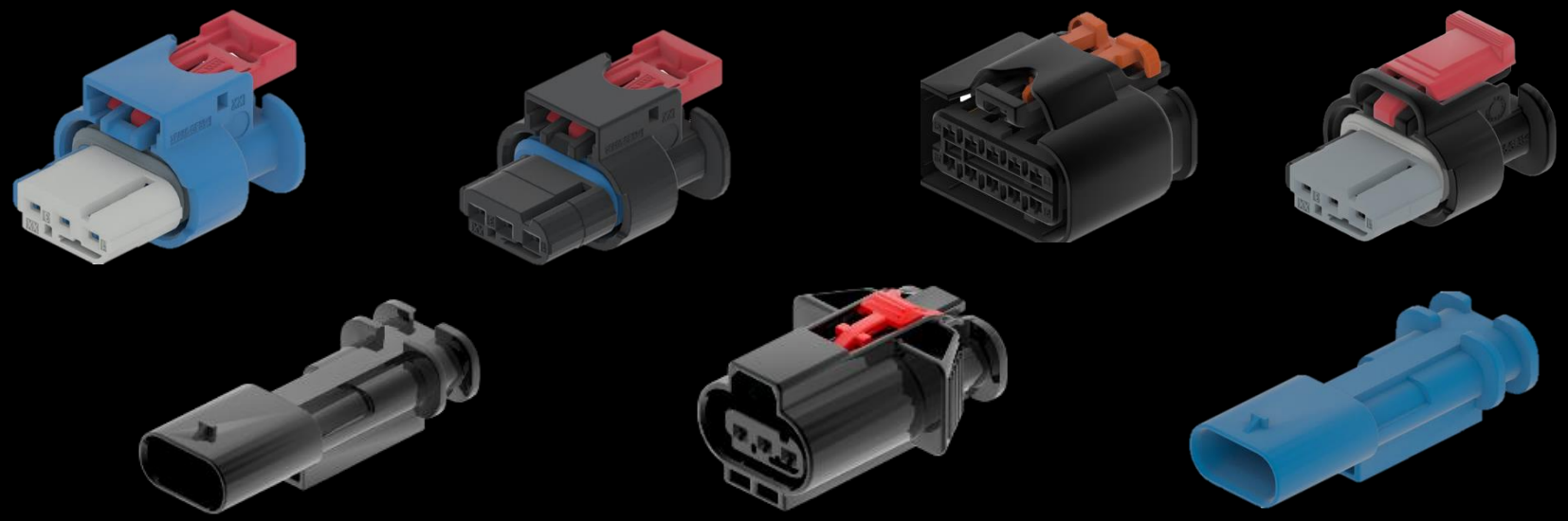
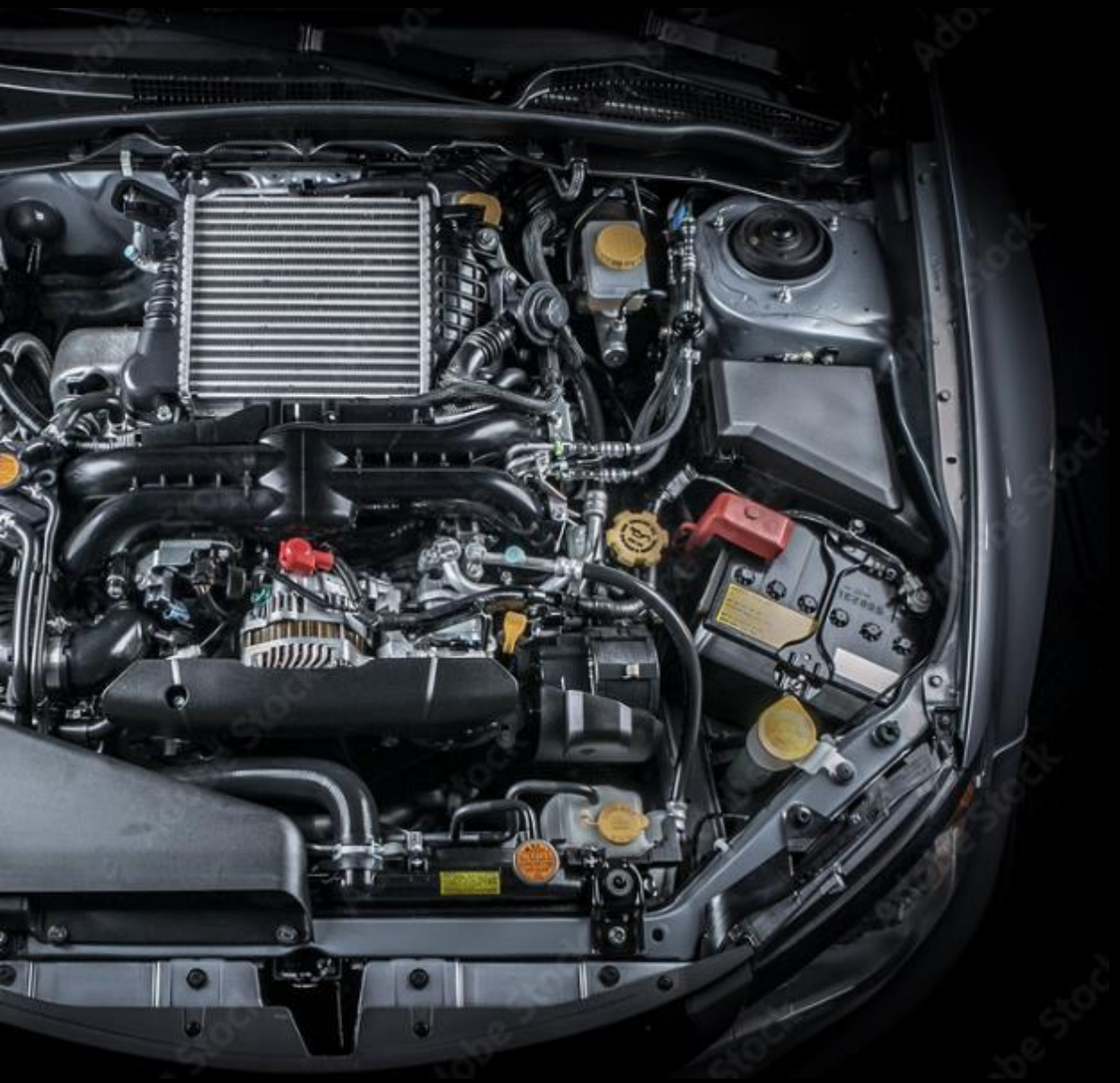
November 2026

