

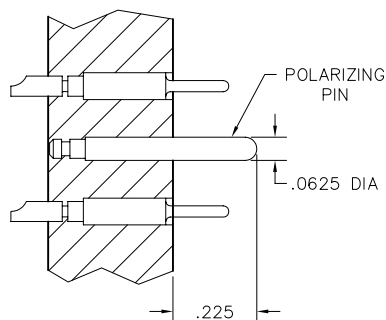
Polarization

Polarizing Pin Applications

PIN CONTACT

—STRAIGHT THRU—
CONNECTOR BODY

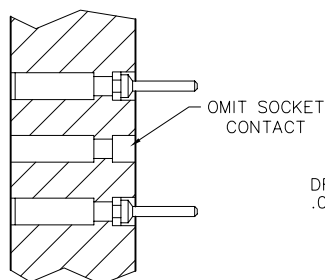
WT, WTA
WTAV, WTBV



WTA**PCJTA443-1, -2...

SOCKET CONTACT

WT, WTA, WTAX,
WTB, WTBX

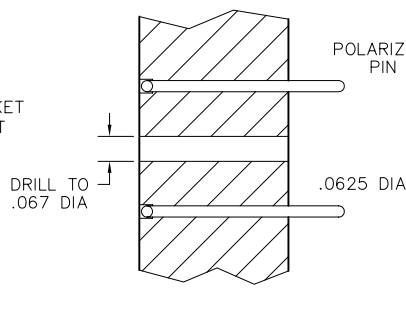


WTA**SAD9JL444-1, -2...

PIN CONTACT

—RIGHT ANGLE—
CONNECTOR BODY

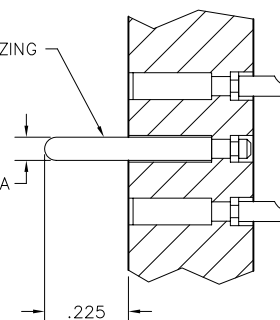
WG, WGA, WGE,
WT, WTB



WTB**PR7SY515-1, -2...

SOCKET CONTACT

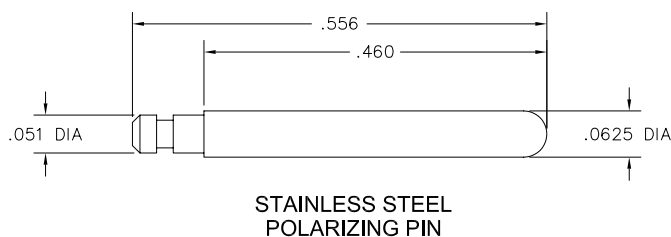
WG, WGA, WGE,
WT, WTA, WTAX,
WTB, WTDXA, WTKA



WTB**SACSY515-1, -2...

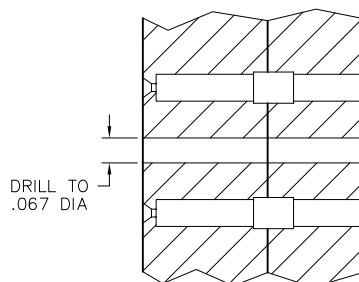
Notes:

1. CODE 443 - Polarizing pin installed in contact position noted by dash number.
2. CODE 444 - Contact position noted by dash number is left open.
3. Either pin or socket contacts can be used with 443 or 444.
4. ** = connector size
5. For additional dimensions and other information, refer to catalog data sheet of specific connector.



SOCKET CONTACT

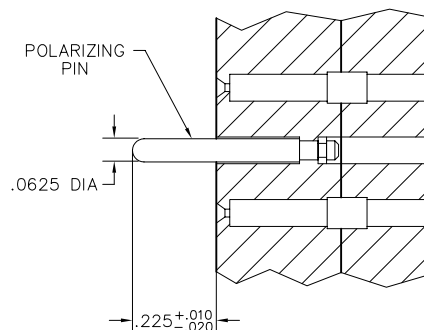
WTDXA, WTKA



WTDXA**SJT478-1, -2...
WTKA**SSY478-1, -2...

SOCKET CONTACT

WTDXA, WTKA



WTDXA**SJT515-1, -2...
WTKA**SSY515-1, -2...



