



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 | 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 Millivolt Drop | See individual series | Vibration | Continued continuity without degradation to mechanical or physical attributes following vibration. (Max acceleration 20 g's at Sine sweep of 10-2000Hz) |
| Contact Termination | Direct Solder | | |
| Contact Types | Machined, PC Tail | | |
| 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




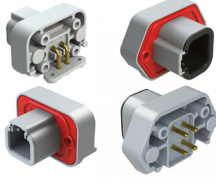
BoardLock™ Family Comparison Chart

| 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 | AT13: 90° Right Angle / AT15: 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 | ATM13: 90° Right Angle / ATM15: 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 | ATP13: 90° Right Angle / ATP15: 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) |

For more information, contact: Customer Service, +1 800 394 7732, csr@amphenol-sine.com

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