

METRI-PACK SERIES Header

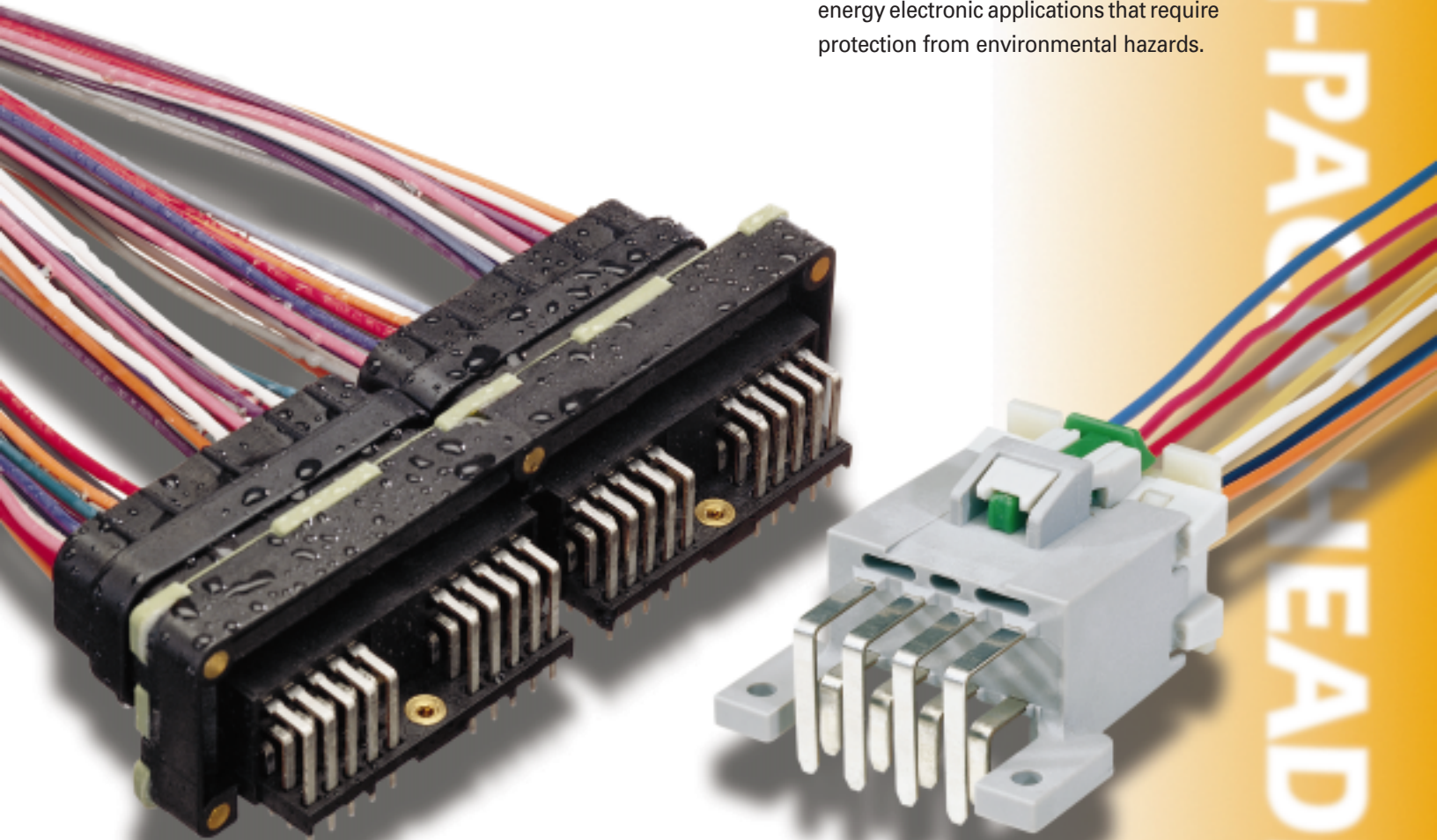


The Metri-Pack 280 Series unsealed electronic header is a versatile, and extremely rugged system designed to meet customer's power circuit needs. This system offers the combination of excellent low energy electronic circuits and power circuit capability in a single connection.



