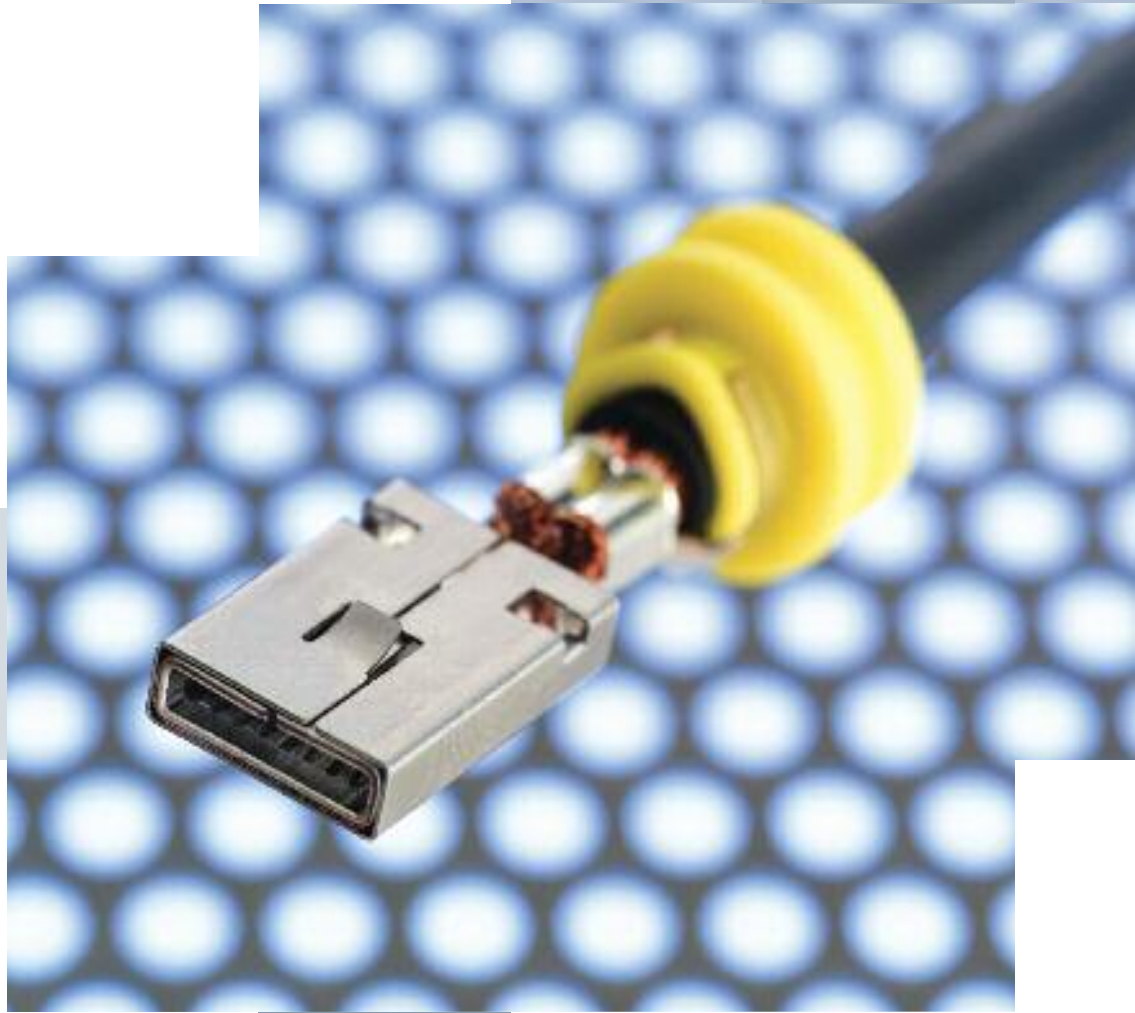
