molex

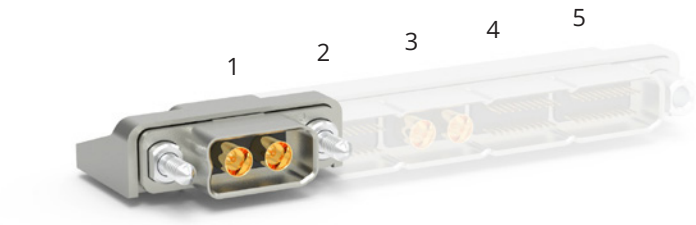




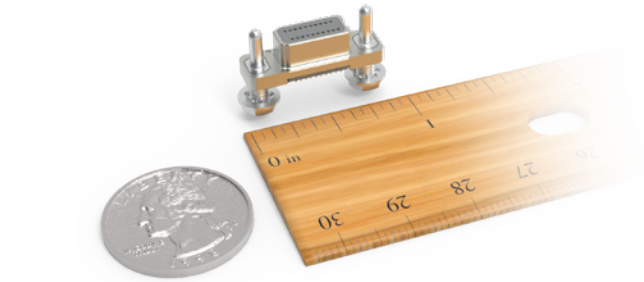
AirBorn SInergy

Modular High-Speed Hybrid Connectors

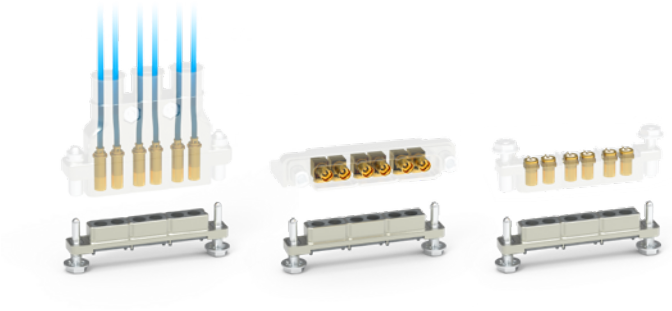
AirBorn SInergy | Overview



Multi-bay, die-cast metal connector system with interchangeable molded insulator bays.



One- and two-bay SInergy connectors are roughly the size of a US quarter — similar to Micro and Nano Ds.



SMPM (subminiature push-on micro) interface (0.173"/4.39mm) available in cable and board-mount models.



Vertical and right-angle board-mount connectors. Discrete-wire, power, SMPM RF and twinax cabling assemblies.

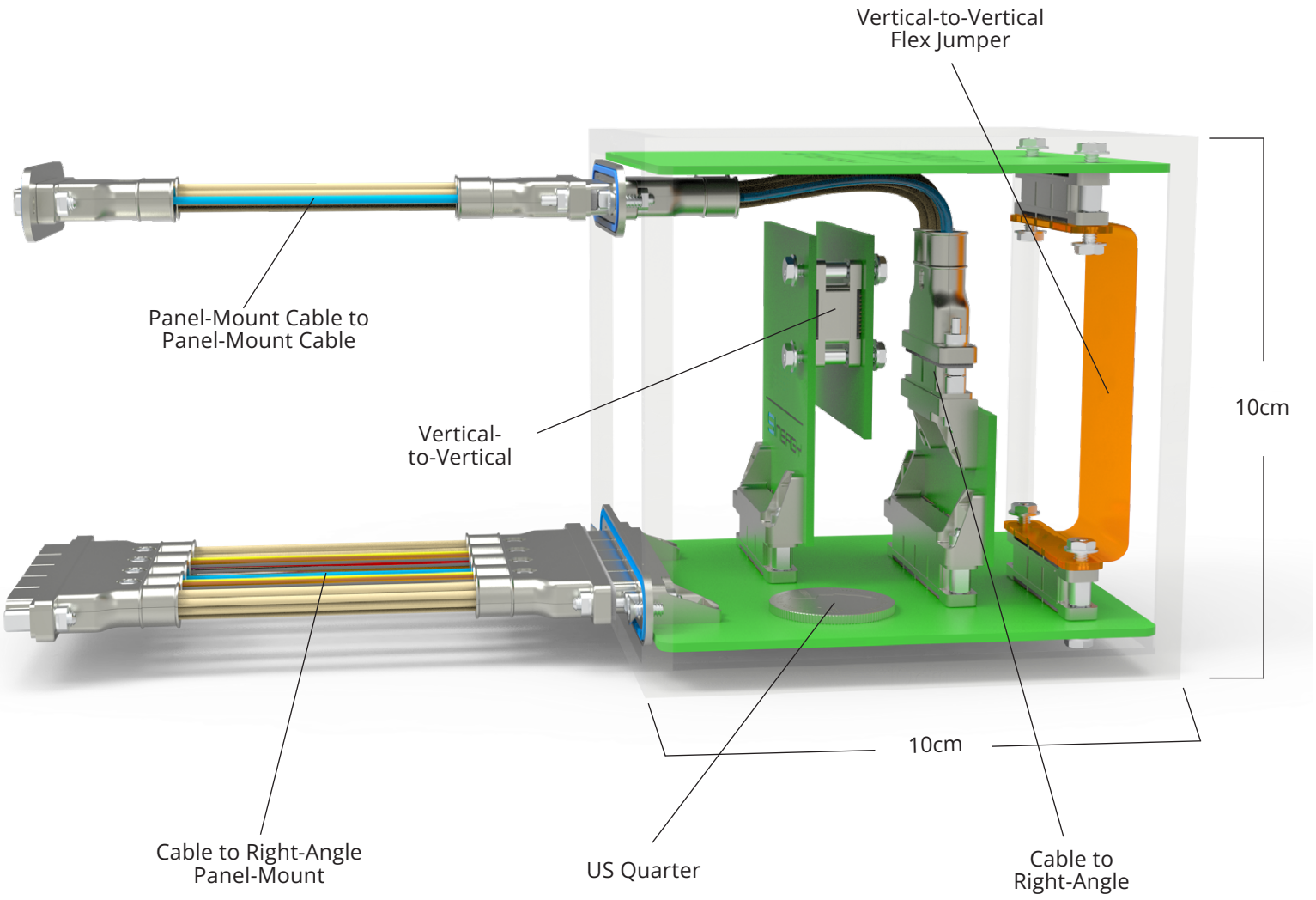
Small, Modular and Big Impact for RF, Signal and Power

Molex AirBorn SInergy Modular High-Speed Hybrid Connectors provide manufacturers a customizable, one-to-five-bay solution that combines high-power, high-speed data and RF contacts in a single rugged framework. Heavy-duty contacts deliver up to 25.0A, up to 25Gbps per lane (75Gbps aggregate) and RF to 40 GHz. Qualified to MIL-DTL-83513 and rated for shock, vibration, moisture and extreme temperatures, they enable position-by-position flexibility, reduce BOM and simplify qualification and supply chain for aerospace, defense and space applications.

Key Features and Benefits:

- 0.0315" (0.8mm) signal, 0.173" (4.39mm) SMPM RF and power pitch
- Choose from discrete-wire, power, SMPM RF or twinax cable variations
- High-density, multi-bay system
- Interchangeable molded insulator bays
- IPC-A-610 Class 3 SMT termination
- Locking, jacking and guide hardware available
- Rugged die-cast or machined metal bodies
- Data rates up to 25Gbps, frequencies up to 40 GHz, current up to 25.0A
- Qualification tests based on MIL-DTL-83513 performance requirements

Exceptional Design Flexibility



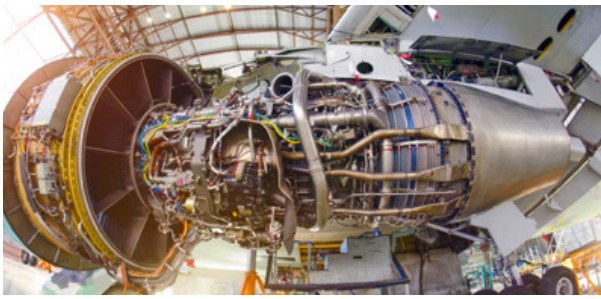
AirBorn SInergy: Modularity and Versatility

AirBorn SInergy connectors provide a high-speed, high-density configurable solution that enables manufacturers and design engineers to mix and match any available module within a single interface. These connectors offer vertical board-mount, right-angle board-mount, cable I/O and flex circuit mounting options to help navigate box design challenges.

Ruggedness and Reliability









Keys to Surviving the Most Extreme Conditions

With decades of proven reliability and earned trust among manufacturers and design engineers, AirBorn SInergy connectors deliver the rugged dependability essential for extreme applications where failure is not an option.