The Metri-Pack 150 Series sealed electronic header is a rugged system designed for severe underhood environments. This system offers the combination of excellent low energy electronic circuits and power circuit capability in a single connection.

Metri-Pack 150 Series sealed header systems are ideally suited for critical, low-energy electronic applications that require protection from environmental hazards.



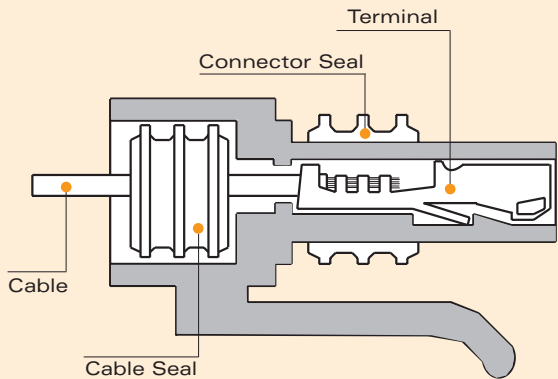
Metri-Pack Header Features

- Terminal Position Assurance (TPA)
- 14 Amps continuous maximum current rating for 150 Metri-Pack Series
- 30 Amps continuous maximum current rating for 280 Metri-Pack Series
- Low energy, low voltage capability
- Small overall dimensions
- Bolt assist connector to connector lock
- -40°C to 125°C temperature range

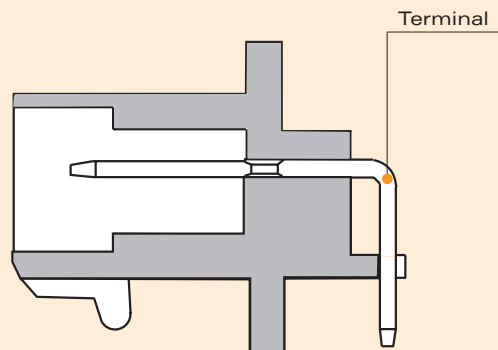
METRI-PACK
HEADER



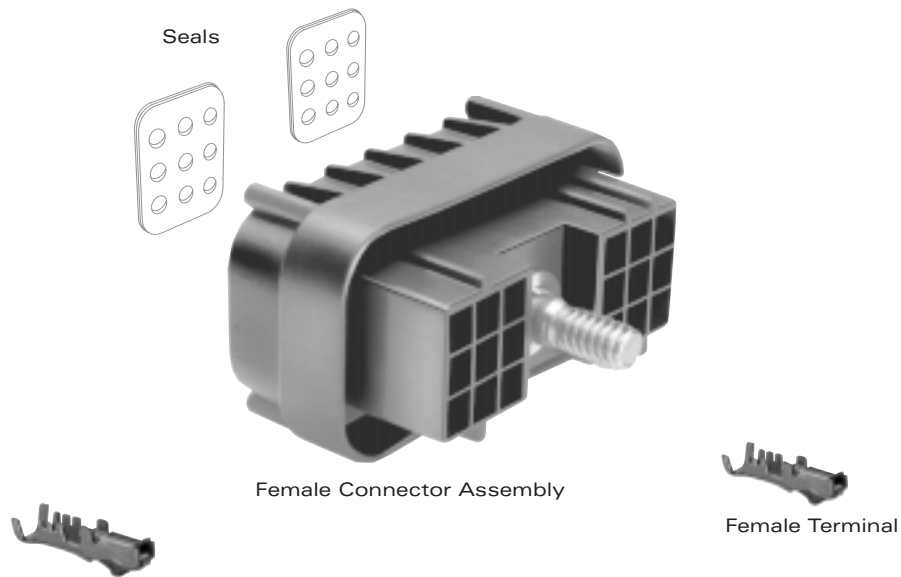
Cross Sectional View



Female Connector Assembly



Male Header Connector Assembly



Female Connector Assembly

Female Terminal

150 PULL-TO-SEAT FEMALE TERMINALS SEALED

Part #	Cable Range (mm ²)	Material	Plating
12089290	0.50-0.35	Silicon Bronze	Tin
12103881	1.0-0.80	Silicon Bronze	Tin
12110236	0.80	Beryllium Copper	Tin

