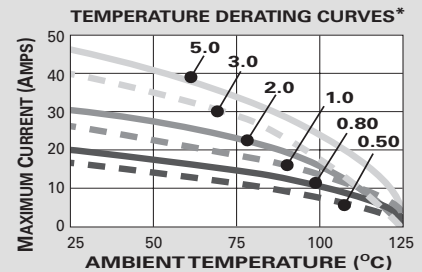
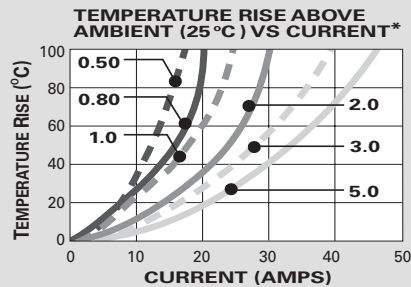
TEMP RANGE °C: -40 to 125

RESISTANCE: <10mΩ@20mV

VOLTAGE DROP: <3.0mV/amp

CENTERLINE SPACING (mm): 5.0

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.



Male Connector

Male Terminal

TPA
(Terminal Position Assurance)

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	PA66 HS IM	12065141

280 Male Terminals Unsealed

Part #	Cable Range (mm ²)	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

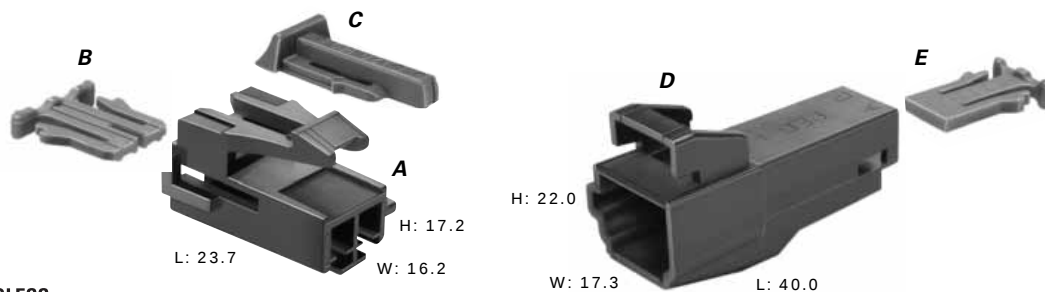
SECTION NOTES:

- 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 2.37.

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.



280



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 2.24

B. Part No: 12129083

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

C. Part No: 12052834

Description:	CPA
Color:	Green
Material:	PP

**D. Part No: 12129155 (Black)
12129156 (Md. Gray)**

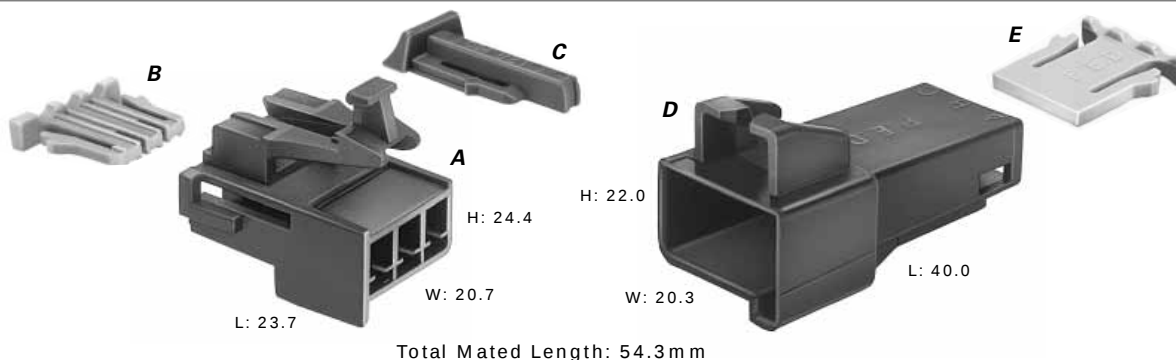
Description:	Connector 2M (Clip Slot-Self Locking)
Size:	40.0L x 22.0H x 17.3W
Material:	PA66 HS IM
Terminals:	See Page 2.25

E. Part No: 12129157

Description:	TPA
Color:	Lt. Gray
Material:	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.

280

**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 2.24

B. Part No: 12129491

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

C. Part No: 12052834

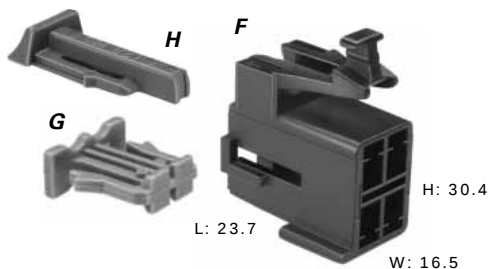
Description: CPA
 Color: Green
 Material: PP

