

AirBorn

INDUSTRIAL



iSeries

BASED ON MIL-SPEC. BUILT FOR INDUSTRIAL.

Application Guide

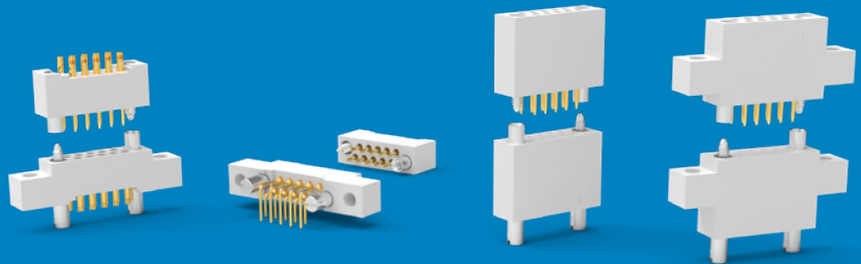
Markets

	Size (Positions)	Rated Amp/Current	Durability	Test Voltage	Insulation Resistance	Contact Resistance	Operating Temp	Machinery	Robotics	Automation & Process Control	Test Equipment	Oil & Gas
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NEW

iW Series

- 2.54mm (0.10") Pitch
- Signal & Low-Power Applications

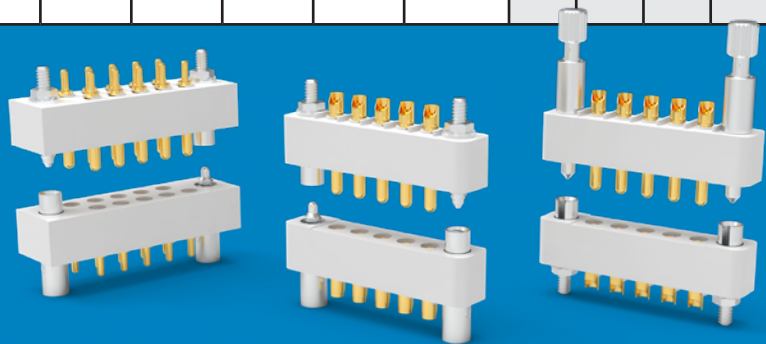


PTH Connectors	10	5A	250 cycles	1,000 VAC	5 GΩ min	5 mΩ max	-65° to +125°C	■	■	■	■	■
Solder Cup 22 AWG (0.34 mm ²) Cable Connectors	14							■	■	■	■	■
	20							■	■	■	■	■
Crimp Removable 22 AWG (0.34 mm ²) Cable Connectors	24							■	■	■	■	■
	26	■	■	■	■	■						
	30	■	■	■	■	■						

NEW

PowerAmp

- 5.72mm (0.225") Pitch
- Power Applications, UL 1977 ECBT2.E466640

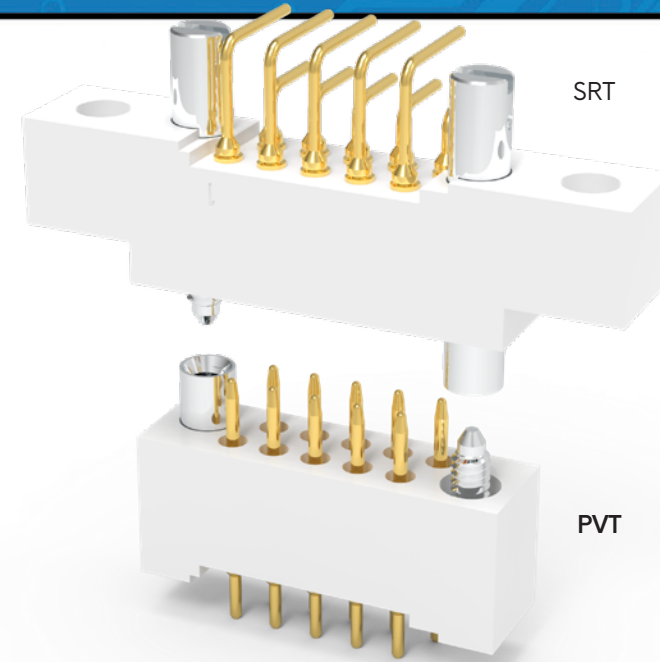


PTH Connectors	5	23A	250 cycles	2,000 VAC	5 GΩ min	1 mΩ max	-65° to +125°C	■	■	■	■	■
Solder Cup 12 AWG (4 mm ²) Cable Connectors	10							■	■	■	■	■
	20							■	■	■	■	■

