



## Welcome to the World of AirBorn Interconnect Solutions

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AirBorn has been manufacturing high reliability interconnect systems for more than 45 years with leading-edge, innovative technology that is more reliable and better-performing than practically all other alternatives.

Our advanced technologies, experienced design support, incomparable lead times and personalized customer service and support provide customers with complete solutions to a vast array of highly specialized design requirements in diverse markets and applications.

You will find in this catalog technical drawings and specification information that will help you solve your interconnection needs from the design stage through production specification.

The products in this catalog are organized by the AirBorn part number assigned to them.

Each connector part number identifies four elements:

- AirBorn Series
- Size (number of contacts)
- Contact Type
- Hardware Type

Each catalog page shows the choices available for each of these elements. By selecting one option from any category on the page, you can build a set of connectors to meet your requirements.

If you do not find a particular connector size or option, please contact AirBorn for further assistance. AirBorn can manufacture special configurations for your exact specifications.

***When everything matters, go AirBorn.***

[www.AirBorn.com](http://www.AirBorn.com)

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**"W" SERIES - .100"**  
**MIL-C-55302**  
**See pages W-7 thru W-86**

**"WB" SERIES - .050"**  
**MIL-C-55302**  
**See pages WB-1 thru WB-13**

**"W" SERIES ACCESSORIES**  
**See pages WA-1 thru WA-25**



**"W" SERIES - .100"**  
**MIL-C-55302**



## Mating Matrix for AirBorn "W" Series Connectors

### SOCKETS

P  
I  
N  
S

SERIES	WT	WTA (F)	WTAX	WTB	WTBT	WTDX	WTK	WG	WGA	WGDV	WGK	WGR	WRD	WRDDX	WRF
WT	X														
WTA (T)		X		X	X	X	X								
WTAV			X	X	X	X	X								
WTB*P		X	X	X	X	X	X								
WTBV		X	X	X	X	X	X								
WTDV		X	X	X	X	X	X								
WTKV		X	X	X	X	X	X								
WG*P								X		X	X				
WGV								X		X	X				
WGA*P									X						
WGA									X						
WGDV								X		X	X				
WGKV								X		X	X				
WGR												X			
WRD*P													X	X	
WRDV													X	X	
WRF															X

I/O CONNECTORS WT, WTA, WTAX, WTDX, WTK, WG, WGA, WGDV, WGK, WRD, WRDDX, WRF

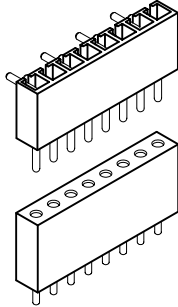
PCB CONNECTORS WT, WTA, WTAX, WTB, WTBT, WG, WGA, WRD, WRF

(T) = TURNING HARDWARE

(F) = FIXED HARDWARE

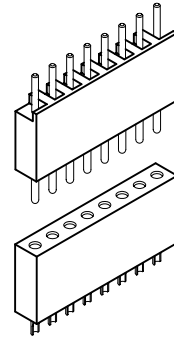
# Daughterboard to Motherboard or Chassis

Right angle plug to  
straight receptacle



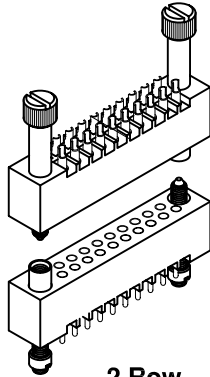
**1 Row**  
Sizes: 3 thru 22  
Page: W-11

Straight plug to  
straight receptacle



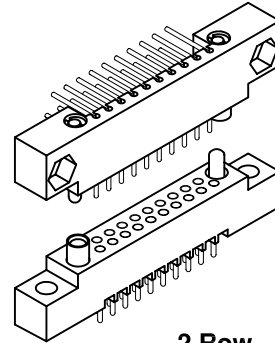
**1 Row**  
Sizes: 3 thru 22  
Page: W-13

Cable to  
board or panel



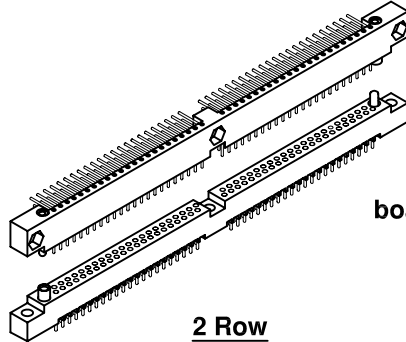
**2 Row**  
Sizes: 10 thru 70  
Page: W-15

PC card to  
board or chassis



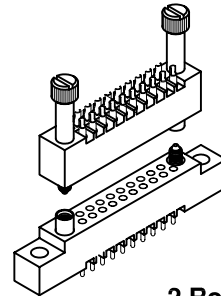
**2 Row**  
Sizes: 10 thru 70  
Page: W-19

PC card to  
board or chassis



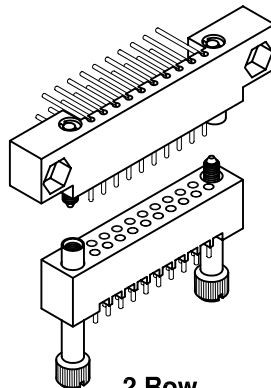
**2 Row**  
Sizes: 90, 100 & 120  
Page: W-21

Cable to  
board or PC card



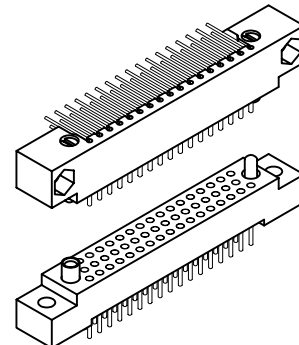
**2 Row**  
Sizes: 10 thru 70  
Page: W-27

PC card to  
board or PC card



**2 Row**  
Sizes: 10 thru 70  
Page: W-29

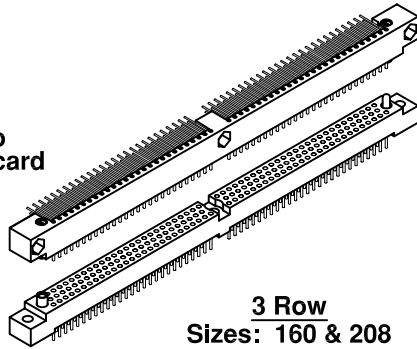
PC card to  
board or chassis



**3 Row**  
Sizes: 50 thru 104  
Page: W-43

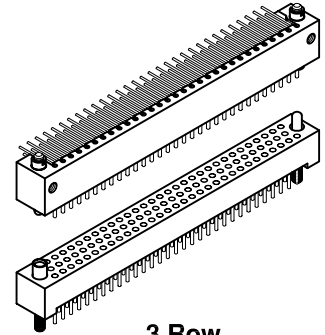
## Daughterboard to Motherboard or Chassis

PC card to  
board or PC card



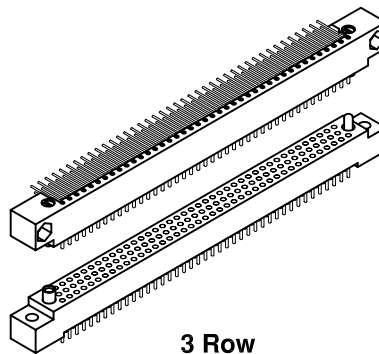
3 Row  
Sizes: 160 & 208  
Page: W-47

PC card to  
board or chassis



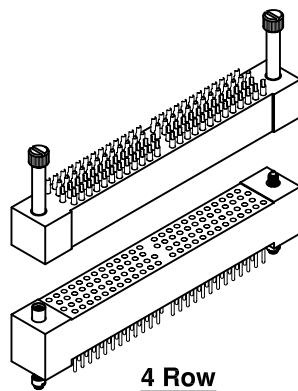
3 Row  
Sizes: 92  
Page: W-53

PC card to  
board or chassis



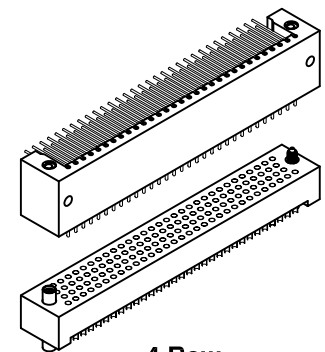
3 Row  
Sizes: 122  
Page: W-55

Cable to  
board or panel



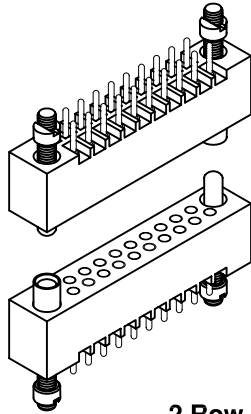
4 Row  
Sizes: 100  
Page: W-59

PC card to  
board or chassis

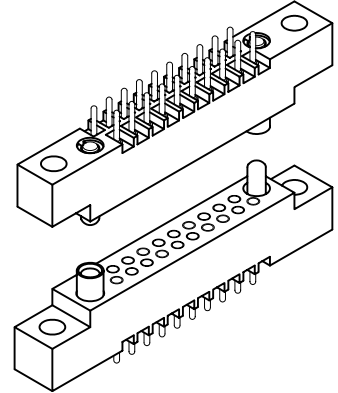


4 Row  
Sizes: 122  
Page: W-61

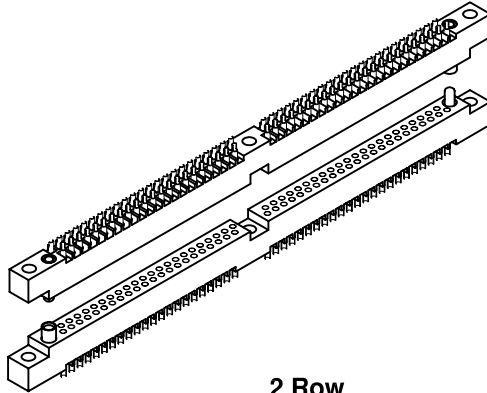
## Sandwich Boards



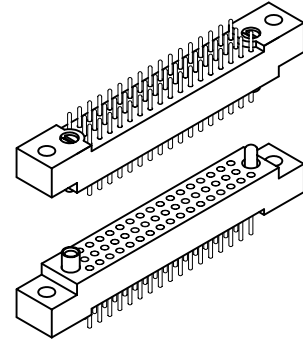
**2 Row**  
Sizes: 10 thru 70  
Page: W-17



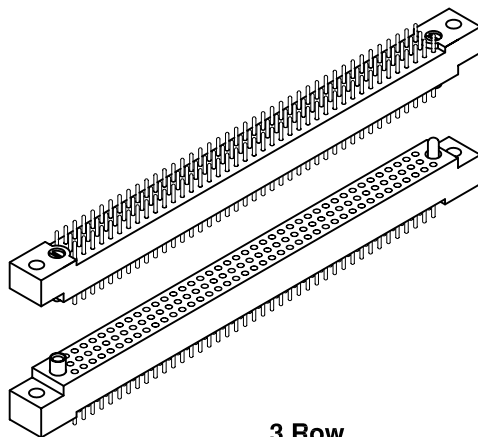
**2 Row**  
Sizes: 10 thru 70  
Page: W-23



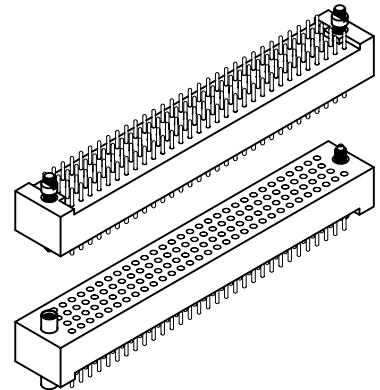
**2 Row**  
Sizes: 90 & 100  
Page: W-25



**3 Row**  
Sizes: 50 thru 104  
Page: W-45



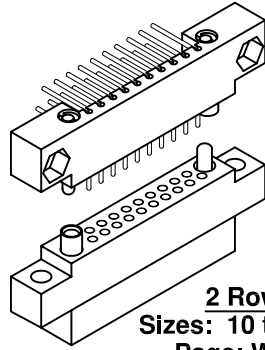
**3 Row**  
Sizes: 122  
Page: W-57



**4 Row**  
Sizes: 122  
Page: W-63

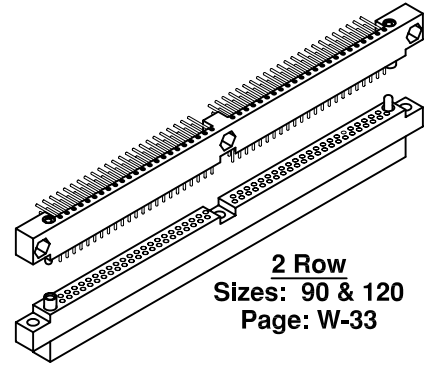
## Crimp Removable

PC card to chassis



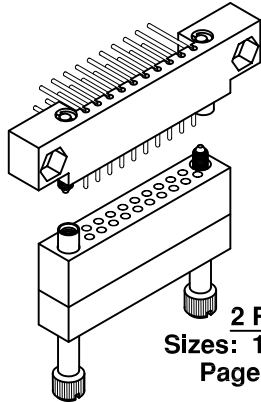
**2 Row**  
**Sizes: 10 thru 70**  
**Page: W-31**

PC card to chassis



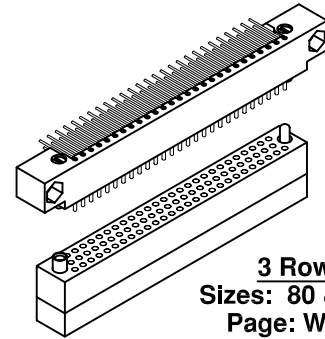
**2 Row**  
**Sizes: 90 & 120**  
**Page: W-33**

PC card to board



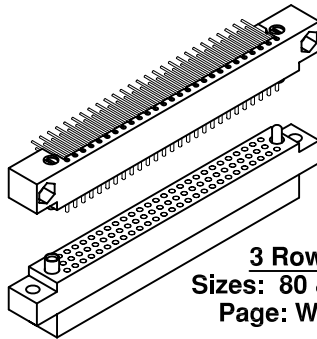
**2 Row**  
**Sizes: 10 thru 70**  
**Page: W-35**

PC card to chassis



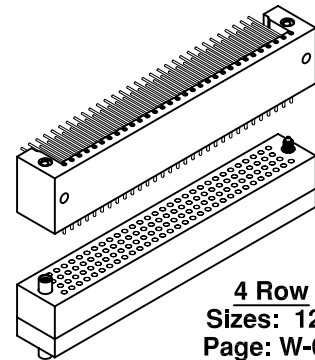
**3 Row**  
**Sizes: 80 & 160**  
**Page: W-51**

PC card to chassis



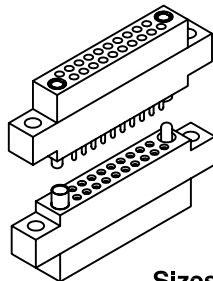
**3 Row**  
**Sizes: 80 & 160**  
**Page: W-49**

PC card to cable

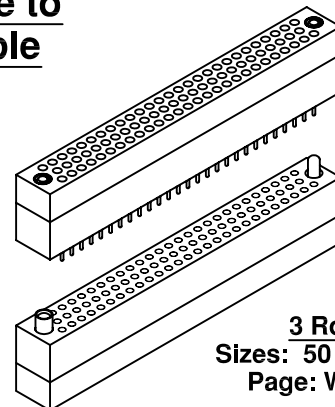


**4 Row**  
**Sizes: 122**  
**Page: W-65**

## Crimp Removable to Crimp Removable



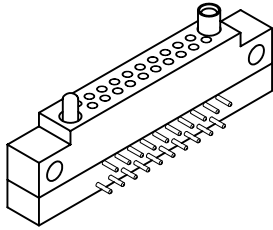
**2 Row**  
**Sizes: 10 thru 70**  
**Page: W-34.1**



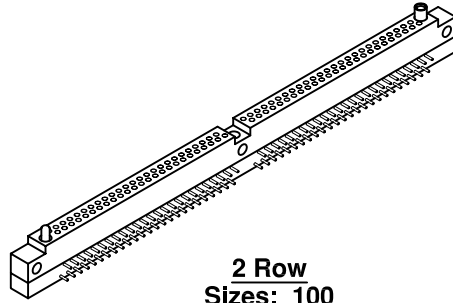
**3 Row**  
**Sizes: 50 thru 104**  
**Page: W-52.1**



## Extender Boards



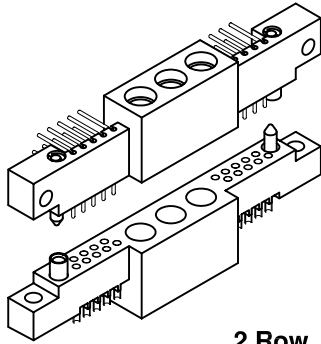
**2 Row**  
**Sizes: 10 thru 70**  
**Page: W-39**



**2 Row**  
**Sizes: 100**  
**Page: W-41**

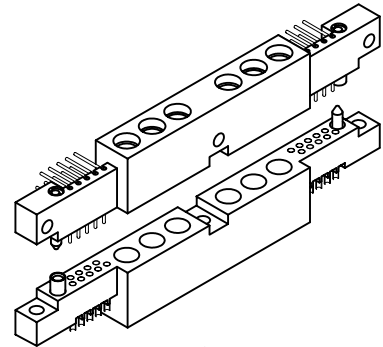
## Coax Connectors

**PC Card to  
board or chassis**



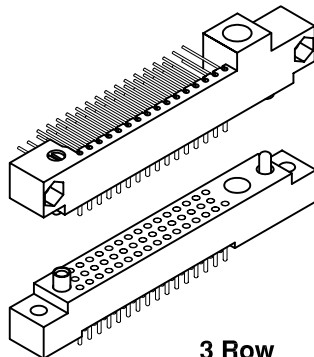
**2 Row**  
**Sizes: 20-3**  
**Page: W-67**

**PC Card to  
board or chassis**



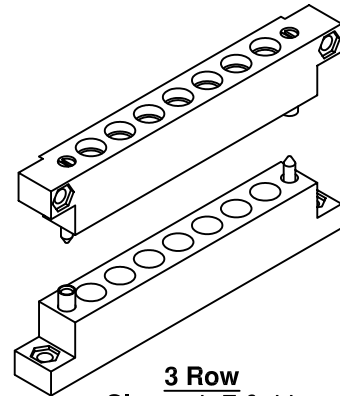
**2 Row**  
**Sizes: 20-6**  
**Page: W-69**

**PC Card to  
chassis or board**



**3 Row**  
**Sizes: 47-1**  
**Page: W-71**

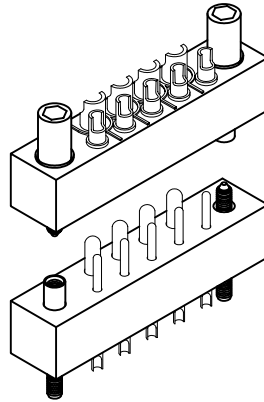
**PC Card to  
chassis**



**3 Row**  
**Sizes: 1, 7 & 11**  
**Page: W-73**

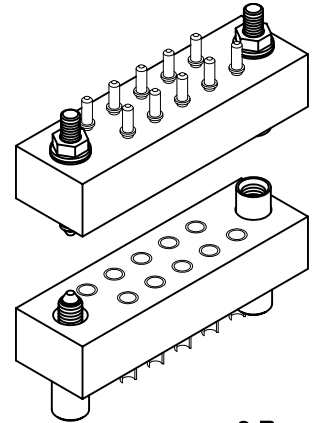
## Misc Connectors

Power cable to chassis



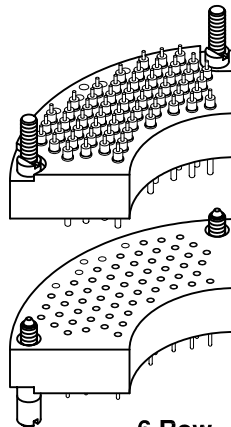
**2 Row**  
**Sizes: 5 & 4-5**  
**Page: W-75**

Power cable to chassis



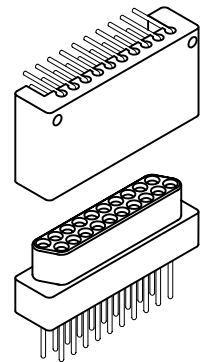
**2 Row**  
**Sizes: 10**  
**Page: W-77**

Quarter round sandwich boards



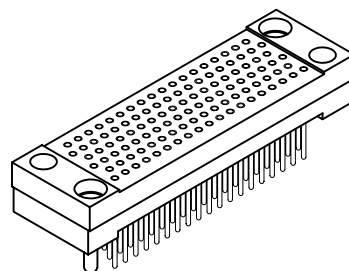
**6 Row**  
**Sizes: 59**  
**Page: W-79**

Pin protected PC card to board



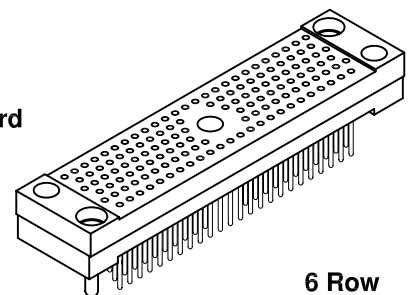
**2 Row**  
**Sizes: 10 & 20**  
**Page: W-81**

Stackable board to board



**6 Row**  
**Sizes: 111**  
**Page: W-83**

Stackable board to board



**6 Row**  
**Sizes: 135**  
**Page: W-85**

# Contents

## "W" Series

### .100" Rectangular Plastic Board Level Connectors

W-1	Index
W-7	Contents
W-8	Specifications
W-9	Performance
W-10	Part number description

#### 1-Row Connectors - Board to Board, Board to Cable

W-11	WT - WT	PC card to cable or board, cable to cable
W-13	WT - WT	PC card to cable or board, cable to cable

#### 2-Row Connectors - Board to Board, Board to Cable, Sizes: 10-100

W-15	WTA - WTA	Cable to board or panel, without mounting ears. Sizes: 10 thru 70
W-17	WTAV-WTAX	Sandwich boards (straight to straight). Sizes: 10 thru 70
W-19	WTB - WTB	PC card to board or chassis. Sizes: 10 thru 70
W-21	WTB - WTB	PC card to board or chassis. Sizes: 90, 100 & 120
W-23	WTBV - WTB	Sandwich boards. Sizes: 10 thru 70
W-25	WTBV - WTB	Sandwich boards. Sizes: 90 & 100
W-27	WTA - WTB	Cable to board or PC card. Sizes: 10 thru 70
W-29	WTB - WTAX	PC card to board or PC card. Sizes: 10 thru 70
W-31	WTB - WTKA	PC card to chassis (crimp removable), with mounting ears. Sizes: 10 thru 70
W-33	WTB - WTKA	PC card to chassis (crimp removable), with mounting ears. Sizes: 90 & 120
W-34.1	WTKV - WTKA	Chassis to chassis (crimp removable), with mounting ears. Sizes: 10 thru 70
W-35	WTB - WTDXA	PC card to cable (crimp removable), without mounting ears. Sizes: 10 thru 70
W-37	WTB - WTDXA	PC card to cable (crimp removable), without mounting ears. Sizes: 90 & 120
W-38.1	WTDV - WTDXA	Chassis to chassis (crimp removable), without mounting ears. Sizes: 10 thru 70
W-39	WTBT	Extender board (right angle receptacle). Sizes: 10 thru 70
W-41	WTBT	Extender board (right angle receptacle). Sizes: 100

#### 3-Row Connectors - Board to Board, Board to Cable

W-43	WG - WG	PC card to board or chassis. Sizes: 50 thru 104
W-45	WGV - WG	Sandwich board to PC card. Sizes: 50 thru 104
W-47	WG - WG	PC card to board or PC card. Sizes: 160 & 208
W-49	WG - WGKA	PC card to chassis (crimp removable), with mounting ears. Sizes: 80 & 160
W-50.1	WGKV - WGKA	Chassis to chassis (crimp removable), with mounting ears. Sizes: 50 thru 104
W-51	WG - WGDXA	PC card to chassis (crimp removable), without mounting ears. Sizes: 80 & 160
W-52.1	WGDV - WGDXA	Chassis to chassis (crimp removable), without mounting ears. Sizes: 50 thru 104
W-53	WGR - WGR	PC card to board or chassis. Sizes: 92
W-55	WGA - WGA	PC card to board or chassis. Sizes: 122
W-57	WGA - WGA	Sandwich boards. Sizes: 122

#### 4-Row Connectors - Board to Board, Board to Cable

W-59	WRF - WRF	Cable to board or panel. Sizes: 100
W-61	WRD - WRD	PC card to board or chassis. Sizes: 122
W-63	WRDV - WRD	Sandwich boards. Sizes: 122
W-65	WRD - WRDDXA	PC card to cable (crimp removable) without mounting ears. Sizes: 122

#### Coax Hybrid Connectors - PC Card to Board, Board to Cable (SMB slide-on, 50 ohm contacts)

W-67	WTB20-3	Signal-coax hybrid, PC card to board or chassis. Sizes: 20-3
W-69	WTB20-6	Signal-coax hybrid, PC card to board or chassis. Sizes: 20-6
W-71	WG47-1	Signal-coax hybrid, PC card to board or chassis. Sizes: 47-1
W-73	WRBC	Coax hybrid. Sizes 1, 7 & 11

