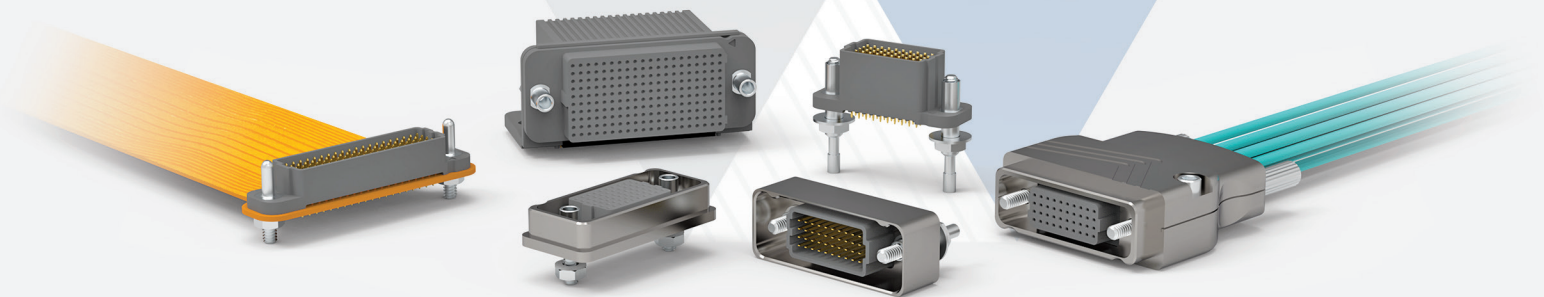


molex



AirBorn verSI Series

High-Density Connectors

AirBorn verSI Series | Overview



AirBorn verSI Series: High Speed and High Reliability

AirBorn verSI (**V**ersatile **S**ignal **I**ntegrity) Series is an open-pin field product line designed to meet the requirements of high-speed, high-density, 100 Ω differential serial bus applications with superior signal integrity—all while delivering the reliability customers have come to expect.

Please visit molex.com to configure a part number, learn more about electrical models, review more product specification details, or review the AirBorn verSI Series signal integrity performance white paper. ESL6004 qualification testing information is also available online.

Key Features and Benefits:

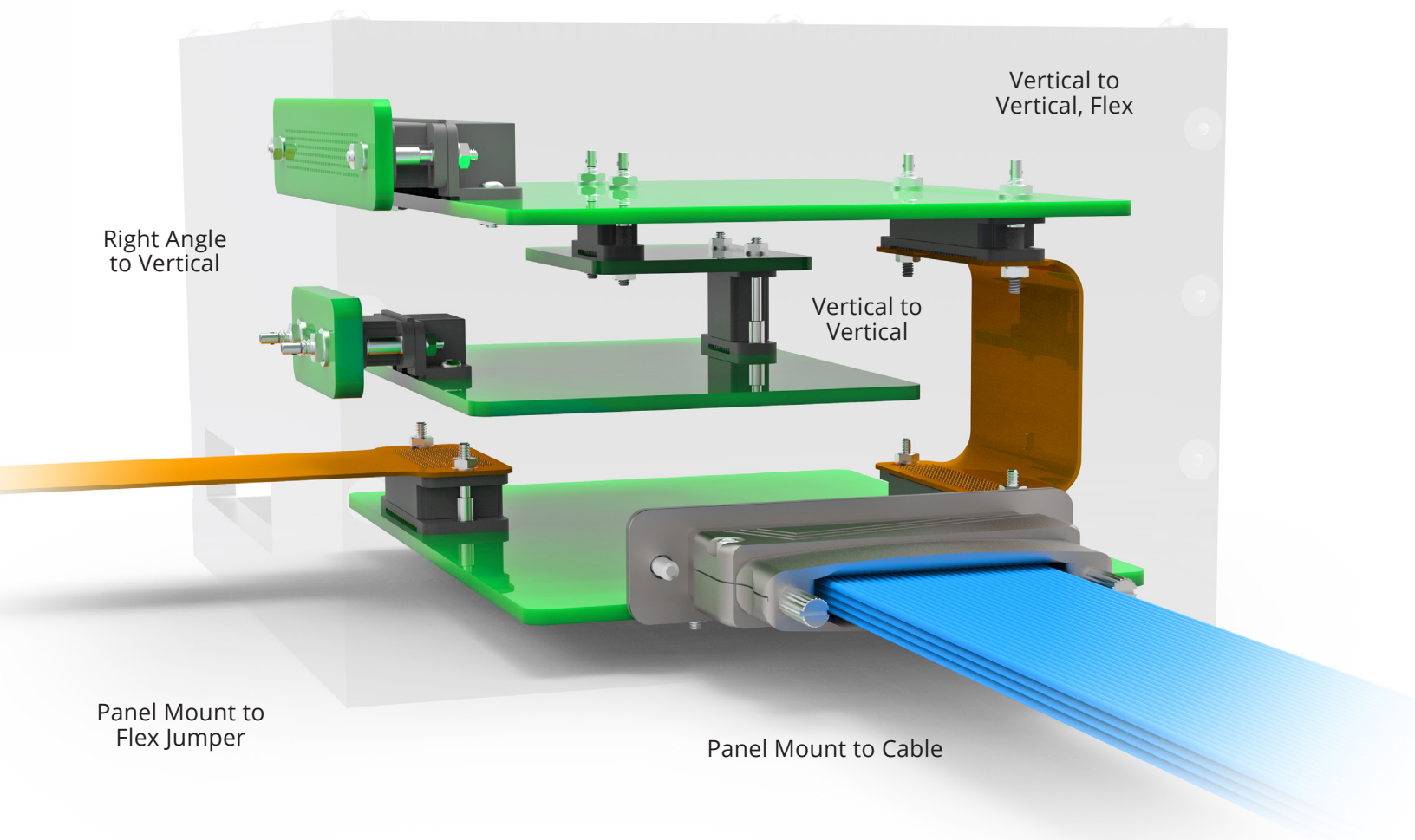
- 2-, 4-, 5-, 6-, 8- and 10-row models available
- 10 to 500 pin/socket positions
- 5 to 50 columns
- Plastic and metal body materials
- Ruggedized models for tougher applications
- Works well with flexible circuits
- Locking and jacking mating/mounting hardware
- Guide hardware - blind mating
- 10,000 mating cycles
- 0.050" by 0.050" pitch
- Panel-mounting option

Exceptional Design Flexibility

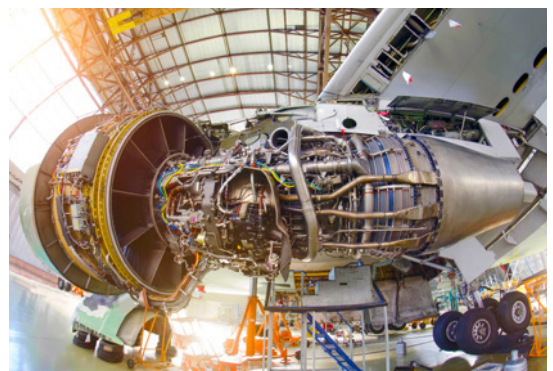
Manufacturers Trust AirBorn verSI Series' Versatility

AirBorn verSI Series affords flexibility in design by offering vertical board-mount, right-angle board-mount, cable I/O and flex-circuit mounting with 40 to 500 contacts. Vertical board-mount plugs and mating vertical receptacles also support board-to-board stacking applications. Board spacing ranges from 8mm to 25mm. EMI hoods and mounting tabs allow for worry-free mating, un-mating and best-in-class durability.

Several board termination types are offered with AirBorn verSI Series, including paste-in-hole, through-hole, surface-mount and compliant pin press fit technology, which eliminates the need for costly X-ray inspection.



Critical to Success: Applications



Ruggedness & Reliability: Keys to Surviving the Harshest Applications

Looking for rugged and reliable connectors capable of enduring the harshest environments of Earth and space? When it comes to durability in the face of unforgiving conditions, they don't come any tougher than AirBorn verSI Series High-Density Connectors. Whether they are enduring the extreme shock and vibration of a rocket launch, unrelenting repetition of factory robotics or temperature fluctuations inherent with commercial air travel, AirBorn verSI Series connectors are designed to last.

Applications:

- Satellite vision systems
- Ground-based combat vehicles
- Radar defense systems
- Commercial aircraft
- MRI machines (non-magnetic)
- Missile systems
- Avionics control units
- CubeSats
- Commercial flight equipment



AirBorn verSI Series

V2M — Vertical Male

V2M signal-integrity connectors are ruggedized two-row, male connectors. With the proven AirBorn verSI contact system, these connectors can be used in extreme environmental conditions while maintaining high reliability and continuous performance. Pitch: 0.050" (1.27 mm)



Sample Part Number Format: V2M-02-05-080-50-00-N

V2M	02	05	080	50		
SERIES AirBorn verSI Vertical (Male) 1.27 mm	ROWS 02 – 2 Rows	COLUMNS 05 – 5 Columns	BOARD SPACING* 080 – 8 mm ⁴	CONTACT PLATING 50 – 50 μ inches Au mating interface	TERMINATION 00 – Press-fit 01 – Paste-in-hole 02 – PTH 0.078" 03 – PTH 0.109" 04 – PTH 0.140" 05 – PTH 0.156" 06 – PTH 0.172" 10 – SMT - Non-RoHS compliant 11 – SMT - RoHS compliant	HARDWARE¹ G – Guide pin ² N – Fixed jacknut ² J – Turning jackscrew ² L – Locking screw ² G1 – Guide pin ³ N1 – Fixed jacknut ³ J1 – Turning jackscrew ³ L1 – Locking screw ³

NOTES:

See Molex SPEC ESL6155 for additional information.

See Molex SPEC ESL5001 for installation information.

¹ See product spec drawing for replacement hardware kits.

² Used for PC board thickness up to 0.125".

³ Used for PC board thickness 0.125" up to 0.250".

⁴ Board spacing 8.29mm.

Hardware supplied loosely installed.

Mates with connector series: V2F and V2C (female).

Dimensions within brackets [X, XX] are in millimeters and for reference only.

Please view product SPEC drawing V2M-XX-XX-XXX-XX-XX-X on molex.com before part configuration for complete product definition.

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

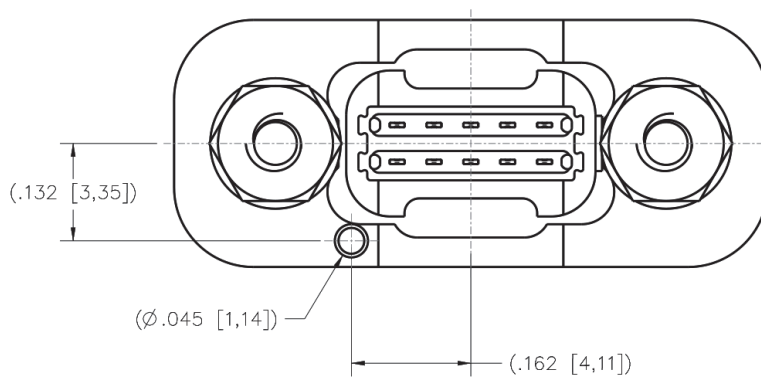
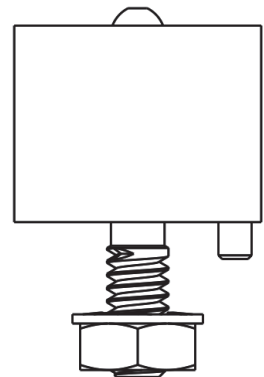
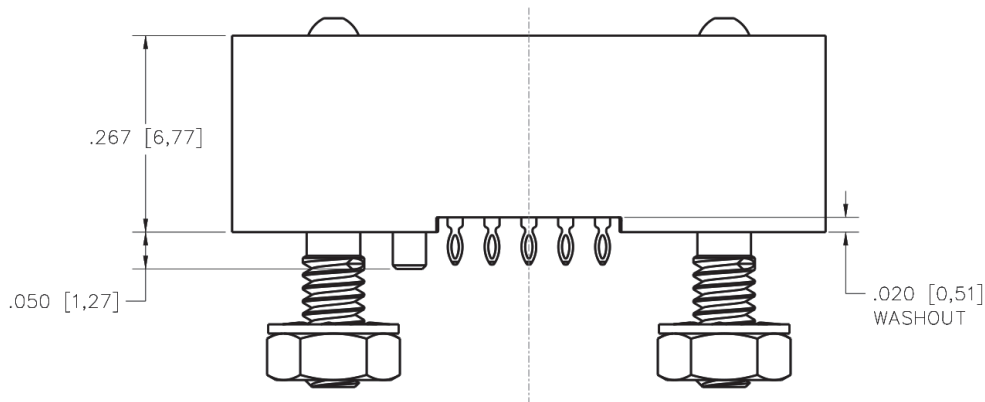
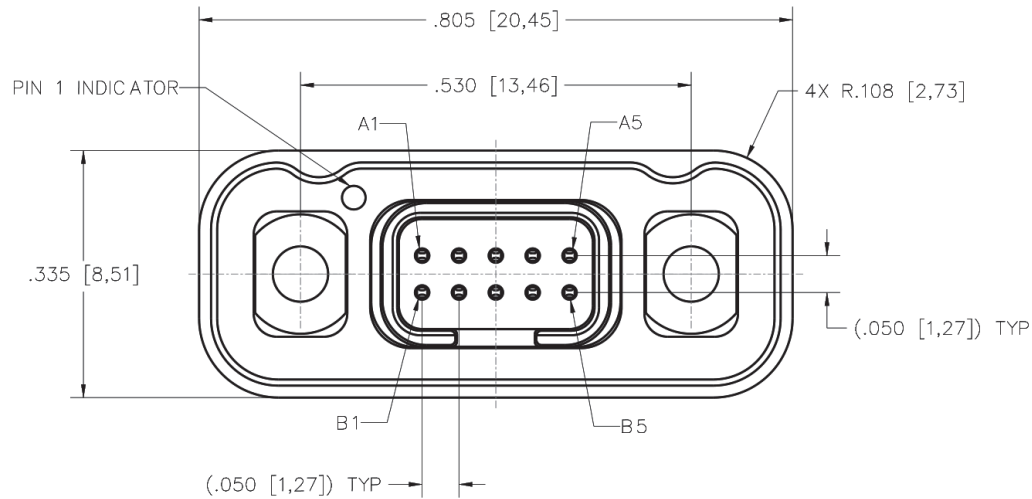
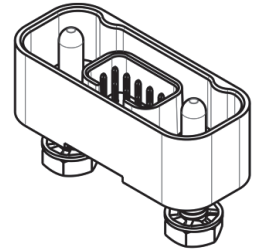
Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.



DIMENSIONS

ISOMETRIC VIEW
FOR REFERENCE ONLY
(PART NUMBER: V2M-02-05-080-50-00-G SHOWN)



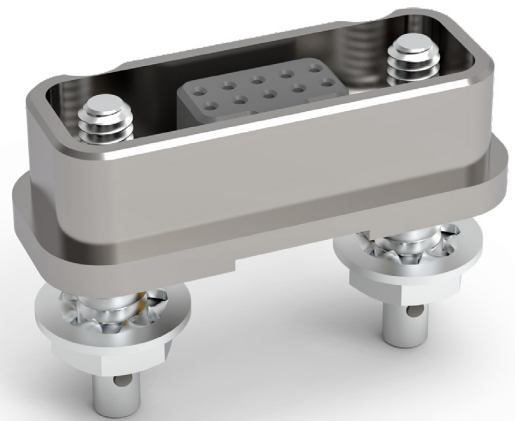
Please consult the Molex website for the latest revision of this document prior to beginning any design work.



AirBorn verSI Series

V2F — Vertical Rugged Female

V2F signal-integrity connectors are ruggedized, two-row female connectors. With the proven AirBorn verSI contact system, these connectors can be used in extreme environmental conditions while maintaining high reliability and continuous performance. Pitch: 0.050" (1.27 mm)



Sample Part Number Format: V2F-02-05-50-00-J

**SERIES**

AirBorn verSI
Vertical Rugged
(Female) 1.27 mm

**ROWS**

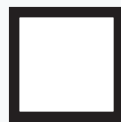
02 – 2 Rows

**COLUMNS**

05 – 5 Columns

**CONTACT
PLATING**

50 – 50 μ inches
Au mating
interface

**TERMINATION**

00 – Press-fit
01 – Paste-in-hole
02 – PTH 0.078"
03 – PTH 0.109"
04 – PTH 0.140"
05 – PTH 0.156"
06 – PTH 0.172"
10 – SMT - Non RoHS
compliant
11 – SMT - RoHS compliant

**HARDWARE¹**

G – Guide socket²
N – Fixed jacknut²
J – Turning jackscrew²
L – Locking screw²
G1 – Guide socket³
N1 – Fixed jacknut³
J1 – Turning jackscrew³
L1 – Locking screw³

NOTES:

See Molex SPEC ESL6155 for additional information.

See Molex SPEC ESL5001 for installation information.

¹ See product specification drawing for replacement hardware kits.

² Used for PC board thickness up to 0.125".

³ Used for PC board thickness from 0.125" up to 0.250".

Hardware supplied loosely installed.

Mates with connector series: V2M and V2C (male).

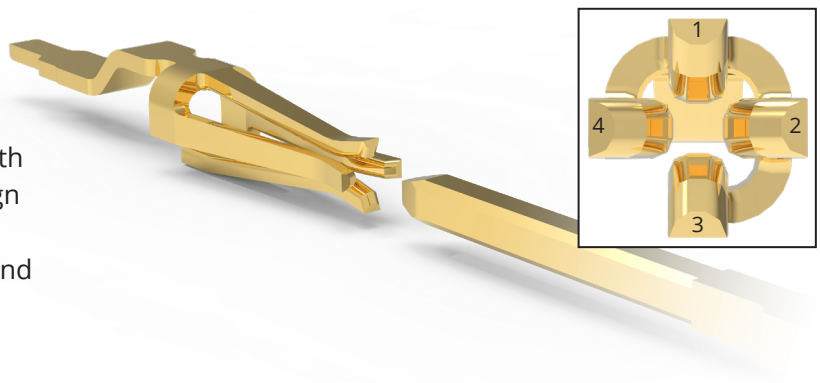
Dimensions within brackets [X, XX] are in millimeters and for reference only.

Please view product information drawing V2F-XX-XX-XX-XX-X on molex.com before part configuration for complete product definition.