Hardware Availability by Connector Series

WTA / B WG - Receptacle										Body Height = .335		
Style:	J	JL	SY	SY-*	SYL	SYL-*	JTA	JTB	JTD	JT	JTC	JTL
Mating:	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130
Termn:	----	.247	-----	-----	.247	.247	.200	.200	.230	.500	.500	.700
WTB / WG - Plug										Body Height = .400		
Style:	J	JL	SY	SY-*	SYL	SYL-*	JTA	JTB	JTD	JT	JTC	JTL
Mating:	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130
Termn:	----	.182	-----	-----	.182	.182	.135	.135	.165	.435	.435	.635
WGA - Receptacle										Body Height = .375		
Style:	J	JL	SY	SY-*	SYL	SYL-*	JTA	JTB	JTD	JT	JTC	JTL
Mating:	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130
Termn:	----	.207	-----	-----	.207	.207	.160	.160	.190	.460	.460	.660
WGA - Plug										Body Height = .400		
Style:	J	JL	SY	SY-*	SYL	SYL-*	JTA	JTB	JTD	JT	JTC	JTL
Mating:	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130
Termn:	----	.182	-----	-----	.182	.182	.135	.135	.165	.435	.435	.635
WGR92 - Receptacle										Body Height = .375		
Style:	J	JL	SY	SY-*	SYL	SYL-*	JTA	JTB	JTD	JT	JTC	JTL
Mating:	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130	.130
Termn:	----	.207	-----	-----	.207	.207	.160	.160	.190	.460	.460	.660
WGR92 - Plug										Body Height = .350		
Style:	JCL	SYCL	SYCL-*				JTA	JTB	JT	JTL		
Mating:	.130	.130	.130				.130	.130	.130	.130		
Termn:	.247	.120	.120				.205	.205	.505	.705		
WRD122 - Receptacle										Body Height = .375		
Style:	J	JL	SY	SY-	SYL	SYL-*	L-D65	JTA	JTB	JTC	JT	JTL
Mating:	.130	.130	.130	.130	.130	.130	----	.130	.130	.130	.130	.130
Termn:	----	.207	-----	-----	.207	.207	.230	.160	.160	.460	.460	.660
WRD122 - Plug										Body Height = .635		
Style:	JCL	SYCL	SYCL-*									
Mating:	.130	.130	.010									
Termn:	----	-----	-----									
WRF100 - Receptacle										Body Height = .534		
Style:	J	JL										
Mating:	.130	.130										
Termn:	----	.250										
WRF100 - Plug										Body Height = .430		
Style:								JTB				JTL
Mating:								.130				.130
Termn:								.190				.705
WRTBT - Receptacle										Body Height = .525		
Style:	J		SY	SY-*			JTA	JTB	JTD	JT	JTC	JTL
Mating:	.130		.130	.130			.130	.130	.130	.130	.130	.130
Termn:	----		-----	-----			.175	.175	.205	.475	.500	.675
PA - Receptacle										Body Height = .375		
Style:	SY	J						JTB		JT		
Mating:	.175	.160						.175		.175		
Termn:	.200	.277						.314		1.054		
PA - Plug										Body Height = .375		
Style:	SY	J						JTB		JT		JTL
Mating:	.210	.160						.160		.160		.175
Termn:	.273	.277						.314		1.054		1.170

Specifications

Materials and Finishes *

Pin Contacts:	Copper alloy per MIL-C-55302
Socket Contacts:	Clipped contacts: Contact: BeCu per MIL-C-55302 Terminal: Copper alloy per MIL-C-55302 Crimp removable contacts: Contact & terminal: Copper alloy per MIL-C-55302
Contact Finish:	Gold plate per ASTM B 488 or SAE AMS 2422. Localized finish per MIL-C-55302
Molded Insulators:	Glass filled polyphenylene sulfide per MIL-M-24519, Type GST-40F
Jackscrews:	Stainless steel per ASTM A 582/A582M-, Passivated per ASTM-A967, SAE AMS-QQ-P-35
Jacksockets:	Stainless steel per ASTM A 582/A582M-, Passivated per ASTM-A967, SAE AMS-QQ-P-35
Jackscrew Knobs:	Stainless steel per ASTM A 582/A582M-, Passivated per ASTM-A967, SAE AMS-QQ-P-35
Guide Pins, Guide Sockets:	Stainless steel per ASTM A 582/A582M-, Passivated per ASTM-A967, SAE AMS-QQ-P-35
Guide Sockets, Polarized "D" type:	BeCu per ASTM-B196, ASTM B 197/B 197M-, Nickel plated per SAE AMS-QQ-N-290
Face Seal Gasket:	Silicone rubber per A-A-59588
Miscellaneous:	
Connector Markings:	Contact numbers are stamped on the side of the connector. Numbers are stamped on the low-numbered side only on 2-row and 3-row right angle connectors
Torque:	Polarizing Guides and Floating Mounts: 16 + 8/-0 inch ounces. (Minimum of 7 inch ounce reverse torque per Mil-C-55302). Mounting & Hood Hardware: 24 inch ounces maximum. Mating Jacksets: 32 inch ounces maximum Wrap Post: 2 inch ounce minimum per Mil-STD-1130. Helicoil Inserts: #2-56 – 24 in/oz. maximum. #4-40 – 32 in/oz. maximum.
Tolerances:	Unless otherwise specified: Fractions = $\pm 1/64$ " Decimals = $\pm .010$ " Angles = $\pm 5^\circ$

Note: AirBorn can manufacture special configurations for your exact specifications.