#### Miscellaneous Connectors

W-75	PA - PA	Power connector (#12 & #16 contacts) to chassis. Sizes: 5 & 4-5
W-77	PA - PA	Power connector (#12 contacts) to chassis. Sizes: 10
W-79	WTA59 - WTA59	Quarter round sandwich boards. Sizes: 59
W-81	WTE - WTE	Pin protected PC card to board. Sizes: 10 & 20
W-83	WE	Stackable, board to board. Sizes: 111
W-85	WE	Stackable, board to board. Sizes: 135

## Contents

### "WB" Series

#### .050" Rectangular Plastic Board Level Connectors

WB-1	Contents
WB-2	Specifications
WB-3	Performance
WB-4	Part number description
	<b>2-Row Connectors - PC Card or SMT to Board, Sizes: 20-132</b>
WB-5	WB Plug, right angle, with mounting ears
	WB Receptacle, straight, with mounting ears
WB-7	WBB, WBA Plug, straight, surface mount, with mounting ears
	WB Receptacle, straight, with mounting ears
WB-9	Hardware
WB-10	WB Board layout - plug, right angle
WB-11	WB Board layout - receptacle, straight
WB-12	WBB, WBA Board layout - plug, straight, surface mount
	<b>Military Cross Reference</b>
WB-13	Chart

## Specifications

### Materials and Finishes \*

<b>Pin Contacts:</b>	Copper alloy per MIL-C-55302
<b>Socket Contacts:</b>	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
<b>Contact Finish:</b>	Gold plate per ASTM B 488 or SAE AMS 2422. Localized finish per MIL-C-55302
<b>Molded Insulators:</b>	Glass filled polyphenylene sulfide per MIL-M-24519, Type GST-40F
<b>Jackscrews:</b>	Stainless steel per ASTM A 582/A582M-, Passivated per ASTM-A967, SAE AMS-QQ-P-35
<b>Jacksockets:</b>	Stainless steel per ASTM A 582/A582M-, Passivated per ASTM-A967, SAE AMS-QQ-P-35
<b>Jackscrew Knobs:</b>	Stainless steel per ASTM A 582/A582M-, Passivated per ASTM-A967, SAE AMS-QQ-P-35
<b>Guide Pins, Guide Sockets:</b>	Stainless steel per ASTM A 582/A582M-, Passivated per ASTM-A967, SAE AMS-QQ-P-35
<b>Guide Sockets, Polarized "D" type:</b>	BeCu per ASTM-B196, ASTM B 197/B 197M-, Nickel plated per SAE AMS-QQ-N-290
<b>Face Seal Gasket:</b>	Silicone rubber per A-A-59588
<b>Miscellaneous:</b>	
<b>Connector Markings:</b>	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
<b>Torque:</b>	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.
<b>Tolerances:</b>	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



# Performance

## Reference MIL-C-55302

**Contact Rating:** 5-amperes

**Solderability:** Terminals (except wire wrap<sup>®</sup> 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>
<b>Test Voltage:</b>	1,000 V, RMS, 60 Hz @ sea level 300 V, RMS, 60 Hz @ 70,000 feet	#3001
<b>Insulation Resistance:</b>	5,000 megohms minimum @ 500 VDC	#3003
<b>Durability:</b>	500 connector mating cycles	
<b>Vibration:</b>	Mated connectors, Test condition III	#2005
<b>Salt Spray:</b>	Mated connectors, Test condition B	#1001
<b>Shock:</b>	Mated connectors, Test condition G	#2004
<b>Humidity:</b>	Test Type II, except steps 7A and 7B not required	#1002
<b>Temperature Cycling:</b>	Mated connectors, Test condition A	#1003
<b>Contact Resistance:</b>	.025 volt maximum drop @ 5 amperes - .005 ohms (interface measurement)	#3004
<b>Contact Engaging Force:</b>	4.00 oz. maximum with .031 diameter test pin per SAE AS31971	#2014 & MIL-C-55302
<b>Contact Engaging Force:</b>	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	
<b>Sizes 50 and larger:</b>	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.	
<b>Guides and Jacks:</b>	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 <sup>®</sup> 83-21 or equivalent to threads.	

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

## Part Number Description

Each part number consists of at least four elements: series, size (number of contacts), type of contacts, and type of hardware. A fifth element is added whenever special modifications or options are available.

Each catalog page shows the choices available for each of these elements. By selecting one option from each category on the page, you can build a set of connectors to meet your requirements.

Each part number is identified by a combination of letters and/or numbers of varying lengths. These elements are written together without spaces or punctuation.

### **Series:**

The series designator identifies the connector body style. Some body moldings are modified to accommodate right angle pins, but carry the same series number. Follow choices on each catalog page for series selections.

### **Size:**

The size is determined by the number of contacts in the connector, and is an integral part of the part number. Order only sizes shown on the catalog page.

### **Contacts:**

Each page also identifies contact options for a given connector. Please note that starting with the largest connectors, we are routinely substituting low-force sockets.

### **Hardware:**

Hardware options are shown on each catalog page.

### **Notes:**

If options or modifications are available for a given connector, it will be stated on the catalog page, or you will be referred to a different page for specific instructions. Remember when adding a suffix to the part number, add it exactly as instructed.

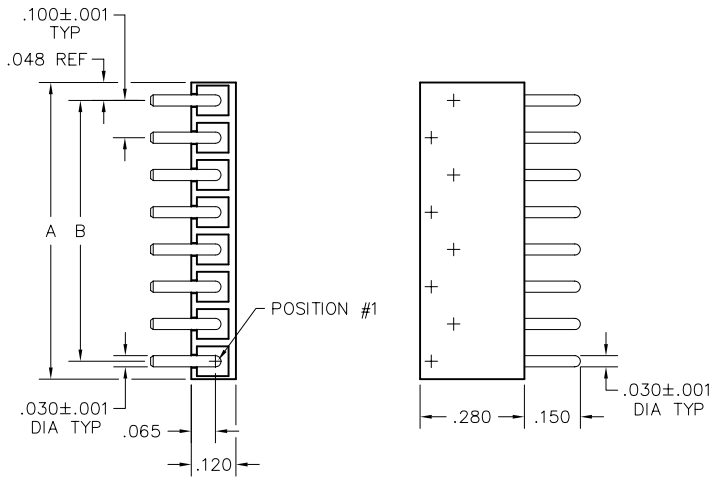
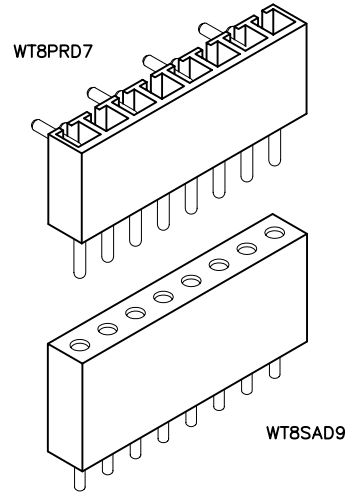
Each page is as comprehensive as possible. However, if you do not find a particular connector size or option, please contact the factory for further assistance.

# 1 • ROW Right Angle Plug to Straight Receptacle

.100"

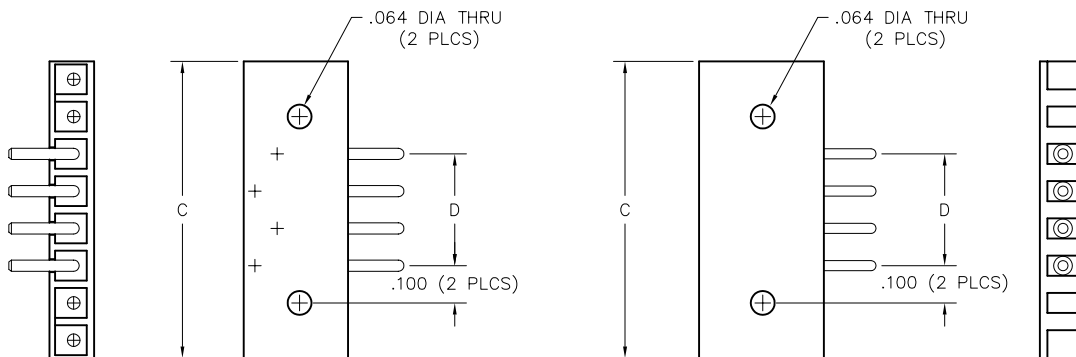
**WT - WT**

3 thru 22 Contacts



PLUG

RECEPTACLE



MOUNTING HOLES  
(OPTION: CD)



PLUG: WT 8 PRD7  
 RECEPTACLE: WT 8 SAD9  
 XX X XXXX

PLUG	RECEPTACLE
<b>SERIES</b>	
WT Plug, right angle, no mounting ears	WT Receptacle, straight, no mounting ears
<b>SIZE</b>	
Number of contacts (3 thru 22)	Number of contacts (3 thru 22)
<b>CONTACTS</b>	
TYPE CONTACTS/TERMINATIONS: PRD4 Pin, right angle, dip solder, .063" x .030" dia PRD7 Pin, right angle, dip solder, .109" x .030" dia PRD8 Pin, right angle, dip solder, .125" x .030" dia	TYPE CONTACTS/TERMINATIONS: SAC Socket, straight, solder cup (.035" I.D.) SAD7 Socket, straight, dip solder, .109" x .027" dia SAD9 Socket, straight, dip solder, .140" x .027" dia SAD11 Socket, straight, dip solder, .172" x .027" dia SAD15 Socket, straight, dip solder, .234" x .027" dia SAF3 Socket, straight, flex circuit, .050" SAF6 Socket, straight, flex circuit, .093" SAG7 Socket, straight, dip solder, .109" x .018" dia SAG9 Socket, straight, dip solder, .140" x .018" dia SAG11 Socket, straight, dip solder, .172" x .018" dia SAP Socket, straight, pin termination, .150" (connector saver) SAR4 Socket, right angle, dip solder, .062" x .025" dia SAR7 Socket, right angle, dip solder, .109" x .025" dia SAR9 Socket, right angle, dip solder, .140" x .025" dia SARC Socket, right angle, solder cup SAW40 Socket, straight, wire wrap <sup>®</sup> , .625"

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WT10PC443-1. Call factory for additional codes.
- 443 Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section.
- 444 Contact position noted by dash number is left open (to mate with -443). See "Polarization" in Accessories section.
- B82 Termination face sealed against conformal coating
- CD Cross drilled connector for hold down screws. See page W-11. Example: WT8PRD7CD or WT8SACCD.
- D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder. ☒
- P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- D54 Combine -B82 & -D01 options
- G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)

Note: The thin outboard barriers are often removed at the factory due to their fragile nature.

☒ = Option not RoHS compliant

DIMENSIONS		
SIZE	A	B
3	.296	.200
4	.396	.300
5	.496	.400
6	.596	.500
7	.696	.600
8	.796	.700
9	.896	.800
10	.996	.900
11	1.096	1.000
12	1.196	1.100
13	1.296	1.200
14	1.396	1.300
15	1.496	1.400
16	1.596	1.500
17	1.696	1.600
18	1.796	1.700
19	1.896	1.800
20	1.996	1.900
21	2.096	2.000
22	2.196	2.100

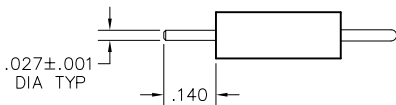
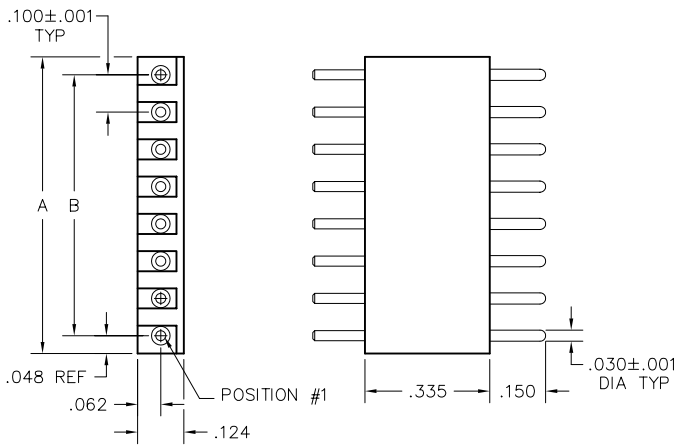
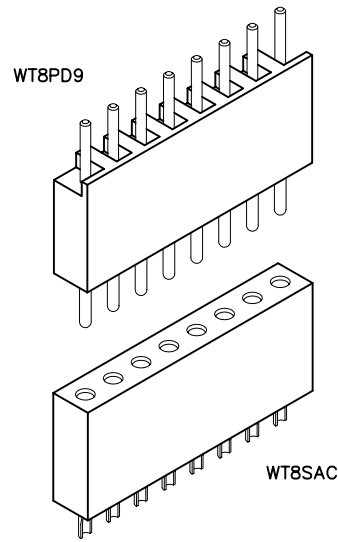
DIMENSIONS (CD)			
SIZE	# OF CONTACTS	C	D
5	1	.496	—
6	2	.596	.100
7	3	.696	.200
8	4	.796	.300
9	5	.896	.400
10	6	.996	.500
11	7	1.096	.600
12	8	1.196	.700
13	9	1.296	.800
14	10	1.396	.900
15	11	1.496	1.000
16	12	1.596	1.100
17	13	1.696	1.200
18	14	1.796	1.300
19	15	1.896	1.400
20	16	1.996	1.500
21	17	2.096	1.600
22	18	2.196	1.700

# 1 • ROW Straight Plug to Straight Receptacle

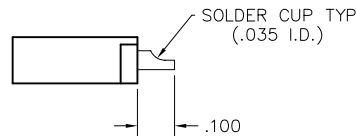
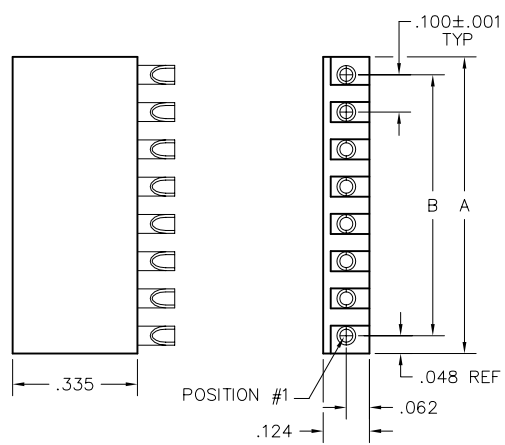
.100"

**WT - WT**

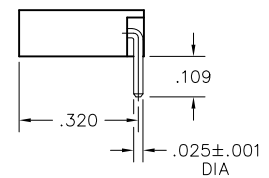
3 thru 22 Contacts



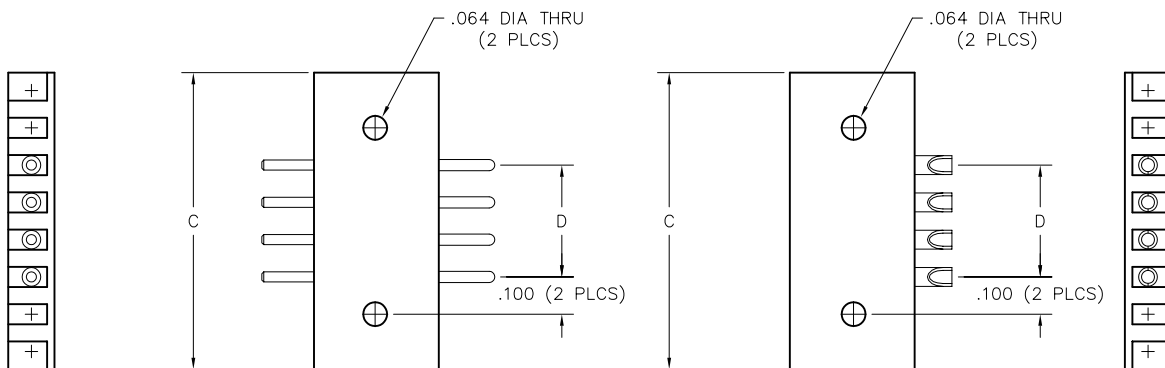
PLUG



RECEPTACLE



RIGHT ANGLE  
(WT8SAR7)



MOUNTING HOLES  
(OPTION: CD)

PLUG: WT 8 PD9  
 RECEPTACLE: WT 8 SAC  
 XX X XXX

PLUG		RECEPTACLE	
<b>SERIES</b>			
WT	Plug, straight, no mounting ears	WT	Receptacle, straight, no mounting ears
<b>SIZE</b>			
Number of contacts (3 thru 22)		Number of contacts (3 thru 22)	
<b>CONTACTS</b>			
TYPE CONTACTS/TERMINATIONS: PC Pin, straight, solder cup (.035" I.D.) PD7 Pin, straight, dip solder, .109" x .027" dia PD9 Pin, straight, dip solder, .140" x .027" dia PD11 Pin, straight, dip solder, .172" x .027" dia PF3 Pin, straight, flex circuit, .050" PF6 Pin, straight, flex circuit, .093" PW40 Pin, straight, wire wrap <sup>®</sup> , .625"		TYPE CONTACTS/TERMINATIONS: SAC Socket, straight, solder cup (.035" I.D.) SAD7 Socket, straight, dip solder, .109" x .027" dia SAD9 Socket, straight, dip solder, .140" x .027" dia SAD11 Socket, straight, dip solder, .172" x .027" dia SAD15 Socket, straight, dip solder, .234" x .027" dia SAF3 Socket, straight, flex circuit, .050" SAF6 Socket, straight, flex circuit, .093" SAG7 Socket, straight, dip solder, .109" x .018" dia SAG9 Socket, straight, dip solder, .140" x .018" dia SAG11 Socket, straight, dip solder, .172" x .018" dia SAP Socket, straight, pin termination, .150" (connector saver) SAR4 Socket, right angle, dip solder, .062" x .025" dia SAR7 Socket, right angle, dip solder, .109" x .025" dia SAR9 Socket, right angle, dip solder, .140" x .025" dia SARC Socket, right angle, solder cup SAW40 Socket, straight, wire wrap <sup>®</sup> , .625"	

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WT10PC443-1. Call factory for additional codes.
- 443 Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section.
- 444 Contact position noted by dash number is left open (to mate with -443). See "Polarization" in Accessories section.
- B82 Termination face sealed against conformal coating
- CD Cross drilled connector for hold down screws. See page W-13. Example: WT8PCCD or WT8SACCD.
- D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder. ☒
- P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- D54 Combine -B82 & -D01 options
- G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)

Note: The thin outboard barriers are often removed at the factory due to their fragile nature.

☒ = Option not RoHS compliant

DIMENSIONS		
SIZE	A	B
3	.296	.200
4	.396	.300
5	.496	.400
6	.596	.500
7	.696	.600
8	.796	.700
9	.896	.800
10	.996	.900
11	1.096	1.000
12	1.196	1.100
13	1.296	1.200
14	1.396	1.300
15	1.496	1.400
16	1.596	1.500
17	1.696	1.600
18	1.796	1.700
19	1.896	1.800
20	1.996	1.900
21	2.096	2.000
22	2.196	2.100

DIMENSIONS (CD)			
SIZE	# OF CONTACTS	C	D
5	1	.496	—
6	2	.596	.100
7	3	.696	.200
8	4	.796	.300
9	5	.896	.400
10	6	.996	.500
11	7	1.096	.600
12	8	1.196	.700
13	9	1.296	.800
14	10	1.396	.900
15	11	1.496	1.000
16	12	1.596	1.100
17	13	1.696	1.200
18	14	1.796	1.300
19	15	1.896	1.400
20	16	1.996	1.500
21	17	2.096	1.600
22	18	2.196	1.700

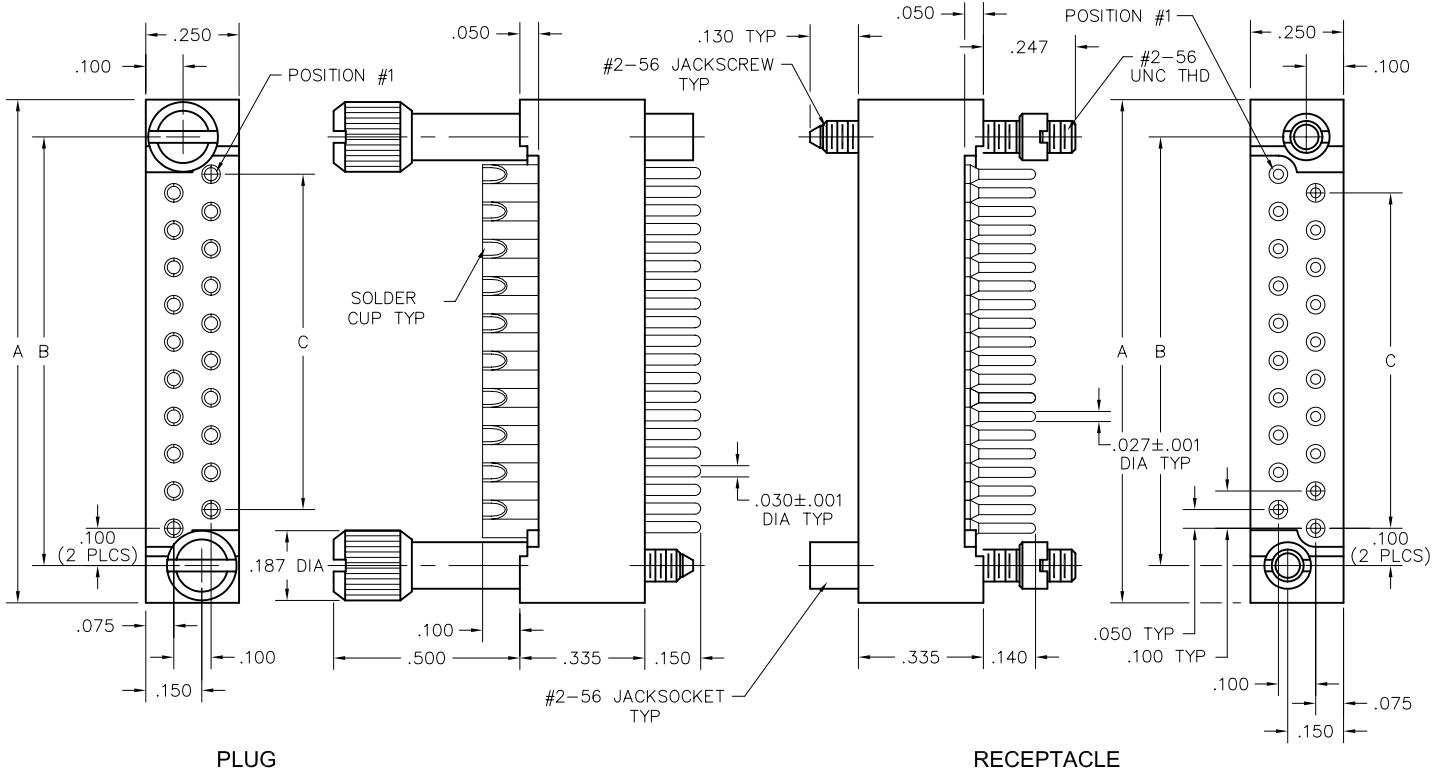
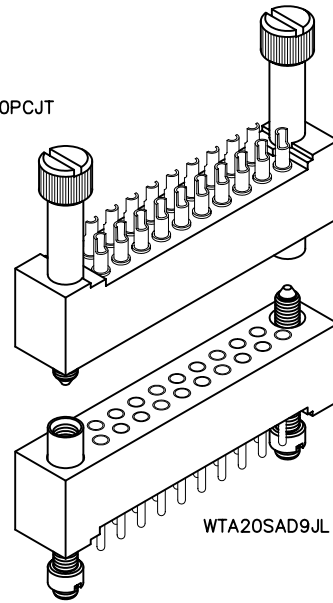
# 2 • ROW Cable to Board or Panel

.100"

**WTA - WTA**

10 thru 70 Contacts

WTA20PCJT



DIMENSIONS							
SIZE	A	B	C	SIZE	A	B	C
10	.850	.650	.400	44	2.550	2.350	2.100
14	1.050	.850	.600	50	2.850	2.650	2.400
20	1.350	1.150	.900	54	3.050	2.850	2.600
24	1.550	1.350	1.100	56	3.150	2.950	2.700
26	1.650	1.450	1.200	60	3.350	3.150	2.900
30	1.850	1.650	1.400	66	3.650	3.450	3.200
36	2.150	1.950	1.700	70	3.850	3.650	3.400
40	2.350	2.150	1.900				

PLUG: WTA 20 PC JT  
 RECEPTACLE: WTA 20 SAD9 JL  
 XXX XX XXXX XX

PLUG		RECEPTACLE	
SERIES			
WTA	Plug, straight, no mounting ears	WTA	Receptacle, straight, no mounting ears

SIZE			
XX	Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)	XX	Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)

### CONTACTS

- Pin or socket contacts can be used in either plug or receptacle.
- When pin contacts are used, standard hardware orientation places the female hardware next to the #1 pin contact.
- When socket contacts are used, standard hardware orientation places the male hardware next to the #1 socket contact.