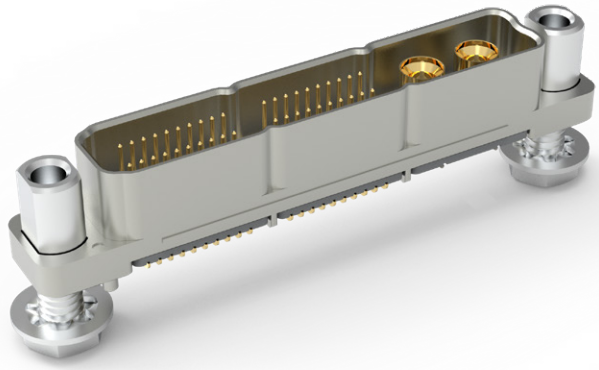
Applications:

- Avionics
- Drones
- Heads-up displays
- Combat vehicles
- Communication devices
- Radar systems
- Missile systems
- Radio communications
- Satellites
- Vision/Camera Systems

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SVR — Vertical Receptacle

Vertical board-mount receptacles feature one to five configurable bays, providing versatile connectivity options. AirBorn SInergy connectors are tested and qualified to meet MIL-DTL-83513 performance requirements. Standard panel-mount options are available.



Sample Part Number Format: SVR-A1R-G1A-HHR

SVR	–	☐	1	R	–	☐	A	–	☐	☐	☐	☐	☐

SERIES
AirBorn SInergy – Vertical Receptacle

SHELL/GASKET
A – Standard
B – Standard with interfacial seal
C – Panel-mount, no gasket or interfacial seal
D – Panel-mount with interfacial seal and gasket
E – Panel-mount with gasket and no interfacial seal

TERMINATION TYPE
1 – Surface-mount

TERMINATION FINISH
R – RoHS, 10µ inches gold over nickel[1]

HARDWARE KEYING
A – Standard, no key

HARDWARE OPTIONS
G1 – Guide socket - for use up to 0.125 PCB thickness
G2 – Guide socket - for use 0.125 to 0.250 PCB thickness
N1 – Fixed jack post - for use up to 0.125 PCB thickness
N2 – Fixed jack post - for use 0.125 to 0.250 PCB thickness
J1 – Turning jack screw - for use up to 0.125 PCB thickness
J2 – Turning jack screw - for use 0.125 to 0.250 PCB thickness
L1 – Turning lock screw - for use up to 0.125 PCB thickness
L2 – Turning lock screw - for use 0.125 to 0.250 PCB thickness

BAY A MODULE TYPE
H – High Density
R – RF (SMPM)
P – Power

BAY B MODULE TYPE
H – High Density
R – RF
P – Power
Blank – No bay B

BAY C MODULE TYPE
H – High Density
R – RF
P – Power
Blank – No bay C

BAY D MODULE TYPE
H – High Density
R – RF
P – Power
Blank – No bay D

BAY E MODULE TYPE
H – High Density
R – RF
P – Power
Blank – No bay E

NOTES:

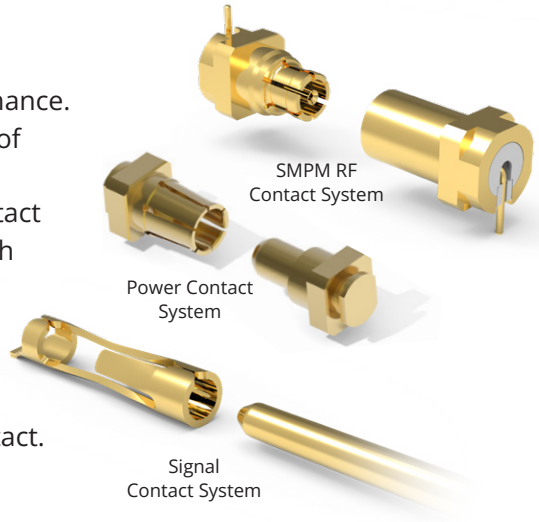
See Molex SPEC ESL6160 for additional application information.
[1] Applies to all surface-mount leads in all bays.
Please review product specification drawing SVR-XXX-XXX-XXXXX for complete configuration details.
See product specification drawings for replacement hardware kits and replacement gaskets.
SVR mates with connector series: SVP, SCPP, SCPX and SCRP (plug side).

NOTE: Please consult molex.com to configure your part number and for the latest revision controlled drawing and technical data.

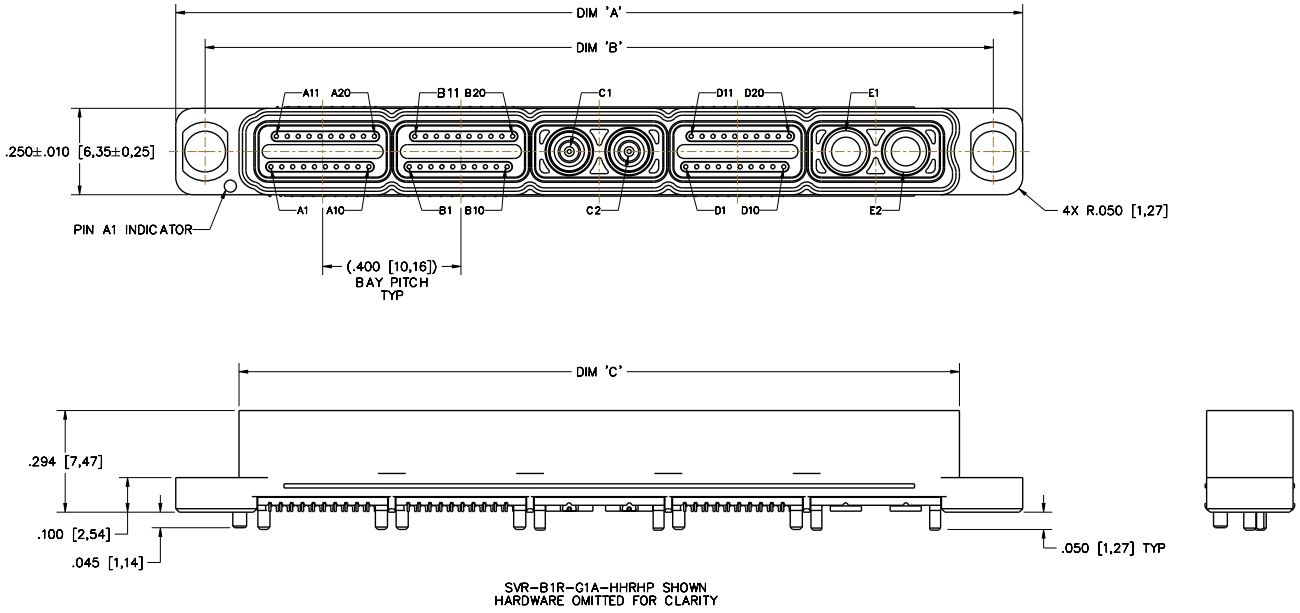
Rugged and Reliable Contact Every Time

AirBorn SInergy connectors use three contact systems for robust performance. The signal contact system features a single-piece design with four points of contact and 50 microinches of gold plating on a 0.0315" (0.8mm) pitch, meeting IPC-A-610 Class 3 SMT termination standards. The SMPM RF contact system follows SMPM interface specifications with a 0.173" (4.39mm) pitch for high-frequency signals. The power contact system provides dedicated power contacts and also uses a 0.173" (4.39mm) pitch.

Designed for military, aerospace and space applications, AirBorn SInergy connectors withstand extreme environments while ensuring reliable contact.

