

NEW

Amphenol LTW

Hybrid

Standard Size
Middle Size



Ceres Connector

**Rugged Circular
Connector**

Blind Mating



Mini Size

2 points lock, Screw thread
Metal, Plastic



Standard Size

2 points lock, screw thread
Metal, Plastic



Middle Size

2 & 3 points lock, screw thread
Plastic



Large Size

2 points lock, Screw thread
Metal, Plastic



Macro Size

2 points lock
Plastic



PLD / MAB / GBD

2 & 3 points lock, push lock
Plastic

Unrivalled InterConnects for Harsh Environments

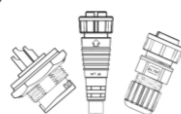
About ALTW

**3**

Production Sites
(Taiwan, China, Mexico)

**30+**

Market Applications

**90,000+**

Products

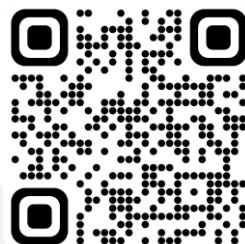
Since 1993, Amphenol LTW Technology “ALTW” lives and breathes to create, innovate, design and produce “***unrivaled interconnects for harsh environments***”. With over 300 worldwide patents, not only does ALTW offer the broadest and widest range of rugged interconnects in the industry but also customization with the mission of “Customer Satisfaction First”. Undoubtedly, ALTW is the leader in rugged interconnects, highly recognized for its uncompromising quality, short lead time, fast and tailored service and its very competitive pricing.

Regardless of the challenging environments that your products will be subject to; there is a very good chance that you will find what you are looking for with ALTW.

Unrivaled InterConnects for Harsh Environments

Ideal markets are marine electronics, industrial automation, outdoor broadband wireless access, LED lighting, construction machines, and heavy equipment, etc.

- ❖ IP67 mated or unmated
- ❖ Metal or plastic
- ❖ Mating style: 2 or 3 points lock bayonet, screw thread, push lock
- ❖ Assembly style: solder, screw-in, PCB 180°, PCB 90°, crimp
- ❖ Power, data / signal, hybrid
- ❖ Flammability UL 94V-0
- ❖ UV resistant



3+6 HYBRID CONNECTORS



PRODUCT FEATURES

- ✓ Simple mating and locking
- ✓ IP67 protection class
- ✓ Saving on-site installation time and costs
- ✓ 3+6 hybrid
- ✓ Salt spray: 48h

- Mating style: 2 points lock
- Nominal current: 20A+0.8A
- Temperature -40°C ~ 105°C
- Durability: 2000 cycles
- Rated voltage: 250V AC/DC



Part Number	Sub Sereis	Connector Type	Connector Gender	Contact Gender	BackShell
AAAA-CML09000071	Middle Size	Receptacle	Male	Male	Circular
AAB1-CFL09000071	Middle Size	Overmolded	Female	Female	Straight
AAAA-BML09000105	Standard Size	Receptacle	Male	Male	Circular
OW-BCU-09BFDM-LL7A01	Standard Size	Overmolded	Female	Female	Straight
OW-BCU-09PMMP-LC7001	Standard Size	Receptacle	Male	Male	Circular