150 METRI-PACK FEMALE CONNECTOR ASSEMBLIES SEALED*

# Cavities	Connector Assembly	Color	Material
18way: 18	12040921	Black	PBT 30% GF
30way: 30	12048455	Dk. Gray	PET 30% GF
48way: 18	12040921	Black	PBT 30% GF
: 30	12034398	Black	PET 30% GF
60way: 30	12034398	Black	PET 30% GF
: 30	12034400	Black	PET 30% GF

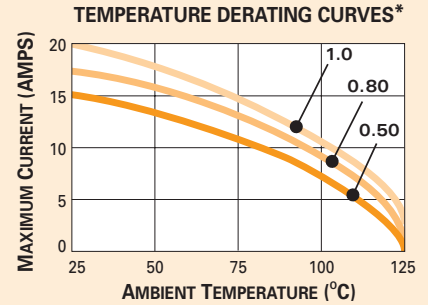
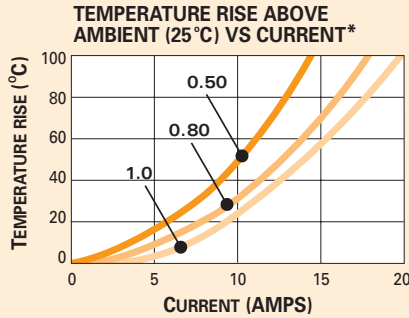
*Multiple cable seal is included in connector assembly.



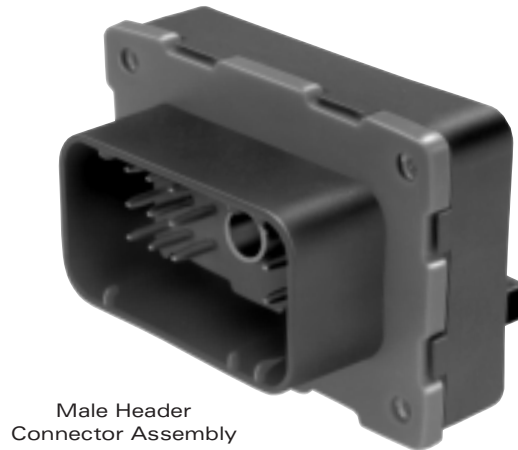
Sealed System Application Information

CABLE RANGE (mm²): 0.35-1.0
CURRENT RANGE (AMPS): 0-14
TEMP RANGE °C: -40 to 125
RESISTANCE: <10mΩ@20mV
VOLTAGE DROP: <10mV/amp
CENTERLINE SPACING (mm):
 **Connector Dependent**
BLADE WIDTH (mm): 1.5

150 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 Header Connector Assembly

12065266



12034413



150 METRI-PACK MALE HEADER CONNECTOR ASSEMBLIES SEALED

Pins	Connector	Color	Material
18	12040923	Black	PET 30% GF
30	12048453	Dk. Gray	PET 30% GF
48	12052130	Black	PET 30% GF
60	12034396	Black	PET 30% GF

Terminals Included in Male Header.

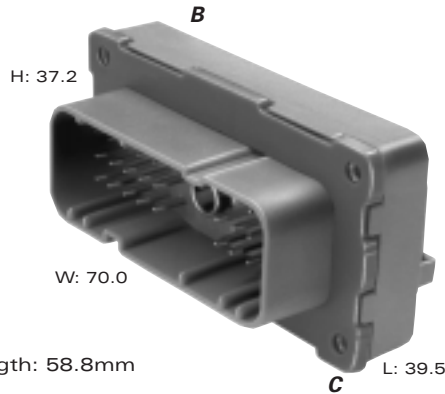
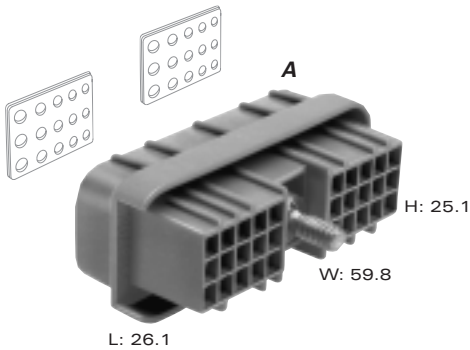
CABLE SEAL PLUGS

Part #	Cable Seal Hole Diameter (mm)	Material	Color	Type
12065266	1.85-1.65	PA6	Md. Gray	Machine Insertion
12034413	1.85-1.10	PA66 HS IM	Black	Hand Insertion

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.
- Overall mated length varies with bolt measurement.
- Inner connector seal included in Male Header Connector Assemblies where applicable.