* = Reference the above listed specifications or an equivalent industry standard when applicable

Hardware Availability by Connector Series

WTK / WTDX - Plug or Receptacle										Body Height = .585		
Style:	J	JL	SY	SY-*			JTA	JTB	JTD	JT	JTC	JTL
Mating:	.130	.130	.130	.130			.130	.130	.130	.130	.130	.130
Termn:	----	.247	----	----			.200	.200	.230	.500	.500	.700
WTA59										Body Height = .285		
Style:	J						JTA	JTB				
Mating:	.130						.130	.130				
Termn:	----						.135	.135				
WRBC - Receptacle										Body Height = .530		
Style:		SC	SC-*									
Mating:		.145	.145									
Termn:		----	----									
WRBC - Plug										Body Height = .515		
Style:		SC	SC-*									
Mating:		.185	.185									
Termn:		----	----									
WTB Coax - Receptacle										Body Height = .335		
Style:	J	JL	SY	SY-*			JTA	JTB		JT		
Mating:	.130	.130	.130	.130			.130	.130		.130		
Termn:	----	.247	----	----			.200	.200		.500		
WTB Coax - Plug										Body Height = .400		
Style:	J	SY	SY-*				JTA	JTB		JT		
Mating:	.130	.130	.130				.130	.130		.130		
Termn:	----	----	----				.135	.135		.435		
WTB Coax - Receptacle with SC hardware (guide socket)										Body Height = .335		
Style:			SC	SC-*								
Mating:			.145	.145								
Termn:			.040	.040								
WTB Coax - Plug with SC hardware (guide pin)										Body Height = .400		
Style:			SC	SC-*								
Mating:			.185	.185								
Termn:			----	----								
WTB Coax - Receptacle with SC hardware (guide pin)										Body Height = .335		
Style:			SC	SC-*								
Mating:			.185	.185								
Termn:			.040	.040								
WTB Coax - Plug with SC hardware (guide socket)										Body Height = .400		
Style:			SC	SC-*								
Mating:			.145	.145								
Termn:			----	----								

PLUG:	PB	20	S	JTB
RECEPTACLE:	PB	20	P	J
	XX	XX	X	XXX

PLUG

RECEPTACLE

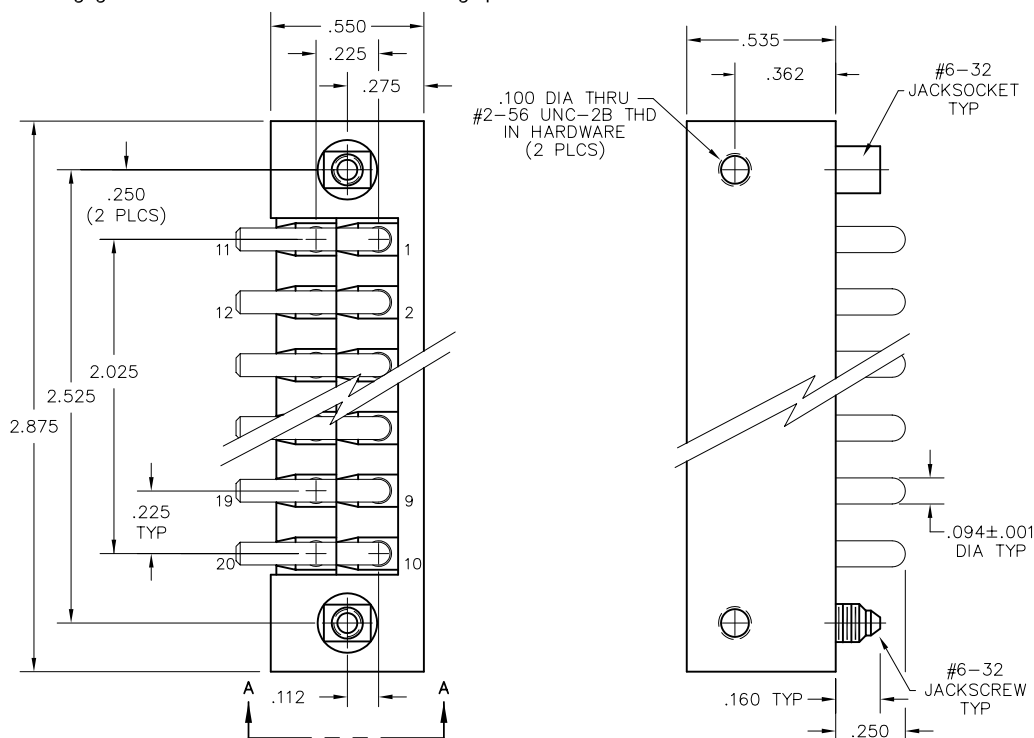
SERIES	
PB	Power connectors
SIZE	
20	20 #12 contacts
CONTACTS	
TYPE CONTACTS/TERMINATIONS:	
P	Pin, straight, solder cup
PD11	Pin, straight, dip solder, .172" x .062" dia
PR7	Pin, right angle, dip solder, .109" x .082" dia
PR8	Pin, right angle, dip solder, .125" x .082" dia
TYPE CONTACTS/TERMINATIONS:	
S	Socket, straight, solder cup
SD11	Socket, straight, dip solder, .172" x .062"
HARDWARE	
SY	Guide set
J	Fixed jackset
JT	Turning jackset, 1.054" (straight plug only)
JTB	Hex turning jackset, .314" (straight plug only)
JTL	Long turning jackset, 1.175"
SY	Guide set
J	Fixed jackset
JT	Turning jackset, 1.054"
JTB	Hex turning jackset, .314"
JTL	Long turning jackset, 1.175"