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 2.25

E. Part No: 12129492

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

**F. Part No: 12129136 (Black)
15479020 (Cream)**

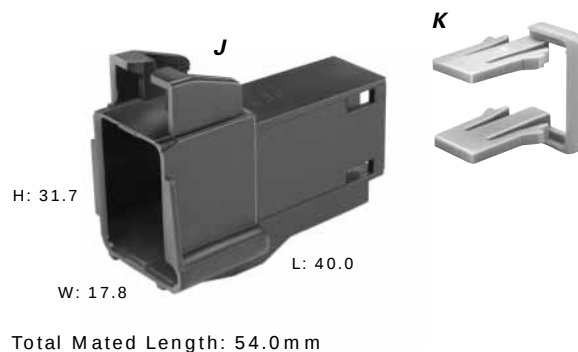
Description: Connector 4F
 Size: 23.7L x 30.4H x 16.5W
 Material: PA66 HS IM
 Terminals: See Page 2.24

G. Part No: 12129138

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

H. Part No: 12052834

Description: CPA
 Color: Green
 Material: PP

**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 2.25

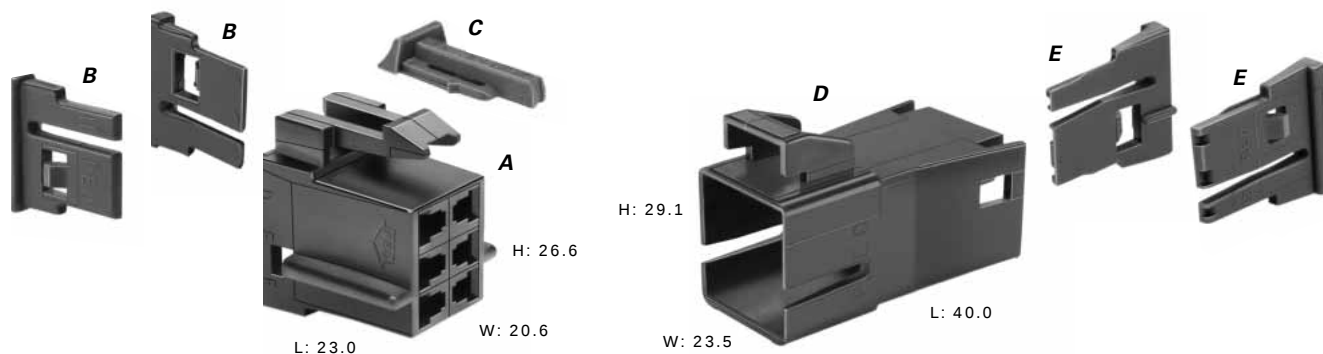
K. Part No: 12129137

Description: TPA
 Color: Lt. Gray
 Material: 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.



280



Total Mated Length: 57.0mm

**A. Part No: 12064752 (Black)
15479022 (Cream)**

Description:	Connector 6F
Size:	23.0L x 26.6H x 20.6W
Material:	PA66 HS IM
Terminals:	See Page 2.24

B. Part No: 12064753

Description:	TPA
Number Req:	2
Color:	Md. Gray
Material:	PA66 HS IM

C. Part No: 12052834

Description:	CPA
Color:	Green
Material:	PP

D. Part No: 12064754

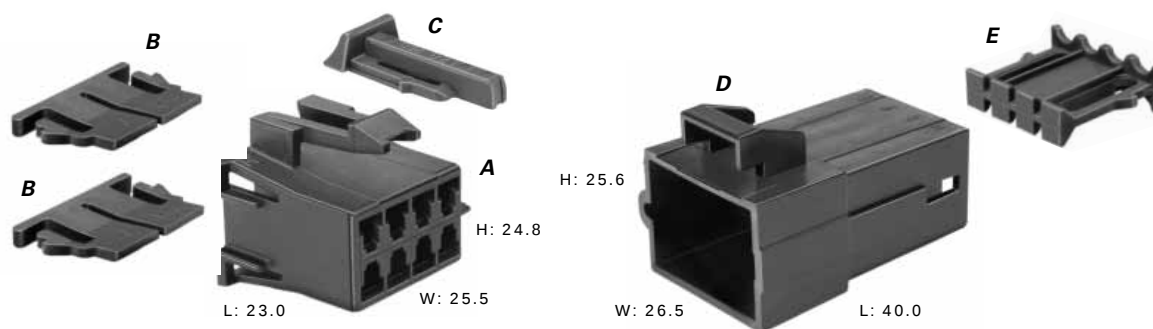
Description:	Connector 6M (Clip Slot-Self Locking)
Size:	40.0L x 29.1H x 23.5W
Color:	Black
Material:	PA6
Terminals:	See Page 2.25

E. Part No: 12064755

Description:	TPA
Number Req:	2
Color:	Blue
Material:	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.