Product Range Overview

SUB SERIES	Mini A Size	Standard B Size	Middle C Size	Large D Size
Mating Style	2 Points Lock, Screw Thread	2 Points Lock, Screw Thread	2 Points Lock, 3 Points Lock, Screw Thread	2 Points Lock, Screw Thread
Plastic Version	✓	✓	✓	✓
Metal Version	✓	✓	-	✓
No. of Contacts	2 ~ 18	2 ~ 12	2 ~ 18	2 ~ 22
Plating of Contacts	Gold Plating	Gold Plating	Gold Plating	Gold Plating, Silver Plating
Operating Voltage (AC/DC)	250V	250V	250V	250V
Nominal Current	2A, 5A	2A, 5A, 5A+2A, 10A, 10A+5A, 20A+0.8A	2A, 5A, 5A+2A, 10A, 10A+2A, 10A+5A, 20A, 20A+0.8A	2A, 5A, 10A, 20A, 20A+0.8A, 20A+2A, 20A+5A
Operating Temperature	Receptacle: -40°C ~ 105°C Receptacle With Cable: -20°C ~ 80°C Overmolded With Cable: -20°C ~ 80°C Field Serviceable/Installable: -40°C ~ 105°C			
Fasten Style of Nut	Front, Rear	Front, Rear	Front, Rear	Front, Rear
Receptacle	✓	✓	✓	✓
Receptacle with Cable	✓	✓	✓	-
Field Serviceable/Installable	✓	✓	✓	✓
Overmolded with Cable	✓	✓	✓	✓
Accessories	✓	✓	✓	✓
Mating Cycles (Pin Contact)	2000	2000	2000	2000
IP Rating	IP66, IP67, IP68	IP66, IP67	IP66, IP67	IP66, IP67, IP68
Salt Spray (Connector, Mated)	48h	48h	48h	48h
UV Resistant	✓	✓	✓	✓
Flammability Rating	UL94V-0	UL94V-0	UL94V-0	UL94V-0
Vibration Resistant	Frequency Range 10 ~ 55Hz / Amplitude 1.52mm			
EMI Option	✓	✓	-	✓
ROSH Compliant	✓	✓	✓	✓
REACH Compliant	✓	✓	✓	✓
Certifications	-	UL1977	UL1977	UL1977
Applicable Wire Gauge	26 ~ 24AWG	26 ~ 20AWG	24 ~ 14AWG	26 ~ 16AWG

Product Range Overview

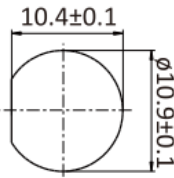
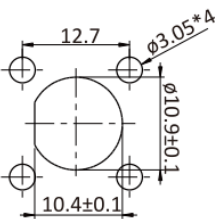
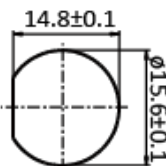
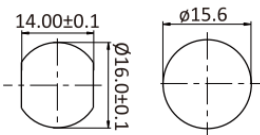
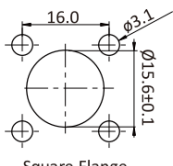
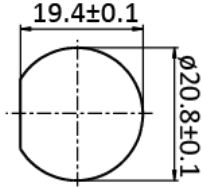
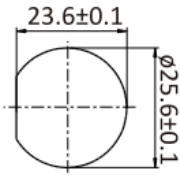
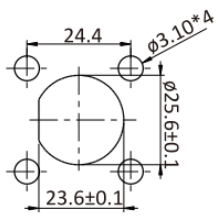
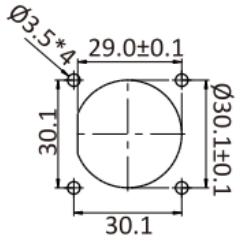
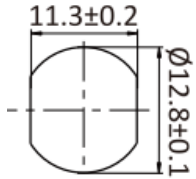
SUB SERIES	Macro E Size	PLD	MAB	GBD
Mating Style	2 Points Lock	Push Lock	2 Points Lock	3 Points Lock
Plastic Version	✓	✓	✓	✓
Metal Version	-	-	-	-
No. of Contacts	2 ~ 6	2 ~ 4	4	8
Plating of Contacts	Gold Plating	Gold Plating	Gold Plating	Gold Plating
Operating Voltage (AC/DC)	200V	250V	250V	250V
Nominal Current	5A	5A	10A	10A+5A
Operating Temperature	Receptacle: -40°C ~ 105°C Receptacle With Cable: -20°C ~ 80°C Overmolded With Cable: -20°C ~ 80°C Field Serviceable/Installable: -40°C ~ 105°C			
Fasten Style of Nut	Front	Front	-	-
Receptacle	✓	✓	-	-
Receptacle with Cable	-	-	-	-
Field Serviceable/Installable	-	✓	-	-
Overmolded with Cable	✓	-	✓	✓
Accessories	✓	✓	✓	✓
Mating Cycles (Pin Contact)	2000	2000	2000	2000
IP Rating	IP67	IP67	IP66, IP67	IP67, IP68
Salt Spray (Connector, Mated)	48h	48h	48h	48h
UV Resistant	✓	✓	✓	✓
Flammability Rating	UL94V-0	UL94V-0	UL94V-0	UL94V-0
Vibration Resistant	Frequency Range 10 ~ 55Hz / Amplitude 1.52mm			
EMI Option	-	-	-	-
ROSH Compliant	✓	✓	✓	✓
REACH Compliant	✓	✓	✓	✓
Certifications	UL1977	-	-	-
Applicable Wire Gauge	26AWG	26 ~ 20AWG	20AWG	20 ~ 24AWG

