

# 150 & 280 Series GT Connection Systems

### Description

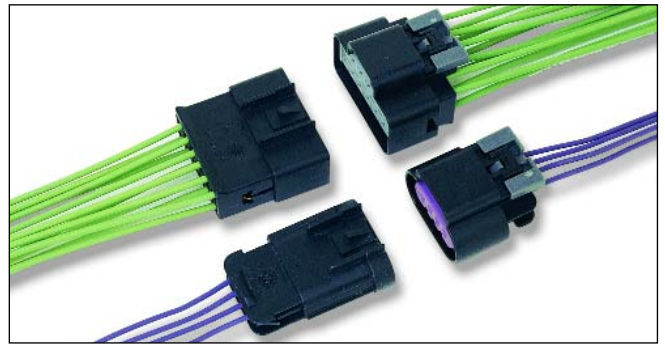
The GT terminal and connector system was developed with global customer input at every design phase and has a small package size suited to fit the shrinking space requirements of today's vehicles. The GT Connection System includes:

- Tangless terminals with stamped serrations
- Pump-handle primary locks with integrated Connector Position Assurance (CPA)
- Secondary lock capabilities including Terminal Position Assurance (TPA) and Primary Lock Reinforcement (PLR) with positive connector seal retention or a Slide Lock Cover (SLC) for unsealed systems
- Female terminals compatible with ISO or SAE blades

### Typical Applications

The GT Connection System is suitable for in-line, device, header or bulkhead applications. The number and orientation of cavities can be configured to a customer's specific application. In addition to providing customized designs, Delphi offers the following:

- GT 150 and 280 Series available in both sealed and unsealed versions in cavity variations between 2-way and 16-way.
- GT Mixed Series combining both 150 and 280 series terminals in the same connector. Typically, 280 series terminal cavities are located in the outside corners of the connector. This series is available as a 12-way and 16-way sealed and unsealed.
- GT 150 Female Sealed connectors available with 3.5 mm centerline spacing and various indexing capabilities. The 3.5 mm centerline spacing (vs. standard 4.5 mm) enables mating to existing devices like sensors.
- GT Lever Lock Series available in both sealed and unsealed versions, providing connector mating forces of less than 50 newtons for up to 40 terminations per connector.



GT 150 and 280 Series



GT Mixed Series



GT 150 Female Sealed (3.5 mm Centerline)



GT Lever Lock Series

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## Performance Advantages

Delphi's patented high center rib connector seals exceed sealing requirements (e.g. USCAR) for harsh vehicle environments. The seals also reduce connector-to-connector mating force. The GT Connection System's terminal-to-terminal mating force is the lowest in its class. When combined with the high center rib seal, it results in the ergonomic benchmark for connections. The GT Connection System satisfies ISO and USCAR electrical, mechanical and environmental performance criteria as well as specific customer requirements.

## Application Guidelines

### 150 Series

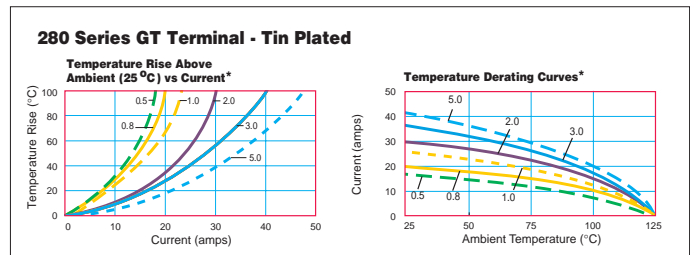
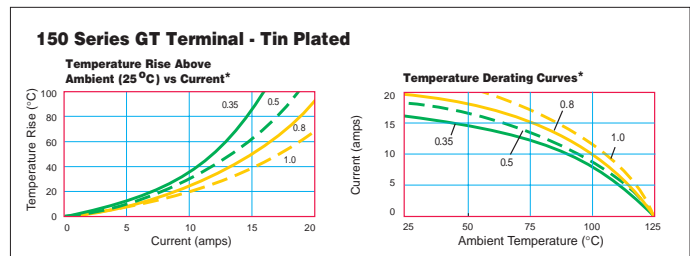
Cable Range	0.35 - 1.0 mm <sup>2</sup>
Current Range	0 - 15 amps
Temperature Range	-40°C to 125°C
Resistance	<10mΩ @ 20mV
Voltage Drop	<10.0mV/amp
Centerline Spacing – Unsealed	4.0 mm
Centerline Spacing – Sealed	4.5 mm
Blade Width	1.5 mm
Terminal to Terminal Engage Forces	
Tin plated system mates to .64mm blade	Avg. 3N

### 280 Series

Cable Range	0.35 - 5.0 mm <sup>2</sup>
Current Range	0 - 25 amps
Temperature Range	-40°C to 125°C
Resistance	<10mΩ @ 20mV
Voltage Drop	<4.0mV/amp
Centerline Spacing – Unsealed	5.5 mm
Centerline Spacing – Sealed	6.5 mm
Blade Width	2.8 mm
Terminal to Terminal Engage Forces	
Tin plated system mates to .64mm blade	Avg. 6N

Terminals can be gold plated upon request.

Features	Benefits
• Tangless terminals	• Durable design
• Low engage force	• Improved reliability and ergonomics
• Pump-handle primary lock	• Lower engage and easy disassembly
• Secondary lock, TPA and CPA capabilities	• Improved system design
• Seal retention and protection features	• Helps prevent loss or damage to the connector seal
• Electrical performance equal to less space efficient terminations	• Capable of more terminations per connection
• Mates to ISO, SAE blades	• Compatible to existing systems



\*The test data is based on single circuits in free space and was generated using a "Lumped Resistance" model. The data presented here does not account for all variables that would be present in an actual application. Delphi Engineering can model customers' specific applications upon request. For additional detailed product performance, contact 1-800-722-5273 or visit our website at [www.delphi.com](http://www.delphi.com).

**Cable Sizes**

	0.35 mm <sup>2</sup>
	0.5 mm <sup>2</sup>
	0.8 mm <sup>2</sup>
	1.0 mm <sup>2</sup>
	2.0 mm <sup>2</sup>
	3.0 mm <sup>2</sup>
	5.0 mm <sup>2</sup>

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[www.delphi.com/connect](http://www.delphi.com/connect)

Connection Systems

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