

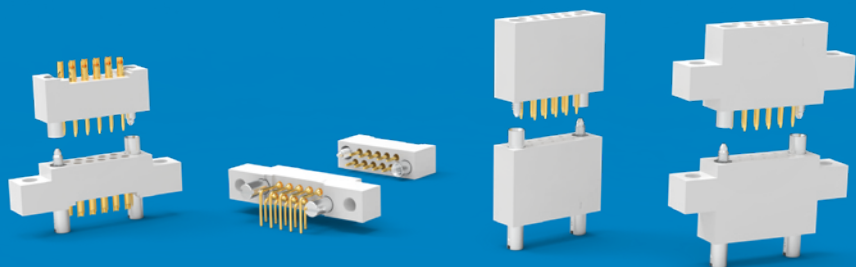
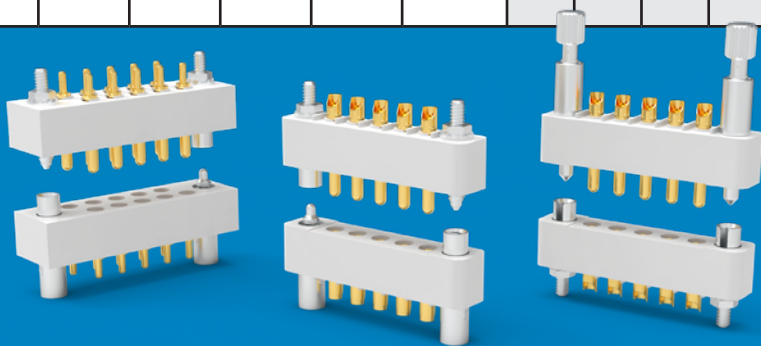
AirBorn
INDUSTRIAL



iSeries
BASED ON MIL-SPEC. BUILT FOR INDUSTRIAL.

Application Guide

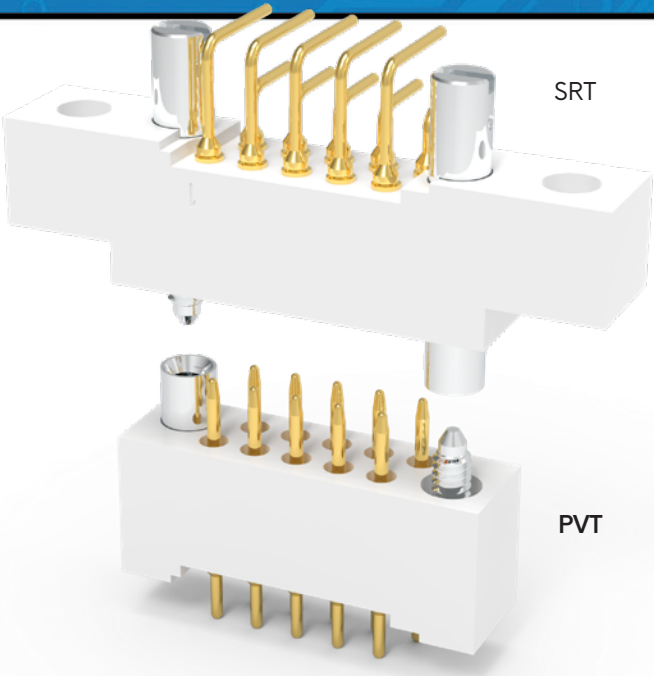
Markets

								Size (Positions)	Rated Amp/Current	Durability	Test Voltage	Insulation Resistance	Contact Resistance	Operating Temp	Machinery	Robotics	Automation & Process Control	Test Equipment	Oil & Gas						
NEW iW Series 2.54mm (0.10") Pitch - Signal & Low-Power Applications 																									
PTH Connectors								10	5A	250 cycles	1,000 VAC	5 GΩ min	5 mΩ max	-65° to +125°C	■	■	■	■	■						
Solder Cup 22 AWG (0.34 mm²) Cable Connectors								14							■	■	■	■	■						
Crimp Removable 22 AWG (0.34 mm²) Cable Connectors								20							■	■	■	■	■						
								24							■	■	■	■	■						
								26						■	■	■	■	■							
								30							■	■	■	■	■						
NEW PowerAmp 5.72mm (0.225") Pitch - Power Applications, UL 1977 ECBT2.E466640 																									
PTH Connectors								5	23A	250 cycles	2,000 VAC	5 GΩ min	1 mΩ max	-65° to +125°C	■	■	■	■	■						
Solder Cup 12 AWG (4 mm²) Cable Connectors								10							■	■	■	■	■						
								20							■	■	■	■	■						

Plated Thru-Hole (PTH) Connectors

The iW Series connector family is a 2-row high reliability connector solution with a pitch of 2.54 millimeters (0.100"). Available with 10 to 30 contacts and rated up to 5A per contact make it versatile for either signal or power applications. The connectors can also be customized to address unique design requirements.

- Current rating up to 5A per contact
- High vibration and shock resistant
- Withstands extreme temperatures of -65°C to +125°C
- Vertical & right-angle options
- Selectively plated, cost efficient for Industrial applications
- Highly reliable connection for demanding applications



Part Number Builder

iW	2	Body Style	Mounting Ears	Size	Termination	Hardware Style
Series	Rows	P Plug R Receptacle	0 Without 1 With	10 14 20 24 26 30	PVT7 Pin: Vertical PVT9 Pin: Vertical SVT7 Socket: Vertical SVT9 Socket: Vertical SRT7 (J Hardware Only) Socket: Right Angle SRT9 (J Hardware Only) Socket: Right Angle	J Fixed Jacket JTA Turning Jacket

Technical Information

Material Specifications

Insulator Material:
Glass-filled PPS (polyphenylene sulfide)

Insulator Color: White

Material (Contacts): Pins: copper alloy
Sockets: beryllium copper

Terminal Material: Copper alloy

Plating (Contacts):
Minimum 15 µin Au over 30 µin Ni

Hardware: Stainless steel

Electromechanical Performance

Rated Current: 5A per contact

Durability: ≥ 250 mating cycles

Test Voltage: 1,000 V AC for 1 minute

Insulation Resistance: 5 GΩ min.

