

Micro-Pack Series

100 In-Line, 100 Header & 100W Header

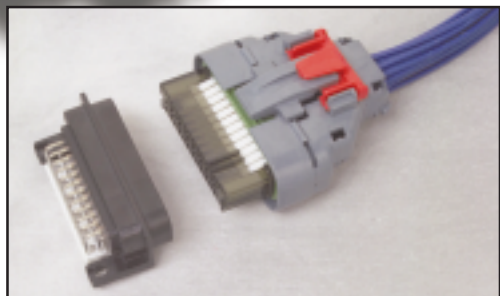
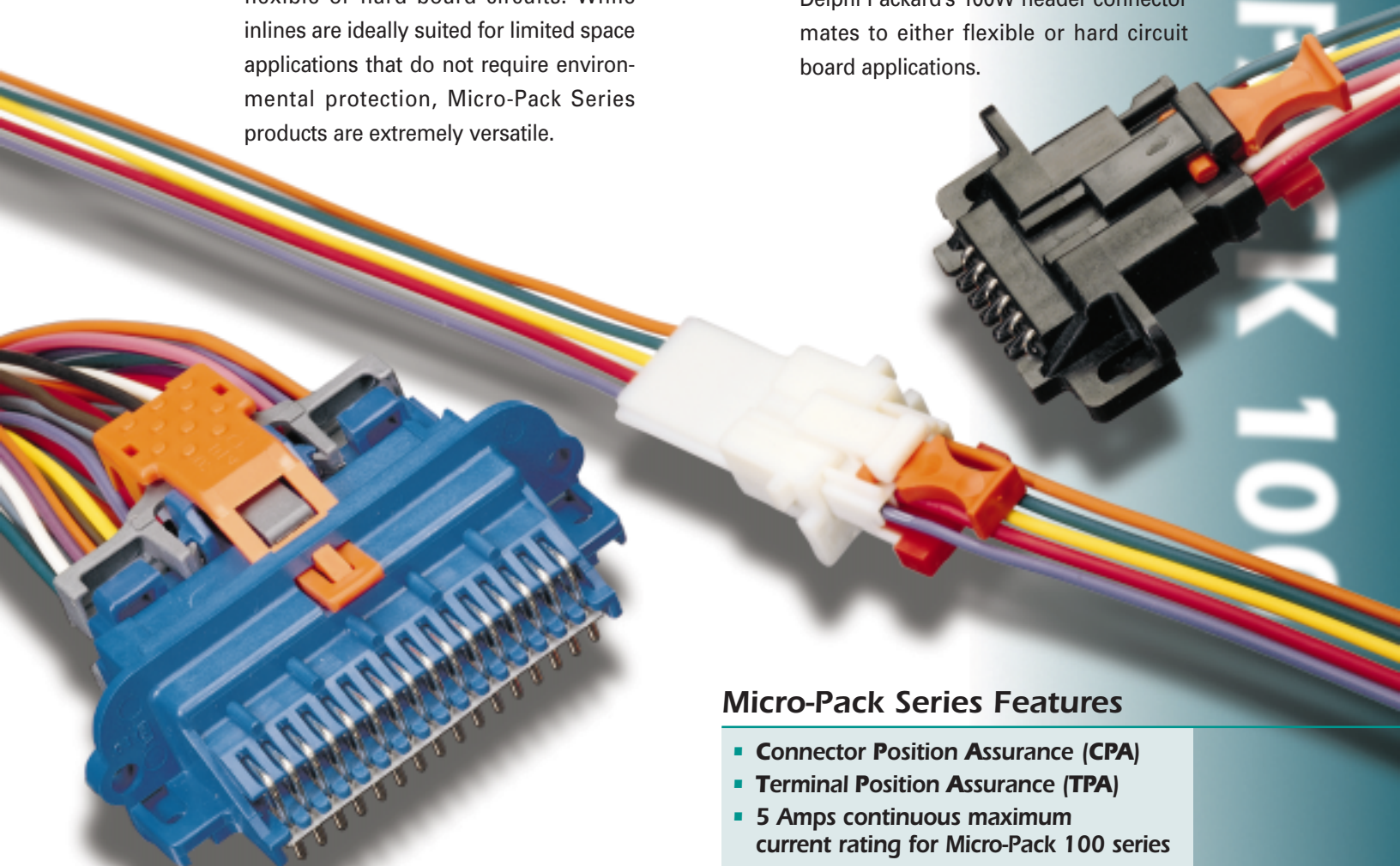


Available in electronic header and in-line connections, Micro-Pack Series connector is an excellent low energy system designed to meet the needs of high density applications.

Header connectors are available in straight, 90°, and 180° mounting to either flexible or hard board circuits. While inlines are ideally suited for limited space applications that do not require environmental protection, Micro-Pack Series products are extremely versatile.



The 100W series is available in both electronic header and in-line connection systems. This Micro-Pack series connection is an excellent low energy system designed to meet the needs of high density applications, requiring protection from environmental hazards. Delphi Packard's 100W header connector mates to either flexible or hard circuit board applications.

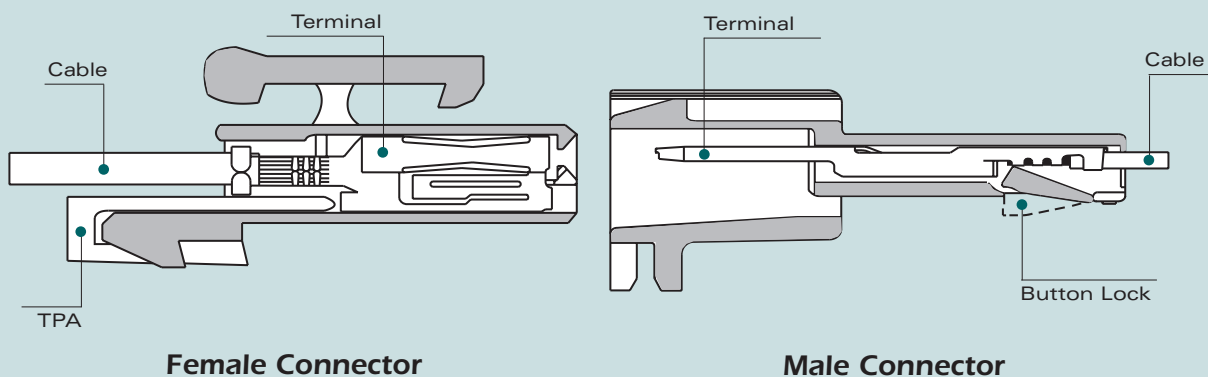


Micro-Pack Series Features

- **Connector Position Assurance (CPA)**
- **Terminal Position Assurance (TPA)**
- 5 Amps continuous maximum current rating for Micro-Pack 100 series
- 7.5 Amps continuous maximum current rating for Micro-Pack 100W series
- Small overall dimensions
- High circuit density
- Low energy, low voltage capability
- -40°C to 85°C temperature range for Micro-Pack 100 series
- -40°C to 125°C temperature range for Micro-Pack 100W series



Cross Sectional View



TPA
(Terminal Position Assurance)



Female Terminal

CPA
(Connector Position Assurance)



Female Connector



MICRO-PACK FEMALE TERMINALS UNSEALED

Part #	Cable Range (mm ²)	Material	Plating
12146448	1.0-0.80	Copper Nickel Alloy	Tin
12146447	0.50-0.35	Copper Nickel Alloy	Tin

MICRO-PACK FEMALE CONNECTORS UNSEALED

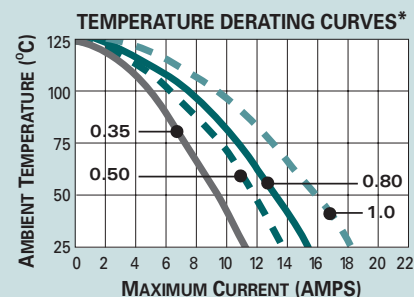
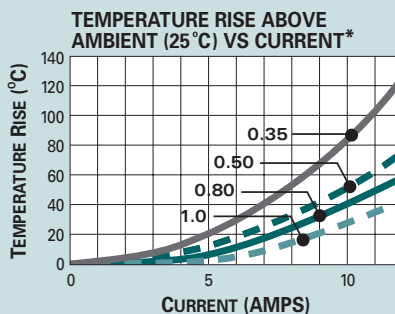
# Cavities	Connector	Color	Material	TPA
4	12066189	Natural	PBT	12059160
5	12064982	Black	PBT	12064987
7	12065873	Black	PBT	12065943
9	12064980	Black	PBT	12064986
10	12047531	Black	PA66 HS IM	Button Lock



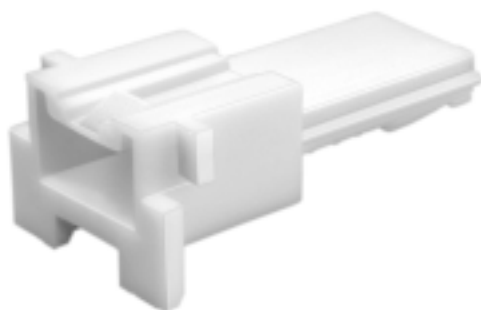
Unsealed System Application Information

CABLE RANGE (mm²): 0.35-1.0
 CURRENT RANGE (AMPS): 0-5
 TEMP RANGE °C: -40 to 85
 RESISTANCE: <10mΩ@20mV
 VOLTAGE DROP: <10.0mV/amp
 CENTERLINE SPACING (mm): 3.0
 TERMINAL DIAMETER (mm): 1.0

MICRO-PACK 100 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



Male Terminal



MICRO-PACK MALE CONNECTORS UNSEALED

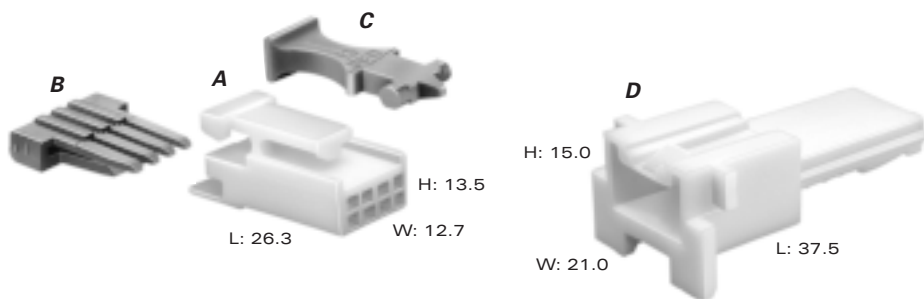
# Cavities	Connector	Color	Material	TPA
4	12040903	Natural	PBT	Button Lock
5	12047829	Black	PBT	Button Lock
7	12065874	Black	PBT	Button Lock
9	12040905	Black	PBT	Button Lock
10	12047814	Black	PBT	Button Lock

MICRO-PACK MALE TERMINALS UNSEALED

Part #	Cable Range (mm ²)	Material	Plating
12084449	0.80-0.50	Tin Brass	Tin
12040902	0.50-0.35	Tin Brass	Tin

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.