CTS 1.2 SENSOMATE™ CONNECTION SYSTEM



APTIV



The Challenge

- Interchangeable systems for quick and easy assembly
- Higher operating temperature and vibration with reduced packaging
- Cost constraints in a more demanding market

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The 1.2 Industry Standard Solution

CTS 1.2 SensoMate™ connection system: the main interface in the automotive industry today

- VDA/USCAR 1.2 mm Interface compatible
- Industry standard 1.2 terminal cavity capability
- Wire dress covers available in straight & 4 directions (Schlemmer)



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Enhanced CTS design for demanding applications

2 shroud lengths



Reduced packaging with short shroud



Improved vibration resistance with long shroud

Reliable connection



Easy mate / unmate with Aptiv's CPA & patented Smart Locking System

Robust CTS* design



High performance Terminal



One Piece Molded Housing

Superior reliability for life cycle performance

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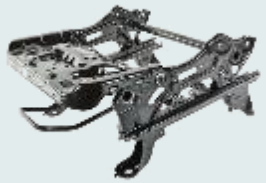
Ready to address a broad application versatility



Powertrain & Engine Area

T4/V4/S3

- Sealed Device – High Vibration
- Applications: Powertrain sensors (Fuel inj., Coil Plugs, VVL, MAF, Throttle Body Position)



Interior / Active & Passive Safety / Multimedia

T2/V1/S2

- Sealed Device – Low Vibration
- Applications: Seat inline wiring, seat belt pretensioners, etc.