Contact Resistance: 5 mΩ max.

Insertion Force (Max): 4 oz. (1.1N) per contact

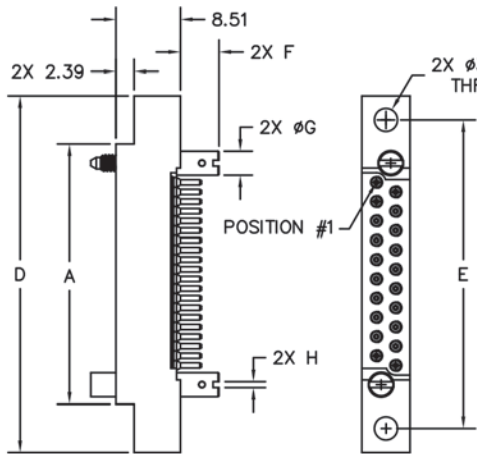
Withdrawal Force (Min.):
0.5 oz. (0.14N) per contact

Environmental Specifications

Operating Temperature: -65° to +125°C

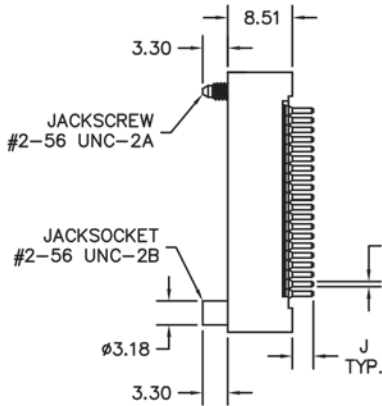
Vibration: 10Hz to 2,000Hz, 1.52mm, 147.1m/s² (15G), duration 12h

RoHS: Compliant



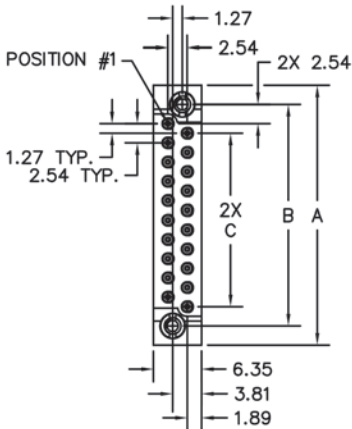
RECEPTACLE (WITH EARS)
(IW-2R1-20-SVT7-JTA)

SIZE	DIMENSIONS				
	A	B	C	D	E
10	21.59	16.51	10.16	34.29	27.94
14	26.67	21.59	15.24	39.37	33.02
20	34.29	29.21	22.86	46.99	40.64
24	39.37	34.29	27.94	52.07	45.72
26	41.91	36.83	30.48	54.61	48.26
30	46.99	41.91	35.56	59.69	53.34

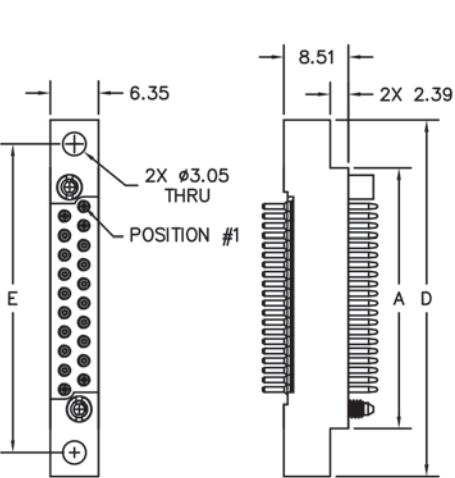


RECEPTACLE (WITHOUT EARS)
(IW-2R0-20-SVT7-J)

HARDWARE	DIMENSIONS		
	F	ØG	H
-J	N/A	N/A	N/A
-JTA	5.08	Ø3.18	SLOT 0.79 x 0.79

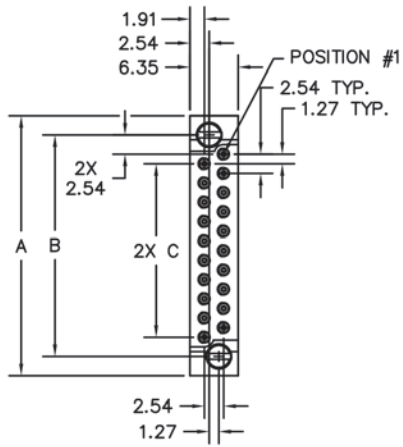


CONTACT	DIMENSIONS	
	-SVT7	J
-SVT7	2.77	
-SVT9	3.56	



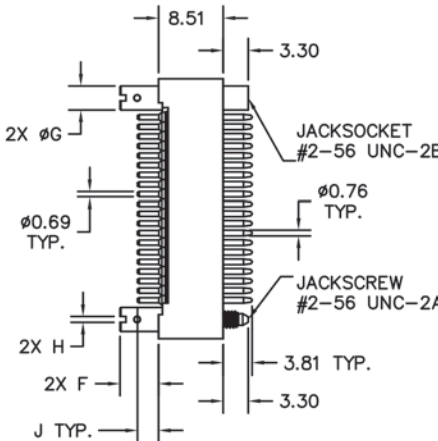
PLUG (WITH EARS)
(IW-2P1-20-PVT7-J)

