ID Series Rugged Bulkhead Connector Adaptor

CONNECTOR ADAPTOR FOR INDUSTRIAL AND MILITARY APPLICATIONS

Amphenol's ID series Rugged Bulkhead Adaptors serve many markets and applications across the globe including Automotive, Communications, Consumer, Data, Industrial and Medical.

ID series is designed to provide a sealed adapter at the panel or bulkhead of equipment. The interface is sealed in both mated and unmated conditions.

- Environmental sealing protects against water and dust
- Die cast metal housings protect against mechanical damage
- Operating temperature range from –40°C to +85°C for extreme condition
- RoHS compliant to meet environmental standards

TARGET MARKETS

FEATURES

- Sealed adaptor at the panel or bulkhead of equipment

- Interface is sealed in both the mated and un-mated conditions

- Modular jack or USB type A in a receptacle to receptacle configuration

- External plug kit can be assembled over most standard plug terminated cables

- Spring-loaded external cover of the receptacle provides a positive lock for the mated plug, yet closes the mating area tightly when not in use

- RoHS compliant

BENEFITS

- Excellent sealing and higher protection over wide temperature range
- Protects equipment from water and dust incursion

- Covers all conditions and delivers reliable performance

- Suitable for a wide variety of application requirements

- Able to replace existing standard parts with little to no changes

- Ensures reliable and superior performance

- Meets environmental, health and safety requirements

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TECHNICAL INFORMATION

MATERIAL

- External Shell: Die Cast Zinc, Nickel Plated

- Internal Shield:

  - Modular Jack – Stainless Steel;
    USB Type A – Copper Alloy, Nickel Plated

- Inserts: Engineering Thermoplastic,
  Glass Reinforced, UL94V–0, Black

- Contacts: Copper Alloy Plated with 0.76um (30u") min Gold over 1.27um (50u") min Nickel on the Mating Area

- Internal Overmoulding: USB Type A Only – Thermoplastic over UL1007 Wiring

- Gaskets, O-rings, Split Washers: Silicone Rubber

- Mounting Screws: Stainless Steel

ELECTRICAL PERFORMANCE

- Current Rating: 1.5A max. per Contact($\Delta \leq 30°C$)

- Contact Resistance:

  - Modular Jack– 20mΩ max.;
    USB Type A – 30mΩ max.

- Insulation Resistance:

  - Modular Jack– 500MΩ min. ;
    USB Type A – 1000MΩ min.

- Dielectric Withstanding Voltage:

  - Modular Jack– 1000 VAC rms (between adjacent contacts), 1500 VAC rms (contacts to ground);
    USB Type A– 500 VAC rms

ENVIRONMENTAL

- Temperature Life: Per EIA–364–17, Without Load, 85°C, 1000 Hrs

- Thermal Shock: Per EIA–364–32, –55°C to +85°C, 10 Cycles

- Humidity: Per EIA–364–31, 10 Cycles, 240 Hrs, 25°C to 65°C, 90–95%RH, with –10°C Cold Shock

PACKAGING

- Tray

SPECIFICATION

- Amphenol Product Specification: USB, RJ

APPROVALS AND CERTIFICATIONS

- RoHS

MECHANICAL PERFORMANCE

- Operating Temperature: –40°C to +85°C

- Insertion Force:

  - Modular Jack– 20N max.; USB Type A – 30N max.

- Extraction Force:

  - Modular Jack– 20N max. with Latch Disengaged; USB Type A– 10N min.

- Durability: Per EIA 364–09, 1500 Cycles

- Vibration: Per EIA 364–28 Condition II, (10g, 10–500Hz), No Discontinuity $\leq$ 1μs

- Shock: Per EIA 364–27 Test Condition A, (11ms, 50g, 1/2 Sine), No Discontinuity $\geq$ 1μs

TARGET MARKETS/APPLICATIONS

Car Navigation Systems
Display Cluster
Electric Vehicle

AC/DC pluggable power supplies
Base Station
Datacom
Optical Transport
Routers
Switches
Telecom

Home Entertainment Equipment
Refrigerator

Data Center
External Portable Storage
High Density Ethernet switching
Router and Server
Storage System

Chemical Detection System
Industrial Control Equipment
Energy Meter
Gaming Machine
Lighting
Measuring Equipment
Parking Meter
POS Machine
Renewable Energy
Robotics
Smart Meter
Vending Machines

Analyzers
Medical Diagnostics
Ultrasound Equipment

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PART NUMBERS

Description	Type	Part Numbers
ID Series Rugged Bulkhead Connector Adaptor	Receptacle half, RJ45	ID450–000
ID Series Rugged Bulkhead Connector Adaptor	Receptacle half, USB	ID451–000
ID Series Rugged Bulkhead Connector Adaptor	Plug half, RJ45	ID550–000
ID Series Rugged Bulkhead Connector Adaptor	Plug half, USB	ID651–000
ID Series Rugged Bulkhead Connector Adaptor	Plug & Receptacle, RJ	ID750–000
ID Series Rugged Bulkhead Connector Adaptor	Plug & Receptacle, USB	ID751–000