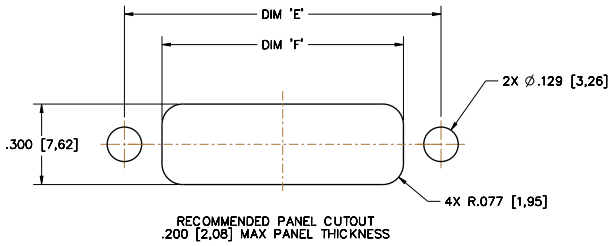


DIMENSIONS

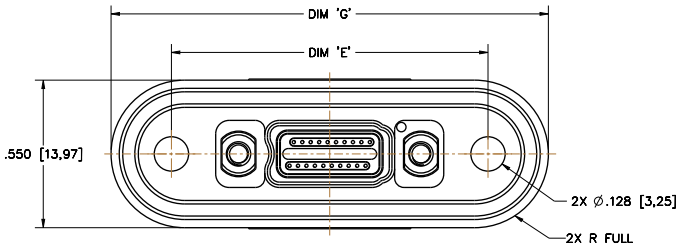


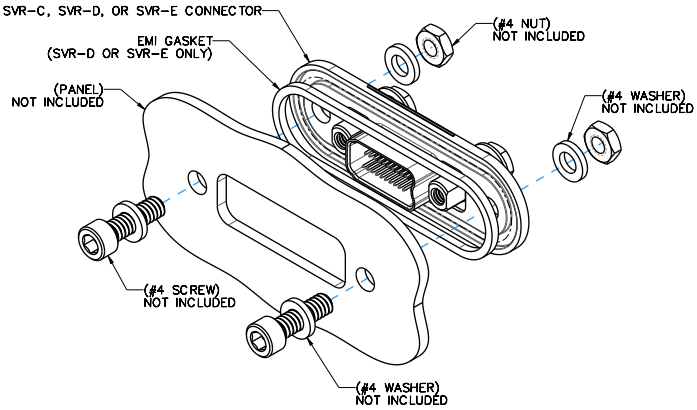
NUMBER OF BAYS	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
1 BAY	.850 [21,59]	.680 [17,27]	.484 [12,29]	.240 [6,10]
2 BAYS	1.250 [31,75]	1.080 [27,43]	.884 [22,45]	.440 [11,18]
3 BAYS	1.650 [41,91]	1.480 [37,59]	1.284 [32,61]	.640 [16,26]
4 BAYS	2.050 [52,07]	1.880 [47,75]	1.684 [42,77]	.840 [21,34]
5 BAYS	2.450 [62,23]	2.280 [57,91]	2.084 [52,93]	1.040 [26,42]

SVR PANEL-MOUNTING INSTRUCTIONS

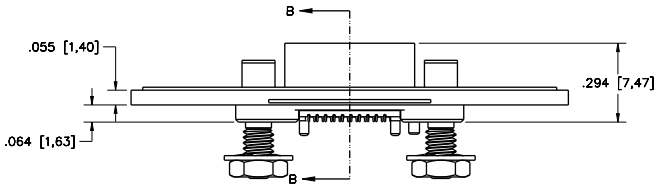


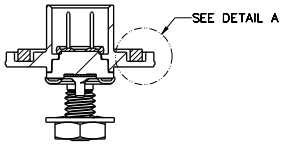
RECOMMENDED PANEL CUTOUT
.200 [2,08] MAX PANEL THICKNESS



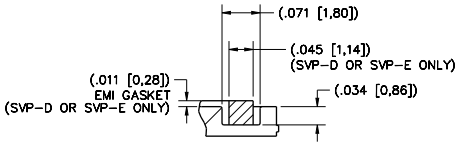


ISOMETRIC VIEW
FOR REFERENCE ONLY
(SVP-E1R-N1A-H SHOWN)





SECTION B-B



DETAIL A

NUMBER OF BAYS	DIM 'E'	DIM 'F'	DIM 'G'
1 BAY	1.180 [29,97]	.900 [22,86]	1.630 [41,40]
2 BAYS	1.580 [40,13]	1.300 [33,02]	2.030 [51,56]
3 BAYS	1.980 [50,29]	1.700 [43,18]	2.430 [61,72]
4 BAYS	2.380 [60,45]	2.100 [53,34]	2.830 [71,88]
5 BAYS	2.780 [70,61]	2.500 [63,50]	3.230 [82,04]

Please consult the Molex website for the latest revision of this document prior to beginning any design work.

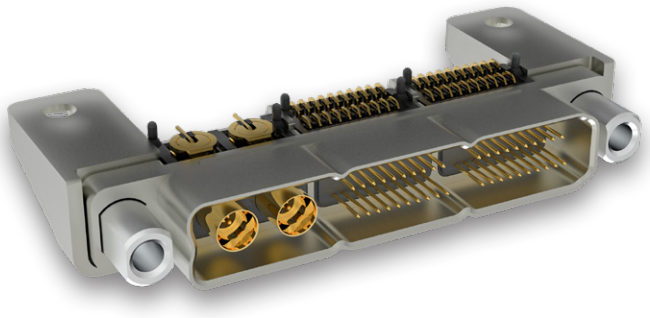
SVR MATERIALS AND FINISHES

MATERIAL AND FINISHES, ALL MODULES		
Molded Insulators	Material	Glass-filled liquid crystal polymer (LCP)
Shells	Material	Zinc alloy 3 per SAE AMS4803 (AG40A) or aluminum alloy 6061-T6 per SAE AMS-4027 or 6061-T6511 per SAE AMS-QQ-A-200/8
	Finish	Electroless nickel, 500µ in min per SAE AMS2404, class 3
Hardware	Washer Material	Stainless steel per SAE NASM35333 (ASTM A240)
	Washer Finish	Passivated per SAE NASM35333 (SAE AMS-2700)
	Jack Post Material	Nitronic 60 per ASTM A193/A193M
	Jack Post Finish	Passivated per SAE AMS-2700
	Remaining Hardware Material	Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320
	Remaining Hardware Finish	Passivated per SAE AMS-2700
Interfacial Seal	Material	Fluorosilicone elastomer per MIL-DTL-25988
Panel-Mount Gasket	Material	Conductive elastomer per MIL-DTL-83528, type D
HD MODULES		
Pin Contact	Material	Phosphor bronze per ASTM B103
	Finish (Pin End)	50µ in min localized gold per ASTM B 488, type II, code Cover 50µ in min nickel per ASTM B689, type 1
	Finish (Termination)	10-20µ in localized gold flash per ASTM B488 type I, code A or C over 50µ in min nickel per ASTM B689 type 1
Embedment	Material	Frey Eng. Co. Insulating compound CF3003-80 or equivalent
RF MODULES		
RF Contact	Material (Pin and Socket)	BeCu per ASTM B196
	Material (Bushings)	Brass per JIS-C3604
	Material (Dielectric)	PTFE (white) per ASTM D1710
	Finish (Pin and Socket)	30µ in min localized gold over 100µ in min nickel per MIL-G-45204 type 1, class 4
	Finish (Bushing and Center Termination)	10µ in min localized gold over 100µ1n min nickel per MIL-G-45204 type 1, class 2
	Finish (Dielectric)	N/A
POWER MODULES		
Power Contact	Material	Copper Alloy
	Finish	50µ in min gold plate per ASTM B488, type II, code C over 50µ in min nickel plate per SAE AMS-2424, low stress

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SRR — Right-Angle Receptacle

Right-angle board-mount receptacles feature one to five configurable bays, providing versatile connectivity options. AirBorn SInergy connectors are tested and qualified to meet MIL-DTL-83513 performance requirements. Standard panel-mount options are available.



Sample Part Number Format: SRR-A1R-G1A-HHR

SRR	–	☐	1	R	–	☐	A	–	☐	☐	☐	☐	☐
SERIES		SHELL/GASKET	TERMINATION TYPE	TERMINATION FINISH		HARDWARE OPTIONS	HARDWARE KEYING		BAY A MODULE TYPE	BAY B MODULE TYPE	BAY C MODULE TYPE	BAY D MODULE TYPE	BAY E MODULE TYPE

SERIES
AirBorn SInergy Right-Angle Receptacle

SHELL/GASKET
A – Standard
B – Standard with interfacial seal
C – Panel-mount, no gasket or interfacial seal
D – Panel-mount with interfacial seal and gasket
E – Panel-mount with gasket and no interfacial seal

TERMINATION TYPE
1 – Surface-mount

TERMINATION FINISH
R – RoHS, 10µ inches gold over nickel[1]

HARDWARE OPTIONS
G1 – Guide socket
N1 – Fixed jack post
J1 – Turning jack screw
L1 – Turning lock screw

HARDWARE KEYING
A – Standard, no key

BAY A MODULE TYPE
H – High Density
R – RF (SMPM)
P – Power

BAY B MODULE TYPE
H – High Density
R – RF
P – Power
Blank – No bay B

BAY C MODULE TYPE
H – High Density
R – RF
P – Power
Blank – No bay C

BAY D MODULE TYPE
H – High Density
R – RF
P – Power
Blank – No bay D

BAY E MODULE TYPE
H – High Density
R – RF
P – Power
Blank – No bay E

NOTES:

See Molex SPEC ESL6160 for additional application information.

[1] Applies to all surface-mount leads in all bays.

Please review product specification drawing SRR-XXX-XXX-XXXXX for complete configuration details.

See product specification drawings for replacement hardware kits and replacement gaskets.