OPTIONS

- Option Codes: Add to the end of the part number. Example: PA5PD11SY-P39. Call factory for additional codes.
- D01 Pretinned contact terminations (except solder cups, wire wraps® and flex contacts) with 63/37 or 60/40 solder. ☒
- P39 Pretinned contact terminations (except solder cups, wire wraps® and flex contacts) with SAC305 solder (lead free).
- ☒ = Option not RoHS compliant

NOTES:

Molded bodies: Polyphenylene sulfide
 Contact rating: #12 contacts = 23 amps
 Contact material: Socket - Beryllium copper, gold plated
 Pin - Brass gold plated
 Contact plating: Nominal Au plating thickness is 20 microinches on mating surfaces
 Test voltage: 2000 VRMS @ sea level; 460 VRMS @ 70,000 feet
 Contact resistance: .023 volt maximum drop @ 23 amps (.001 ohm)
 Engagement force: 24 ounces maximum average per contact



PB20PR8J



Performance Reference MIL-C-55302

Contact Rating:	5-amperes
Solderability:	Terminals (except wire wrap [®] and crimp) tested in accordance with MIL-STD-202, Method 208
Wire Size:	Stranded #22 AWG (adapter sleeves available for larger sizes or twisted pairs).
Operating Temperature:	-65° to +125° C or -85° to +257° F

<u>Category:</u>	<u>Requirements:</u>	<u>Test Method Per:</u> <u>SAE AS 13441</u>
Test Voltage:	1,000 V, RMS, 60 Hz @ sea level 300 V, RMS, 60 Hz @ 70,000 feet	#3001
Insulation Resistance:	5,000 megohms minimum @ 500 VDC	#3003
Durability:	500 connector mating cycles	
Vibration:	Mated connectors, Test condition III	#2005
Salt Spray:	Mated connectors, Test condition B	#1001
Shock:	Mated connectors, Test condition G	#2004
Humidity:	Test Type II, except steps 7A and 7B not required	#1002
Temperature Cycling:	Mated connectors, Test condition A	#1003
Contact Resistance:	.025 volt maximum drop @ 5 amperes - .005 ohms (interface measurement)	#3004
Contact Engaging Force:	4.00 oz. maximum with .031 diameter test pin per SAE AS31971	#2014 & MIL-C-55302
Contact Engaging Force:	For lower force contacts with a nominal engaging force of 2 ounces per socket contact, substitute the letter "O" for the letter "A". Example: Part number WRG208SOCSY	
Sizes 50 and larger:	Upon engagement, center area of mating faces may remain open .010" to .025" due to slight flexing of molding. Vibration or shock should provide complete closure.	
Guides and Jacks:	If location of pin or socket contacts is reversed, location of male and female guides or jacks is also reversed; except when using "D" shaped polarized guides. When polarized positions are changed, apply Loctite [®] 83-21 or equivalent to threads.	

Note: See "Military Cross Reference" chart in the Accessories section.