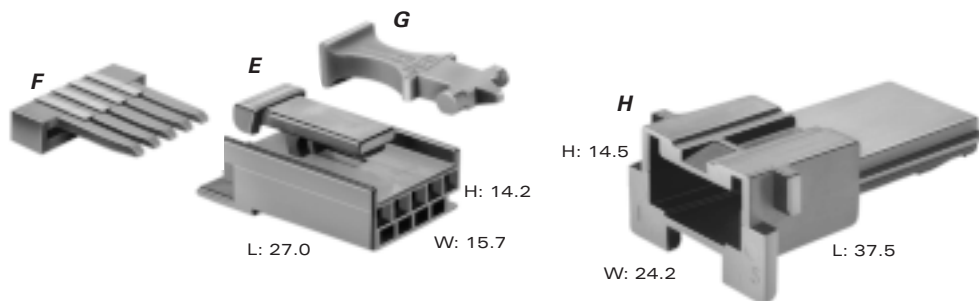
Total Mated Length: 50.9mm

A PART NO: 12066189
 DESCRIPTION: Connector 4F
 SIZE: 26.3L x 13.5H x 12.7W
 COLOR: Natural
 MATERIAL: PBT
 TERMINALS: See Page 164

D PART NO: 12040903
 DESCRIPTION: Connector 4M - with Button Lock
 SIZE: 37.5L x 15.0H x 21.0W
 COLOR: Natural
 MATERIAL: PBT
 TERMINALS: See Page 165

B PART NO: 12059160
 DESCRIPTION: TPA
 COLOR: Red
 MATERIAL: PA6

C PART NO: 12064989
 DESCRIPTION: CPA
 COLOR: Orange
 MATERIAL: PP



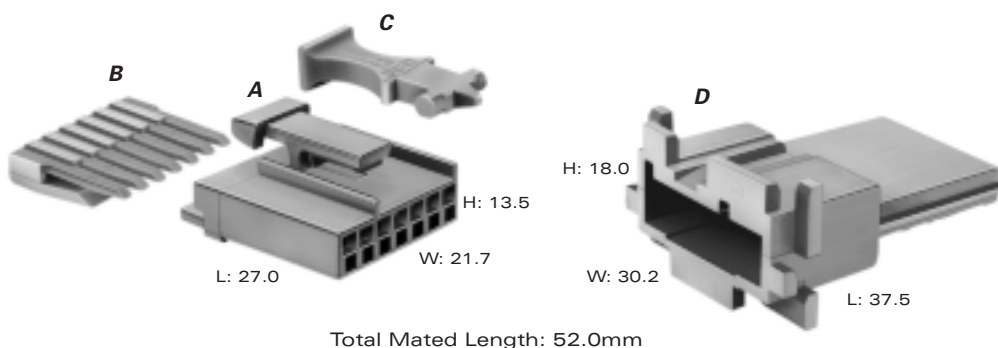
Total Mated Length: 53.0mm

**E PART NO: 12064982 (Black)
 12064983 (Natural)**
 DESCRIPTION: Connector 5F
 SIZE: 27.0L x 14.2H x 15.7W
 MATERIAL: PBT
 TERMINALS: See Page 164

**H PART NO: 12047829 (Black)
 12047815 (Natural)**
 DESCRIPTION: Connector 5M - with Button Lock
 SIZE: 37.5L x 14.5H x 24.2W
 MATERIAL: PBT
 TERMINALS: See Page 165

F PART NO: 12064987
 DESCRIPTION: TPA
 COLOR: Red
 MATERIAL: PA6

G PART NO: 12064989
 DESCRIPTION: CPA
 COLOR: Orange
 MATERIAL: PP

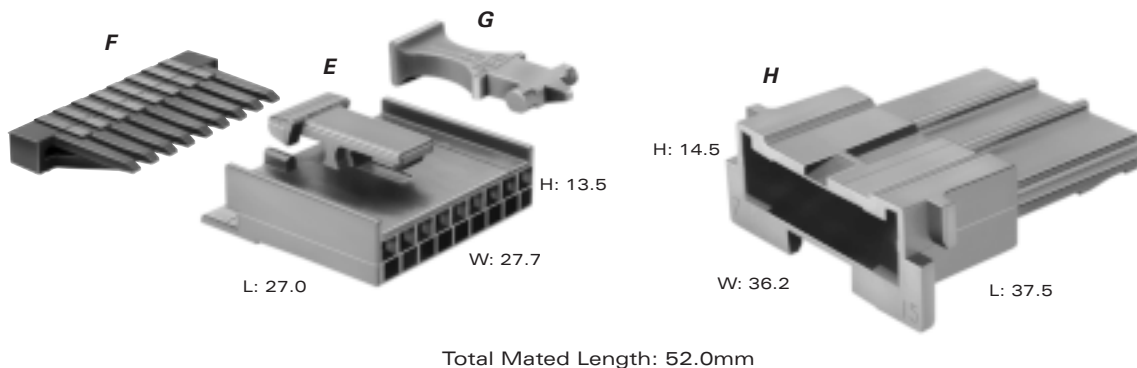


A PART NO: 12065873
 DESCRIPTION: Connector 7F
 SIZE: 27.0L x 13.5H x 21.7W
 COLOR: Black
 MATERIAL: PBT
 TERMINALS: See Page 164

D PART NO: 12065874
 DESCRIPTION: Connector 7M - with Button Lock
 SIZE: 37.5L x 18.0H x 30.2W
 COLOR: Black
 MATERIAL: PBT
 TERMINALS: See Page 165

B PART NO: 12065943
 DESCRIPTION: TPA
 COLOR: Red
 MATERIAL: PA6

C PART NO: 12064989
 DESCRIPTION: CPA
 COLOR: Orange
 MATERIAL: PP

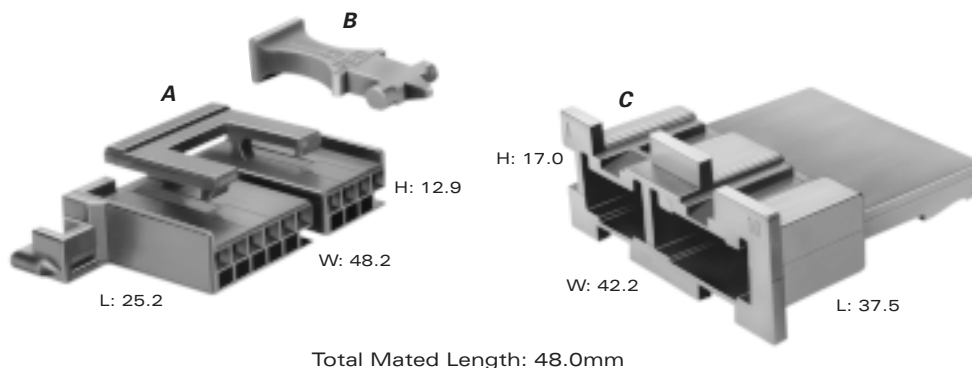


E PART NO: 12064980
 DESCRIPTION: Connector 9F
 SIZE: 27.0L x 13.5H x 27.7W
 COLOR: Black
 MATERIAL: PBT
 TERMINALS: See Page 164

H PART NO: 12040905
 DESCRIPTION: Connector 9M - with Button Lock
 SIZE: 37.5L x 14.5H x 36.2W
 COLOR: Black
 MATERIAL: PBT
 TERMINALS: See Page 165

F PART NO: 12064986
 DESCRIPTION: TPA
 COLOR: Red
 MATERIAL: PA6

G PART NO: 12064989
 DESCRIPTION: CPA
 COLOR: Orange
 MATERIAL: PP



A PART NO: 12047531

DESCRIPTION: Connector 10F - with Button Lock
 SIZE: 25.2L x 12.9H x 48.2W
 COLOR: Black
 MATERIAL: PA66 HS IM
 TERMINALS: See Page 164

C PART NO: 12047814

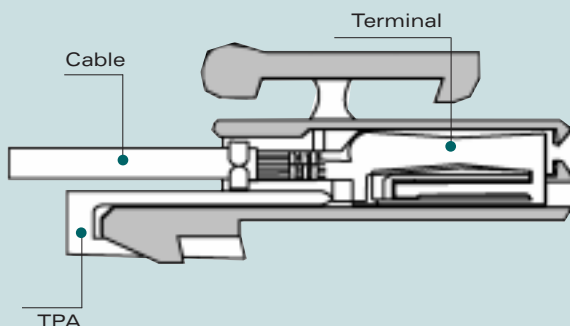
DESCRIPTION: Connector 10M - with Button Lock
 SIZE: 37.5L x 17.0H x 42.2W
 COLOR: Black
 MATERIAL: PBT
 TERMINALS: See Page 165

B PART NO: 12064989

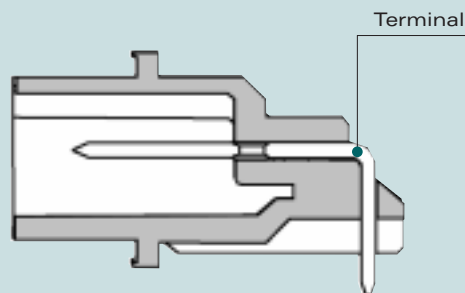
DESCRIPTION: CPA
 COLOR: Orange
 MATERIAL: PP



Cross Sectional View



Female Connector

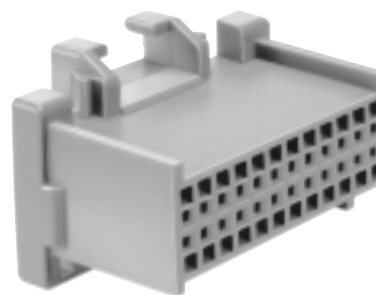


Male Header Connector Assembly

TPA-A
(Terminal Position Assurance)

TPA-B
(Terminal Position Assurance)

Female Terminal



Female Connector

MICRO-PACK FEMALE TERMINALS UNSEALED

Part #	Cable Range (mm ²)	Material	Plating
12146448	1.0-0.80	Copper Nickel Alloy	Tin
12146447	0.50-0.35	Copper Nickel Alloy	Tin

Nickel/Gold plating available.

MICRO-PACK FEMALE CONNECTORS UNSEALED

# Cavities	Connector	Color	Material	TPA-A	TPA-B
6way: 6	12064993	Black	PBT	12066170	—
10way: 4	12066189	Natural	PBT	12059160	—
: 6	12064993	Black	PBT	12066170	—
12way: 12	12064799	Black	PBT 30% GF	12064822	12064823
13way: 4	12066189	Natural	PBT	12059160	—
: 9	12066130	Natural	PBT	12064986	—
15way: 6	12064978	Gray	PBT	12066170	—
: 9	12064980	Black	PBT	12064986	—
16way: 16	12110259	Green	PBT 30% GF	12048344	12048345
20way: 10	12047531	Black	PA66 HS IM	Button Lock	—
: 10	12065785	Gray	PBT	Button Lock	—
24way: 24	12110088	Lt. Gray	PBT 30% GF	12047900	12047901
32way: 32	12110113	Dk. Red	PBT 30% GF	12045889	12045890

# Cavities	Connector	Color	Material	TPA-A	TPA-B
32way: 32	12110207	Lt. Blue	PBT 30% GF	12045889	12045890
40way: 16	12084945	Gray	PBT 30% GF	12048344	12048345
: 24	12110088	Lt. Gray	PBT 30% GF	12047900	12047901
48way: 24	12110244	Pink	PBT 30% GF	12047900	12047901
: 24	12110206	Lt. Blue	PBT 30% GF	12047900	12047901
56way: 24	12110206	Lt. Blue	PBT 30% GF	12047900	12047901
: 32	12110207	Lt. Blue	PBT 30% GF	12045889	12045890
64way: 16	12084945	Gray	PBT 30% GF	12048344	12048345
: 24	12110088	Lt. Gray	PBT 30% GF	12047900	12047901
: 24	12110244	Pink	PBT 30% GF	12047900	12047901
Mixed					
32way: 8	15357040	Md. Gray	PA66 HS IM	15324332	—
: 24	12110088	Lt. Gray	PBT 30% GF	12047900	12047901

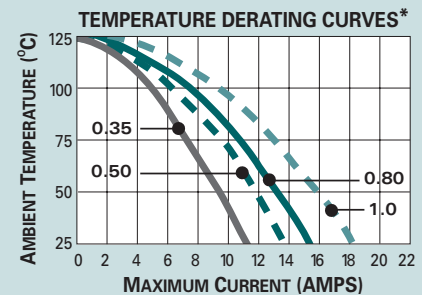
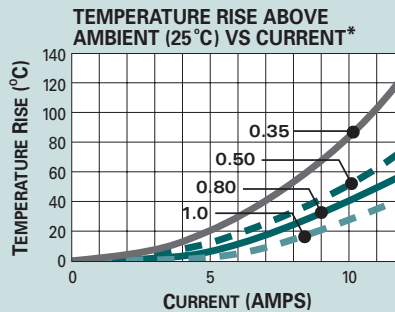
<http://delphi.com/products/connect>



Unsealed System Application Information

CABLE RANGE (mm²): 0.35-1.0
 CURRENT RANGE (AMPS): 0-5
 TEMP RANGE °C: -40 to 85
 RESISTANCE: <10mΩ@20mV
 VOLTAGE DROP: <10.0mV/amp
 CENTERLINE SPACING (mm): 3.0
 TERMINAL DIAMETER (mm): 1.0

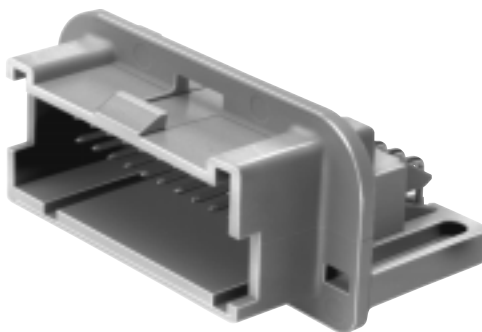
MICRO-PACK 100 TERMINALS-Tin Plated



*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.