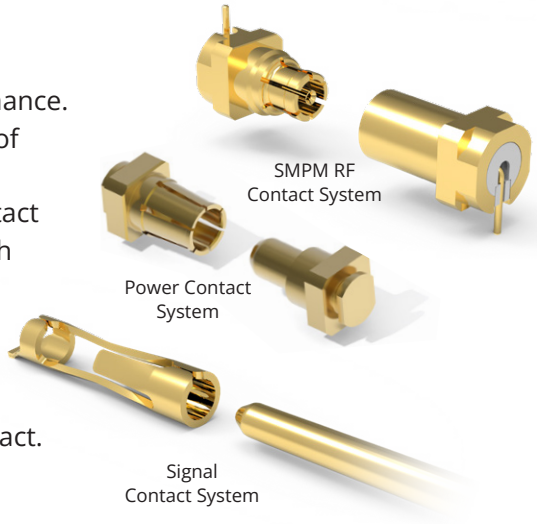
SR mates with connector series: SVP, SCPP, SCPX and SCRP (plug side).

NOTE: Please consult molex.com to configure your part number and for the latest revision controlled drawing and technical data.

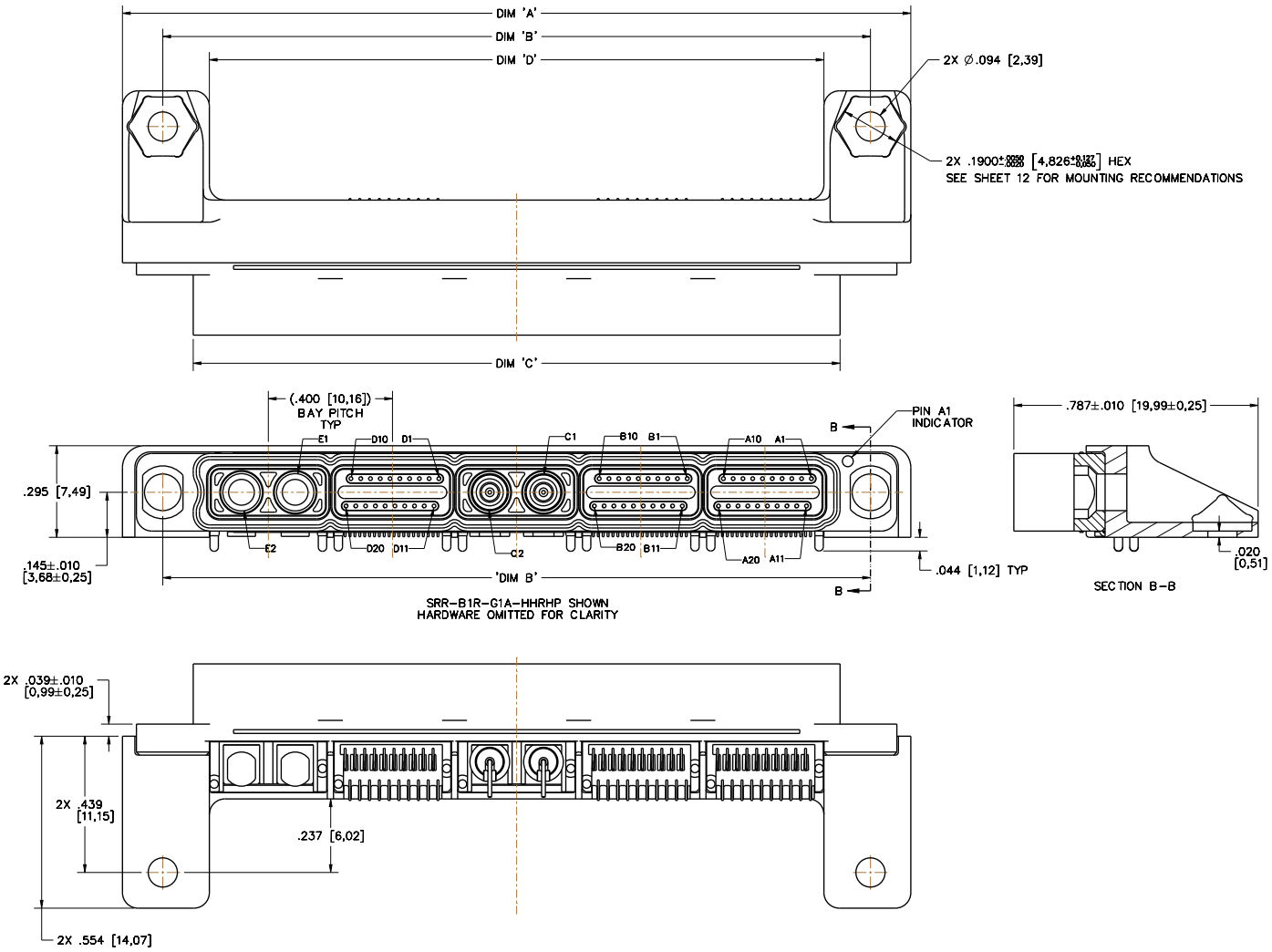
Rugged and Reliable Contact Every Time

AirBorn SInergy connectors use three contact systems for robust performance. The signal contact system features a single-piece design with four points of contact and 50 microinches of gold plating on a 0.0315" (0.8mm) pitch, meeting IPC-A-610 Class 3 SMT termination standards. The SMPM RF contact system follows SMPM interface specifications with a 0.173" (4.39mm) pitch for high-frequency signals. The power contact system provides dedicated power contacts and also uses a 0.173" (4.39mm) pitch.

Designed for military, aerospace and space applications, AirBorn SInergy connectors withstand extreme environments while ensuring reliable contact.



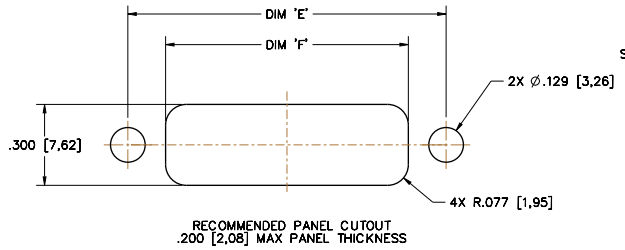
DIMENSIONS



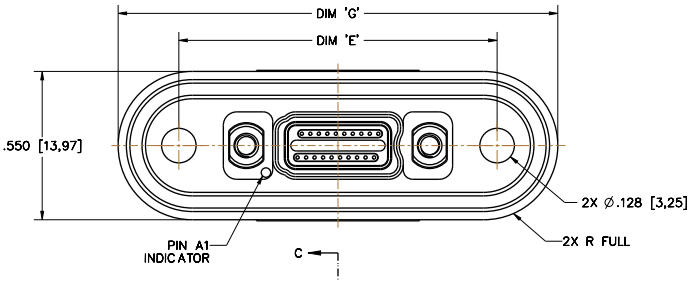
NUMBER OF BAYS	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
1 BAY	.940 [23,88]	.680 [17,27]	.484 [12,29]	.380 [9,65]
2 BAYS	1.340 [34,04]	1.080 [27,43]	.884 [22,45]	.780 [19,81]
3 BAYS	1.740 [44,20]	1.480 [37,59]	1.284 [32,61]	1.180 [29,97]
4 BAYS	2.140 [54,36]	1.880 [47,75]	1.684 [42,77]	1.580 [40,13]
5 BAYS	2.540 [64,52]	2.280 [57,91]	2.084 [52,93]	1.980 [50,29]

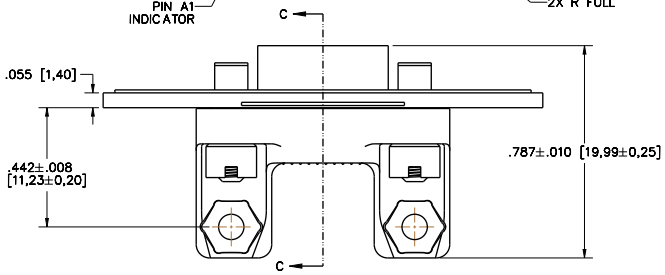
Please consult the Molex website for the latest revision of this document prior to beginning any design work.