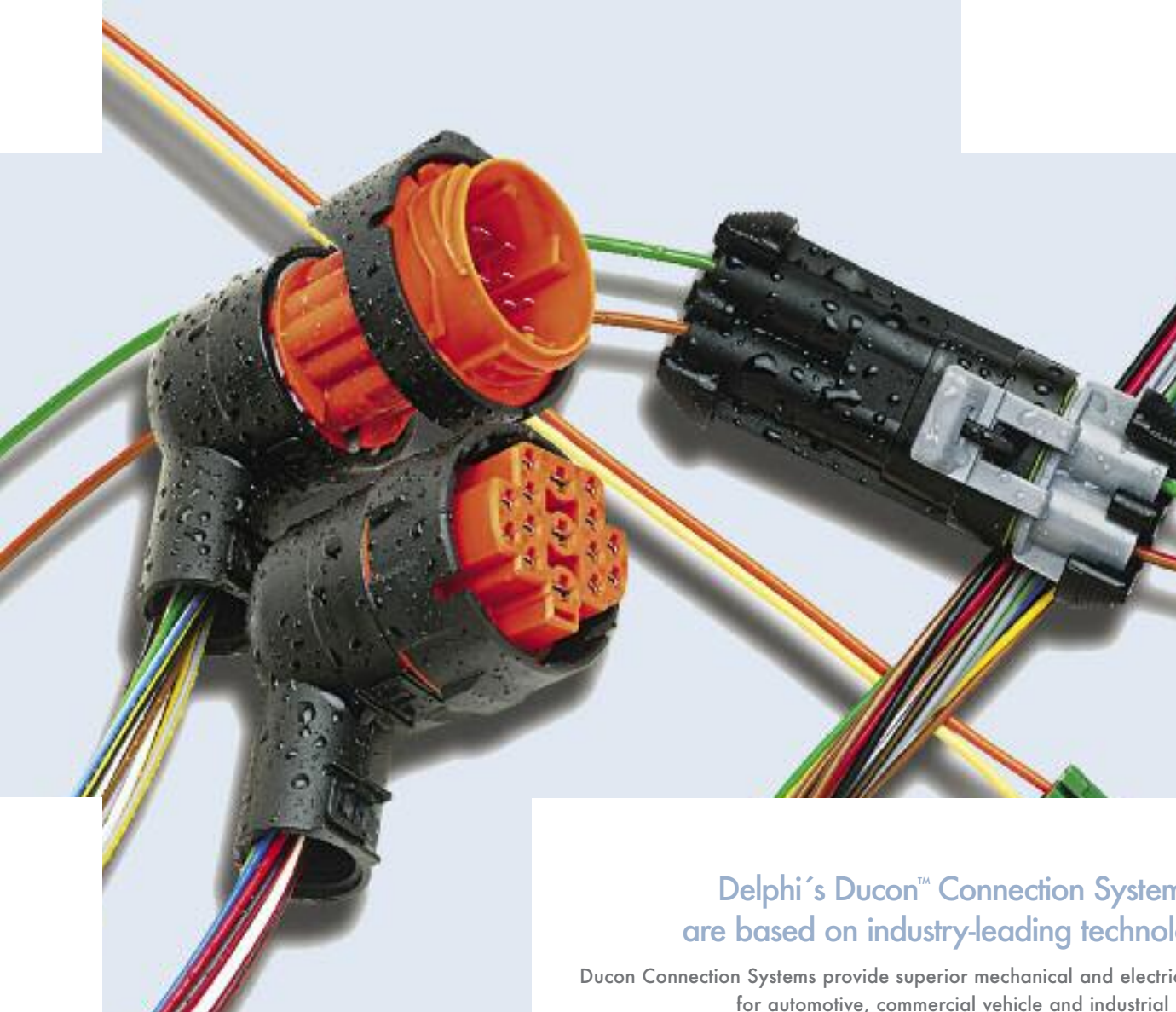