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	0 Without	10	PVT7 Pin: Vertical	J Fixed Jacket
		R Receptacle	1 With	14	PVT9 Pin: Vertical	JTA Turning Jacket
				20	SVT7 Socket: Vertical	
				24	SVT9 Socket: Vertical	
				26	SVT9 Socket: Vertical	
				30	SVT9 Socket: Vertical	
					SRT7 (J Hardware Only) Socket: Right Angle	
					SRT9 (J Hardware Only) Socket: Right Angle	

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

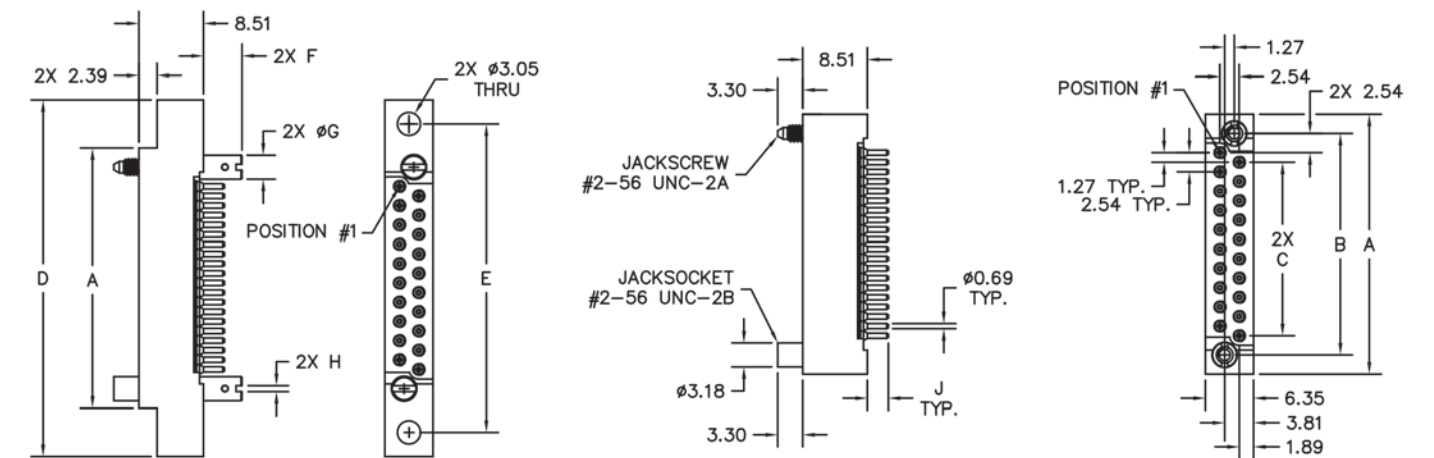
Withdrawal Force (Min.):
0.5 oz. (0.14N) per contact