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

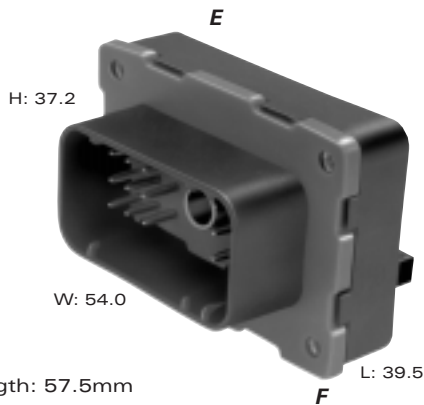
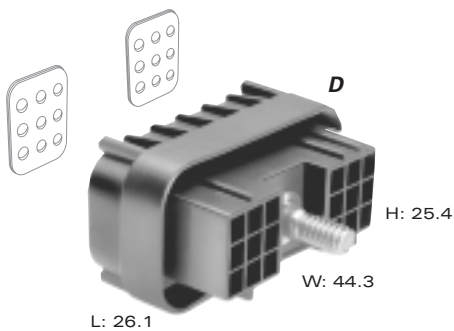


Total Mated Length: 58.8mm

A PART NO: 12048455
 DESCRIPTION: Connector Assembly 30F
 SIZE: 26.1L x 25.1H x 59.8W
 COLOR: Dk. Gray
 MATERIAL: PET 30% GF
 TERMINALS: See Page 154, 150 Pull-To-Seat Female
 PLUGS: See Page 155, Cable Seal Plugs

B PART NO: 12048453
 DESCRIPTION: Connector Assembly 30M
 SIZE: 39.5L x 37.2H x 70.0W
 COLOR: Dk. Gray
 MATERIAL: PET 30% GF
 NOTE: Shipping cover 12040542 included.

C PART NO: 12048456
 DESCRIPTION: Flange Seal
 COLOR: Green
 MATERIAL: Silicone



Total Mated Length: 57.5mm

D PART NO: 12040921
 DESCRIPTION: Connector Assembly 18F
 SIZE: 26.1L x 25.4H x 44.3W
 COLOR: Black
 MATERIAL: PBT 30% GF
 TERMINALS: See Page 154, 150 Pull-To-Seat Female
 PLUGS: See Page 155, Cable Seal Plugs

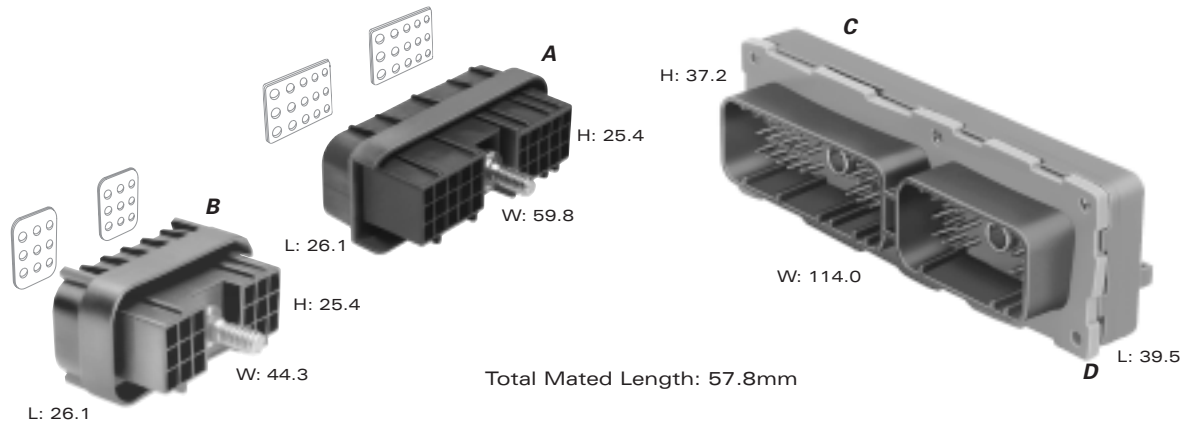
E PART NO: 12040923
 DESCRIPTION: Connector Assembly 18M
 SIZE: 39.5L x 37.2H x 54.0W
 COLOR: Black
 MATERIAL: PET 30% GF
 NOTE: Shipping cover 12040940 included.