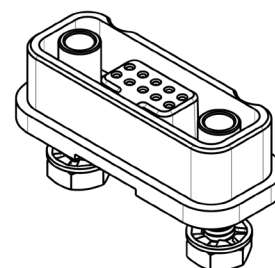
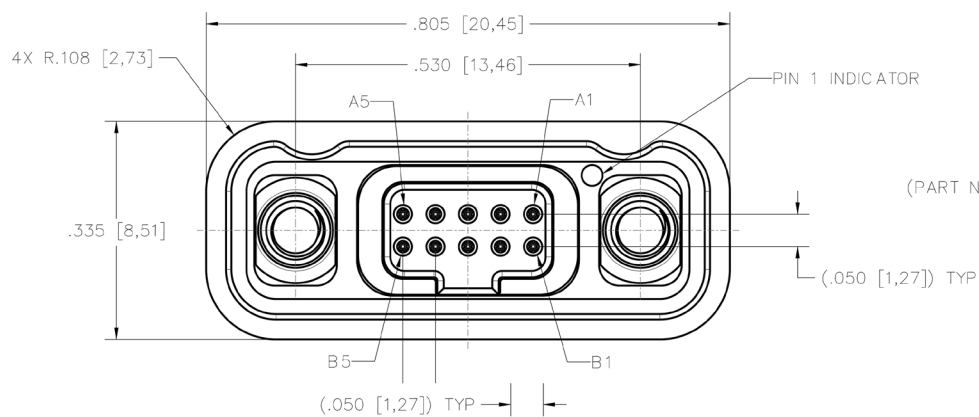
NOTE: Please consult molex.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

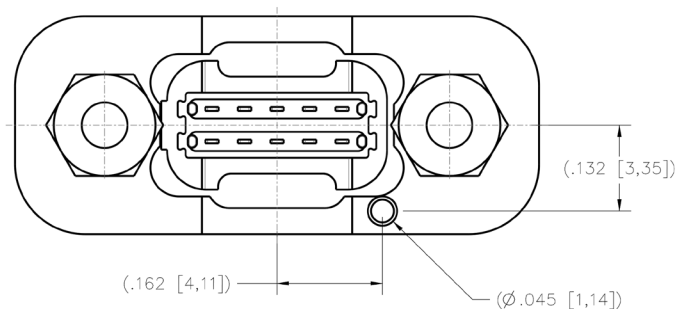
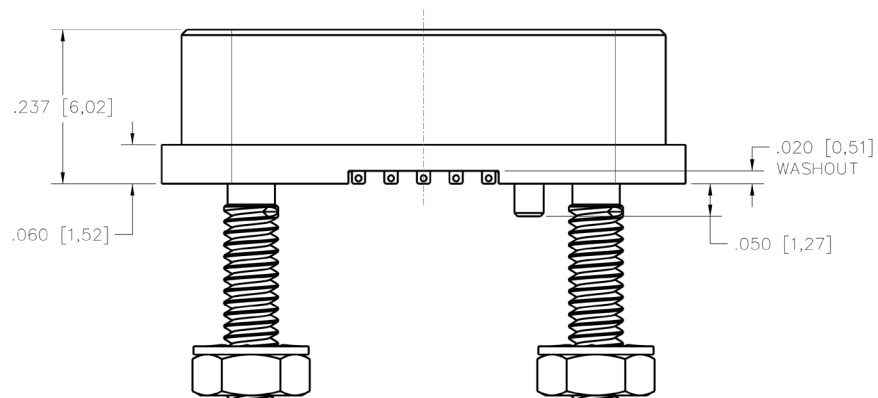
AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.



DIMENSIONS



ISOMETRIC VIEW
FOR REFERENCE ONLY
(PART NUMBER: V2F-02-05-50-00-G) SHOWN



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



AirBorn verSI Series

V2C — Differential Pair Twinax Cable Assembly

V2C cable assemblies are designed for twinax and discrete wire applications. These cable assemblies come in standard lengths; custom lengths and configurations can also be requested. Ruggedized hoods are standard. Pitch: 0.050" (1.27 mm)



SERIES	ROWS	COLUMNS	CONTACT PLATING	CONNECTOR 1	CONNECTOR 2 HARDWARE	AWG/LAYOUT	LENGTH ¹
AirBorn verSI 2-Row Cable Assembly	02 – 2 Rows	05 – 5 Columns	50 – 50 μ inches Au mating interface	MG – Male with guide pins MN – Male with fixed jacknut MJ – Male turning jackscrew ML – Male with locking screw MGP – Male with guide pins, panel mount MNP – Male with fixed jacknut, panel mount MJP – Male with turning jackscrew, panel mount MLP – Male with locking screw, panel mount FG – Female with guide pins FN – Female fixed jacknut FJ – Female with turning jackscrew FL – Female with locking screw FGP – Female with guide pins, panel mount FNP – Female with fixed jacknut, panel mount FJP – Female with turning jackscrew, panel mount FLP – Female with locking screw, panel mount	MG – Male with guide pins MN – Male with fixed jacknut MJ – Male turning jackscrew ML – Male with locking screw MGP – Male with guide pins, panel mount MNP – Male with fixed jacknut, panel mount MJP – Male with turning jackscrew, panel mount MLP – Male with locking screw, panel mount FG – Female with guide pins FN – Female with fixed jacknut FJ – Female with turning jackscrew FL – Female with locking screw FGP – Female with guide pins, panel mount FNP – Female with fixed jacknut, panel mount FJP – Female with turning jackscrew, panel mount FLP – Female with locking screw, panel mount BB – No second connector	302 – 30 AWG, 2 differential pairs 303 – 30 AWG, 3 differential pairs 304 – 30 AWG, 4 differential pairs 282 – 28 AWG, 2 differential pairs 283 – 28 AWG, 3 differential pairs 284 – 28 AWG, 4 differential pairs 262 – 26 AWG, 2 differential pairs 30M – 30 AWG, mixed discrete 26M – 26 AWG, mixed discrete 30W – 30 AWG, discrete white 26W – 26 AWG, discrete white 30C – 30 AWG, color-coded wires* 26C – 26 AWG, color-coded wires* SCT – Solder cup termination, no wires	000 – 0.00 M** 010 – 0.10 M 020 – 0.20 M 030 – 0.30 M 040 – 0.40 M 050 – 0.50 M 060 – 0.60 M 070 – 0.70 M 080 – 0.80 M 090 – 0.90 M 100 – 1.00 M 150 – 1.50 M 200 – 2.00 M 300 – 3.00 M

NOTES:

See Molex SPEC ESL5001 for installation information.

*Color coded per MIL-STD-681.

Molex can manufacture other configurations to your exact specifications.

Please view product specification drawing V2C-XX-XX-XX-XXX-XXX-XXX on molex.com before part configuration for more product specification information.

Dimensions within brackets [X, XX] are in millimeters and for reference only.

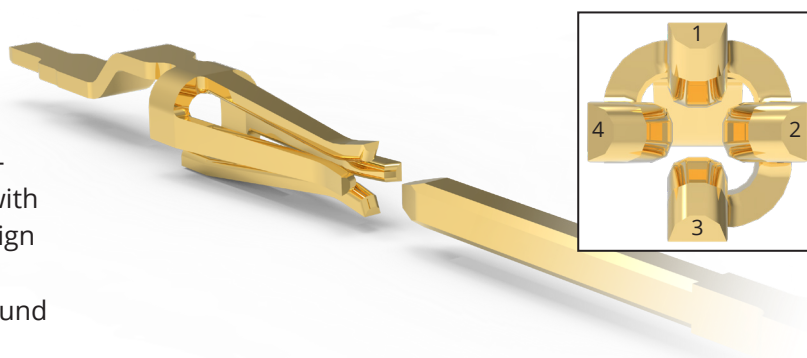
**Used in conjunction with solder-cup termination (SCT) only.

¹See product specification drawing for replacement hardware kits.

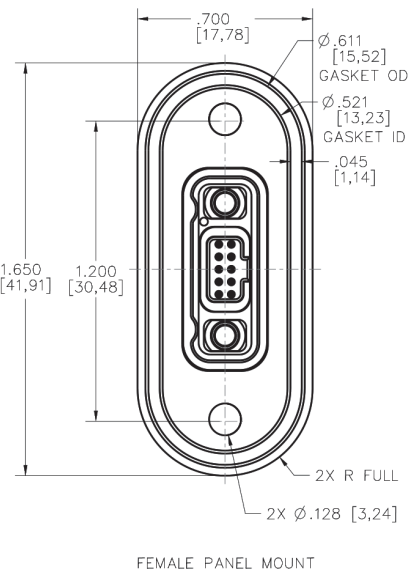
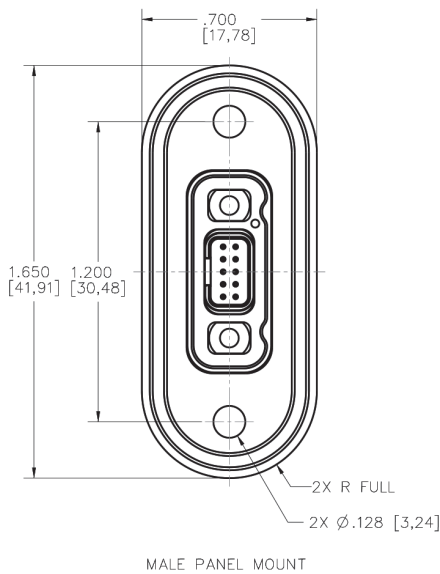
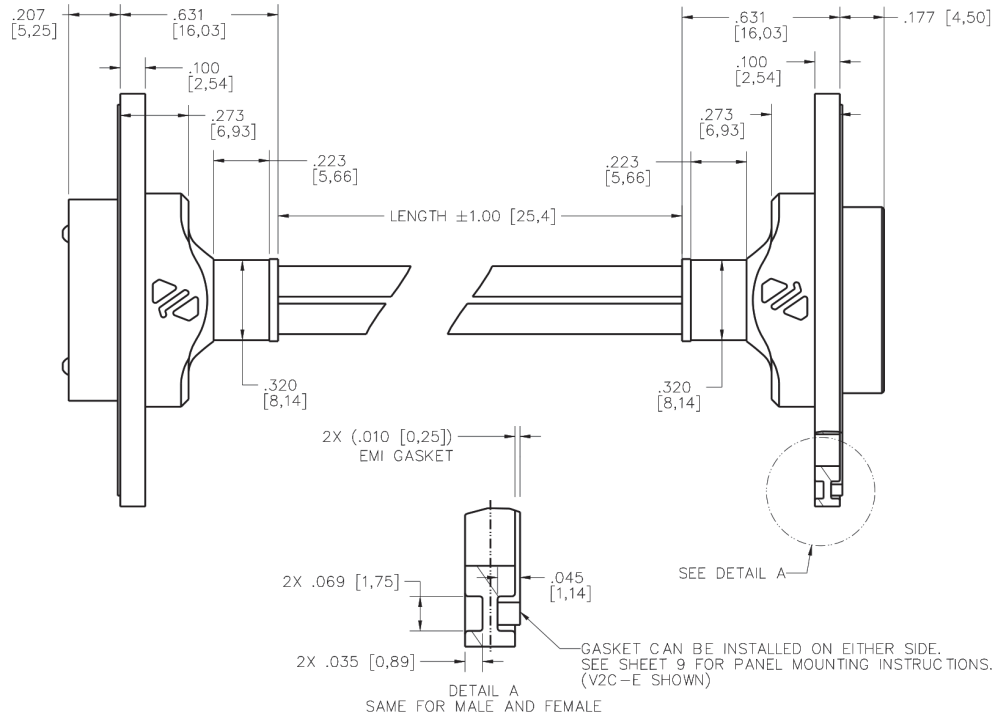
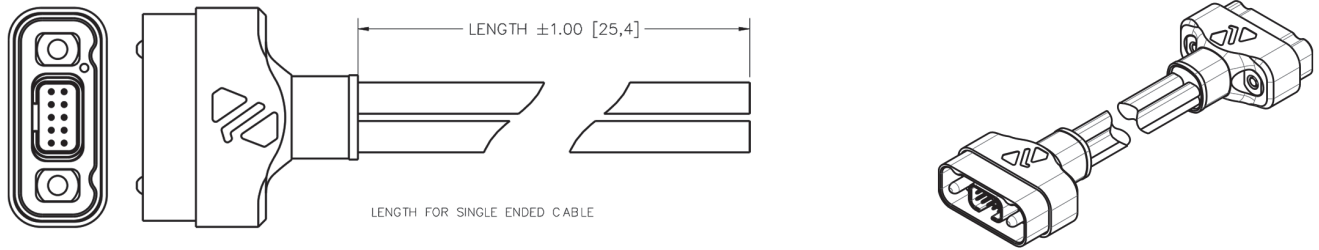
NOTE: Please consult molex.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.



DIMENSIONS



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

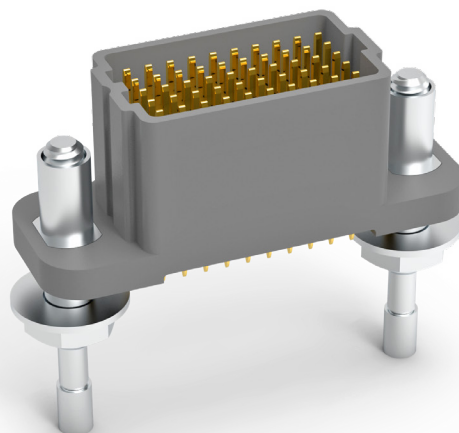
Please consult the Molex website for the latest revision of this document prior to beginning any design work.



AirBorn verSI Series

VSM — Vertical Male

VSM signal-integrity connectors are used in vertical, PCB-mount applications where a male interface is required. Termination styles include press-fit, paste-in-hole and plated through-hole. Pitch: 0.050" (1.27 mm)



Sample Part Number Format: VSM-04-10-120-50-02-L



SERIES

AirBorn verSI
Vertical (Male)
1.27 mm

ROWS

04 – 4 Rows
05 – 5 Rows
06 – 6 Rows
08 – 8 Rows
10 – 10 Rows

COLUMNS

10 – 10 Columns
20 – 20 Columns
30 – 30 Columns
40 – 40 Columns
50 – 50 Columns

BOARD SPACING*

080 – 8 mm
100 – 10 mm
120 – 12 mm
160 – 16 mm
200 – 20 mm
250 – 25 mm

CONTACT PLATING

50 – 50 μ " Au

TERMINATION

00 – Press-fit
01 – Paste-in-hole
02 – PTH 0.078"
03 – PTH 0.109"
04 – PTH 0.140"
05 – PTH 0.156"
06 – PTH 0.172"
10† – SMT - SN63PB37
Solder Dipped
11† – SMT -
42Sn/57.6Bi/0.4Ag
lead free, solder
dipped

OPTIONS

Blank – No options¹
G – Guide pin¹
G1 – Guide pin²
J – Turning jackscrew¹
J1 – Turning jackscrew²
L – Locking screw¹
L1 – Locking screw²
N – Fixed jacknut¹
N1 – Fixed jacknut²

NOTES:

See Molex SPEC ESL5001 for installation information.
Connector potting is standard.

* Consult factory for additional board spacing options.

¹ Used for PC board thickness up to 0.125".

² Used for PC board thickness 0.125" up to 0.250".

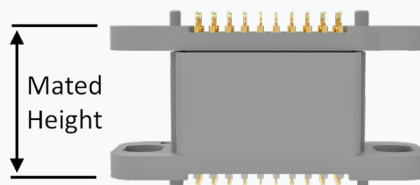
[†] Surface mount termination only available on 4 Row vertical connectors.

[‡] No hardware supplied with blank hardware option connectors.

Molex can manufacture other configurations to your exact specifications.

RoHS Compliant (except for termination option 10); certificate of conformance available upon request with each shipment.

Please view document VSM-XX-XX-XXX-XX-XX-XX on molex.com before part configuration for more product specification information.

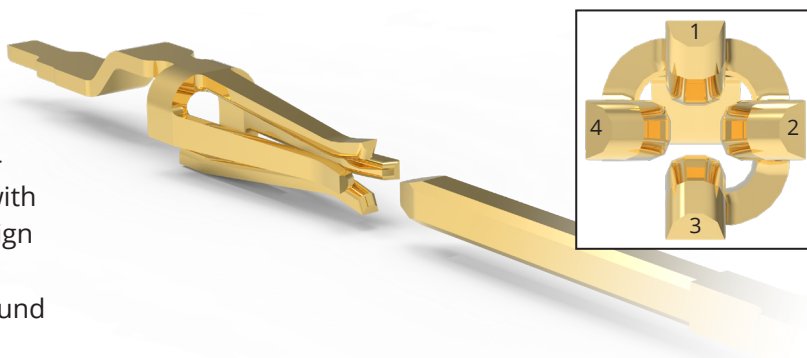


Board Spacing		Mated Height (in)
Code	Value	Nominal
080	8mm	0.315 (0.350 Max)
100	10mm	0.394 (0.429 Max)
120	12mm	0.472 (0.507 Max)
160	16mm	0.630 (0.665 Max)
200	20mm	0.787 (0.822 Max)
250	25mm	0.984 (1.02 Max)

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

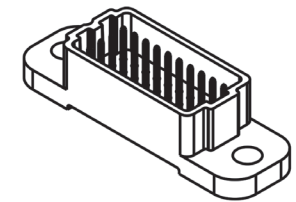
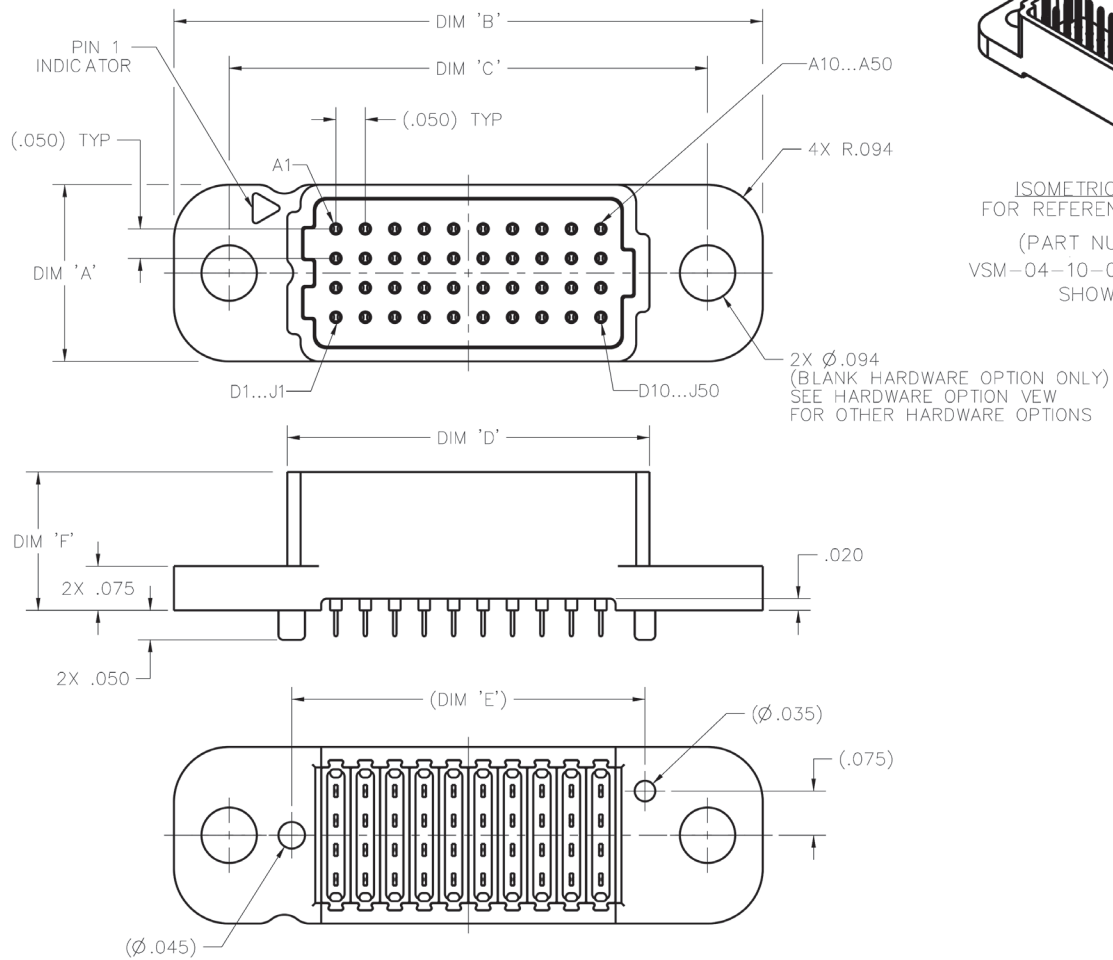
Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.