280



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 2.24

B. Part No: 12064999

Description:	TPA
Number Req:	2
Color:	Blue
Material:	PBT

C. Part No: 12052834

Description:	CPA
Color:	Green
Material:	PP

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 2.25

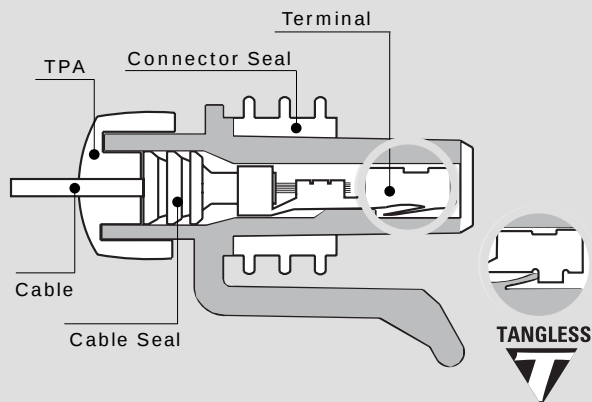
E. Part No: 12065141

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

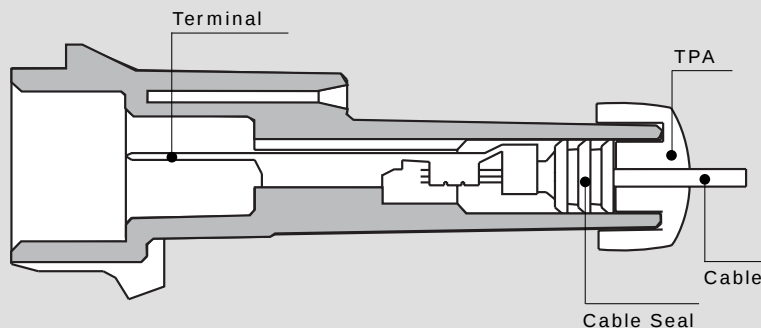


280

Cross Sectional View



Female Connector Assembly



Male Connector



280 Tangless Female Terminals Sealed

Part #	Cable Range (mm ²)	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.



280 Flexlock Female Connector Assemblies Sealed

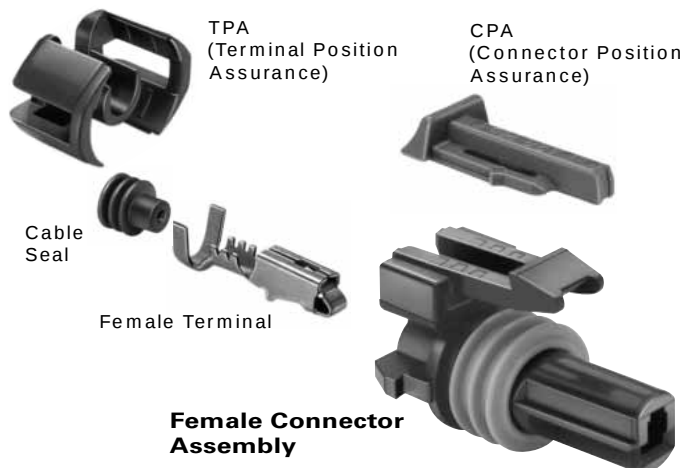
# Cavities	Conn. Asm.	Color	Material	TPA
7	12110751	Black	PA66 HS IM	12110754
15	12161186	Black	PA66 HS IM	12110782

280 Female Terminals Sealed

Part #	Cable Range (mm ²)	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
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

280.1 Female Pull-to-Seat Terminals Sealed

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



Female Connector Assembly

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	15324857

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

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.

280

Sealed System Application Information

280 Series Terminals – Tin Plated

CABLE RANGE (mm²): 0.35-5.0

CURRENT RANGE (AMPS): 0-30

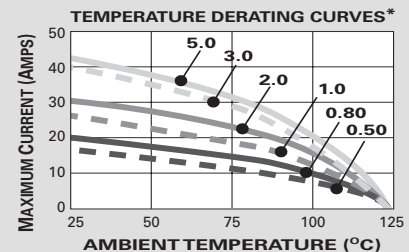
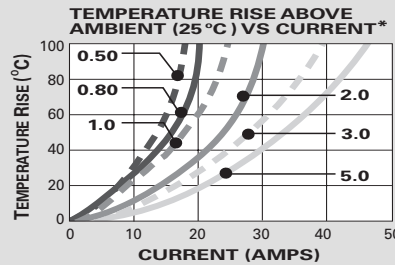
TEMP RANGE °C: -40 to 125