Body & Chassis

T3/V2/S3

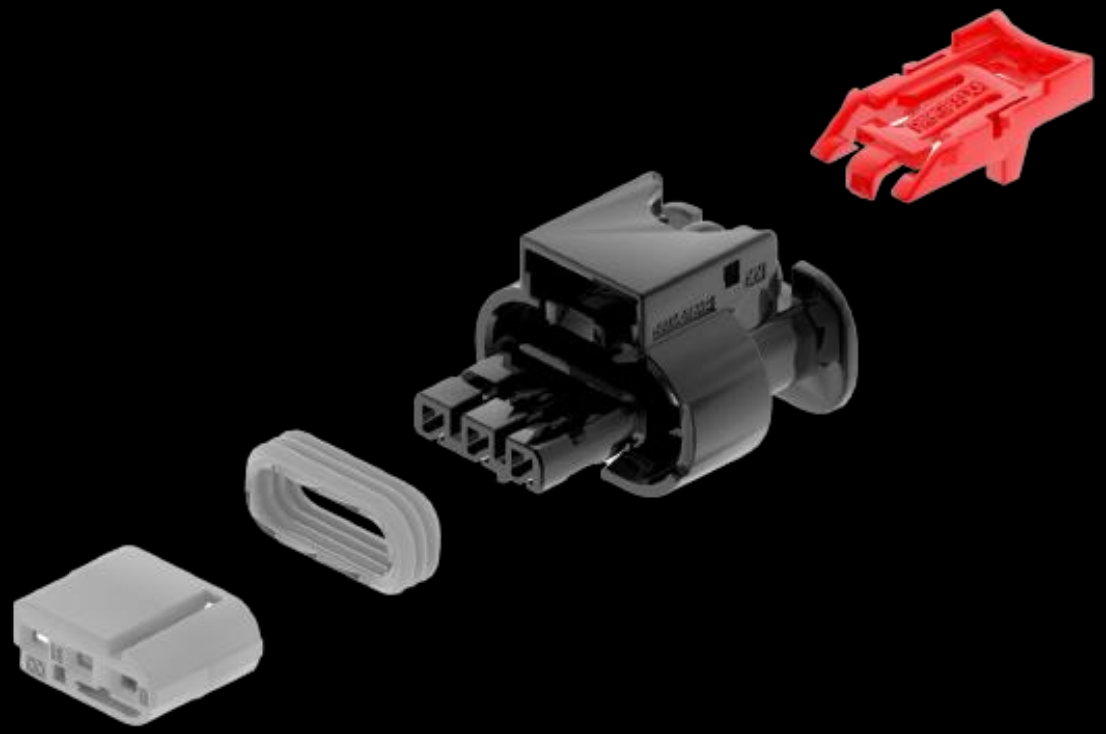
- Sealed Device – Low Vibration
- Applications: Bumper, Ultrasonic park assist, blind spot detection, headlights

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Robust features, meaningful benefits

Superior Design

- Reduced packaging with the one-piece housing
- Increased push surface to meet USCAR-25
- Three rib seal which provides a more robust sealing protection
- Connector is easily unmated thanks to Aptiv's patented Smart Locking System



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Robust features, meaningful benefits

Harsh Environment Features

- High temperature 150°C, enduring additional 175°C with high performance seal
- Withstanding high vibration up to V4
- Widely used in engine sensor application in harsh environment



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A wide family range

Connectors

- 2 – 10 way sealed female short shroud housings
- 2 – 4 way sealed inline short shroud housings
- 2 – 4 way sealed inline long shroud housings
- ***Meets 48V requirements, this family of parts available in black for 12V or blue for 48V***

Terminals

- Proven CTS 1.2 terminals from 0.13 mm^2 to 1 mm^2
- Validated mating capability with other suppliers' terminals on the market