DIMENSIONS

CONNECTOR DIMENSIONS (BLANK HARDWARE OPTION SHOWN)

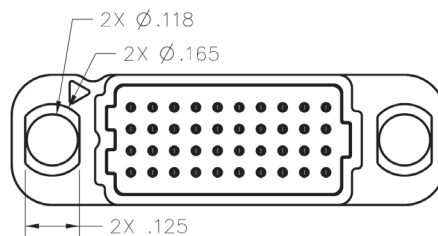


ROWS	DIM 'A'
04	.300
05	.350
06	.400
08	.500
10	.600

COLUMNS	DIM 'B'	DIM 'C'	DIM 'D'	DIM 'E'
10	1.000	.813	.615	.600
20	1.500	1.313	1.115	1.100
30	2.000	1.813	1.615	1.600
40	2.500	2.313	2.115	2.100
50	3.000	2.813	2.615	2.600

BOARD SPACING	DIM 'F'
-080 [8mm]	.235
-100 [10mm]	.314
-120 [12mm]	.392
-160 [16mm]	.550
-200 [20mm]	.707
-250 [25mm]	.904

HARDWARE OPTION VIEW



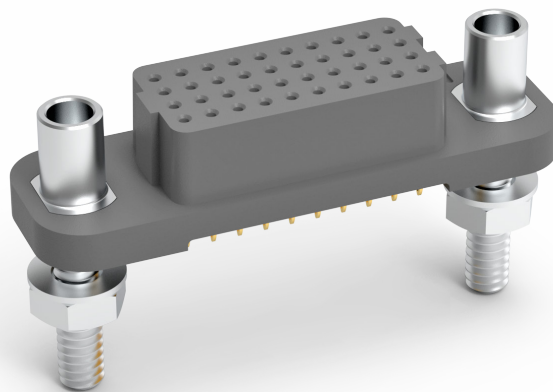
Please consult the Molex website for the latest revision of this document prior to beginning any design work.



AirBorn verSI Series

VSF — Vertical Female

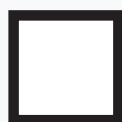
VSF signal-integrity connectors are used in vertical, PCB-mount applications where a female interface is required. Termination styles include press-fit, paste-in-hole and plated through-hole. Pitch: 0.050" (1.27 mm)



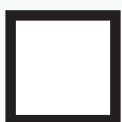
Sample Part Number Format: VSF-04-10-50-02-G



SERIES
AirBorn verSI
Vertical (Female)
1.27 mm



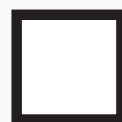
ROWS
04 – 4 Rows
05 – 5 Rows
06 – 6 Rows
08 – 8 Rows
10 – 10 Rows



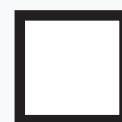
COLUMNS
10 – 10 Columns
20 – 20 Columns
30 – 30 Columns
40 – 40 Columns
50 – 50 Columns



**CONTACT
PLATING**
50 – 50 μ " Au



TERMINATION
00 – Press-fit
01 – Paste-in-hole
02 – PTH 0.078"
03 – PTH 0.109"
04 – PTH 0.140"
05 – PTH 0.156"
06 – PTH 0.172"
10† – SMT - SN63PB37
Solder Dipped
11† – SMT - 42Sn/57.6Bi/0.4Ag
lead free, solder dipped



OPTIONS
Blank – No hardware¹
G – Guide socket¹
J – Turning jackscrew¹
J1 – Turning jackscrew²
L – Locking screw¹
N – Fixed jacknut¹
N1 – Fixed jacknut²

NOTES:

See Molex SPEC ESL5001 for installation information.
Connector potting is standard.

¹ Used for PC board thickness up to 0.125"

² Used for PC board thickness 0.125" up to 0.250"

[†] Surface Mount Termination only available on 4 Row vertical connectors.

[‡] No hardware supplied with blank hardware option connectors.

Molex can manufacture other configurations to your exact specifications.

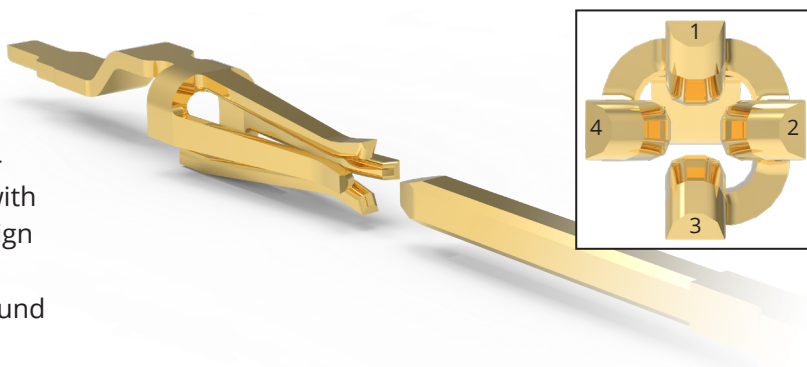
RoHS Compliant (except for termination option 10); certificate of conformance available upon request with each shipment

Please view document VSF-XX-XX-XX-XX on molex.com before part configuration for more product specification information.

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

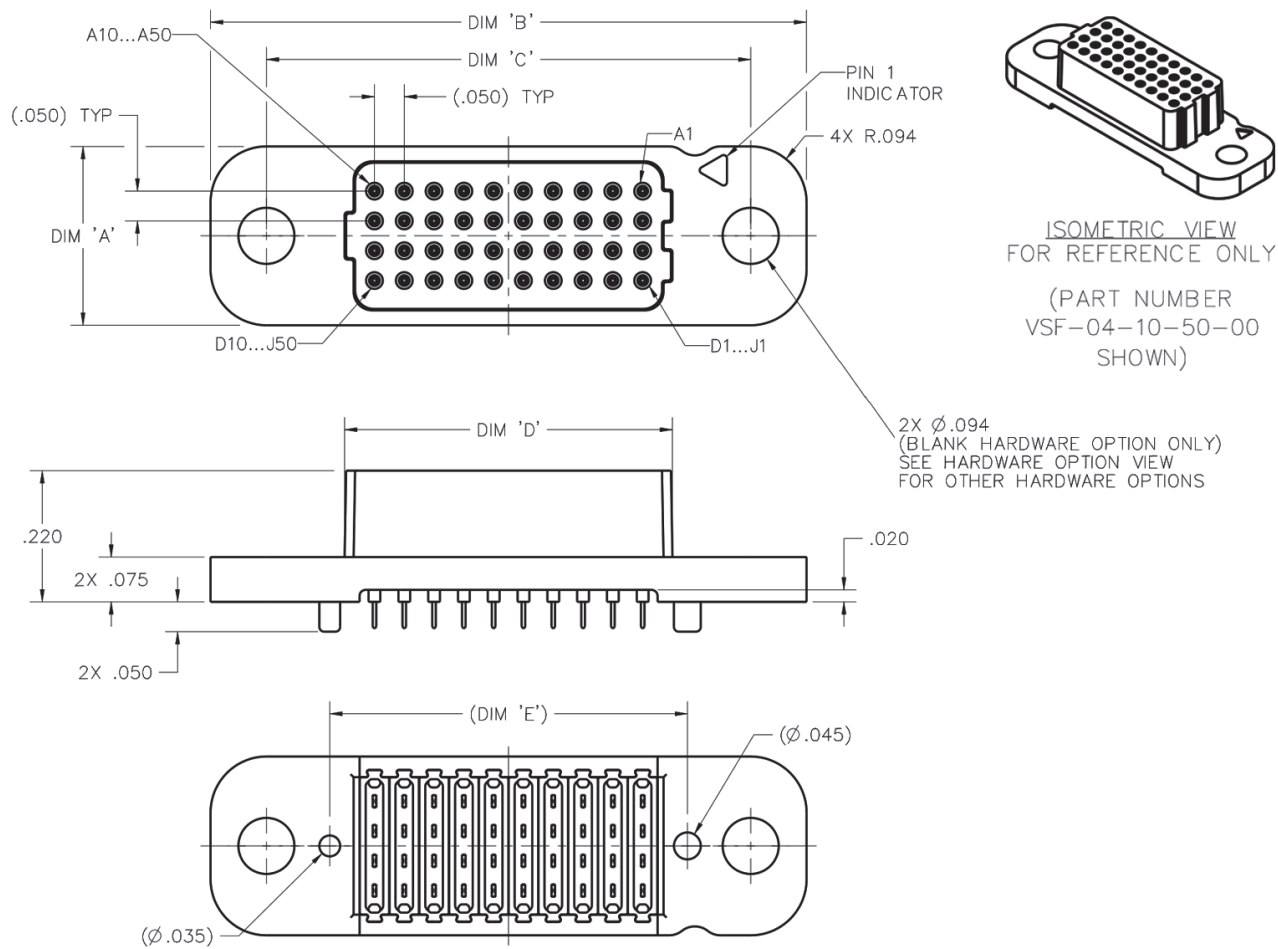
Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.



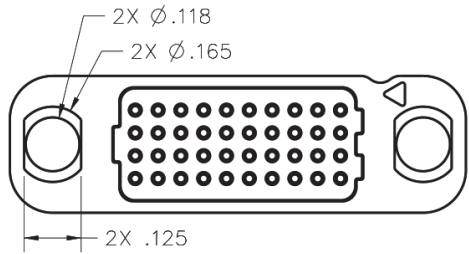
DIMENSIONS

CONNECTOR DIMENSIONS
(BLANK HARDWARE OPTION SHOWN)



ROWS	DIM 'A'	COLUMNS	DIM 'B'	DIM 'C'	DIM 'D'	DIM 'E'
04	.300	10	1.000	.813	.550	.600
05	.350	20	1.500	1.313	1.050	1.100
06	.400	30	2.000	1.813	1.550	1.600
08	.500	40	2.500	2.313	2.050	2.100
10	.600	50	3.000	2.813	2.550	2.600

HARDWARE OPTION VIEW



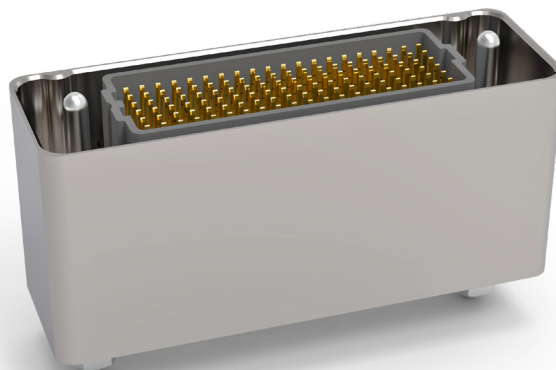
Please consult the Molex website for the latest revision of this document prior to beginning any design work.



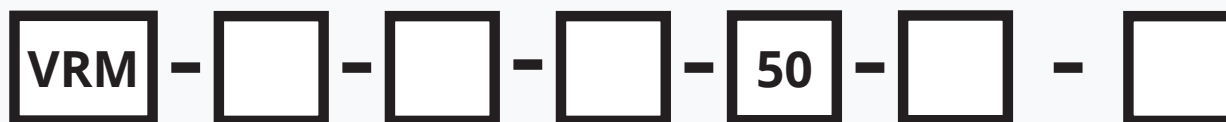
AirBorn verSI Series

VRM — Vertical Rugged Male

VRM signal-integrity connectors are ruggedized versions of the standard VSM male connectors. These connectors can be used in extreme environmental conditions while maintaining high reliability and continuous performance. Pitch: 0.050" (1.27 mm)



Sample Part Number Format: VRM-04-10-120-50-02-G



SERIES

AirBorn
verSI Vertical
Rugged (Male)
1.27 mm

ROWS

04 – 4 Rows
05 – 5 Rows
06 – 6 Rows
08 – 8 Rows
10 – 10 Rows

COLUMNS

10 – 10 Columns
20 – 20 Columns
30 – 30 Columns
40 – 40 Columns
50 – 50 Columns

BOARD SPACING*

080 – 8 mm
100 – 10 mm
120 – 12 mm
160 – 16 mm
200 – 20 mm
250 – 25 mm

CONTACT PLATING

50 – 50 μ " Au

TERMINATION

00 – Press-fit
01 – Paste-in-hole
02 – PTH 0.078"
03 – PTH 0.109"
04 – PTH 0.140"
05 – PTH 0.156"
06 – PTH 0.172"
10¹ – SMT - SN63PB37
Solder Dipped
11¹ – SMT -
42Sn/57.6Bi/0.4Ag
lead free, solder
dipped

OPTIONS

Blank – No options¹
G – Guide pin**¹
G1 – Guide pin**²
J – Turning jackscrew**¹
J1 – Turning jackscrew**²
L – Locking screw**¹
L1 – Locking screw**²
N – Fixed jacknut**¹
N1 – Fixed jacknut**²
E – No Hardware/EMI gasket¹
GE – Guide pin/EMI gasket**¹
G1E – Guide pin/EMI gasket**²
JE – Turning jackscrew/EMI gasket**¹
J1E – Turning jackscrew/EMI
gasket**²
LE – Locking screw/EMI gasket**¹
L1E – Locking screw/EMI gasket**²
NE – Fixed jacknut/EMI gasket**¹
N1E – Fixed jacknut/EMI gasket**²

NOTES:

See Molex SPEC ESL5001 for installation information.
Connector potting is standard.

* Consult factory for additional board spacing options.

** Not available with 8 mm board spacing

¹ Used for PC board thickness up to 0.125"

² Used for PC board thickness 0.125" up to 0.250"

¹ Surface Mount Termination only available on 4 Row vertical connectors.

¹ No hardware supplied with blank hardware option connectors.

Molex can manufacture other configurations to your exact specifications.

RoHS Compliant (except for termination option 10); certificate of conformance available upon request with each shipment

Please view document VRM-XX-XX-XXX-XX-XX-XX on molex.com before part configuration for more product specification information.



Board Spacing		Mated Height (in)
Code	Value	Nominal
080	8mm	0.315 (.350 Max)
100	10mm	0.394 (.429 Max)
120	12mm	0.472 (.507 Max)
160	16mm	0.630 (.665 Max)
200	20mm	0.787 (.822 Max)
250	25mm	0.984 (1.02 Max)

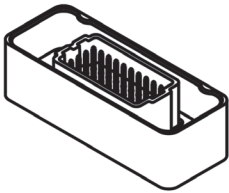
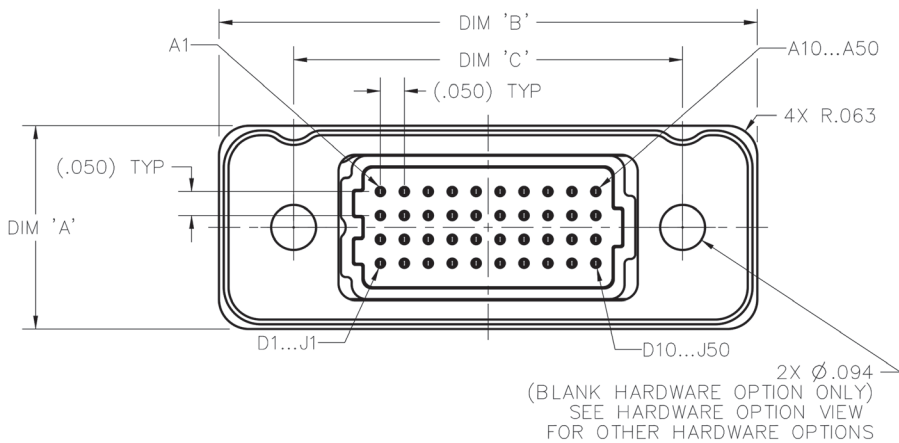
NOTE: Please consult molex.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.

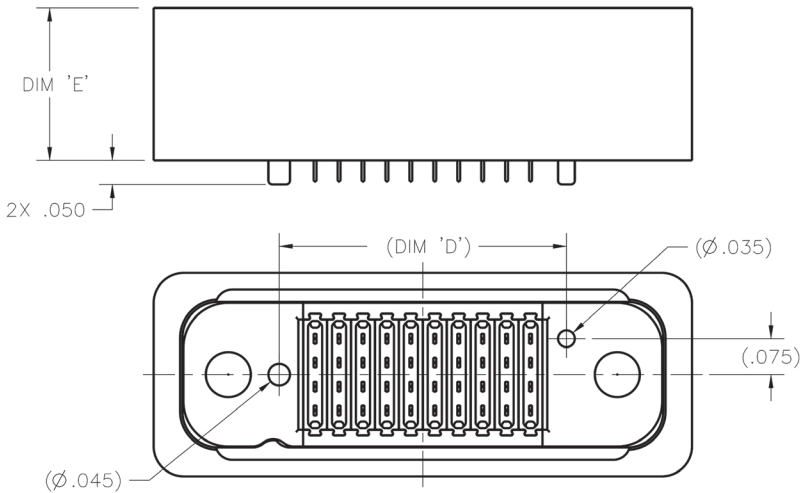


CONNECTOR DIMENSIONS
(NON EMI GASKET HARDWARE OPTIONS)



ISOMETRIC VIEW
FOR REFERENCE ONLY

(PART NUMBER
VRM-04-10-100-50-00
SHOWN)

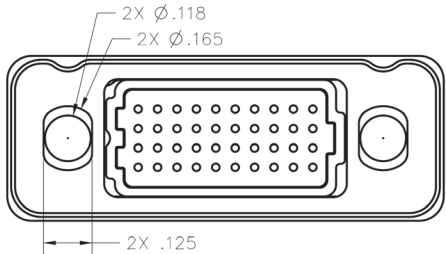


ROWS	DIM 'A'
04	.425
05	.475
06	.525
08	.625
10	.725

COLUMNS	DIM 'B'	DIM 'C'	DIM 'D'
10	1.125	.813	.600
20	1.625	1.313	1.100
30	2.125	1.813	1.600
40	2.625	2.313	2.100
50	3.125	2.813	2.600

BOARD SPACING	DIM 'E'
-080 [8mm]	.240
-100 [10mm]	.319
-120 [12mm]	.397
-160 [16mm]	.555
-200 [20mm]	.712
-250 [25mm]	.909

HARDWARE OPTION VIEW



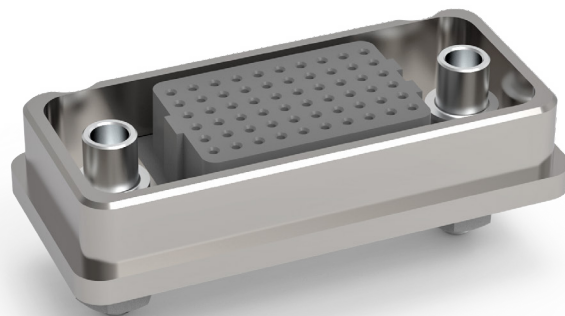
Please consult the Molex website for the latest revision of this document prior to beginning any design work.