#### TYPE CONTACTS/TERMINATIONS:

PC	Pin, straight, solder cup (.035" I.D.)
PD5	Pin, straight, dip solder, .078" x .027" dia
PD7	Pin, straight, dip solder, .109" x .027" dia
PD9	Pin, straight, dip solder, .140" x .027" dia
PD11	Pin, straight, dip solder, .172" x .027" dia
PD13	Pin, straight, dip solder, .203" x .027" dia
PD15	Pin, straight, dip solder, .234" x .027" dia
PD20	Pin, straight, dip solder, .312" x .027" dia
PF3	Pin, straight, flex circuit, .050"
PF6	Pin, straight, flex circuit, .093"
PF8	Pin, straight, flex circuit, .125"
PW34	Pin, straight, wire wrap <sup>®</sup> , .531"
PW40	Pin, straight, wire wrap <sup>®</sup> , .625"

#### TYPE CONTACTS/TERMINATIONS:

SAC	Socket, straight, solder cup (.035" I.D.)
SAD7	Socket, straight, dip solder, .109" x .027" dia
SAD9	Socket, straight, dip solder, .140" x .027" dia
SAD11	Socket, straight, dip solder, .172" x .027" dia
SAF3	Socket, straight, flex circuit, .050"
SAF6	Socket, straight, flex circuit, .093"
SAF9	Socket, straight, flex circuit, .140"
SAG7	Socket, straight, dip solder, .109" x .018" dia
SAG9	Socket, straight, dip solder, .140" x .018" dia
SAG11	Socket, straight, dip solder, .172" x .018" dia
SAP	Socket, straight, pin termination, .150" (connector saver)
SAW24	Socket, straight, wire wrap <sup>®</sup> , .375"
SAW40	Socket, straight, wire wrap <sup>®</sup> , .625"

### HARDWARE

- Jackset hardware determines image of connector. Must specify image with guide set hardware.
- Plug facial seal gaskets and hoods; order separately or add "Q" in part number. Example: WTA10PD9QJ. See "Gaskets" and "Hoods" in Accessories section for instructions.
- Fixed jackset, long (JL) includes jackscrew or jacksocket, #2-56 nut, #2 flat washer & #2 lockwasher.

JT	Turning jackset, .500"	J	Fixed jackset
JTA	Turning jackset, .200"	JL	Fixed jackset, long
JTB	Hex turning jackset, .200"		
JTC	Hex turning jackset, .500"		
JTL	Turning jackset, .700"		

### OPTIONS

- Option Codes: Add to the end of the part number. Example: WTA10SAD9J-D01. Call factory for additional codes.
- 443 Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section.
- 444 Contact position noted by dash number is left open (to mate with -443). See "Polarization" in Accessories section.
- B82 Termination face sealed against conformal coating
- D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
- P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- D54 Combine -B82 & -D01 options
- G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)

= Option not RoHS compliant



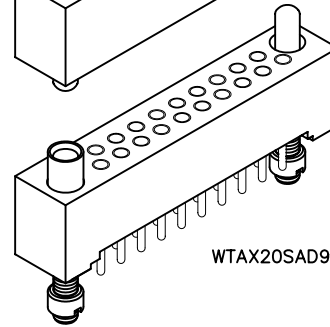
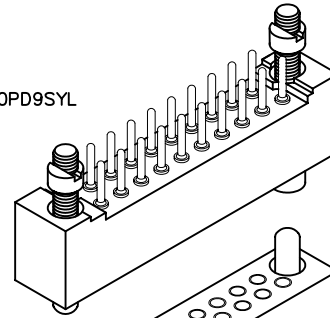
# 2 • ROW Sandwich Boards

.100"

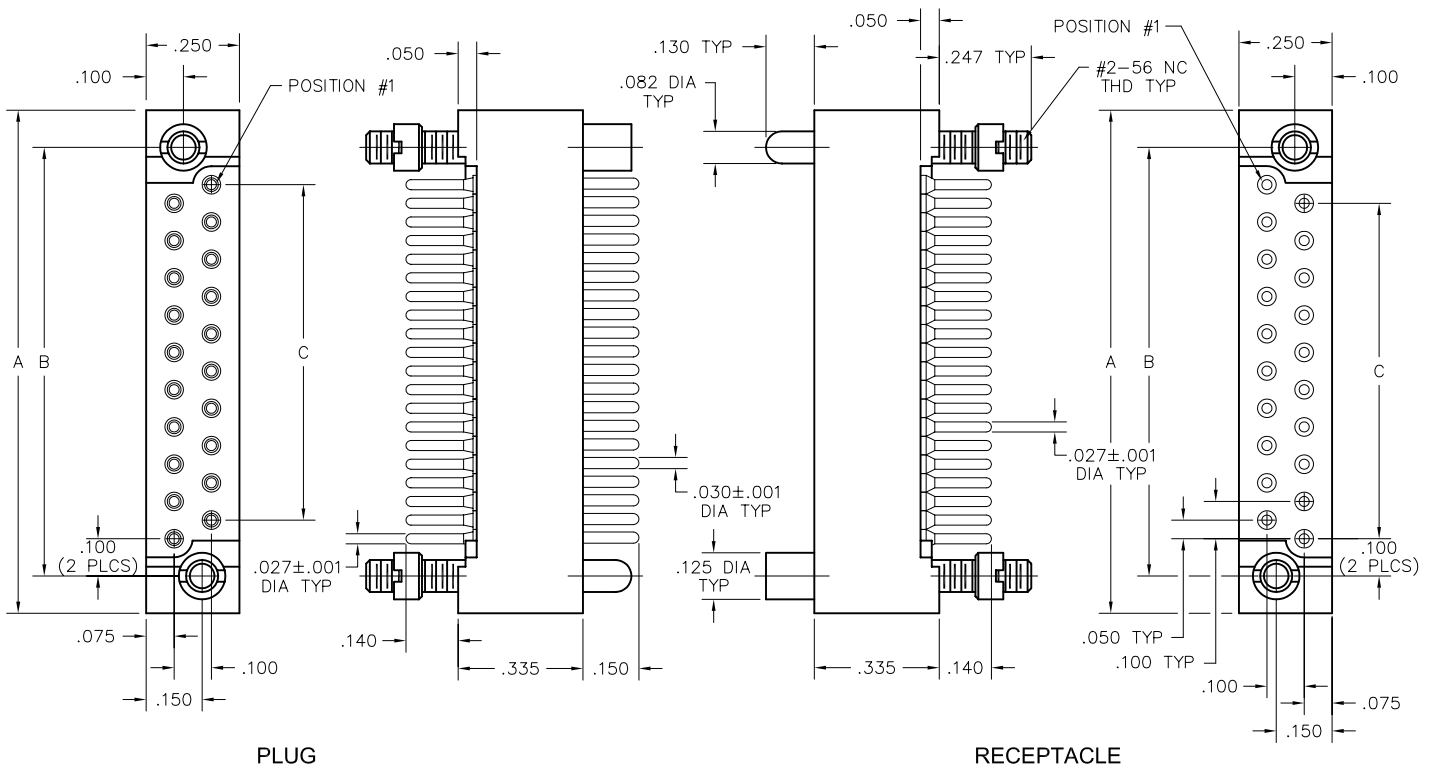
**WTAV - WTAX**

10 thru 70 Contacts

WTAV20PD9SYL



WTAX20SAD9SYL



DIMENSIONS							
SIZE	A	B	C	SIZE	A	B	C
10	.850	.650	.400	44	2.550	2.350	2.100
14	1.050	.850	.600	50	2.850	2.650	2.400
20	1.350	1.150	.900	54	3.050	2.850	2.600
24	1.550	1.350	1.100	56	3.150	2.950	2.700
26	1.650	1.450	1.200	60	3.350	3.150	2.900
30	1.850	1.650	1.400	66	3.650	3.450	3.200
36	2.150	1.950	1.700	70	3.850	3.650	3.400
40	2.350	2.150	1.900				

PLUG: WTAV 20 PD9 SYL  
 RECEPTACLE: WTAX 20 SAD9 SYL  
 XXXX XX XXXX XXX

**PLUG**

**RECEPTACLE**

**SERIES**

WTAV Plug, straight, no mounting ears	WTAX Receptacle, straight, no mounting ears
	WTAX Receptacle, right angle, no mounting ears

**SIZE**

XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)	XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)
---	---

**CONTACTS**

- Pin or socket contacts can be used in either plug or receptacle.
- When pin contacts are used, standard hardware orientation places the female hardware next to the #1 pin contact.
- When socket contacts are used, standard hardware orientation places the male hardware next to the #1 socket contact.

**TYPE CONTACTS/TERMINATIONS:**

PC	Pin, straight, solder cup (.035" I.D.)
PD7	Pin, straight, dip solder, .109" x .027" dia
PD9	Pin, straight, dip solder, .140" x .027" dia
PD11	Pin, straight, dip solder, .172" x .027" dia
PF3	Pin, straight, flex circuit, .050"
PF6	Pin, straight, flex circuit, .093"
PF8	Pin, straight, flex circuit, .125"
PW34	Pin, straight, wire wrap <sup>®</sup> , .531"
PW40	Pin, straight, wire wrap <sup>®</sup> , .625"

**TYPE CONTACTS/TERMINATIONS:**

SAC	Socket, straight, solder cup (.035" I.D.)
SAD7	Socket, straight, dip solder, .109" x .027" dia
SAD9	Socket, straight, dip solder, .140" x .027" dia
SAD11	Socket, straight, dip solder, .172" x .027" dia
SAF3	Socket, straight, flex circuit, .050"
SAF6	Socket, straight, flex circuit, .093"
SAF9	Socket, straight, flex circuit, .140"
SAG7	Socket, straight, dip solder, .109" x .018" dia
SAG9	Socket, straight, dip solder, .140" x .018" dia
SAG11	Socket, straight, dip solder, .172" x .018" dia
SAP	Socket, straight, pin termination, .150" (connector saver)
SAW24	Socket, straight, wire wrap <sup>®</sup> , .375"
SAW40	Socket, straight, wire wrap <sup>®</sup> , .625"
SOR7	Socket, right angle, dip solder, .109" x .025" dia
SOR9	Socket, right angle, dip solder, .140" x .025" dia
SOR11	Socket, right angle, dip solder, .172" x .025" dia

**HARDWARE**

- Jacket hardware determines image of connector. Must specify image with guide set hardware.
- Plug facial seal gaskets and hoods; order separately or add "Q" in part number. Example: WTAV10PD9QJ. See "Gaskets" and "Hoods" in Accessories section for instructions.
- Fixed jackset, long (JL) includes jackscrew or jacksocket, #2-56 nut, #2 flat washer & #2 lockwasher

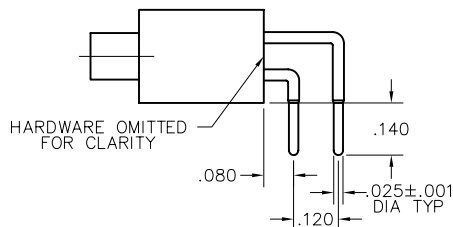
SY	Guide set
SY-#	Guide set, polarized
SYL	Guide set, long
SYL-#	Guide set, long, polarized
J	Fixed jackset
JL	Fixed jackset, long

SY	Guide set
SY-#	Guide set, polarized
SYL	Guide set, long
SYL-#	Guide set, long, polarized
JT	Turning jackset, .500"
JTA	Turning jackset, .200"
JTB	Hex turning jackset, .200"
JTC	Hex turning jackset, .500"
JTL	Turning jackset, long, .700"

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WTAV10PD9J-D01. Call factory for additional codes.
- 433 Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section.
- 444 Contact position noted by dash number is left open (to mate with -443). See "Polarization" in Accessories section.
- B82 Termination face sealed against conformal coating
- D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
- P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- D54 Combine -B82 & -D01 options
- G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)

= Option not RoHS compliant



CONTACT OPTION: SOR9

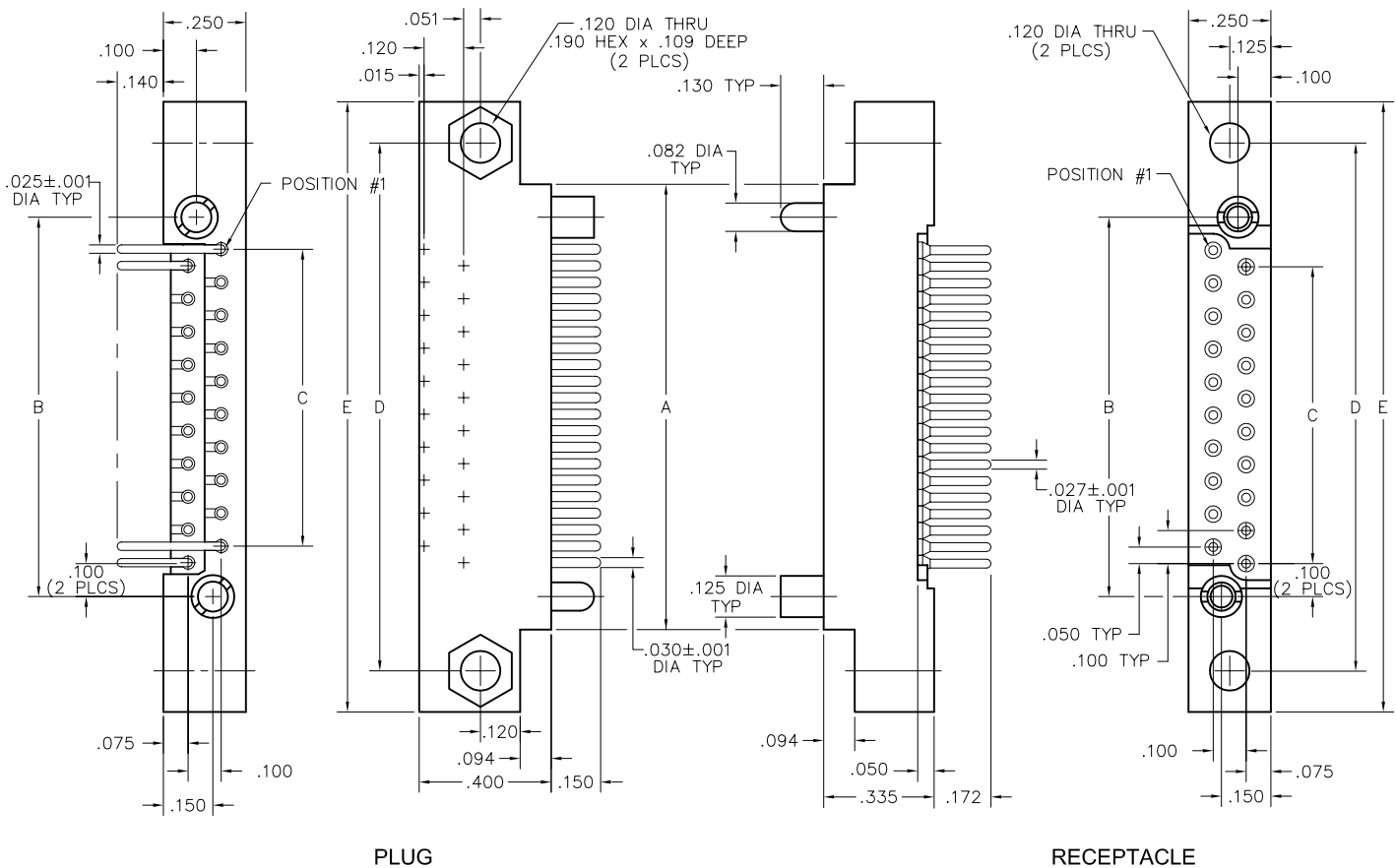
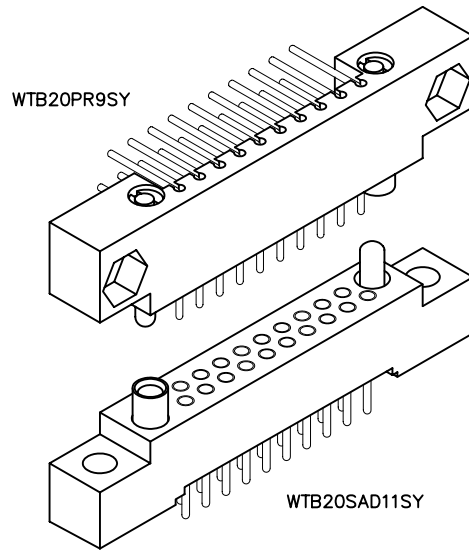


# 2 • ROW PC Card to Board or Chassis

.100"

**WTB - WTB**

10 thru 70 Contacts



DIMENSIONS											
SIZE	A	B	C	D	E	SIZE	A	B	C	D	E
10	.850	.650	.400	1.100	1.350	44	2.550	2.350	2.100	2.800	3.050
14	1.050	.850	.600	1.300	1.550	50	2.850	2.650	2.400	3.100	3.350
20	1.350	1.150	.900	1.600	1.850	54	3.050	2.850	2.600	3.300	3.550
24	1.550	1.350	1.100	1.800	2.050	56	3.150	2.950	2.700	3.400	3.650
26	1.650	1.450	1.200	1.900	2.150	60	3.350	3.150	2.900	3.600	3.850
30	1.850	1.650	1.400	2.100	2.350	66	3.650	3.450	3.200	3.900	4.150
36	2.150	1.950	1.700	2.400	2.650	70	3.850	3.650	3.400	4.100	4.350
40	2.350	2.150	1.900	2.600	2.850						



PLUG: WTB 20 PR9 SY  
 RECEPTACLE: WTB 20 SAD11 SY  
 XXXX XX XXXXX XX

**PLUG**

**RECEPTACLE**

SERIES	
WTB Plug, right angle, with mounting ears	WTB Receptacle, straight, with mounting ears WTB Receptacle, right angle, with mounting ears

SIZE	
XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)	XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)

**CONTACTS**

• The contact type determines image of connector. Pin, right angle contacts are always plug image. Straight pin contacts or socket contacts are receptacle image. See page W-24 to switch the image.

TYPE CONTACTS/TERMINATIONS:	TYPE CONTACTS/TERMINATIONS:
PRC Pin, right angle, solder cup (.035" I.D.)	SAC Socket, straight, solder cup (.035" I.D.)
PR7 Pin, right angle, dip solder, .109" x .025" dia	SAD7 Socket, straight, dip solder, .109" x .027" dia
PR9 Pin, right angle, dip solder, .140" x .025" dia	SAD9 Socket, straight, dip solder, .140" x .027" dia
PR11 Pin, right angle, dip solder, .172" x .025" dia	SAD11 Socket, straight, dip solder, .172" x .027" dia
PR13 Pin, right angle, dip solder, .203" x .025" dia	SAF3 Socket, straight, flex circuit, .050"
PR15 Pin, right angle, dip solder, .234" x .025" dia	SAF6 Socket, straight, flex circuit, .093"
PR23 Pin, right angle, dip solder, .359" x .025" dia	SAF9 Socket, straight, flex circuit, .140"
PR30 Pin, right angle, dip solder, .470" x .025" dia	SAG7 Socket, straight, dip solder, .109" x .018" dia
PRW33 Pin, right angle, wire wrap®, .515"	SAG9 Socket, straight, dip solder, .140" x .018" dia
PRW40 Pin, right angle, wire wrap®, .625"	SAG11 Socket, straight, dip solder, .172" x .018" dia
	SAW24 Socket, straight, wire wrap®, .375"
	SAW40 Socket, straight, wire wrap®, .625"
	SOR7 Socket, right angle, dip solder, .109" x .025" dia
	SOR9 Socket, right angle, dip solder, .140" x .025" dia
	SOR11 Socket, right angle, dip solder, .172" x .025" dia

**HARDWARE**

• Plug facial seal gaskets; order separately or add "Q" in part number. Example: WTB10PR9QJ  
 See "Gaskets" in Accessories section for instructions.

SY Guide set	SY Guide set
SY-# Guide set, polarized	SY-# Guide set, polarized
SYL Guide set, long	SYL Guide set, long
SYL-# Guide set, long, polarized	SYL-# Guide set, long, polarized
JT Turning jackset, .435"	J Fixed jackset
JTA Turning jackset, .135"	JL Fixed jackset, long
JTB Hex turning jackset, .135"	
JTC Hex turning jackset, .435"	
JTL Turning jackset, long, .635"	

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WTB10PR9SY342. Call factory for additional codes.
- 342 Remove mounting ears. (.250" each end)
- 443 Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section. Receptacle connector only.
- 515 Contact position noted by dash number is left open (to mate with -443). For right angle connectors only.
- 548 Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
- B82 Termination face sealed against conformal coating
- 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).
- D54 Combine -B82 & -D01 options
- G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)
- 413 Straight pin contacts in right angle plug molding with solder cup terminations extending .100" from face.

☒ = Option not RoHS compliant



PLUG: WTB 90 PR9 SY  
 RECEPTACLE: WTB 90 SAD11 SY  
 XXXX XX XXXXX XX

**PLUG**

**RECEPTACLE**

**SERIES**

WTB Plug, right angle, with mounting ears	WTB Receptacle, straight, with mounting ears
	WTB Receptacle, right angle, with mounting ears

**SIZE**

XX Number of contacts (90, 100, or 120)	XX Number of contacts (90, 100, or 120)
---	---

**CONTACTS**

• The contact type determines image of connector. Pin, right angle contacts are always plug image. Straight pin contacts or socket contacts are receptacle image. See page W-24 to switch the image.

**TYPE CONTACTS/TERMINATIONS:**

PRC	Pin, right angle, solder cup (.035" I.D.)
PR7	Pin, right angle, dip solder, .109" x .025" dia
PR9	Pin, right angle, dip solder, .140" x .025" dia
PR11	Pin, right angle, dip solder, .172" x .025" dia
PR15	Pin, right angle, dip solder, .234" x .025" dia
PRW33	Pin, right angle, wire wrap®, .515"
PRW40	Pin, right angle, wire wrap®, .625"

**TYPE CONTACTS/TERMINATIONS:**

SAC	Socket, straight, solder cup (.035" I.D.)
SAD7	Socket, straight, dip solder, .109" x .027" dia
SAD9	Socket, straight, dip solder, .140" x .027" dia
SAD11	Socket, straight, dip solder, .172" x .027" dia
SAF3	Socket, straight, flex circuit, .050"
SAF6	Socket, straight, flex circuit, .093"
SAF9	Socket, straight, flex circuit, .140"
SAG7	Socket, straight, dip solder, .109" x .018" dia
SAG9	Socket, straight, dip solder, .140" x .018" dia
SAG11	Socket, straight, dip solder, .172" x .018" dia
SAW24	Socket, straight, wire wrap®, .375"
SAW40	Socket, straight, wire wrap®, .625"
SOR7	Socket, right angle, dip solder, .109" x .025" dia
SOR9	Socket, right angle, dip solder, .140" x .025" dia
SOR11	Socket, right angle, dip solder, .172" x .025" dia

**HARDWARE**

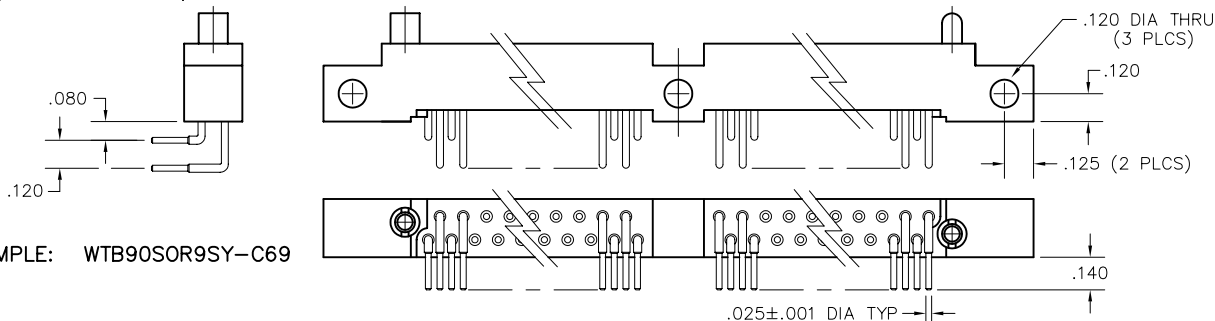
• Plug facial seal gaskets and hoods; order separately or add "Q" in part number. Example: WTB90PR9QJ. See "Gaskets" and "Hoods" in Accessories section for instructions.

SY	Guide set	SY	Guide set
SY#	Guide set, polarized	SY#	Guide set, polarized
SYL	Guide set, long	SYL	Guide set, long
JT	Turning jackset, .435"	J	Fixed jackset
JTA	Turning jackset, .135"	JL	Fixed jackset, long
JTB	Hex turning jackset, .135"		
JTC	Turning jackset, .435"		
JTL	Turning jackset, long, .635"		

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WTB90PR9SY-D01. Call factory for additional codes.
- 342 Remove mounting ears, (.250" each end)
- 443 Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section. Receptacle connector only.
- 515 Contact position noted by dash number is left open (to mate with -443). For right angle connectors only.
- 548 Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
- B82 Termination face sealed against conformal coating
- 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).
- D54 Combine -B82 & -D01 options
- G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)
- 413 Straight pin contacts in right angle plug molding, with solder cup terminals extending .100" beyond molding.

