



DL SERIES

DL Circular Plastic Waterproof Connector

DL waterproof connector application type



The DL28 Series connector is a high-current solution designed to replace traditional IEC 60309 plugs. It features a footprint nearly 50% smaller and double the current capacity, making it ideal for compact spaces and high-density equipment. Capable of handling 50A and above, it ensures reliable power transmission through a dual-safe "Bayonet-style Helical Coupling + Three-Point Locking" mechanism and is equipped with finger-safe male/female terminals. The DL28 Series is redefining the future of high-current, compact connectivity.

• Series product information:

Series code:	DL-28
Hole size:	Please refer to the external dimension drawing for detailed hole size
Application types:	Multi-PIN (2, 3, 4, 5 pin and customized)
Material type:	Plastic type

• Introduction:

This product line includes both power and signal types. It surpasses the IEC 60309 plug with a nearly 50% smaller footprint, double the current capacity, and a more secure dual-safe "Secondary Lock" mechanism. The finger-safe terminal design effectively prevents accidental contact, significantly reducing the risk of electric shock.

• Main body material, process and surface treatment:

Shell:	Material: Engineering Plastic Production process: Injection molding
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• Module material, process and surface treatment:

Contact:	Material: Male/Female Pin (Copper Alloy) Production Process: Machining & Stamping
	Surface Treatment: Plated in Gold/Silver
Insulator:	Material: Engineering Plastic Production process: injection molding

• Packaging and Storage:

The product is in a sealed bag, with a small box in the large box, and a label on the small box. The label indicates the product name, model, batch number, and number of products. Packaged products are recommended to be stored in a warehouse with an ambient temperature of 25°C±3°C,a relative humidity of ≤75%, and no acidic, alkaline and other corrosive gases in the surrounding air. Other storage environments may affect product life.

• Check the official website DL series area:

Scan the QR code below to check the DL area of CNLINKO's official website. If you have any doubts, you can contact the online customer service for more detailed product information.



DL Series Overview



DL Series Installation Guide

Applications



— The DL28 Series for Unmanned Surface Vessels—

Features Overview



Compact Size, Unmatched Power

A fraction of the size, twice the power: the DL28 Series connector outperforms traditional IEC 60309 plugs by being 50% more compact while unlocking 100% more current.



Engineered for High Power & Heavy Currents

Delivers robust 50A+ power, providing unwavering reliability for demanding high-current, high-power applications.



Double Lock, Ultimate Security

Unshakable Connection: Our dual "Bayonet & Anti-Retraction Ring" lock is engineered to withstand extreme shock and vibration.



Total Safety: Finger-Safe Shock Prevention

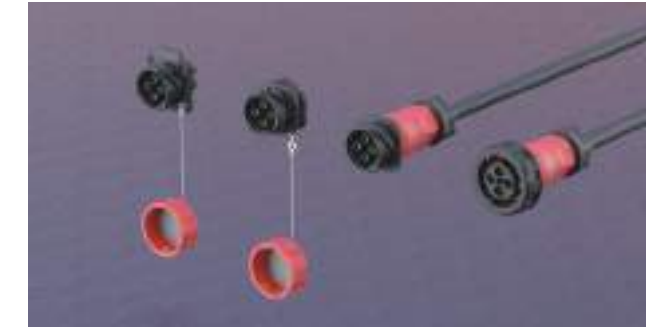
With a certified finger-safe design on all terminals, we ensure complete shock protection in full compliance with stringent safety testing.

Type and Style



All-Plastic, Corrosion-Resistant, Lightweight

Featuring a SABIC engineering plastic housing for enhanced corrosion resistance and significant weight reduction over all-metal models.



Variety. Compatibility. Your Choice

Choose from multiple socket types—Panel Receptacle, Single hole mount, and Four hole mount to precisely match your connectivity requirements.



A Spectrum of Colors, Clarity at a Glance

Color-coded by core count for instant identification, with the option for you to select or custom-match colors, helping you streamline visual management.



Modular Design to Accelerate Your Time-to-Market

Achieve mass production standards in just 20 days. Our modular inner cores are designed for easy customization of non-standard pin counts.

Product Structure Image

Dozens of high-quality parts are precisely engaged to ensure the safety and stability of the connector.



Series Infographic



DL-28 Series Information Overview		P75
Product	Power: 2/3/4/5 pin	
application	Voltage Rating: 500V(2 pin/3 pin), 690V(4 pin/5 pin)	
type:	Current Rating: 50A	
Cable O.D:	Multi-pin type: Φ12.5~15.0mm/Φ15.0~17.5mm/Φ17.5~20.5mm(2 pin),Φ17.5~20.5mm(3 pin/4 pin/5 pin)	
Details page:	Product Parameter Map: P81	Dimension Drawing: P84

Main feature:

- Nearly 50% smaller than IEC 60309 plugs with double the current-carrying capacity;
- A secondary locking mechanism featuring a "Bayonet Coupling + Anti-Retraction Outer Ring" for doubled stability;
- Supports high-current transmission of 50A and above;
- Finger-safe physical design on male and female terminals for enhanced shock prevention;
- Anti-loosening design prevents wire twisting during installation/removal and offers greater vibration resistance;
- Achieves IP68/IPX9K protection rating when interconnected;
- Modular inner core design enables fast customization and rapid delivery.