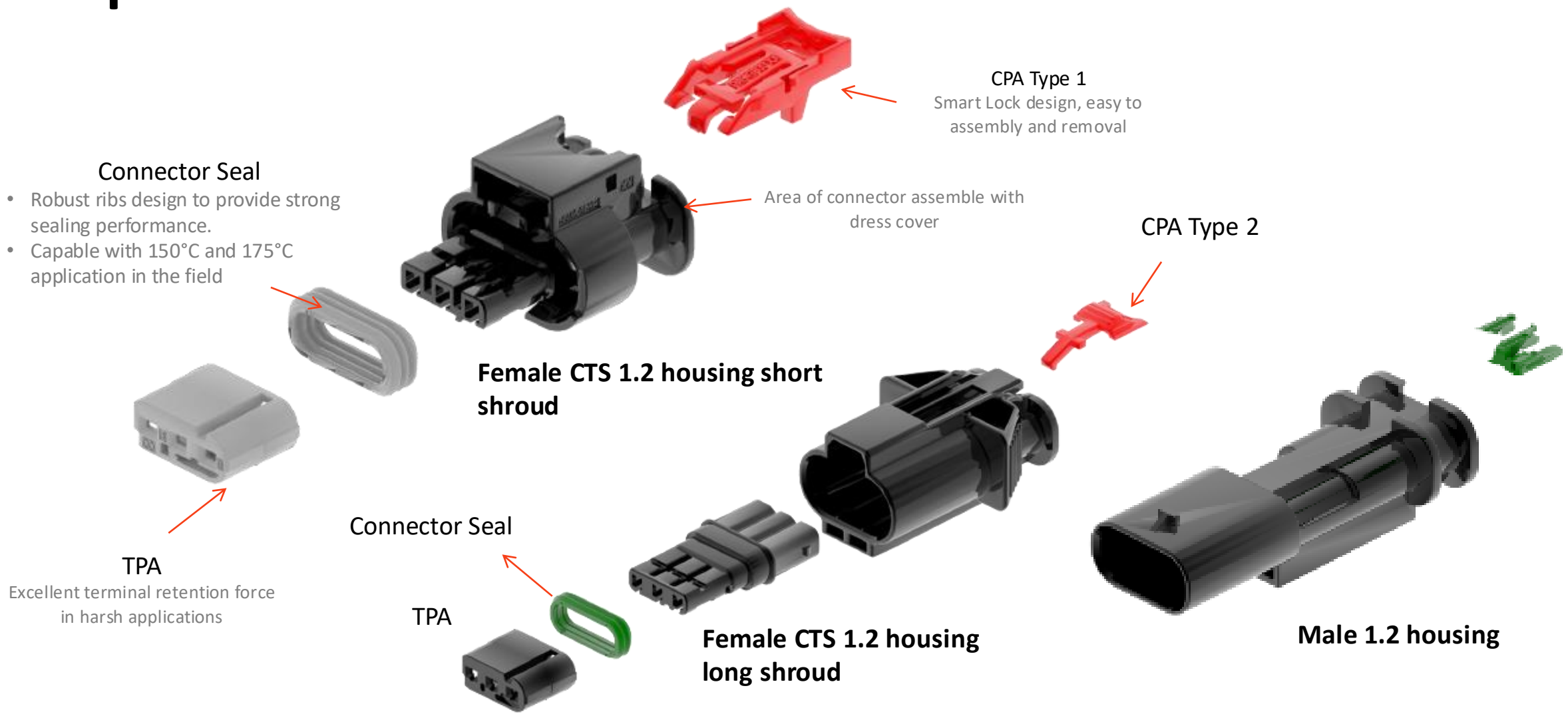
Accessories

- Cable Seals
- Compatible with dress covers available in today's market*

*Please contact your local Aptiv representative for more information

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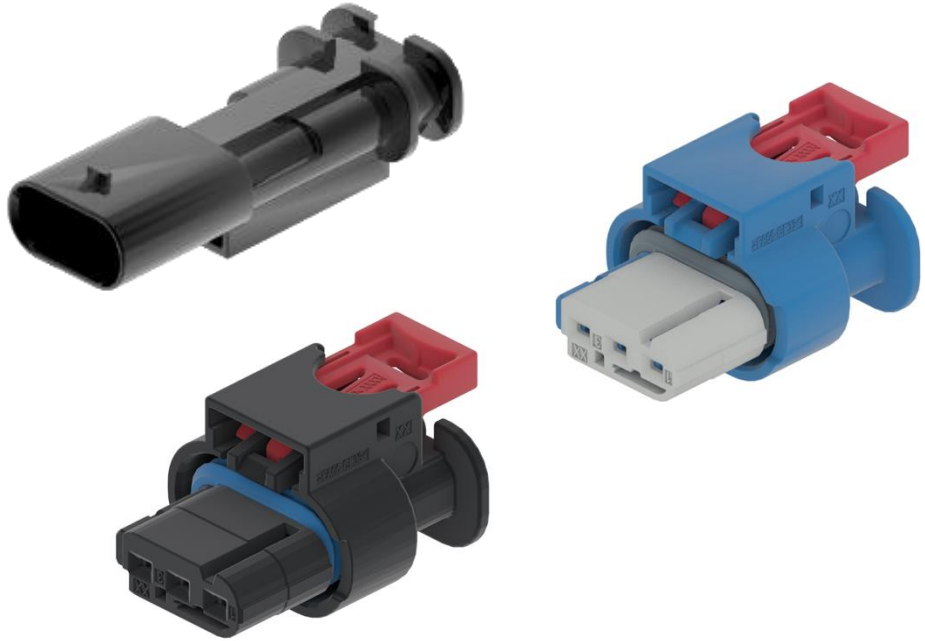
Exploded Views



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CTS 1.2 SensoMate™ Short Shroud Series

Housing family



Application: Engine compartment, on-engine, sensor or device

Key features & benefits

- VDA/USCAR industry standard connection interface and terminal system
- Widely used in engine sensor application in harsh environment
- Improved ergonomics for easier mating and unmating from device
- Withstanding high vibration up to V4
- High temperature 150°C, enduring additional 175°C with high performance seal
- Connector is easily unmated thanks to Aptiv's patented Smart Locking System
- Wire dress covers available in straight & 4 directions (Schlemmer)
- Connector Position Assurance (CPA)
- Cavities accept 0.13 to 1.0 mm² cables