SIZE	DIMENSIONS				
	A	B	C	D	E
10	21.59	16.51	10.16	34.29	27.94
14	26.67	21.59	15.24	39.37	33.02
20	34.29	29.21	22.86	46.99	40.64
24	39.37	34.29	27.94	52.07	45.72
26	41.91	36.83	30.48	54.61	48.26
30	46.99	41.91	35.56	59.69	53.34



PLUG (WITHOUT EARS)
(IW-2P0-20-PVT7-JTA)

HARDWARE	DIMENSIONS		
	F	ØG	H
-J	N/A	N/A	N/A
-JTA	5.08	Ø3.18	SLOT 0.79 x 0.79



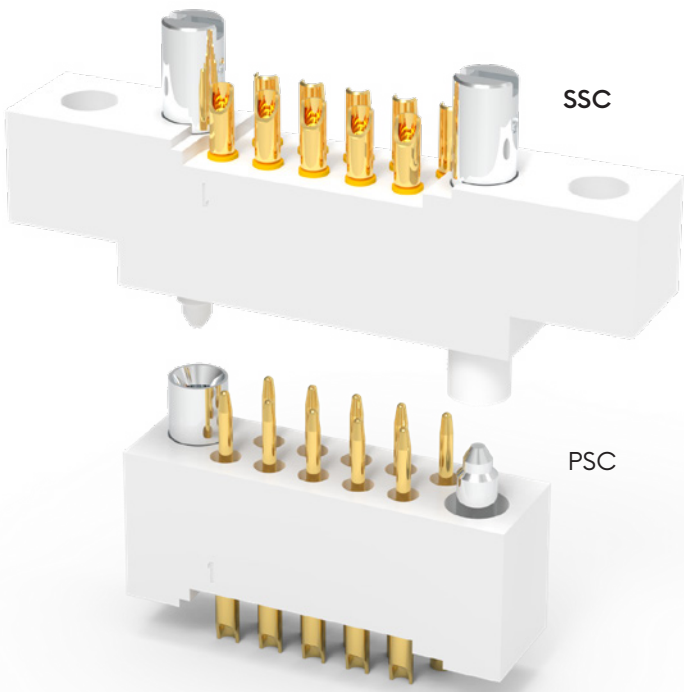
CONTACT	DIMENSIONS	
	-PVT7	J
-PVT7	2.77	
-PVT9	3.56	

All dimensions in millimeters.

Solder Cup
Cable Connectors

The iW Series connector family is a 2-row high reliability connector solution with a pitch of 2.54 millimeters (0.100"). Available with 10 to 30 contacts and rated up to 5A per contact make it versatile for either signal or power applications. The connectors can also be customized to address unique design requirements.

- Current rating up to 5A per contact
- High vibration and shock resistant
- Withstands extreme temperatures of -65°C to +125°C
- Accepts wire sizes up to AWG 22 (0.34 mm²)
- Selectively plated, cost efficient for Industrial applications
- Highly reliable connection for demanding applications



Part Number Builder

iW	2	Body Style	Mounting Ears	Size	Termination	Hardware Style
Series	Rows	P Plug R Receptacle	0 Without 1 With	10 14 20 24 26 30	PSC Pin: Solder Cup SSC Socket: Solder Cup	J Fixed Jacketset JTA Turning Jacketset

Technical Information

Material Specifications

Insulator Material:
Glass-filled PPS (polyphenylene sulfide)

Insulator Color: White

Material (Contacts): Pins: copper alloy
Sockets: beryllium copper

Terminal Material: Copper alloy

Plating (Contacts):
Minimum 15 µin Au over 30 µin Ni

Hardware: Stainless steel

Electromechanical Performance

Rated Current: 5A per contact

Durability: ≥ 250 mating cycles

Test Voltage: 1,000 V AC for 1 minute

Insulation Resistance: 5 GΩ min.

Contact Resistance: 5 mΩ max.

Insertion Force (Max): 4 oz. (1.1N) per contact

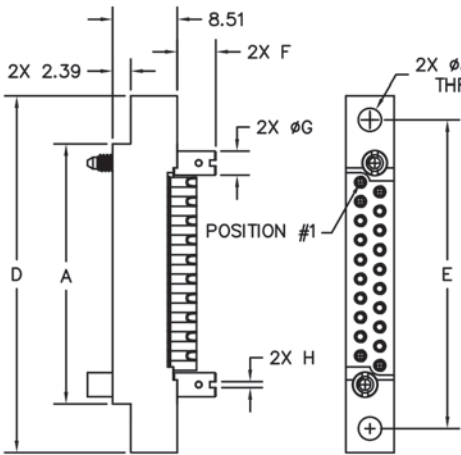
Withdrawal Force (Min.):
0.5 oz. (0.14N) per contact

Environmental Specifications

Operating Temperature: -65° to +125°C

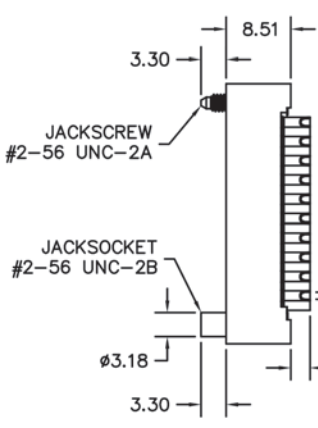
Vibration: 10Hz to 2,000Hz, 1.52mm, 147.1m/s² (15G), duration 12h