AirBorn verSI Series

VRF — Vertical Rugged Female

VRF signal-integrity connectors are ruggedized versions of the standard VSF female connectors. These connectors can be used in extreme environmental conditions while maintaining high reliability and continuous performance. Pitch: 0.050" (1.27 mm)



Sample Part Number Format: VRF-04-10-50-50-04-G

VRF			50		
SERIES AirBorn verSI Vertical Rugged (Female) 1.27 mm	ROWS 04 – 4 Rows 05 – 5 Rows 06 – 6 Rows 08 – 8 Rows 10 – 10 Rows	COLUMNS 10 – 10 Columns 20 – 20 Columns 30 – 30 Columns 40 – 40 Columns 50 – 50 Columns	CONTACT PLATING 50 – 50 μ " Au	TERMINATION 00 – Press-fit 01 – Paste-in-hole 02 – PTH 0.078" 03 – PTH 0.109" 04 – PTH 0.140" 05 – PTH 0.156" 06 – PTH 0.172" 10 ¹ – SMT - SN63PB37 Solder Dipped 11 ¹ – SMT - 42Sn/57.6Bi/0.4Ag lead free, solder dipped	OPTIONS Blank – No hardware ¹ G – Guide socket ¹ G1 – Guide socket ² J – Turning jackscrew ¹ J1 – Turning jackscrew ² L – Locking screw ¹ L1 – Locking screw ² N – Fixed jacknut ¹ N1 – Fixed jacknut ² E – No hardware/EMI gasket ¹ GE – Guide socket/EMI gasket ¹ G1E – Guide socket/EMI gasket ² JE – Turning jackscrew/EMI gasket ¹ J1E – Turning jackscrew/EMI gasket ² LE – Locking screw/EMI gasket ¹ L1E – Locking screw/EMI gasket ² NE – Fixed jacknut/EMI gasket ¹ N1E – Fixed jacknut/EMI gasket ²

NOTES:

See Molex SPEC ESL5001 for installation information.

Connector potting is standard.

¹ Used for PC board thickness up to 0.125".

² Used for PC board thickness 0.125" up to 0.250".

³ Surface Mount Termination only available on 4 Row vertical connectors.

⁴ No hardware supplied with blank hardware option connectors.

Molex can manufacture other configurations to your exact specifications.

RoHS Compliant (except for termination option 10); certificate of conformance available upon request with each shipment.

Please view document VRF-XX-XX-XX-XX on molex.com before part configuration for more product specification information.

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

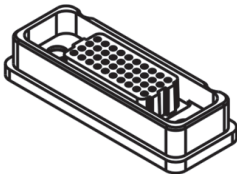
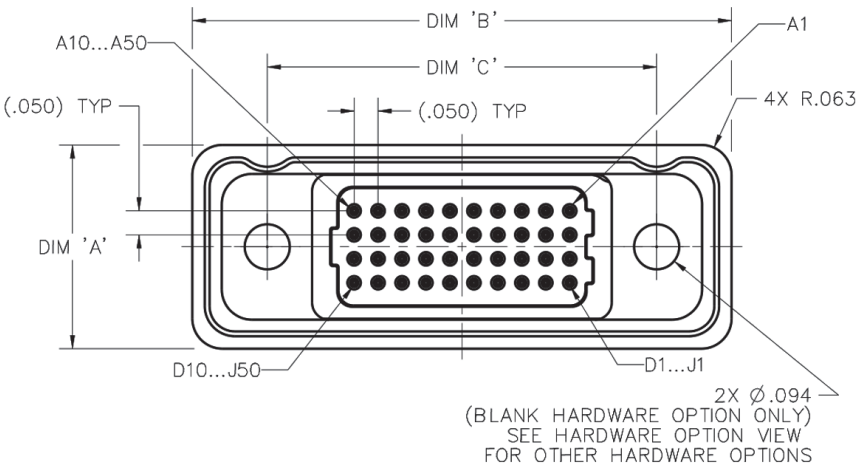
Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.

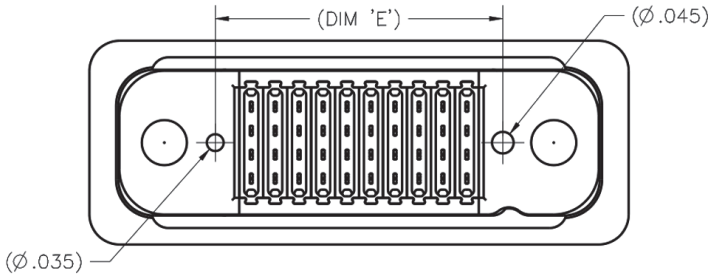
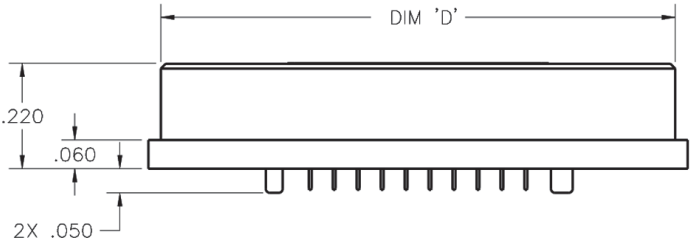


DIMENSIONS

CONNECTOR DIMENSIONS
(NON EMI GASKET HARDWARE OPTIONS)



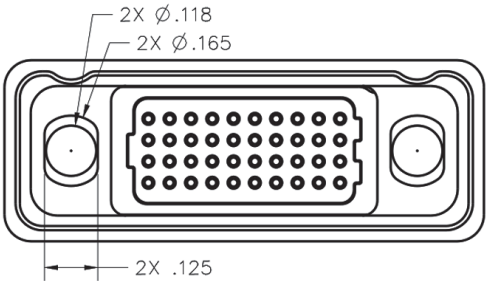
ISOMETRIC VIEW
FOR REFERENCE ONLY
(PART NUMBER
VRF-04-10-50-00
SHOWN)



ROWS	DIM 'A'
04	.425
05	.475
06	.525
08	.625
10	.725

COLUMNS	DIM 'B'	DIM 'C'	DIM 'D'	DIM 'E'
10	1.125	.813	1.073	.600
20	1.625	1.313	1.573	1.100
30	2.125	1.813	2.073	1.600
40	2.625	2.313	2.573	2.100
50	3.125	2.813	3.073	2.600

HARDWARE OPTION VIEW



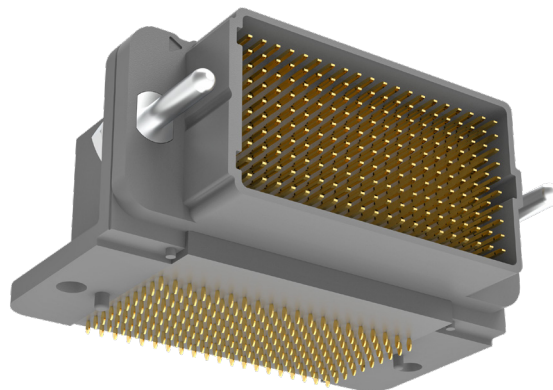
Please consult the Molex website for the latest revision of this document prior to beginning any design work.



AirBorn verSI Series

VSRAM — Right-Angle Male

VSRAM signal-integrity connectors are used in right-angle, PCB-mount applications where a male interface is required. Termination styles include press-fit, paste-in-hole or plated through-hole. Pitch: 0.050" (1.27 mm)



Sample Part Number Format: VSRAM-04-10-50-50-02-G

VSRAM			50		
SERIES AirBorn verSI Right-Angle (Male) 1.27 mm	ROWS 04 – 4 Rows 05 – 5 Rows 06 – 6 Rows 08 – 8 Rows 10 – 10 Rows	COLUMNS 10 – 10 Columns 20 – 20 Columns 30 – 30 Columns 40 – 40 Columns 50 – 50 Columns	CONTACT PLATING 50 – 50 μ " Au	TERMINATION 00 – Press-fit 01 – Paste-in-hole 02 – PTH 0.078" 03 – PTH 0.109" 04 – PTH 0.140" 05 – PTH 0.156" 06 – PTH 0.172"	OPTIONS Blank – No options [†] G – Guide pin N – Fixed jacknut J – Turning jackscrew L – Locking screw

NOTES:

See Molex SPEC ESL5001 for installation information.

Connector potting is standard.

[†] No hardware supplied with blank hardware option connectors.

Molex can manufacture other configurations to your exact specifications.

RoHS Compliant; certificate of conformance available upon request with each shipment.

Please view document VSRAM-XX-XX-XX-XX-X on molex.com before part configuration for more product specification information.

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

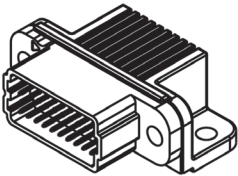
Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.

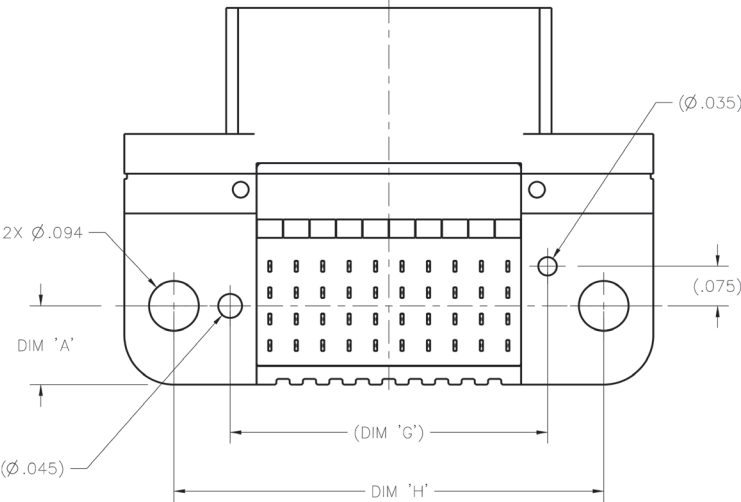
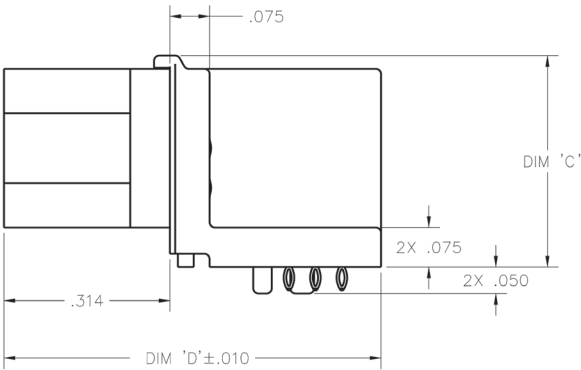
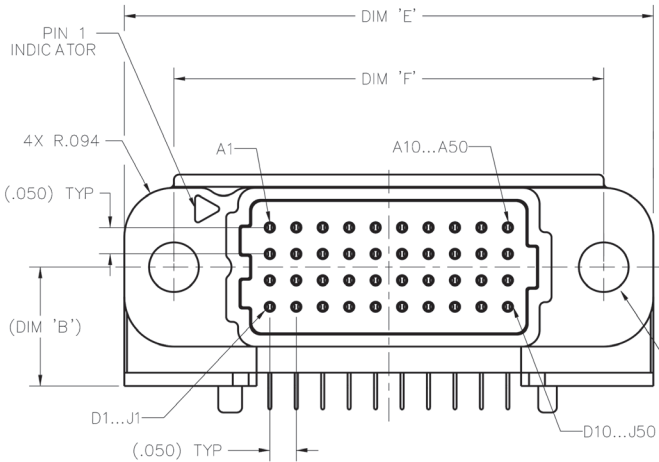


DIMENSIONS

CONNECTOR DIMENSIONS
(BLANK HARDWARE OPTION SHOWN)

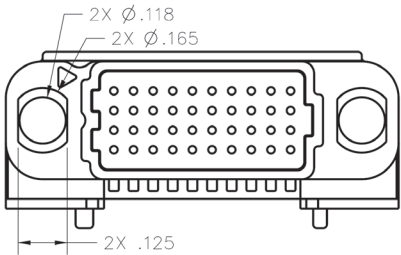


ISOMETRIC VIEW
FOR REFERENCE ONLY
(PART NUMBER VSRAM-04-10-50-00 SHOWN)



2X Ø.094
(BLANK HARDWARE OPTION ONLY)
SEE HARDWARE OPTION VIEW
FOR OTHER HARDWARE OPTIONS

HARDWARE OPTION VIEW



ROWS	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
04	.149	.225	.400	.713
05	.174	.250	.450	.763
06	.199	.275	.500	.813
08	.249	.325	.600	.913
10	.299	.375	.700	1.013

COLUMNS	DIM 'E'	DIM 'F'	DIM 'G'	DIM 'H'
10	1.000	.813	.600	.813
20	1.500	1.313	1.100	1.313
30	2.000	1.813	1.600	1.813
40	2.500	2.313	2.100	2.313
50	3.000	2.813	2.600	2.813

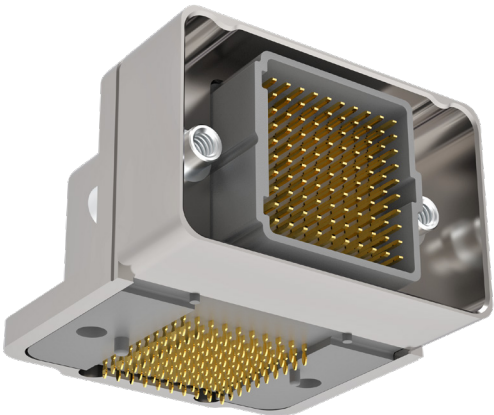
Please consult the Molex website for the latest revision of this document prior to beginning any design work.



AirBorn verSI Series

VRRAM — Rugged, Right-Angle Male

VRRAM signal-integrity connectors are ruggedized versions of the standard VSRAM male connectors. These connectors can be used in extreme environmental conditions while maintaining high reliability and performance. Pitch: 0.050" (1.27 mm)



Sample Part Number Format: VRRAM-04-10-50-02-N



SERIES	ROWS	COLUMNS	CONTACT PLATING	TERMINATION	OPTIONS
AirBorn verSI Rugged Right-Angle (Male) 1.27 mm	04 – 4 Rows 05 – 5 Rows 06 – 6 Rows 08 – 8 Rows 10 – 10 Rows	10 – 10 Columns 20 – 20 Columns 30 – 30 Columns 40 – 40 Columns 50 – 50 Columns	50 – 50 μ" Au	00 – Press-fit 01 – Paste-in-hole 02 – PTH 0.078" 03 – PTH 0.109" 04 – PTH 0.140" 05 – PTH 0.156" 06 – PTH 0.172"	Blank – Standard G – Guide pin N – Fixed jacknut J – Turning jackscrew ¹ L – Locking screw ¹ E – Standard/EMI gasket GE – Guide pin/EMI gasket NE – Fixed jacknut/EMI gasket JE – Turning jackscrew/EMI gasket ¹ LE – Locking screw/EMI gasket ¹

NOTES:

See Molex SPEC ESL5001 for installation information.

¹ Connectors come pre-assembled with shells & hardware.

Molex can manufacture other configurations to your exact specifications.

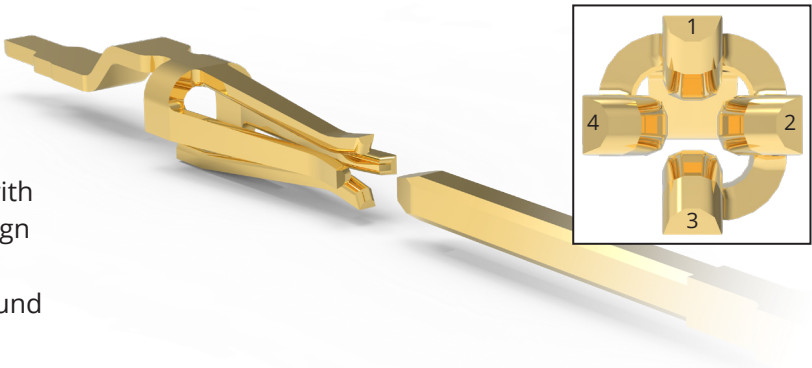
RoHS Compliant; certificate of conformance available upon request with each shipment.

Please view document VRRAM-XX-XX-XX-XX on molex.com before part configuration for more product specification information.

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

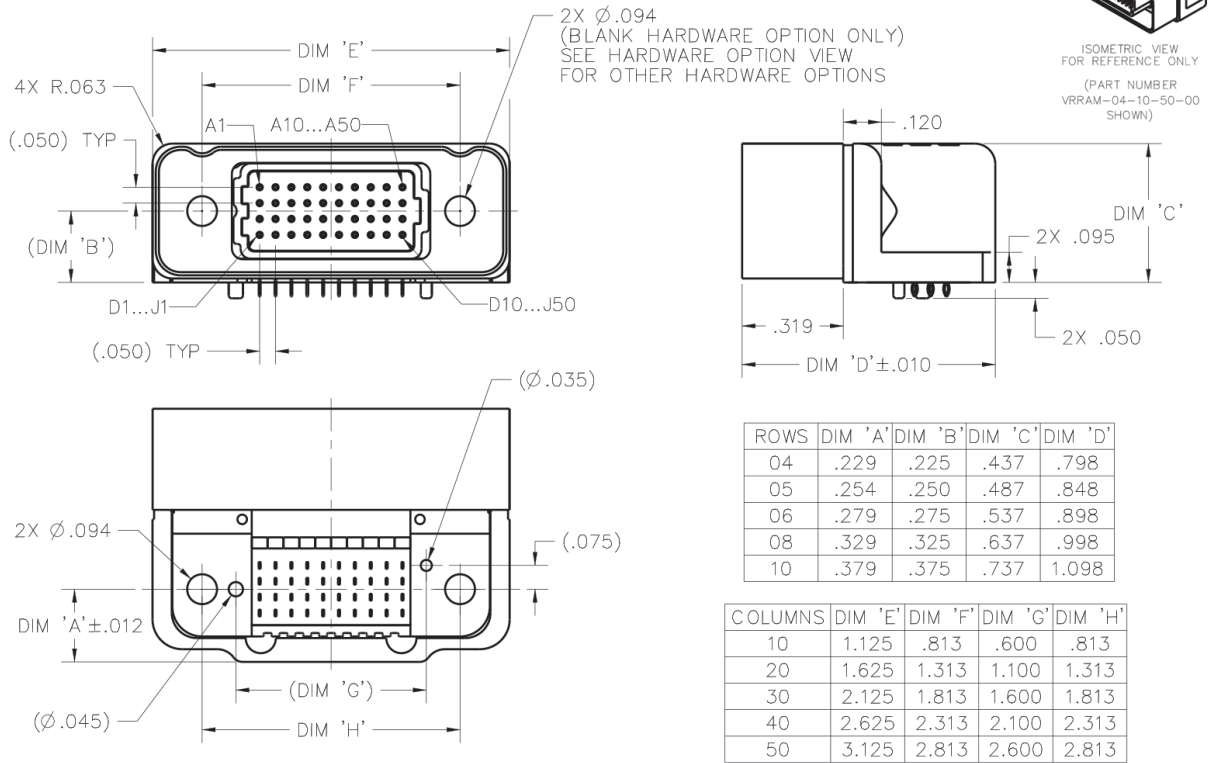
Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.