Environmental Specifications

Operating Temperature: -65° to +125°C

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

RoHS: Compliant



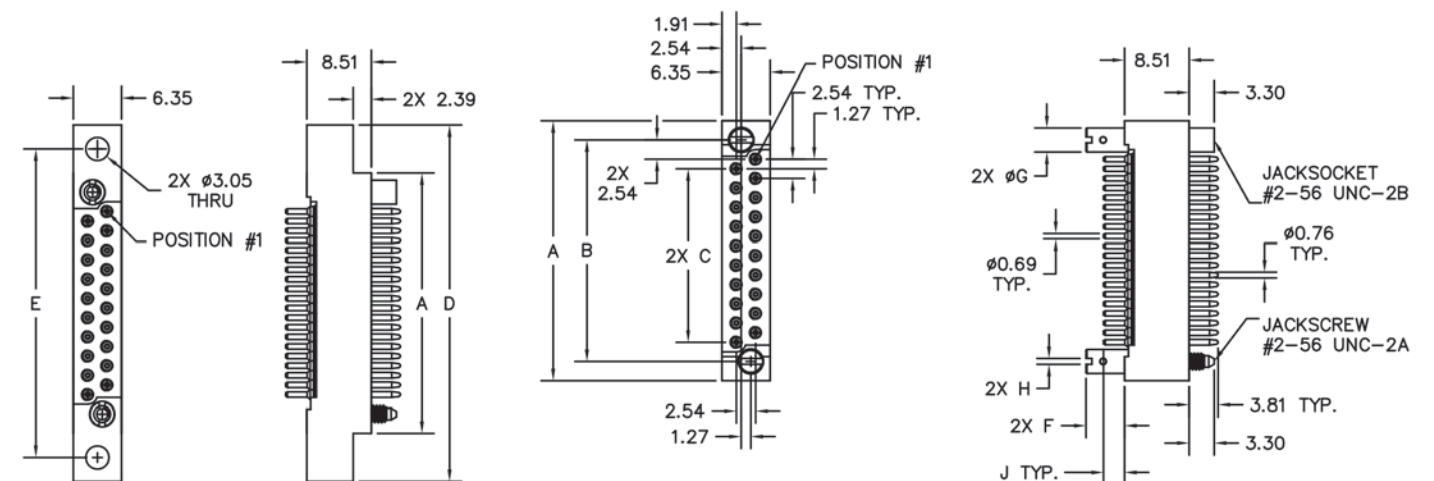
RECEPTACLE (WITH EARS)
(IW-2R1-20-SVT7-JTA)

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
	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

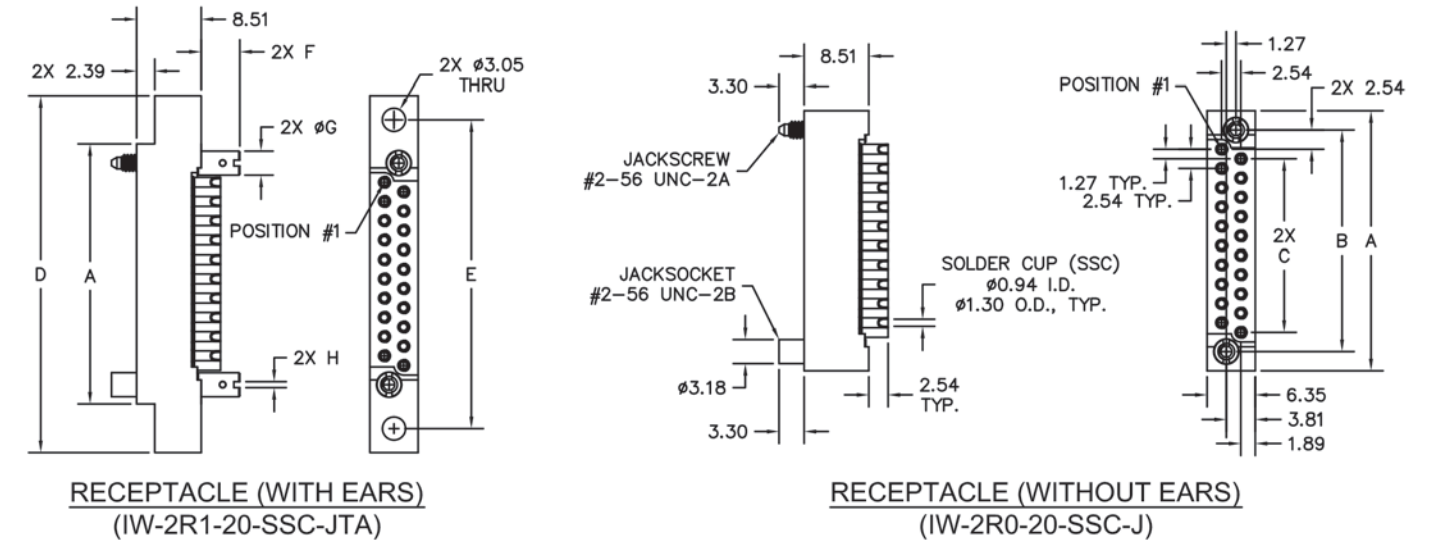
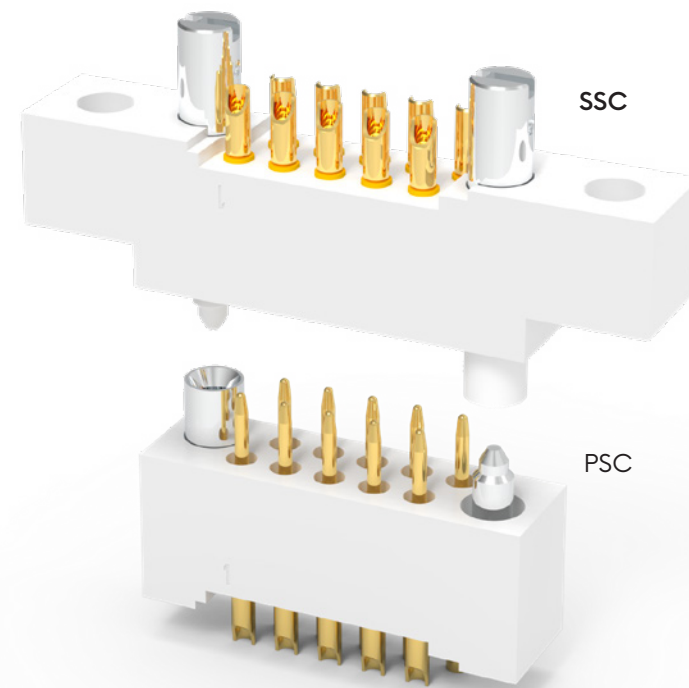
CONTACT	DIMENSIONS
	J
-PVT7	2.77
-PVT9	3.56