Served Markets & Applications

Market	Application	
LED Lighting	- Architectural Lighting - Residential, Medical, and Commercial Lighting - Street, Parking, Park, and Tunnel Lighting - Entertainment and Signage Lighting	- Horticulture, Grow, & Warehouse Lighting - Mass Transportation and Vehicles - Marine Vessel and Submersible Lighting - Appliances and Equipment Lighting
Marine	- Navigation System: Radar, GPS, Sonar, Fish-finder - Communication: Radio, AIS, SCS - Instrumentation & Monitoring: MFD, CCTV, Sensors	- Power Distribution: Appliances, Charging, HVAC - Entertainment: Video, Audio, Decorative - Motors: Outboard, Inboard, Pump, Actuator, Trolling
Broadband Wireless Access	- Access Point: LTE, 5G - Cellular, Subscriber, and Mobile Station - Wireless Router and Mobile Backhaul	- Power Supply and distribution system - Other Communication Equipment
Industrial Automation	- Data Communication: Router, Switches - Motors: Servo, Step, Encoder, Actuator - Power Supply and Distribution - Robotic Arms, Packaging, and Conveyor system	- Controller: Machine Vision, AVI, Sensors - Autonomous Robots, Forklifts, Power Tools - Industrial PC, Counters, and Display
Renewable Energy	- Photo Voltaic (PV), Concentrated Solar Power (CSP) - Power Distribution and Control: Inverter, MLPE, ICS - Device Communication and Tracker	- Wind Turbine and Tidal Power Generation - Energy Storage and Portable Energy
Heavy Equipment	- Navigation System: GPS, Lidar, Radar, Ultrasonic - Instrumentation, Control, and Diagnostic Systems - Monitoring: Display, Camera, Imaging	- Safety System: Sensor, ADAS, Telematics & Tracking - Communication and Electronic Toll systems - Power Distribution: Charging, Lighting, Equipment
Autometer	- Metering: Water, Electric, & Gas Meter - Power and Control: Drone, Security Alarm	Monitoring: Sewage, Telemetry, and Vehicle tracking
Test Equipment	- Measuring Device: Air, Humidity, Light, sound, Water, Image, Weight, Height - Detectors: Gas, Fire, Leak, Motion, Heat	- Monitoring: Seismic (earthquake), Climatic - Weighing: Weigh, in-motion - Geodetic System: Surveying, Laser marking, Boroscope
Hybrid Electric Vehicles	- Motor Module: Scooter, Hoover board, Wheelchair - Safety System: Speed, Brake, Throttle, Gear - Power System: Charging, Controller, Battery, Plug & Inlet/ Outlet	- Sensors: Speedometer, Fuel, Cleaning - Device Communication: CAN, In-vehicle Info - Lighting: Interior and Exterior LED
Railway Mass Transit	- Navigation: GPS, Radar, Lidar, Ultrasonic - HVAC - Infotainment: Display, sound, Broadcasting, monitor	- Sensors: Speedometer, Fuel, Cleaning - Communication: Main Controller, In-vehicle Info - Lighting: Interior and Exterior
Mobile Devices	- Drone Remote Controller - Measurement: Altimeter, Gesture, Piezoelectric	Handheld: Barcode, Scanner, Portable lamp, GPS
Transportation	- Monitoring: Display ,CCTV, Lidar, Surveillance Cam - Communication: Wifi, router, Fleet Management - Navigation: GPS, Radar	- Power: Charger, Outlet, Inlet - Peripherals: Speaker, Electronic seats, Winches
Medical Equipment	- Patient Care: Electric Beds, Wheelchair Lift & stair, Rehabilitation System, Mobile Carts - Visualization: Display and monitors	- Diagnostic: MRI, CT Scan, Ultrasound, X-ray - Monitoring: ECG, Holter, Blood Pressure, Sugar
Automotive Diagnostics	- Auto-crash detection & notification system - Vehicle Tracking and Roadside Assistance System	Remote Diagnostics
UAV	Drone: Commercial, Consumer, & Military	
Lifts & Materials Handling	Forklift, Industrial Lift, Material Handling	
Remote Video Response Center	- Monitoring: Display ,CCTV, Dome, IP Camera - Detection: Auto-License Plate Recognition, Alarm - Identification: Fingerprint, Face detection, encoders	- Remote Control Devices and Sensors - Peripherals: Junction boxes and cabling system - Lighting: Interior and Exterior
Autonomous	- Navigation & Sensor: GPS, Lidar, Radar, Ultrasonic, IMU - Imaging: Cameras, Monitors, Infotainment Display	Controller: Inertial Measurement Unit & Navigation System, Central Computer
Communication	- Transmitter and Receiver Equipment - Data: Router and Switches - Base Station and Access Point	- Audio: VoIP, Telephone - High Bandwidth: Multiplexer & demultiplexer