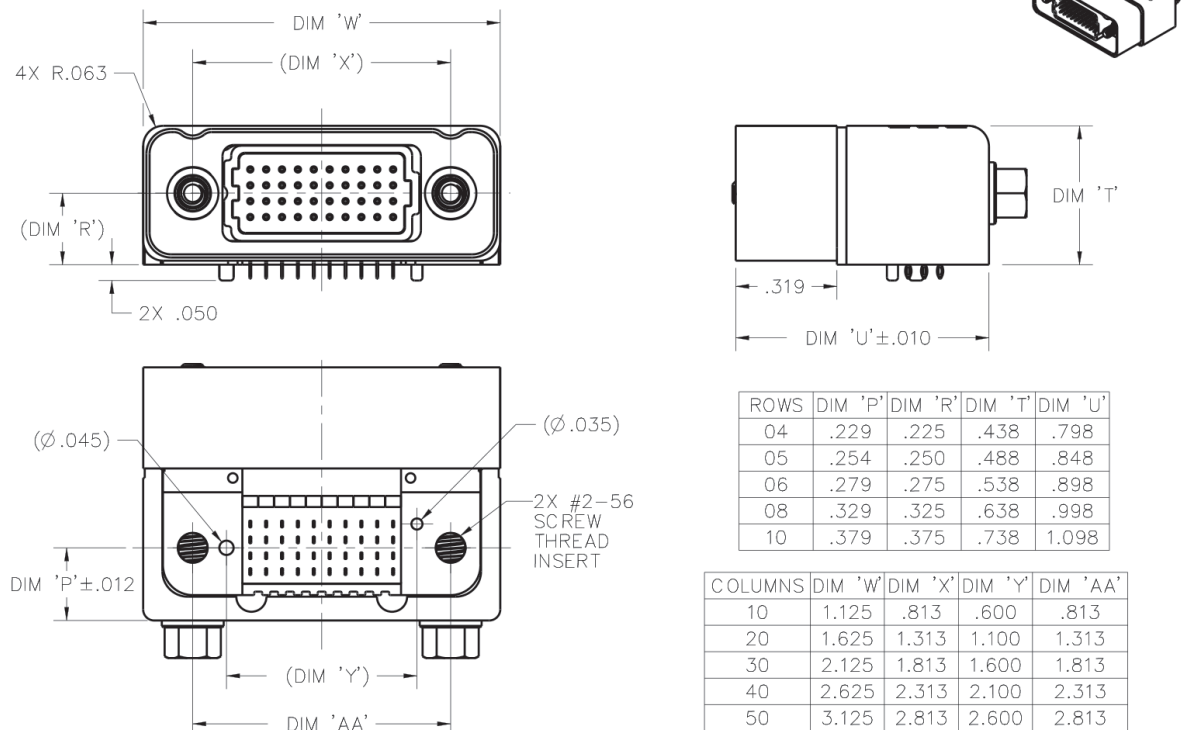


DIMENSIONS

CONNECTOR DIMENSIONS (BLANK, G AND N HARDWARE OPTIONS)



CONNECTOR DIMENSIONS (J & L HARDWARE OPTIONS)



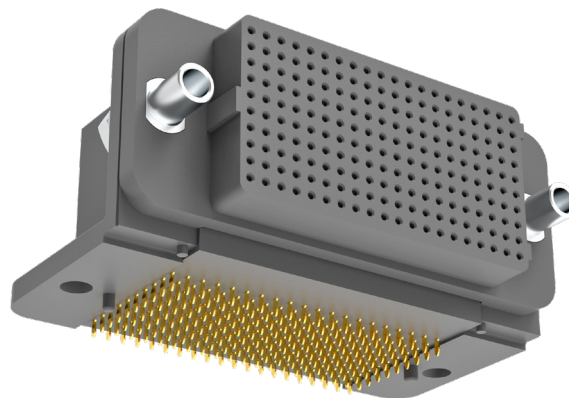
Please consult the Molex website for the latest revision of this document prior to beginning any design work.



AirBorn verSI Series

VSRAF — Right-Angle Female

VSRAF signal-integrity connectors are used in right-angle, PCB-mount applications where a female interface is required. Termination styles include press-fit, paste-in-hole or plated through-hole. Pitch: 0.050" (1.27 mm)



Sample Part Number Format: VSRAF-04-10-50-02-G

VSRAF			50		
SERIES AirBorn verSI Right-Angle (Female) 1.27 mm	ROWS 04 – 4 Rows 05 – 5 Rows 06 – 6 Rows 08 – 8 Rows 10 – 10 Rows	COLUMNS 10 – 10 Columns 20 – 20 Columns 30 – 30 Columns 40 – 40 Columns 50 – 50 Columns	CONTACT PLATING 50 – 50 μ " Au	TERMINATION 00 – Press-fit 01 – Paste-in-hole 02 – PTH 0.078" 03 – PTH 0.109" 04 – PTH 0.140" 05 – PTH 0.156" 06 – PTH 0.172"	OPTIONS Blank – No options [†] G – Guide socket N – Fixed jacknut J – Turning jackscrew L – Locking screw

NOTES:

See Molex SPEC ESL5001 for installation information.

Connector potting is standard.

[†]No hardware supplied with blank hardware option connectors.

Molex can manufacture other configurations to your exact specifications.

RoHS Compliant; certificate of conformance available upon request with each shipment.

Please view document VSRAF-XX-XX-XX-X on molex.com before part configuration for more product specification information.

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

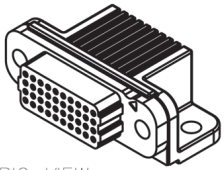
Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.

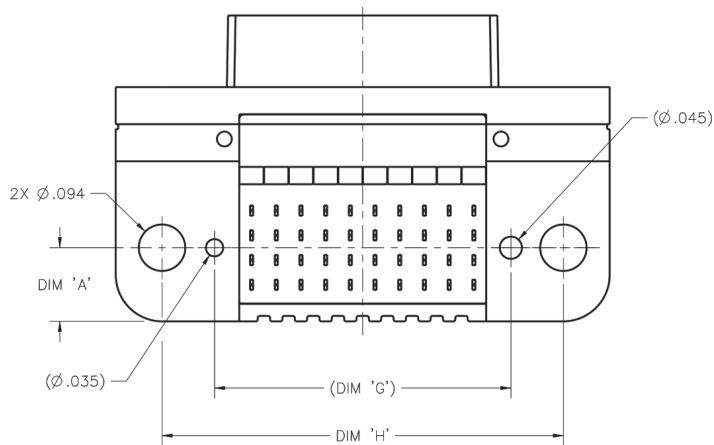
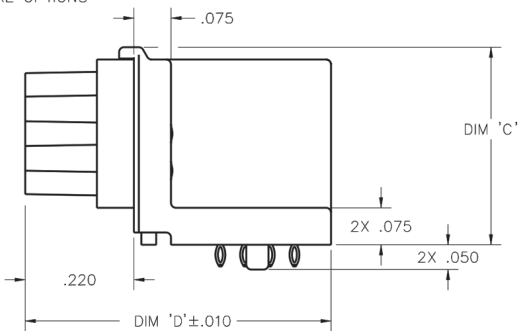
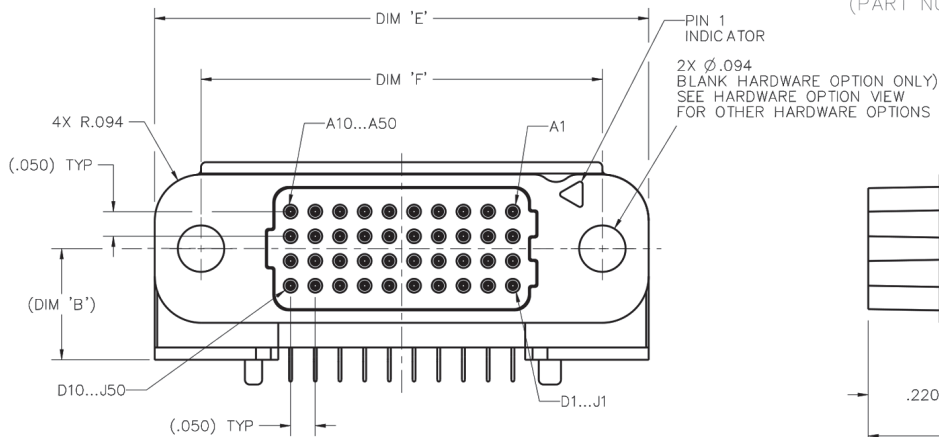


DIMENSIONS

CONNECTOR DIMENSIONS (BLANK HARDWARE OPTION SHOWN)



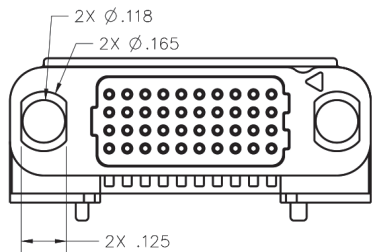
ISOMETRIC VIEW
FOR REFERENCE ONLY
(PART NUMBER VSRAF-04-10-50-00 SHOWN)



ROWS	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
04	.149	.225	.400	.619
05	.174	.250	.450	.669
06	.199	.275	.500	.719
08	.249	.325	.600	.819
10	.299	.375	.700	.919

COLUMNS	DIM 'E'	DIM 'F'	DIM 'G'	DIM 'H'
10	1.000	.813	.600	.813
20	1.500	1.313	1.100	1.313
30	2.000	1.813	1.600	1.813
40	2.500	2.313	2.100	2.313
50	3.000	2.813	2.600	2.813

HARDWARE OPTION VIEW



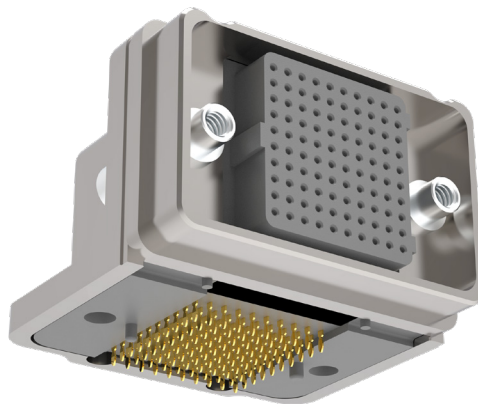
Please consult the Molex website for the latest revision of this document prior to beginning any design work.



AirBorn verSI Series

VRRAF — Rugged, Right-Angle Female

VRRAF signal-integrity connectors are ruggedized versions of the standard VSRAF female connectors. These connectors can be used in extreme environmental conditions while maintaining high reliability and performance.



Sample Part Number Format: VRRAF-04-10-50-00-N

VRRAF			50		
SERIES AirBorn verSI Rugged Right-Angle (Female) 1.27 mm	ROWS 04 – 4 Rows 05 – 5 Rows 06 – 6 Rows 08 – 8 Rows 10 – 10 Rows	COLUMNS 10 – 10 Columns 20 – 20 Columns 30 – 30 Columns 40 – 40 Columns 50 – 50 Columns	CONTACT PLATING 50 – 50 μ Au	TERMINATION 00 – Press-fit 01 – Paste-in-hole 02 – PTH 0.078" 03 – PTH 0.109" 04 – PTH 0.140" 05 – PTH 0.156" 06 – PTH 0.172"	OPTIONS Blank – Standard G – Guide socket N – Fixed jacknut J – Turning jackscrew ¹ L – Locking screw ¹ E – Standard/EMI gasket GE – Guide socket/EMI gasket NE – Fixed jacknut/EMI gasket JE – Turning jackscrew/EMI gasket ¹ LE – Locking screw/EMI gasket ¹

NOTES:

See Molex SPEC ESL5001 for installation information.

¹ Connectors come pre-assembled with shells & hardware.

Molex can manufacture other configurations to your exact specifications.

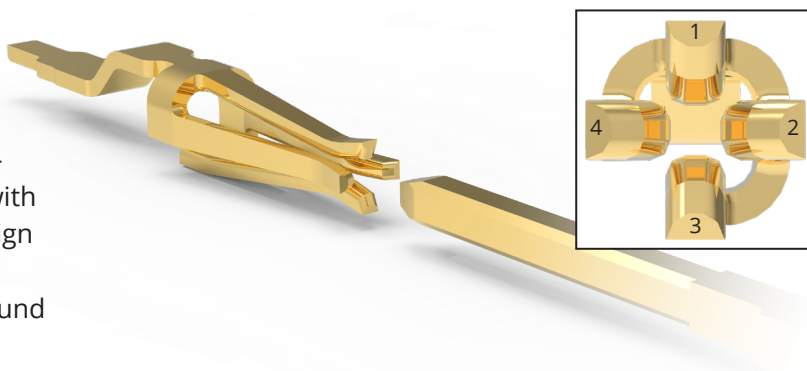
RoHS Compliant; certificate of conformance available upon request with each shipment.

Please view document VRRAF-XX-XX-XX-XX on molex.com before part configuration for more product specification information.

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

Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.

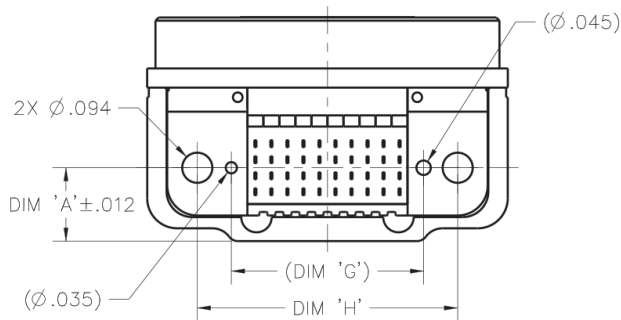
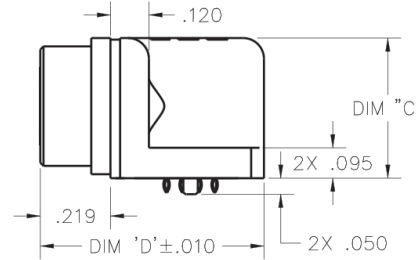
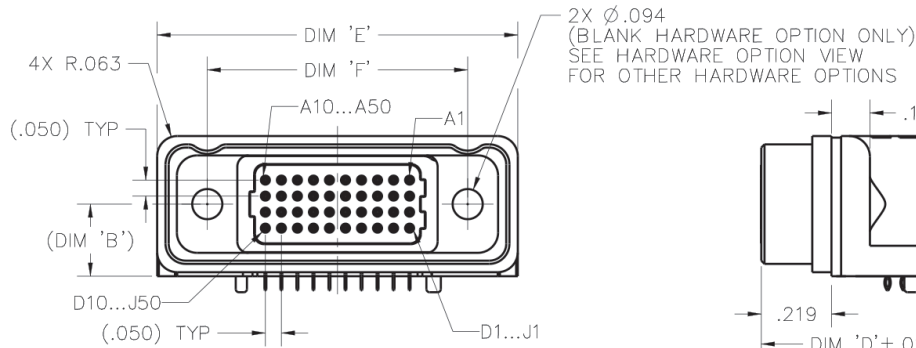


DIMENSIONS

CONNECTOR DIMENSIONS (BLANK, G AND N HARDWARE OPTIONS)



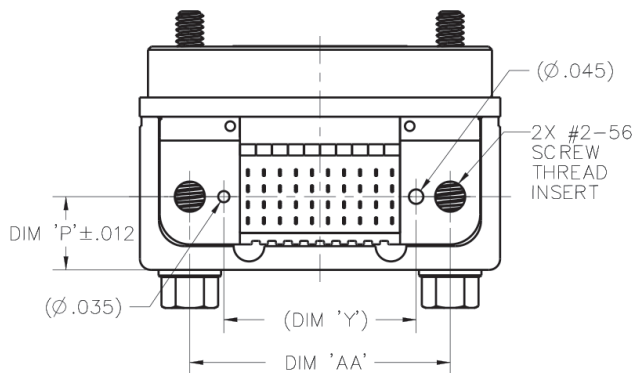
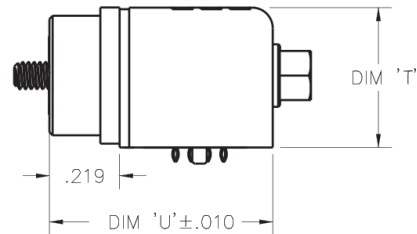
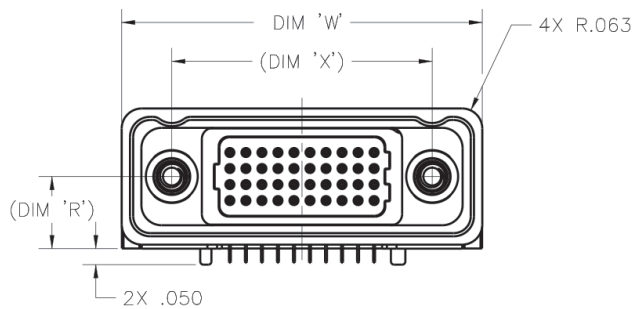
ISOMETRIC VIEW
FOR REFERENCE ONLY
(PART NUMBER
VRRAF-04-10-50-00
SHOWN)



ROWS	DIM 'A'	DIM 'B'	DIM 'C'	DIM 'D'
04	.229	.225	.437	.698
05	.254	.250	.487	.748
06	.279	.275	.537	.798
08	.329	.325	.637	.898
10	.379	.375	.737	.998

COLUMNS	DIM 'E'	DIM 'F'	DIM 'G'	DIM 'H'
10	1.125	.813	.600	.813
20	1.625	1.313	1.100	1.313
30	2.125	1.813	1.600	1.813
40	2.625	2.313	2.100	2.313
50	3.125	2.813	2.600	2.813

CONNECTOR DIMENSIONS (J & L HARDWARE OPTIONS)



ROWS	DIM 'P'	DIM 'R'	DIM 'T'	DIM 'U'
04	.228	.225	.438	.697
05	.253	.250	.488	.747
06	.278	.275	.538	.798
08	.328	.325	.638	.897
10	.378	.375	.738	.997

COLUMNS	DIM 'W'	DIM 'X'	DIM 'Y'	DIM 'AA'
10	1.125	.813	.600	.813
20	1.625	1.313	1.100	1.313
30	2.125	1.813	1.600	1.813
40	2.625	2.313	2.100	2.313
50	3.125	2.813	2.600	2.813

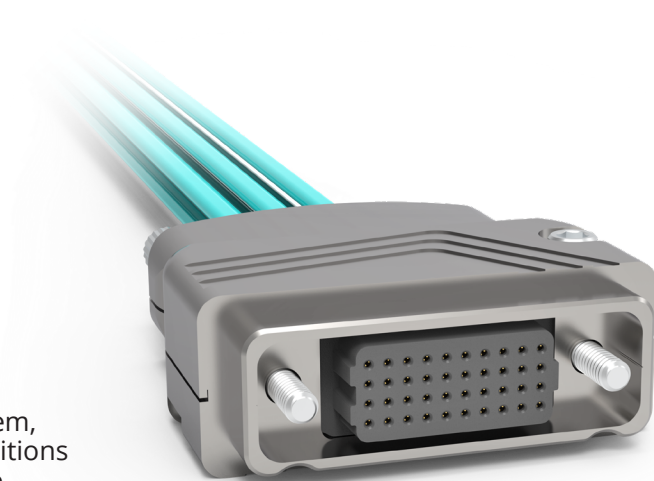
Please consult the Molex website for the latest revision of this document prior to beginning any design work.



