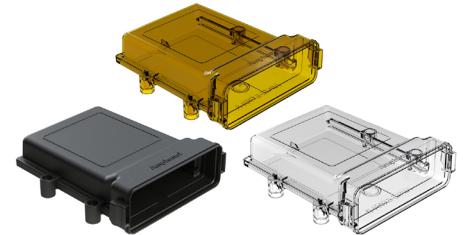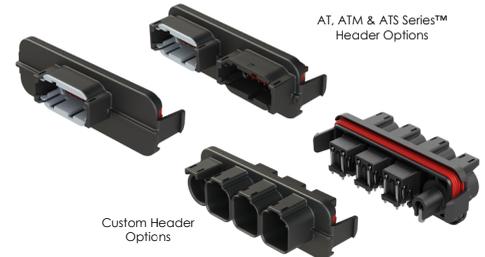# ARMOR**IPX**™ Family

Sealed PCB Enclosures

Amphenol Sine Systems' **Armor IPX™ Family of Sealed PCB Enclosures** provides superior protection for printed circuit boards and electronic control modules in harsh environments and off-road applications. Available in two (2) sizes, as well as three (3) different material types: Ultem® (Amber), Thermoplastic (Black) or Polycarbonate (Clear). Simplified installation is accomplished via a rugged, tandem, through-hole design for ease of mounting and includes optional environmental venting. Snap-in headers, available in AT, ATM and ATS Series™, quickly and securely attach to the Armor IPX™ enclosure and mate with standard AT, ATM and ATS Series™ plugs. Armor IPX™ Sealed Enclosures and headers are compatible with industry standard EEC enclosures.

Key Features
- Available in Standard and Large sizes
- Available in Ultem® (Amber), Thermoplastic (Black) or Polycarbonate (Clear)
- Rugged, tandem, through-hole design for ease of mounting
- Cross-hatch design increases venting protection
- Snap-in headers establish ease of interface with PCB
- Header configurations options available in AT, ATM and ATS Series™
- Enclosures are resistant to most external fluids used in industrial applications

AT, ATM & ATS Series™
Header Options

Custom Header
Options

Available Options
- **Custom/Blank Headers** - available to assist in establishing additional connector interface flexibility.
- **Vented Enclosures** - allow for atmospheric pressure differentials (+ or -), due to heat (sun load, board heat, etc.), which help alleviate seal leakage under extreme conditions. For environments requiring 'clean' venting, customers often purchase venting patches which keep out oils and moisture. (The circular flat area inside the enclosure is made to accommodate these patches.)

Armor IPX™ Enclosures & Headers - Specifications (See Individual datasheets)

Temperature Range (Enclosures)	-55°C to +125°C	Current Cycling	500 Hour (AT, ATM and ATS Headers)
Temperature Range (Headers)	-55°C to +125°C	Enclosure Material	Ultem® PEI (Amber) Thermoplastic PA66 (Black) Polycarbonate (Clear)
Temperature (Humidity)	320 Hr		
Temperature (Life)	1000 Hr		
UV Exposure	500 Hr	Header Material	Thermoplastic PA66 (Black)
Max. Current (AMP)	13A (AT Headers); 7.5A (ATM, ATS Headers)	Salt Fog	96 Hr
		Vibration	10 to 2000Hz – 20g peak level – XYZ – 24 Hr
IP Ratings (in mated condition)	Enclosures: IP67 and IP69K (w/ Headers) Headers: See individual datasheets	Shock	50g - 20 pulses
		PCB Contacts	See individual datasheets
Contact Resistance	<6mΩ (AT Headers); <11mΩ (ATM, ATS Headers)	Sealing Material	Silicone Rubber
Insulation Resistance	>1000MΩ @ 25°C (AT, ATM and ATS Headers)	RoHS	Compliant

IP67 **IP68** **IP69K**

IP Ratings
IP67 rated (Dust tight; 1M of Water for 30 Minutes, in mated condition)
IP68 rated (Dust tight; 1M of Water for 24 Hours, in mated condition)
IP69K rated (Dust tight; High-Pressure Waterproof, 4 Points (0°, 30°, 60°, 90°), in mated condition)