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



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

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

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

Part Number Builder

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

Technical Information

Material Specifications

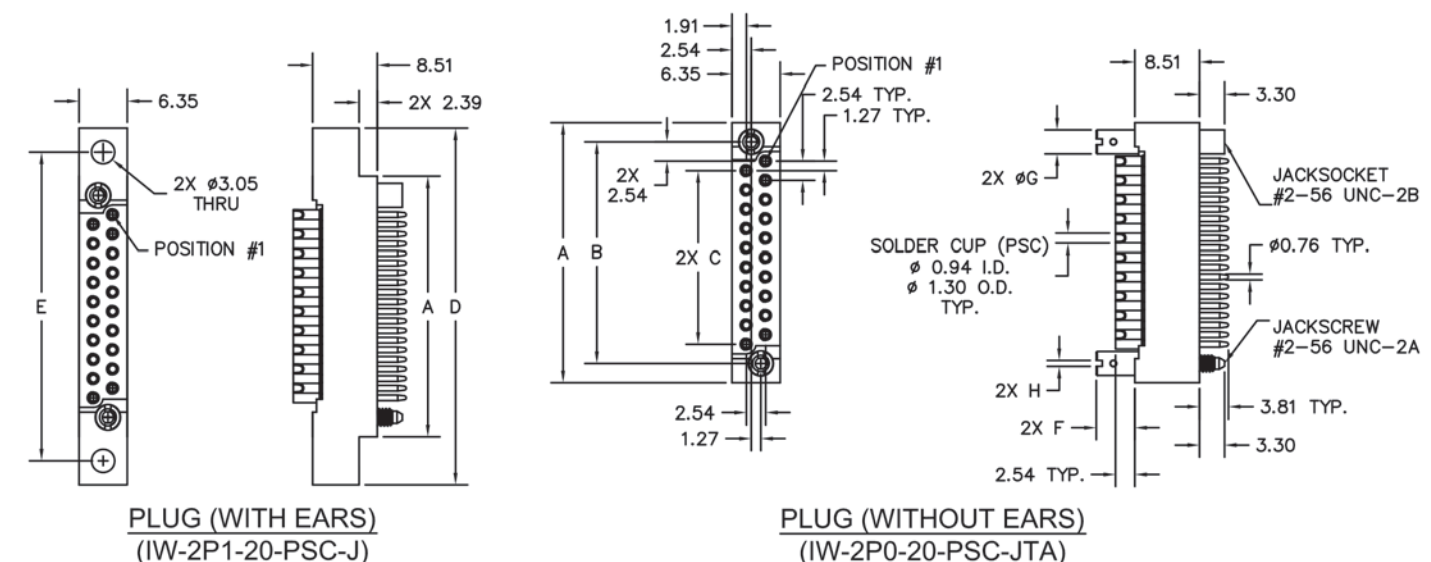
Insulator Material: Glass-filled PPS (polyphenylene sulfide)
Insulator Color: White
Material (Contacts): Pins: copper alloy
 Sockets: beryllium copper
Terminal Material: Copper alloy
Plating (Contacts): Minimum 15 µin Au over 30 µin Ni
Hardware: Stainless steel