RoHS: Compliant



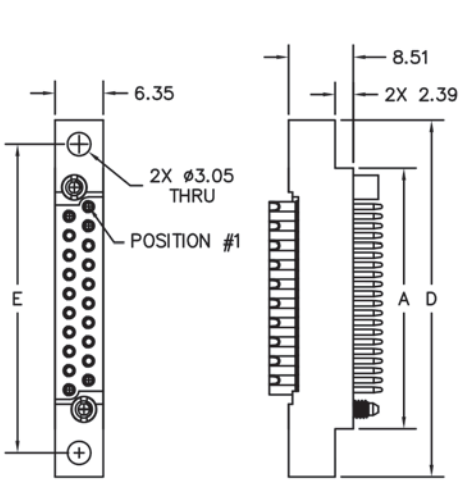
RECEPTACLE (WITH EARS)
(IW-2R1-20-SSC-JTA)

DIMENSIONS					
SIZE	A	B	C	D	E
10	21.59	16.51	10.16	34.29	27.94
14	26.67	21.59	15.24	39.37	33.02
20	34.29	29.21	22.86	46.99	40.64
24	39.37	34.29	27.94	52.07	45.72
26	41.91	36.83	30.48	54.61	48.26
30	46.99	41.91	35.56	59.69	53.34



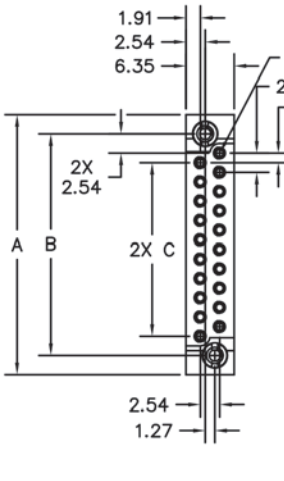
RECEPTACLE (WITHOUT EARS)
(IW-2R0-20-SSC-J)

DIMENSIONS			
HARDWARE	F	ØG	H
-J	N/A	N/A	N/A
-JTA	5.08	Ø3.18	SLOT 0.79 X 0.79



PLUG (WITH EARS)
(IW-2P1-20-PSC-J)

DIMENSIONS					
SIZE	A	B	C	D	E
10	21.59	16.51	10.16	34.29	27.94
14	26.67	21.59	15.24	39.37	33.02
20	34.29	29.21	22.86	46.99	40.64
24	39.37	34.29	27.94	52.07	45.72
26	41.91	36.83	30.48	54.61	48.26
30	46.99	41.91	35.56	59.69	53.34



PLUG (WITHOUT EARS)
(IW-2P0-20-PSC-JTA)

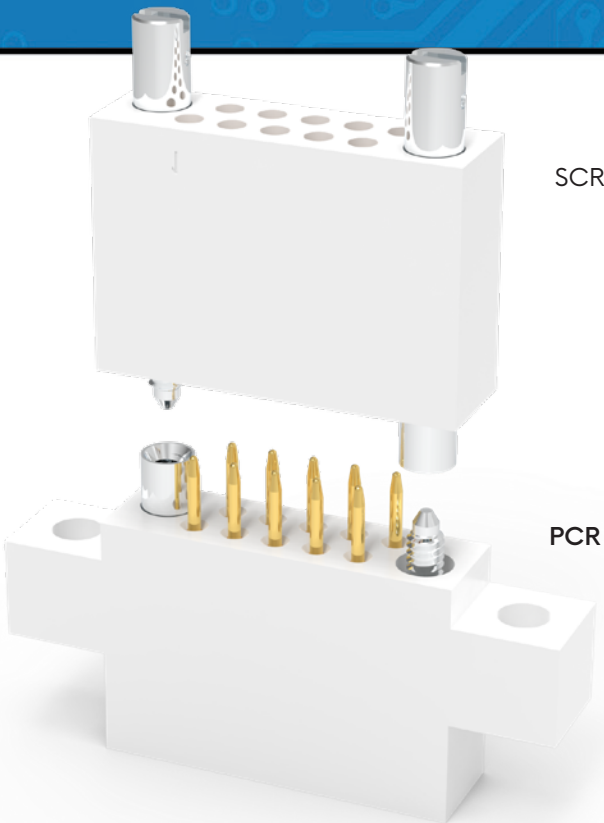
DIMENSIONS			
HARDWARE	F	ØG	H
-J	N/A	N/A	N/A
-JTA	5.08	Ø3.18	SLOT 0.79 X 0.79

All dimensions
in millimeters.

Crimp-Removable
Cable Connectors

The iW Series connector family is a 2-row high reliability connector solution with a pitch of 2.54 millimeters (0.100"). Available with 10 to 30 contacts and rated up to 5A per contact make it versatile for either signal or power applications. The connectors can also be customized to address unique design requirements.

- Current rating up to 5A per contact
- High vibration and shock resistant
- Withstands extreme temperatures of -65°C to +125°C
- Crimp contacts for AWG 22 (0.34 mm²), AWG 24 (0.25 mm²), & AWG 26 (0.14 mm²)
- Selectively plated, cost efficient for Industrial applications
- Highly reliable connection for demanding applications



Part Number Builder

iW	2	Body Style	Mounting Ears	Size	Termination	Hardware Style
Series	Rows	P Plug R Receptacle	0 Without 1 With	10 14 20 24 26 30	PCR Pin: Crimp Removable SCR Socket: Crimp Removable	J Fixed Jacket JTA Turning Jacket

Technical Information

Material Specifications

Insulator Material:
Glass-filled PPS (polyphenylene sulfide)

Insulator Color: White

Material (Contacts): Pins: copper alloy
Sockets: beryllium copper

Terminal Material: Copper alloy

Plating (Contacts):
Minimum 15 µin Au over 30 µin Ni

Hardware: Stainless steel

Electromechanical Performance

Rated Current: 5A per contact

Durability: ≥ 250 mating cycles

Test Voltage: 1,000 V AC for 1 minute

Insulation Resistance: 5 GΩ min.