RESISTANCE: <10mΩ@20mV

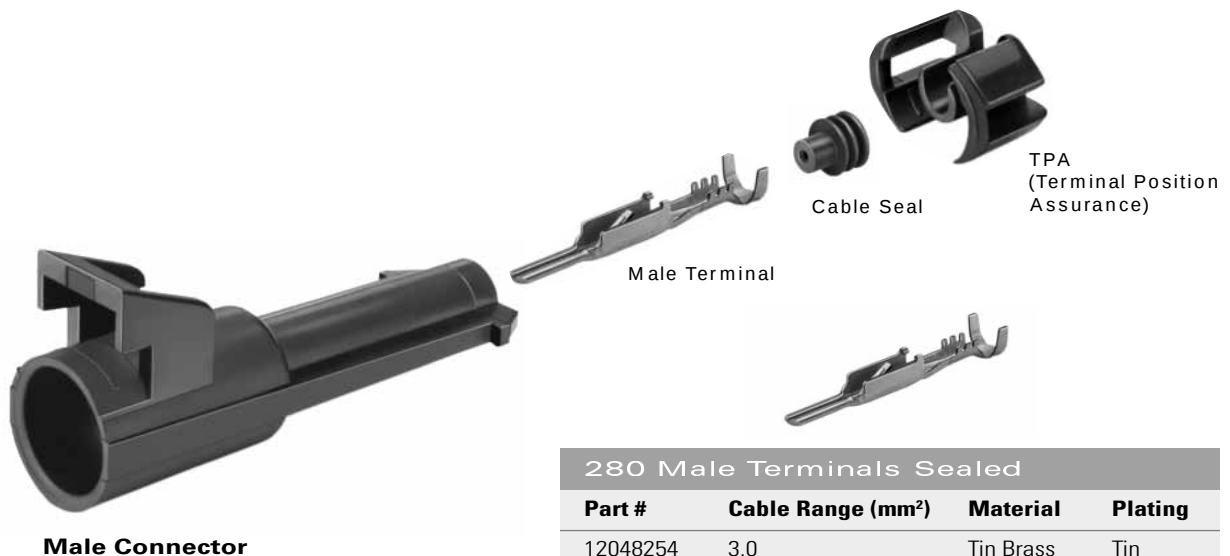
VOLTAGE DROP: <3.0mV/amp

CENTERLINE SPACING (mm): 7.7

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.



Male Connector

280 Male Terminals Sealed

Part #	Cable Range (mm ²)	Material	Plating
12048254	3.0	Tin Brass	Tin
12129497	3.0-2.0	Tin Brass	Tin
12048159	0.80-0.50	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	15324063
5	12186400	Gray	PBT 30% GF	12084673
7	12110753	Black	PA66 HS IM	12110754
15	12161187	Black	PA66 HS IM 14% GF	12176865

280 Metri-Pack Cavity Plug*

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

*Cavity plugs seal unused female and male cavities.

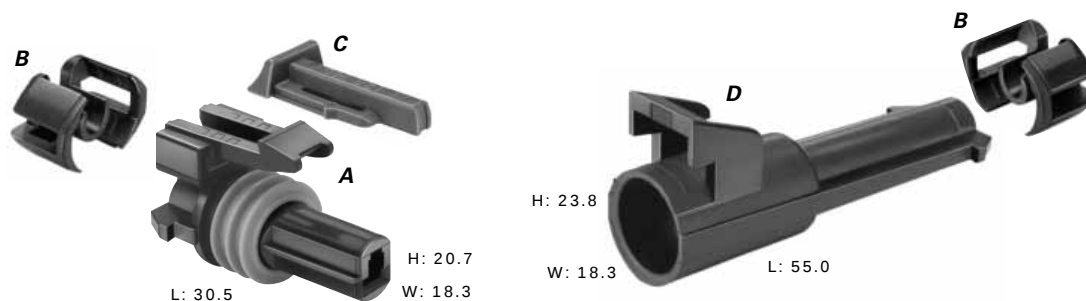
SECTION NOTES:

- Due to rigid tolerances of connector cavities, it is critical to meet all crimp dimensions as specified.
- Female Connections for device applications, see page 2.38.

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.



280



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 2.30
Seals/Plugs:	See Page 2.30, 2.31

D. Part No: 12065171

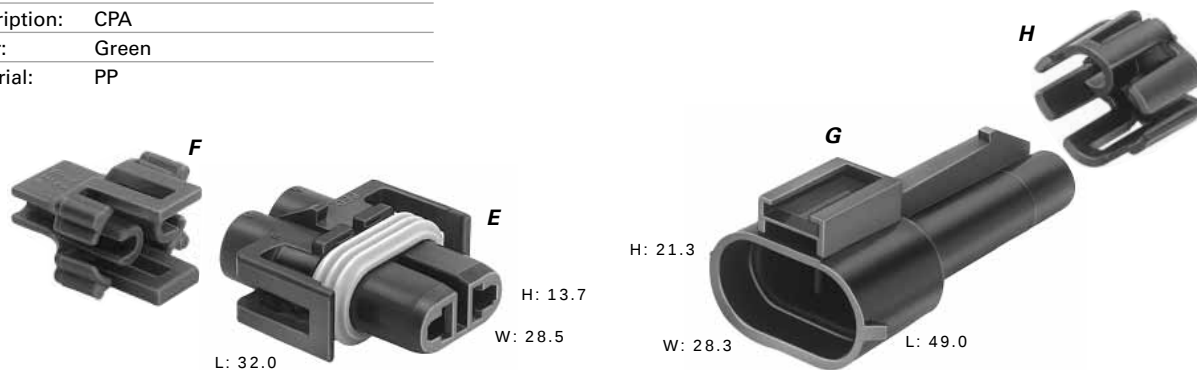
Description:	Connector 1M
Size:	55.0L x 23.8H x 18.3W
Color:	Black
Material:	PA66 HS IM
Terminals:	See Page 2.31
Seals/Plugs:	See Page 2.30, 2.31

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 2.30
Seals/Plugs:	See Page 2.30, 2.31

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 2.31
Seals/Plugs:	See Page 2.30, 2.31