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



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

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

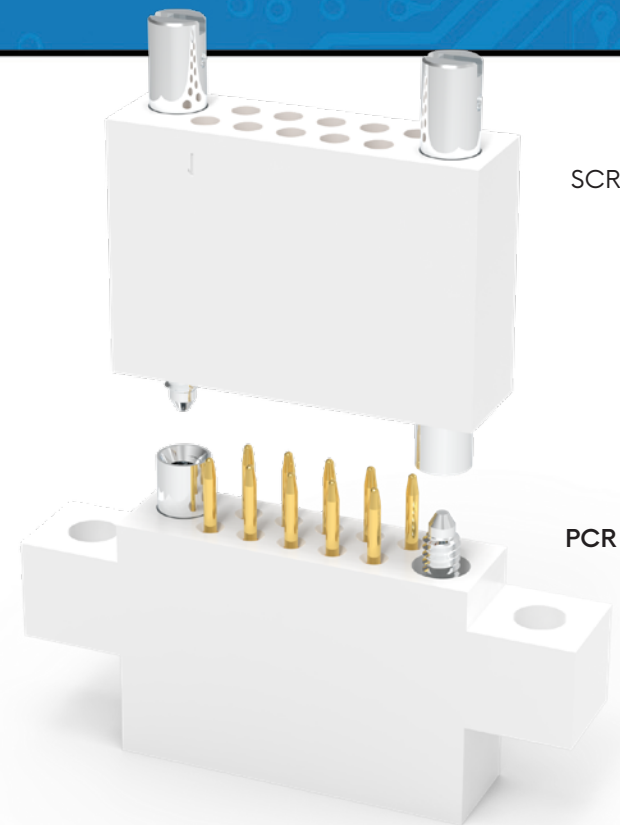
HARDWARE	DIMENSIONS		
	F	ØG	H
-J	N/A	N/A	N/A
-JTA	5.08	Ø3.18	SLOT 0.79 X 0.79

All dimensions in millimeters.

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	0 Without	10	PCR Pin: Crimp Removable	J Fixed Jackset
		R Receptacle	1 With	14		JTA Turning Jackset
				20	SCR Socket: Crimp Removable	
				24		
				26		
				30		

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

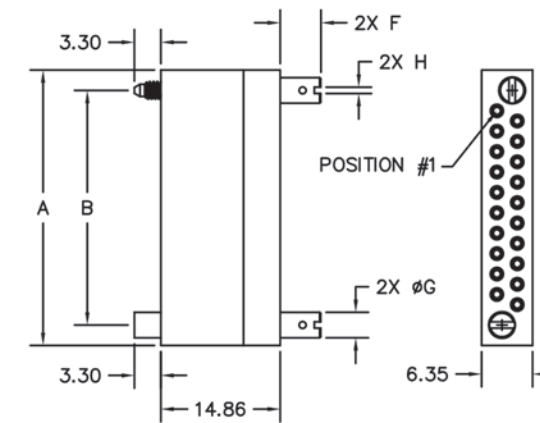
Withdrawal Force (Min.): 0.5 oz. (0.14N) per contact