= Option not RoHS compliant



EXAMPLE: WTB90SOR9SY-C69

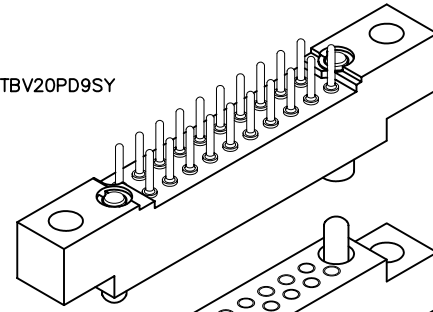
# 2 • ROW Sandwich Boards

.100"

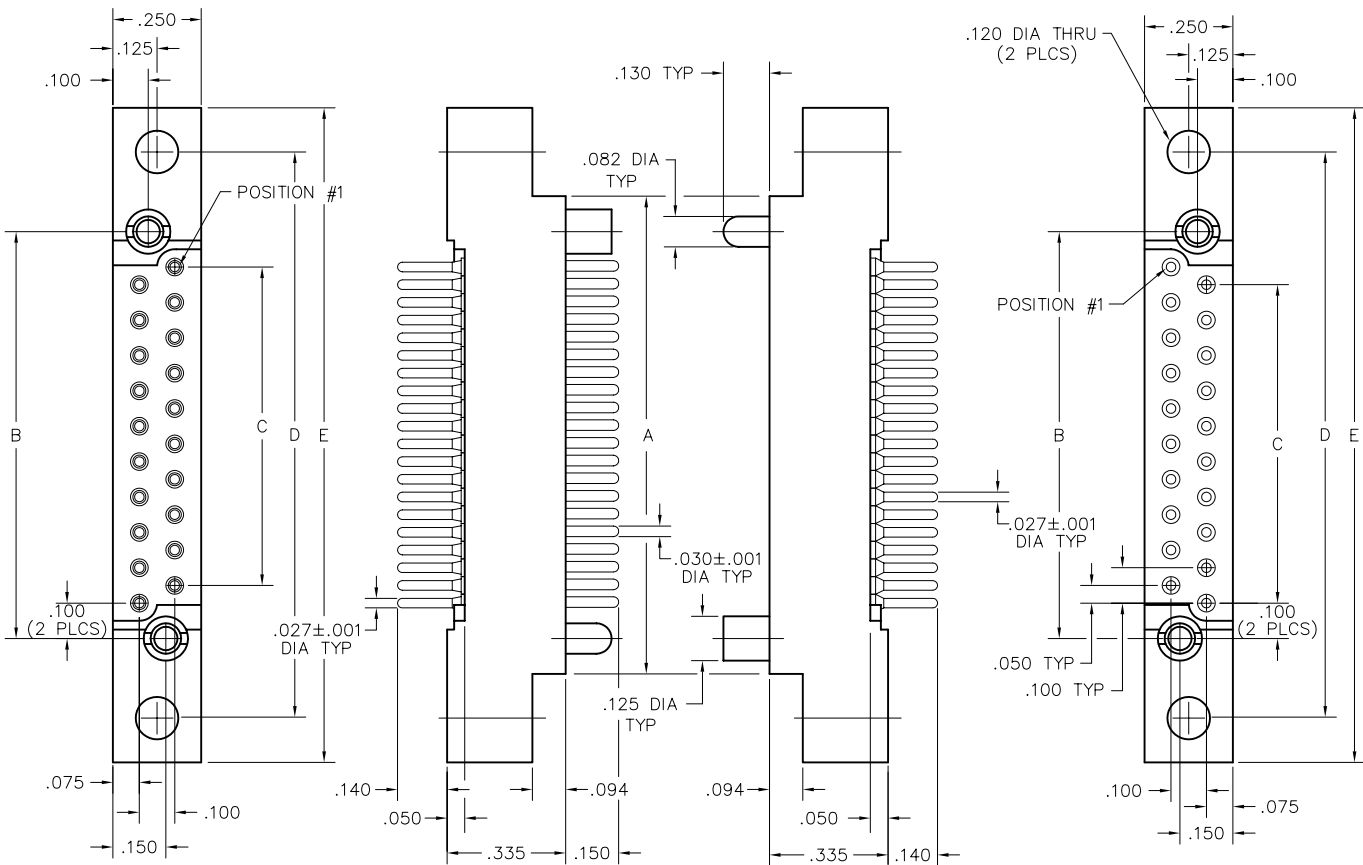
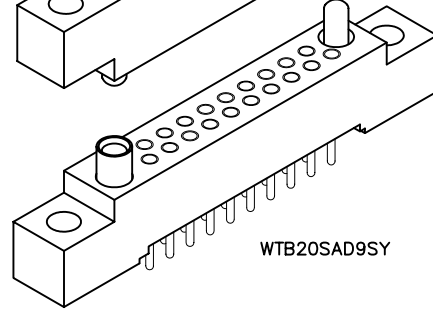
**WTBV - WTB**

10 thru 70 Contacts

WTBV20PD9SY



WTB20SAD9SY



PLUG

RECEPTACLE

DIMENSIONS											
SIZE	A	B	C	D	E	SIZE	A	B	C	D	E
10	.850	.650	.400	1.100	1.350	44	2.550	2.350	2.100	2.800	3.050
14	1.050	.850	.600	1.300	1.550	50	2.850	2.650	2.400	3.100	3.350
20	1.350	1.150	.900	1.600	1.850	54	3.050	2.850	2.600	3.300	3.550
24	1.550	1.350	1.100	1.800	2.050	56	3.150	2.950	2.700	3.400	3.650
26	1.650	1.450	1.200	1.900	2.150	60	3.350	3.150	2.900	3.600	3.850
30	1.850	1.650	1.400	2.100	2.350	66	3.650	3.450	3.200	3.900	4.150
36	2.150	1.950	1.700	2.400	2.650	70	3.850	3.650	3.400	4.100	4.350
40	2.350	2.150	1.900	2.600	2.850						

PLUG: WTBV 20 PD9 SY  
 RECEPTACLE: WTB 20 SAD9 SY  
 XXXX XX XXXX XX

**PLUG**

**RECEPTACLE**

SERIES	
WTBV Plug, straight, with mounting ears	WTB Receptacle, straight, with mounting ears WTB Receptacle, right angle, with mounting ears

SIZE	
XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)	XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)

**CONTACTS**

- Pin or socket contacts can be used in either plug or receptacle.
- When pin contacts are used, standard hardware orientation places the female hardware next to the #1 pin contact.
- When socket contacts are used, standard hardware orientation places the male hardware next to the #1 socket contact.

TYPE CONTACTS/TERMINATIONS:

PC	Pin, straight, solder cup (.035" I.D.)
PD7	Pin, straight, dip solder, .109" x .027" dia
PD9	Pin, straight, dip solder, .140" x .027" dia
PD11	Pin, straight, dip solder, .172" x .027" dia
PD13	Pin, straight, dip solder, .203" x .027" dia
PF3	Pin, straight, flex circuit, .050"
PF6	Pin, straight, flex circuit, .093"
PF8	Pin, straight, flex circuit, .125"
PW34	Pin, straight, wire wrap <sup>®</sup> , .531"
PW40	Pin, straight, wire wrap <sup>®</sup> , .625"

TYPE CONTACTS/TERMINATIONS:

SAC	Socket, straight, solder cup (.035" I.D.)
SAD7	Socket, straight, dip solder, .109" x .027" dia
SAD9	Socket, straight, dip solder, .140" x .027" dia
SAD11	Socket, straight, dip solder, .172" x .027" dia
SAF3	Socket, straight, flex circuit, .050"
SAF6	Socket, straight, flex circuit, .093"
SAF9	Socket, straight, flex circuit, .140"
SAG7	Socket, straight, dip solder, .109" x .018" dia
SAG9	Socket, straight, dip solder, .140" x .018" dia
SAG11	Socket, straight, dip solder, .172" x .018" dia
SAP	Socket, straight, pin termination, .150" (connector saver)
SAW24	Socket, straight, wire wrap <sup>®</sup> , .375"
SAW40	Socket, straight, wire wrap <sup>®</sup> , .625"
SOR7	Socket, right angle, dip solder, .109" x .025" dia
SOR9	Socket, right angle, dip solder, .140" x .025" dia
SOR11	Socket, right angle, dip solder, .172" x .025" dia

**HARDWARE**

- Plug facial seal gaskets and hoods; order separately or add "Q" in part number. Example: WTBV10PD9QJ. See "Gaskets" and "Hoods" in Accessories section for instructions.

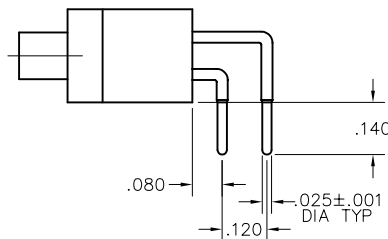
SY	Guide set
SY-#	Guide set, polarized
SYL	Guide set, long
JT	Turning jackset, .500"
JTA	Turning jackset, .200"
JTB	Hex turning jackset, .200"
JTC	Hex turning jackset, .500"
JTL	Turning jackset, long, .700"

SY	Guide set
SY-#	Guide set, polarized
SYL	Guide set, long
J	Fixed jackset
JL	Fixed jackset, long

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WTBV20PD9SY-D01. Call factory for additional codes.
- B82 Termination face sealed against conformal coating
- D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
- P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- D54 Combine -B82 & -D01 options
- G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)

= Option not RoHS compliant



CONTACT OPTION: SOR9

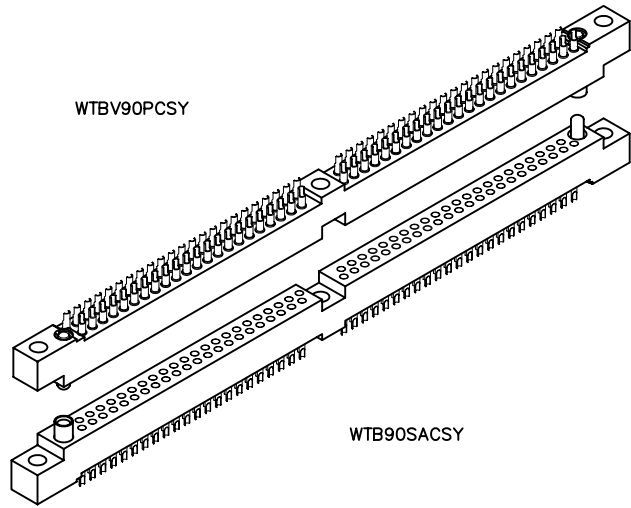
# 2 · ROW Sandwich Boards

.100"

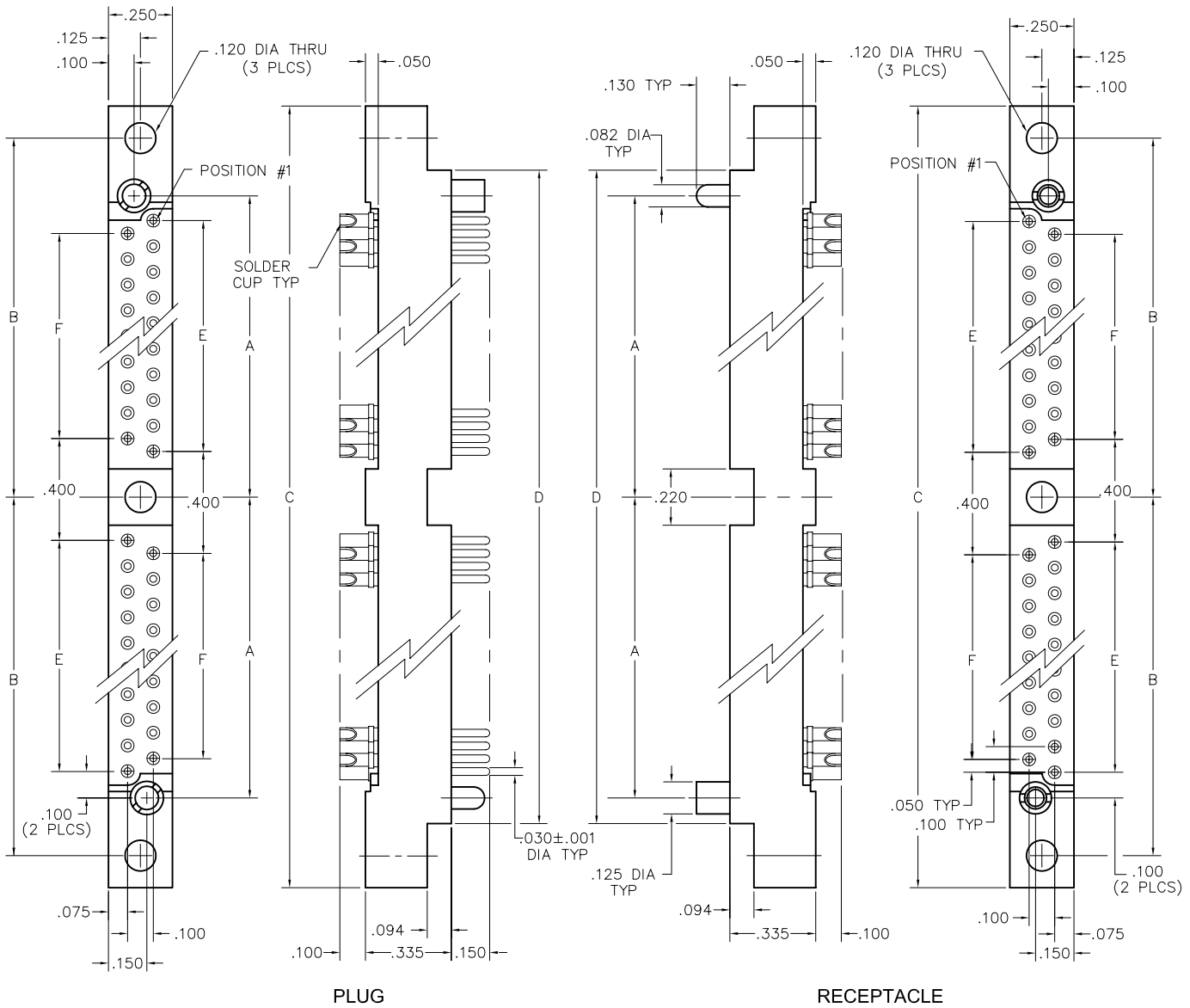
## WTBV - WTB

90 & 100 Contacts

WTBV90PCSY



WTB90SACSY



DIMENSIONS						
SIZE	A	B	C	D	E	F
90	2.475	2.700	5.650	5.150	2.200	2.100
100	2.725	2.950	6.150	5.650	2.400	2.400

PLUG: WTBV 90 PC SY  
 RECEPTACLE: WTB 90 SAC SY  
 XXXX XX XXX XX

PLUG	RECEPTACLE
<b>SERIES</b>	
WTBV Plug, straight, with mounting ears	WTB Receptacle, straight, with mounting ears WTB Receptacle, right angle, with mounting ears

<b>SIZE</b>	
XX Number of contacts (90 or 100)	XX Number of contacts (90 or 100)

**CONTACTS**

- Pin or socket contacts can be used in either plug or receptacle.
- When pin contacts are used, standard hardware orientation places the female hardware next to the #1 pin contact.
- When socket contacts are used, standard hardware orientation places the male hardware next to the #1 socket contact.

TYPE CONTACTS/TERMINATIONS:	
PC Pin, straight, solder cup (.035" I.D.)	SAC Socket, straight, solder cup (.035" I.D.)
PD7 Pin, straight, dip solder, .109" x .027" dia	SAD7 Socket, straight, dip solder, .109" x .027" dia
PD9 Pin, straight, dip solder, .140" x .027" dia	SAD9 Socket, straight, dip solder, .140" x .027" dia
PD11 Pin, straight, dip solder, .172" x .027" dia	SAD11 Socket, straight, dip solder, .172" x .027" dia
PD13 Pin, straight, dip solder, .203" x .027" dia	SAF3 Socket, straight, flex circuit, .050"
PF3 Pin, straight, flex circuit, .050"	SAF6 Socket, straight, flex circuit, .093"
PF6 Pin, straight, flex circuit, .093"	SAF9 Socket, straight, flex circuit, .140"
PF8 Pin, straight, flex circuit, .125"	SAG7 Socket, straight, dip solder, .109" x .018" dia
PW34 Pin, straight, wire wrap <sup>®</sup> , .531"	SAG9 Socket, straight, dip solder, .140" x .018" dia
PW40 Pin, straight, wire wrap <sup>®</sup> , .625"	SAG11 Socket, straight, dip solder, .172" x .018" dia
	SAP Socket, straight, pin termination, .150" (connector saver)
	SAW24 Socket, straight, wire wrap <sup>®</sup> , .375"
	SAW40 Socket, straight, wire wrap <sup>®</sup> , .625"
	SOR7 Socket, right angle, dip solder, .109" x .025" dia
	SOR9 Socket, right angle, dip solder, .140" x .025" dia
	SOR11 Socket, right angle, dip solder, .172" x .025" dia

**HARDWARE**

- Plug facial seal gaskets and hoods; order separately or add "Q" in part number. Example: WTBV90PD9QJ. See "Gaskets" and "Hoods" in Accessories section for instructions.

SY Guide set	SY Guide set
SY-# Guide set, polarized	SY-# Guide set, polarized
SYL Guide set, long	SYL Guide set, long
JT Turning jackset, .500"	J Fixed jackset
JTA Turning jackset, .200"	JL Fixed jackset, long
JTB Hex turning jackset, .200"	
JTC Hex turning jackset, .500"	
JTL Turning jackset, long, .700"	

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WTBV100PD9SY-D01. Call factory for additional codes.
  - B82 Termination face sealed against conformal coating
  - 342 Remove mounting ears (.250" each end)
  - D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
  - P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
  - D54 Combine -B82 & -D01 options
  - G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)
- = Option not RoHS compliant

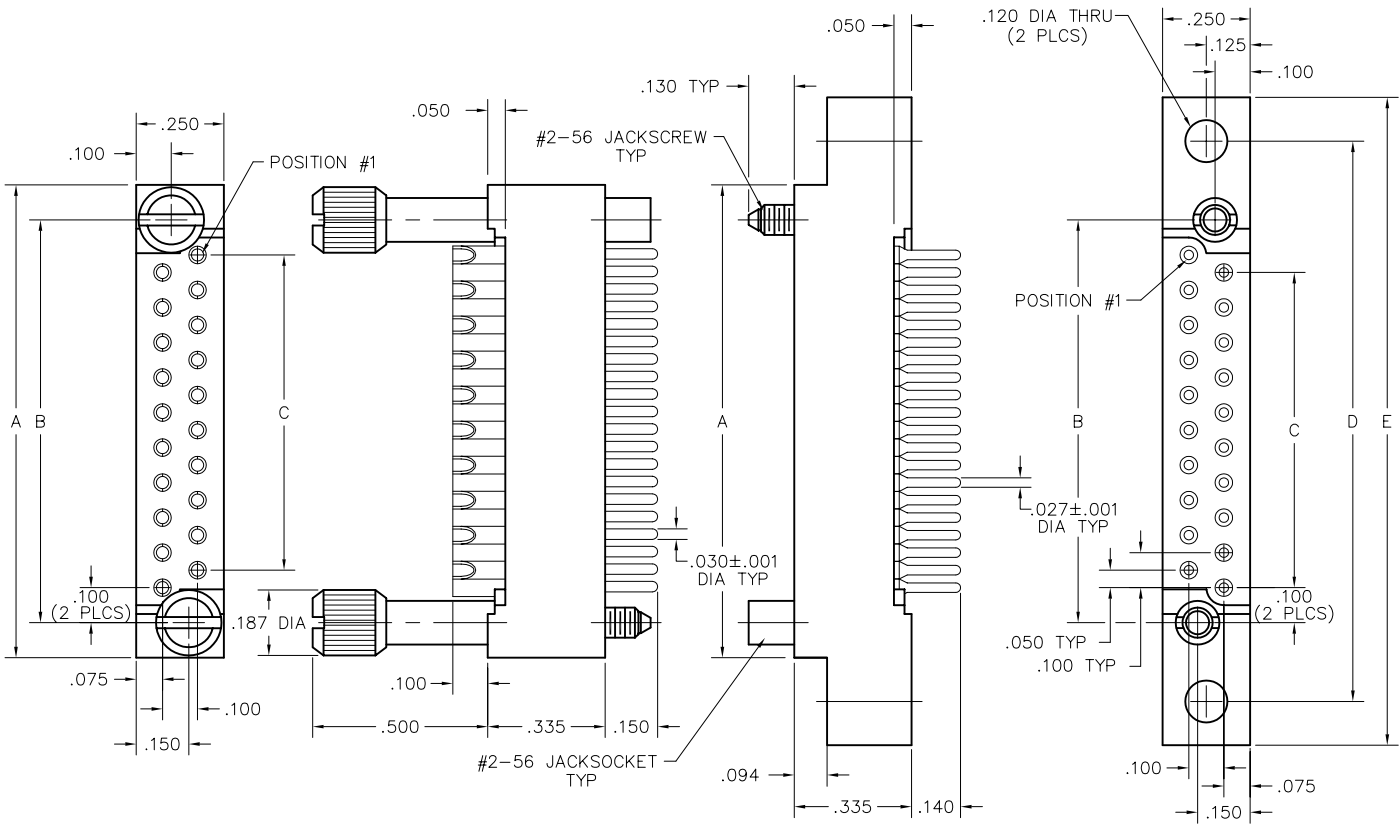
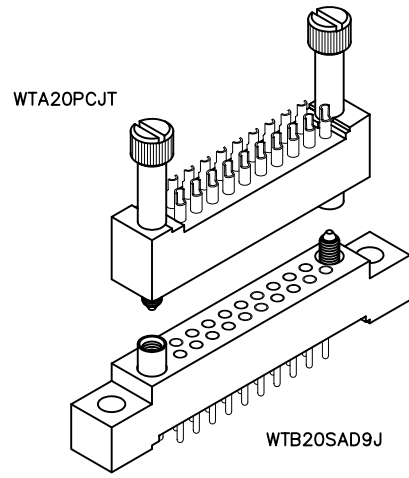


# 2 • ROW Cable to Board or PC Card

.100"

**WTA - WTB**

10 thru 70 Contacts



PLUG

RECEPTACLE

DIMENSIONS											
SIZE	A	B	C	D	E	SIZE	A	B	C	D	E
10	.850	.650	.400	1.100	1.350	44	2.550	2.350	2.100	2.800	3.050
14	1.050	.850	.600	1.300	1.550	50	2.850	2.650	2.400	3.100	3.350
20	1.350	1.150	.900	1.600	1.850	54	3.050	2.850	2.600	3.300	3.550
24	1.550	1.350	1.100	1.800	2.050	56	3.150	2.950	2.700	3.400	3.650
26	1.650	1.450	1.200	1.900	2.150	60	3.350	3.150	2.900	3.600	3.850
30	1.850	1.650	1.400	2.100	2.350	66	3.650	3.450	3.200	3.900	4.150
36	2.150	1.950	1.700	2.400	2.650	70	3.850	3.650	3.400	4.100	4.350
40	2.350	2.150	1.900	2.600	2.850						



PLUG: WTA 20 PC JT  
 RECEPTACLE: WTB 20 SAD9 J  
 XXX XX XXXX XX

PLUG		RECEPTACLE	
SERIES			
WTA	Plug, straight, without mounting ears	WTB	Receptacle, straight, with mounting ears
		WTB	Receptacle, right angle, with mounting ears

SIZE			
XX	Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)	XX	Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)

### CONTACTS

- Pin or socket contacts can be used in either plug or receptacle.
- WTA connectors - jackset hardware determines the image. Must specify image with guide set hardware. See page W-17.
- WTB connectors - contacts determine the image. Right angle pin contacts are always plug image, and straight pin or sockets are receptacle image.
- When pin contacts are used, standard hardware orientation places the female hardware next to the #1 pin contact.
- When socket contacts are used, standard hardware orientation places the male hardware next to the #1 socket contact.