F PART NO: 12040938
 DESCRIPTION: Flange Seal
 COLOR: Green
 MATERIAL: Silicone

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

150 HEADER

Metri-Pack Series

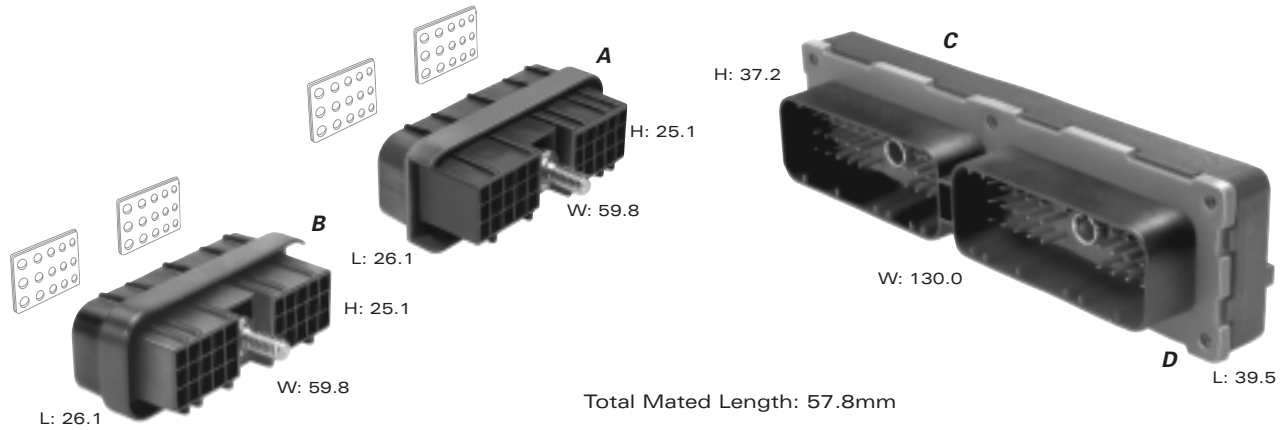


A PART NO: **12034398**
DESCRIPTION: Connector Assembly 30F
SIZE: 26.1L x 25.4H x 59.8W
COLOR: Black
MATERIAL: PET 30% GF
TERMINALS: See Page 154, 150 Pull-To-Seat Female
PLUGS: See Page 155, Cable Seal Plugs

B PART NO: **12040921**
DESCRIPTION: Connector Assembly 18F
SIZE: 26.1L x 25.4H x 44.3W
COLOR: Black
MATERIAL: PBT 30% GF
TERMINALS: See Page 154, 150 Pull-To-Seat Female
PLUGS: See Page 155, Cable Seal Plugs

C PART NO: **12052130**
DESCRIPTION: Connector Assembly 48M
SIZE: 39.5L x 37.2H x 114.0W
COLOR: Black
MATERIAL: PET 30% GF
NOTE: Shipping covers 12040940 and 12040542 included.