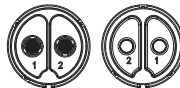
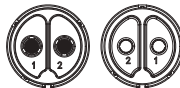
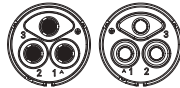
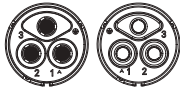
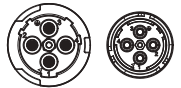
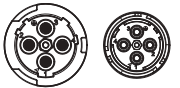


DL-28 Datasheet

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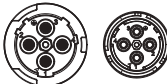
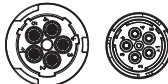
DL SERIES

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DL28 Power/Signal	Product Series		DL-28											
	Pin Number		2PIN		2PIN		3PIN		3PIN		4PIN		4PIN	
	Contact Layout		 Male Female		 Male Female		 Male Female		 Male Female		 Male Female		 Male Female	
	Current Rating(A)		50		50		50		50		50		50	
	Voltage Rating(V)		500		500		500		500		690		690	
	Cable O.D(mm)		φ10.0~φ15.0 / φ15.0~φ17.5 / φ17.5~φ20.5 (Configuration Options)								φ10.0~φ15.0 / φ15.0~φ17.5 / φ17.5~φ20.5 (Configuration Options)			
	Wire Gauge		10.0~16.0mm²/8~6AWG		10.0~16.0mm²/8~6AWG		10.0~16.0mm²/8~6AWG		10.0~16.0mm²/8~6AWG		10.0mm²/8AWG		10.0mm²/8AWG	
	Protection Level		Connection Status IP68/IPX9K								Connection Status IP68/IPX9K			
	Terminal Type Other		Screwing		Crimping		Screwing		Crimping		Screwing		Crimping	
Illustration	Material	Part No												
Plug 	Plastic	Male	DL-28-C02PE-22-001A	DL-28-C02PE-32-0xxx	DL-28-C03PE-22-001A		DL-28-C03PE-32-0xxx	DL-28-C04PE-22-001A	DL-28-C04PE-32-001A					
		Female	DL-28-J02PE-22-0xxx	DL-28-J02PE-32-0xxx	DL-28-J03PE-22-0xxx		DL-28-J03PE-32-0xxx	DL-28-J04PE-22-0xxx	DL-28-J04PE-32-0xxx					
In-line receptacle 		Female	DL-28-J02PP-22-001A	DL-28-J02PP-32-0xxx	DL-28-J03PP-22-001A		DL-28-J03PP-32-0xxx	DL-28-J04PP-22-001A	DL-28-J04PP-32-001A					
		Male	DL-28-C02PP-22-0xxx	DL-28-C02PP-32-0xxx	DL-28-C03PP-22-0xxx		DL-28-C03PP-32-0xxx	DL-28-C04PP-22-0xxx	DL-28-C04PP-32-0xxx					
Single hole straight receptacle 		Female	DL-28-J02SX-22-101A	DL-28-J02SX-32-1xxx	DL-28-J03SX-22-101A		DL-28-J03SX-32-1xxx	DL-28-J04SX-22-101A	DL-28-J04SX-32-101A					
		Male	DL-28-C02SX-22-1xxx	DL-28-C02SX-32-1xxx	DL-28-C03SX-22-1xxx		DL-28-C03SX-32-1xxx	DL-28-C04SX-22-1xxx	DL-28-C04SX-32-1xxx					
Four-hole flange receptacle 		Female	DL-28-J02PP-22-001A	DL-28-J02SX-32-4xxx	DL-28-J03SX-22-401A		DL-28-J03SX-32-4xxx	DL-28-J04SX-22-401A	DL-28-J04SX-32-401A					
		Male	DL-28-C02PP-22-0xxx	DL-28-C02PP-32-0xxx	DL-28-C03PP-22-0xxx		DL-28-J03SX-32-4xxx	DL-28-C04PP-22-0xxx	DL-28-C04PP-32-0xxx					

DL-28 Datasheet

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DL28 Power/Signal	Product Series		DL-28					
	Pin Number		4PIN		5PIN		5PIN	
	Contact Layout		 Male Female		 Male Female		 Male Female	
	Current Rating(A)		50		50		50	
	Voltage Rating(V)		690		690		690	
	Cable O.D(mm)		φ10.0~φ15.0 / φ15.0~φ17.5 / φ17.5~φ20.5 (Configuration Options)					
	Wire Gauge		10.0mm² / 8AWG		10.0~16.0mm² / 8~6AWG		10.0mm² / 8AWG	
	Protection Level		Connection Status IP68/IPX9K					
	Terminal Type Other		Soldering		Screwing		Crimping	
Illustration		Material	Part No					
Plug 		Plastic	Male	DL-28-C04PE-02-001A	DL-28-C05PE-22-001A	DL-28-C05PE-32-0xxx		
			Female	DL-28-J04PE-02-0xxx	DL-28-J05PE-22-0xxx	DL-28-J05PE-32-0xxx		
In-line receptacle 			Female	DL-28-J04PP-02-001A	DL-28-J05PP-32-001A	DL-28-J05PP-32-0xxx		
			Male	DL-28-C04PP-02-0xxx	DL-28-C05PP-22-0xxx	DL-28-C05PP-32-0xxx		
Single hole straight receptacle 			Female	DL-28-J04SX-02-101A	DL-28-J05SX-22-1xxx	DL-28-J05SX-32-101A		
			Male	DL-28-C04SX-02-1xxx	DL-28-C05SX-22-1xxx	DL-28-C05SX-32-1xxx		
Four-hole flange receptacle 			Female	DL-28-J04SX-02-401A	DL-28-J05SX-22-4xxx	DL-28-J05SX-32-101A		
			Male	DL-28-C04PP-02-0xxx	DL-28-C04PP-22-0xxx	DL-28-C04PP-32-0xxx		

DL-28 Dimension Drawing (unit: mm)