**TYPE CONTACTS/TERMINATIONS:**

PC	Pin, straight, solder cup (.035" I.D.)
PD7	Pin, straight, dip solder, .109" x .027" dia
PD9	Pin, straight, dip solder, .140" x .027" dia
PD11	Pin, straight, dip solder, .172" x .027" dia
PD13	Pin, straight, dip solder, .203" x .027" dia
PF3	Pin, straight, flex circuit, .050"
PF6	Pin, straight, flex circuit, .093"
PF8	Pin, straight, flex circuit, .125"
PW34	Pin, straight, wire wrap <sup>®</sup> , .531"
PW40	Pin, straight, wire wrap <sup>®</sup> , .625"

**TYPE CONTACTS/TERMINATIONS:**

SAC	Socket, straight, solder cup (.035" I.D.)
SAD7	Socket, straight, dip solder, .109" x .027" dia
SAD9	Socket, straight, dip solder, .140" x .027" dia
SAD11	Socket, straight, dip solder, .172" x .027" dia
SAF3	Socket, straight, flex circuit, .050"
SAF6	Socket, straight, flex circuit, .093"
SAF9	Socket, straight, flex circuit, .140"
SAG7	Socket, straight, dip solder, .109" x .018" dia
SAG9	Socket, straight, dip solder, .140" x .018" dia
SAG11	Socket, straight, dip solder, .172" x .018" dia
SAP	Socket, straight, pin termination, .150" (connector saver)
SAW24	Socket, straight, wire wrap <sup>®</sup> , .375"
SAW40	Socket, straight, wire wrap <sup>®</sup> , .625"
SOR7	Socket, right angle, dip solder, .109" x .025" dia
SOR9	Socket, right angle, dip solder, .140" x .025" dia
SOR11	Socket, right angle, dip solder, .172" x .025" dia

### HARDWARE

- Plug facial seal gaskets and hoods; order separately or add "Q" in part number. Example: WTA10PD9QJ. See "Gaskets" and "Hoods" in Accessories section for instructions.

JT	Turning jackset, .500"	J	Fixed jackset
JTA	Turning jackset, .200"	JL	Fixed jackset, long
JTB	Hex turning jackset, .200"		
JTC	Hex turning jackset, .500"		
JTL	Turning jackset, long, .700"		

### OPTIONS

- Option Codes: Add to the end of the part number. Example: WTA10SAD9J-D01. Call factory for additional codes.
  - B82 Termination face sealed against conformal coating
  - 342 Remove mounting ears (.250" each end)
  - D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
  - P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
  - D54 Combine -B82 & -D01 options
  - G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)
- = Option not RoHS compliant



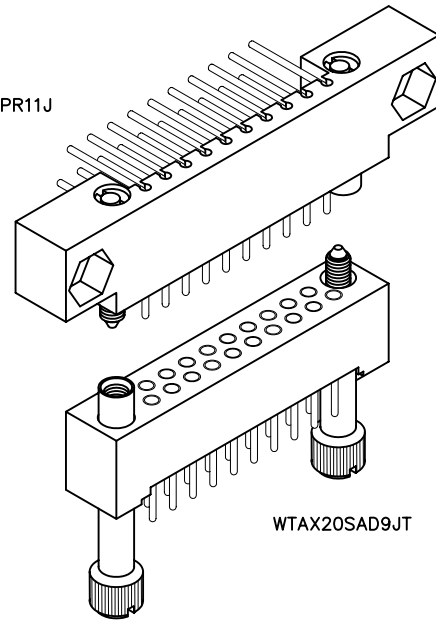
# 2 • ROW PC Card to Board or PC Card

.100"

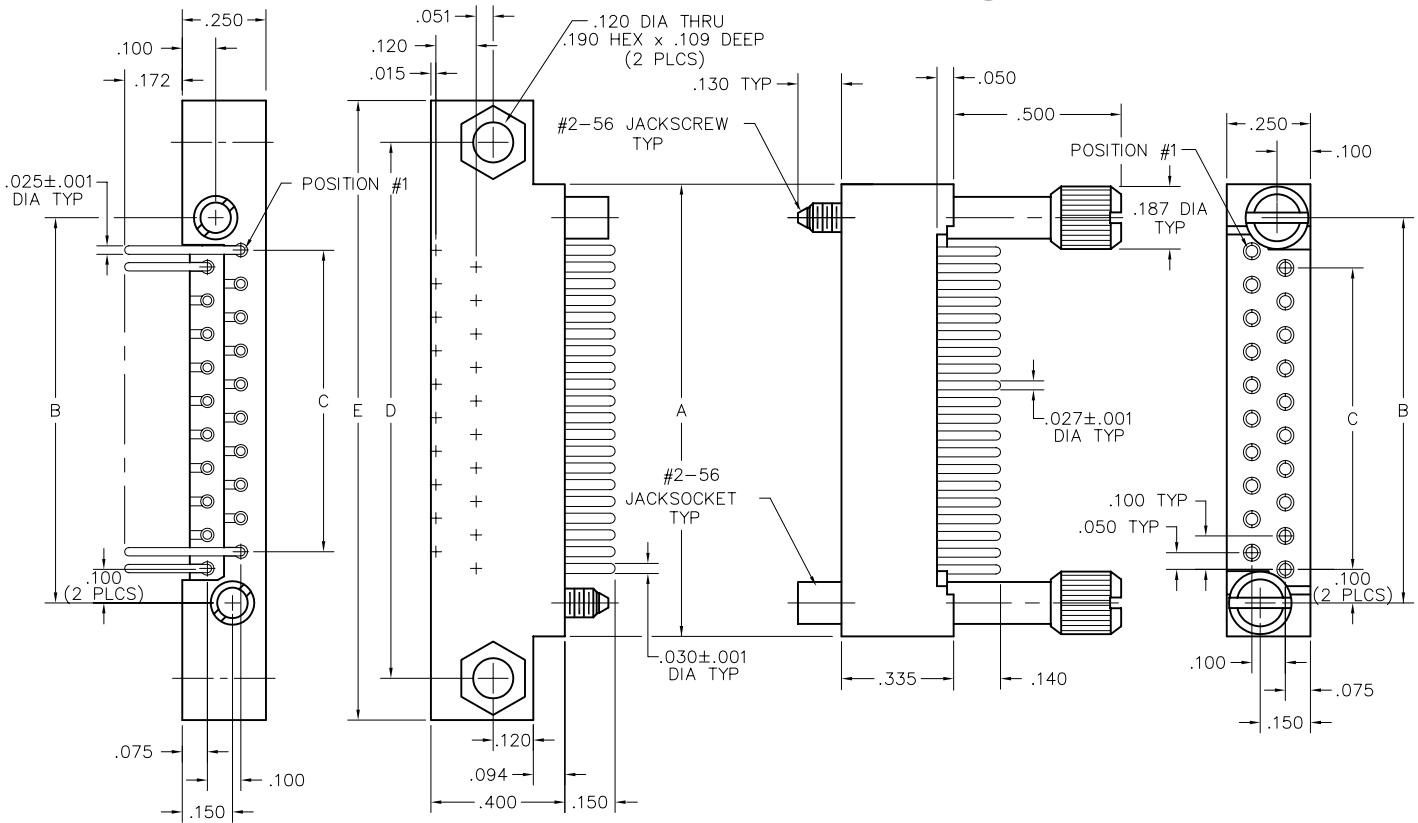
**WTB-WTAX**

10 thru 70 Contacts

WTB20PR11J



WTAX20SAD9JT



PLUG

RECEPTACLE

DIMENSIONS											
SIZE	A	B	C	D	E	SIZE	A	B	C	D	E
10	.850	.650	.400	1.100	1.350	44	2.550	2.350	2.100	2.800	3.050
14	1.050	.850	.600	1.300	1.550	50	2.850	2.650	2.400	3.100	3.350
20	1.350	1.150	.900	1.600	1.850	54	3.050	2.850	2.600	3.300	3.550
24	1.550	1.350	1.100	1.800	2.050	56	3.150	2.950	2.700	3.400	3.650
26	1.650	1.450	1.200	1.900	2.150	60	3.350	3.150	2.900	3.600	3.850
30	1.850	1.650	1.400	2.100	2.350	66	3.650	3.450	3.200	3.900	4.150
36	2.150	1.950	1.700	2.400	2.650	70	3.850	3.650	3.400	4.100	4.350
40	2.350	2.150	1.900	2.600	2.850						

PLUG: WTB 20 PR11 J  
 RECEPTACLE: WTAX 20 SAD9 JT  
 XXXX XX XXXX XX

PLUG		RECEPTACLE	
SERIES			
WTB	Plug, right angle, with mounting ears	WTAX	Receptacle, straight, without mounting ears

SIZE			
XX	Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)	XX	Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)

### CONTACTS

- When pin contacts are used, standard hardware orientation places the female hardware next to the #1 pin contact.
- When socket contacts are used, standard hardware orientation places the male hardware next to the #1 socket contact.

TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:	
PR7	Pin, right angle, dip solder, .109" x .025" dia	SAC	Socket, straight, solder cup (.035" I.D.)
PR9	Pin, right angle, dip solder, .140" x .025" dia	SAD7	Socket, straight, dip solder, .109" x .027" dia
PR11	Pin, right angle, dip solder, .172" x .025" dia	SAD9	Socket, straight, dip solder, .140" x .027" dia
PR15	Pin, right angle, dip solder, .234" x .025" dia	SAD11	Socket, straight, dip solder, .172" x .027" dia
PRC	Pin, right angle, solder cup (.035" I.D.)	SAD15	Socket, straight, dip solder, .234" x .027" dia
PRW33	Pin, right angle, wire wrap <sup>®</sup> , .515"	SAF3	Socket, straight, flex circuit, .050"
PRW40	Pin, right angle, wire wrap <sup>®</sup> , .625"	SAF6	Socket, straight, flex circuit, .093"
		SAG7	Socket, straight, dip solder, .109" x .018" dia
		SAG9	Socket, straight, dip solder, .140" x .018" dia
		SAG11	Socket, straight, dip solder, .172" x .018" dia
		SAP	Socket, straight, pin termination, .150" (connector saver)
		SAW24	Socket, straight, wire wrap <sup>®</sup> , .375"
		SAW40	Socket, straight, wire wrap <sup>®</sup> , .625"
		SOR7	Socket, right angle, dip solder, .109" x .025" dia
		SOR9	Socket, right angle, dip solder, .140" x .025" dia
		SOR11	Socket, right angle, dip solder, .172" x .025" dia

### HARDWARE

- Plug facial seal gaskets and hoods; order separately or add "Q" in part number. Example: WTB20PR11QJ. See "Gaskets" and "Hoods" in Accessories section for instructions.

SY	Guide set	SY	Guide set
SY-#	Guide set, polarized	SY-#	Guide set, polarized
J	Fixed jackset	SYL	Guide set, long
JT	Turning jackset, .435"	SYL-#	Guide set, long, polarized
JTA	Turning jackset, .135"	J	Fixed jackset
JTB	Hex turning jackset, .135"	JL	Fixed jackset, long
JTC	Hex turning jackset, .435"	JT	Turning jackset, .500"
JTL	Turning jackset, long, .635"	JTA	Turning jackset, .200"
		JTB	Hex turning jackset, .200"
		JTC	Hex turning jackset, .500"
		JTL	Turning jackset, long, .700"

### OPTIONS

- Option Codes: Add to the end of the part number. Example: WTB10SAD9J-D01. Call factory for additional codes.
  - 342 Remove mounting ears (.250" each end)
  - 548 Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
  - D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
  - P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
  - D54 Combine -B82 & -D01 options
  - G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)
  - B82 Termination face sealed against conformal coating. Receptacle connector only.
- = Option not RoHS compliant



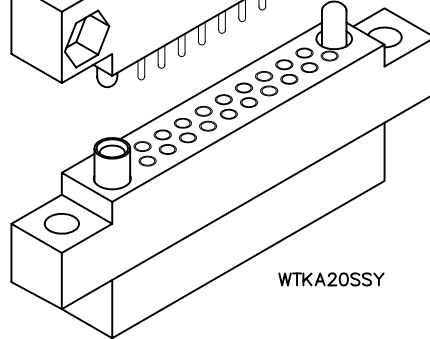
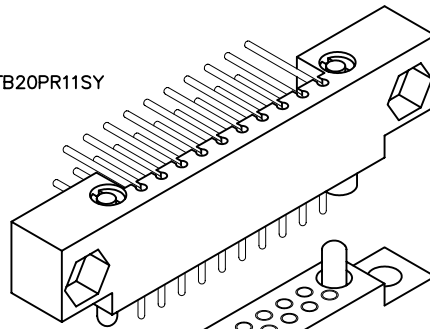
# 2 • ROW PC Card to Chassis

.100"

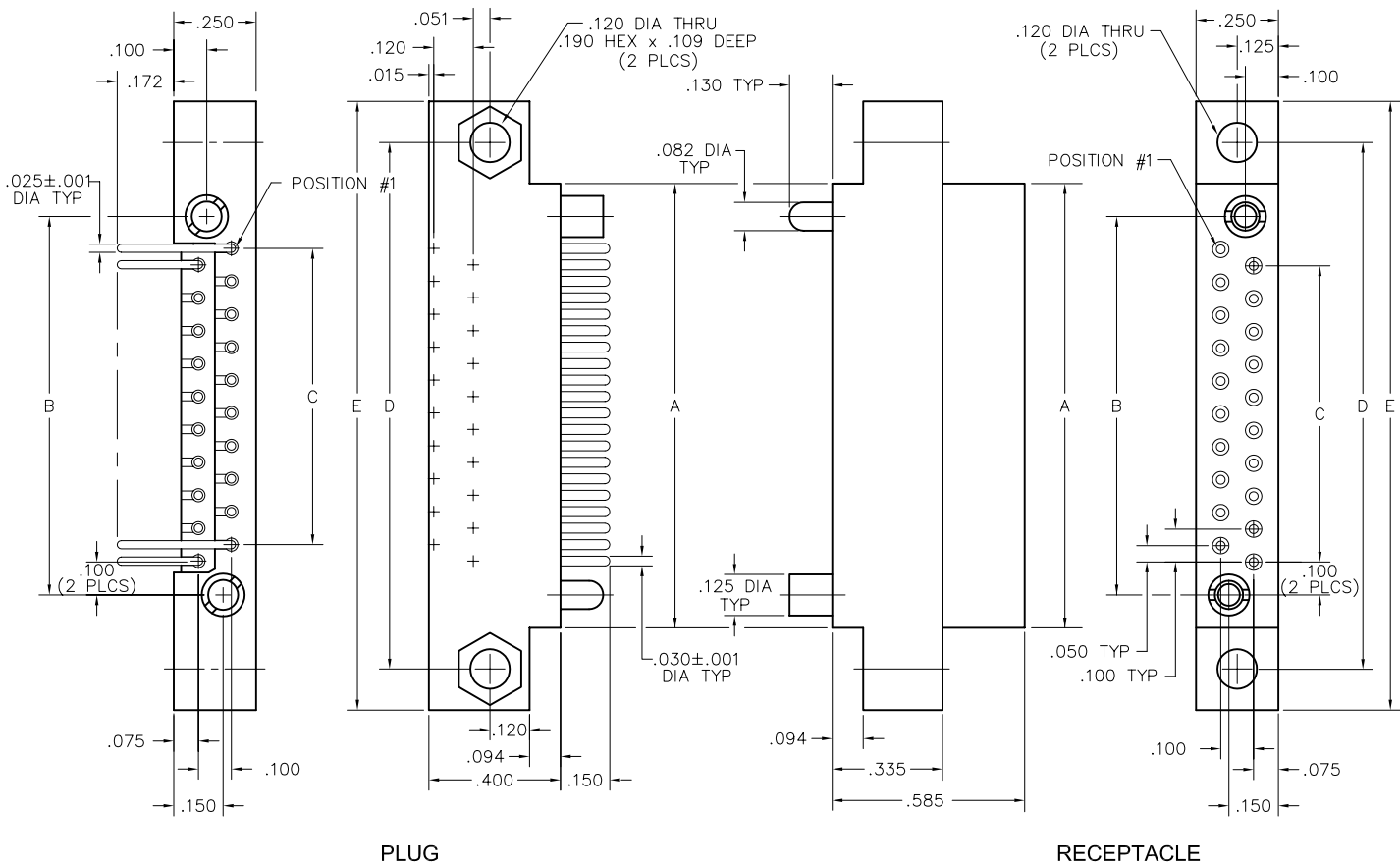
**WTB - WTKA**

10 thru 70 Contacts

WTB20PR11SY



WTKA20SSY



DIMENSIONS											
SIZE	A	B	C	D	E	SIZE	A	B	C	D	E
10	.850	.650	.400	1.100	1.350	44	2.550	2.350	2.100	2.800	3.050
14	1.050	.850	.600	1.300	1.550	50	2.850	2.650	2.400	3.100	3.350
20	1.350	1.150	.900	1.600	1.850	54	3.050	2.850	2.600	3.300	3.550
24	1.550	1.350	1.100	1.800	2.050	56	3.150	2.950	2.700	3.400	3.650
26	1.650	1.450	1.200	1.900	2.150	60	3.350	3.150	2.900	3.600	3.850
30	1.850	1.650	1.400	2.100	2.350	66	3.650	3.450	3.200	3.900	4.150
36	2.150	1.950	1.700	2.400	2.650	70	3.850	3.650	3.400	4.100	4.350
40	2.350	2.150	1.900	2.600	2.850						

PLUG: WTB 20 PR11 SY  
 RECEPTACLE: WTKA 20 S SY  
 XXXX XX XXXX XX

**PLUG**

**RECEPTACLE**

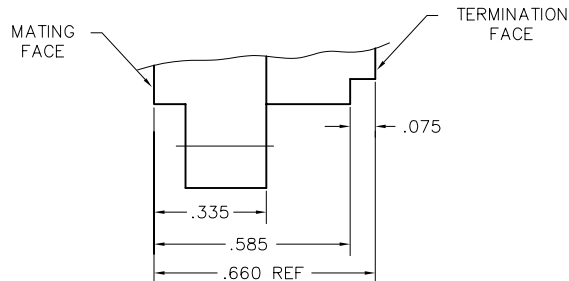
SERIES	
WTB Plug, right angle, with mounting ears	WTKA Receptacle, straight, crimp removable, with mounting ears
<ul style="list-style-type: none"> <li>WTKA and WTDXA connectors will mate with WTA, WTAV, WTB, WTBV connectors. "A" means contacts are included.</li> </ul>	

SIZE	
XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)	XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)

CONTACTS	
<ul style="list-style-type: none"> <li>The use of gaskets is not recommended with crimp socket contacts.</li> <li>WTKA** includes full compliment of WTK2222 (Socket or Pin) crimp removable contacts packaged with connectors. See "Contacts" in Accessories section to order separately.</li> <li>When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.</li> </ul>	
<p>TYPE CONTACTS/TERMINATIONS:</p> <p>PR7 Pin, right angle, dip solder, .109" x .025" dia</p> <p>PR9 Pin, right angle, dip solder, .140" x .025" dia</p> <p>PR11 Pin, right angle, dip solder, .172" x .025" dia</p> <p>PRW40 Pin, right angle, wire wrap<sup>®</sup>, .625"</p>	<p>TYPE CONTACTS/TERMINATIONS:</p> <p>S Socket, straight, crimp removable, 22 AWG</p> <p>SA Same as above</p> <p>P Pin, straight, crimp removable, 22 AWG</p>

HARDWARE	
SY Guide set	SY Guide set
SY-# Guide set, polarized	SY-# Guide set, polarized
J Fixed jackset	J Fixed jackset
JT Turning jackset, .435"	JT Turning jackset, .500"
JTA Turning jackset, .135"	JTA Turning jackset, .200"
JTB Hex turning jackset, .135"	JTB Hex turning jackset, .200"
JTC Hex turning jackset, .435"	JTC Hex turning jackset, .500"
JTL Turning jackset, long, .635"	JTL Turning jackset, long, .700"

OPTIONS	
<ul style="list-style-type: none"> <li>Option Codes: Add to the end of the part number. Example: WTKA10SSY-C45. Call factory for additional codes.</li> </ul>	
-443	Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section. Receptacle connector only.
-444	Contact position noted by dash number is left open (to mate with -443).
-478	Drill mating side hole diameter designated by dash number.
-515	Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section. Receptacle connector only.
-548	Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
-A53	Socket, straight, crimp removable, 20 AWG
-C45	Additional .075" material at termination face for strain relief of crimped wires (22 AWG only). See Detail A below.
-F68	Combine -C45 and -515 special codes.



**DETAIL A**

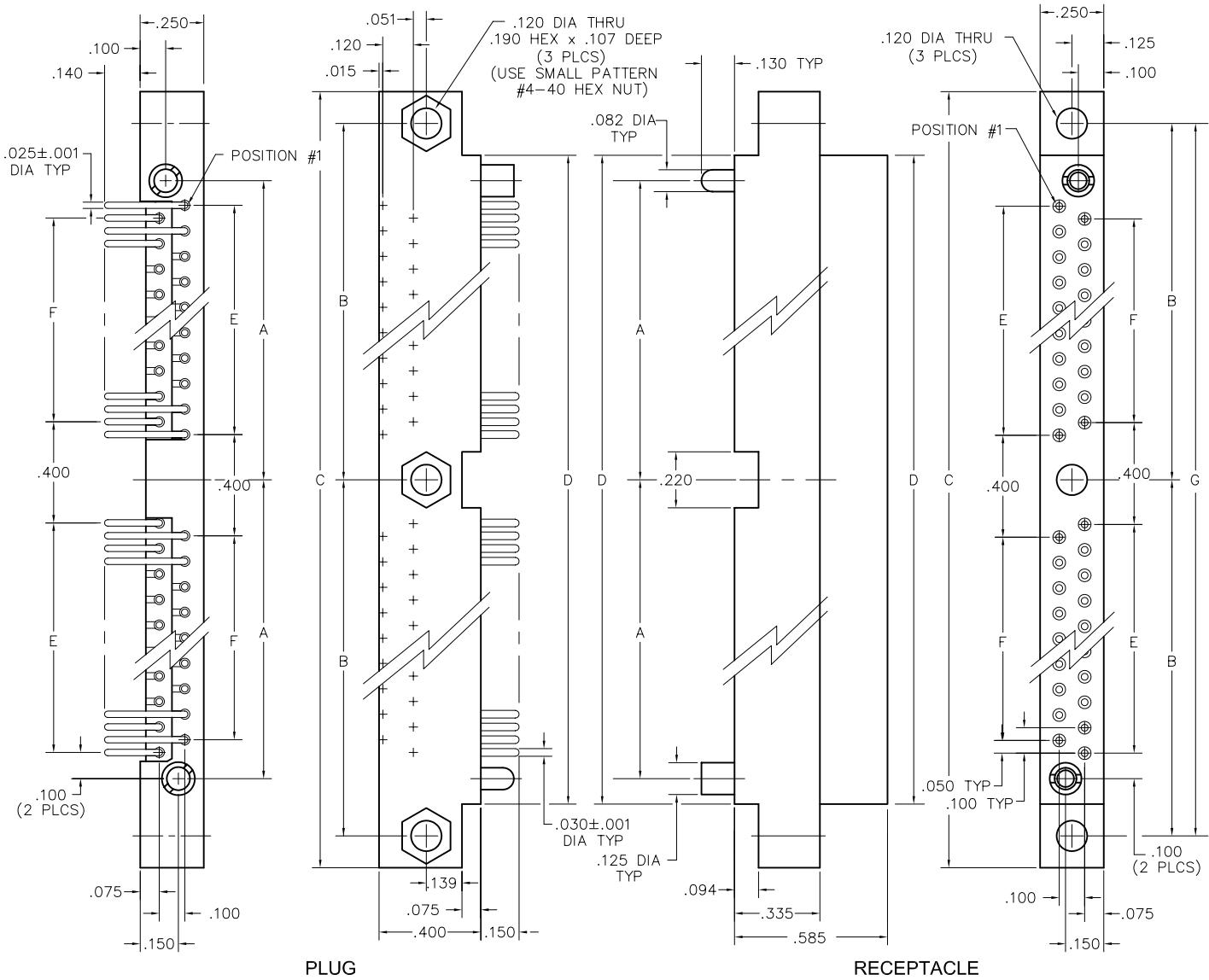
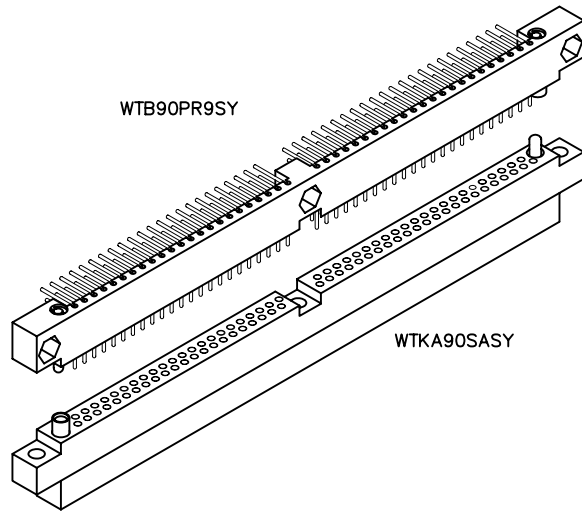


# 2 • ROW PC Card to Chassis

.100"

**WTB - WTKA**

90 & 120 Contacts



DIMENSIONS							
SIZE	A	B	C	D	E	F	G
90	2.475	2.700	5.650	5.150	2.200	2.100	5.400
120	3.225	3.450	7.150	6.650	2.900	2.900	6.900

PLUG: WTB 90 PR9 SY  
 RECEPTACLE: WTKA 90 SA SY  
 XXXX XX XXX XX

**PLUG**

**RECEPTACLE**

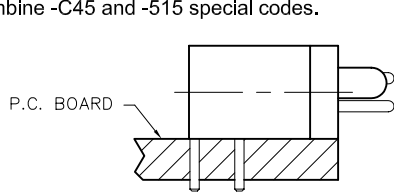
SERIES	
WTB Plug, right angle, with mounting ears	WTKA Receptacle, straight, crimp removable, with mounting ears
<ul style="list-style-type: none"> <li>WTKA and WTDXA connectors will mate with WTA, WTAV, WTB, WTBV connectors. "A" means contacts are included.</li> </ul>	

SIZE	
XX Number of contacts (90 or 120)	XX Number of contacts (90 or 120)

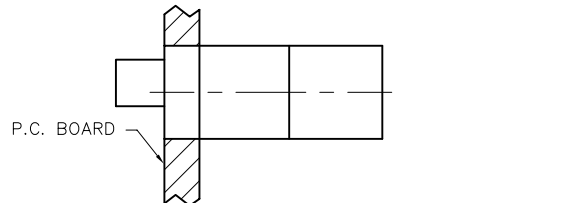
CONTACTS	
<ul style="list-style-type: none"> <li>The use of gaskets is not recommended with crimp socket contacts.</li> <li>WTKA** includes full compliment of WTK2222 (Socket or Pin) crimp removable contacts packaged with connectors. See "Contacts" in Accessories section to order separately.</li> <li>When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.</li> </ul>	
<p>TYPE CONTACTS/TERMINATIONS:</p> <p>PR7 Pin, right angle, dip solder, .109" x .025" dia</p> <p>PR9 Pin, right angle, dip solder, .140" x .025" dia</p> <p>PR11 Pin, right angle, dip solder, .172" x .025" dia</p> <p>PRW40 Pin, right angle, wire wrap®, .625"</p>	<p>TYPE CONTACTS/TERMINATIONS:</p> <p>S Socket, straight, crimp removable, 22 AWG</p> <p>SA Same as above</p> <p>P Pin, straight, crimp removable, 22 AWG</p>

HARDWARE	
SY Guide set	SY Guide set
SY-# Guide set, polarized	SY-# Guide set, polarized
J Fixed jackset	J Fixed jackset
JT Turning jackset, .435"	JT Turning jackset, .500"
JTA Turning jackset, .135"	JTA Turning jackset, .200"
JTB Hex turning jackset, .135"	JTB Hex turning jackset, .200"
JTC Hex turning jackset, .435"	JTC Hex turning jackset, .500"
JTL Turning jackset, long, .635"	JTL Turning jackset, long, .700"

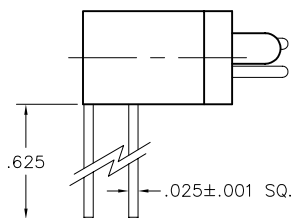
- OPTIONS**
- Option Codes: Add to the end of the part number. Example: WTKA10SSY-C45. Call factory for additional codes.
  - 443 Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section. Receptacle connector only.
  - 444 Contact position noted by dash number is left open (to mate with -443). Right angle only.
  - 478 Drill mating side hole diameter designated by dash number (crimp only).
  - 515 Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section. Receptacle connector only.
  - 548 Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
  - A53 Socket, straight, crimp removable, 20 AWG
  - C45 Additional .075" material at termination face for strain relief of crimped wires (22 AWG only). See Detail A below.
  - F68 Combine -C45 and -515 special codes.