A ASeries™ Family

Standard products. Custom solutions
Customer Service +1 800 394 7732
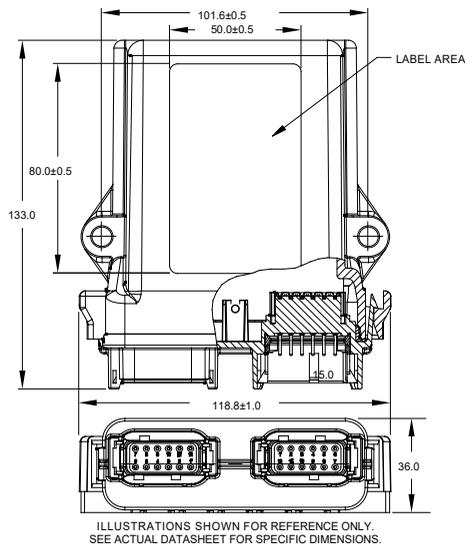
Armor IPX Series™ - PCB Enclosures
Note: Refer to individual datasheets on **www.amphenol-sine.com** for full specs, faceviews, keying location and product dimensions.

Image	Part Number	Description	Amp	Volt
	AIPXE-325X4A-E016	PCB Enclosure, Standard, Ultem® (Amber), Armor IPX Series™, Vent Hole, Mounting Holes, -55°C to +125°C	-	-
	AIPXE-325X4B-E016	PCB Enclosure, Standard, Ultem® (Amber), Armor IPX Series™, w/out Vent Hole, Mounting Holes, -55°C to +125°C	-	-
	AIPXE-5X650A-E016	PCB Enclosure, Large, Ultem® (Amber), Armor IPX Series™, Vent Hole, Mounting Holes, -55°C to +125°C	-	-
	AIPXE-5X650B-E016	PCB Enclosure, Large, Ultem® (Amber), Armor IPX Series™, w/out Vent Hole, Mounting Holes, -55°C to +125°C	-	-

Image	Part Number	Description	Amp	Volt
	AIPXE-325X4A	PCB Enclosure, Standard, Thermoplastic (Black), Armor IPX Series™, Vent Hole, Mounting Holes, -55°C to +125°C	-	-
	AIPXE-325X4B	PCB Enclosure, Standard, Thermoplastic (Black), Armor IPX Series™, w/out Vent Hole, Mounting Holes, -55°C to +125°C	-	-
	AIPXE-5X650A	PCB Enclosure, Large, Thermoplastic (Black), Armor IPX Series™, Vent Hole, Mounting Holes, -55°C to +125°C	-	-
	AIPXE-5X650B	PCB Enclosure, Large, Thermoplastic (Black), Armor IPX Series™, w/out Vent Hole, Mounting Holes, -55°C to +125°C	-	-

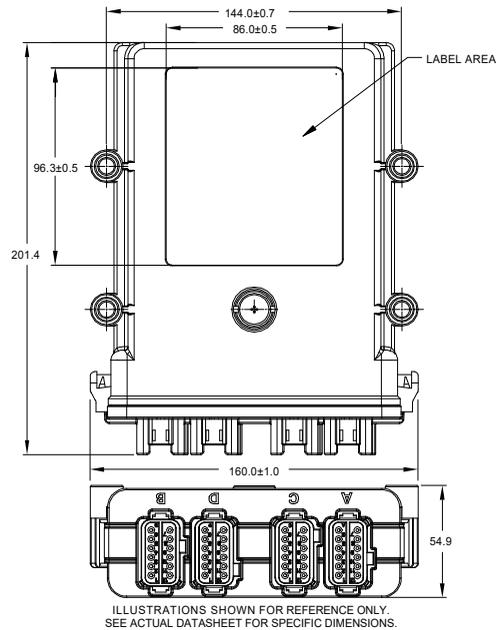| Image	Part Number	Description	Amp	Volt
	AIPXE-325X4A-E017	PCB Enclosure, Standard, Polycarbonate (Clear), Armor IPX Series™, Vent Hole, Mounting Holes, -55°C to +125°C	-	-
	AIPXE-325X4B-E017	PCB Enclosure, Standard, Polycarbonate (Clear), Armor IPX Series™, w/out Vent Hole, Mounting Holes, -55°C to +125°C	-	-
	AIPXE-5X650A-E017	PCB Enclosure, Large, Polycarbonate (Clear), Armor IPX Series™, Vent Hole, Mounting Holes, -55°C to +125°C	-	-
	AIPXE-5X650B-E017	PCB Enclosure, Large, Polycarbonate (Clear), Armor IPX Series™, w/out Vent Hole, Mounting Holes, -55°C to +125°C	-	-