Performance Characteristics	
Sealing Protection (up to)	S3
Temperature Range (up to)	-40°C to +150°C
Vibration Performance (up to)	V4
TPA Type	Independent Secondary Lock (ISL)
Sealing Type	Cable Sealed
Centerline Spacing (mm)	4.0
Available Cavity Configurations	2, 3, 4, 5, 6, 8, 10 way

Part numbers, specifications, dimensions and performance data in this document are for general references only and are subject to change without notice. To verify product information, please contact an Aptiv representative.

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CTS 1.2 SensoMate™ Long Shroud Series



Application: Engine compartment, on-engine, sensor or device

Key features & benefits

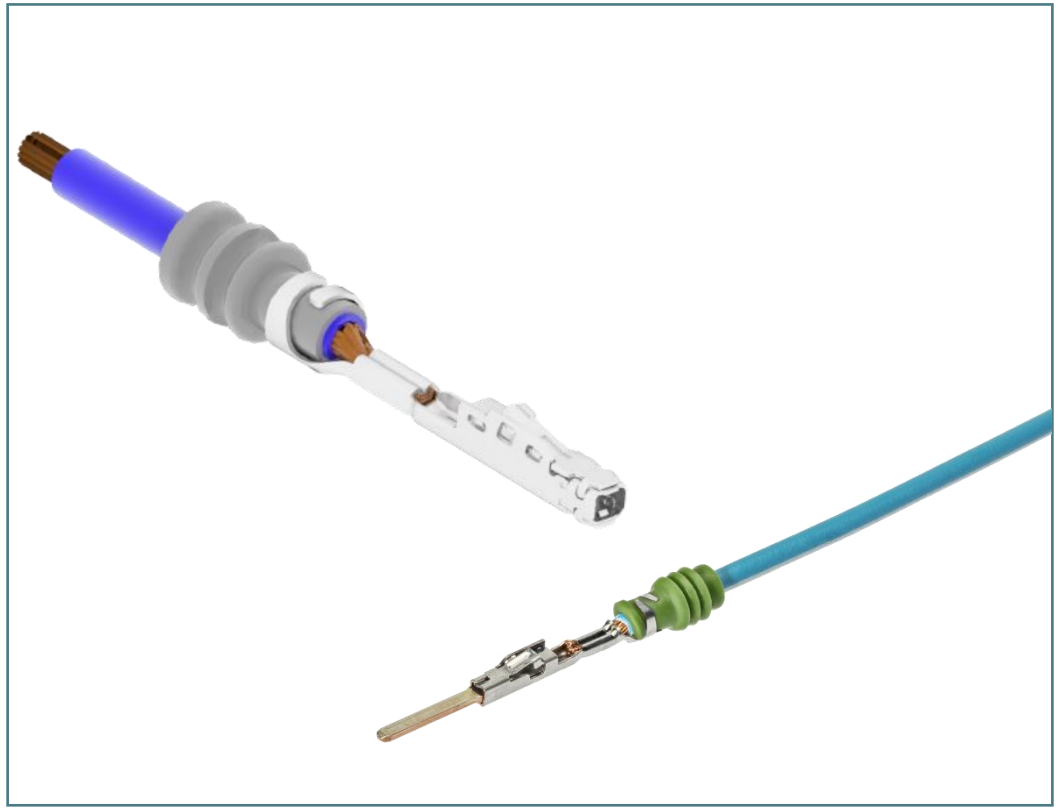
- USCAR footprint for long shroud
- Cable sealed terminal, 0.35 – 1.0 mm2
- Performance: GMW3191 T4/V4/S3/D2
- T3/V1 Complete
- T4/V4 Completed
- Wire dress covers available in straight & 4 directions (Schlemmer)
- 7mm USCAR clip slot (male & female)
- CPA, pre-staged
- No mechanical assist
- Scoop and 12.5 mm finger proof