AirBorn verSI Series

VRD — Differential Pair Twinax Cable Assembly

V2M signal-integrity connectors are ruggedized two-row, male connectors. With the proven AirBorn verSI Series contact system, these connectors can be used in extreme environmental conditions while maintaining high reliability and continuous performance. Pitch: 0.050" (1.27 mm)



Sample Part Number Format: VRD-04-10-50-03J-000-030



SERIES

AirBorn verSI
Differential Pair
Twinaxable
Assembly 1.27 mm

ROWS

04 – 4 Rows
05 – 5 Rows
06 – 6 Rows
08 – 8 Rows
10 – 10 Rows

COLUMNS

10 – 10 Columns
20 – 20 Columns
30 – 30 Columns
40 – 40 Columns
50 – 50 Columns

CONTACT PLATING

50 – 50 μ " Au

CONNECTOR 1

01G – Male with guide pins
01N – Male with threaded nut #2-56
01L – Male with locking screw #2-56
01J – Male with jackscrew #2-56
03G – Female with guide sockets
03N – Female with threaded nut #2-56
03L – Female with locking screw #2-56
03J – Female with jackscrew #2-56

CONNECTOR 2

000 – Flying Leads
01G – Male with guide pins
01N – Male with threaded nut #2-56
01L – Male with locking screw #2-56
01J – Male with jackscrew #2-56
03G – Female with guide sockets
03N – Female with threaded nut #2-56
03L – Female with locking screw #2-56
03J – Female with jackscrew #2-56

LENGTH*

030 – 0.30 M
040 – 0.40 M
050 – 0.50 M
060 – 0.60 M
070 – 0.70 M
080 – 0.80 M
090 – 0.90 M
100 – 1.00 M
150 – 1.50 M
200 – 2.00 M
300 – 3.00 M

NOTES:

See Molex SPEC ESL5001 for installation information.

*Other cable lengths and configurations available.

Molex can manufacture other configurations to your exact specifications.

Reference pinout information on product spec drawing on www.airborn.com.

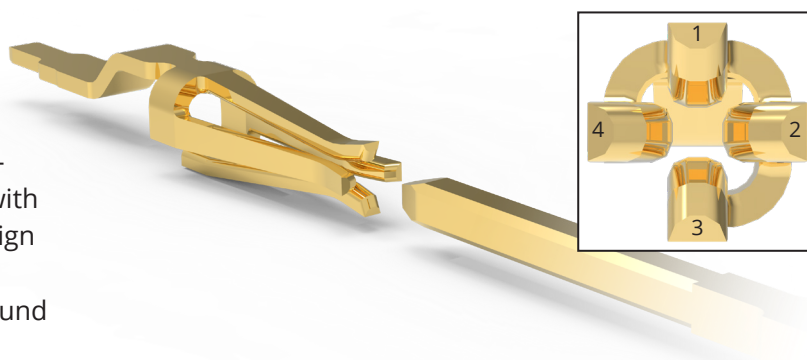
RoHS Compliant; certificate of conformance available upon request with each shipment.

Please view document VRD-XX-XX-XX-XXX-XXX on molex.com before part configuration for more product specification information.

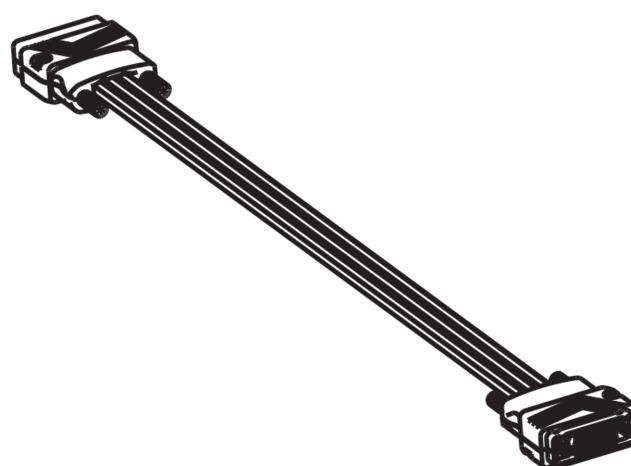
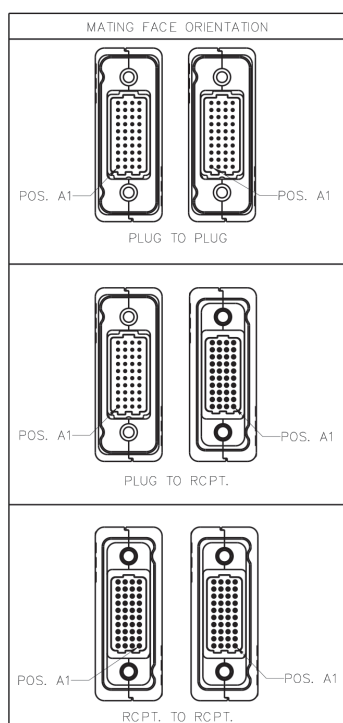
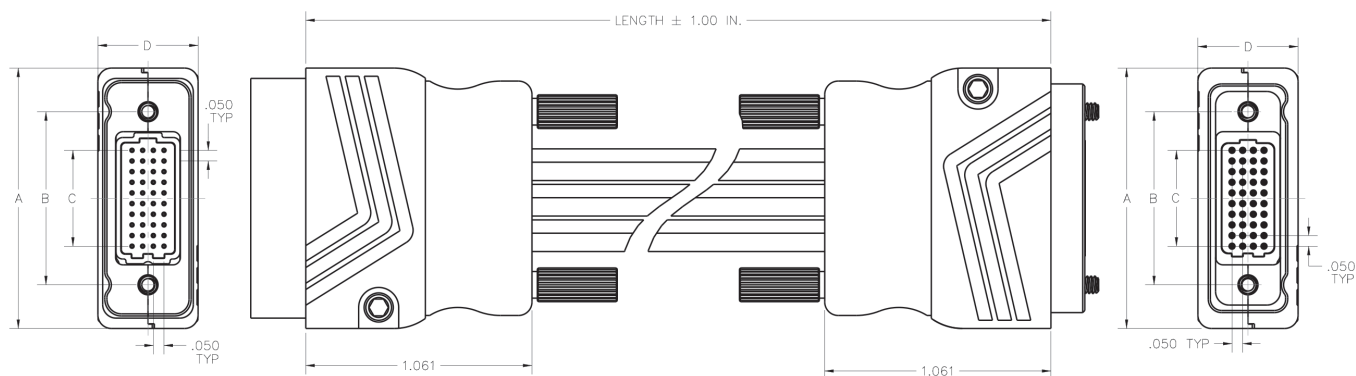
NOTE: Please consult molex.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.



DIMENSIONS



COLUMNS	A	B	C	ROWS	D
10	1.222	0.813	0.450	4	0.470
20	1.722	1.313	0.950	5	0.520
30	2.222	1.813	1.450	6	0.570
40	2.722	2.313	1.950	8	0.670
50	3.222	2.813	2.450	10	0.770

LENGTH		
CODE	LENTH (M)	LENGTH (IN)
030	0.30	11.81
040	0.40	15.75
050	0.50	19.69
060	0.60	23.62
070	0.70	27.56
080	0.80	31.50
090	0.90	35.43
100	1.00	39.37
150	1.50	59.06
200	2.00	78.74
300	3.00	118.11

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



AirBorn verSI Series

VRW — Discrete Wire Cable Assembly With Internal Solder Connection

VRW cable assemblies come in standard wire and lengths but custom wire and length options are available. Ruggedized shells are standard. Pitch: 0.050" (1.27 mm)



Sample Part Number Format: VRW-04-10-50-03G-000-A030

VRW			50			
SERIES AirBorn verSI Discrete Wire Cable Assembly 1.27 mm	ROWS 04 – 4 Rows 05 – 5 Rows 06 – 6 Rows 08 – 8 Rows 10 – 10 Rows	COLUMNS 10 – 10 Columns 20 – 20 Columns 30 – 30 Columns 40 – 40 Columns 50 – 50 Columns	CONTACT PLATING 50 – 50 µ" Au	CONNECTOR 1 01G – Male with guide pins 01N – Male with threaded nut #2-56 01L – Male with locking screw #2-56 01J – Male with jackscrew #2-56 03G – Female with guide sockets 03N – Female with threaded nut #2-56 03L – Female with locking screw #2-56 03J – Female with jackscrew #2-56	CONNECTOR 2 000 – Flying Leads 01G – Male with guide pins 01N – Male with threaded nut #2-56 01L – Male with locking screw #2-56 01J – Male with jackscrew #2-56 03G – Female with guide sockets 03N – Female with threaded nut #2-56 03L – Female with locking screw #2-56 03J – Female with jackscrew #2-56	WIRE CODE XXXX (Four characters are required -- see blue columns in the chart below.)

NOTES:

See Molex SPEC ESL5001 for installation information.

All VRW part numbers are non-RoHS-compliant.

Wire colors per M83513 are ten (10) solid colors, repeating.

Per M83513, corrosion has been experienced on connectors that are pre-wired with 22759/33 and stored in sealed environments. Caution should be exercised when using this wire.

Reference pinout information on product specification drawing on www.molex.com.

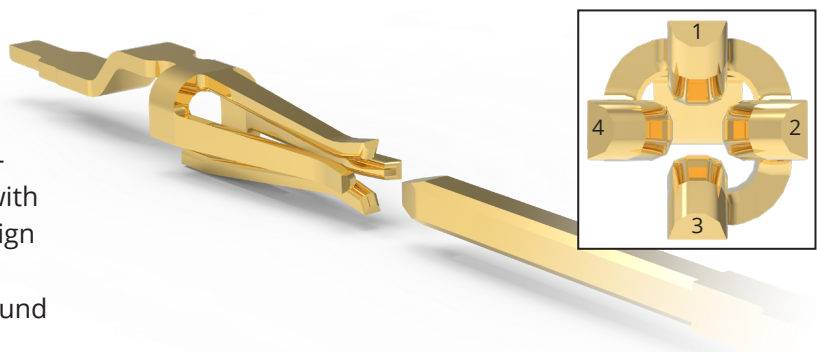
Please view document VRW-XX-XX-XX-XXX-XXX-XXXX on molex.com before part configuration for more product specification information.

Color (per 83513) and GAGE		Length		
NEMA HP3 EXBEB (24 AWG) - Multicolored	A		Meters	Feet
White	B	010	0.10	0.328
NEMA HP3 EXBDB (26 AWG) - Multicolored	C	020	0.20	0.656
White	D	030	0.30	0.984
NEMA HP3 EXBCB (28 AWG) - Multicolored	E	040	0.40	1.312
White	F	050	0.50	1.640
NEMA HP3 EXBBB (30 AWG) - Multicolored	G	060	0.60	1.969
White	H	070	0.70	2.297
SAE AS22759/33-24 (AWG) - Multicolored	J	080	0.80	2.625
White	K	090	0.90	2.953
SAE AS22759/33-26 (AWG) - Multicolored	L	100	1.00	3.281
White	M	150	1.50	4.921
SAE AS22759/33-28 (AWG) - Multicolored	N	200	2.00	6.562
White	P	300	3.00	9.843
SAE AS22759/33-30 (AWG) - Multicolored	R			
White	S			

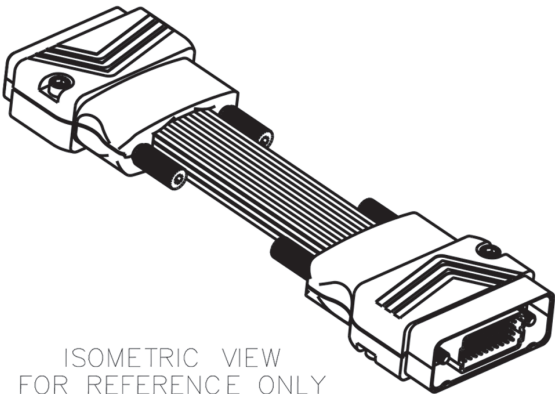
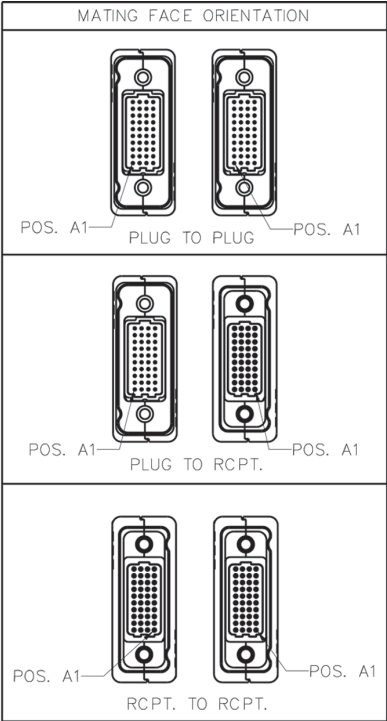
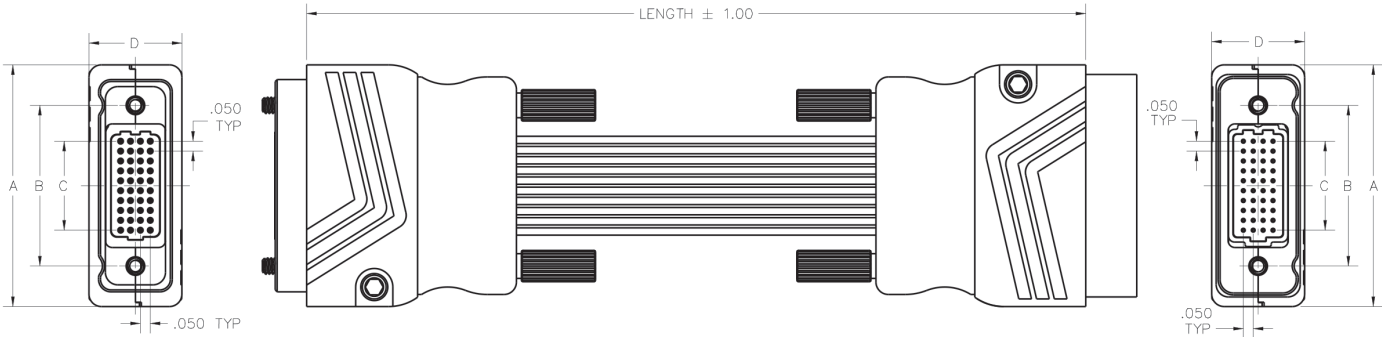
NOTE: Please consult molex.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.



DIMENSIONS



ISOMETRIC VIEW
FOR REFERENCE ONLY

COLUMNS	A	B	C	ROWS	D
10	1.222	0.813	0.450	4	0.470
20	1.722	1.313	0.950	5	0.520
30	2.222	1.813	1.450	6	0.570
40	2.722	2.313	1.950	8	0.670
50	3.222	2.813	2.450	10	0.770

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

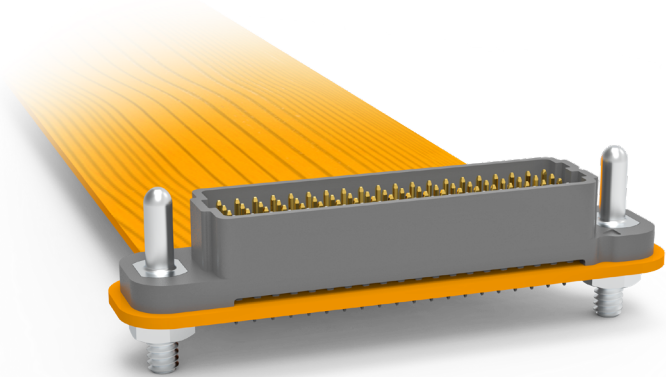
Please consult the Molex website for the latest revision of this document prior to beginning any design work.



AirBorn verSI Series

Flexible Circuit Jumper Assemblies

These assemblies are available in standard and rugged connector offerings, meeting all your application and reliability needs. Standard length offerings are shown; custom length and configuration options are available upon request.
Pitch: 0.050" (1.27mm)

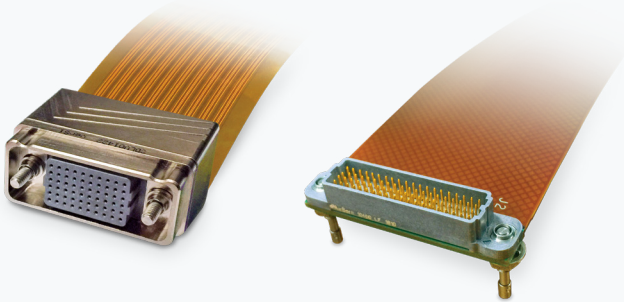


Sample Part Number Format: VSX-04-10-01VG-03VG-015

							
SERIES AirBorn verSI VSX - Standard VRX - Rugged	ROWS 04 - 4 Rows 05 - 5 Rows 06 - 6 Rows 08 - 8 Rows 10 - 10 Rows	COLUMNS 10 - 10 Columns 20 - 20 Columns 30 - 30 Columns 40 - 40 Columns 50 - 50 Columns	CONNECTOR 1 GENDER & ORIENTATION 01V - Male Vertical 03V - Female Vertical 01R - Male Right-Angle 03R - Female Right-Angle	CONNECTOR 1 MATING HARDWARE A - No Hardware J - Jacking L - Locking N - Jacknut G - Guide	CONNECTOR 2 GENDER & ORIENTATION 01V - Male Vertical 03V - Female Vertical 01R - Male Right-Angle 03R - Female Right-Angle	CONNECTOR 2 MATING HARDWARE A - No Hardware J - Jacking L - Locking N - Jacknut G - Guide	LENGTH 015 - 0.15 M 030 - 0.30 M 040 - 0.40 M 045 - 0.45 M 050 - 0.50 M 060 - 0.60 M 070 - 0.70 M 080 - 0.80 M 090 - 0.90 M 100 - 1.00 M 150 - 1.50 M 200 - 2.00 M 300 - 3.00 M

NOTES:

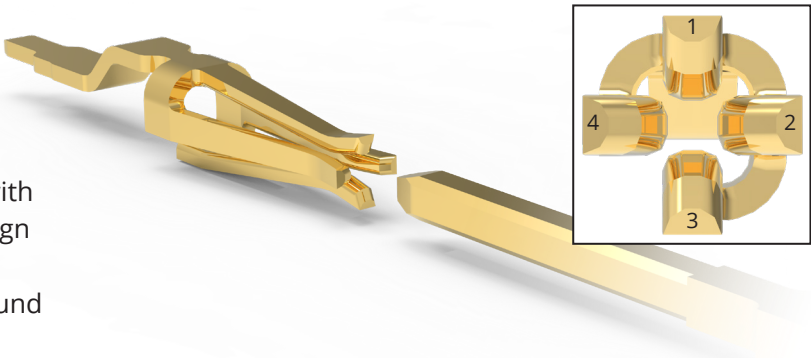
See Molex SPEC ESL5001 for installation information.
Same Gender Jumpers (Male to Male and Female to Female) are not wired 1 to 1.
Connectors are rated for 2 amps, flex traces are rated for 1 amp.
Molex can manufacture other configurations to your exact specifications.
Please view document VSX-XX-XX-XXX-XX-XX-XX on molex.com before part configuration for more product specification information.