Armor IPX™ - PCB Enclosure Dimensions (mm)
Note: Refer to individual datasheets on **www.amphenol-sine.com** for full specs, faceviews, keying location and product dimensions.

Standard Armor IPX™ Enclosure Dimensions (mm)

ILLUSTRATIONS SHOWN FOR REFERENCE ONLY.
SEE ACTUAL DATASHEET FOR SPECIFIC DIMENSIONS.

Large Armor IPX™ Enclosure Dimensions (mm)

ILLUSTRATIONS SHOWN FOR REFERENCE ONLY.
SEE ACTUAL DATASHEET FOR SPECIFIC DIMENSIONS.

Armor IPX Series™ Header Plates
Note: Refer to individual datasheets on www.amphenol-sine.com for full specs, faceviews, keying location and product dimensions.

Image	Part Number	Description	Amp	Volt
	AIPXE-325XBP-01	Blank Header Plate, Standard, ArmorIPX Series™, Snap-In Interface, Black Body	-	-
	AIPXE-5X650BP-01	Blank Header Plate, Large, ArmorIPX Series™, Snap-In Interface, Black Body	-	-

AT Series™ Headers
Note: Refer to individual datasheets on www.amphenol-sine.com for full specs, faceviews, keying location and product dimensions.

Image	Part Number	Description	Amp	Volt
	AT13-12PA-R015	12 Position, PCB Receptacle Header, 12 Pin x 1 Layout, Flange Mount, Right Angle, Pin, Size 16, Tin Plated, 13A, 250V, AT Series™, Mounting Screws, Snap-In Interface, Keyed A, Silicone Rubber Seal (Red), Black Body	13A	250V
	AT13-24PAB-BM03	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 16, Tin Plated, 13A, 250V, AT Series™, Mounting Screws, Snap-In Interface, Keyed A/B, Silicone Rubber Seal (Red), Black Body	13A	250V
	AT13-36PABC-BM03	36 Position, PCB Receptacle Header, 12 Pin x 3 Layout, Flange Mount, Right Angle, Pin, Size 16, Tin Plated, 13A, 250V, AT Series™, Mounting Screws, Snap-In Interface, Keyed A/B/C, Silicone Rubber Seal (Red), Black Body	13A	250V
	AT13-48PABCD-BM03	48 Position, PCB Receptacle Header, 12 Pin x 4 Layout, Flange Mount, Right Angle, Pin, Size 16, Tin Plated, 13A, 250V, AT Series™, Mounting Screws, Snap-In Interface, Keyed A/B/C/D, Silicone Rubber Seal (Red), Black Body	13A	250V
	AT13-12PA-GR02	12 Position, PCB Receptacle Header, 12 Pin x 1 Layout, Flange Mount, Right Angle, Pin, Size 16, Gold Plated, 13A, 250V, AT Series™, Mounting Screws, Snap-In Interface, Keyed A, Silicone Rubber Seal (Red), Black Body	13A	250V
	AT13-24PAB-BM01	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 16, Gold Plated, 13A, 250V, AT Series™, Mounting Screws, Snap-In Interface, Keyed A/B, Silicone Rubber Seal (Red), Black Body	13A	250V
	AT13-36PABC-BM01	36 Position, PCB Receptacle Header, 12 Pin x 3 Layout, Flange Mount, Right Angle, Pin, Size 16, Gold Plated, 13A, 250V, AT Series™, Mounting Screws, Snap-In Interface, Keyed A/B/C, Silicone Rubber Seal (Red), Black Body	13A	250V
	AT13-48PABCD-BM01	48 Position, PCB Receptacle Header, 12 Pin x 4 Layout, Flange Mount, Right Angle, Pin, Size 16, Gold Plated, 13A, 250V, AT Series™, Mounting Screws, Snap-In Interface, Keyed A/B/C/D, Silicone Rubber Seal (Red), Black Body	13A	250V