CPA
(Connector Position Assurance)



Male Header Connector Assembly

SECTION NOTES:

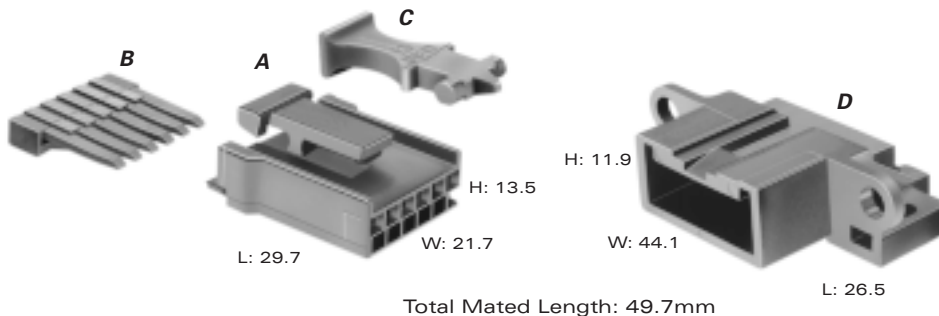
- Contact your regional support representative at the number listed below.
- Due to rigid tolerances of connector cavities, it is critical to meet all crimp dimensions as specified.
- Different color and connector indexing features are also available.
- Low profile and right angle TPAs also available.

MICRO-PACK MALE HEADER CONNECTOR ASSEMBLIES UNSEALED

# Pins	Connector	Color	Material		# Pins	Connector	Color	Material
6	12065870	Black	PBT 30% GF		32*	12129340	Dk. Red	PBT 30% GF
10	12065647	Black	PBT 30% GF		32*	12110323	Lt. Blue	PBT 30% GF
12	12064798	Black	PBT 30% GF		40	12191050	Gray	PBT 30% GF
13	12066307	Black	PBT 30% GF		48	12191140	Natural	PBT 30% GF
15	12059915	Black	PBT 30% GF		56*	12110209	Lt. Blue	PBT 30% GF
16	12110261	Green	PBT 30% GF		64	12160861	Black	PBT 30% GF
20*	12089852	Gray	PBT 30% GF		Mixed			
24	12092886	Gray	PBT 30% GF		32	15357042	Gray	PBT 30% GF

Terminals included in connector assembly.
* Gold plating available.

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

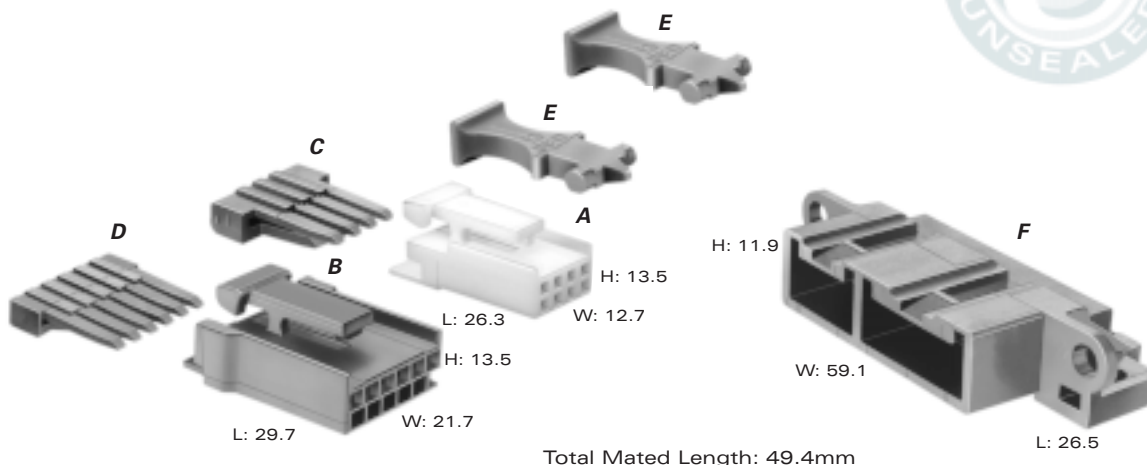


A **PART NO: 12064993**
 DESCRIPTION: Connector 6F
 SIZE: 29.7L x 13.5H x 21.7W
 COLOR: Black
 MATERIAL: PBT
 TERMINALS: See Page 170

D **PART NO: 12065870**
 DESCRIPTION: Connector Assembly 6M
 SIZE: 26.5L x 11.9H x 44.1W
 COLOR: Black
 MATERIAL: PBT 30% GF

B **PART NO: 12066170**
 DESCRIPTION: TPA
 COLOR: Red
 MATERIAL: PA6

C **PART NO: 12064989**
 DESCRIPTION: CPA
 COLOR: Orange
 MATERIAL: PP



A PART NO: 12066189

DESCRIPTION: Connector 4F
 SIZE: 26.3L x 13.5H x 12.7W
 COLOR: Natural
 MATERIAL: PBT
 TERMINALS: See Page 170

F PART NO: 12065647

DESCRIPTION: Connector Assembly 10M
 SIZE: 26.5L x 11.9H x 59.1W
 COLOR: Black
 MATERIAL: PBT 30% GF

B PART NO: 12064993

DESCRIPTION: Connector 6F
 SIZE: 29.7L x 13.5H x 21.7W
 COLOR: Black
 MATERIAL: PBT
 TERMINALS: See Page 170

C PART NO: 12059160

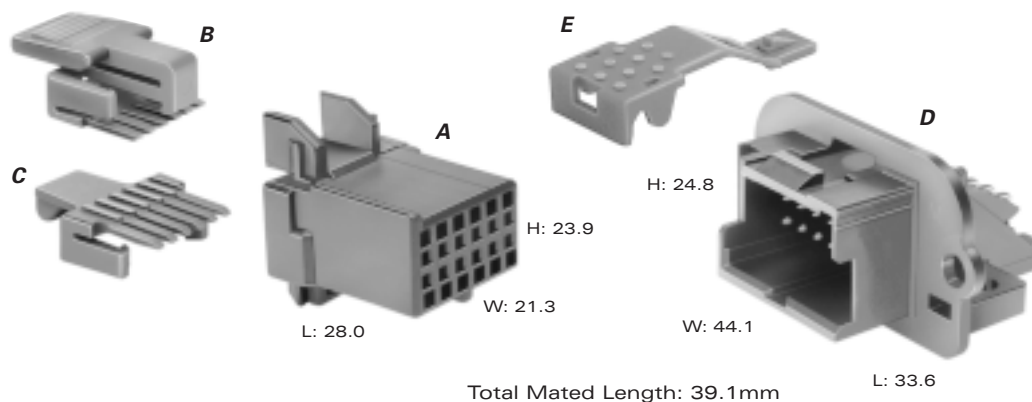
DESCRIPTION: TPA
 COLOR: Red
 MATERIAL: PA6

D PART NO: 12066170

DESCRIPTION: TPA
 COLOR: Red
 MATERIAL: PA6

E PART NO: 12064989

DESCRIPTION: CPA
 NUMBER REQ: 2
 COLOR: Orange
 MATERIAL: PP



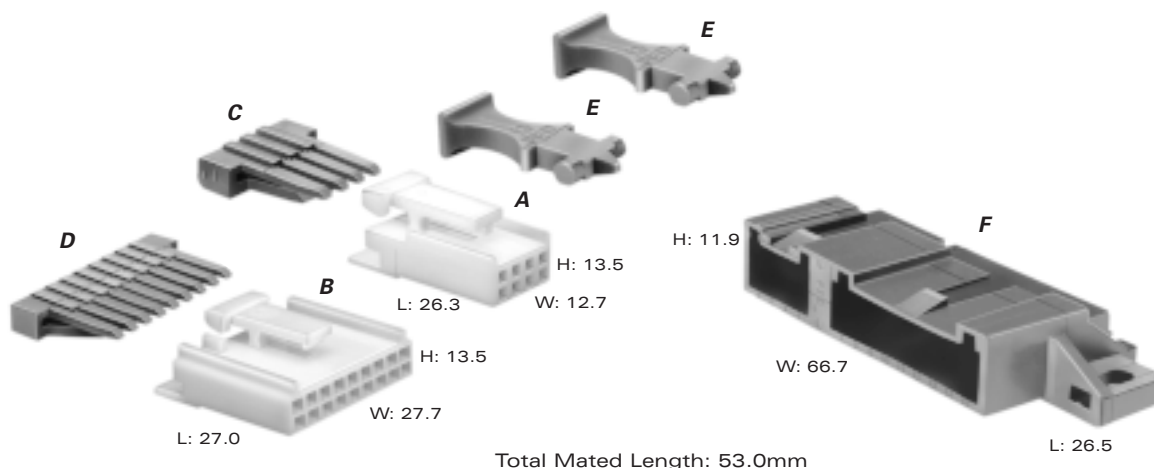
A PART NO: 12064799
 DESCRIPTION: Connector 12F
 SIZE: 28.0L x 23.9H x 21.3W
 COLOR: Black
 MATERIAL: PBT 30% GF
 TERMINALS: See Page 170

B PART NO: 12064822
 DESCRIPTION: TPA
 COLOR: Blue
 MATERIAL: PA6

C PART NO: 12064823
 DESCRIPTION: TPA
 COLOR: Blue
 MATERIAL: PA6

D PART NO: 12064798
 DESCRIPTION: Connector Assembly 12M
 SIZE: 33.6L x 24.8H x 44.1W
 COLOR: Black
 MATERIAL: PBT 30% GF

E PART NO: 12077899
 DESCRIPTION: CPA
 COLOR: Orange
 MATERIAL: PP



A PART NO: 12066189

DESCRIPTION: Connector 4F
 SIZE: 26.3L x 13.5H x 12.7W
 COLOR: Natural
 MATERIAL: PBT
 TERMINAL: See Page 170

F PART NO: 12066307

DESCRIPTION: Connector Assembly 13M
 SIZE: 26.5L x 11.9H x 66.7W
 COLOR: Black
 MATERIAL: PBT 30% GF

B PART NO: 12066130

DESCRIPTION: Connector 9F
 SIZE: 27.0L x 13.5H x 27.7W
 COLOR: Natural
 MATERIAL: PBT
 TERMINALS: See Page 170

C PART NO: 12059160

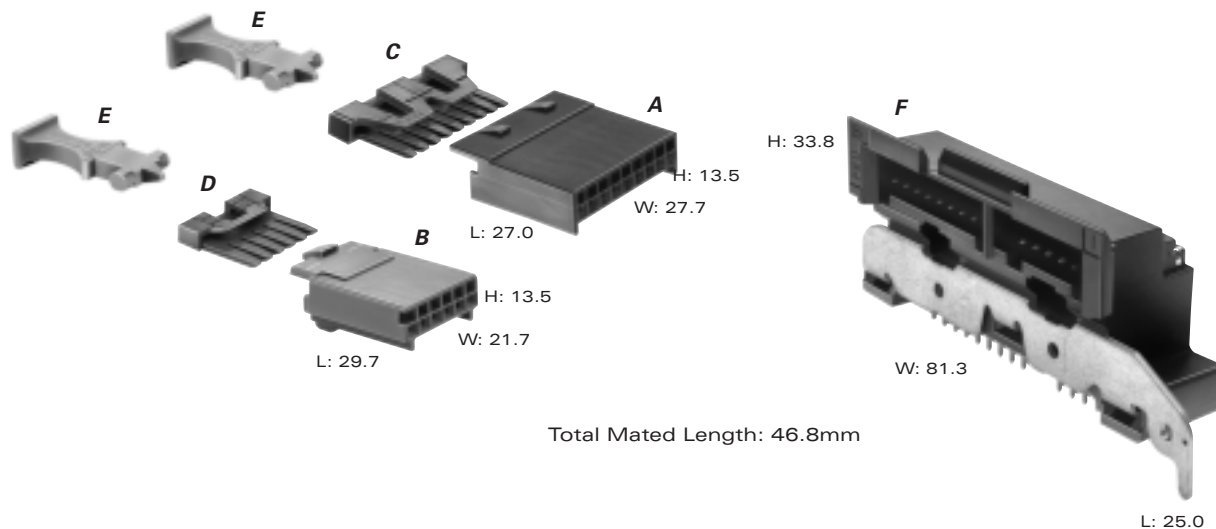
DESCRIPTION: TPA
 COLOR: Natural
 MATERIAL: PA6