F. Part No: 12020807

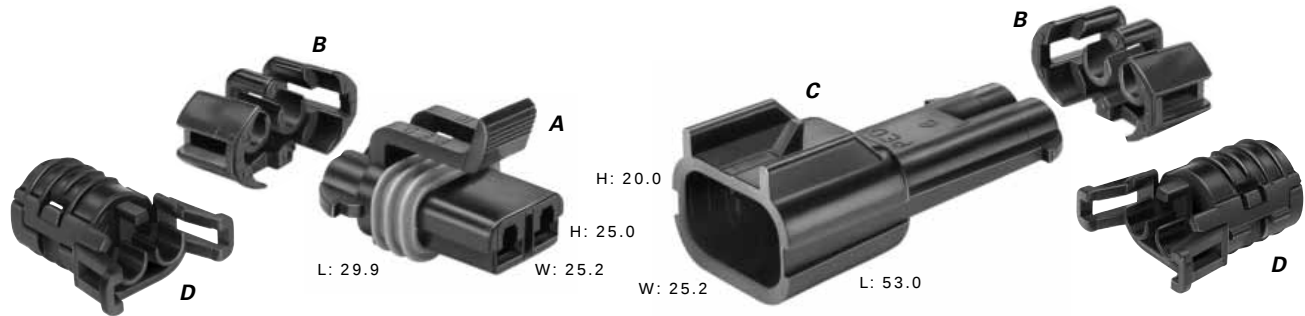
Description:	TPA
Color:	Md. Gray
Material:	PA66 HS IM

H. Part No: 12065279

Description:	TPA
Color:	Black
Material:	PA6

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.

280



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 2.30
 Seals/Plugs: See Page 2.30, 2.31

C. Part No: 15300002

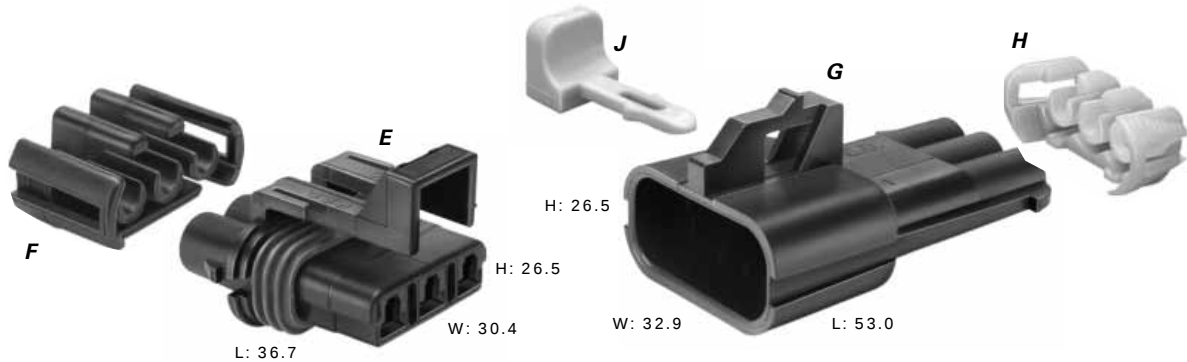
Description: Connector 2M
 Size: 53.0L x 20.0H x 25.2W
 Color: Black
 Material: PA66 HS IM
 Terminals: See Page 2.31
 Seals/Plugs: See Page 2.30, 2.31

B. Part No: 15300014

Description: TPA
 Number Req.: 2
 Color: Blue
 Material: PA66 HS IM

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 2.30
 Seals/Plugs: See Page 2.30, 2.31

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 2.31
 Seals/Plugs: See Page 2.30, 2.31

F. Part No: 12034145

Description: TPA
 Color: Black
 Material: PA66 HS IM

H. Part No: 15300015

Description: TPA
 Color: Cream
 Material: PA66 HS IM

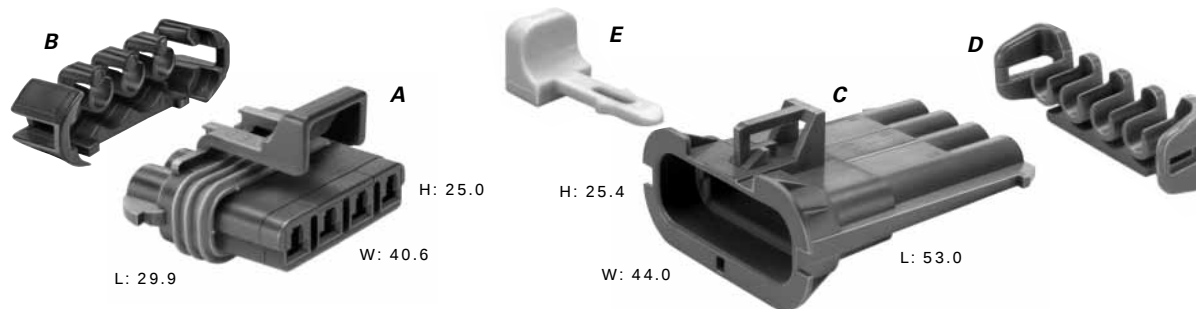
J. Part No: 12020833

Description: CPA
 Color: Gray
 Material: PBT

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.