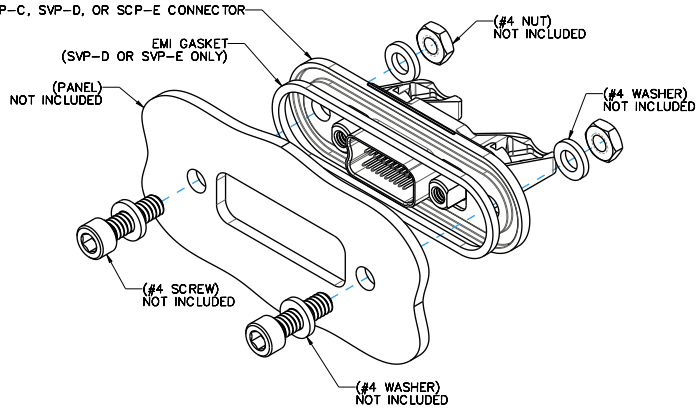
SRR PANEL-MOUNTING INSTRUCTIONS



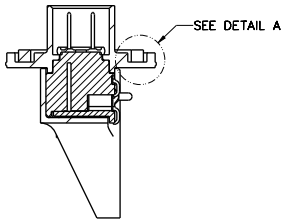
RECOMMENDED PANEL CUTOUT
.200 [2,08] MAX PANEL THICKNESS



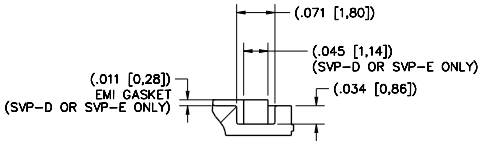




ISOMETRIC VIEW
FOR REFERENCE ONLY
(SVP-E1R-N1A-H SHOWN)



SECTION C-C



DETAIL A

NUMBER OF BAYS	DIM 'E'	DIM 'F'	DIM 'G'
1 BAY	1.180 [29,97]	.900 [22,86]	1.630 [41,40]
2 BAYS	1.580 [40,13]	1.300 [33,02]	2.030 [51,56]
3 BAYS	1.980 [50,29]	1.700 [43,18]	2.430 [61,72]
4 BAYS	2.380 [60,45]	2.100 [53,34]	2.830 [71,88]
5 BAYS	2.780 [70,61]	2.500 [63,50]	3.230 [82,04]

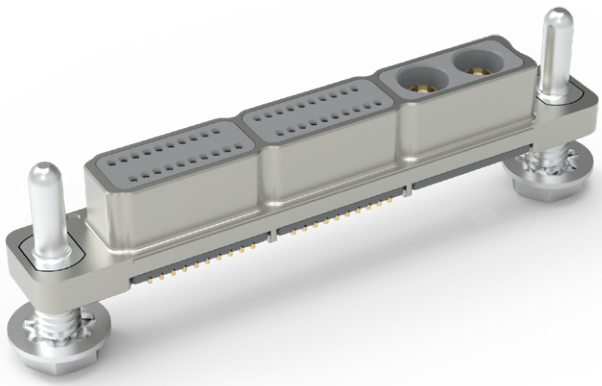
SRR MATERIALS AND FINISHES

MATERIAL AND FINISHES, ALL MODULES		
Molded Insulators	Material	Glass-filled liquid crystal polymer (LCP)
Shells	Material	Zinc alloy 3 per SAE AMS4803 (AG40A) or aluminum alloy 6061-T6 per SAE AMS-4027 or 6061-T6511 per SAE AMS-QQ-A-200/8
	Finish	Electroless nickel, 500µ in min per SAE AMS2404, class 3
Hardware	Jack Post Material	Nitronic 60 per ASTM A193/A193M
	Jack Post Finish	Passivated per SAE AMS-2700
	Remaining Hardware Material	Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320
	Remaining Hardware Finish	Passivated per SAE AMS-2700
Interfacial Seal	Material	Fluorosilicone elastomer per MIL-DTL-25988
Panel-Mount Gasket	Material	Conductive elastomer per MIL-DTL-83528, type D
HD MODULES		
Pin Contact	Material	Phosphor bronze per ASTM B103
	Finish (Pin End)	50µ in min localized gold per ASTM B 488, type II, code C over 50µ in min nickel per ASTM B689, type 1
	Finish (Termination)	10-20µ in localized gold flash per ASTM B488 type I, code A or C over 50µ in min nickel per ASTM B689 type 1
Embedment	Material	Frey Eng. Co. Insulating compound CF3003-80 or equivalent
RF MODULES		
RF Contact	Material (Pin and Socket)	BeCu per ASTM B196
	Material (Bushings)	Brass per JIS-C3604
	Material (Dielectric)	PTFE (white) per ASTM D1710
	Finish (Pin and Socket)	30µ in min localized gold over 100µ in min nickel per MIL-G-45204 type 1, class 4
	Finish (Bushing and Center Termination)	10µ in min localized gold over 100µ1n min nickel per MIL-G-45204 type 1, class 2
	Finish (Dielectric)	N/A
POWER MODULES		
Power	Material	Copper Alloy
	Finish	50µ in min gold plate per ASTM B488, type II, code C over 50µ in min nickel plate per SAE AMS-2424, low stress

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SVP — Vertical Plug

Vertical board-mount plugs feature one to five configurable bays, providing versatile connectivity options. AirBorn SInergy connectors are tested and qualified to meet MIL-DTL-83513 performance requirements. Standard panel-mount options are available.



Sample Part Number Format: SVP-A1R-G1A-HHR

SVP	–	☐	1	R	–	☐	A	–	☐	☐	☐	☐	☐
SERIES		SHELL/GASKET	TERMINATION TYPE	TERMINATION FINISH		HARDWARE OPTIONS	HARDWARE KEYING		BAY A MODULE TYPE	BAY B MODULE TYPE	BAY C MODULE TYPE	BAY D MODULE TYPE	BAY E MODULE TYPE

SERIES
AirBorn SInergy – Vertical Plug

SHELL/GASKET
A – Standard
C – Panel-mount without gasket
E – Panel-mount with gasket

TERMINATION TYPE
1 – Surface-mount

TERMINATION FINISH
R – RoHS, 10µ inches gold over nickel[1]

HARDWARE OPTIONS
G1 – Guide pin - for use up to 0.125 PCB thickness
G2 – Guide pin - for use 0.125 to 0.250 PCB thickness
N1 – Fixed jack post - for use up to 0.125 PCB thickness
N2 – Fixed jack post - for use 0.125 to 0.250 PCB thickness
J1 – Turning jack screw - for use up to 0.125 PCB thickness
J2 – Turning jack screw - for use 0.125 to 0.250 PCB thickness
L1 – Turning lock screw - for use up to 0.125 PCB thickness
L2 – Turning lock screw - for use 0.125 to 0.250 PCB thickness

HARDWARE KEYING
A – Standard, no key

BAY A MODULE TYPE
H – High Density
R – RF (SMPM)
P – Power

BAY B MODULE TYPE
H – High Density
R – RF
P – Power
Blank – No bay B

BAY C MODULE TYPE
H – High Density
R – RF
P – Power
Blank – No bay C

BAY D MODULE TYPE
H – High Density
R – RF
P – Power
Blank – No bay D

BAY E MODULE TYPE
H – High Density
R – RF
P – Power
Blank – No bay E

NOTES:

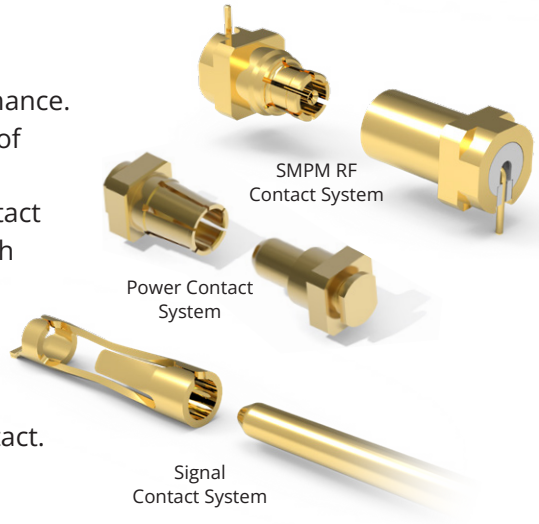
See Molex SPEC ESL6160 for additional application information.
[1] Applies to all surface-mount leads in all bays.
Please review product specification drawing SVR-XXX-XXX-XXXXX for complete configuration details.
See product specification drawings for replacement hardware kits and replacement gaskets.
SVP mates with connector series: SVR, SRR, SCRR, SCRX and SCRP (receptacle side).

NOTE: Please consult molex.com to configure your part number and for the latest revision controlled drawing and technical data.