D PART NO: 12064986

DESCRIPTION: TPA
 COLOR: Red
 MATERIAL: PA6

E PART NO: 12064989

DESCRIPTION: CPA
 NUMBER REQ: 2
 COLOR: Orange
 MATERIAL: PP



A PART NO: 12064980
 DESCRIPTION: Connector 9F
 SIZE: 27.0L x 13.5H x 27.7W
 COLOR: Black
 MATERIAL: PBT
 TERMINALS: See Page 170

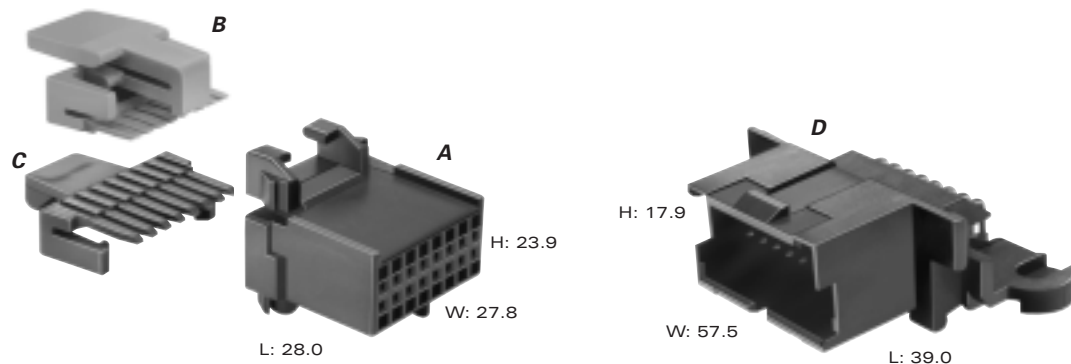
F PART NO: 12059915
 DESCRIPTION: Connector Assembly 15M
 SIZE: 25.0L x 33.8H x 81.3W
 COLOR: Black
 MATERIAL: PBT 30% GF

B PART NO: 12064978
 DESCRIPTION: Connector 6F
 SIZE: 29.7L x 13.5H x 21.7W
 COLOR: Gray
 MATERIAL: PBT
 TERMINALS: See Page 170

C PART NO: 12064986
 DESCRIPTION: TPA
 COLOR: Red
 MATERIAL: PA6

D PART NO: 12066170
 DESCRIPTION: TPA
 COLOR: Red
 MATERIAL: PA6

E PART NO: 12064989
 DESCRIPTION: CPA
 NUMBER REQ: 2
 COLOR: Orange
 MATERIAL: PP



Total Mated Length: 60.4mm

A PART NO: 12110259* (Green)
12084944* (Black)
12084945* (Gray)

DESCRIPTION: Connector 16F
SIZE: 28.0L x 23.9H x 27.8W
MATERIAL: PBT 30% GF
TERMINALS: See Page 170
*DIFFERENT INDEXING FEATURE.

D PART NO: 12110261* (Green)
12084948* (Black)
12084949* (Gray)

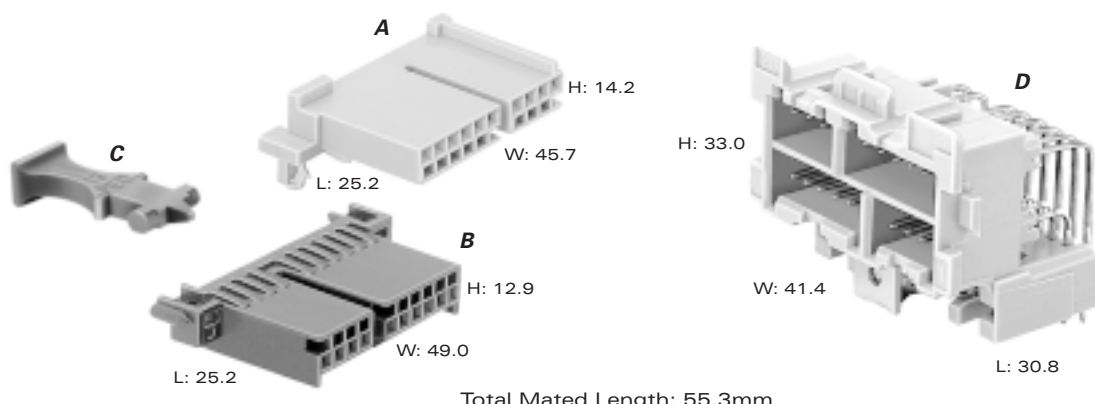
DESCRIPTION: Connector Assembly 16M
SIZE: 39.0L x 17.9H x 57.5W
MATERIAL: PBT 30% GF
*DIFFERENT INDEXING FEATURE.

B PART NO: 12048344

DESCRIPTION: TPA
COLOR: Blue
MATERIAL: PA6

C PART NO: 12048345

DESCRIPTION: TPA
COLOR: Blue
MATERIAL: PA6

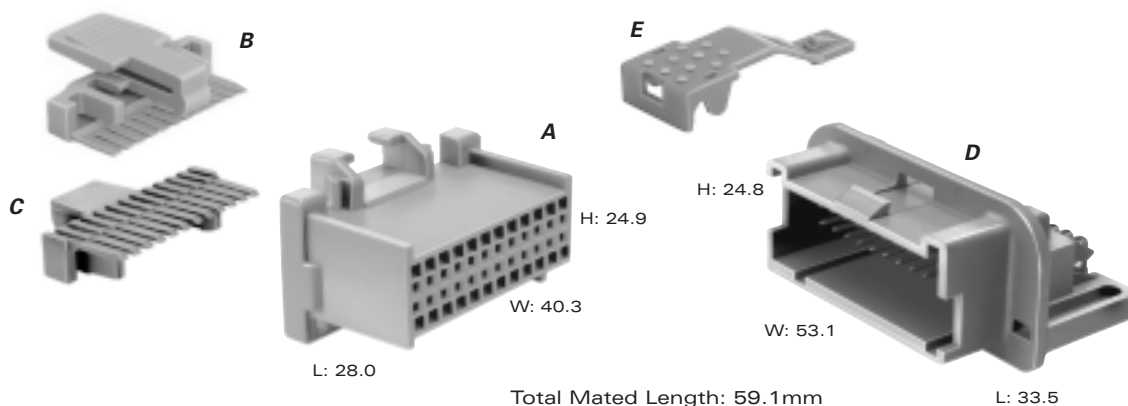


A PART NO: 12065785
 DESCRIPTION: Connector 10F - with Button Lock
 SIZE: 25.2L x 14.2H x 45.7W
 COLOR: Gray
 MATERIAL: PBT
 TERMINALS: See Page 170

D PART NO: 12089852
 DESCRIPTION: Connector Assembly 20M
 SIZE: 30.8L x 33.0H x 41.4W
 COLOR: Gray
 MATERIAL: PBT 30% GF

B PART NO: 12047531
 DESCRIPTION: Connector 10F - with Button Lock
 SIZE: 25.2L x 12.9H x 49.0W
 COLOR: Black
 MATERIAL: PA66 HS IM
 TERMINALS: See Page 170

C PART NO: 12064989
 DESCRIPTION: CPA
 COLOR: Orange
 MATERIAL: PP



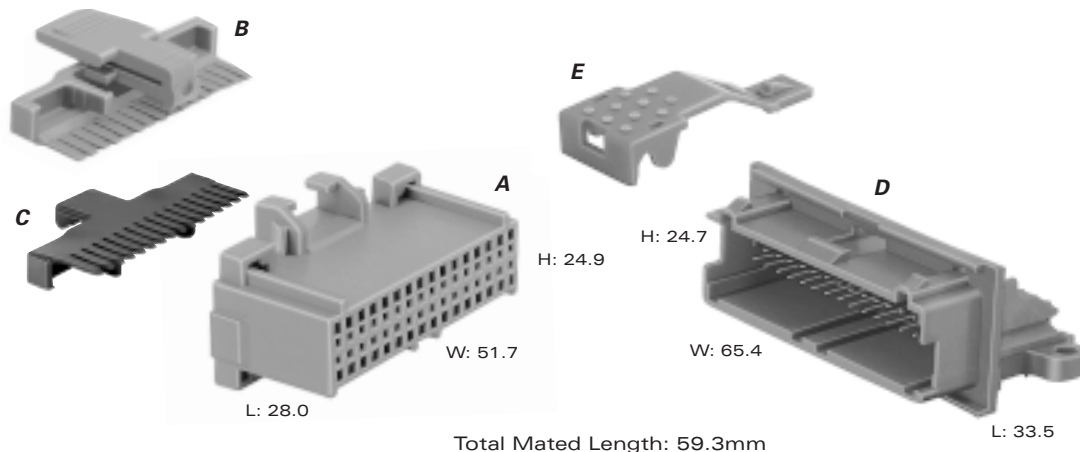
A PART NO: 12110088
 DESCRIPTION: Connector 24F
 SIZE: 28.0L x 24.9H x 40.3W
 COLOR: Lt. Gray
 MATERIAL: PBT 30% GF
 TERMINALS: See Page 170

B PART NO: 12047900
 DESCRIPTION: TPA
 COLOR: Blue
 MATERIAL: PA6

C PART NO: 12047901
 DESCRIPTION: TPA
 COLOR: Blue
 MATERIAL: PA6

D PART NO: 12092886
 DESCRIPTION: Connector Assembly 24M
 SIZE: 33.5L x 24.8H x 53.1W
 COLOR: Gray
 MATERIAL: PBT 30% GF

E PART NO: 12077899
 DESCRIPTION: CPA
 COLOR: Orange
 MATERIAL: PP



A PART NO: 12110113* (Dk. Red)
12110114* (White)
12110115* (Dk. Blue)
12110112* (Tan)

DESCRIPTION: Connector 32F
SIZE: 28.0L x 24.9H x 51.7W
MATERIAL: PBT 30% GF
TERMINALS: See Page 170
*DIFFERENT INDEXING FEATURE.

B PART NO: 12045889

DESCRIPTION: TPA
COLOR: Blue
MATERIAL: PA6

C PART NO: 12045890

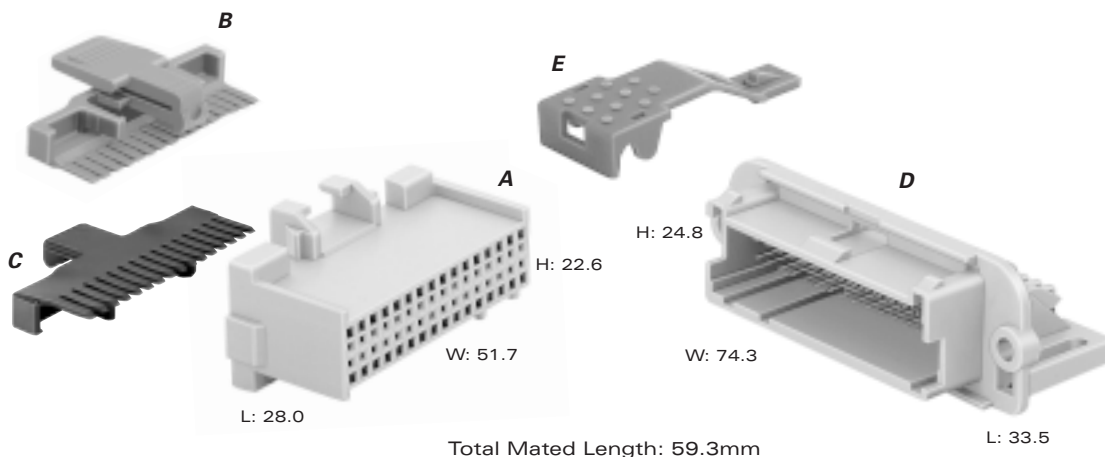
DESCRIPTION: TPA
COLOR: Md. Gray
MATERIAL: PA6

D PART NO: 12129340* (Dk. Red)
12129341* (Natural)
12129342* (Dk. Blue)
12129369* (Tan)

DESCRIPTION: Connector Assembly 32M
SIZE: 33.5L x 24.7H x 65.4W
MATERIAL: PBT 30% GF
*DIFFERENT INDEXING FEATURE.