Ducon™ Connection Systems.  
High power. High performance.



**DELPHI**

Innovation for the Real World



## Delphi's Ducon™ Connection Systems are based on industry-leading technology.

Ducon Connection Systems provide superior mechanical and electrical performances for automotive, commercial vehicle and industrial applications. Our robust two-piece terminal design allows for greater electrical current flow in smaller size terminals than many comparable connection systems.



**Ducon™ Connection Systems**

## Ducon™ – First to Market.

When introduced in 1989, the Ducon connection system was the first high-current system on the market, offering greater current loads in smaller terminal dimensions. This advanced system helped to push the envelope to meet the demands of newer vehicle systems with increased electric and electronic requirements in smaller and smaller packaging.

Ducon Connection Systems continue a tradition of innovation with new technologies and products, including gold, silver and HT (high temperature) plating. We have also expanded existing family sizes for emerging market trends such as pre-fuse, high power distribution, and high vibration resistance requirements for engine applications. The new Power Connector Series, specially designed for the commercial vehicle market, reflects all terminal innovations combined with a rigid, reliable connector design. Today, Ducon is a cost-effective and proven connection system, that offers a wide portfolio of products in six terminal sizes.

## Superior Terminal Design.

Ducon's two-piece terminals are superior to conventional one-piece systems. A unique terminal geometry, featuring multiple contact-points at two off-setting levels, helps the female and male terminals retain constant conductivity during operation. This increased conductivity allows for higher current loads within smaller dimensions.

Our female terminals are robust, user friendly and easy to handle for installation and maintenance. Ducon terminals provide excellent resistance to temperature and vibration, while providing reliable electrical performance. The special construction of the contact arms lowers engage and disengage

forces – important for multi-way connectors. During vehicle servicing the contact elements can be easily unlocked, removed and reinserted. Delphi also offers a wide range of service tools to aid in removing and reinserting the contact elements.

## Sealed & Unsealed Connectors.



Power Connector Series

Delphi's sealed connectors are available for in-line and device configurations in applications requiring robust environment protection. With its multiple contact-point design, the system offers exceptional electrical stability, even in high vibration applications performed in Delphi's Power Connector Series. Unsealed connectors are available in device and in-line connection systems, in both high- and low-current configurations. Vehicle interiors encompass many of the applications for Ducon's unsealed connector line.




## Custom Designs.




Ducon offers custom application designs for OEMs and device manufactures. Additionally, our products are engineered to help optimize quality and ergonomics for manufacturing and assembly processes. Ducon is a proven and reliable connector family that adapts well to market needs.






Ducon two-piece terminals

## 0.8, 1.5 and 2.8 Ducon Series.

		<p><b>0.8 mm</b></p> <p>Cable Range . . . . . 0.5 mm<sup>2</sup> - 1.0 mm<sup>2</sup></p> <p>Current Range . . . . . 0 - 15 amps</p> <p>Temperature Range . . . . . -40°C to +170°C</p> <p>Resistance . . . . . &lt;10 mΩ @ 20 mV</p> <p>Voltage Drop . . . . . &lt;4.0 mV/amp</p>	
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		<p><b>1.5 mm</b></p> <p>Cable Range . . . . . 0.5 mm<sup>2</sup> - 2.5 mm<sup>2</sup></p> <p>Current Range . . . . . 0 - 25 amps</p> <p>Temperature Range . . . . . -40°C to +170°C</p> <p>Resistance . . . . . &lt;10 mΩ @ 20 mV</p> <p>Voltage Drop . . . . . &lt;4.0 mV/amp</p>	
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		<p><b>2.8 mm</b></p> <p>Cable Range . . . . . 0.5 mm<sup>2</sup> - 2.5 mm<sup>2</sup></p> <p>Current Range . . . . . 0 - 33 amps</p> <p>Temperature Range . . . . . -40°C to +160°C</p> <p>Resistance . . . . . &lt;10 mΩ @ 20 mV</p> <p>Voltage Drop . . . . . &lt;4.0 mV/amp</p>	
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The Current Range reflects the possible performance with standard automotive cable; using special temperature-resistant cable increases the performance.




The maximum Temperature Range varies based on the different series platings. Gold plating is available for all series to reach 170°C maximum, if required.




Ducon is a complete connection family offering a large range of crimp versions in six terminal sizes.