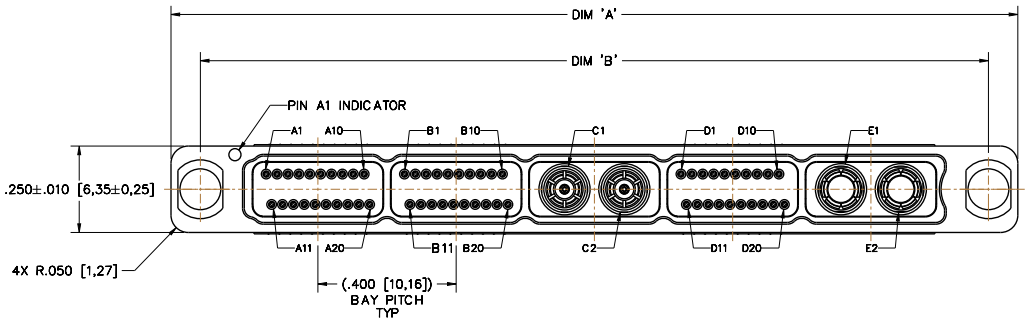
Rugged and Reliable Contact Every Time

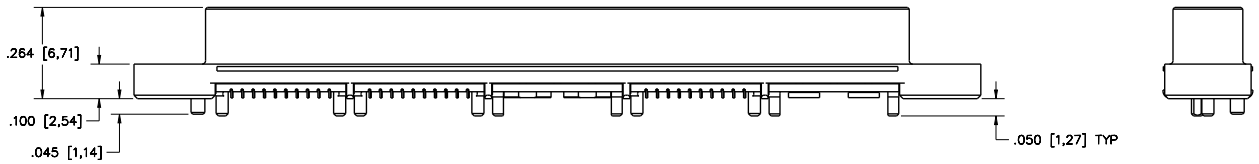
AirBorn SInergy connectors use three contact systems for robust performance. The signal contact system features a single-piece design with four points of contact and 50 microinches of gold plating on a 0.0315" (0.8mm) pitch, meeting IPC-A-610 Class 3 SMT termination standards. The SMPM RF contact system follows SMPM interface specifications with a 0.173" (4.39mm) pitch for high-frequency signals. The power contact system provides dedicated power contacts and also uses a 0.173" (4.39mm) pitch.

Designed for military, aerospace and space applications, AirBorn SInergy connectors withstand extreme environments while ensuring reliable contact.

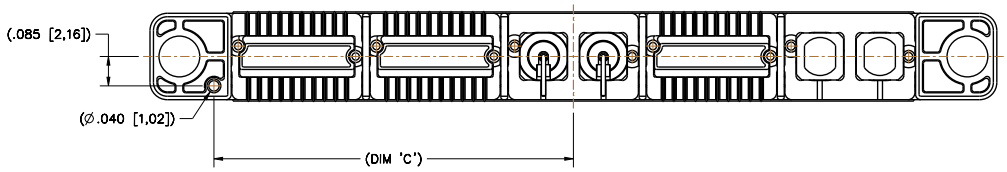


DIMENSIONS





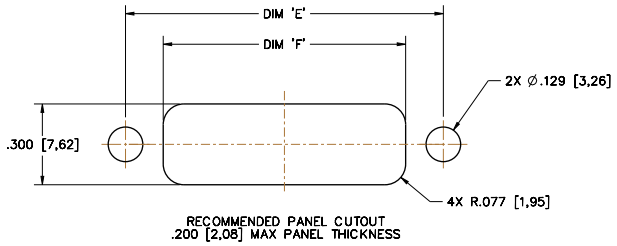
SVP-A1R-G1A-HHRHP SHOWN
HARDWARE OMITTED FOR CLARITY



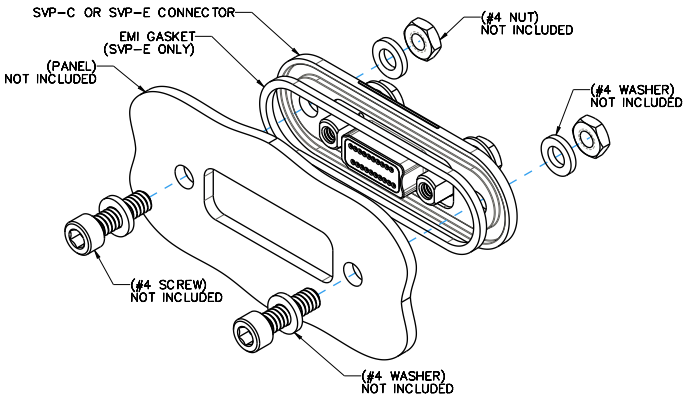
NUMBER OF BAYS	DIM 'A'	DIM 'B'	DIM 'C'
1 BAY	.850 [21,59]	.680 [17,27]	.240 [6,10]
2 BAYS	1.250 [31,75]	1.080 [27,43]	.440 [11,18]
3 BAYS	1.650 [41,91]	1.480 [37,59]	.640 [16,26]
4 BAYS	2.050 [52,07]	1.880 [47,75]	.840 [21,34]
5 BAYS	2.450 [62,23]	2.280 [57,91]	1.040 [26,42]

Please consult the Molex website for the latest revision of this document prior to beginning any design work.

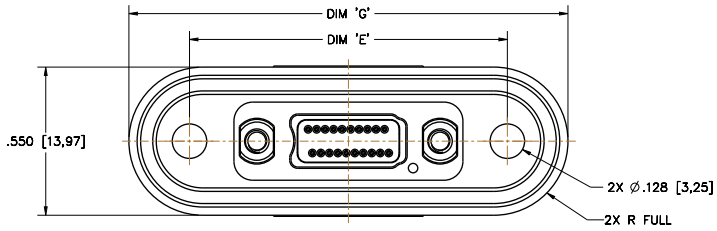
SVP PANEL-MOUNTING INSTRUCTIONS

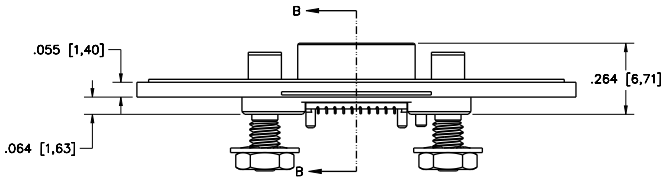


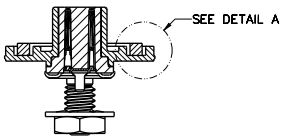
RECOMMENDED PANEL CUTOUT
.200 [2,08] MAX PANEL THICKNESS



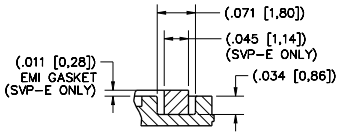
ISOMETRIC VIEW
FOR REFERENCE ONLY
(SVP-E1R-N1A-H SHOWN)







SECTION B-B



DETAIL A

NUMBER OF BAYS	DIM 'E'	DIM 'F'	DIM 'G'
1 BAY	1.180 [29,97]	.900 [22,86]	1.630 [41,40]
2 BAYS	1.580 [40,13]	1.300 [33,02]	2.030 [51,56]
3 BAYS	1.980 [50,29]	1.700 [43,18]	2.430 [61,72]
4 BAYS	2.380 [60,45]	2.100 [53,34]	2.830 [71,88]
5 BAYS	2.780 [70,61]	2.500 [63,50]	3.230 [82,04]

Please consult the Molex website for the latest revision of this document prior to beginning any design work.