E PART NO: 12077899

DESCRIPTION: CPA
COLOR: Orange
MATERIAL: PP



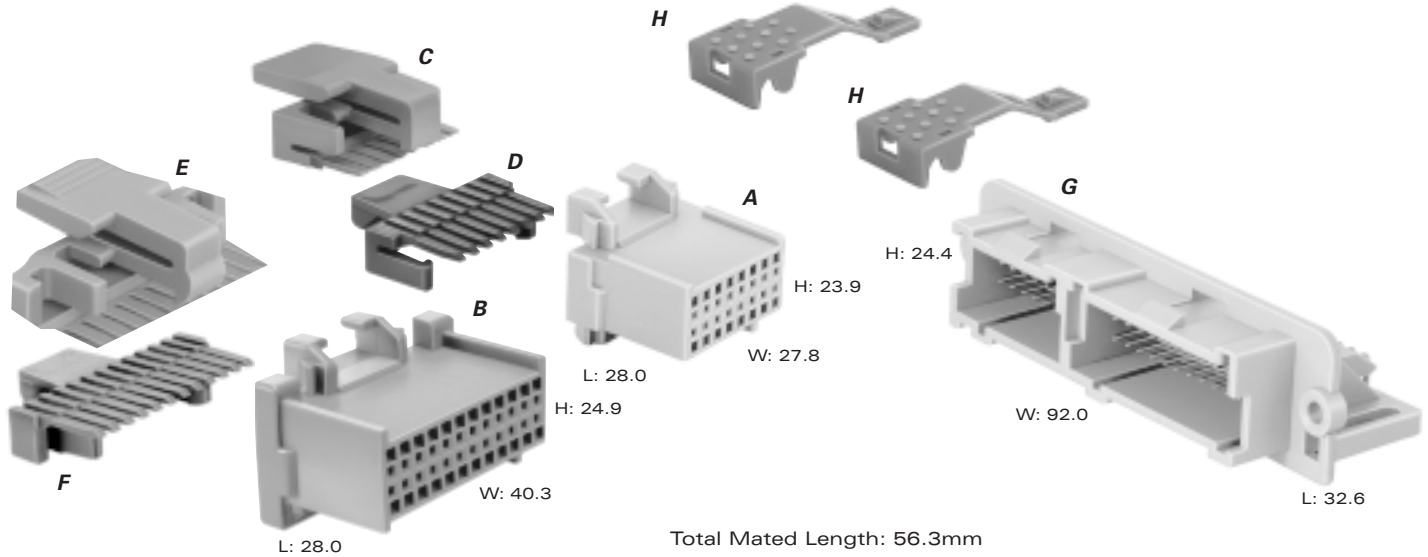
A PART NO: **12110207**
 DESCRIPTION: Connector 32F
 SIZE: 28.0L x 22.6H x 51.7W
 COLOR: Lt. Blue
 MATERIAL: PBT 30% GF
 TERMINALS: See Page 170

B PART NO: **12045889**
 DESCRIPTION: TPA
 COLOR: Blue
 MATERIAL: PA6

C PART NO: **12045890**
 DESCRIPTION: TPA
 COLOR: Md. Gray
 MATERIAL: PA6

D PART NO: **12110323**
 DESCRIPTION: Connector Assembly 32M
 SIZE: 33.5L x 24.8H x 74.3W
 COLOR: Lt. Blue
 MATERIAL: PBT 30% GF

E PART NO: **12077899**
 DESCRIPTION: CPA
 COLOR: Orange
 MATERIAL: PP



A PART NO: 12084945

DESCRIPTION: Connector 16F
 SIZE: 28.0L x 23.9H x 27.8W
 COLOR: Gray
 MATERIAL: PBT 30% GF
 TERMINALS: See Page 170

B PART NO: 12110088

DESCRIPTION: Connector 24F
 SIZE: 28.0L x 24.9H x 40.3W
 COLOR: Lt. Gray
 MATERIAL: PBT 30% GF
 TERMINALS: See Page 170

C PART NO: 12048344

DESCRIPTION: TPA
 COLOR: Blue
 MATERIAL: PA6

D PART NO: 12048345

DESCRIPTION: TPA
 COLOR: Blue
 MATERIAL: PA6

E PART NO: 12047900

DESCRIPTION: TPA
 COLOR: Blue
 MATERIAL: PA6

F PART NO: 12047901

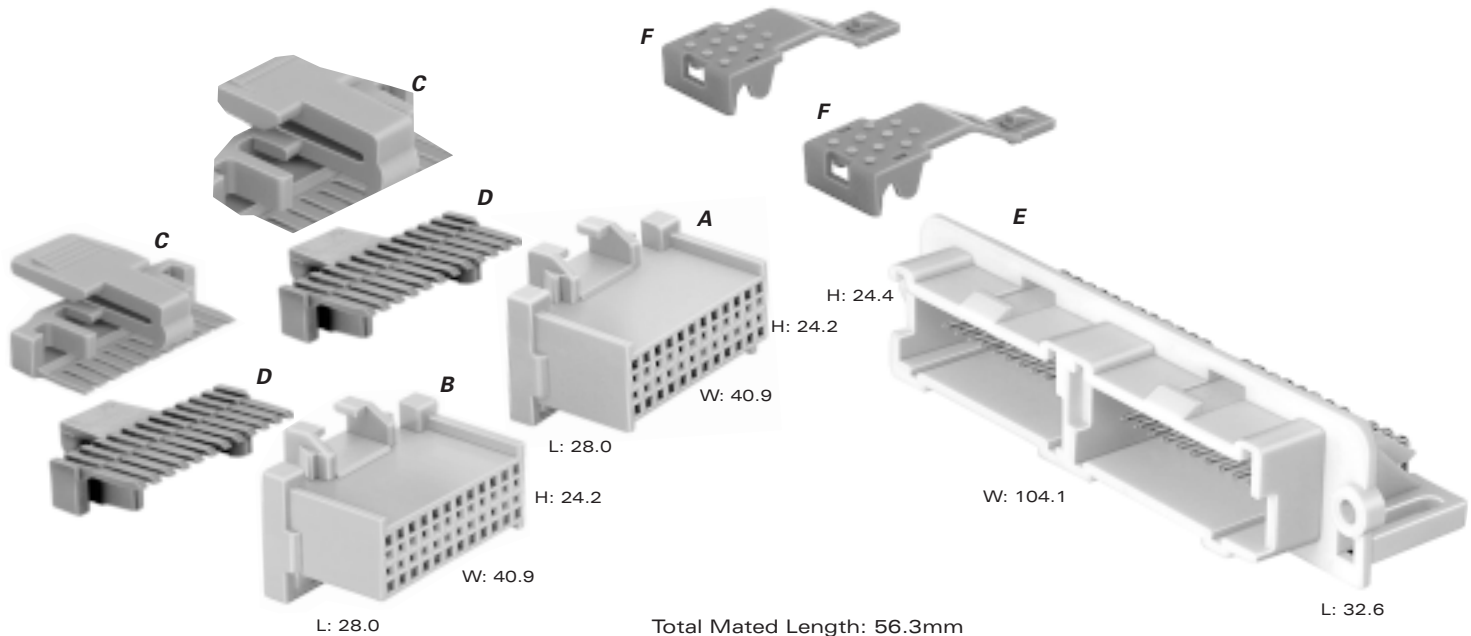
DESCRIPTION: TPA
 COLOR: Blue
 MATERIAL: PA6

G PART NO: 12191050

DESCRIPTION: Connector Assembly 40M
 SIZE: 32.6L x 24.4H x 92.0W
 COLOR: Gray
 MATERIAL: PBT 30% GF

H PART NO: 12077899

DESCRIPTION: CPA
 NUMBER REQ: 2
 COLOR: Orange
 MATERIAL: PP



A PART NO: 12110244
 DESCRIPTION: Connector 24F
 SIZE: 28.0L x 24.2H x 40.9W
 COLOR: Pink
 MATERIAL: PBT 30% GF
 TERMINALS: See Page 170

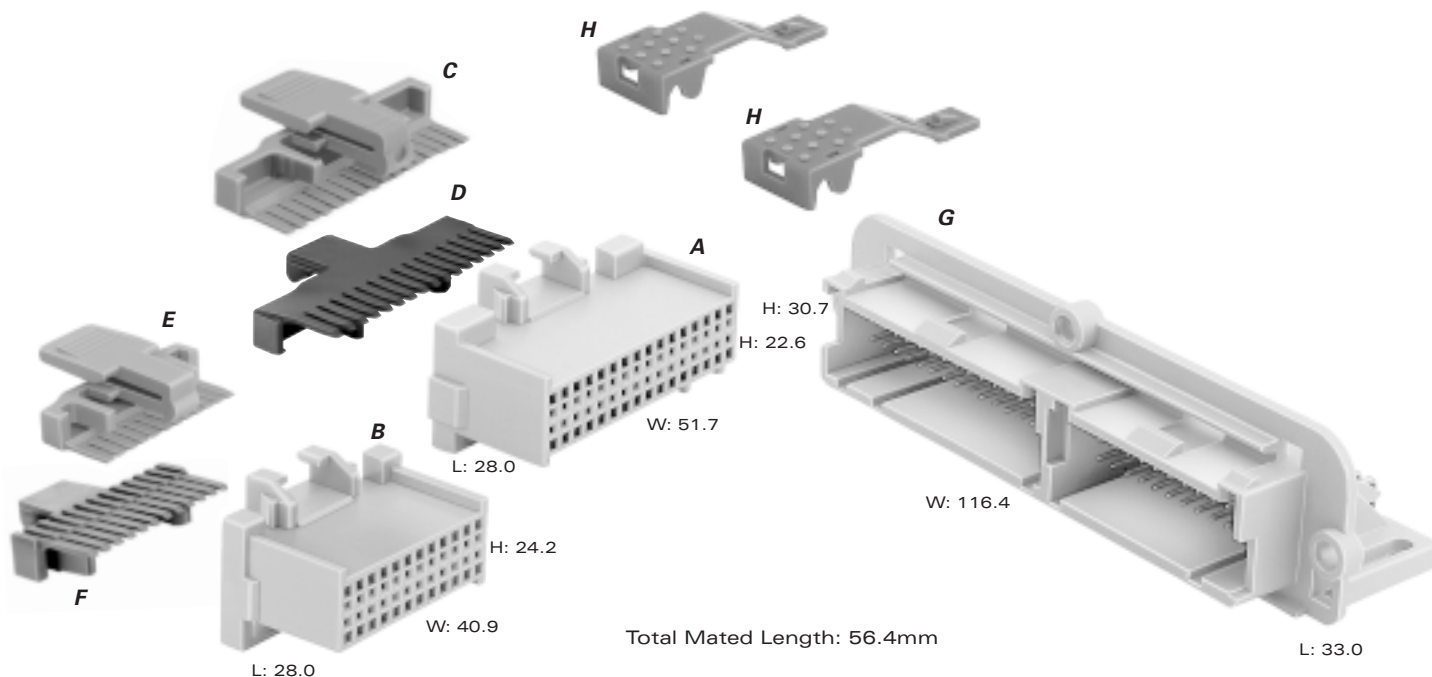
E PART NO: 12191140
 DESCRIPTION: Connector Assembly 48M
 SIZE: 32.6L x 24.4H x 104.1W
 COLOR: Natural
 MATERIAL: PBT 30% GF

B PART NO: 12110206
 DESCRIPTION: Connector 24F
 SIZE: 28.0L x 24.2H x 40.9W
 COLOR: Lt. Blue
 MATERIAL: PBT 30% GF
 TERMINALS: See Page 170

F PART NO: 12077899
 DESCRIPTION: CPA
 NUMBER REQ: 2
 COLOR: Orange
 MATERIAL: PP

C PART NO: 12047900
 DESCRIPTION: TPA
 NUMBER REQ: 2
 COLOR: Blue
 MATERIAL: PA6

D PART NO: 12047901
 DESCRIPTION: TPA
 NUMBER REQ: 2
 COLOR: Blue
 MATERIAL: PA6



A PART NO: 12110207* (Lt. Blue)
12110245* (Pink)
12160779* (Brown)

DESCRIPTION: Connector 32F

SIZE: 28.0L x 22.6H x 51.7W

MATERIAL: PBT 30% GF

TERMINALS: See Page 170

*DIFFERENT INDEXING FEATURE.

G PART NO: 12110209* (Lt. Blue)
12110241* (Pink)
12160777* (Brown)

DESCRIPTION: Connector Assembly 56M

SIZE: 33.0L x 30.7H x 116.4W

COLOR: Lt. Blue

MATERIAL: PBT 30% GF

*DIFFERENT INDEXING FEATURE.