## 4.8, 6.3 and 9.5 Ducon Series.

		<p><b>4.8 mm</b></p> <p>Cable Range . . . . . 0.5 mm<sup>2</sup> - 6.0 mm<sup>2</sup></p> <p>Current Range . . . . . 0 - 45 amps</p> <p>Temperature Range . . . . . -40°C to +160°C</p> <p>Resistance . . . . . &lt;10 mΩ @ 20 mV</p> <p>Voltage Drop . . . . . &lt;4.0 mV/amp</p>	
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		<p><b>6.3 mm</b></p> <p>Cable Range . . . . . 4.0 mm<sup>2</sup> - 6.0 mm<sup>2</sup></p> <p>Current Range . . . . . 0 - 55 amps</p> <p>Temperature Range . . . . . -40°C to +170°C</p> <p>Resistance . . . . . &lt;10 mΩ @ 20 mV</p> <p>Voltage Drop . . . . . &lt;4.0 mV/amp</p>	
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		<p><b>9.5 mm</b></p> <p>Cable Range . . . . . 4.0 mm<sup>2</sup> - 16.0 mm<sup>2</sup></p> <p>Current Range . . . . . 0 - 116 amps</p> <p>Temperature Range . . . . . -40°C to +160°C</p> <p>Resistance . . . . . &lt;10 mΩ @ 20 mV</p> <p>Voltage Drop . . . . . &lt;4.0 mV/amp</p>	
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The Current Range reflects the possible performance with standard automotive cable; using special temperature-resistant cable increases the performance.

The maximum Temperature Range varies based on the different series platings. Gold plating is available for all series to reach 170°C maximum, if required.

Ducon Connection Systems have been validated using DIN Cable Standards.



Commercial Vehicle

Automotive

Industrial

## Product Features

- Available sizes (mm): 0.8; 1.5; 2.8; 4.8; 6.3; and 9.5
- Rugged two-piece terminal construction
- Multiple contact points technology
- Tin, gold, silver and tin-silver plating available
- Small overall dimensions
- Low energy, low voltage capability
- High energy, high voltage capability
- Excellent resistance to temperature, chemicals, abrasion and vibration
- Optimized locking mechanism
- Terminal Position Assurance (TPA)
- In-line and device connector systems
- Sealed and unsealed versions
- Custom application designs available
- Special commercial vehicle connector family available "Power Connector Series"

## Typical Applications

Ducon Connection Systems are used in all types of automotive and commercial vehicle applications, as well as non-automotive applications. Ducon serves both OEM and device-supplier market segments. Typical applications include:

- Blower switches
- Door off connections (front and rear)
- HEV (Hybrid Electrical Vehicle) applications
- Electrical power steering
- Transmission
- Fan control units (in-line)
- HVAC
- Electrical mirror switches
- Engine-to-body in-lines
- Ignition switches
- IP-to-body in-lines
- Lighting module applications



Engine/Body Interface



Door Off System



Ignition Device



2-way 9.5 Ducon Electrical Power Steering



47-way 0.8, 2.8 and 6.3 mm Unsealed Interface



13-way Sealed In-line Fan Control





		PRODUCT FAMILIES					
		0.8 mm	1.5 mm	2.8 mm	4.8 mm	6.3 mm	9.5 mm
APPLICATIONS	Blower switches				●		
	Doors off connections	●	●	●	●	●	●
	HEV applications			●		●	●
	Electrical power steering					●	●
	Transmission				●	●	●
	Fan control units					●	●
	HVAC				●		
	Electrical mirror switches	●					
	Engine-to-body in-lines		●	●	●		
	Ignition switches						●
	IP-to-body in-lines	●	●	●		●	
	Lighting module applications				●	●	

The products and applications within this brochure are presented as a reference guide only. Other Delphi Connection Systems products may also apply to the application categories presented herein. In addition, these and other Delphi products may be available for other similar application categories not represented in this brochure.

For additional product information and application support, please contact your local Delphi Connection Systems sales representative or contact us directly at [49] 202.291.0, or visit our website at [www.delphi.com/connect](http://www.delphi.com/connect).

# DELPHI

Innovation for the Real World

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