Environmental Specifications

Operating Temperature: -65° to +125°C

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

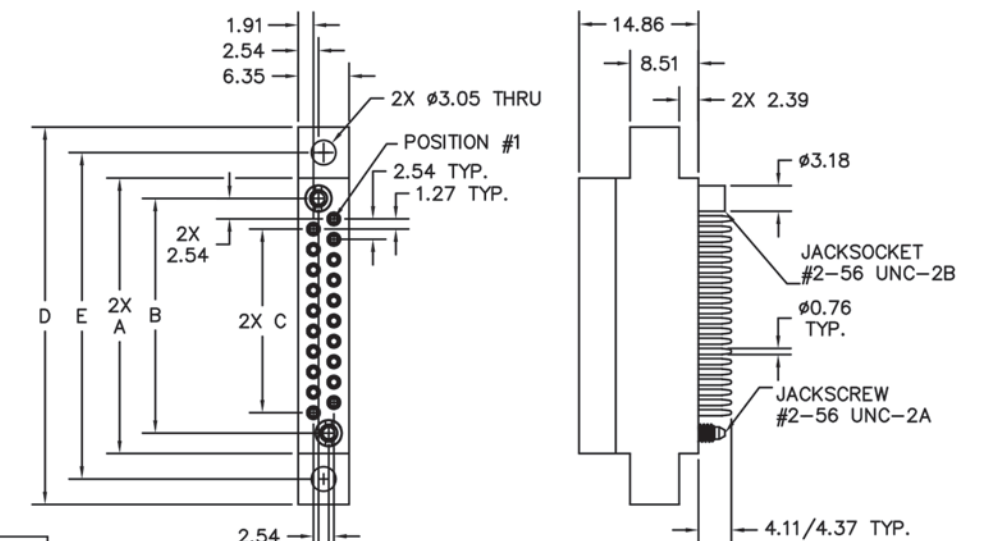
RoHS: Compliant



RECEPTACLE (WITHOUT EARS)
(IW-2R0-20-SCR-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

HARDWARE	DIMENSIONS		
	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-PCR-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

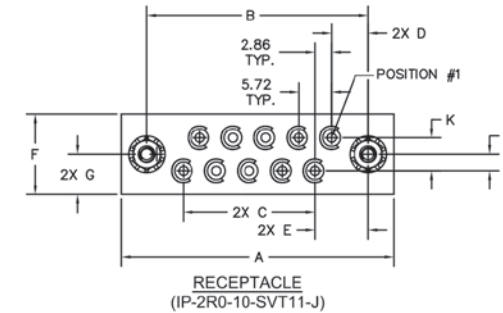
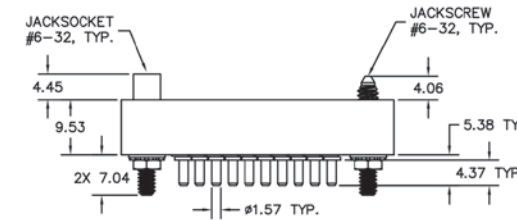
HARDWARE	DIMENSIONS		
	F	ØG	H
-J	N/A	N/A	N/A
-JTA	5.08	Ø3.18	SLOT 0.79 x 0.79

All dimensions in millimeters.

Plated Thru-Hole (PTH) Connectors

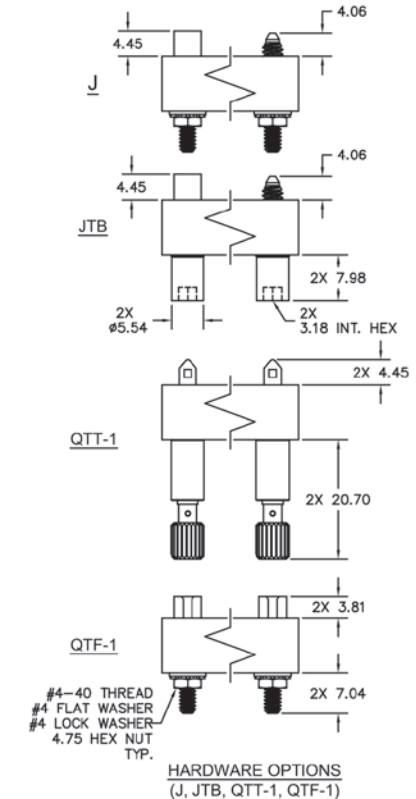
The PowerAmp connector family is a 1- and 2-row high reliability connector solution with a pitch of 5.72 millimeters (0.225"). Available with 5 to 20 contacts and rated up to 23A per contact make it ideal for robust power connections. The connectors can also be customized to address unique design requirements.