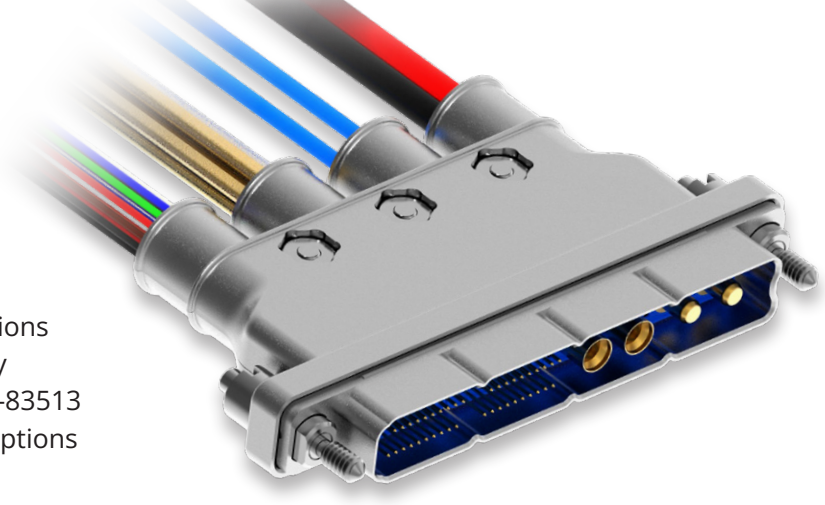
SVP MATERIALS AND FINISHES

MATERIAL AND FINISHES, ALL MODULES		
Molded Insulators	Material	Glass-filled liquid crystal polymer (LCP)
Shells	Material	Zinc alloy 3 per SAE AMS4803 (AG40A) or aluminum alloy 6061-T6 per SAE AMS-4027 or 6061-T6511 per SAE AMS-QQ-A-200/8
	Finish	Electroless nickel, 500µ in min per SAE AMS2404, class 3
Hardware	Washer Material	Stainless steel per SAE NASM35333 (ASTM A240)
	Washer Finish	Passivated per SAE NASM35333 (SAE AMS-2700)
	Jack Post Material	Nitronic 60 per ASTM A193/A193M
	Jack Post Finish	Passivated per SAE AMS-2700
	Remaining Hardware Material	Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320
	Remaining Hardware Finish	Passivated per SAE AMS-2700
Panel-Mount Gasket	Material	Conductive elastomer per MIL-DTL-83528, type D
HD MODULES		
Pin Contact	Material	Phosphor bronze per ASTM B103
	Finish (Pin End)	50µ in min localized gold per ASTM B 488, type II, code C over 50µ in min nickel per ASTM B689, type 1
	Finish (Termination)	10-20µ in localized gold flash per ASTM B488 type I, code A or C over 50µ in min nickel per ASTM B689 type 1
Embedment	Material	Frey Eng. Co. Insulating compound CF3003-80 or equivalent
RF MODULES		
RF Contact	Material (Pin and Socket)	BeCu per ASTM B196
	Material (Bushings)	Brass per JIS-C3604
	Material (Dielectric)	PTFE (white) per ASTM D1710
	Finish (Pin and Socket)	30µ in min localized gold over 100µ in min nickel per MIL-G-45204 type 1, class 4
	Finish (Bushing and Center Termination)	10µ in min localized gold over 100µ1n min nickel per MIL-G-45204 type 1, class 2
	Finish (Dielectric)	N/A
POWER MODULES		
Power	Material	Copper Alloy
	Finish	50µ in min gold plate per ASTM B488, type II, code C over 50µ in min nickel plate per SAE AMS-2424, low stress

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SC — Cables

Twinax, discrete-wire, SMPM RF and power cable options feature one to five configurable bays. AirBorn SInergy connectors are tested and qualified to meet MIL-DTL-83513 performance requirements. Standard panel-mount options are available.



Sample Part Number Format: SCRP-BJA-XXX-100-TCT

SC [ ][ ] – [ ][ ] A – [ ][ ][ ] – [ ][ ][ ] – [ ][ ][ ][ ][ ]

SERIES
AirBorn SInergy – Cable

CONNECTOR 2 GENDER
R – Receptacle
P – Plug
X – Flying leads

CONNECTOR 1 GENDER
R – Receptacle
P – Plug

CONNECTOR 1 HARDWARE KEYING
A – Standard, no key

CONNECTOR 1 HARDWARE
G – Guide socket
N – Fixed jack post
J – Turning jack screw
L – Turning lock screw

CONNECTOR 1 SHELL/GASKET
A – Standard
B – Standard, with interfacial seal (receptacle only)
C – Panel-mount, no gasket or interfacial seal
D – Panel-mount, with interfacial seal and gasket (receptacle only)
E – Panel-mount, with gasket and no interfacial seal

CONNECTOR 2 HARDWARE KEYING
A – Standard, no key
X – Flying leads

CONNECTOR 2 HARDWARE
G – Guide socket
N – Fixed jack post
J – Turning jack screw
L – Turning lock screw
X – Flying leads

CONNECTOR 2 SHELL/GASKET
A – Standard
B – Standard, with interfacial seal (receptacle only)
C – Panel-mount, no gasket or interfacial seal
D – Panel-mount, with interfacial seal and gasket (receptacle only)
E – Panel-mount, with gasket and no interfacial seal
X – Flying leads

LENGTH
See opposite page

BAY A MODULE TYPE
C – Discrete-wire
T – Twinax
R – RF (SMPM)
P – Power

BAY B MODULE TYPE
C – Discrete-wire
T – Twinax
R – RF (SMPM)
P – Power
Blank – No Bay E

BAY C MODULE TYPE
C – Discrete-wire
T – Twinax
R – RF (SMPM)
P – Power
Blank – No Bay E

BAY D MODULE TYPE
C – Discrete-wire
T – Twinax
R – RF (SMPM)
P – Power
Blank – No Bay E

BAY E MODULE TYPE
C – Discrete-wire
T – Twinax
R – RF (SMPM)
P – Power
Blank – No Bay E

NOTES:

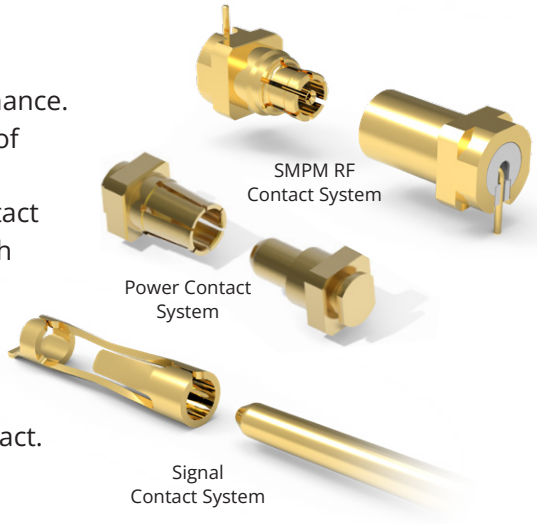
Flying leads not available for RF models.

NOTE: Please consult molex.com to configure your part number and for the latest revision controlled drawing and technical data.

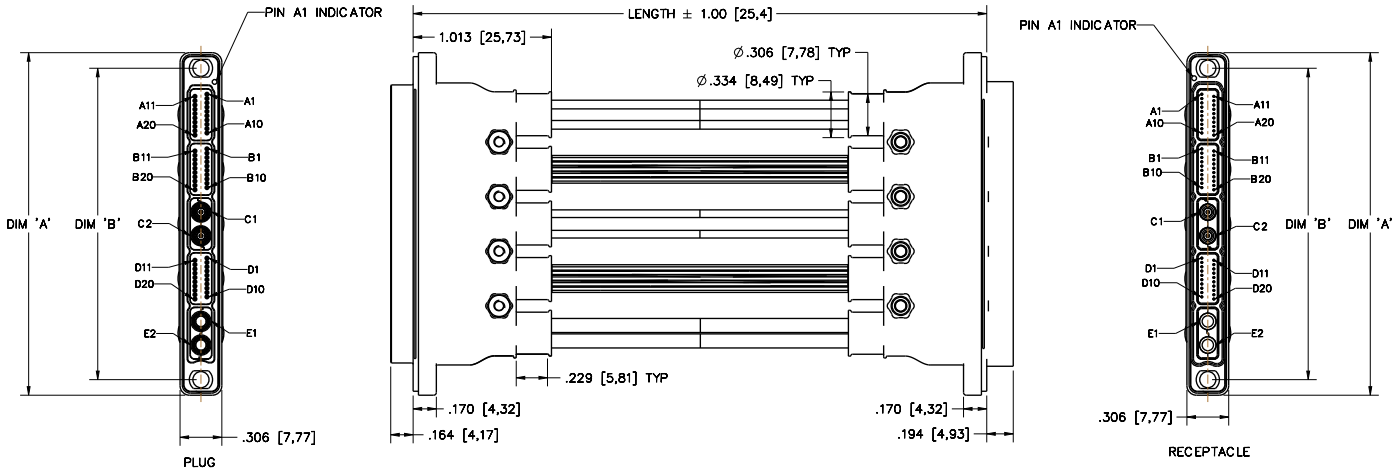
Rugged and Reliable Contact Every Time

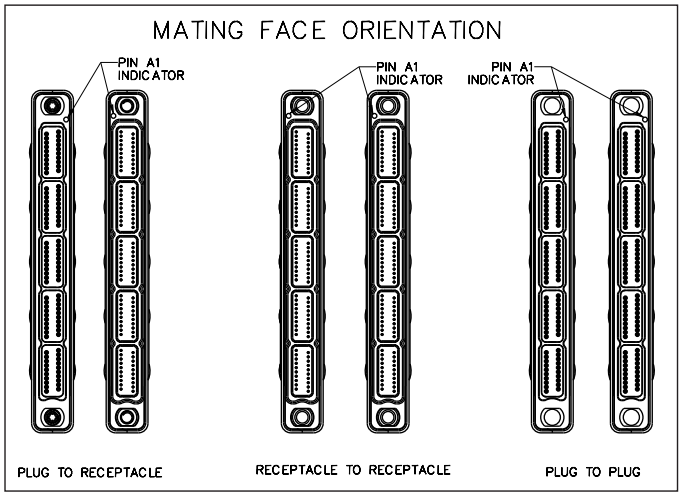
AirBorn SInergy connectors use three contact systems for robust performance. The signal contact system features a single-piece design with four points of contact and 50 microinches of gold plating on a 0.0315" (0.8mm) pitch, meeting IPC-A-610 Class 3 SMT termination standards. The SMPM RF contact system follows SMPM interface specifications with a 0.173" (4.39mm) pitch for high-frequency signals. The power contact system provides dedicated power contacts and also uses a 0.173" (4.39mm) pitch.