B PART NO: 12110206* (Lt. Blue)
12110244* (Pink)
12160778* (Brown)

DESCRIPTION: Connector 24F

SIZE: 28.0L x 24.2H x 40.9W

MATERIAL: PBT 30% GF

TERMINALS: See Page 170

*DIFFERENT INDEXING FEATURE.

H PART NO: 12077899

DESCRIPTION: CPA

NUMBER REQ: 2

COLOR: Orange

MATERIAL: PP

C PART NO: 12045889

DESCRIPTION: TPA

COLOR: Blue

MATERIAL: PA6

D PART NO: 12045890

DESCRIPTION: TPA

COLOR: Md. Gray

MATERIAL: PA6

E PART NO: 12047900

DESCRIPTION: TPA

COLOR: Blue

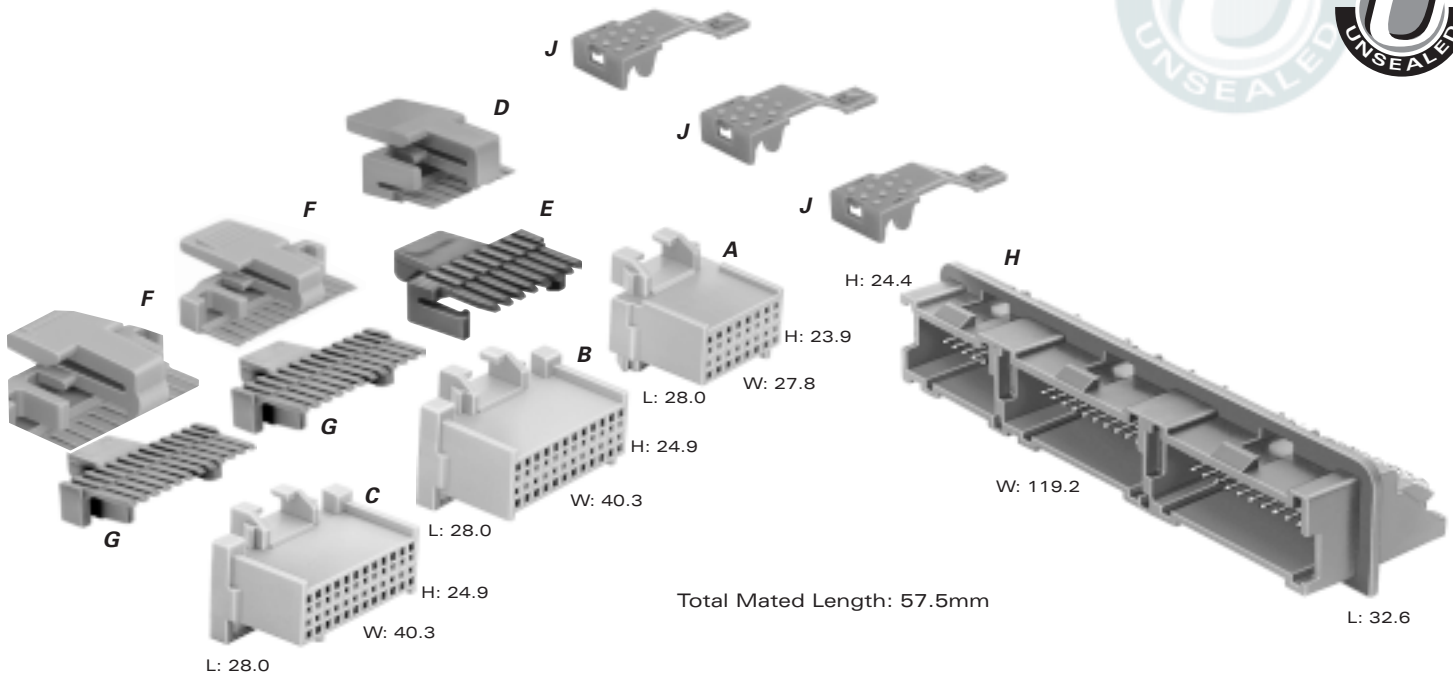
MATERIAL: PA6

F PART NO: 12047901

DESCRIPTION: TPA

COLOR: Blue

MATERIAL: PA6



**A PART NO: 12084945* (Gray)
12191375* (Purple)**

DESCRIPTION: Connector 16F
SIZE: 28.0L x 23.9H x 27.8W
COLOR: Gray
MATERIAL: PBT 30% GF
TERMINALS: See Page 170
*DIFFERENT INDEXING FEATURE.

**H PART NO: 12160861* (Black)
12191293* (Dk. Blue)**

DESCRIPTION: Connector Assembly 64M
SIZE: 32.6L x 24.4H x 119.2W
MATERIAL: PBT 30% GF
*DIFFERENT INDEXING FEATURE.

**B PART NO: 12110088* (Lt. Gray)
12110206* (Lt. Blue)**

DESCRIPTION: Connector 24F
SIZE: 28.0L x 24.9H x 40.3W
MATERIAL: PBT 30% GF
TERMINALS: See Page 170
*DIFFERENT INDEXING FEATURE.

J PART NO: 12077899

DESCRIPTION: CPA
NUMBER REQ: 3
COLOR: Orange
MATERIAL: PP

**C PART NO: 12110244* (Pink)
12160778* (Brown)**

DESCRIPTION: Connector 24F
SIZE: 28.0L x 24.9H x 40.3W
MATERIAL: PBT 30% GF
TERMINALS: See Page 170
*DIFFERENT INDEXING FEATURE.

D PART NO: 12048344

DESCRIPTION: TPA
COLOR: Blue
MATERIAL: PA6

E PART NO: 12048345

DESCRIPTION: TPA
COLOR: Blue
MATERIAL: PA6

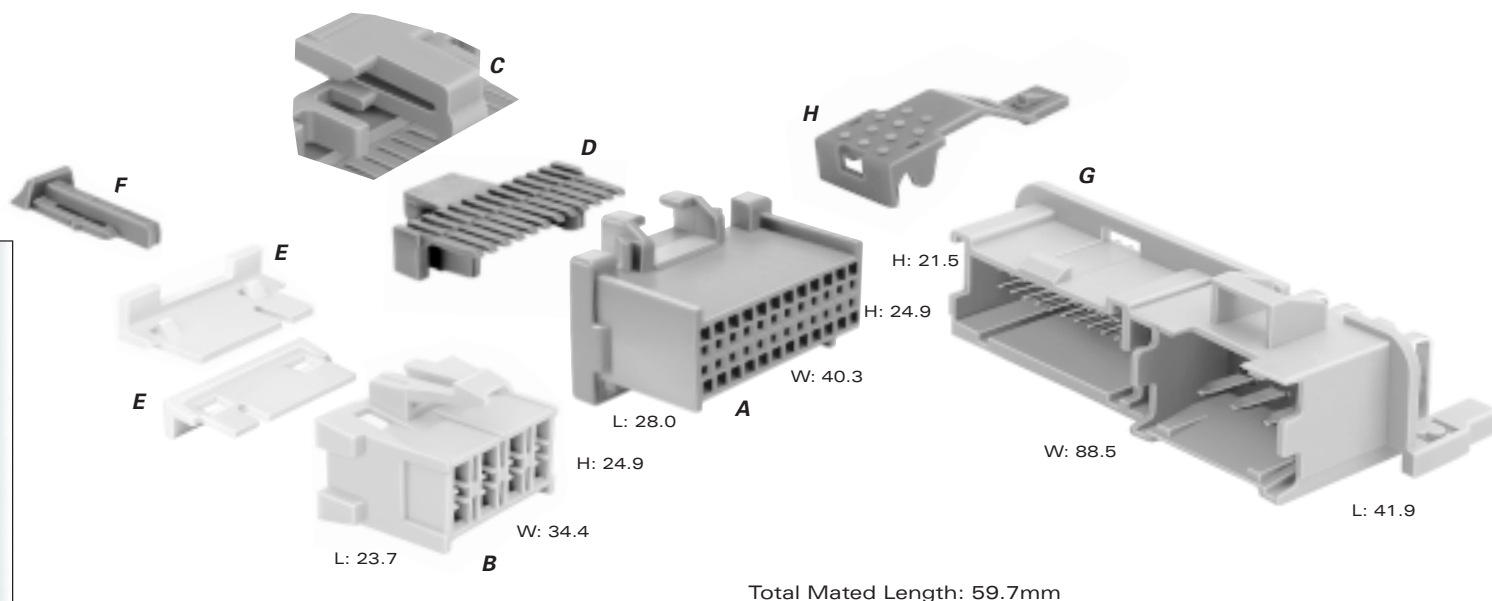
F PART NO: 12047900

DESCRIPTION: TPA
NUMBER REQ: 2
COLOR: Blue
MATERIAL: PA6

G PART NO: 12047901

DESCRIPTION: TPA
NUMBER REQ: 2
COLOR: Blue
MATERIAL: PA6

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



A PART NO: 12110088* (Lt. Gray)
12110206* (Lt. Blue)
12110244* (Pink)

DESCRIPTION: Connector 24F
SIZE: 28.0L x 24.9H x 40.3W
MATERIAL: PBT 30% GF
TERMINALS: See Page 170
*DIFFERENT INDEXING FEATURE.

B PART NO: 15357040

DESCRIPTION: Connector 8F
SIZE: 23.7L x 24.9H x 34.4W
COLOR: Md. Gray
MATERIAL: PA66 HS IM
TERMINALS: See Page 160, 280 Metri-Pack Tangless