ATM Series™ Headers
Note: Refer to individual datasheets on www.amphenol-sine.com for full specs, faceviews, keying location and product dimensions.

Image	Part Number	Description	Amp	Volt
	ATM13-12PA-GR01	12 Position, PCB Receptacle Header, 12 Pin x 1 Layout, Flange Mount, Right Angle, Pin, Size 20, Gold Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed A, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PB-GR01	12 Position, PCB Receptacle Header, 12 Pin x 1 Layout, Flange Mount, Right Angle, Pin, Size 20, Gold Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed B, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PC-GR01	12 Position, PCB Receptacle Header, 12 Pin x 1 Layout, Flange Mount, Right Angle, Pin, Size 20, Gold Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed C, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PD-GR01	12 Position, PCB Receptacle Header, 12 Pin x 1 Layout, Flange Mount, Right Angle, Pin, Size 20, Gold Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed D, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PA-R008	12 Position, PCB Receptacle Header, 12 Pin x 1 Layout, Flange Mount, Right Angle, Pin, Size 20, Tin Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed A, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PB-R008	12 Position, PCB Receptacle Header, 12 Pin x 1 Layout, Flange Mount, Right Angle, Pin, Size 20, Tin Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed B, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PC-R008	12 Position, PCB Receptacle Header, 12 Pin x 1 Layout, Flange Mount, Right Angle, Pin, Size 20, Tin Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed C, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PD-R008	12 Position, PCB Receptacle Header, 12 Pin x 1 Layout, Flange Mount, Right Angle, Pin, Size 20, Tin Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed D, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PA-12PB-BM01	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Gold Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed A/B, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PA-12PC-BM01	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Gold Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed A/C, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PA-12PD-BM01	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Gold Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed A/D, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PB-12PC-BM01	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Gold Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed B/C, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PB-12PD-BM01	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Gold Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed B/D, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PC-12PD-BM01	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Gold Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed C/D, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PA-12PB-BM03	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Tin Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed A/B, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PA-12PC-BM03	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Tin Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed A/C, Silicone Rubber Seal (Red), Black Body	7.5A	250V

Image	Part Number	Description	Amp	Volt
	ATM13-12PA-12PD-BM03	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Tin Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed A/D, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PB-12PC-BM03	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Tin Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed B/C, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PB-12PD-BM03	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Tin Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed B/D, Silicone Rubber Seal (Red), Black Body	7.5A	250V
	ATM13-12PC-12PD-BM03	24 Position, PCB Receptacle Header, 12 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Tin Plated, 7.5A, 250V, ATM Series™, Mounting Screws, Snap-In Interface, Keyed C/D, Silicone Rubber Seal (Red), Black Body	7.5A	250V

ATS Series™ Headers
Note: Refer to individual datasheets on **www.amphenol-sine.com** for full specs, faceviews, keying location and product dimensions.

Image	Part Number	Description	Amp	Volt
	ATS13-34PA2-34PB2-BM03	68 Position, PCB Receptacle Header, 34 Pin x 2 Layout, Flange Mount, Right Angle, Pin, Size 20, Tin Plated, 7.5A, 250V, ATS Series™, Mounting Screws, Snap-In Interface, Keyed A & B, Silicone Rubber Seal (Red), Black Body	7.5A	250V