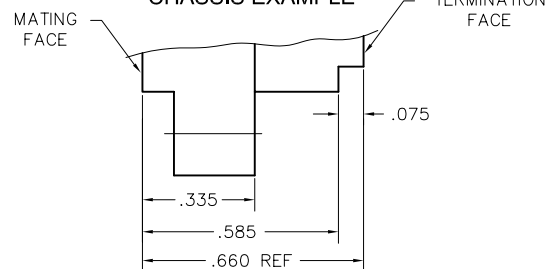
**WTB90PR9SY**  
P.C. BOARD EXAMPLE



**WTKA90SASY**  
CHASSIS EXAMPLE



**WTB90PRW40SY**  
WIRE WRAP EXAMPLE



**DETAIL A**



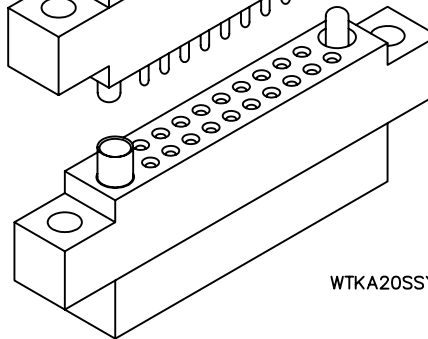
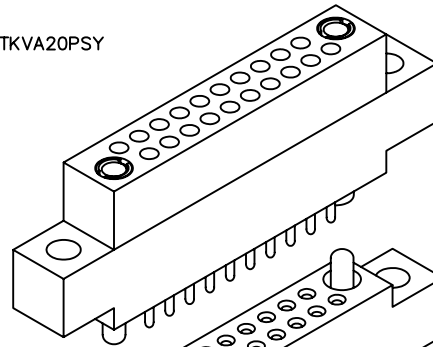
# 2 • ROW Chassis to Chassis

.100"

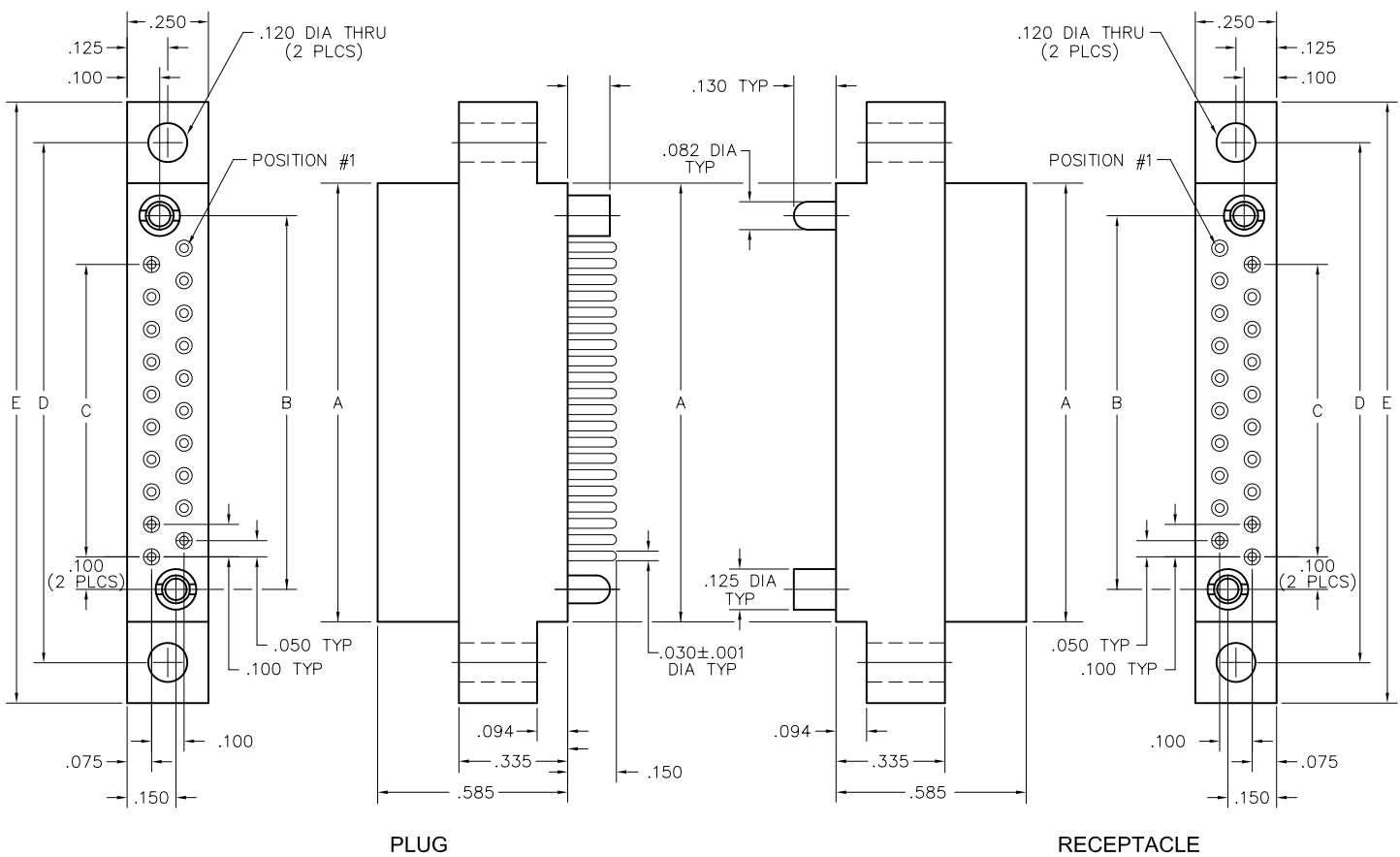
**WTKVA - WTKA**

10 thru 70 Contacts

WTKVA20PSY



WTKA20SSY



DIMENSIONS											
SIZE	A	B	C	D	E	SIZE	A	B	C	D	E
10	.850	.650	.400	1.100	1.350	44	2.550	2.350	2.100	2.800	3.050
14	1.050	.850	.600	1.300	1.550	50	2.850	2.650	2.400	3.100	3.350
20	1.350	1.150	.900	1.600	1.850	54	3.050	2.850	2.600	3.300	3.550
24	1.550	1.350	1.100	1.800	2.050	56	3.150	2.950	2.700	3.400	3.650
26	1.650	1.450	1.200	1.900	2.150	60	3.350	3.150	2.900	3.600	3.850
30	1.850	1.650	1.400	2.100	2.350	66	3.650	3.450	3.200	3.900	4.150
36	2.150	1.950	1.700	2.400	2.650	70	3.850	3.650	3.400	4.100	4.350
40	2.350	2.150	1.900	2.600	2.850						



PLUG: WTKVA20 P SY  
 RECEPTACLE: WTKA 20 S SY  
 XXXX XX XXXX XX

**PLUG**

**RECEPTACLE**

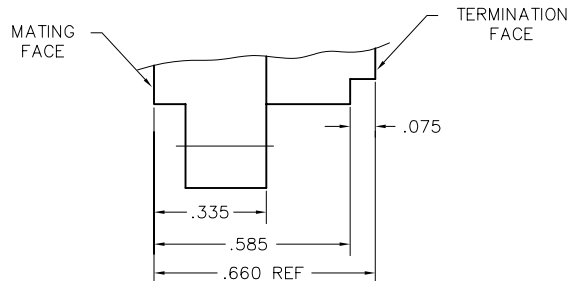
SERIES	
WTKVA Plug, straight, crimp removable, with mounting ears	WTKA Receptacle, straight, crimp removable, with mounting ears
<ul style="list-style-type: none"> <li>WTKVA and WTKA connectors will mate with WTA, WTAV, WTB, WTBV connectors. "A" means contacts are included.</li> </ul>	

SIZE	
XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)	XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)

CONTACTS	
<ul style="list-style-type: none"> <li>The use of gaskets is not recommended with crimp connectors.</li> <li>WTKVA** and WTKA includes full compliment of WTK2222 (Socket or Pin) crimp removable contacts packaged with connectors. See "Contacts" in Accessories section to order separately.</li> <li>When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.</li> </ul>	
TYPE CONTACTS/TERMINATIONS: P Pin, straight, crimp removable, 22 AWG S Socket, straight, crimp removable, 22 AWG SA Same as above	TYPE CONTACTS/TERMINATIONS: S Socket, straight, crimp removable, 22 AWG SA Same as above P Pin, straight, crimp removable, 22 AWG

HARDWARE	
SY Guide set	SY Guide set
SY-# Guide set, polarized	SY-# Guide set, polarized
J Fixed jackset	J Fixed jackset
JT Turning jackset, .435"	JT Turning jackset, .500"
JTA Turning jackset, .135"	JTA Turning jackset, .200"
JTB Hex turning jackset, .135"	JTB Hex turning jackset, .200"
JTC Hex turning jackset, .435"	JTC Hex turning jackset, .500"
JTL Turning jackset, long, .635"	JTL Turning jackset, long, .700"

OPTIONS	
<ul style="list-style-type: none"> <li>Option Codes: Add to the end of the part number. Example: WTKA10SSY-C45. Call factory for additional codes.</li> </ul>	
-443	Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section.
-444	Contact position noted by dash number is left open (to mate with -443).
-478	Drill mating side hole diameter designated by dash number.
-515	Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section.
-A53	20 AWG, straight, crimp removable contact, pin or socket.
-C45	Additional .075" material at termination face for strain relief of crimped wires (22 AWG only). See Detail A below.
-F68	Combine -C45 and -515 special codes.



**DETAIL A**



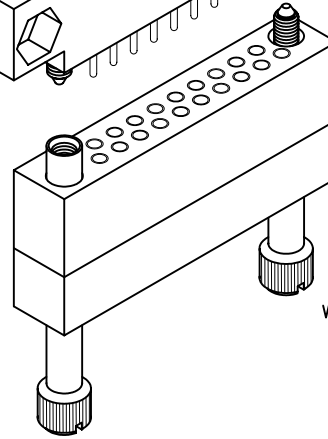
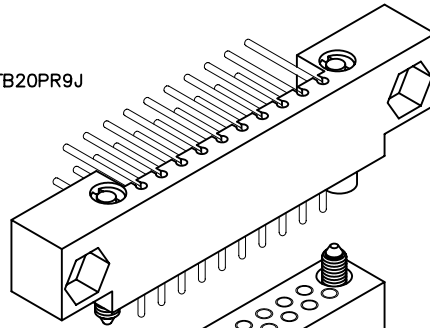
# 2 • ROW PC Card to Board

.100"

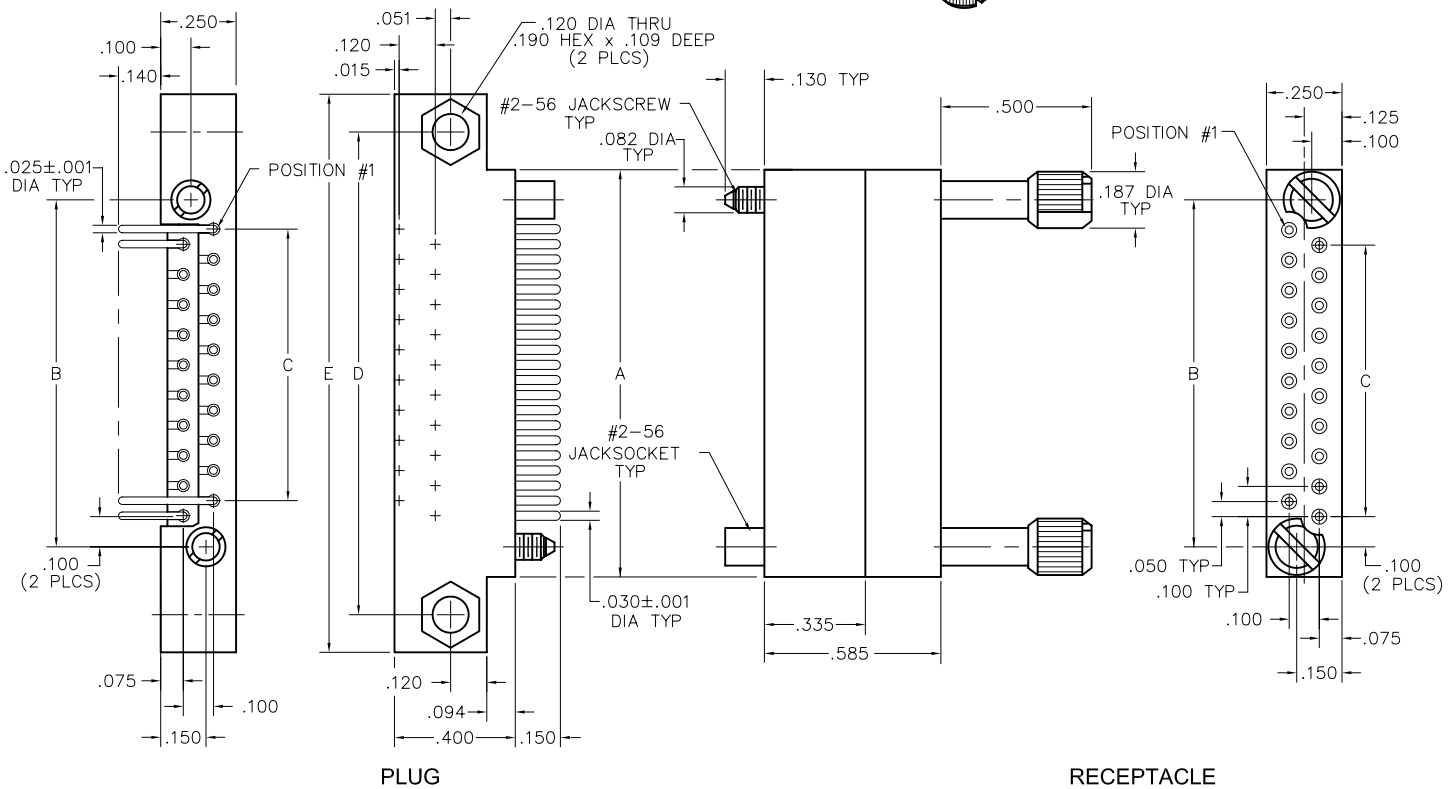
## WTB - WTDXA

10 thru 70 Contacts

WTB20PR9J



WTDXA20SJT



PLUG

RECEPTACLE

DIMENSIONS											
SIZE	A	B	C	D	E	SIZE	A	B	C	D	E
10	.850	.650	.400	1.100	1.350	44	2.550	2.350	2.100	2.800	3.050
14	1.050	.850	.600	1.300	1.550	50	2.850	2.650	2.400	3.100	3.350
20	1.350	1.150	.900	1.600	1.850	54	3.050	2.850	2.600	3.300	3.550
24	1.550	1.350	1.100	1.800	2.050	56	3.150	2.950	2.700	3.400	3.650
26	1.650	1.450	1.200	1.900	2.150	60	3.350	3.150	2.900	3.600	3.850
30	1.850	1.650	1.400	2.100	2.350	66	3.650	3.450	3.200	3.900	4.150
36	2.150	1.950	1.700	2.400	2.650	70	3.850	3.650	3.400	4.100	4.350
40	2.350	2.150	1.900	2.600	2.850						

PLUG: WTB 20 PR9 J  
 RECEPTACLE: WTDXA 20 S JT  
 XXXXX XX XXX XX

**PLUG**

**RECEPTACLE**

**SERIES**

WTB Plug, right angle, with mounting ears • WTKA and WTDXA connectors will mate with WTA, WTAV, WTB, WTBV connectors. "A" means contacts are included.	WTDXA Receptacle, straight, crimp removable, without mounting ears
---	--

**SIZE**

XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)	XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)
---	---

**CONTACTS**

- The use of gaskets is not recommended with crimp socket contacts.
- WTKA\*\* includes full compliment of WTK2222 (Socket or Pin) crimp removable contacts packaged with connectors. See "Contacts" in Accessories section to order separately.
- When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.

**TYPE CONTACTS/TERMINATIONS:**

PR7 Pin, right angle, dip solder, .109" x .025" dia  
 PR9 Pin, right angle, dip solder, .140" x .025" dia  
 PR11 Pin, right angle, dip solder, .172" x .025" dia  
 PRW40 Pin, right angle, wire wrap®, .625"

**TYPE CONTACTS/TERMINATIONS:**

S Socket, straight, crimp removable, 22 AWG  
 SA Same as above  
 P Pin, straight, crimp removable, 22 AWG

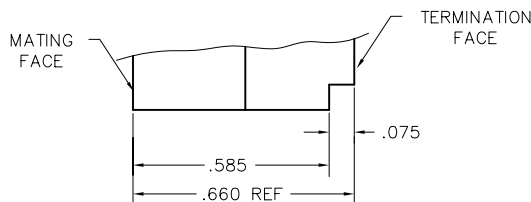
**HARDWARE**

SY Guide set  
 SY-# Guide set, polarized  
 J Fixed jackset  
 JT Turning jackset, .435"  
 JTA Turning jackset, .135"  
 JTB Hex turning jackset, .135"  
 JTC Hex turning jackset, .435"  
 JTL Turning jackset, long, .635"

SY Guide set  
 SY-# Guide set, polarized  
 J Fixed jackset  
 JT Turning jackset, .500"  
 JTA Turning jackset, .200"  
 JTB Hex turning jackset, .200"  
 JTC Hex turning jackset, .500"  
 JTL Turning jackset, long, .700"

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WTKA10SSY-C45. Call factory for additional codes.
- 443 Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section. Receptacle connector only.
- 444 Contact position noted by dash number is left open (to mate with -443). Right angle only.
- 478 Drill mating side hole diameter designated by dash number.
- 515 Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section. Receptacle connector only.
- 548 Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
- A53 Socket, straight, crimp removable, 20 AWG
- C45 Additional .075" material at termination face for strain relief of crimped wires (22 AWG only). See Detail A below.
- F68 Combine -C45 and -515 special codes.



**DETAIL A**

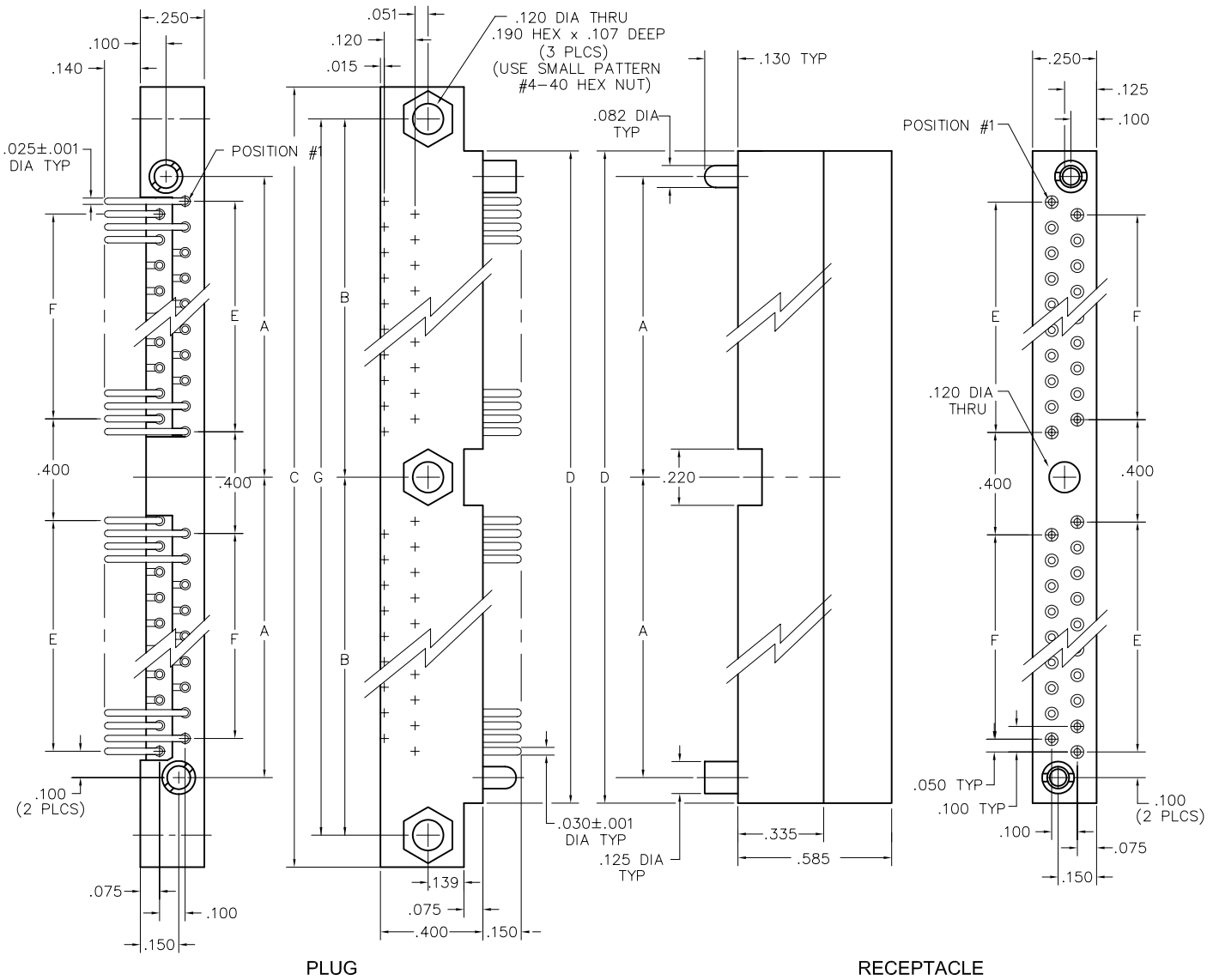
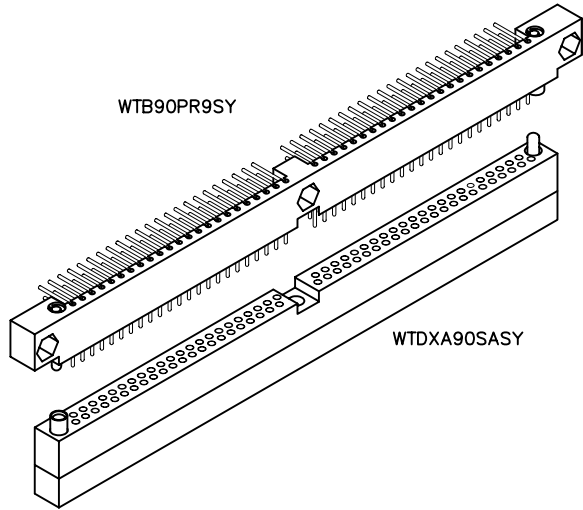