C PART NO: 12047900

DESCRIPTION: TPA
COLOR: Blue
MATERIAL: PA6

D PART NO: 12047901

DESCRIPTION: TPA
COLOR: Blue
MATERIAL: PA6

E PART NO: 15324332

DESCRIPTION: TPA
NUMBER REQ: 2
COLOR: Natural
MATERIAL: PA66 HS IM

F PART NO: 12052834

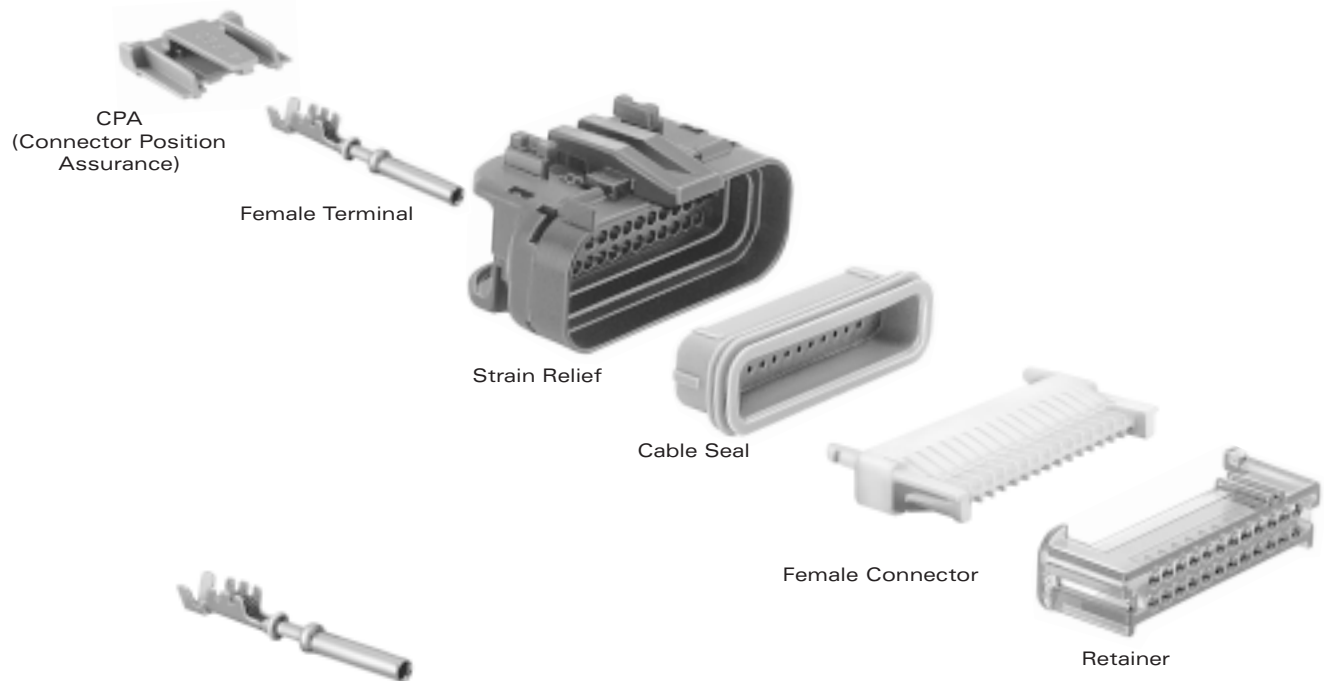
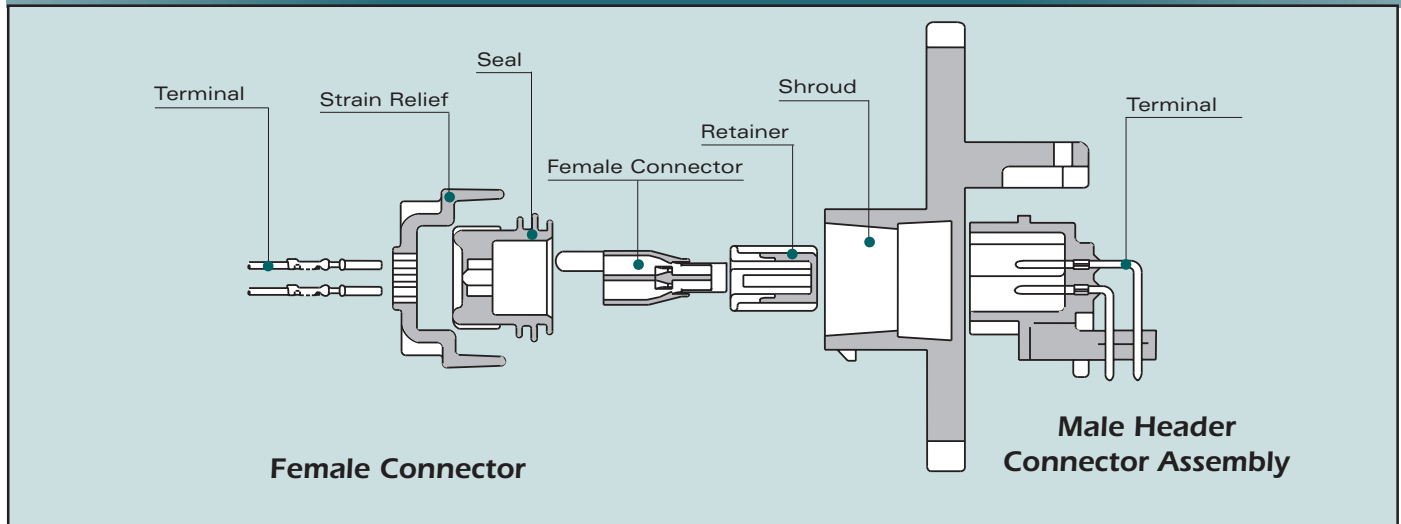
DESCRIPTION: CPA
COLOR: Green
MATERIAL: PP

G PART NO: 15357042* (Gray)
15357044* (Lt. Blue)
15357046* (Pink)

DESCRIPTION: Connector Assembly 32M
SIZE: 41.9L x 21.5H x 88.5W
MATERIAL: PBT 30% GF
*DIFFERENT INDEXING FEATURE.

H PART NO: 12077899

DESCRIPTION: CPA
COLOR: Orange
MATERIAL: PP

**Cross Sectional View****MICRO-PACK FEMALE TERMINALS SEALED**

Part #	Cable Range (mm ²)	Material	Plating
12084912	0.80	Phosphor Bronze	Gold/Nickel
12084913	0.50-0.35	Phosphor Bronze	Gold/Nickel

MICRO-PACK FEMALE CONNECTORS SEALED

# Cavities	Connector	Color	Material	TPA	Retainer**	Seal	Strain Relief
24	12129225	Natural	PBT	—	12129183	12110403*	12160848
32	12129025	Natural	PBT	—	12129023	12129026*	12129030
36	12110487	Black	PBT	—	12110488	12110489*	12110490
Mixed							
32	12160423	Black	PBT	12160419	12160418	12160425 12160426	12160424

*Validated for 0.80-0.50 cable.

**Retainers provide terminal position assurance.

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

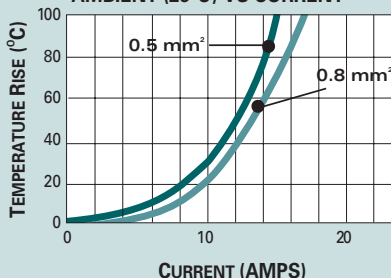


Sealed System Application Information

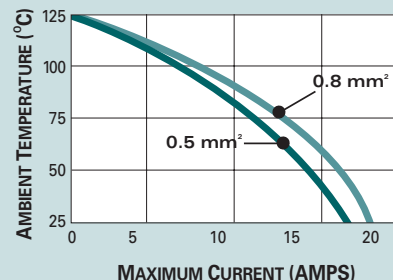
CABLE RANGE (mm²): 0.35-0.8
CURRENT RANGE (AMPS): 0-7.5
TEMP RANGE °C: -40 to 125
RESISTANCE: <10mΩ@20mV
VOLTAGE DROP: <10.0mV/amp
CENTERLINE SPACING (mm): 3.5
TERMINAL DIAMETER (mm): 1.0

MICRO-PACK 100W TERMINALS – Gold Plated

TEMPERATURE RISE ABOVE
AMBIENT (25°C) VS CURRENT*



TEMPERATURE DERATING CURVES*



*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 Header Connector Assembly

MICRO-PACK MALE HEADER CONNECTOR ASSEMBLIES SEALED

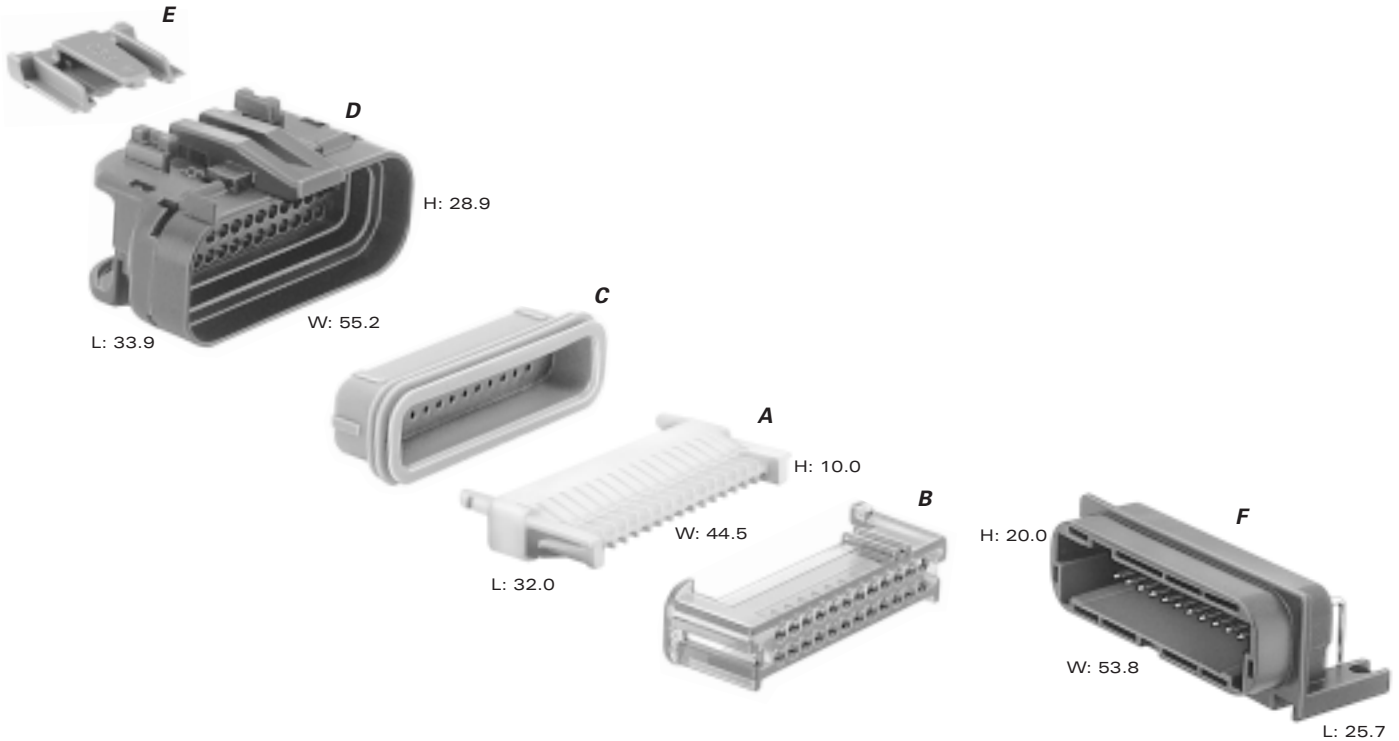
# Cavities	Connector	Color	Material
24	12092320	Black	PBT 30% GF
32	12129008	Blue	PBT 30% GF
36	12110485	Black	PBT 30% GF
Mixed			
32	12146993	Black	PBT 30% GF

Terminals included in connector assembly.

SECTION NOTES:

- Contact your regional support representative at the number listed below.
- Sealing shroud and locking feature for connector assembly must be designed into mating device housing.

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



A PART NO: 12129225

DESCRIPTION: Connector 24F
 SIZE: 32.0L x 10.0H x 44.5
 COLOR: Natural
 MATERIAL: PBT
 TERMINALS: See Page 188

B PART NO: 12129183

DESCRIPTION: Retainer 24F
 COLOR: Black
 MATERIAL: PC

C PART NO: 12110403

DESCRIPTION: Seal 24F
 COLOR: Green
 MATERIAL: Silicone

D PART NO: 12160848 Black (Right Wire Dress) 12129858 Gray (Straight Wire Dress) 12129811 Gray (Right Wire Dress)

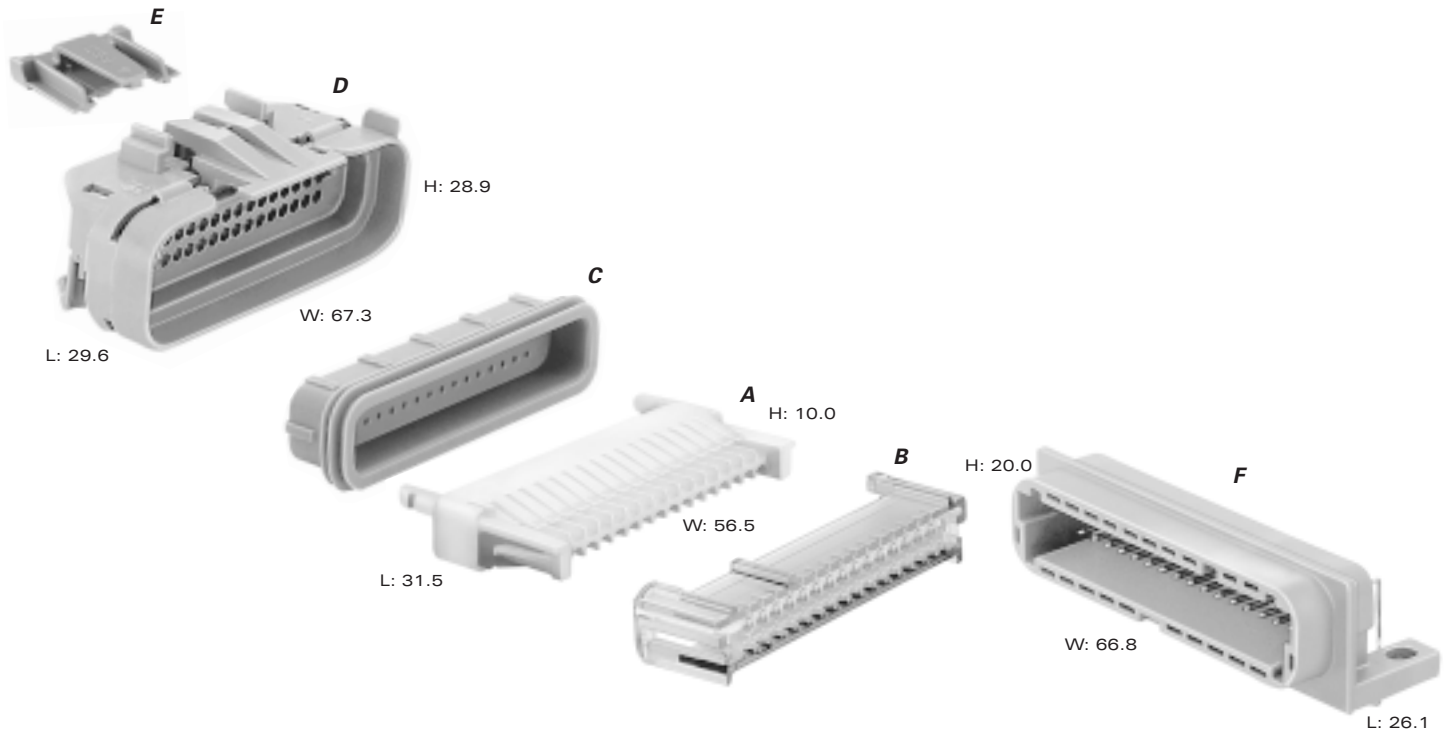
DESCRIPTION: Strain Relief 24F
 SIZE: 33.9L x 28.9H x 55.2W
 MATERIAL: TEEE

E PART NO: 12110299

DESCRIPTION: CPA
 COLOR: Red
 MATERIAL: PBT

F PART NO: 12092320

DESCRIPTION: Connector Assembly 24M
 SIZE: 25.7L x 20.0H x 53.8W
 COLOR: Black
 MATERIAL: PBT 30% GF



Total Mated Length: 57.6mm

A PART NO: 12129025
 DESCRIPTION: Connector 32F
 SIZE: 31.5L x 10.0H x 56.5W
 COLOR: Natural
 MATERIAL: PBT
 TERMINALS: See Page 188

B PART NO: 12129023* (Md. Blue)
12129021* (Black)
12129022* (Clear)

DESCRIPTION: Retainer 32F
 MATERIAL: PC
 *DIFFERENT INDEXING FEATURE.