280



Total Mated Length: 66.7 mm

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 2.30
 Seals/Plugs: See Page 2.30, 2.31

B. Part No: 15300016

Description: TPA
 Color: Black
 Material: PA66 HS IM

C. Part No: 12129600

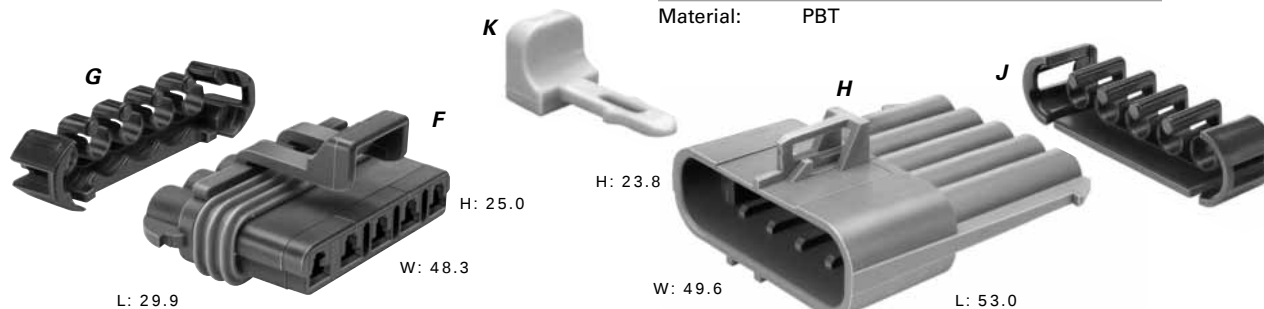
Description: Connector 4M (Clip Slot-Self Locking)
 Size: 53.0L x 25.4H x 44.0W
 Color: Dk. Gray
 Material: PBT 30% GF
 Terminals: See Page 2.31
 Seals/Plugs: See Page 2.30, 2.31

D. Part No: 15324063

Description: TPA
 Color: Blue
 Material: PA66 HS IM

E. Part No: 12020833

Description: CPA
 Color: Gray
 Material: PBT



Total Mated Length: 67.3 mm

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 2.30
 Seals/Plugs: See Page 2.30, 2.31

G. Part No: 15324857

Description: TPA
 Color: Black
 Material: PA66 HS IM

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 2.31
 Seals/Plugs: See Page 2.30, 2.31

J. Part No: 12084673

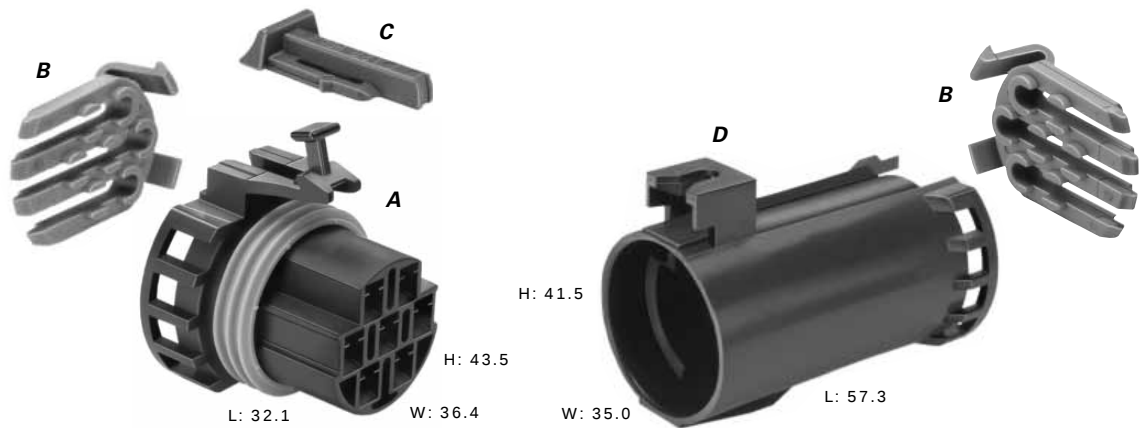
Description: TPA
 Color: Black
 Material: PA66 HS IM

K. Part No: 12020833

Description: CPA
 Color: Gray
 Material: PBT

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.

280



Total Mated Length: 77.3mm



**A. Part No: 12110751 (Black)
12129613 (Md. Gray)
12146841 (Cream)**

Description: Connector Assembly 7F
Size: 32.1L x 43.5H x 36.4W
Material: PA66 HS IM
Terminals: See Page 2.30
Seals/Plugs: See Page 2.30, 2.31