D PART NO: **12052131**
DESCRIPTION: Flange Seal
COLOR: Green
MATERIAL: Silicone



A PART NO: 12034398
 DESCRIPTION: Connector Assembly 30F
 SIZE: 26.1L x 25.1H x 59.8W
 COLOR: Black
 MATERIAL: PET 30% GF
 TERMINALS: See Page 154, 150 Pull-To-Seat Female
 PLUGS: See Page 155, Cable Seal Plugs

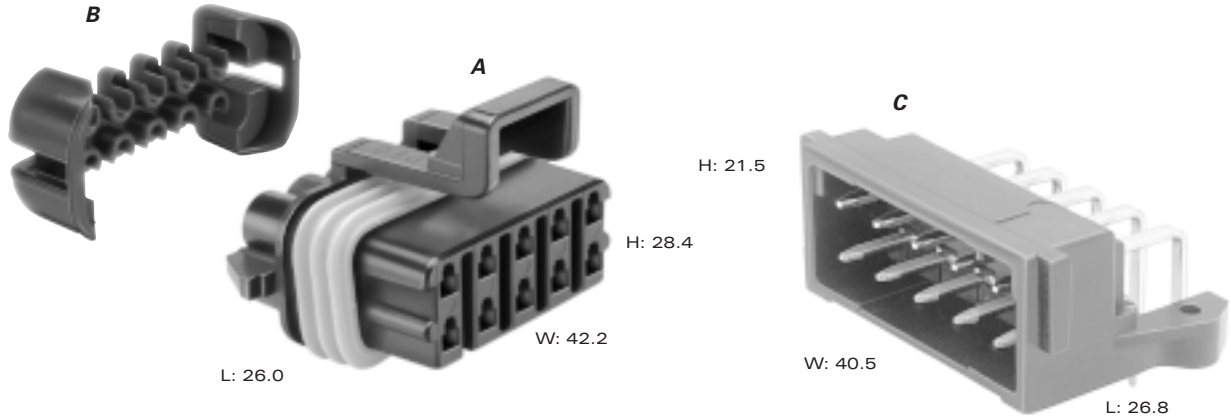
C PART NO: 12034396
 DESCRIPTION: Connector Assembly 60M
 SIZE: 39.5L x 37.2H x 130.0W
 COLOR: Black
 MATERIAL: PET 30% GF
 NOTE: Shipping cover 12040542 (2 Req'd.) included

B PART NO: 12034400
 DESCRIPTION: Connector Assembly 30F
 SIZE: 26.1L x 25.1H x 59.8W
 COLOR: Black
 MATERIAL: PET 30% GF
 TERMINALS: See Page 154, 150 Pull-To-Seat Female
 PLUGS: See Page 155, Cable Seal Plugs

D PART NO: 12040780
 DESCRIPTION: Flange Seal
 COLOR: Green
 MATERIAL: Silicone

150 HEADER

Metri-Pack Series



Total Mated Length: 46.7mm

A PART NO: 12065425
 DESCRIPTION: Connector Assembly 10F
 SIZE: 26.0L x 28.4H x 42.2W
 COLOR: Black
 MATERIAL: PA66 HS IM
 TERMINALS: See below, 150 Female Push to Seat
 SEALS/PLUGS: See below, 150 Metri-Pack

C PART NO: 12160446
 DESCRIPTION: Connector Assembly 10M
 SIZE: 26.8L x 21.5H x 40.5W
 COLOR: Black
 MATERIAL: PBT 30% GF
 NOTE: Sealing Shroud and Locking Feature for Connector Assembly must be designed into mating device housing.

B PART NO: 12124264
 DESCRIPTION: TPA
 COLOR: Gray
 MATERIAL: PA6



150 FEMALE TERMINALS SEALED

Part #	Cable Range (mm ²)	Material	Plating
12048074	1.0-0.80	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



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.



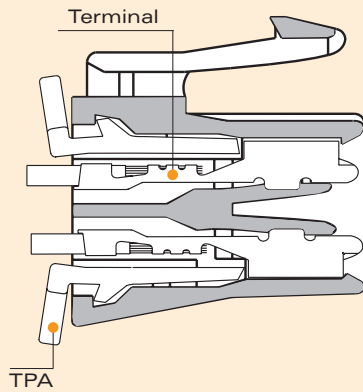
150 METRI-PACK CABLE SEALS

Reel Part #	Loose Part #	Cable Diameter	Material	Color
12052924	12048086	2.85-2.03	Silicone	Dk. Red
12089442	12089678	2.15-1.60	Silicone	White
12052925	12048087	1.70-1.29	Silicone	Blue
12124669	12084193	1.009-0.995	Silicone	Tan