Contact Resistance: 5 mΩ max.

Insertion Force (Max): 4 oz. (1.1N) per contact

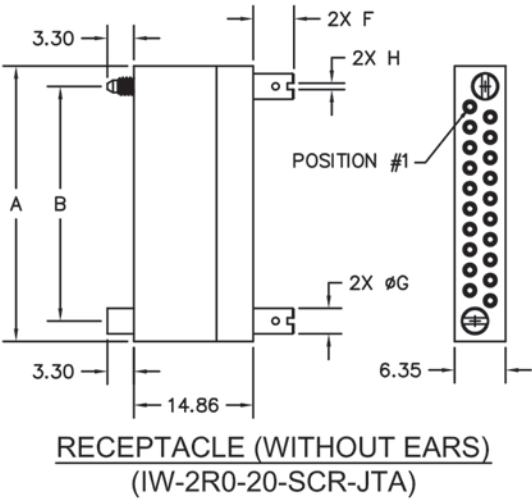
Withdrawal Force (Min.):
0.5 oz. (0.14N) per contact

Environmental Specifications

Operating Temperature: -65° to +125°C

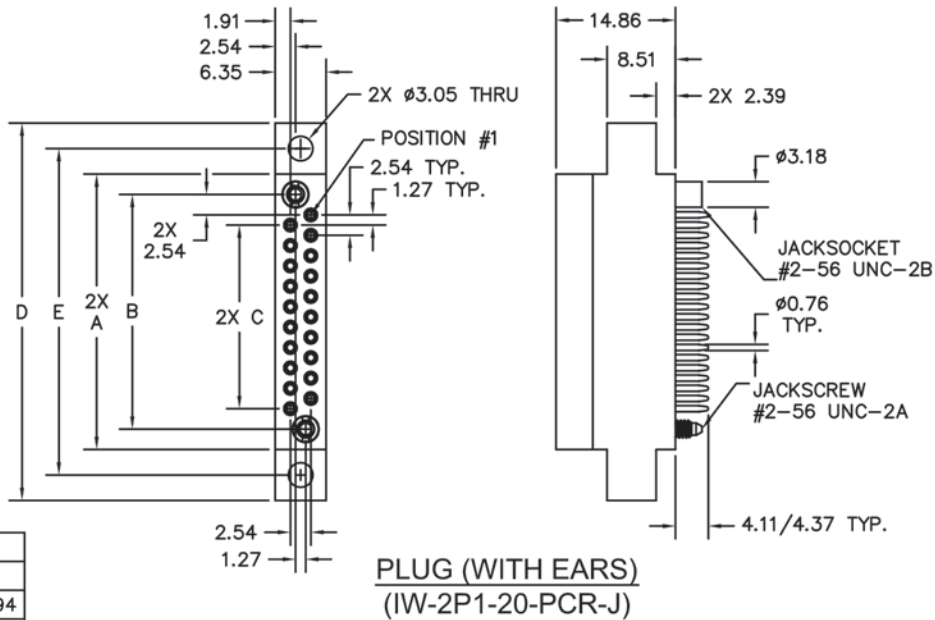
Vibration: 10Hz to 2,000Hz, 1.52mm, 147.1m/s² (15G), duration 12h

RoHS: Compliant



SIZE	DIMENSIONS				
	A	B	C	D	E
10	21.59	16.51	10.16	34.29	27.94
14	26.67	21.59	15.24	39.37	33.02
20	34.29	29.21	22.86	46.99	40.64
24	39.37	34.29	27.94	52.07	45.72
26	41.91	36.83	30.48	54.61	48.26
30	46.99	41.91	35.56	59.69	53.34

HARDWARE	DIMENSIONS		
	F	ØG	H
-J	N/A	N/A	N/A
-JTA	5.08	Ø3.18	SLOT 0.79 x 0.79



SIZE	DIMENSIONS				
	A	B	C	D	E
10	21.59	16.51	10.16	34.29	27.94
14	26.67	21.59	15.24	39.37	33.02
20	34.29	29.21	22.86	46.99	40.64
24	39.37	34.29	27.94	52.07	45.72
26	41.91	36.83	30.48	54.61	48.26
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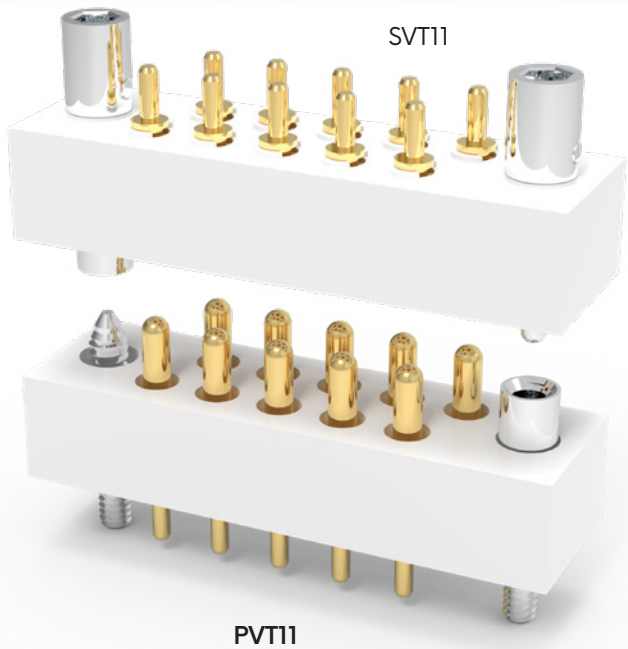
HARDWARE	DIMENSIONS		
	F	ØG	H
-J	N/A	N/A	N/A
-JTA	5.08	Ø3.18	SLOT 0.79 x 0.79

All dimensions in millimeters.