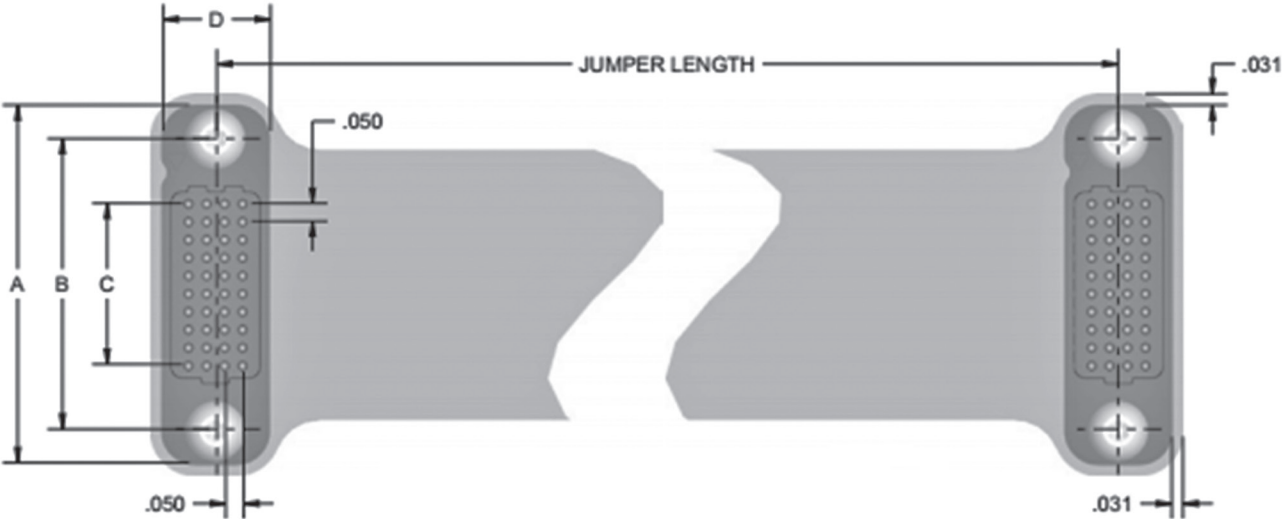
NOTE: Please consult molex.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.



DIMENSIONS



FLEX JUMPER DIMENSIONS					
Columns	A	B	C	Rows	D
10	1.000	0.813	0.450	4	0.300
20	1.500	1.313	0.950	5	0.350
30	2.000	1.813	1.450	6	0.400
40	2.500	2.313	1.950	8	0.500
50	3.000	2.813	2.450	10	0.700

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



AirBorn verSI Series

VRCS — Connector Savers

VRCS ruggedized connector savers are designed to protect connectors against repeated mating and un-mating cycles during test, initial setup and design. VRCS assemblies also serve to protect against costly damage to contacts and hardware during all phases of the connectors' life cycle.



Sample Part Number Format: VRCS-04-10-MJFN



SERIES

AirBorn verSI
Differential Pair
Twinax Cable
Assembly
1.27 mm



ROWS

04 – 4 Rows
05 – 5 Rows
06 – 6 Rows
08 – 8 Rows
10 – 10 Rows



COLUMNS

10 – 10 Columns
20 – 20 Columns
30 – 30 Columns
40 – 40 Columns
50 – 50 Columns



HARDWARE

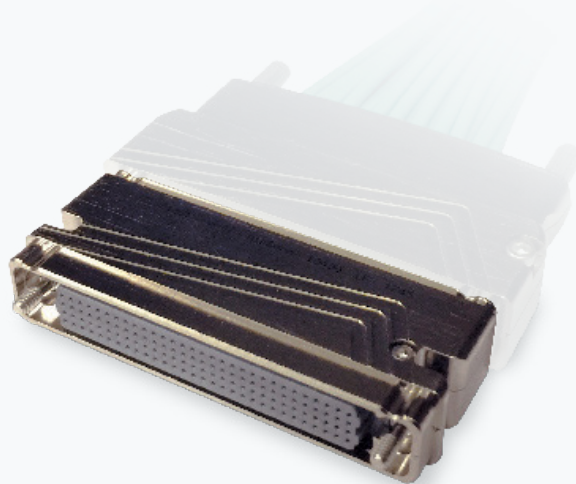
MJFN – Male with Jackscrew; female jacknut
MNFJ – Male with Jacknut; female jackscrew
MLFN – Male with locking screw; female jacknut
MNFL – Male with Jacknut; locking screw
MGFG – Male guide pin; female guide socket

NOTES:

See Molex SPEC ESL5001 for installation information.

VRCS-XX-XX-XXXX hardware is field reversible, replaceable, and repairable.

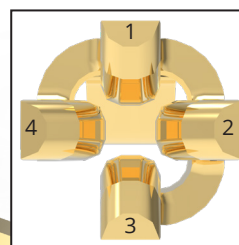
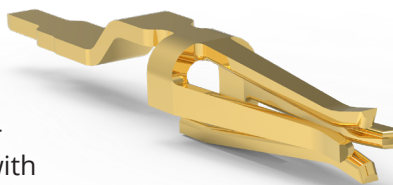
Please view document VRCS-XX-XX-XXXX on molex.com before part configuration for more product specification information.



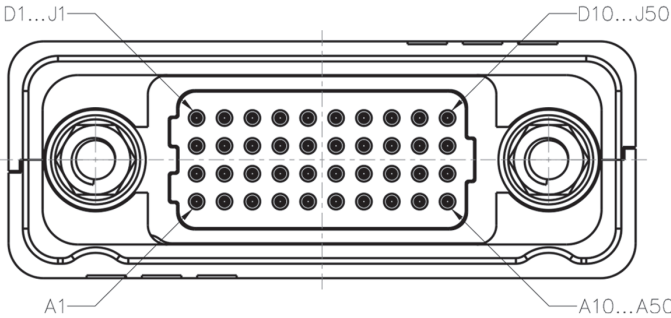
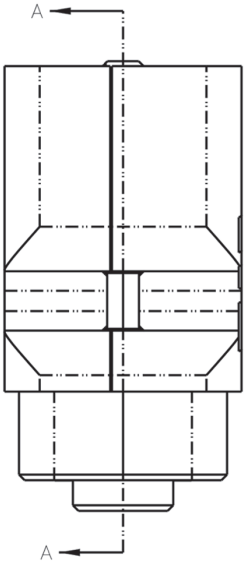
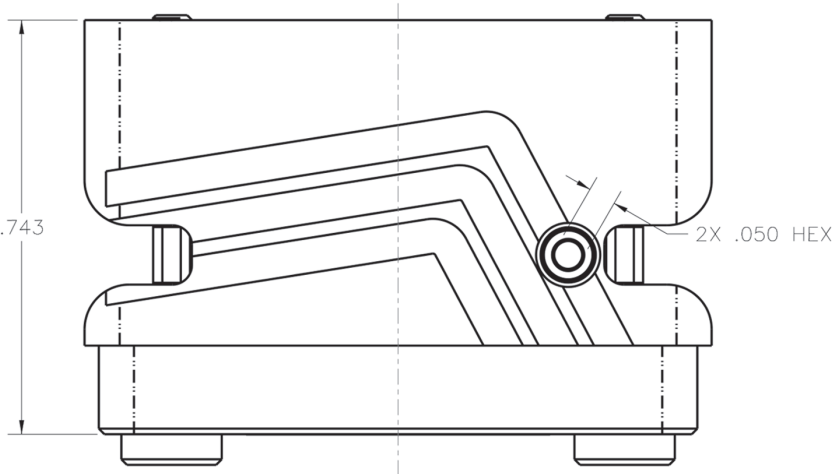
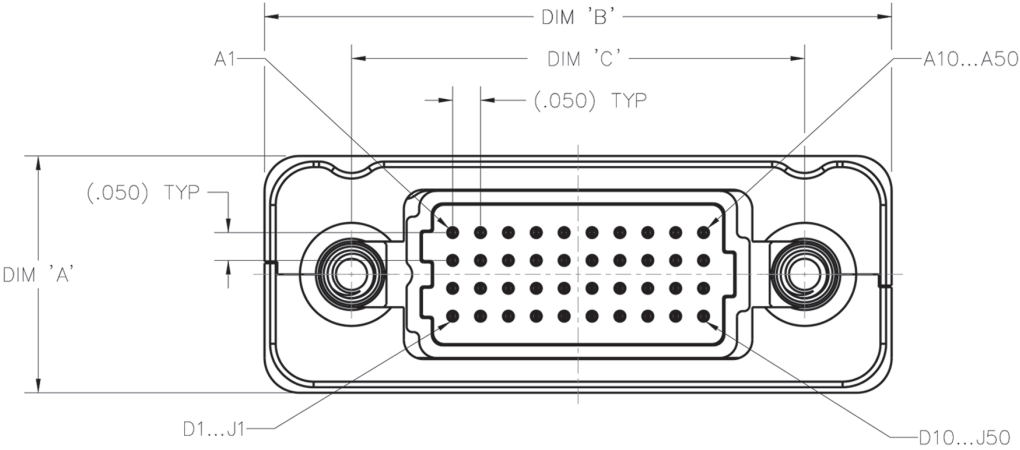
NOTE: Please consult molex.com to configure your part number and for the latest revision controlled drawing and technical data.

Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.



DIMENSIONS



ROWS	DIM 'A'
04	.425
05	.475
06	.525
08	.625
10	.725

COLUMNS	DIM 'B'	DIM 'C'
10	1.125	.813
20	1.625	1.313
30	2.125	1.813
40	2.625	2.313
50	3.125	2.813

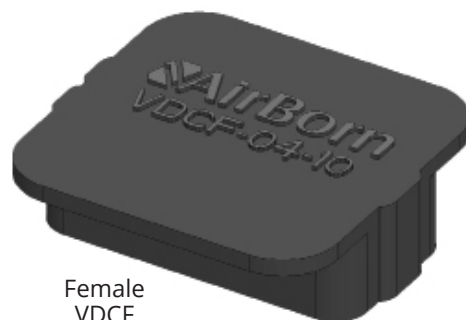
Please consult the Molex website for the latest revision of this document prior to beginning any design work.



AirBorn verSI Series

Dust Covers

VDCM and VDCF dust covers offer connectors protection from environmental and mechanical harm using ESD material.



Sample Part Number Format: VDCM-04-10



SERIES

AirBorn verSI
VDCM - Male
Dust Cover
VDCF - Female
Dust Cover

ROWS

04 - 4 Rows
05 - 5 Rows
06 - 6 Rows
08 - 8 Rows
10 - 10 Rows

COLUMNS

10 - 10 Columns
20 - 20 Columns
30 - 30 Columns
40 - 40 Columns
50 - 50 Columns



NOTES:

See Molex SPEC ESL5001 for installation information.

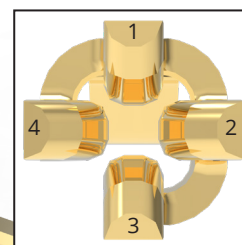
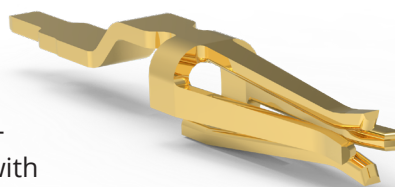
VDCM covers are applied to VSM, VRM, VSRAM & VRRAM

VDCF covers are applied to VSF, VRF, VSRAF & VRRAF

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

Reliable Contact Every Time

AirBorn verSI Series connectors feature a low-mating-force, high-reliability contact system with four points-of-contact. The open-pin field design allows for flexibility in termination schemes. Single-ended, differential pair, power and ground are all available in one connector design.

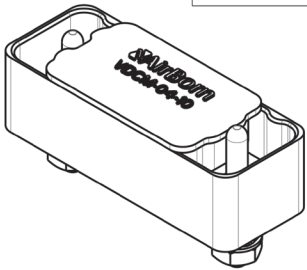


DIMENSIONS

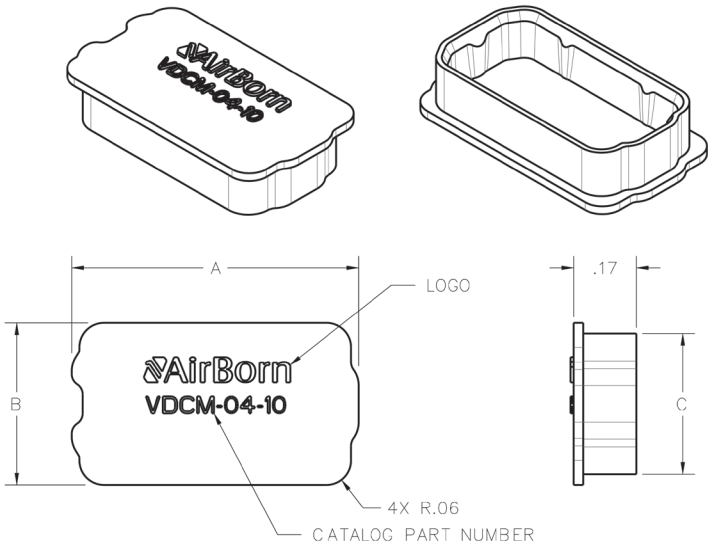
VDC M-XX-XX

DIMENSIONS	
COLUMNS	A
10	.75
20	1.25
30	1.75
40	2.25
50	2.75

DIMENSIONS		
ROWS	B	C
04	.43	.37
05	.48	.42
06	.53	.47
08	.63	.57
10	.73	.67



VRM-04-10-100-50-00-G
CONNECTOR SHOWN FOR
REFERENCE ONLY

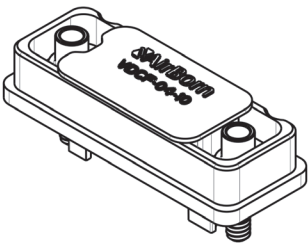


VDCM

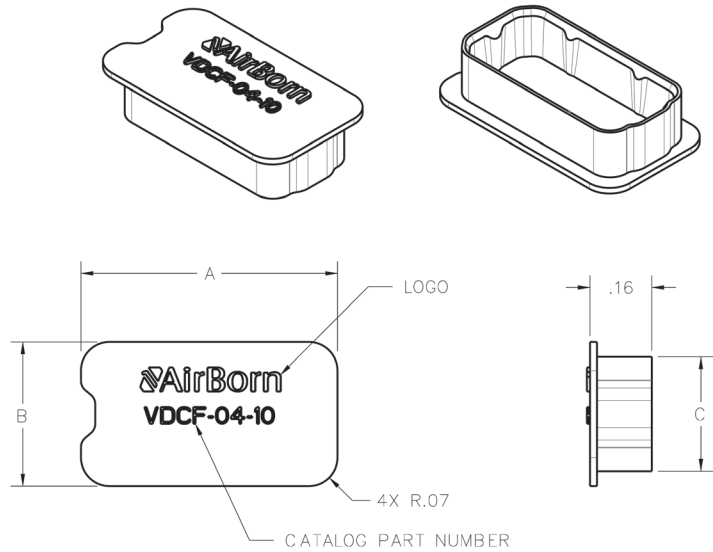
VDC F-XX-XX

DIMENSIONS	
COLUMNS	A
10	.66
20	1.16
30	1.66
40	2.16
50	2.66

DIMENSIONS		
ROWS	B	C
04	.37	.30
05	.42	.35
06	.47	.40
08	.57	.50
10	.67	.60



VRF-04-10-50-00-G
CONNECTOR SHOWN FOR
REFERENCE ONLY



VDCF

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

Signal Integrity Data — Simulated (Connectors Only)

1	Differential Insertion Loss	-0.25 dB at 5 GHz	-3dB at 16 GHz
2	Differential Return Loss	-20 dB at 5 GHz	-6 dB at 14 GHz
3	Differential Impedance	100 ohm $\pm$ 10% at 50 ps rise time	
4	Differential Skew	< 2 psec	

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

Materials and Finishes

Pin Contacts Materials

PIH & PTH Phosphor bronze per ASTM B103 or
Press Fit. BeCu per ASTM B768 (press-fit contact)

Pin Contacts Finish . . . 50 μ inches (μ in or μ ") min localized gold finish per ASTM B488 over nickel per ASTM B689 type I

Pin Contacts Finish Termination End

PIH and PTH 10 μ inches min localized gold flash per ASTM B488 type I code A or C over 50 μ inches min
. Nickel per ASTM B689 Type I

Press Fit 50 μ inches min localized gold per ASTM B488 type II code C over 50 μ inches min
. Nickel per ASTM B689 Type I

SMT non RoHS 10 μ inches min localized gold flash per ASTM B488 type I, code A or C over 50 μ inches min
. Nickel per ASTM B689 type I tin dipped with Sn63Pb37 solder

SMT RoHS 10 μ inches localized gold flash per ASTM B488 type I, code A or C over 50 μ inches min
. Nickel per ASTM B689 type I tin dipped with 42Sn/57.6Bi/0.4Ag solder

Molded Insulators Glass-filled liquid crystal polymer (LCP) per ASTM D5138

Shell Material Aluminum alloy 6061-T6 per SAE AMS 4027 or 6061-T6511 per QQ-A-200/8

Shell Finish 500 μ inches min electroless Ni per SAE AMS 2404, class 3

Embedment Material Frey Engineering Co. insulating compound CF3003-80 or equivalent

Hardware Material Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320

Hardware Finish Passivated per SAE AMS-2700

Washers Material Stainless steel per NASM35333 (ASTM A240)

Washers Finish. Passivated per NASM35333 (SAE AMS-2700)

Performance

Contact Rating 2 amperes maximum

Operating Temperature -55° to +125° C

Contact Engagement Force. 6.0oz max.*

Contact Separation Force0.5oz min*

Connector Mating Force 10oz X (# of contacts), max tested per MIL-DTL-83513

Connector Un-mating Force 10oz X (# of contacts), max tested per MIL-DTL-83513

Low-Level Contact Resistance 20m Ω max, V2M mated to V2F, measured at the termination

DWV (Sea Level) 600V, RMS, 60 Hz, See Molex PTB61 for more info

Recommended Maximum Operating Voltage 200V, RMS, 60 Hz, See Molex PTB61 for more info

Insulation Resistance 5,000 megaohms minimum at 500 VDC

Durability 2,500 connector mating cycles

Sinusoidal Vibration. 20g (EIA-364-28, condition IV)

Shock 50g (EIA-364-27, condition E)

Outgassing Max TML of 1% and max CVCM of 0.1% per MIL-DTL-83513

* Forces tested on socket only. Max pin size used for contact engagement force and min pin size used for contact separation force.

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

Materials and Finishes

Socket Contacts Materials	.BeCu per ASTM B194
Socket Contacts Finish Socket End	50 μ inches min localized gold finish per ASTM B488 type II, code C over 50 μ inches min nickel per ASTM B689 type I
Socket Contacts Finish Termination End	
PIH and PTH	10 μ inches min localized gold flash per ASTM B488 type I code A or C over 50 μ inches min Nickel per ASTM B689 Type I
Press Fit	50 μ inches min localized gold per ASTM B488 type II code C over 50 μ ttIN min Nickel per ASTM B689 Type I
SMT non RoHS	10 μ inches min localized gold flash per ASTM B488 type I, code A or C over 50 μ inches min Nickel per ASTM B689 type I tin dipped with Sn63Pb37 solder
SMT RoHS	10 μ inches localized gold flash per ASTM B488 type I, code A or C over 50 μ inches min Nickel per ASTM B689 type I tin dipped with 42Sn/57.6Bi/0.4Ag solder
Molded Insulators	Glass-filled liquid crystal polymer (LCP) per ASTM D5138
Shell Material	Aluminum alloy 6061-T6 per SAE AMS 4027 or 6061-T6511 per QQ-A-200/8
Shell Finish	500 μ inches min electroless nickel per SAE AMS 2404, class 3
Embedment Material	Frey Engineering Co. insulating compound CF3003-80 or equivalent
Hardware Material	Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320
Hardware Finish	Passivated per SAE AMS-2700
Washers Material	Stainless steel per NASM35333 (ASTM A240)
Washers Finish	Passivated per NASM35333 (SAE AMS-2700)

Performance

Contact Rating	2 amperes maximum
Operating Temperature	-55° to +125° C
Contact Engagement Force	6.0oz max.*
Contact Separation Force	.0.5oz min*
Connector Mating Force	.10oz X (# of contacts), max tested per MIL-DTL-83513
Connector Unmating Force	.10oz X (# of contacts), max tested per MIL-DTL-83513
Low-Level Contact Resistance	30m Ω max, V2M mated to V2F, measured at the termination
DWV (Sea Level)	600V, RMS, 60Hz, See Molex PTB61 for more info
Recommended Maximum Operating Voltage	200V, RMS, 60Hz, See Molex PTB61 for more info
Insulation Resistance	5,000 megaohms minimum at 500 VDC, tested per MIL-DTL-83513
Durability	2,500 connector mating cycles, exceeds MIL-DTL-83513
Sinusoidal Vibration	20g tested per MIL-DTL-83513
Shock	50g tested per MIL-DTL-83513
Outgassing	Max TML of 1% and max CVCM of .1% per MIL-DTL-83513

* Forces tested on socket only. Max pin size used for contact engagement force and min pin size used for contact separation force.