# 2 • ROW PC Card to Board

.100"

**WTB - WTDXA**

90 & 120 Contacts



DIMENSIONS							
SIZE	A	B	C	D	E	F	G
90	2.475	2.700	5.560	5.150	2.200	2.100	5.400
120	3.225	3.450	7.150	6.650	2.900	2.900	6.900

PLUG: WTB 90 PR9 SY  
 RECEPTACLE: WTDXA 90 SA SY  
 XXXXX XX XXX XX

**PLUG**

**RECEPTACLE**

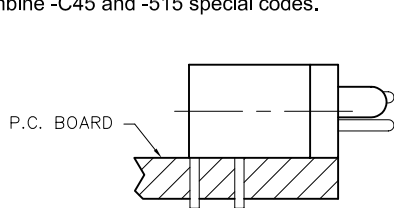
SERIES	
WTB Plug, right angle, with mounting ears	WTDXA Receptacle, straight, crimp removable, without mounting ears
<ul style="list-style-type: none"> <li>• WTKA and WTDXA connectors will mate with WTA, WTAV, WTB, WTBV connectors. "A" means contacts are included.</li> </ul>	

SIZE	
XX Number of contacts (90 or 120)	XX Number of contacts (90 or 120)

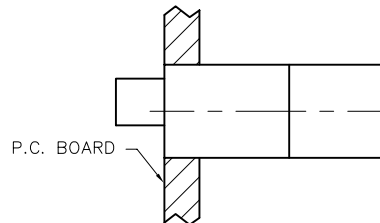
CONTACTS	
<ul style="list-style-type: none"> <li>• The use of gaskets is not recommended with crimp socket contacts.</li> <li>• WTKA** includes full compliment of WTK2222 (Socket or Pin) crimp removable contacts packaged with connectors. See "Contacts" in Accessories section to order separately.</li> <li>• When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.</li> </ul>	
<p><b>TYPE CONTACTS/TERMINATIONS:</b></p> <p>PR7 Pin, right angle, dip solder, .109" x .025" dia            PR9 Pin, right angle, dip solder, .140" x .025" dia            PR11 Pin, right angle, dip solder, .172" x .025" dia            PRW40 Pin, right angle, wire wrap®, .625"</p>	<p><b>TYPE CONTACTS/TERMINATIONS:</b></p> <p>S Socket, straight, crimp removable, 22 AWG            SA Same as above            P Pin, straight, crimp removable, 22 AWG</p>

HARDWARE	
SY Guide set	SY Guide set
SY-# Guide set, polarized	SY-# Guide set, polarized
J Fixed jackset	J Fixed jackset
JT Turning jackset, .435"	JT Turning jackset, .500"
JTA Turning jackset, .135"	JTA Turning jackset, .200"
JTB Hex turning jackset, .135"	JTB Hex turning jackset, .200"
JTC Hex turning jackset, .435"	JTC Hex turning jackset, .500"
JTL Turning jackset, long, .635"	JTL Turning jackset, long, .700"

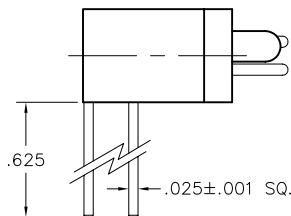
- OPTIONS**
- Option Codes: Add to the end of the part number. Example: WTDXA90SSY-C45. Call factory for additional codes.
  - 443 Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section. Receptacle connector only.
  - 444 Contact position noted by dash number is left open (to mate with -443). Right angle only.
  - 478 Drill mating side hole diameter designated by dash number (crimp only).
  - 515 Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section. Receptacle connector only.
  - 548 Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
  - A53 Socket, straight, crimp removable, 20 AWG
  - C45 Additional .075" material at termination face for strain relief of crimped wires (22 AWG only). See Detail A below.
  - F68 Combine -C45 and -515 special codes.



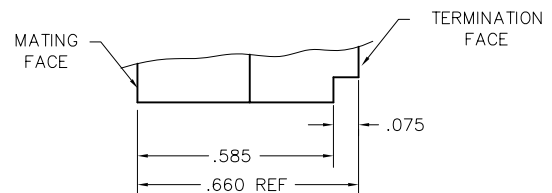
**WTB90PR9SY**  
 P.C. BOARD EXAMPLE



**WTDXA90SASY**  
 CHASSIS EXAMPLE



**WTB90PRW40SY**  
 WIRE WRAP EXAMPLE



**DETAIL A**



PLUG: WTDVA20 P SY  
 RECEPTACLE: WTDXA20 S SY  
 XXXX XX XXXX XX

**PLUG**

**RECEPTACLE**

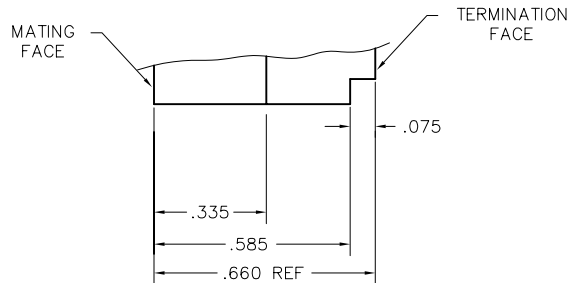
SERIES	
WTDVA Plug, straight, crimp removable, without mounting ears	WTDXA Receptacle, straight, crimp removable, without mounting ears
<ul style="list-style-type: none"> <li>WTDVA and WTDXA connectors will mate with WTA, WTAV, WTB, WTBV connectors. "A" means contacts are included.</li> </ul>	

SIZE	
XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)	XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)

CONTACTS	
<ul style="list-style-type: none"> <li>The use of gaskets is not recommended with crimp connectors.</li> <li>WTDVA** and WTDXA includes full compliment of WTK2222 (Socket or Pin) crimp removable contacts packaged with connectors. See "Contacts" in Accessories section to order separately.</li> <li>When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.</li> </ul>	
TYPE CONTACTS/TERMINATIONS: P Pin, straight, crimp removable, 22 AWG S Socket, straight, crimp removable, 22 AWG SA Same as above	TYPE CONTACTS/TERMINATIONS: S Socket, straight, crimp removable, 22 AWG SA Same as above P Pin, straight, crimp removable, 22 AWG

HARDWARE	
SY Guide set	SY Guide set
SY-# Guide set, polarized	SY-# Guide set, polarized
J Fixed jackset	J Fixed jackset
JT Turning jackset, .435"	JT Turning jackset, .500"
JTA Turning jackset, .135"	JTA Turning jackset, .200"
JTB Hex turning jackset, .135"	JTB Hex turning jackset, .200"
JTC Hex turning jackset, .435"	JTC Hex turning jackset, .500"
JTL Turning jackset, long, .635"	JTL Turning jackset, long, .700"

OPTIONS	
<ul style="list-style-type: none"> <li>Option Codes: Add to the end of the part number. Example: WTDXA10SSY-C45. Call factory for additional codes.</li> </ul>	
-443	Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section.
-444	Contact position noted by dash number is left open (to mate with -443).
-478	Drill mating side hole diameter designated by dash number.
-515	Polarizing pin installed in contact position noted by dash number. See "Polarization" in Accessories section.
-A53	20 AWG, straight, crimp removable contact, pin or socket.
-C45	Additional .075" material at termination face for strain relief of crimped wires (22 AWG only). See Detail A below.
-F68	Combine -C45 and -515 special codes.



**DETAIL A**

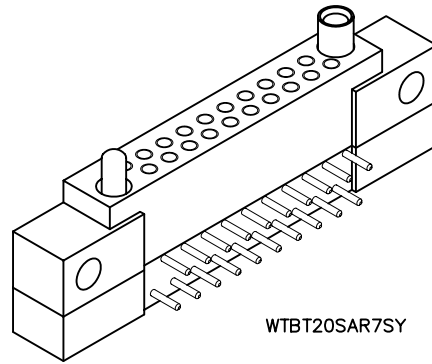


# 2 • ROW Extender Board Connector\*

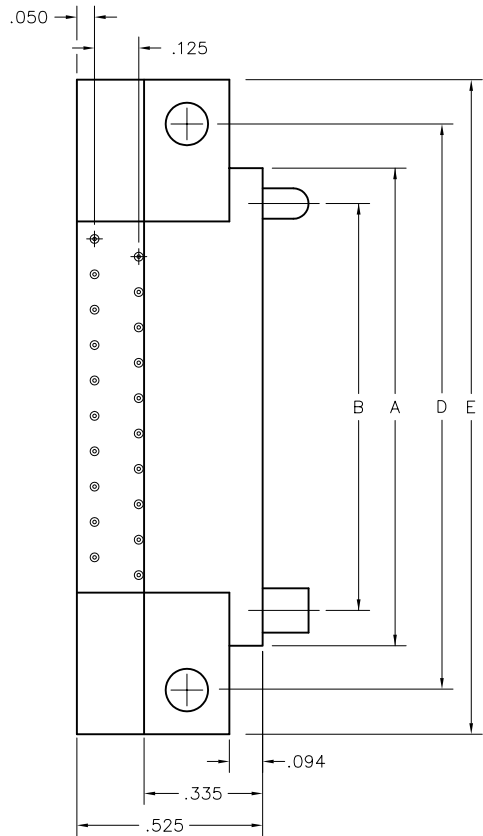
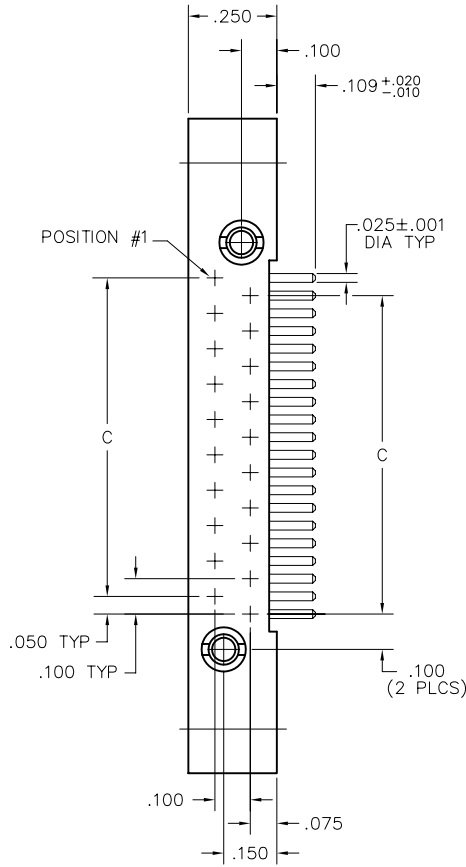
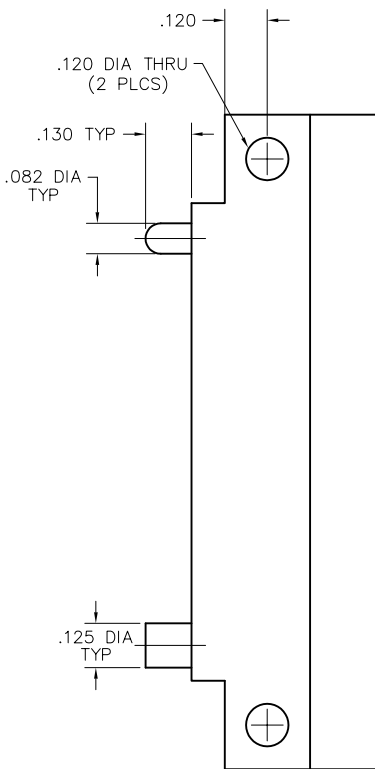
.100"

**WTBT**

10 thru 70 Contacts



WTBT20SAR7SY



RECEPTACLE

DIMENSIONS											
SIZE	A	B	C	D	E	SIZE	A	B	C	D	E
10	.850	.650	.400	1.100	1.350	44	2.550	2.350	2.100	2.800	3.050
14	1.050	.850	.600	1.300	1.550	50	2.850	2.650	2.400	3.100	3.350
20	1.350	1.150	.900	1.600	1.850	54	3.050	2.850	2.600	3.300	3.550
24	1.550	1.350	1.100	1.800	2.050	56	3.150	2.950	2.700	3.400	3.650
26	1.650	1.450	1.200	1.900	2.150	60	3.350	3.150	2.900	3.600	3.850
30	1.850	1.650	1.400	2.100	2.350	66	3.650	3.450	3.200	3.900	4.150
36	2.150	1.950	1.700	2.400	2.650	70	3.850	3.650	3.400	4.100	4.350
40	2.350	2.150	1.900	2.600	2.850						

\* = FOR TEST APPLICATIONS



RECEPTACLE: WTBT 20 SAR7 SY  
XXXX XX XXXX XX

**RECEPTACLE**

**SERIES**  
WTBT Receptacle, right angle, with mounting ears

**SIZE**  
XX Number of contacts (10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66, or 70)

**CONTACTS**

TYPE CONTACTS/TERMINATIONS:  
 SARC Socket, right angle, solder cup (.035" I.D.)  
 SAR7 Socket, right angle, dip solder, .109" x .025" dia  
 SAR9 Socket, right angle, dip solder, .140" x .025" dia  
 SAR11 Socket, right angle, dip solder, .172" x .025" dia

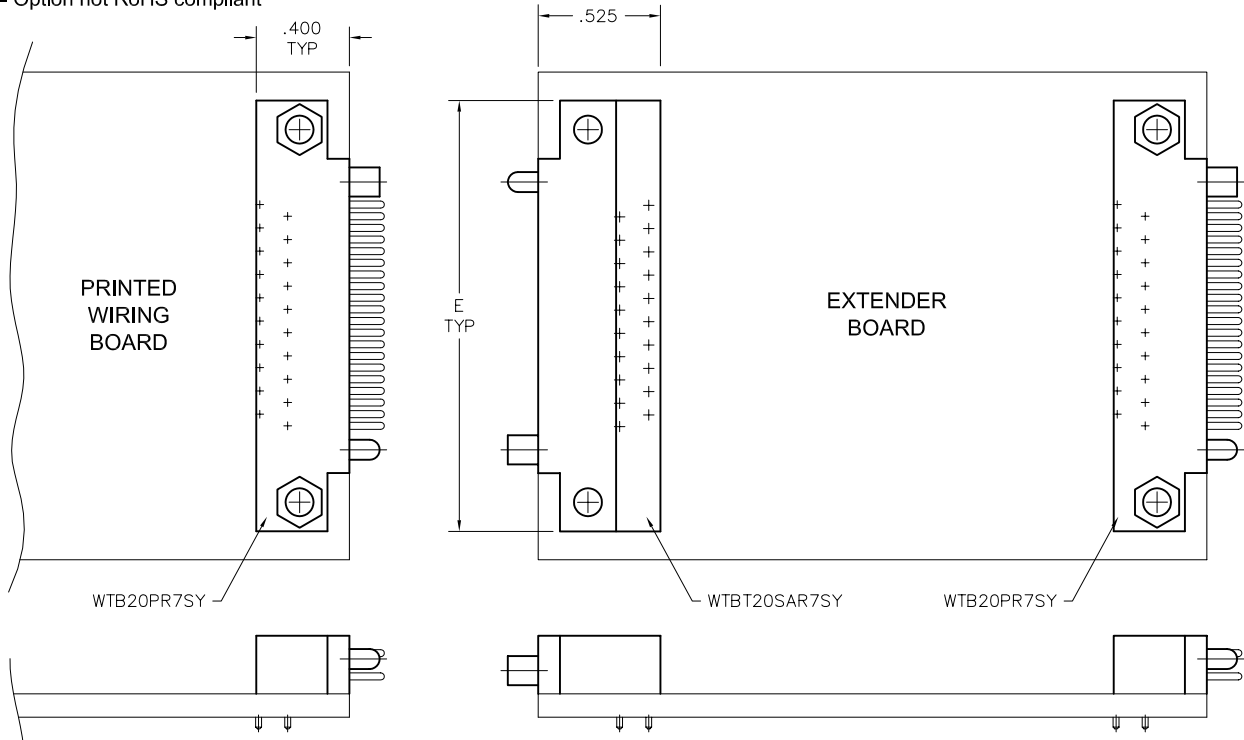
**HARDWARE**

SY Guide set  
 J Fixed jackset  
 JT Turning jackset, .475"  
 JTA Turning jackset, .175"  
 JTB Hex turning jackset, .175"  
 JTC Hex turning jackset, .475"  
 JTL Turning jackset, long, .675"

- WTBT connectors with "J" hardware will mate with: WTA\*\*\*\*JT  
WTA\*\*\*\*JTA
- WTBT connectors with "SY" hardware will mate with: WTB\*\*\*\*SY  
WTAV\*\*\*\*SY
- For polarized "D" shaped guides, add dash and code number to the part number (example: -7). See "Polarization" in Accessories section for codes.

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WTBT10SAR9J-D01. Call factory for additional codes.
  - 342 Remove mounting ears (.250" each end)
  - D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
  - P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- = Option not RoHS compliant



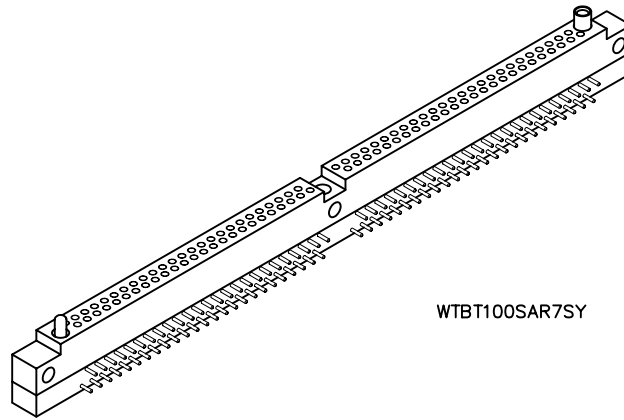


# 2 · ROW Extender Board Connector\*

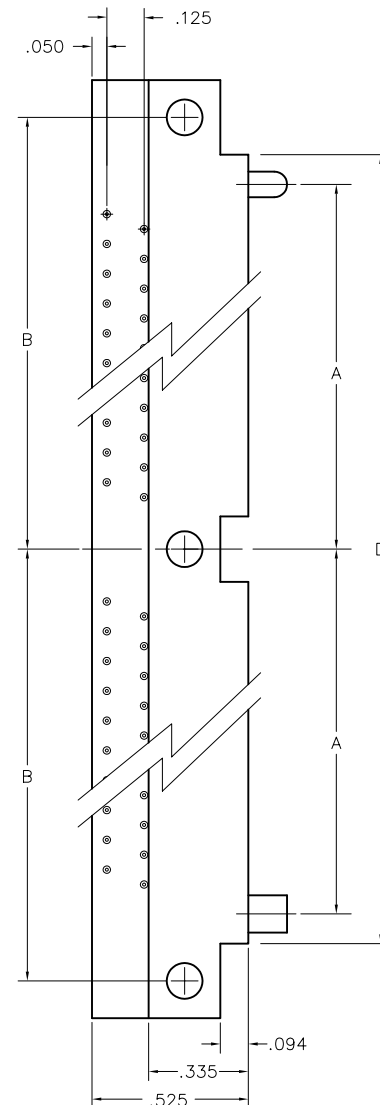
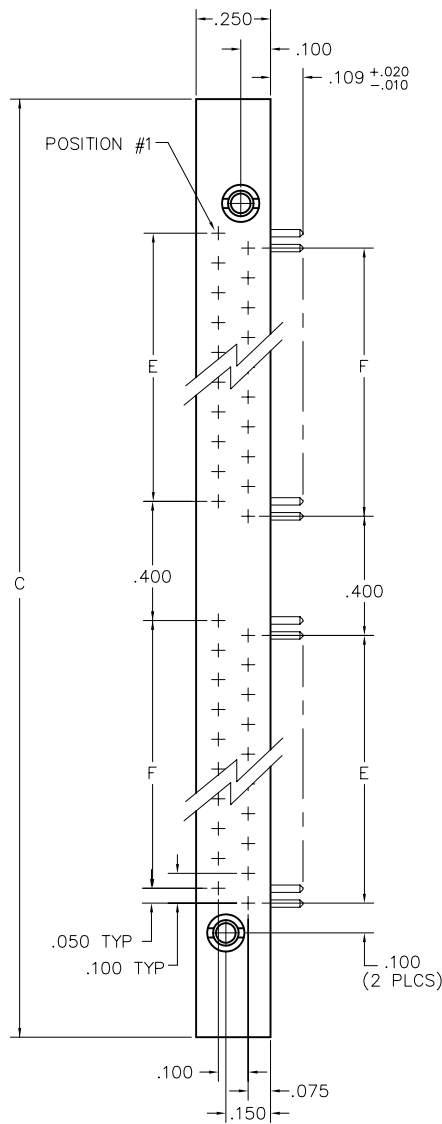
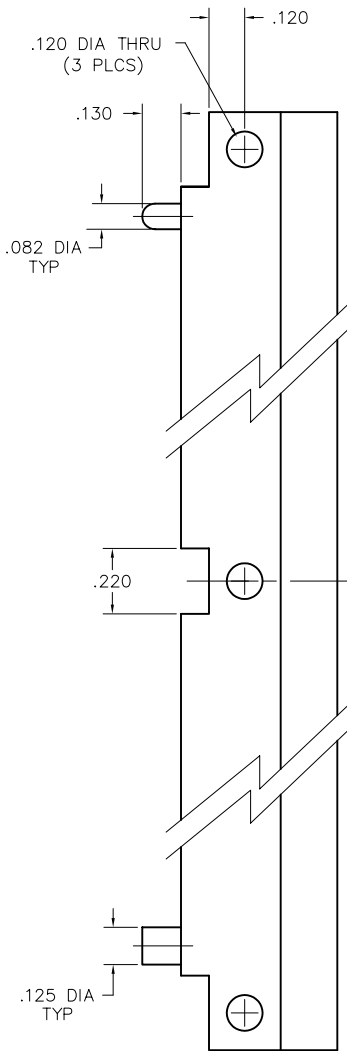
.100"

**WTBT**

100 Contacts



WTBT100SAR7SY



RECEPTACLE

DIMENSIONS						
SIZE	A	B	C	D	E	F
100	2.725	2.950	6.150	5.650	2.400	2.400

\* = FOR TEST APPLICATIONS

**RECEPTACLE**

**SERIES**

WTBT Receptacle, right angle, with mounting ears  
 • WTBT connectors will mate with WTA, WTAV, WTB, WTBV.

**SIZE**

XXX Number of contacts (100)

**CONTACTS**

**TYPE CONTACTS/TERMINATIONS:**

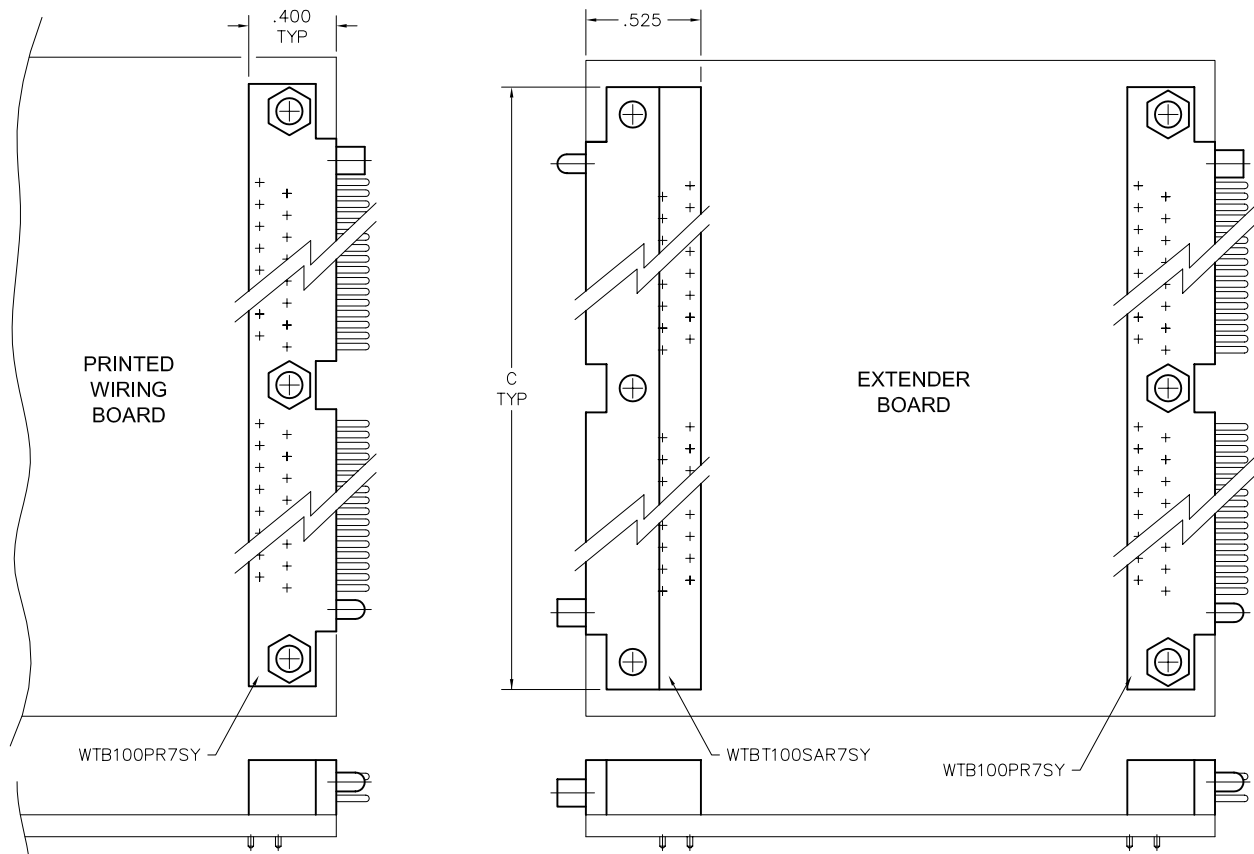
- SAR7 Socket, right angle, dip solder, .109" x .025" dia
- SAR9 Socket, right angle, dip solder, .140" x .025" dia
- SAR11 Socket, right angle, dip solder, .172" x .025" dia
- SARC Socket, right angle, solder cup (.035" I.D.)