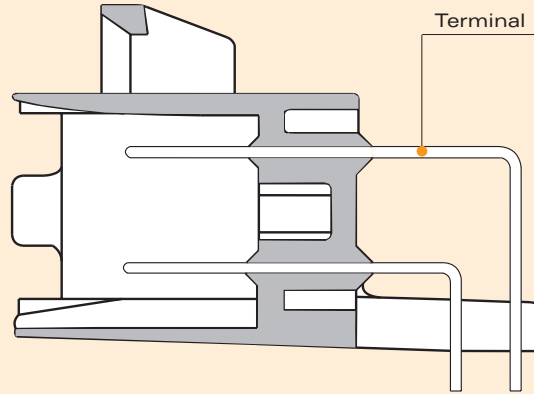
<http://delphi.com/products/connect>



Cross Sectional View



Female Connector



Male Header Connector Assembly

TPA
(Terminal Position Assurance)

CPA
(Connector Position Assurance)



280 TANGLESS FEMALE TERMINALS UNSEALED

Part #	Cable Range (mm ²)	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

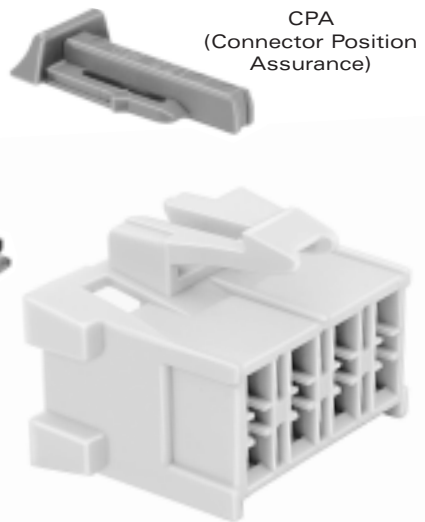
*Thin Stock—Electrical current restrictions apply, contact your regional support representative at the number listed below.

280 FEMALE TERMINALS UNSEALED

Part #	Cable Range (mm ²)	Material	Plating
12015858	5.0	Tin Brass	Tin
12129494	3.0-2.0	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.

Female Terminal



Female Connector

280 METRI-PACK FEMALE CONNECTOR UNSEALED

# Cavities	Connector	Color	Material	TPA
4	12052856	Black	PA66 HS IM	15324456



280 METRI-PACK FLEXLOCK FEMALE CONNECTOR UNSEALED

# Cavities	Connector	Color	Material	TPA
8	15357040	Lt. Gray	PA66 HS IM	15324332

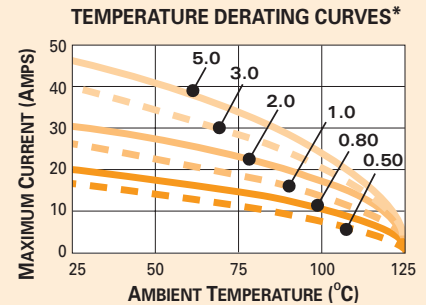
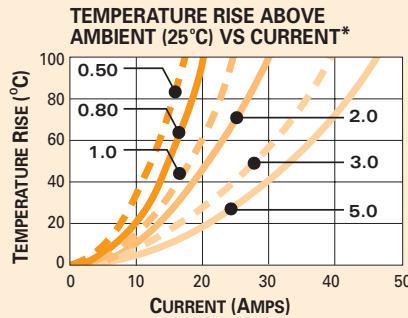
<http://delphi.com/products/connect>



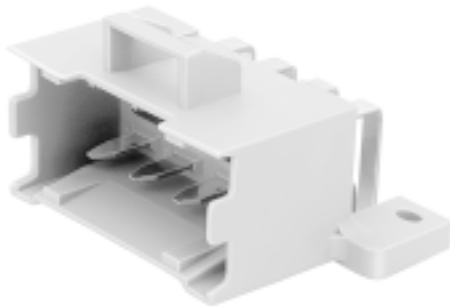
Unsealed System Application Information

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): 6.9
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 Header Connector Assembly