B. Part No: 12110754

Description: TPA
Number Req: 2
Color: Lt. Gray
Material: PA66 HS IM

C. Part No: 12052834

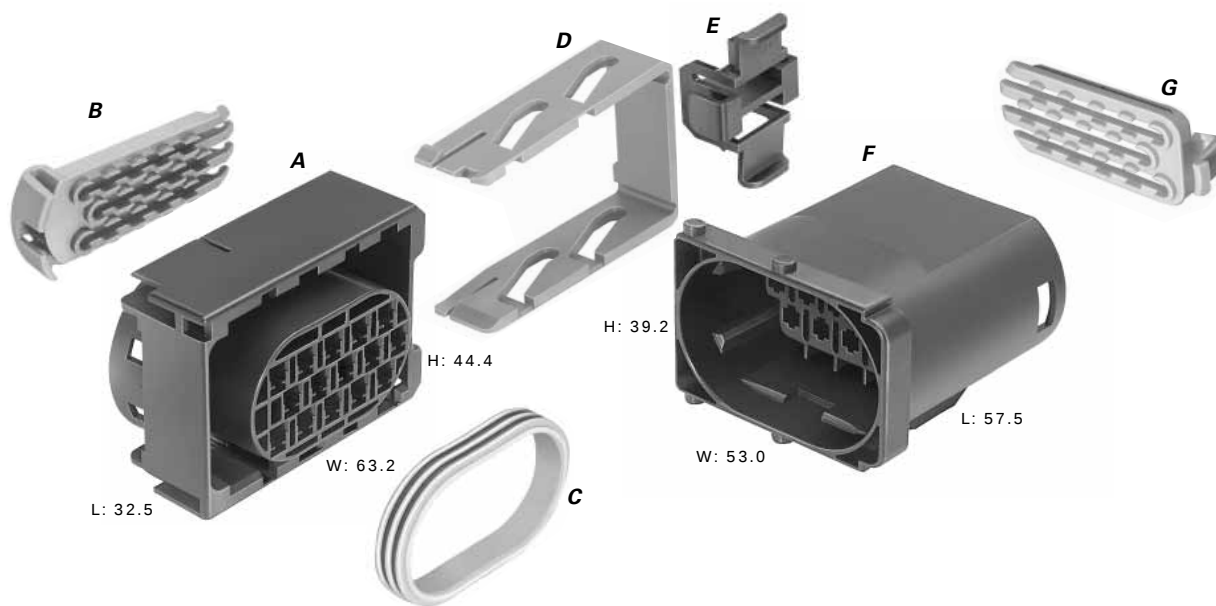
Description: CPA
Color: Green
Material: PP

**D. Part No: 12110753 (Black)
12129614 (Md. Gray)
12146840 (Cream)**

Description: Connector 7M
(Clip Slot-Self Locking)
Size: 57.3L x 41.5H x 35.0W
Material: PA66 HS IM
Terminals: See Page 2.31
Seals/Plugs: See Page 2.30, 2.31



280



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 2.30
Seals/Plugs:	See Page 2.30, 2.31

B. Part No: 12110782

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

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

F. Part No: 12161187

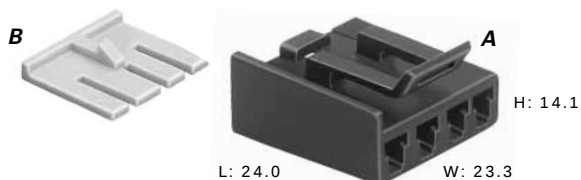
Description:	Connector 15M (Clip Slot-Self Locking)
Size:	57.5L x 39.2H x 53.0W
Color:	Black
Material:	PA66 HS IM 14% GF
Terminals:	See Page 2.31
Seals/Plugs:	See Page 2.30, 2.31

G. Part No: 12176865

Description:	TPA
Color:	Lt. Gray
Material:	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.

280 Device Connections



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 2.24
 Typical App: Dimmer Switch

B. Part No: 15324456

Description: TPA
 Color: Dk. Green
 Material: PA66 HS IM



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 2.24
 Typical App: Tail Lamp Module

D. Part No: 15324857

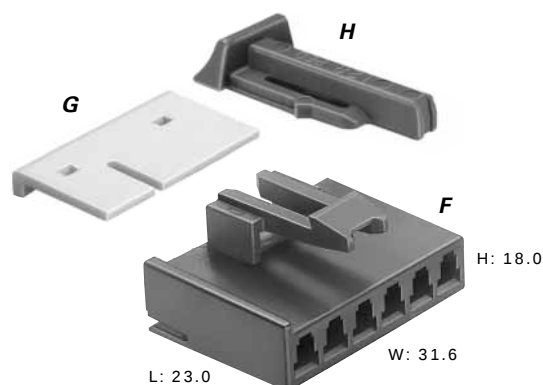
Description: TPA
 Color: Black
 Material: PA66 HS IM



E. Part No: 12041301*

Description: Connector 8F
 Size: 23.0L x 11.7H x 46.1W
 Color: Black
 Material: PP
 Terminals: See Page 2.24
 Typical App: Various

*Hinged secondary lock.