- 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



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

SIZE	DIMENSIONS								
	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



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	SVT11 Socket: Vertical PTH	JTB Turning Jackset
				20		QTT-1 Quarter Turn (Turning)
						QTF-1 Quarter-Turn (Fixed)

Technical Information

Material Specifications

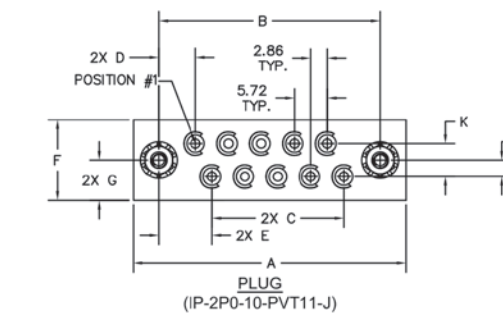
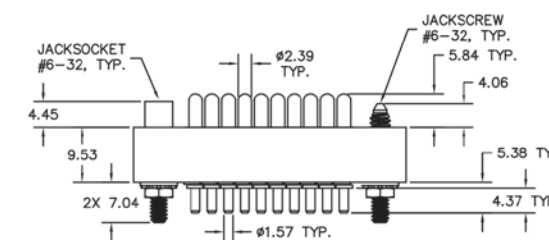
Insulator Material: Glass-filled PPS (polyphenylene sulfide)
Insulator Color: White
Material (Contacts): Pins: copper alloy
 Sockets: beryllium copper
Terminal Material: Copper alloy
Plating (Contacts): Minimum 15 µin Au over 30 µin Ni
Hardware: Stainless steel
UL File: E466640

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

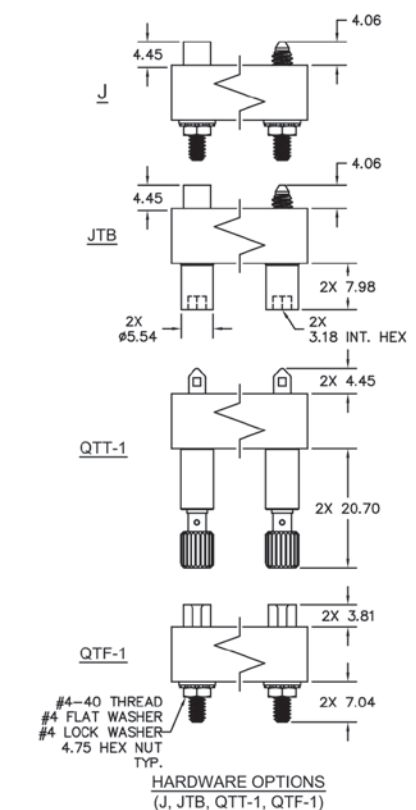
Environmental Specifications

Operating Temperature: -65° to +125°C
Vibration: 10Hz to 2,000Hz, 1.52mm, 147.1m/s² (15G), duration 12h
RoHS: Compliant



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

SIZE	DIMENSIONS								
	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

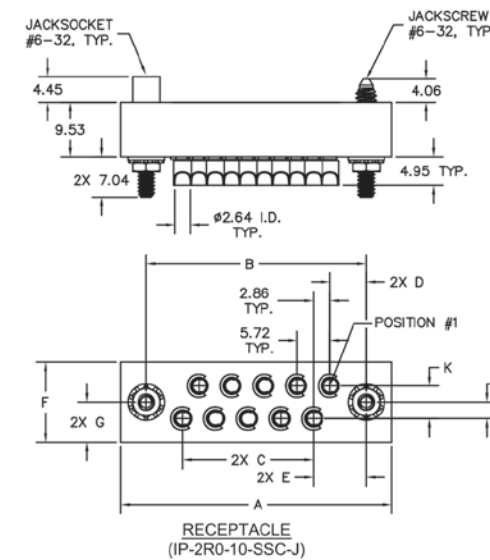
Withdrawal Force (Min.):
0.5 oz. (0.14N) per contact

