



# BL BoardLock™ Family



Available in AT, ATHD, ATM and ATP  
1, 2, 3, 4, 6, 8, 12, 13 and 18 position (See individual series)

Amphenol Sine Systems' BoardLock™ Family options include flanged or flangeless, 180° straight or 90° right angle pin-oriented, snap-fit or self-threading, wire-to-board versatility with the proven reliability of the A Series™ environmentally-sealed thermoplastic connection system with a maximum current rating up to 100A. Featuring a compact, durable, low-profile and lightweight design, perfect for power or data signal applications.

All BoardLock™ product lines accept A Series™ components and are compatible with other industry standard mating connectors.

### Applications

Power & Signal Connectivity, Data Acquisition, HVAC Systems, Farming Implementation, Boating, Sealed Environments, Heavy Equipment, Transportation, Industrial, Off-Road and Harsh Environments

### Features

- Flanged or Flangeless
- 180° Straight or 90° Right Angle Pin Orientation
- Snap-Fit or Self-Threading
- Potted or Unpotted



### BoardLock™ Family Specifications Overview

Positions	1, 2, 3, 4, 6, 8, 12, 13 and 18 (See individual series)	Mating Cycles	100 Cycles
Current Rating	7.5A to 100A (See individual datasheets)	Operating Voltage	250V to 500V
Pin Orientation	Straight or 90° Right Angle	Seal Material	Silicone Rubber (See individual datasheets)
Mounting Type	Snap-Fit or Self-Threading (See individual series)	Temperature Range	-55°C to +125°C at rated current
Flange	Flanged or Flangeless (See individual series)	Shock	No latch disengagement or discontinuity shall be the result when subjected to 50 g's in each of three axis (X, Y & Z)
Contact Material/Plating	Copper Alloy/Gold, Nickel or Tin Plating		
Contact Millivolt Drop	See individual series	Thermal Shock	Subjected to 10 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector
Contact Termination	Direct Solder		
Contact Types	Machined, PC Tail	Vibration	Continued continuity without degradation to mechanical or physical attributes following vibration. (Max acceleration 20 g's at Sine sweep of 10-2000Hz)
Housing Material	Thermoplastic		
Insulation Resistance	1000 megohms minimum at 25°C		
IP Rating	See individual datasheets		
Keying Options	See individual datasheets		



### A Series™ Family



Standard products. Custom solutions  
Customer Service +1 800 394 7732




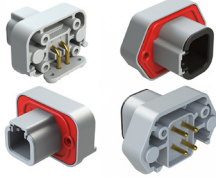
BoardLock™ Family Comparison Chart

Series	 BoardLock™ AT	 BoardLock™ AT13/15	 BoardLock™ ATF13
Image			
Positions	2, 3, 4, 6, 8, 12 and 18	2, 4, 6, 8, 12, 13 (Mixed) and 18	2, 3, 4, 6, 8, 12 and 13 (Mixed)
Current Rating	Size 16, 13A	2, 4, 6, 8, 12, 18 pos: Size 16, 13A 13 pos (Mixed): Size 12/16, 25A/13A	2, 3, 4, 6, 8, 12 pos: Size 16, 13A 13 pos (Mixed): Size 12/16, 25A/13A
Flange	Flangeless	Flanged	Flangeless
Mounting Type	Snap-Fit (2-12 Pos) or Self-Threading (18 Pos)	Self-Threading	Snap-Fit or Self-Threading
Pin Orientation	180° Straight	<b>AT13:</b> 90° Right Angle / <b>AT15:</b> 180° Straight	90° Right Angle
Contact Material/Plating	Copper Alloy/Gold, Nickel Plating	Copper Alloy/Gold, Tin Plating	Copper Alloy/Gold, Tin Plating
Contact Millivolt Drop	100 mV drop max at 13A current	2,4,6,8,12 and 18 pos: 100mV drop max at 13A current 13 (11+2) pos: 100mV drop max at 13A/25A current	100 mV drop max at 13A current
Contact Termination	Direct Solder	Direct Solder	Direct Solder
Contact Types	Machined, PC Tail	Machined, PC Tail	Machined, PC Tail
Dielectric Value	Less than 2 milliamps current leakage @ 1500 volts AC	Less than 2 milliamps current leakage @ 1500 volts AC	Less than 2 milliamps current leakage @ 1500 volts AC
Housing Material	Thermoplastic	Thermoplastic	Thermoplastic
Insulation Resistance	1000 megohms minimum at 25°C	1000 megohms minimum at 25°C	1000 megohms minimum at 25°C
IP Rating	IP67 (mated) See datasheets	IP67 (mated) See datasheets	IP67 (mated) See datasheets
Keying Options	Available in 8, 12 and 18 pos only	Available in 6, 8, 12 and 18 pos only	Available in 6, 8, 12 pos only
Mating Cycles	100 Cycles	100 Cycles	100 Cycles
Operating Voltage	250 VDC	250 VDC	250 VDC
Seal Material	n/a	Silicone Rubber	n/a
Temperature Range	-55°C to +125°C at rated current	-55°C to +125°C at rated current	-55°C to +125°C at rated current
Shock	No latch disengagement or discontinuity shall be the result when subjected to 50 g's in each of three axis (X, Y & Z)	No latch disengagement or discontinuity shall be the result when subjected to 50 g's in each of three axis (X, Y & Z)	No latch disengagement or discontinuity shall be the result when subjected to 50 g's in each of three axis (X, Y & Z)
Thermal Shock	Subjected to 10 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector	Subjected to 10 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector	Subjected to 10 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector
Vibration	Continued continuity without degradation to mechanical or physical attributes following vibration. (Max acceleration 20 g's at Sine sweep of 10-2000Hz)	Continued continuity without degradation to mechanical or physical attributes following vibration. (Max acceleration 20 g's at Sine sweep of 10-2000Hz)	Continued continuity without degradation to mechanical or physical attributes following vibration. (Max acceleration 20 g's at Sine sweep of 10-2000Hz)

BoardLock™ Family Comparison Chart, cont.