Plated Thru-Hole
(PTH) Connectors

The PowerAmp connector family is a 1- and 2-row high reliability connector solution with a pitch of 5.72 millimeters (0.225"). Available with 5 to 20 contacts and rated up to 23A per contact make it ideal for robust power connections. The connectors can also be customized to address unique design requirements.

- Current rating up to 23A per contact
- High vibration and shock resistant
- Withstands extreme temperatures of -65°C to +125°C
- UL94V-0 flammability rated insulator
- UL Approved, UL 1977 ECBT2.E466640



Part Number Builder

iP	Rows	Body Style	Mounting Ears	Size	Termination	Hardware Style
Series	1	P Plug	0 Without	05	PVT11 Pin: Vertical PTH	J Fixed Jackset
	2	R Receptacle		10		JTB Turning Jackset
				20	SVT11 Socket: Vertical PTH	QTT-1 Quarter Turn (Turning)
						QTF-1 Quarter-Turn (Fixed)

Technical Information

Material Specifications

Insulator Material:
Glass-filled PPS (polyphenylene sulfide)

Insulator Color: White

Material (Contacts): Pins: copper alloy
Sockets: beryllium copper

Terminal Material: Copper alloy

Plating (Contacts):
Minimum 15 µin Au over 30 µin Ni

Hardware: Stainless steel

UL File: E466640

Electromechanical Performance

Rated Current: 23A per contact

Durability: ≥ 250 mating cycles

Test Voltage: 2,000 V AC for 1 minute

Insulation Resistance: 5 GΩ min.

Contact Resistance: 1 mΩ max.

Insertion Force (Max): 16 oz. (4.45N) per contact

Withdrawal Force (Min.):
0.5 oz. (0.14N) per contact

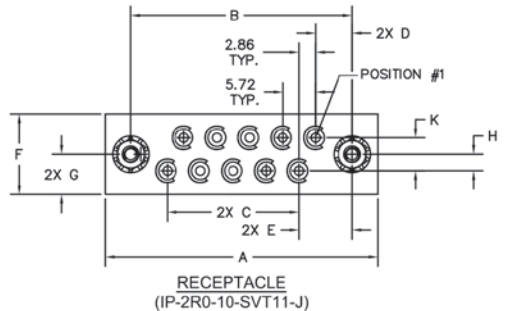
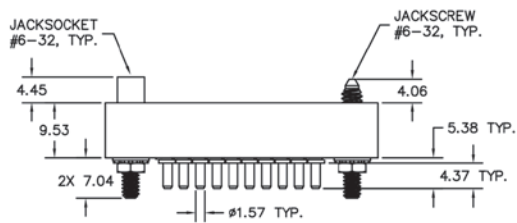
Environmental Specifications

Operating Temperature: -65° to +125°C

Vibration: 10Hz to 2,000Hz, 1.52mm, 147.1m/s2 (15G), duration 12h

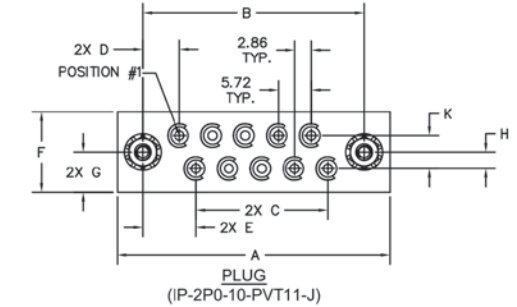
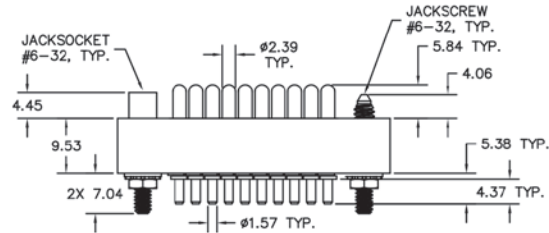
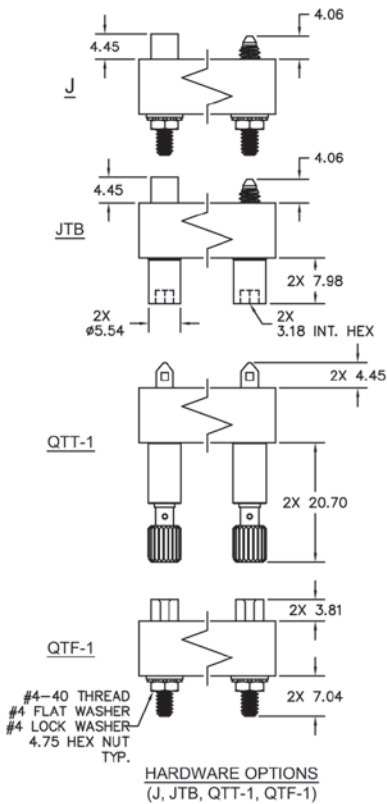
RoHS: Compliant