F. Part No: 12092254

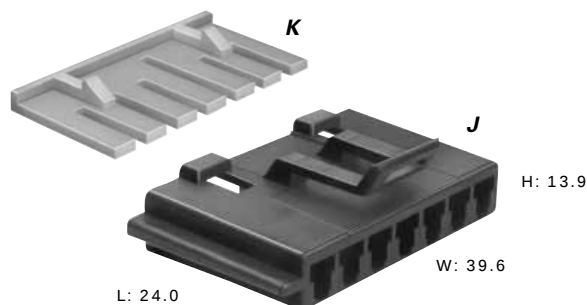
Description: Connector 6F
 Size: 23.0L x 18.0H x 31.6W
 Color: Black
 Material: PA66 HS IM
 Terminals: See Page 2.24
 Typical App: Wiper Switch

G. Part No: 12092252

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 2.24
 Typical App: Wiper Switch

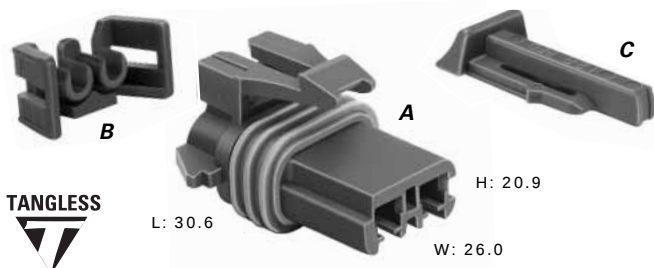
K. Part No: 12124811

Description: TPA
 Color: Cream
 Material: PA66 HS IM

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280 Device Connections

**A. Part No: 12129487**

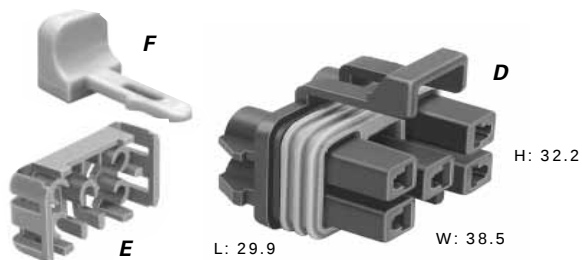
Description:	Connector Assembly 2F
Size:	30.6L x 20.9H x 26.0W
Color:	Md. Gray
Material:	PA66 HS IM
Terminals:	See Page 2.30
Seals/Plugs:	See Page 2.30, 2.31
Typical App:	Window Lift Motor

B. Part No: 12077904

Description:	TPA
Color:	Blue
Material:	PA66 HS IM

C. Part No: 12052834

Description:	CPA
Color:	Green
Material:	PP

**D. Part No: 12124634**

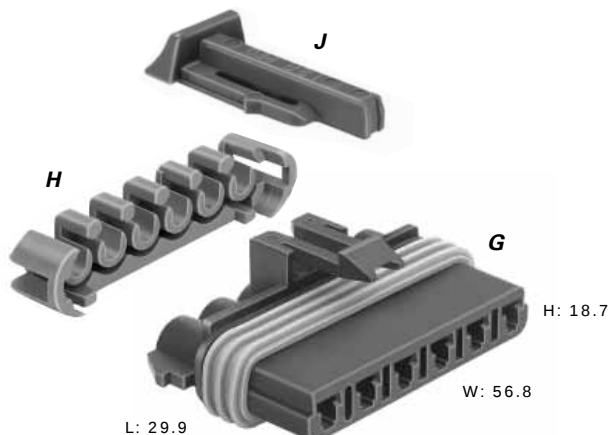
Description:	Connector Assembly 5F
Size:	29.9L x 32.2H x 38.5W
Color:	Black
Material:	PA6
Terminals:	See Page 2.30
Seals/Plugs:	See Page 2.30, 2.31
Typical App:	Wiper Switch

E. Part No: 12052816

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

F. Part No: 12020833

Description:	CPA
Color:	Gray
Material:	PBT

**G. Part No: 12059573**

Description:	Connector Assembly 6F
Size:	29.9L x 18.7H x 56.8W
Color:	Black
Material:	PA66
Terminals:	See Page 2.30
Seals/Plugs:	See Page 2.30, 2.31
Typical App:	Various

H. Part No: 12059195

Description:	TPA
Color:	Blue
Material:	PA6

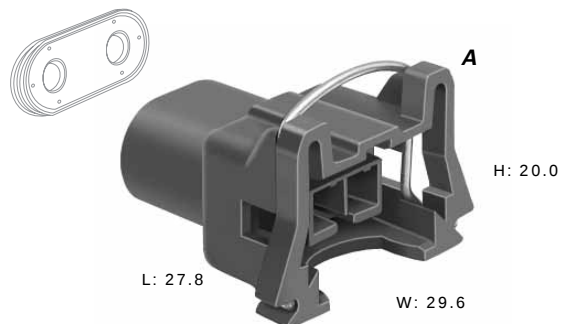
J. Part No: 12052834

Description:	CPA
Color:	Green
Material:	PP

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280.1 Pull-to-Seat

Multiple Cable Seal
(Included)



A. Part No: 12129142 (Black/Gray Seal)

2.66 - 2.0 Cable O.D.

Part No: 12129140 (Black/Purple Seal)

2.15 - 1.65 Cable O.D.

Part No: 12110179 (Black/Orange Red Seal)

1.85 - 1.47 Cable O.D.

Description: Connector Assembly 2F

Size: 27.8L x 20.0H x 29.6W

Material: PA66 HS 33% GF

Terminals: See Page 2.30

Typical App: Fuel Injector