Performance Characteristics

Sealing Protection (up to)	S3
Temperature Range (up to)	-40°C to +150°C
Vibration Performance (up to)	V4
TPA Type	Independent Secondary Lock (ISL)
Sealing Type	Cable Sealed
Centerline Spacing (mm)	4.0
Available Cavity Configurations	2, 3, 4 way

CTS 1.2 Sealed Series

Two-piece terminal family



Key features & benefits

- Compatible with industry standard cavities
- Robust terminal design with several design features providing a perfect electrical function for two different tab thicknesses in one part
- 100% vision-controlled manufacturing
- Protected mating area
- One robust primary locking lance
- High performance copper alloy
- Shape inside four electrical contact points
- Ultrasonic welding ability according to AK 43-2

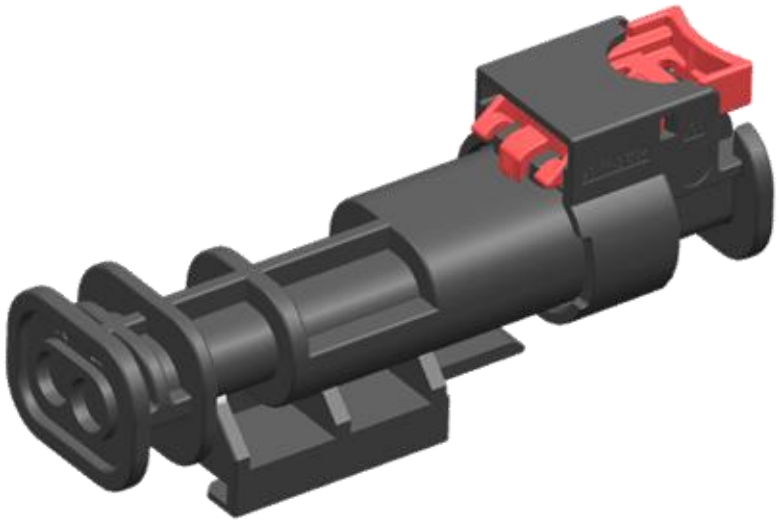
Performance Characteristics	
Contact Resistance	2.5 mΩ
Contact Mating Force	4.2 N
Contact Unmating Force	4.2 N
Range of Wire Gauge	24-16 AWG / 0.13-1.5mm²
Genders	Female, Male
Plating Options	SN, Ags
Mating Tab Dimension (mm)	1.2 x 0.6 (up to 0.64)
Current Carrying Capacity at 23°C up to approx. :	18.7 A

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Why Aptiv?
Patented Smart Locking System (SLS) design



Secondary lock (CPA) Removal Process:

- **Original CPA design : 3 steps**

1. Push the CPA
2. Unlock the CPA
3. Unlock the Connector

- **Aptiv SLS CPA: 1 step**

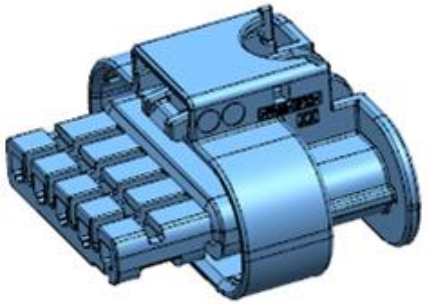
1. Push the CPA to unlock the CPA and the connector

- Reduces removal cycle time
- Enables low mating/unmating force
- Prevents unintentional unmating in high vibration environments

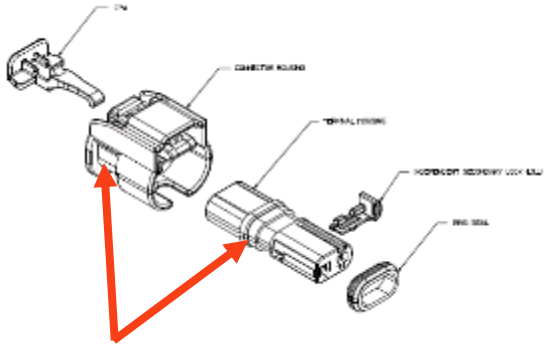
Why Aptiv?

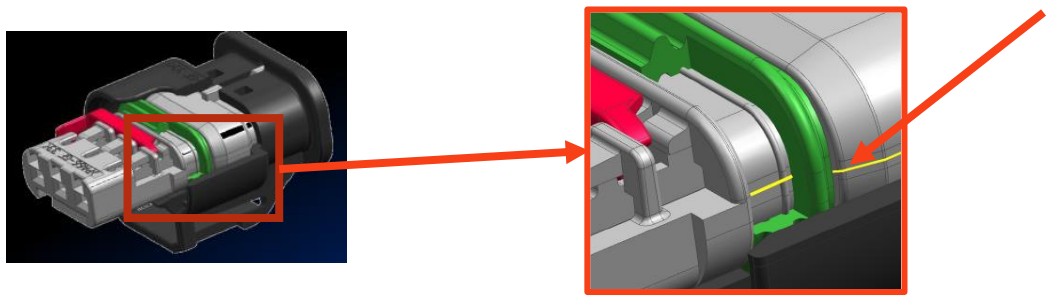
One-Piece Molded Housing

Aptiv



Competitor





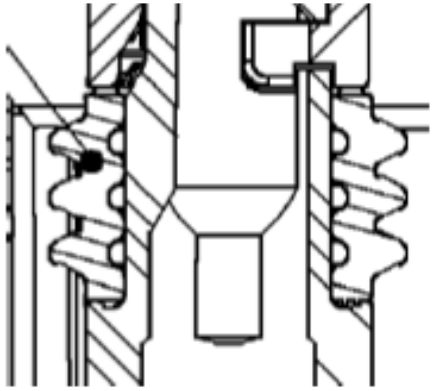
One-Piece Molded Housing (Short shroud version)

- Removes parting line (yellow) on sealing surface of connector seal, guaranteeing environmental seal.
- Reduces the assembly steps to 100% avoid tolerance stack risk in the manufacture process and have a robust sealing performance in high vibration and humility field.

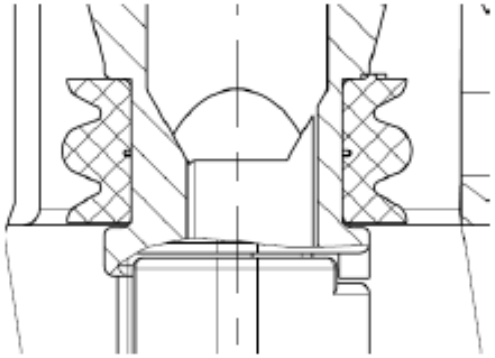
Why Aptiv?

Increased sealing performance

Aptiv



Competitor



Unique 3 rib robust seal design

- Additional rib of sealing protection over competition
- 3 complete ribs which either utilize 1 complete rib and 2 partials (as shown) or 2 full ribs.

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