



## 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-1170M

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



AJ-1170M

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

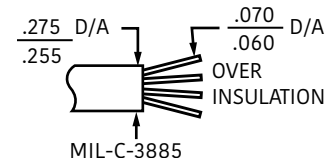
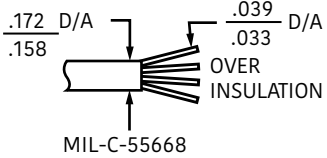
Connector Type:  
Jack, Miniature  
Number of Contacts: 10  
Contact Type:  
Solder  
Rear Accessory:  
Wire Strain Relief  
(.250 max)

# 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-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

\*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	
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	
AP-107A AJ-107A	AP-107-3B AJ-107-3G	C	AP-107-31	

# WATERTIGHT BREAKAWAY CONNECTOR MATING CHART:

		JACKS													
MATES WITH		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
PLUGS	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		