

# IP67 All-Plastic Latching USB Type A

## IP67-RATED RUGGEDIZED USB 2.0/3.0 TYPE A LATCHING CONNECTORS & CABLES MRU SERIES

Amphenol's MRU series of USB 2.0 & 3.0 Type A Connectors and Cables provide IP67 protection for Cable-to-Panel applications.

These connectors have all-plastic construction with Bayonet Coupling and Jam-Nut mounted panel receptacles and are designed to provide solutions for a variety of environments and applications, including Industrial, Telecommunications, Datacom, Medical, Energy, Transportation, etc.

- Provides a Standard USB Type A mating interface
- IP67 protection for enclosures per IEC 60529
- RoHS-compliant
- UL94V-0 high-temperature resistant housing
- Operating temperature range from -20°C to +80°C
- Available as factory-made overmolded cable assemblies and adapters
- Receptacles have integrated sealing cap



### TARGET MARKETS



### FEATURES

- Standard USB Type A mating interface
- UL94V-0 rated high-temperature housing and inserts
- Overmolded cable, adapter or pcb tail terminations
- Plastic Bayonet Coupling ring on plug
- RoHS-compliant
- USB 2.0 and USB 3.0 performance options
- All-plastic construction

### BENEFITS

- Receptacle can be mated to standard IP20 USB plug
- Operating temperature range of -20°C to +80°C
- Suitable for many user-defined configurations
- Secure latching to ensure IP67 performance
- Meets environmental and safety standards
- Meets variety of data rate requirements
- Economical for cost sensitive applications

# TECHNICAL INFORMATION

## MATERIAL

- Housing: Thermoplastic PBT, UL94V-0
- Nut: Thermoplastic PBT, UL94V-0
- USB Housing: Thermoplastic PBT, UL94V-0
- Gaskets & Seals: Silicone rubber
- Over-Molding: PVC
- USB Shield: Steel Alloy, Nickel plated
- USB Contact: Copper Alloy plated with Gold over Nickel
- Cable USB2.0: AWM 2025, 80°C 30V VW-1
- Cable USB3.0: AWM 20276, 80°C 30V VW-1

## ELECTRICAL PERFORMANCE

- Current rating:
  - USB 2.0: 0.5A per Charging Contact  
0.25A per Data Contact
  - USB 3.0: 0.9A per Charging Contact  
0.25A per Data Contact
- Voltage rating 5VDC
- Contact Resistance: 30mΩMax
- Dielectric Withstanding Voltage (DWV):
  - USB 2.0: 500VAC/1 minute @ sea level
  - USB 3.0: 100VAC/1 minute @ sea level
- Insulation Resistance:
  - USB 2.0: 500MΩ min.
  - USB 3.0: 100MΩ min.
- Data Rate:
  - USB 2.0: 480Mb/s
  - USB 3.0: 5Gb/s

## MECHANICAL PERFORMANCE

- Durability: 500 Mating cycles
- Wire Gauge:
  - 24AWG (Charging Contacts)
  - 28AWG (Data Contacts)

## APPROVALS AND CERTIFICATIONS

- RoHS-compliant per EU directive 2011/65/EU and amendments

## PACKAGING

- Box

## ENVIRONMENTAL

- Ingress Protection: IP67 Per IEC 60529 in mated condition
- Operating Temperature Range: -20°C to +80°C
- RoHS compliant per EU directive 2011/65/EU and amendments

## TARGET MARKETS/APPLICATIONS



Telecom  
Datacom  
IoT



Human Machine Interface (HMI)



Data Management  
Cyber security



Manufacturing  
Power Generation  
Oil & Gas



Healthcare  
Automotive  
Retail



Digital Health & Telemedicine  
Biotechnology

## ▶ IP67 All-Plastic Latching USB Type A

### PART NUMBERS

Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)

Description	Part Numbers
Cable Assy, USB 2.0 Type A, IP67 Bayonet Plug to IP20 Plug, 1m	MRU-AM61-60A0
Cable Assy, USB 3.0 Type A, IP67 Bayonet Plug to IP20 Plug, 1m	MRU-BM61-60A0
Receptacle, USB 2.0 Type A, IP67 Bayonet, Jam Nut Mount to IP20 Receptacle, with Dust Cover	MRU-AFE1-5100
Receptacle, USB 3.0 Type A, IP67 Bayonet, Jam Nut Mount to IP20 Receptacle, with Dust Cover	MRU-BFE1-5100
Cable Assy, USB 2.0 Type A, IP67 Bayonet Plug to IP67 Bayonet Plug, 1m	MRU-AM61-80A0
Cable Assy, USB 3.0 Type A, IP67 Bayonet Plug to IP67 Bayonet Plug, 1m	MRU-BM61-80A0
Cable Assy, USB 2.0 Type A, IP67 Bayonet Receptacle, Jam Nut Mount to IP20 Plug, 1m	MRU-AFE1-61A0
Cable Assy, USB 3.0 Type A, IP67 Bayonet Receptacle, Jam Nut Mount to IP20 Plug, 1m	MRU-BFE1-61A0
Receptacle, USB 2.0 Type A, IP67 Bayonet, Jam Nut Mount, PCB solder tails	MRU-AFE1-1100

\* Other cable lengths and configurations available – Consult Amphenol Sales

## PART NUMBER SELECTOR – RUGGED IP67 WATERPROOF USB SERIES

Find part number details using the search box on [www.amphenol-cs.com](http://www.amphenol-cs.com)

MRU — A M 3 1 — 1 0 XX

Rugged IP67 Waterproof USB Series	
<b>USB Generation</b>	
A	A – USB 2.0 Type A (24mm Size) B – USB-3.0 Type A (24mm Size)
<b>Connector Type</b>	
M	M – Plug F – Receptacle
<b>Connector Engage &amp; Mounting Feature</b>	
3	6 – Bayonet Lock, Plastic, Over-moulded Cable E – Bayonet Lock, Plastic, Panel Mount With Hex Nut
<b>Plating</b>	
1	1 – Gold Flash at Mating Area Standard
<b>Termination</b>	
1	1 – Vertical PCB Contact Tails 5 – Receptacle Adapter IP67 to IP20 6 – Cable IP67 Plug To IP20 Plug 8 – Cable IP67 Plug To IP67 Plug
<b>Dust Cover Options</b>	
0	0 – No Dust Cover 1 – With Attached Dust Cover
<b>Cable Length</b>	
XX	00 – No Cable 20 to 99 – Overall Cable Length in CM (20 To 99 CM)

## Cable Length

FIRST X		SECOND X	
CODE	METERS	CODE	METERS
A	1.0	0	0
		1	0.1
B	2.0	2	0.2
		3	0.3
C	3.0	4	0.4
		5	0.5
D	4.0	6	0.6
		7	0.7
E	5.0	8	0.8
		9	0.9

Example:

A0 = 1.0m

B7 = 2.7m