Designed for military, aerospace and space applications, AirBorn SInergy connectors withstand extreme environments while ensuring reliable contact.



DIMENSIONS



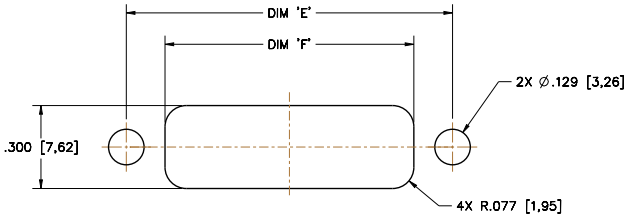


NUMBER OF BAYS	DIM 'A'	DIM 'B'
1 BAY	.908 [23,06]	.680 [17,27]
2 BAYS	1.308 [33,22]	1.080 [27,43]
3 BAYS	1.708 [43,38]	1.480 [37,59]
4 BAYS	2.108 [53,54]	1.880 [47,75]
5 BAYS	2.508 [63,70]	2.280 [57,91]

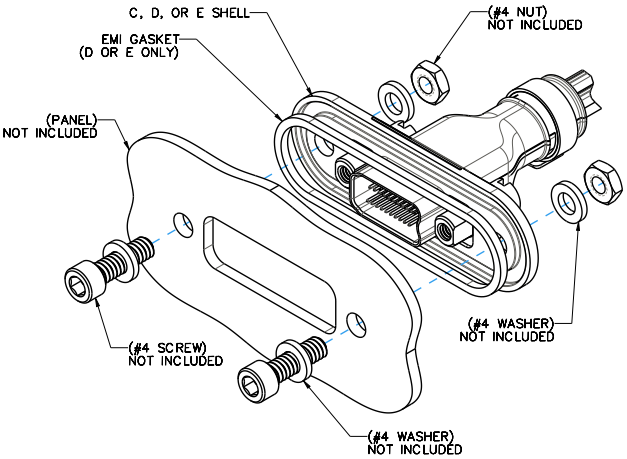
LENGTH*		
CODE	LENGTH (M)	LENGTH (IN)
010	0.10	3.94±.50
020	0.20	7.87±.50
030	0.30	11.81±.50
040	0.40	15.75±1.00
050	0.50	19.69±1.00
060	0.60	23.62±1.00
070	0.70	27.56±1.00
080	0.80	31.50±1.00
090	0.90	35.43±1.00
100	1.00	39.37±2.00
150	1.50	59.06±2.00
200	2.00	78.74±2.00
300	3.00	118.11±2.00

Please consult the Molex website for the latest revision of this document prior to beginning any design work.

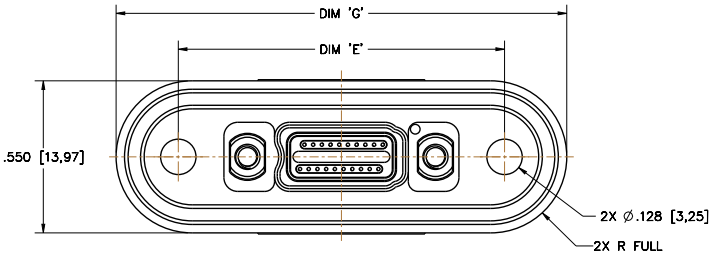
SC PANEL-MOUNTING INSTRUCTIONS

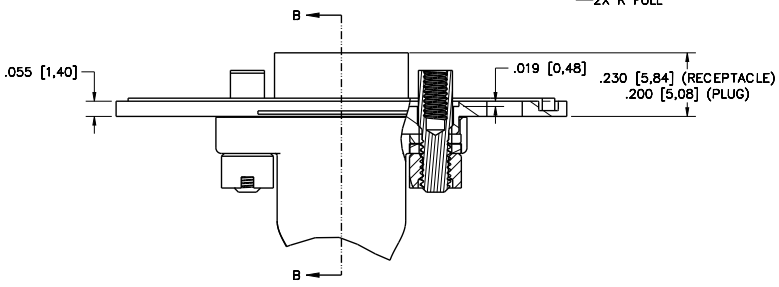


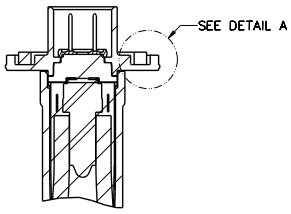
RECOMMENDED PANEL CUTOUT
.200 [2,08] MAX PANEL THICKNESS



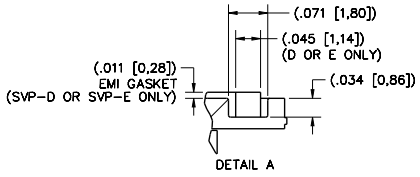
ISOMETRIC VIEW
FOR REFERENCE ONLY
(SCRX-E1R-XXX-H SHOWN)







SECTION B-B



DETAIL A

NUMBER OF BAYS	DIM 'E'	DIM 'F'	DIM 'G'
1 BAY	1.180 [29,97]	.900 [22,86]	1.630 [41,40]
2 BAYS	1.580 [40,13]	1.300 [33,02]	2.030 [51,56]
3 BAYS	1.980 [50,29]	1.700 [43,18]	2.430 [61,72]
4 BAYS	2.380 [60,45]	2.100 [53,34]	2.830 [71,88]
5 BAYS	2.780 [70,61]	2.500 [63,50]	3.230 [82,04]

Please consult the Molex website for the latest revision of this document prior to beginning any design work.

SC MATERIALS AND FINISHES

MATERIAL AND FINISHES, ALL MODULES		
Molded Insulators	Material	Glass-filled liquid crystal polymer (LCP)
Shells	Material	Zinc alloy 3 per SAE AMS4803 (AG40A) or aluminum alloy 6061-T6 per SAE AMS-4027 or 6061-T6511 per SAE AMS-QQ-A-200/8
	Finish	Electroless nickel, 500µ in min per SAE AMS2404, class 3
Hardware	Socket Head Cap Screw Material	Stainless steel per NAS1352
	Socket Head Cap Screw Finish	Passivated per NAS13
	Jack Post Material	Nitronic 60 per ASTM A193/A193M
	Jack Post Finish	Passivated per SAE AMS-2700
	Remaining Hardware Material	Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320
	Remaining Hardware Finish	Passivated per SAE AMS-2700
Band Clamp (Single Bay Only)	Material	Stainless steel per TBD
	Finish	Passivated per AMS2700
Solder	Material	SAC305, 95.5% Sn, 3.0% Ag, .5% Cu
Overmold	Material	TBD
Interfacial Gasket	Material	Fluorosilicone elastomer per MIL-DTL-25988
Panel-Mount Gasket	Material	Conductive elastomer per MIL-DTL-83528, type D
TWINAX AND DISCRETE-WIRE MODULES		
Contact	Pin Material	Phosphor bronze per ASTM B103
	Socket Material	BeCu Per ASTM B194
	Finish (Mating End)	50µ in min localized gold per ASTM B 488, type II, code C over 50µ in min nickel per ASTM B689, type 1
Twinax/Discrete-Wire		See product spec. drawing SCXX-XXX-XXX-XXX-XXXXX
RF MODULE		
RF Contact	Material (Pin and Socket)	BeCu per ASTM B196
	Material (Bushings)	Brass per JIS-C3604
	Material (Dielectric)	PTFE (white) per ASTM D1710
	Finish (Pin and Socket)	30µ in min localized gold over 100µ in min nickel per MIL-G-45204 type 1, class 4
	Finish (Brushing and Center Termination)	10µ in min localized gold over 100µ1n min nickel per MIL-G-45204 type 1, class 2
	Finish (Dielectric)	N/A
Coaxial Cable		See product spec. drawing SCXX-XXX-XXX-XXX-XXXXX
POWER MODULE		
Power	Material	Copper Alloy
	Finish	50µ in min gold plate per ASTM B488, type II, code C over 50µ in min nickel plate per SAE AMS-2424, low stress

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