

# 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 adaptor 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  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  for extreme condition
- RoHS compliant to meet environmental standards

### 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



### TARGET MARKETS



### 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

# 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 ( $\Delta \leq 30^{\circ}\text{C}$ )
- Contact Resistance:
  - Modular Jack – 20m $\Omega$  max.;
  - USB Type A – 30m $\Omega$  max.
- Insulation Resistance:
  - Modular Jack – 500M $\Omega$  min. ;
  - USB Type A – 1000M $\Omega$  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  $\leq 1\mu\text{s}$
- Shock: Per EIA 364-27 Test Condition A, (11ms, 50g, 1/2 Sine), No Discontinuity  $\geq 1\mu\text{s}$

## 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

## ▶ ID Series Rugged Bulkhead Connector Adaptor

### 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

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