



WATERTIGHT BREAKAWAY CONNECTORS

AP- and AJ- Series Connectors

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. (Standard) 5-12 lbs. (Miniature)
Mating Cycles:	5000 (Standard) 3000 (Miniature)
Temperature:	-55°C to +85°C
Contact Current Capacity:	2 amps maximum
Contact Resistance:	≤ 150 mV

Amphenol NEXUS Technologies is the leader in watertight, breakaway connectors designed to meet severe environmental conditions. Our connectors, which are watertight in up to 6 feet of water, have molded-on wiping-action contacts that provide a self-cleaning feature and eliminate issues with pin/socket open contacts.

The 7-Pin and 10-Pin connectors are designed for multiple cable diameters, are available in shielded versions, and can include either solder-type contacts of insulation-piercing contacts, which are field replaceable.

Many of the 7- and 10-pin Connectors also come in a miniature versions that is 50% smaller than the standard connector. All standard connector options are also available in the miniaturized versions.

APPLICATIONS:

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

WATERPROOF BREAKAWAY CONNECTORS:



AP-107

Connector Type:
Plug
Number of Contacts: 7
Contact Type:
Insulation Piercing
Rear Accessory:
None



AJ-107

Connector Type:
Jack
Number of Contacts: 7
Contact Type:
Insulation Piercing
Rear Accessory:
None



AP-107BRS

Connector Type:
Plug, Shielded
Number of Contacts: 7
Contact Type:
Solder
Rear Accessory:
Wire Strain Relief



AJ-107BRS

Connector Type:
Jack, Shielded
Number of Contacts: 7
Contact Type:
Solder
Rear Accessory:
Wire Strain Relief



AP-107PM

Connector Type:
Jack, Front Mount
Panel Mount
Number of Contacts: 7
Contact Type:
Solder
Rear Accessory: None



AJ-107PM

Connector Type:
Plug, Front Mount
Panel Mount
Number of Contacts: 7
Contact Type:
Solder
Rear Accessory: None



AP-117OM

Connector Type:
Plug, Miniature
Number of Contacts: 7
Contact Type:
Solder
Rear Accessory:
Overmold



AJ-117OM

Connector Type:
Jack, Miniature
Number of Contacts: 7
Contact Type:
Solder
Rear Accessory:
Overmold



AP-117BR

Connector Type:
Plug, Miniature
Number of Contacts: 7
Contact Type:
Solder
Rear Accessory:
Wire Strain Relief
(.148 max)



AJ-117BR

Connector Type:
Jack, Miniature
Number of Contacts: 7
Contact Type:
Solder
Rear Accessory:
Wire Strain Relief
(.148 max)



AJ-117PM

Connector Type:
Front Panel-Mount
Jack, Miniature
Number of Contacts: 7
Contact Type:
Solder
Rear Accessory: None



AP-110BRXL

Connector Type:
Plug, Miniature
Number of Contacts: 10
Contact Type:
Solder
Rear Accessory:
Wire Strain Relief
(.250 max)



AJ-110BRXL

Connector Type:
Jack, Miniature
Number of Contacts: 10
Contact Type:
Solder
Rear Accessory:
Wire Strain Relief
(.250 max)

WATERPROOF BREAKAWAY CONNECTORS CONTINUED:

NEXUS Part Number	Connector Type	Number of Contacts	Contact Type	Rear Accessory
AP-107BR*	Plug	7	Solder	Wire Strain Relief
AJ-107BR*	Jack	7	Solder	Wire Strain Relief
AP-117BRXL*	Plug, Miniature	7	Solder	Wire Strain Relief (.250 max)
AJ-117BRXL*	Jack, Miniature	7	Solder	Wire Strain Relief (.250 max)
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-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-117PMDC*	Jack, Rear Panel-Mount, Miniature	7	Solder	None
AP-110OM*	Plug, Miniature	10	Solder	Overmold
AJ-110OM*	Jack, Miniature	10	Solder	Overmold
AP-110OMS*	Plug, Miniature, Shielded	10	Solder	Overmold
AJ-110OMS*	Jack, Miniature, Shielded	10	Solder	Overmold

**Image not shown*

CABLE HARNESS INFORMATION:

NEXUS Part Number	Cable Holder		Cable Seal	Cable (6 Conductor) with Shield
	Part Number	Figure Below		
AP-107XL AJ-107XL	AP-107-3BXL AJ-107-3GXL	A	AP-107-27	<p>MIL-C-3885</p>
AP-107XLS AJ-107XLS	AP-107-3BXLS AJ-107-3BXLS	B	AP-107-27	
AP-107 AJ-107	AP-107-3B AJ-107-3G	C	Customer molds strain relief, then uses AP-107-27	<p>MIL-C-55668</p>
AP-107A AJ-107A	AP-107-3B AJ-107-3G	C	AP-107-31	

WATERTIGHT BREAKAWAY CONNECTOR MATING CHART:

MATES WITH	JACKS													
	AJ-107	AJ-107BR	AJ-107BRS	AJ-107DR	AJ-107DRS	AJ-1100M	AJ-1100MS	AJ-117BR	AJ-117BRXL	AJ-117LRAL	AJ-117OM	AJ-117PRL	AJ-117PM	AJ-117PMDC
AP-107	X	X	X	X	X									
AP-107BR	X	X	X	X	X									
AP-107BRS	X	X	X	X	X									
AP-107DR	X	X	X	X	X									
AP-107DRS	X	X	X	X	X									
AP-1100M						X	X							
AP-1100MS						X	X							
AP-117BR								X	X		X		X	X
AP-117BRXL								X	X				X	X
AP-117LR-AL										X				
AP-117OM											X		X	X
AP-117PLR												X		