Environmental Specifications

Operating Temperature: -65° to +125°C

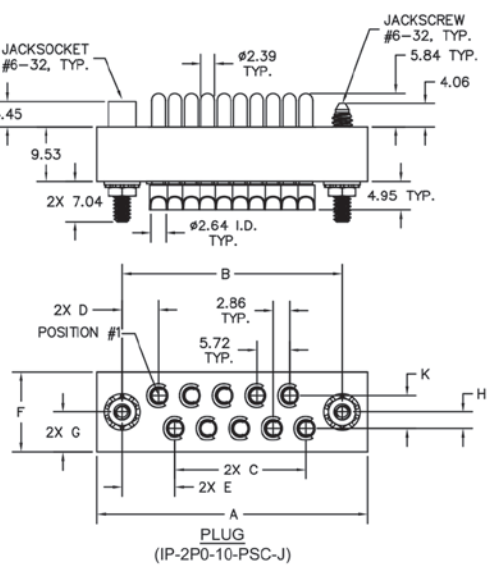
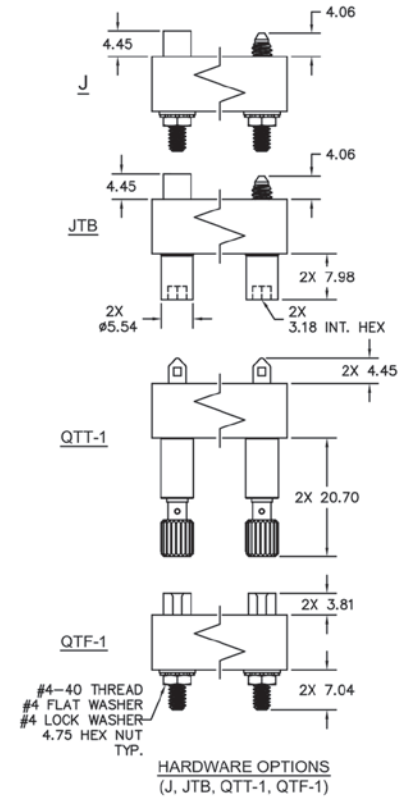
Vibration: 10Hz to 2,000Hz, 1.52mm, 147.1m/s² (15G), duration 12h

RoHS: Compliant



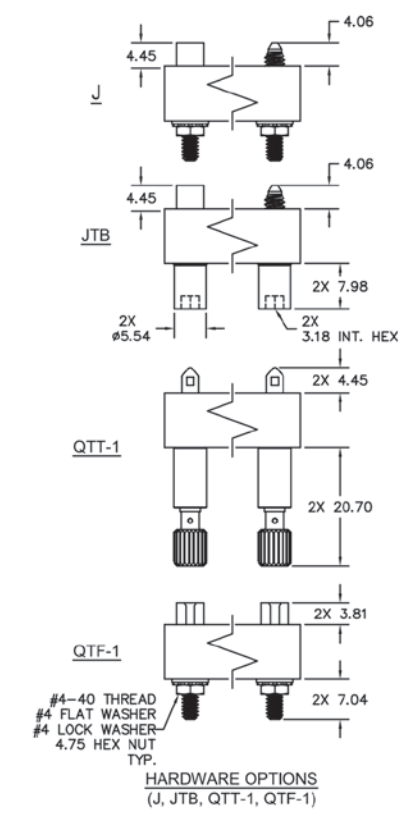
NOTES:
SIZE 5 - SINGLE ROW
SIZE 10 - 2-ROW STAGGERED GRID
SIZE 20 - 2-ROW SQUARE GRID

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



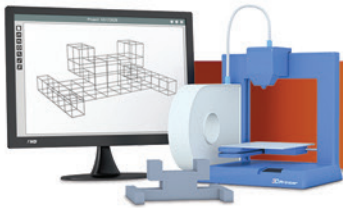
All dimensions in millimeters.



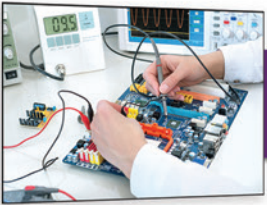
*Concept
Development*



*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

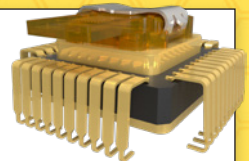
Model-To-Market Solutions



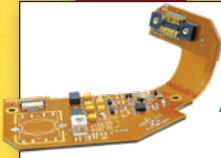
Rugged Power Systems



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



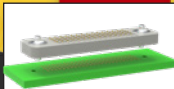
Rectangular 25Gbps verSI



Modular Hybrid SInergy



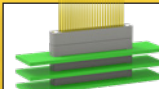
Z Axis Interposer Z Series



High-Speed Micro D microSI



Stackable RC & RCII Series



Circular Series 360



Strip Connector AirStrip



PowerAmp 13A or 23A Power



Macro D RockeT



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