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

Materials and Finishes

Shell Material	6061-T6, 6061-T6511 or 6060-T6511 Aluminum SAE AMS 4027 or SAE AMS-QQ-A-200/8
Shell Finish	500 µ inches min electroless nickel per SAE AMS-2404, class 3
Socket Material	.BeCu per ASTM B194
Pin Material	.Phosphor bronze per ASTM B103
Contact Finish	50 µ inches min gold finish per SAE AMS B488 over 50 µ inches nickel per ASTM B689 type I
Cable	.Reference product specification drawing V2C-XX-XX-XX-XXX-XXX-XXX-XXX
Wire	.Reference product specification drawing V2C-XX-XX-XX-XXX-XXX-XXX-XXX
Molded Insulators	Glass-filled liquid crystal polymer (LCP) per ASTM D5138
Hardware Materials	Stainless steel per ASTM A582/A582M or ASTM A320
Hardware Finishes	.Passivated per SAE AMS-2700
Embedment	Frey Engineering Co. insulating compound CF3003-80 and L-11-49 or equivalent
Solder	SN/PB solder, 63% PB, 37% SN
EMI Gasket	Conductive elastomer per MIL-DTL-83528 Type D

Performance

Contact Rating	2 amperes maximum
Operating Temperature	-55° to +125° C
Contact Engagement Force.	6.0oz max.*
Contact Separation Force.	.0.5oz min*
Connector Mating Force	10oz. X (# of contacts), max tested per MIL-DTL-83513
Connector Unmating Force.	10oz. X (# of contacts), max tested per MIL-DTL-83513
DWV (Sea Level)	600V, RMS, 60Hz, See Molex PTB61 for more info
Recommended Maximum Operating Voltage	200V, RMS, 60Hz, See Molex PTB61 for more info
Insulation Resistance	5,000 megaohms minimum at 500 VDC per MIL-DTL-83513
Durability.	2,500 connector mating cycles, exceeding MIL-DTL-83513
Sinusoidal Vibration.	20g tested per MIL-DTL-83513
Shock	50g tested per MIL-DTL-83513
Outgassing	Max TML of 1% and max CVCM of .1% per MIL-DTL-83513

* Forces tested on socket only. Max pin size used for contact engagement force and min pin size used for contact separation force.

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

Materials and Finishes

Pin Contacts	Phosphor bronze per ASTM B103 or BeCu per ASTM B768 (press-fit contact)
Contact Finish	Localized gold finish per ASTM B488 over nickel per ASTM B689 type I, 50 μ inches min
Molded Insulators	Glass-filled liquid crystal polymer (LCP) per ASTM D5138
Potting Compound	Frey Eng. Co. insulating compound CF3003-80
Hardware (except washers)	Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320 Passivated per SAE AMS-2700
Washers	Stainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)
Solder Paste	Sn63Pb37 (PN WS483) and 42Sn/57.6Bi/0.4Ag (PN ALPHA CVP-520)

Performance

Contact Rating	2 amperes maximum
Operating Temperature	-55° to +125° C
Max. Recommended Operating Voltage	200V, RMS, 60 Hz
Insulation Resistance	5,000 megaohms minimum at 500 VDC
Durability.	2,500 connector mating cycles
Sinusoidal Vibration.	20g (EIA-364-28, condition IV)
Shock	50g (EIA-364-27, condition E)

NOTE: Performance values are estimates and values are subject to change without notice. Please reference engineering document VSM-XX-XX-XXX-XX-XX-XX on molex.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

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

Materials and Finishes

Socket Contacts	BeCu per ASTM B194
Contact Finish	Localized gold finish per ASTM B488 over nickel per ASTM B689 type I, 50 μ inches min
Molded Insulators	Glass-filled liquid crystal polymer (LCP) per ASTM D5138
Potting Compound	Frey Eng. Co. insulating compound CF3003-80
Hardware (except washers)	Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320 Passivated per SAE AMS-2700
Washers	Stainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)
Solder Paste	Sn63Pb37 (PN WS483) and 42Sn/57.6Bi/0.4Ag (PN ALPHA CVP-520)

Performance

Contact Rating	2 amperes maximum
Operating Temperature	-55° to +125° C
Max. Recommended Operating Voltage	200V, RMS, 60 Hz
Insulation Resistance	5,000 megaohms minimum at 500 VDC
Durability	2,500 connector mating cycles
Sinusoidal Vibration	20g (EIA-364-28, condition IV)
Shock	50g (EIA-364-27, condition E)

NOTE: Performance values are estimates and values are subject to change without notice. Please reference engineering document VSF-XX-XX-XXX-XX-XX-XX on molex.com for the latest engineering to design against. Certificate of RoHS compliance available upon request with each shipment.

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Materials and Finishes

Shell	Aluminum alloy 6061-T6 per SAE AMS 4027 or 6061-T6511 per QQ-A-200/8
Finish	Electroless nickel per SAE AMS 2404, class 3; 500 μ inches min
Pin Contacts	Phosphor bronze per ASTM B103 or BeCu per ASTM B768 (press-fit contact)
Contact Finish	Localized gold finish per ASTM B488 over nickel per ASTM B689 type I, 50 μ inches min
Molded Insulators	Glass-filled liquid crystal polymer (LCP) per ASTM D5138
Potting Compound	Frey Eng. Co. insulating compound CF3003-80
Hardware (except washers)	Stainless steel per ASTM A484/A484M, ASTM A582/A582M, or ASTM A320; Passivated per SAE AMS-2700
Washers	Stainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)
Solder Paste	.Sn63Pb37 (PN WS483) and 42Sn/57.6Bi/0.4Ag (PN ALPHA CVP-520)

Performance

Contact Rating	2 amperes maximum
Operating Temperature	-55° to +125° C
Max. Recommended Operating Voltage	200V, RMS, 60 Hz
Insulation Resistance	5,000 megaohms minimum at 500 VDC
Durability	2,500 connector mating cycles
Sinusoidal Vibration	.20g (EIA-364-28, condition IV)
Shock	50g (EIA-364-27, condition E)

NOTE: Performance values are estimates and values are subject to change without notice. Please reference engineering document VRM-XX-XX-XXX-XX-XX-XX on molex.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

*VRM 8MM (VRM-XX-XX-080) spacing is not available with mating hardware options.

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Materials and Finishes

Shell	Aluminum alloy 6061-T6 per SAE AMS 4027 or 6061-T6511 per QQ-A-200/8
Finish	Electroless nickel per SAE AMS-2404, class 3; 500 μ inches min
Socket Contact	BeCu per ASTM B194
Contact Finish	Localized gold finish per ASTM B488 over nickel per ASTM B689 type I, 50 μ inches min
Molded Insulators	Glass-filled liquid crystal polymer (LCP) per ASTM D5138
Potting Compound	Frey Eng. Co. insulating compound CF3003-80
Hardware (except washers)	Stainless steel per ASTM A484/A484M, A582/A582M or ASTM A320; Passivated per SAE AMS-2700
Washers	Stainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)
EMI Gasket (GE, G1E, NE and N1E options only)	Conductive elastomer per MIL-DTL-83528 type D
Solder Paste	Sn63Pb37 (PN WS483) and 42Sn/57.6Bi/0.4Ag (PN ALPHA CVP-520)

Performance

Contact Rating	2 amperes maximum
Operating Temperature	-55° to +125° C
Max. Recommended Operating Voltage	200V, RMS, 60 Hz
Insulation Resistance	5,000 megaohms minimum at 500 VDC
Durability	2,500 connector mating cycles
Sinusoidal Vibration	20g (EIA-364-28, condition IV)
Shock	50g (EIA-364-27, condition E)

NOTE: Performance values are estimates and values are subject to change without notice. Please reference engineering document VRF-XX-XX-XXX-XX-XX-XX on molex.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

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Materials and Finishes

Pin Contacts (Mating Face) Phosphor bronze per ASTM B103

Pin Contacts (Termination)BeCu per ASTM B768 (press-fit contact) or brass alloy per ASTM B36 (PIH or PTH)

Contact Finish (Mating Face) Localized gold finish per ASTM B488, type II, code C over nickel per ASTM B689 Type I,
. 50 μ inches min

Contact Finish (Termination) Localized gold finish per ASTM B488, type II, code C, 50 μ inches min over
. nickel per ASTM B689 type I, 50 μ inches min (press fit) or localized gold per ASTM B488 type I, code A
. or C, 10-25 μ inches over nickel per ASTM B689 type I, 50 μ inches min (PIH or PTH)

Molded Insulators Glass-filled liquid crystal polymer (LCP) per ASTM D5138

Potting Compound Frey Eng. Co. insulating compound CF3003-80

Hardware (except washers) Stainless steel per ASTM A484/A484M, A582/A582M, or ASTM A320;
. passivated per SAE AMS-2700

WashersStainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)

Performance

Contact Rating 2 amperes maximum

Operating Temperature -55° to +125° C

Max. Recommended Operating Voltage 200V, RMS, 60 Hz

Insulation Resistance 5,000 megaohms minimum at 500 VDC

Durability 2,500 connector mating cycles

Sinusoidal Vibration 20g (EIA-364-28, condition IV)

Shock 50g (EIA-364-27, condition E)

NOTE: Performance values are estimates and values are subject to change without notice. Please reference engineering document VSRAM-XX-XX-XXX-XX-XX-XX on molex.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

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Materials and Finishes

Shell	Aluminum alloy 6061-T6 per SAE AMS 4027 or 6061-T6511 per QQ-A-200/8
Finish	Electroless nickel per SAE AMS-2404, Class 3, 500 μ inches min
Pin Contacts (Mating Face)	Phosphor bronze per ASTM B103
Pin Contacts (Termination)	BeCu per ASTM B768 (press-fit contact) or brass alloy per ASTM B36 (PIH or PTH)
Contact Finish (Mating Face)	Localized gold finish per ASTM B488, type II, code C, over nickel per ASTM B689 type I 50 μ inches min
Contact Finish (Termination Face)	Localized gold finish per ASTM B488, type II, code C, 50 μ inches min over nickel per ASTM B689 type I, 50 μ inches min (press fit) or localized gold per ASTM B488, type 1, code A or C, 10-25 μ inches over nickel per ASTM B689 Type I, 50 μ inches min (PIH or PTH)
Molded Insulators	Glass-filled liquid crystal polymer (LCP) per ASTM D5138
Potting Compound	Frey Eng. Co. insulating compound CF3003-80
Hardware (except washers)	Stainless steel per ASTM A484/A484M, A582/A582M or ASTM A320; Passivated per SAE AMS-2700
Washers	Stainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)

Performance

Contact Rating	2 amperes maximum
Operating Temperature	-55° to +125° C
Max. Recommended Operating Voltage	.200V, RMS, 60 Hz
Insulation Resistance	.5,000 megaohms minimum at 500 VDC
Durability	2,500 connector mating cycles
Sinusoidal Vibration	.20g (EIA-364-28, condition IV)
Shock	50g (EIA-364-27, condition E)

NOTE: Performance values are estimates and values are subject to change without notice. Please reference engineering document VRRAM-XX-XX-XXX-XX-XX-XX on molex.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

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Materials and Finishes

Socket Contact (Mating Face)	BeCu per per ASTM B194
Socket Contact (Termination)	Brass alloy per ASTM B36 (PIH or PTH) or BeCu per ASTM B768 (press-fit contact)
Contact Finish (Mating Face)	Localized gold finish per ASTM B488, type II, code C over nickel per ASTM B689 type I, 50 μ inches min
Contact Finish (Termination)	Localized gold finish per ASTM B488, type II, code C, 50 μ inches min over nickel per ASTM B689 type I, 50 μ inches min (Press Fit) or localized gold per ASTM B488, type 1, code A or C, 10-25 μ inches over nickel per ASTM B689 type I, 50 μ inches min (PIH or PTH)
Molded Insulators	Glass-filled liquid crystal polymer (LCP) per ASTM D5138
Potting Compound	Frey Eng. Co. insulating compound CF3003-80
Hardware (except washers)	Stainless steel per ASTM A484/A484M, A582/A582M or ASTM A320; Passivated per SAE AMS-2700
Washers	Stainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)

Performance

Contact Rating	2 amperes maximum
Operating Temperature	-55° to +125° C
Max. Recommended Operating Voltage	200V, RMS, 60 Hz
Insulation Resistance	5,000 megaohms minimum at 500 VDC
Durability	2,500 connector mating cycles
Sinusoidal Vibration	20g (EIA-364-28, condition IV)
Shock	50g (EIA-364-27, condition E)

NOTE: Performance values are estimates and values are subject to change without notice. Please reference engineering document VSM-XX-XX-XXX-XX-XX-XX on molex.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

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Materials and Finishes

Shell	Aluminum alloy 6061-T6 per SAE AMS 4027 or 6061-T6511 per QQ-A-200/8
Finish	Electroless nickel per AMS-2404, class 3; 500 μ inches min
Socket Contact (Mating Face).	BeCu per ASTM B194
Socket Contact (Termination)	Brass alloy per ASTM B36 (PIH or PTH) or BeCu per ASTM B768 (press-fit contact)
Contact Finish (Mating Face)	Localized gold finish per ASTM B488, type II, code C over nickel per ASTM B689, type I, 50 μ inches min
Contact Finish (Termination).	Localized gold finish per ASTM B488, type II, code C, 50 μ inches min over nickel per ASTM B689, type I, 50 μ inches min (press fit) or localized gold per ASTM B488, Type 1, code A or C, 10-25 μ inches over nickel per ASTM B689 type I, 50 μ inches min (PIH or PTH)
Molded Insulators	Glass-filled liquid crystal polymer (LCP) per ASTM D5138
Potting Compound	Frey Eng. Co. insulating compound CF3003-80
Hardware (except washers)	Stainless steel per ASTM A484/A484M, A582/A582M or ASTM A320; Passivated per SAE AMS-2700
Washers	Stainless steel per NASM35333 (ASTM A240), passivated per NASM35333 (SAE AMS-2700)
EMI Gasket (GE and NE options only)	Conductive elastomer per MIL-DTL-83528 type D

Performance

Contact Rating	2 amperes maximum
Operating Temperature	-55° to +125° C
Max. Recommended Operating Voltage	.200V, RMS, 60 Hz
Insulation Resistance	.5,000 megaohms minimum at 500 VDC
Durability	2,500 connector mating cycles
Sinusoidal Vibration	20 g (EIA-364-28, condition IV)
Shock	.50 g (EIA-364-27, condition E)

NOTE: Performance values are estimates and values are subject to change without notice. Please reference engineering document VRRAF-XX-XX-XXX-XX-XX-XX on molex.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

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Materials and Finishes

Shell	Aluminum alloy 6061-T6 per QQ-A-250/11 or 6061-T6511 per QQ-A-200/8
Finish	Electroless nickel per SAE AMS-C-26074, grade B, class 3
Socket Contact	BeCu per ASTM B194
Pin Contacts	Phosphor bronze per ASTM B103
Contact Finish	Localized gold finish per ASTM B488 over nickel per ASTM B689 type I
Wire	30 AWG*; 19/42 silver-plated copper
Molded Insulators	Glass-filled liquid crystal polymer (LCP) per ASTM D5138
Hardware	Stainless steel per ASTM A582/A582M or ASTM A320; passivated per SAE AMS-2700
Embedment	Frey Eng. Co. insulating compound CF3003-80 and L-II-49 or equivalent

Performance

Contact Rating	2 amperes maximum
Operating Temperature	-55° to +125° C
Max. Recommended Operating Voltage	.200V, RMS, 60 Hz
Insulation Resistance	.5,000 megaohms minimum at 500 VDC
Durability	2,500 connector mating cycles
Sinusoidal Vibration	.20g (EIA-364-28, condition IV)
Shock	50g (EIA-364-27, condition E)

NOTE: Performance values are estimates and values are subject to change without notice. Please reference engineering document VRD-XX-XX-XX-XX-XX on molex.com for the latest specifications to design against. Certificate of RoHS compliance available upon request with each shipment.

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Materials and Finishes

Shell	Aluminum alloy 6061-T6 per QQ-A-250/11 or 6061-T6511 per QQ-A-200/8
Finish	Electroless nickel per SAE AMS-2404, Class 3; 500 μ inches min.
Socket Contact	BeCu per ASTM B194
Pin Contacts	Phosphor bronze per ASTM B103 or per BeCu ASTM B768
Contact Finish	Localized gold finish per ASTM B488 over nickel per ASTM B689 type I
Molded Insulators	Glass-filled liquid crystal polymer (LCP) per ASTM D5138
Embedment	Frey Eng. Co. insulating compound CF3003-80 and L-II-49 or equivalent
Hardware	Stainless steel per ASTM A582/A582M or ASTM A320; passivated per SAE AMS-2700
Please reference engineering document VRW-XX-XX-XXX-XX-XX-XX on molex.com for the latest engineering specifications to design against.	

Performance

Contact Rating	2 amperes maximum
Operating Temperature	-55° to +125° C
Contact Engagement Force	6.0oz max.*
Contact Separation Force	.0.5oz min*
Connector Mating Force	.10oz X (# of contacts), max tested per MIL-DTL-83513
Connector Unmating Force	.10oz X (# of contacts), max tested per MIL-DTL-83513
DWV (Sea Level)	600V, RMS, 60 Hz, See Molex PTB61 for more info
Recommended Maximum Operating Voltage	200V, RMS, 60 Hz, See Molex PTB61 for more info
Insulation Resistance	5,000 megaohms minimum at 500 VDC per MIL-DTL-83513
Durability	2,500 connector mating cycles, exceeding MIL-DTL-83513
Sinusoidal Vibration	20 g tested per MIL-DTL-83513
Shock	50 g tested per MIL-DTL-83513
Outgassing	Max TML of 1% and max CVCM of .1% per MIL-DTL-83513

* Forces tested on socket only. Max pin size used for contact engagement force and min pin size used for contact separation force.

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The Molex logo is centered on the page. It features the word "molex" in a bold, red, lowercase sans-serif font. Below the logo, the tagline "creating connections for life" is written in a black, cursive script font. The background consists of a light gray field with a large, faint, stylized 'M' shape formed by parallel diagonal lines.

molex

creating connections for life