iSeries
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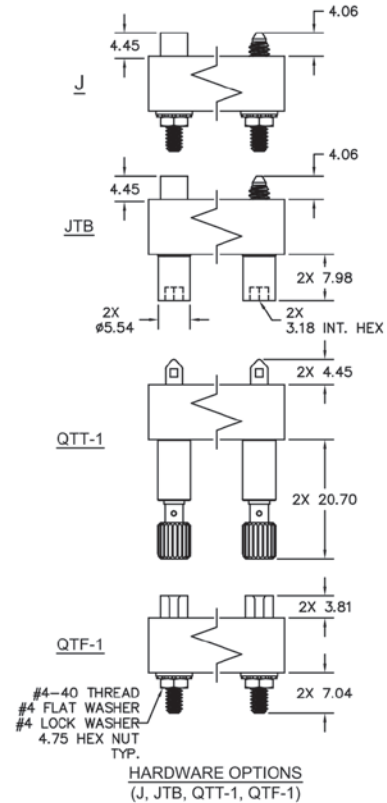
NOTES:
SIZE 5 - SINGLE ROW
SIZE 10 - 2-ROW STAGGERED GRID
SIZE 20 - 2-ROW SQUARE GRID

SIZE	A	B	C	D	E	F	G	H	K
5	44.45	35.56	22.86	6.35	N/A	9.53	4.78	N/A	N/A
10	47.29	38.40	22.86	6.35	9.22	13.97	6.99	2.86	5.72
20	73.03	64.14	51.44	6.35	6.35	13.97	6.99	2.86	5.72



NOTES:
SIZE 5 - SINGLE ROW
SIZE 10 - 2-ROW STAGGERED GRID
SIZE 20 - 2-ROW SQUARE GRID

SIZE	A	B	C	D	E	F	G	H	K
5	44.45	35.56	22.86	6.35	N/A	9.53	4.78	N/A	N/A
10	47.29	38.40	22.86	6.35	9.22	13.97	6.99	2.87	5.72
20	73.03	64.14	51.44	6.35	6.35	13.97	6.99	2.87	5.72



All dimensions
in millimeters.

Solder Cup
Cable Connectors

The PowerAmp connector family is a 1- and 2-row high reliability connector solution with a pitch of 5.72 millimeters (0.225"). Available with 5 to 20 contacts and rated up to 23A per contact make it ideal for robust power connections. The connectors can also be customized to address unique design requirements.

- Current rating up to 23A per contact
- High vibration and shock resistant
- Withstands extreme temperatures of -65°C to +125°C
- Accepts wire sizes up to AWG 12 (4 mm²)
- UL94V-0 flammability rated insulator
- UL Approved, UL 1977 ECBT2.E466640



Part Number Builder

iP	Rows	Body Style	Mounting Ears	Size	Termination	Hardware Style
Series	1	P Plug	0 Without	05	PSC Pin: Vertical Solder Cup	J Fixed Jackset
	2	R Receptacle		10		JTB Turning Jackset
				20	SSC Socket: Vertical Solder Cup	QTT-1 Quarter Turn (Turning)
						QTF-1 Quarter-Turn (Fixed)

Technical Information

Material Specifications

Insulator Material:
Glass-filled PPS (polyphenylene sulfide)

Insulator Color: White

Material (Contacts): Pins: copper alloy
Sockets: beryllium copper

Terminal Material: Copper alloy

Plating (Contacts):
Minimum 15 µin Au over 30 µin Ni

Hardware: Stainless steel

UL File: E466640

Electromechanical Performance

Rated Current: 23A per contact

Durability: ≥ 250 mating cycles

Test Voltage: 2,000 V AC for 1 minute

Insulation Resistance: 5 GΩ min.

Contact Resistance: 1 mΩ max.

Insertion Force (Max): 16 oz. (4.45N) per contact

Withdrawal Force (Min.):

