

WATERTIGHT BREAKAWAY CONNECTORS

AP- and AJ- Series Connectors



AJ-107BRS

AP-107

Connector Miniaturization

Features

- Plug and Jack breakaway connectors designed to function in severe environments
- Watertight in up to 6 feet of water
- Molded-in wiping-action contacts provide self-cleaning feature and eliminate issues with pin/socket open contacts
- Designed for multiple cable diameters
- Miniature versions are **50% smaller** than standard connectors while maintaining many of the same performance characteristics

Options

- 7- or 10-pin (miniature version only) contacts
- Solder-type contacts or insulation-piercing contacts
- Wire strain relief or over-molded versions available for all plugs and jacks
- Panel mount versions are available for both front- and rear-mount panels
- Shielding is available in all connector choices
- All standard connector options also available in miniaturized versions

Applications

- C4I Systems
- Military Vehicles
- Commercial Aircraft
- Telecommunications Equipment
- Missiles and Ordnance
- Medical Equipment
- Commercial / Industrial Equipment

Technical Specifications

| | |
|---------------------------|--|
| Shell: | Aluminum |
| Plating: | Black Anodize (standard); Black Chrome (shielded) |
| Insert: | Thermoset Plastic |
| Contacts: | Gold-plated Brass (Jacks) / Gold-plated BeCu (Plugs) |
| Mating: | Axial push-pull motion |
| Engagement Force: | ≤ 14 lbs. |
| Disengagement Force: | 8 - 12 lbs. |
| Mating Cycles: | 5,000 |
| Temperature: | -55°C to +85 °C |
| Contact Current Capacity: | 3 amperes |
| Contact Resistance: | ≤ 150 mV |



AP-1100M



AJ-1100M

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Part Descriptions

| Nexus Part Number | Connector Type | # of Contacts | Contact Type | Rear Accessory |
|-------------------|---|---------------|---------------------|-------------------------------|
| AP-107 | Plug | 7 | Insulation Piercing | None |
| AJ-107 | Jack | 7 | Insulation Piercing | None |
| AP-107DR | Plug | 7 | Insulation Piercing | Overmold Cap |
| AJ-107DR | Jack | 7 | Insulation Piercing | Overmold Cap |
| AP-107DRS | Plug, Shielded | 7 | Insulation Piercing | Overmold Cap |
| AJ-107DRS | Jack, Shielded | 7 | Insulation Piercing | Overmold Cap |
| AP-107BR | Plug | 7 | Solder | Wire Strain Relief |
| AJ-107BR | Jack | 7 | Solder | Wire Strain Relief |
| AP-107BRS | Plug, Shielded | 7 | Solder | Wire Strain Relief |
| AJ-107BRS | Jack, Shielded | 7 | Solder | Wire Strain Relief |
| AP-1170M | Plug, Miniature | 7 | Solder | Overmold |
| AJ-1170M | Jack, Miniature | 7 | Solder | Overmold |
| AP-117BR | Plug, Miniature | 7 | Solder | Wire Strain Relief (.148 max) |
| AJ-117BR | Jack, Miniature | 7 | Solder | Wire Strain Relief (.148 max) |
| AP-117BRXL | Plug, Miniature | 7 | Solder | Wire Strain Relief (.250 max) |
| AJ-117BRXL | Jack, Miniature | 7 | Solder | Wire Strain Relief (.250 max) |
| AP-117LR-AL | Plug, Miniature w/Threaded Locking Ring | 7 | Solder | Wire Strain Relief (.250 max) |
| AJ-117LR-AL | Jack, Miniature w/Threaded Locking Ring | 7 | Solder | Wire Strain Relief (.250 max) |
| AP-117PLR | Plug, Miniature w/Threaded Locking Ring | 7 | Solder | Overmold |
| AJ-117PLR | Jack, Miniature w/Threaded Locking Ring | 7 | Solder | Overmold |
| AJ-117PM | Front Panel-Mount Jack, Miniature | 7 | Solder | None |
| AJ-117PMDC | Rear Panel-Mount Jack, Miniature | 7 | Solder | None |
| AP-1100M | Plug, Miniature | 10 | Solder | Overmold |
| AJ-1100M | Jack, Miniature | 10 | Solder | Overmold |
| AP-1100MS | Plug, Miniature, Shielded | 10 | Solder | Overmold |
| AJ-1100MS | Jack, Miniature, Shielded | 10 | Solder | Overmold |

Mating Chart

| 7- and 10-PIN MATING CHART | JACKS | | | | | | | | | | | | | |
|----------------------------|--------|----------|-----------|----------|-----------|----------|-----------|----------|------------|-------------|----------|-----------|----------|------------|
| | AJ-107 | AJ-107BR | AJ-107BRS | AJ-107DR | AJ-107DRS | AJ-1100M | AJ-1100MS | AJ-117BR | AJ-117BRXL | AJ-117LR-AL | AJ-1170M | AJ-117PLR | AJ-117PM | AJ-117PMDC |
| AP-107 | X | | | | | | | | | | | | | |
| AP-107BR | | X | | | | | | | | | | | | |
| AP-107BRS | | | X | | | | | | | | | | | |
| AP-107DR | | | | X | | | | | | | | | | |
| AP-107DRS | | | | | X | | | | | | | | | |
| AP-1100M | | | | | | X | | | | | | | | |
| AP-1100MS | | | | | | | X | | | | | | | |
| AP-117BR | | | | | | | | X | | | | | X | X |
| AP-117BRXL | | | | | | | | | X | | | | X | X |
| AP-117LR-AL | | | | | | | | | | X | | | | |
| AP-1170M | | | | | | | | | | | X | | X | X |
| AP-117PLR | | | | | | | | | | | | X | | |



AJ-107BRS Cable Assembly with Nexus AP-136 Plug

Contact Amphenol NEXUS Technologies for part number assistance, pricing, and availability