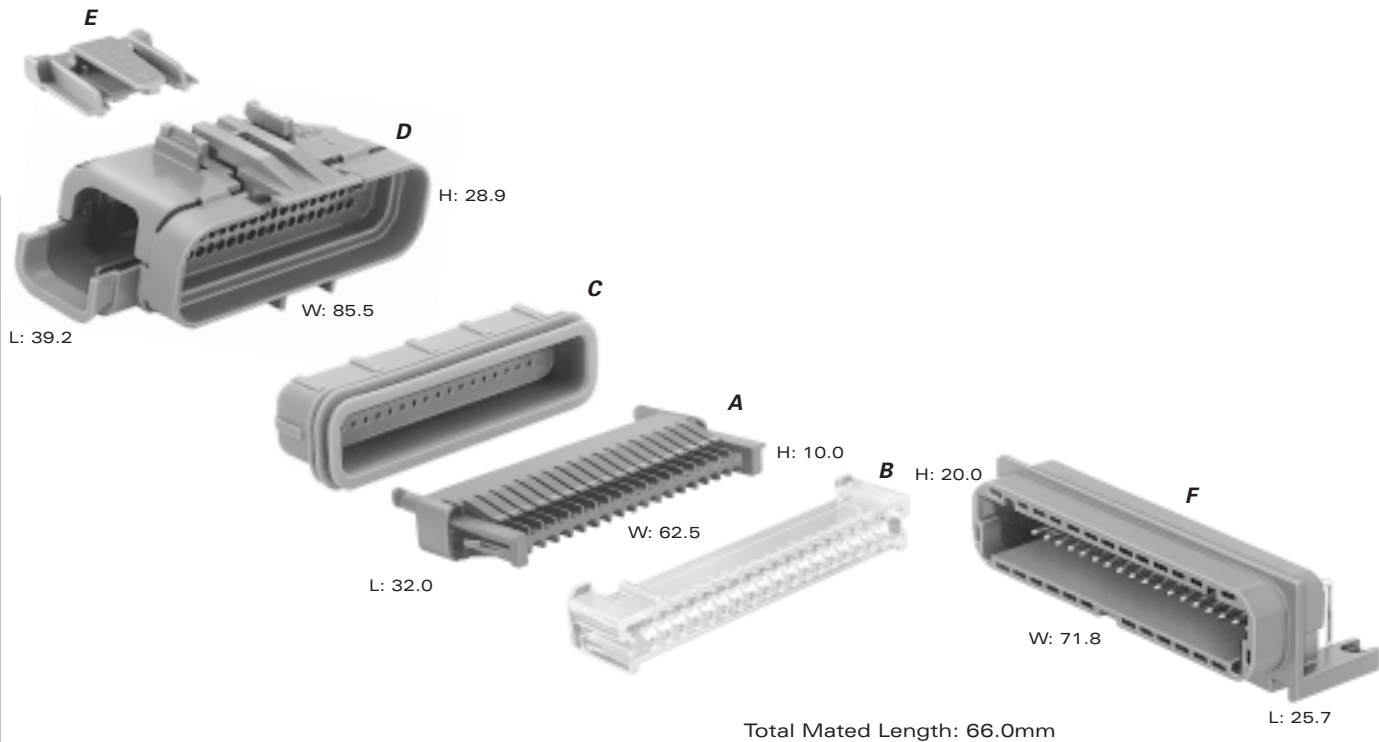
C PART NO: 12129026
 DESCRIPTION: Seal 32F
 COLOR: Green
 MATERIAL: Silicone

D PART NO: 12129030 (Right Wire Dress)
12129028 (Left Wire Dress)

DESCRIPTION: Strain Relief 32F
 SIZE: 29.6L x 28.9H x 67.3W
 COLOR: Gray
 MATERIAL: TEEE

E PART NO: 12110299
 DESCRIPTION: CPA
 COLOR: Red
 MATERIAL: PBT

F PART NO: 12129008* (Blue)
12186041* (Black)
12186043* (Gray)
 DESCRIPTION: Connector Assembly 32M
 SIZE: 26.1L x 20.0H x 66.8W
 MATERIAL: PBT 30% GF
 *DIFFERENT INDEXING FEATURE.



A PART NO: 12110487
 DESCRIPTION: Connector 36F
 SIZE: 32.0L x 10.0H x 62.5W
 COLOR: Black
 MATERIAL: PBT
 TERMINALS: See Page 188

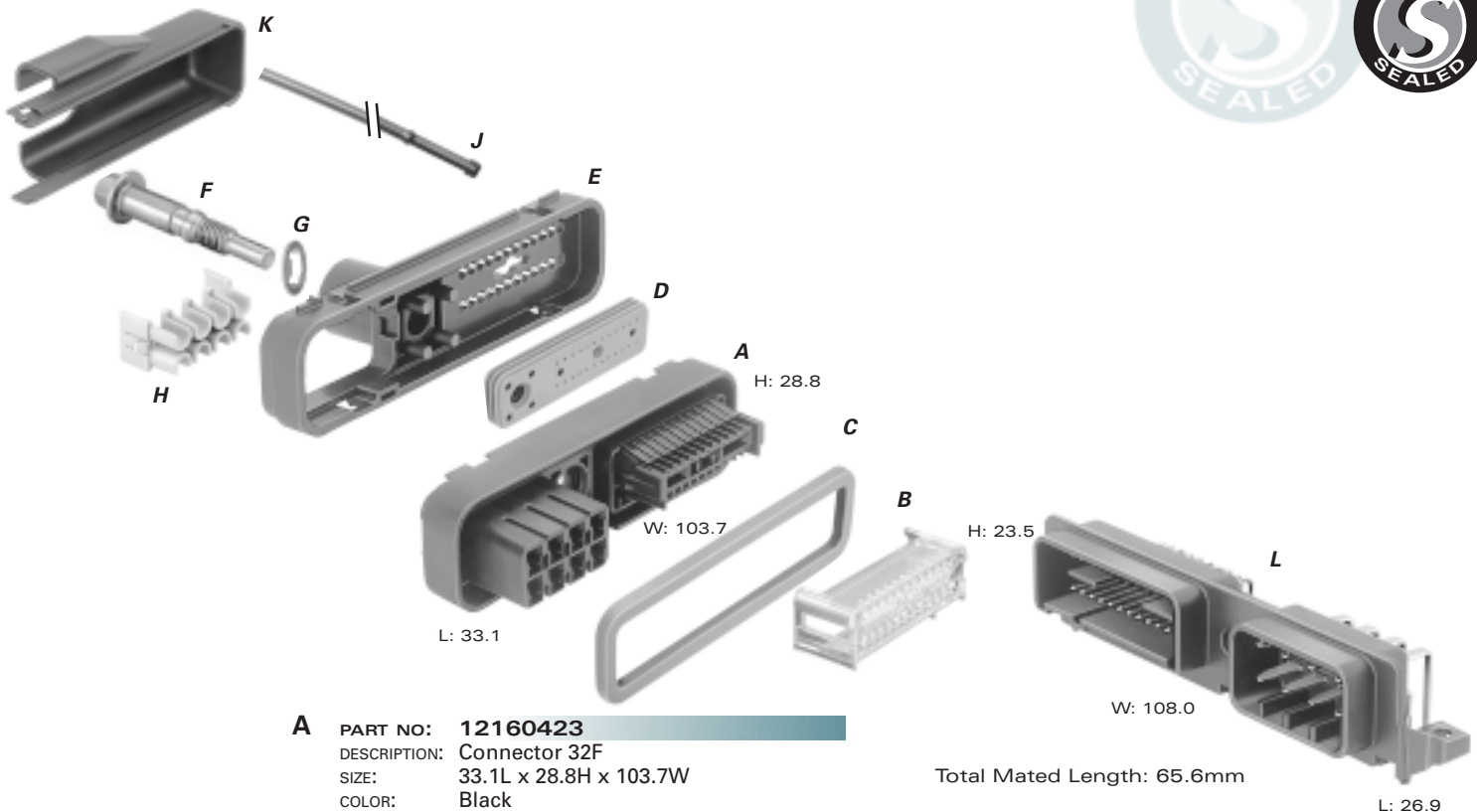
B PART NO: 12110488
 DESCRIPTION: Retainer 36F
 COLOR: Clear
 MATERIAL: PC

C PART NO: 12110489
 DESCRIPTION: Seal 36F
 COLOR: Green
 MATERIAL: Silicone

D PART NO: 12110490 (Right Wire Dress)
 DESCRIPTION: Strain Relief 36F
 SIZE: 39.2L x 28.9H x 85.5W
 COLOR: Gray
 MATERIAL: TEEE

E PART NO: 12110299
 DESCRIPTION: CPA
 COLOR: Red
 MATERIAL: PBT

F PART NO: 12110485
 DESCRIPTION: Connector Assembly 36M
 SIZE: 25.7L x 20.0H x 71.8W
 COLOR: Black
 MATERIAL: PBT 30% GF



A **PART NO:** 12160423
DESCRIPTION: Connector 32F
SIZE: 33.1L x 28.8H x 103.7W
COLOR: Black
MATERIAL: PBT
TERMINALS: See page 188, Micro-Pack Sealed
 See below, 280 Metri-Pack Tangless

B **PART NO:** 12160418
DESCRIPTION: Retainer 24F
COLOR: Red
MATERIAL: PC

C **PART NO:** 12160425
DESCRIPTION: Connector Seal
COLOR: Green
MATERIAL: Silicone

D **PART NO:** 12160426
DESCRIPTION: Seal 32F
COLOR: Green
MATERIAL: Silicone

E **PART NO:** 12160424
DESCRIPTION: Strain Relief
SIZE: 25.9L x 28.7H x 98.6W
COLOR: Black
MATERIAL: PA66 HS IM 14% GF

F **PART NO:** 12160427
DESCRIPTION: Bolt
SIZE: M4 Hex Head
MATERIAL: Zinc Plated Steel

G **PART NO:** 12103406
DESCRIPTION: Bolt Retainer
MATERIAL: Zinc Plated Steel

H **PART NO:** 12160419
DESCRIPTION: TPA
COLOR: Md. Gray
MATERIAL: PA66 HS IM

J **PART NO:** 12161104
DESCRIPTION: Vent Tube
COLOR: Black
MATERIAL: PA6
LENGTH: 1180mm
APPLICATION: Vents Air Pressure inside Module.

K **PART NO:** 12160420
DESCRIPTION: Wire Dress Cover
COLOR: Black
MATERIAL: PA66 HS IM 14% GF

L **PART NO:** 12146993
DESCRIPTION: Connector Assembly 32M
SIZE: 26.9L x 23.5H x 108.0W
COLOR: Black
MATERIAL: PBT 30% GF

TANGLESS



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 may apply, contact your regional support representative at the number listed below.

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