0.5 oz. (0.14N) per contact

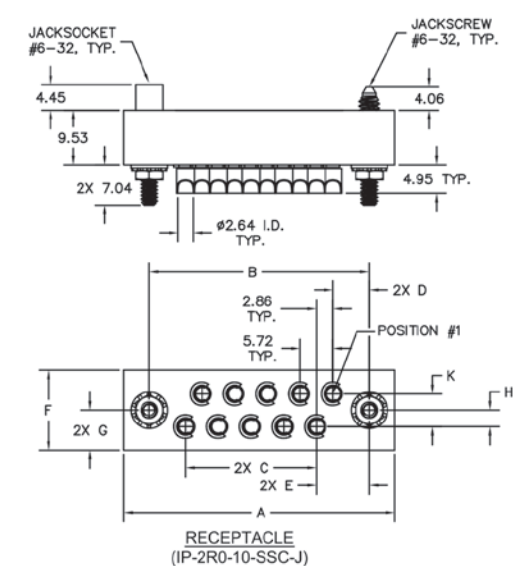
Environmental Specifications

Operating Temperature: -65° to +125°C

Vibration: 10Hz to 2,000Hz, 1.52mm, 147.1m/s² (15G), duration 12h

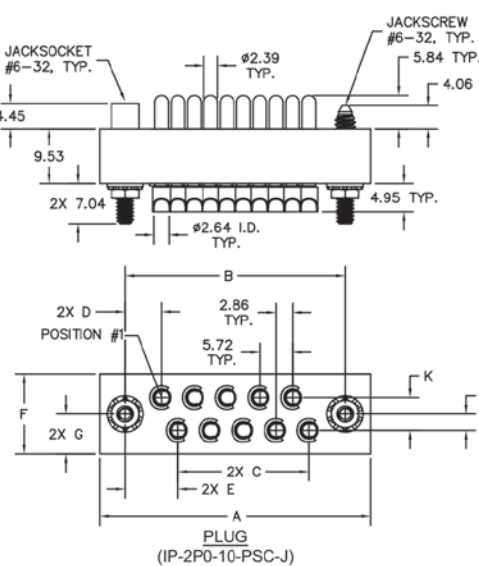
RoHS: Compliant

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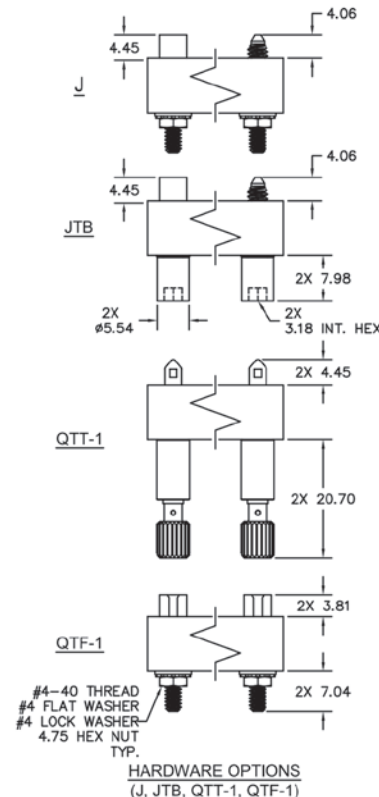
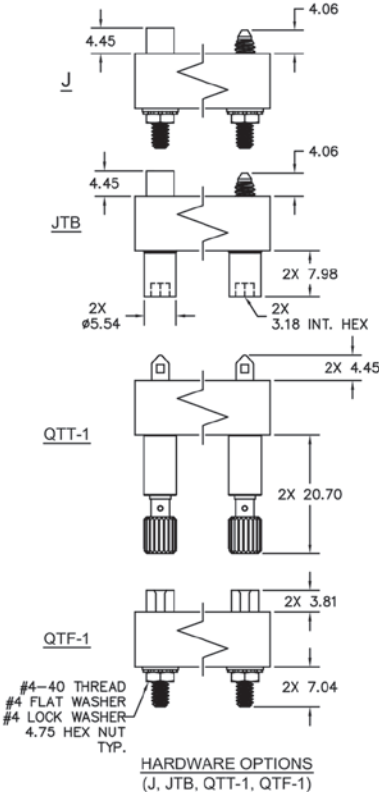
NOTES:
SIZE 5 - SINGLE ROW
SIZE 10 - 2-ROW STAGGERED GRID
SIZE 20 - 2-ROW SQUARE GRID

SIZE	A	B	C	D	E	F	G	H	K
5	44.45	35.56	22.86	6.35	N/A	9.53	4.78	N/A	N/A
10	47.29	38.40	22.86	6.35	9.22	13.97	6.99	2.86	5.72
20	73.03	64.14	51.44	6.35	6.35	13.97	6.99	2.86	5.72



NOTES:
SIZE 5 - SINGLE ROW
SIZE 10 - 2-ROW STAGGERED GRID
SIZE 20 - 2-ROW SQUARE GRID

SIZE	A	B	C	D	E	F	G	H	K
5	44.45	35.56	22.86	6.35	N/A	9.53	4.78	N/A	N/A
10	47.29	38.40	22.86	6.35	9.22	13.97	6.99	2.87	5.72
20	73.03	64.14	51.44	6.35	6.35	13.97	6.99	2.87	5.72



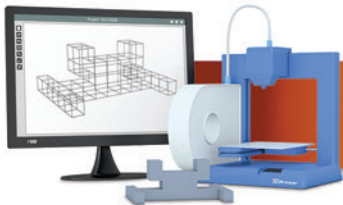
All dimensions
in millimeters.



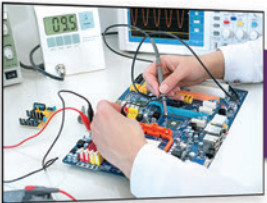
*Concept
Development*



*Detailed Design
& Engineering*



*Quick-Turn
Prototyping*



*Test, Qualification
& Quality*



*Manufacturing
Low to High Volumes*



*Global Packaging
& Distribution*

AirBorn

Model-to-Market[®]

AirBorn's engineering group specializes in new product design and development for OEMs across the globe. Our team of 50+ degreed engineers are the most innovative and committed to solving our customer's challenges, but that's only the beginning of where we can help!

Customers can leverage our design and manufacturing expertise throughout the entire product development process. From **Conceptual Design, Prototyping, Pilot-Runs** through to **Mass Production**, our teams work efficiently to cut down your program's time to market.

Our global sales presence, coupled with our choice of strategic global distribution partners, means greater responsiveness when procuring our products — no matter where you do business!



The AirBorn Advantage

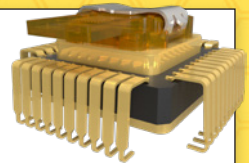
Model-To-Market
Solutions



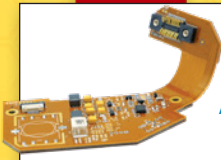
Rugged
Power
Systems



Photonics/
Optoelectronics



Flexible
Circuit
Assemblies



Cable
Assemblies



FUZE
Assemblies



Active
Optical
Assemblies



Rectangular
W Series



Rectangular
R Series



Micro D
M Series



Nano D
N Series



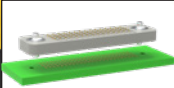
Rectangular
25Gbps
verSI



Modular Hybrid
SInergy



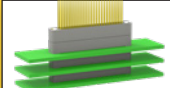
Z Axis Interposer
Z Series



High-Speed
Micro D
microSI



Stackable
RC & RCII Series



Circular
Series 360



Strip Connector
AirStrip



PowerAmp
13A or 23A Power



Macro D
RockEt



ISCB-4.23



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