Series	 BoardLock™ ATFHD13	 BoardLock™ ATHD	 BoardLock™ ATM13/15
Image			
Positions	Single Position	Single Position	2, 3, 4, 6, 8, and 12
Current Rating	Size 4, 100A	Size 4, 8 or 12; 25A to 100A	Size 20, 7.5A
Flange	Flangeless	Flangeless	Flanged
Mounting Type	Snap-Fit or Self-Threading	Self-Threading	Self-Threading
Pin Orientation	90° Right Angle	180° Straight	<b>ATM13:</b> 90° Right Angle / <b>ATM15:</b> 180° Straight
Contact Material/Plating	Copper Alloy/Gold, Tin Plating	Copper Alloy/Gold, Nickel, Tin Plating	Copper Alloy/Gold, Tin Plating
Contact Millivolt Drop	100 mV drop max at 100A current	100 mV drop max at 100A current	100 mV drop max at 7.5A current
Contact Termination	Direct Solder	Direct Solder	Direct Solder
Contact Types	Machined, PC Tail	Machined, PC Tail	Machined, PC Tail
Dielectric Value	Less than 2 milliamps current leakage @ 3000 volts AC	Less than 2 milliamps current leakage @ 3000 volts AC	Less than 2 milliamps current leakage @ 1500 volts AC
Housing Material	Thermoplastic	Thermoplastic	Thermoplastic
Insulation Resistance	1000 megohms minimum at 25°C	1000 megohms minimum at 25°C	1000 megohms minimum at 25°C
IP Rating	IP67/IP69K (mated) See datasheets	IP68/69K (mated) See datasheets	IP67 (mated) See datasheets
Keying Options	Not Applicable	Not Applicable	Available in 8, 12 pos only
Mating Cycles	100 Cycles	100 Cycles	100 Cycles
Operating Voltage	250V to 500V	250V to 500V	250 VDC
Seal Material	Silicone Rubber	Silicone Rubber	Silicone Rubber
Temperature Range	-55°C to +125°C at rated current	-55°C to +125°C at rated current	-55°C to +125°C at rated current
Shock	No latch disengagement or discontinuity shall be the result when subjected to 50 g's in each of three axis (X, Y & Z)	No latch disengagement or discontinuity shall be the result when subjected to 50 g's in each of three axis (X, Y & Z)	No latch disengagement or discontinuity shall be the result when subjected to 50 g's in each of three axis (X, Y & Z)
Thermal Shock	Subjected to 10 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector	Subjected to 10 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector	Subjected to 10 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector
Vibration	Continued continuity without degradation to mechanical or physical attributes following vibration. (Max acceleration 20 g's at Sine sweep of 10-2000Hz)	Continued continuity without degradation to mechanical or physical attributes following vibration. (Max acceleration 20 g's at Sine sweep of 10-2000Hz)	Continued continuity without degradation to mechanical or physical attributes following vibration. (Max acceleration 20 g's at Sine sweep of 10-2000Hz)

BoardLock™ Family Comparison Chart, cont.

Series	 BoardLock™ ATP	 BoardLock™ ATP13/15
Image		
Positions	2, 4 and 6	2 and 4
Current Rating	Size 12, 25A	Size 12, 25A
Flange	Flangeless	Flanged
Mounting Type	Snap-Fit or Self-Threading	Self-Threading
Pin Orientation	180° Straight	<b>ATP13:</b> 90° Right Angle / <b>ATP15:</b> 180° Straight
Contact Material/Plating	Copper Alloy/Gold, Tin Plating	Copper Alloy/Gold, Tin Plating
Contact Millivolt Drop	100 mV drop max at 25A current	100 mV drop max at 25A current
Contact Termination	Direct Solder	Direct Solder
Contact Types	Machined, PC Tail	Machined, PC Tail
Dielectric Value	Less than 2 milliamps current leakage @ 1500 volts AC	Less than 2 milliamps current leakage @ 1500 volts AC
Housing Material	Thermoplastic	Thermoplastic
Insulation Resistance	1000 megohms minimum at 25°C	1000 megohms minimum at 25°C
IP Rating	IP67 (mated) See datasheets	IP68 (mated) See datasheets
Keying Options	Not Applicable	Available in ATP15-, 4 pos only (A, B, C and D)
Mating Cycles	100 Cycles	100 Cycles
Operating Voltage	250 VDC	250 VDC
Seal Material	Silicone Rubber	Silicone Rubber
Temperature Range	-55°C to +125°C at rated current	-55°C to +125°C at rated current
Shock	No latch disengagement or discontinuity shall be the result when subjected to 50 g's in each of three axis (X, Y & Z)	No latch disengagement or discontinuity shall be the result when subjected to 50 g's in each of three axis (X, Y & Z)
Thermal Shock	Subjected to 10 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector	Subjected to 10 cycles at -55°C to +125°C with no cracking, chipping or other damage detrimental to the normal operation of the connector
Vibration	Continued continuity without degradation to mechanical or physical attributes following vibration. (Max acceleration 20 g's at Sine sweep of 10-2000Hz)	Continued continuity without degradation to mechanical or physical attributes following vibration. (Max acceleration 20 g's at Sine sweep of 10-2000Hz)

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