280 METRI-PACK MALE HEADER CONNECTOR ASSEMBLY UNSEALED

Pins	Connector	Color	Material
4	12110440	Black	PA66 HS IM



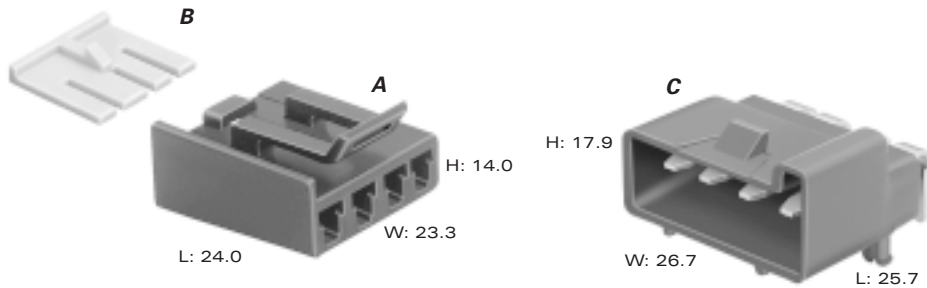
280 METRI-PACK MALE HEADER CONNECTOR ASSEMBLY UNSEALED

Pins	Connector	Color	Material
8	12146724	Gray	PBT 30% GF

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.

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

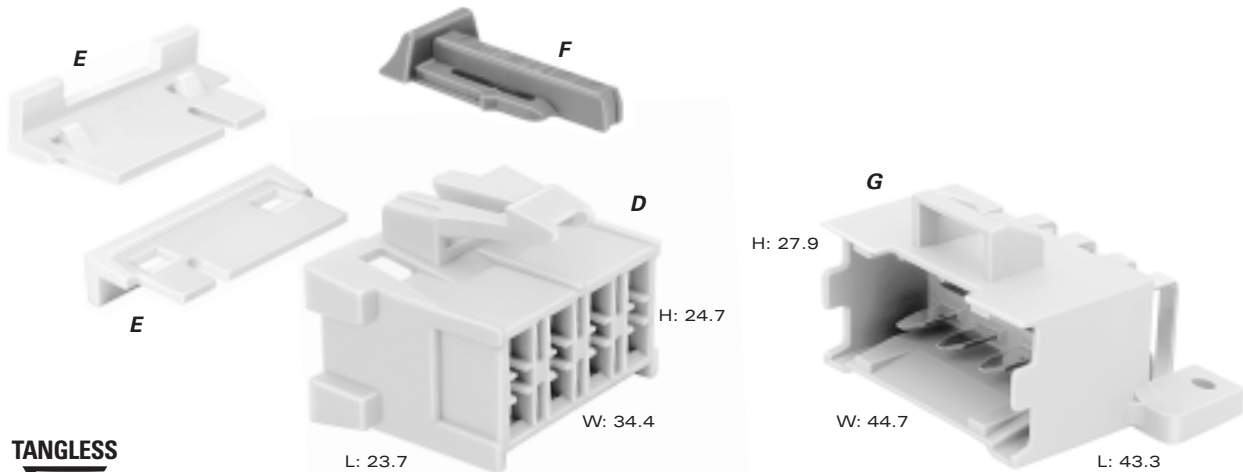


Total Mated Length: 40.4mm

A PART NO: **12052856**
 DESCRIPTION: Connector 4F
 SIZE: 24.0L x 14.0H x 23.3W
 COLOR: Black
 MATERIAL: PA66 HS IM
 TERMINALS: See Page 160, 280 Female

C PART NO: **12110440**
 DESCRIPTION: Connector 4M
 SIZE: 25.7L x 17.9H x 26.7W
 COLOR: Black
 MATERIAL: PA66 HS IM

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



Total Mated Length: 50.8mm



D PART NO: **15357040 (Lt. Gray)**
12129088 (Black)
 DESCRIPTION: Connector 8F
 SIZE: 23.7L x 24.7H x 34.4W
 MATERIAL: PA66 HS IM
 TERMINALS: See Page 160, 280 Tangless Female

G PART NO: **12146724 (Gray)**
12146735 (Black)
 DESCRIPTION: Connector 8M
 SIZE: 43.3L x 27.9H x 44.7W
 MATERIAL: PBT 30% GF

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