Panel Cut-Out

(unit: mm)

Mini Size	✓ Screw Threaded (7/16"-28 UNS) ✓ Lock Bayonet (2 Points) Circular Flange (D Cut)  Square Flange 
Standard Size	✓ Screw Threaded (5/8"-27 UNS) ✓ Lock Bayonet (2 Points) ✓ Metal Shielded Circular Flange (D Cut)  Circular Flange  Square Flange  Square Flange
Middle Size	✓ Screw Threaded (13/16"-27 UNS) ✓ Lock Bayonet (2 and 3 Points) Circular Flange (D Cut) 
Large Size	✓ Screw Threaded (1"-20 UNEF) ✓ Lock Bayonet (2 Points) Circular Flange (D Cut)  Square Flange 
Macro & Other Size	Marco Size  PLD Size 

Accessory

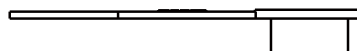
(click the image to find more product information)

Dummy Cap



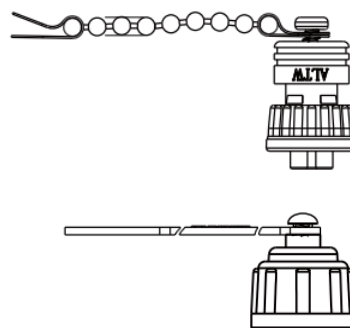
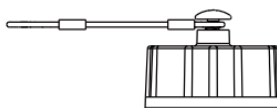
Dust Cap

- ✓ With rubber lead

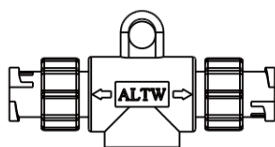


Waterproof Cap

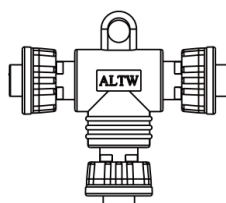
- ✓ Cap only
- ✓ With rubber lead
- ✓ With chain
- ✓ With fish line



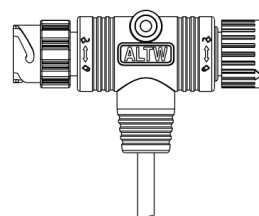
I Adaptor



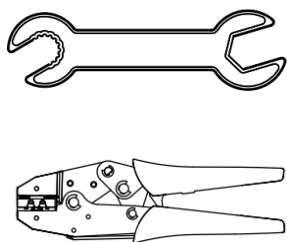
T Adaptor



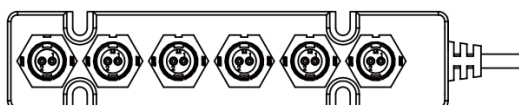
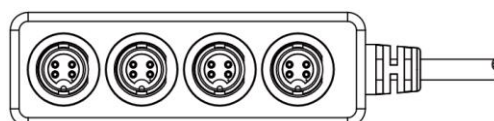
T Cable



Wrench / Crimp Tool



Distribution Box





Amphenol LTW

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