**HARDWARE**

- SY Guide set
- SY-# Guide set, polarized
- J Fixed jackset
- JT Turning jackset, .475"
- JTA Turning jackset, .175"
- JTB Hex turning jackset, .175"
- JTC Hex turning jackset, .475"
- JTL Long turning jackset, .675"

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WTBT100SAR7SY342. Call factory for additional codes.
  - 342 Remove mounting ears (.250" each end)
  - D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder. ☒
  - P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- ☒ = Option not RoHS compliant



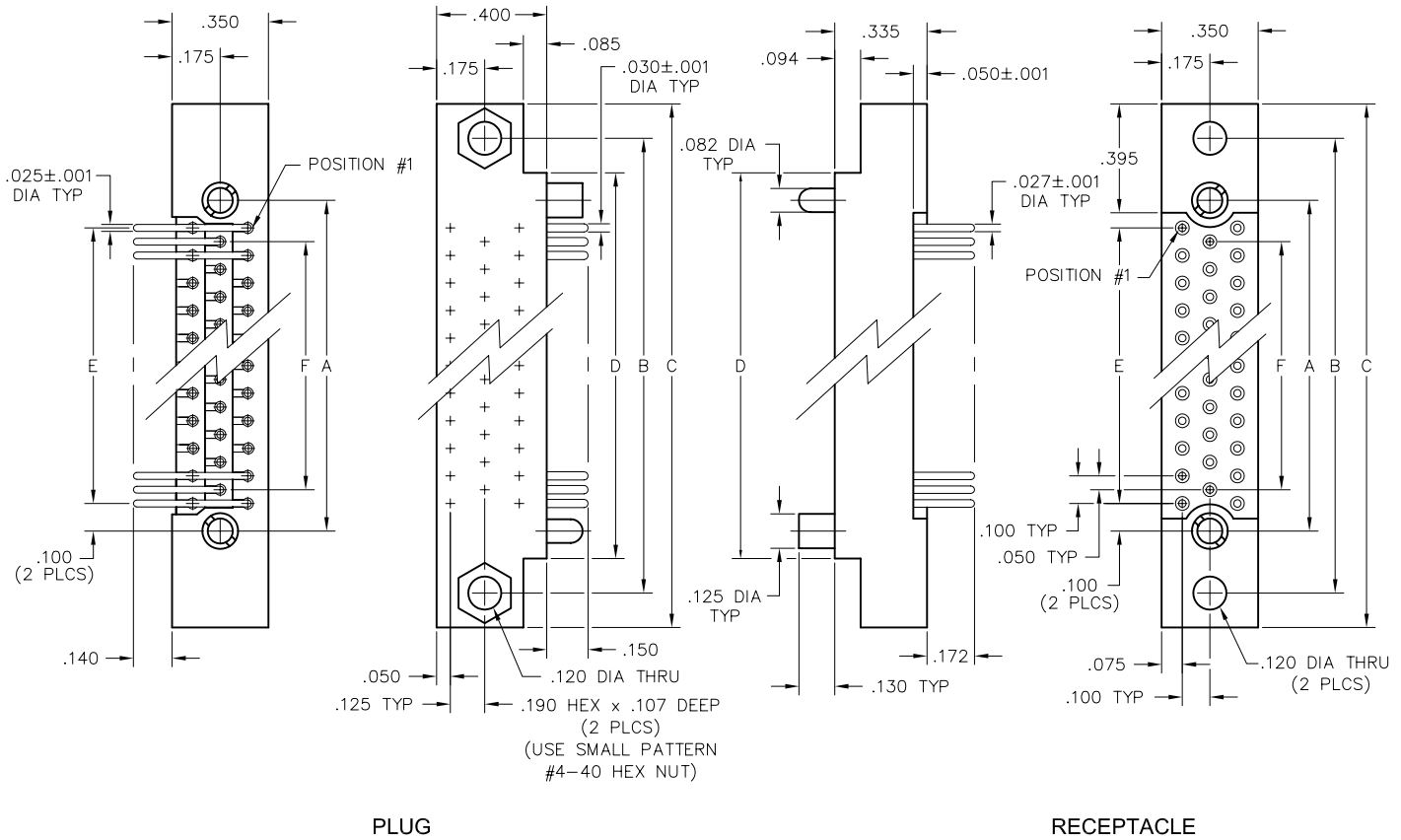
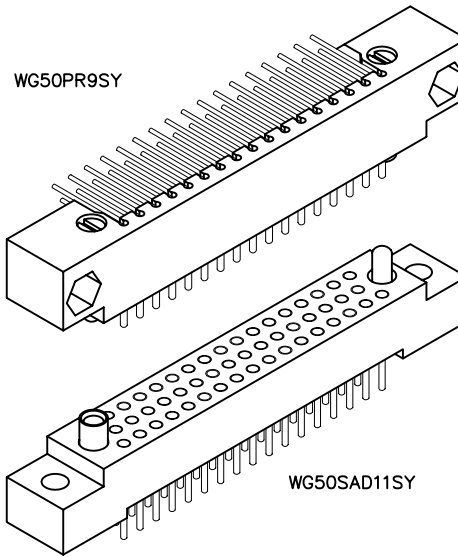


# 3 • ROW PC Card to Board or Chassis

.100"

**WG - WG**

50 thru 104 Contacts



DIMENSIONS						
SIZE	A	B	C	D	E	F
50	1.800	2.250	2.500	2.000	1.600	1.500
62	2.200	2.650	2.900	2.400	2.000	1.900
80	2.800	3.250	3.500	3.000	2.600	2.500
92	3.200	3.650	3.900	3.400	3.000	2.900
104	3.600	4.050	4.300	3.800	3.400	3.300

PLUG: WG 50 PR9 SY  
 RECEPTACLE: WG 50 SAD11 SY  
 XX XX XXXXX XX

**PLUG**

**RECEPTACLE**

**SERIES**

WG	Plug, right angle, with mounting ears	WG	Receptacle, straight, with mounting ears
		WG	Receptacle, right angle, with mounting ears

**SIZE**

XX	Number of contacts (50, 62, 80, 92, or 104)	XX	Number of contacts (50, 62, 80, 92, or 104)
----	---	----	---

**CONTACTS**

- The contact type determines image of connector. Pin, right angle contacts are always plug image. Straight pin contacts or socket contacts are receptacle image.

**TYPE CONTACTS/TERMINATIONS:**

PR7	Pin, right angle, dip solder, .109" x .025" dia
PR9	Pin, right angle, dip solder, .140" x .025" dia
PR11	Pin, right angle, dip solder, .172" x .025" dia
PR15	Pin, right angle, dip solder, .234" x .025" dia
PRW34	Pin, right angle, wire wrap <sup>®</sup> , .531"
PRW42	Pin, right angle, wire wrap <sup>®</sup> , .656"

**TYPE CONTACTS/TERMINATIONS:**

SAC	Socket, straight, solder cup (.035" I.D.)
SAD7	Socket, straight, dip solder, .109" x .027" dia
SAD9	Socket, straight, dip solder, .140" x .027" dia
SAD11	Socket, straight, dip solder, .172" x .027" dia
SAF3	Socket, straight, flex circuit, .050"
SAF6	Socket, straight, flex circuit, .093"
SAF9	Socket, straight, flex circuit, .140"
SAG7	Socket, straight, dip solder, .109" x .018" dia
SAG9	Socket, straight, dip solder, .140" x .018" dia
SAG11	Socket, straight, dip solder, .172" x .018" dia
SAP	Socket, straight, pin termination .150", connector saver
SAW24	Socket, straight, wire wrap <sup>®</sup> , .375"
SAW40	Socket, straight, wire wrap <sup>®</sup> , .625"
SOR7	Socket, right angle, dip solder, .109" x .025" dia
SOR9	Socket, right angle, dip solder, .140" x .025" dia
SOR11	Socket, right angle, dip solder, .172" x .025" dia

**HARDWARE**

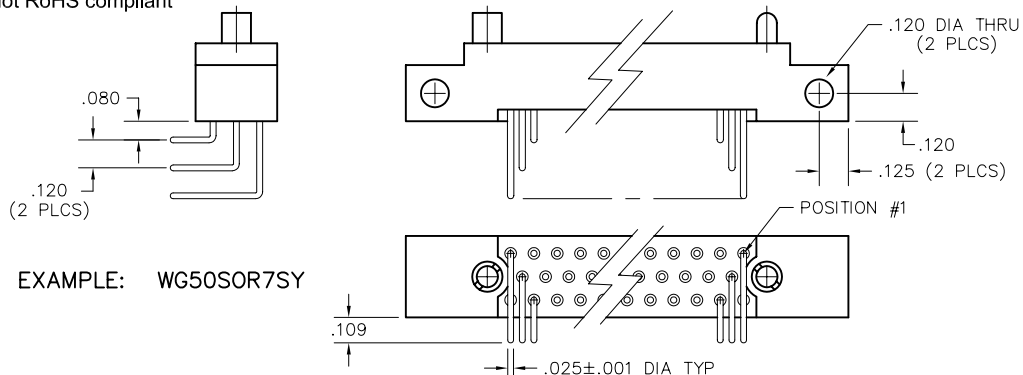
- Plug facial seal gaskets and hoods; order separately or add "Q" in part number. Example: WG50PR9QJ. See "Gaskets" and "Hoods" in Accessories section for instructions.

SY	Guide set	SY	Guide set
SY-#	Guide set, polarized	SY-#	Guide set, polarized
SYL	Guide set, long	SYL	Guide set, long
JT	Turning jackset, .435"	J	Fixed jackset
JTA	Turning jackset, .135"	JL	Fixed jackset, long
JTB	Hex turning jackset, .135"		
JTC	Hex turning jackset, .435"		
JTL	Turning jackset, long, .635"		

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WG80PR9SY342. Call factory for additional codes.
- 342 Remove mounting ears. (.250" each end)
- 548 Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
- B82 Termination face sealed against conformal coating
- D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
- P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- D54 Combine -B82 & -D01 options
- G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)

= Option not RoHS compliant



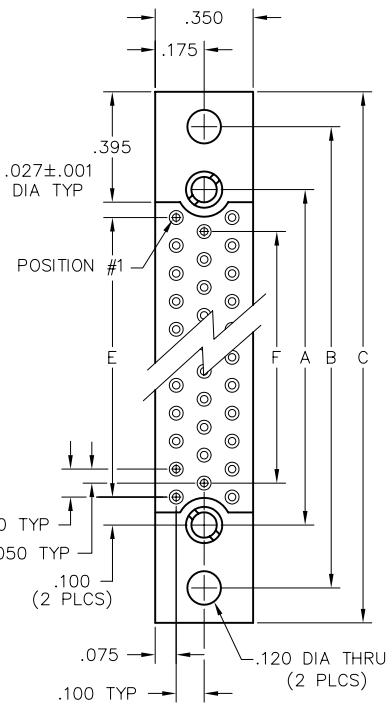
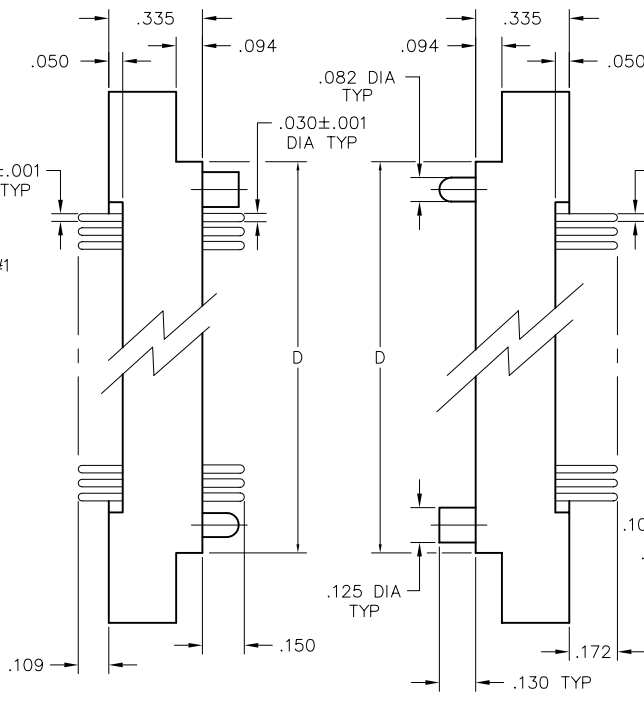
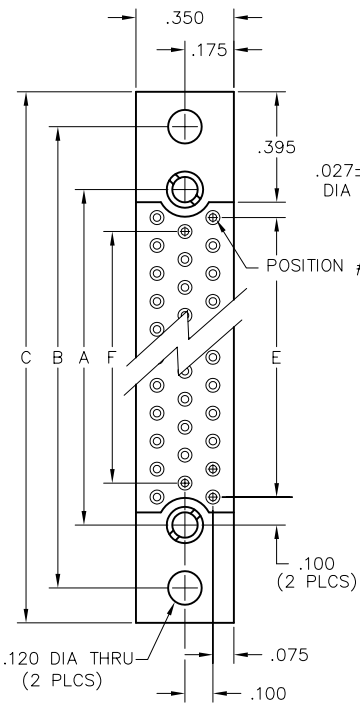
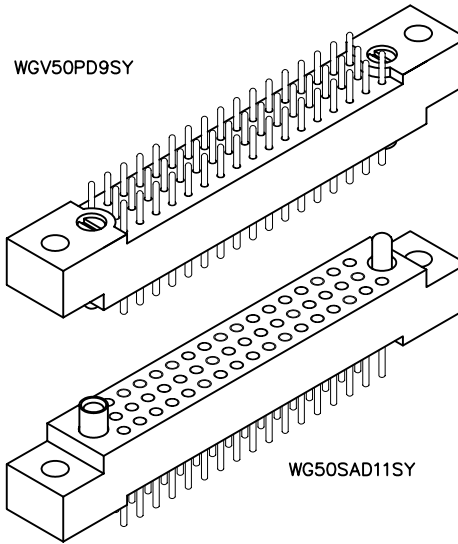


# 3 • ROW Sandwich Boards

.100"

**WGV - WG**

50 thru 104 Contacts



PLUG

RECEPTACLE

DIMENSIONS						
SIZE	A	B	C	D	E	F
50	1.800	2.250	2.500	2.000	1.600	1.500
62	2.200	2.650	2.900	2.400	2.000	1.900
80	2.800	3.250	3.500	3.000	2.600	2.500
92	3.200	3.650	3.900	3.400	3.000	2.900
104	3.600	4.050	4.300	3.800	3.400	3.300

PLUG: WGV 50 PD9 SY  
 RECEPTACLE: WG 50 SAD11 SY  
 XXX XX XXXXX XX

**PLUG**

**RECEPTACLE**

**SERIES**

WGV Plug, with mounting ears	WG Receptacle, straight, with mounting ears
	WG Receptacle, right angle, with mounting ears

**SIZE**

XX Number of contacts (50, 62, 80, 92, or 104)	XX Number of contacts (50, 62, 80, 92, or 104)
--	--

**CONTACTS**

- Pin or socket contacts can be used in either plug or receptacle.
- When pin contacts are used, standard hardware orientation places the female hardware next to the #1 pin contact.
- When socket contacts are used, standard hardware orientation places the male hardware next to the #1 socket contact.

**TYPE CONTACTS/TERMINATIONS:**

PC	Pin, straight, solder cup (.035" I.D.)
PD7	Pin, straight, dip solder, .109" x .027" dia
PD9	Pin, straight, dip solder, .140" x .027" dia
PD11	Pin, straight, dip solder, .172" x .027" dia
PD13	Pin, straight, dip solder, .203" x .027" dia
PF3	Pin, straight, flex circuit, .050"
PF6	Pin, straight, flex circuit, .093"
PF8	Pin, straight, flex circuit, .125"
PW34	Pin, straight, wire wrap <sup>®</sup> , .531"
PW40	Pin, straight, wire wrap <sup>®</sup> , .625"

**TYPE CONTACTS/TERMINATIONS:**

SAC	Socket, straight, solder cup (.035" I.D.)
SAD7	Socket, straight, dip solder, .109" x .027" dia
SAD9	Socket, straight, dip solder, .140" x .027" dia
SAD11	Socket, straight, dip solder, .172" x .027" dia
SAF3	Socket, straight, flex circuit, .050"
SAF6	Socket, straight, flex circuit, .093"
SAF9	Socket, straight, flex circuit, .140"
SAG7	Socket, straight, dip solder, .109" x .018" dia
SAG9	Socket, straight, dip solder, .140" x .018" dia
SAG11	Socket, straight, dip solder, .172" x .018" dia
SAP	Socket, straight, pin termination .150", connector saver
SAW24	Socket, straight, wire wrap <sup>®</sup> , .375"
SAW40	Socket, straight, wire wrap <sup>®</sup> , .625"
SOR7	Socket, right angle, dip solder, .109" x .025" dia
SOR9	Socket, right angle, dip solder, .140" x .025" dia
SOR11	Socket, right angle, dip solder, .172" x .025" dia

**HARDWARE**

- Plug facial seal gaskets and hoods; order separately or add "Q" in part number. Example: WGV50PD9QJ. See "Gaskets" and "Hoods" in Accessories section for instructions.

SY Guide set	SY Guide set
SY-# Guide set, polarized	SY-# Guide set, polarized
SYL Guide set, long	SYL Guide set, long
J Fixed jackset	J Fixed jackset
JL Fixed jackset, long	JL Fixed jackset, long
JT Turning jackset, .500"	JT Turning jackset, .500"
JTA Turning jackset, .200"	JTA Turning jackset, .200"
JTB Hex turning jackset, .200"	JTB Hex turning jackset, .200"
JTC Turning jackset, .500"	JTC Turning jackset, .500"
JTL Turning jackset, long, .700"	JTL Turning jackset, long, .700"

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WG80PR9SY342. Call factory for additional codes.
  - 342 Remove mounting ears. (.250" each end)
  - D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
  - P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
  - G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)
- = Option not RoHS compliant

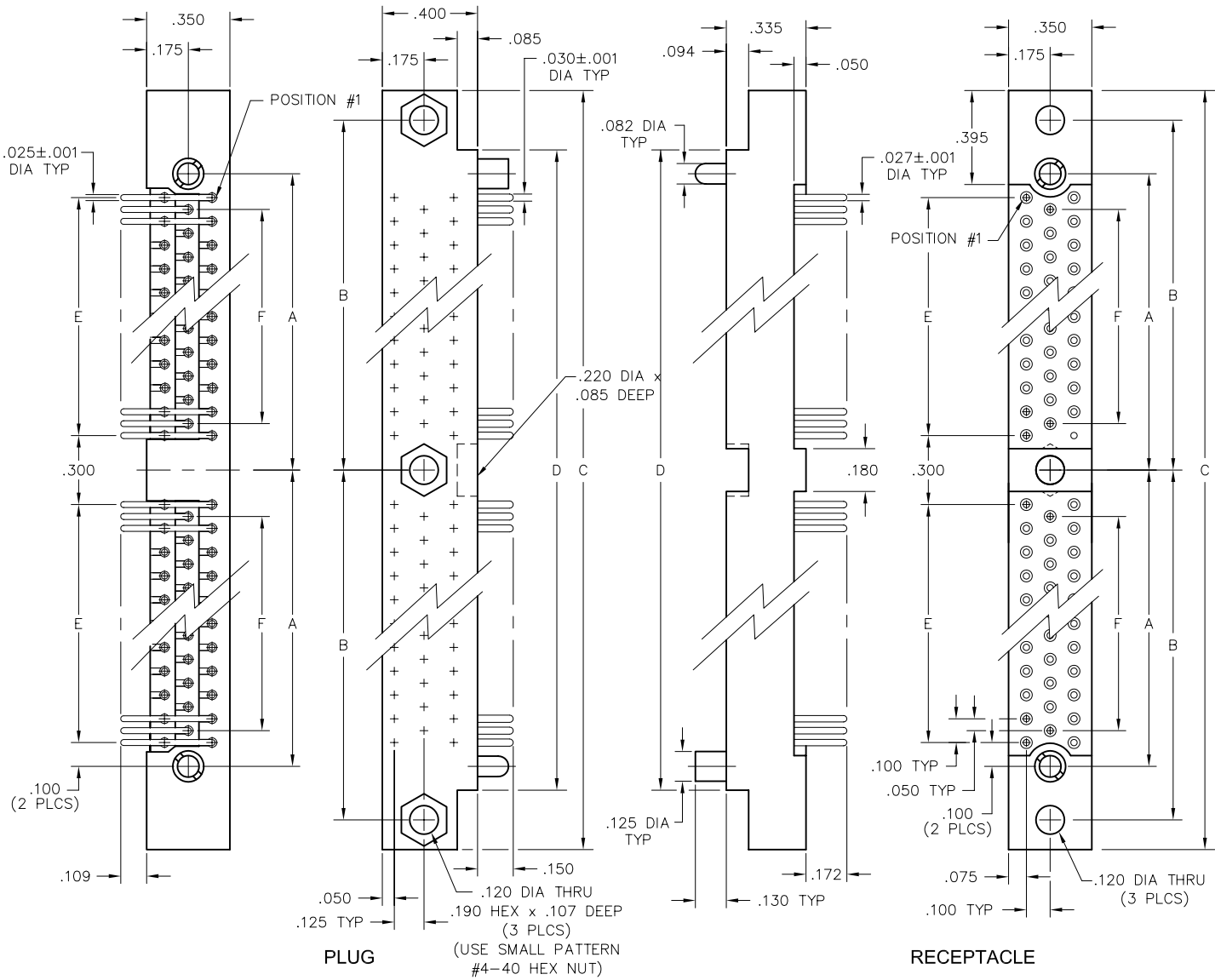
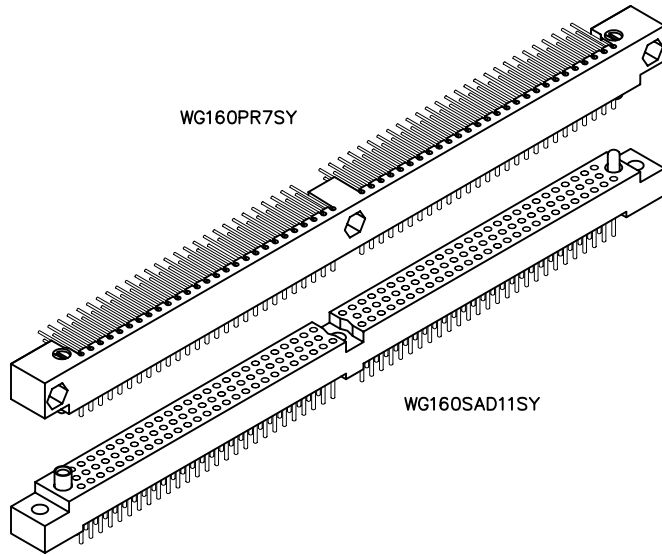


# 3 • ROW PC Card to Board or PC Card

.100"

**WG - WG**

160 & 208 Contacts



DIMENSIONS						
SIZE	A	B	C	D	E	F
160	2.850	3.075	6.400	5.900	2.600	2.500
208	3.650	3.875	8.000	7.500	3.400	3.300



PLUG: WG 160 PR7 SY  
 RECEPTACLE: WG 160 SAD11 SY  
 XX XXX XXXXX XX

PLUG		RECEPTACLE	
SERIES			
WG	Plug, right angle, with mounting ears	WG	Receptacle, straight, with mounting ears
		WG	Receptacle, right angle, with mounting ears
SIZE			
XX	Number of contacts (160 or 208)	XX	Number of contacts (160 or 208)
CONTACTS			

• The contact type determines image of connector. Pin, right angle contacts are always plug image. Straight pin contacts or socket contacts are receptacle image.

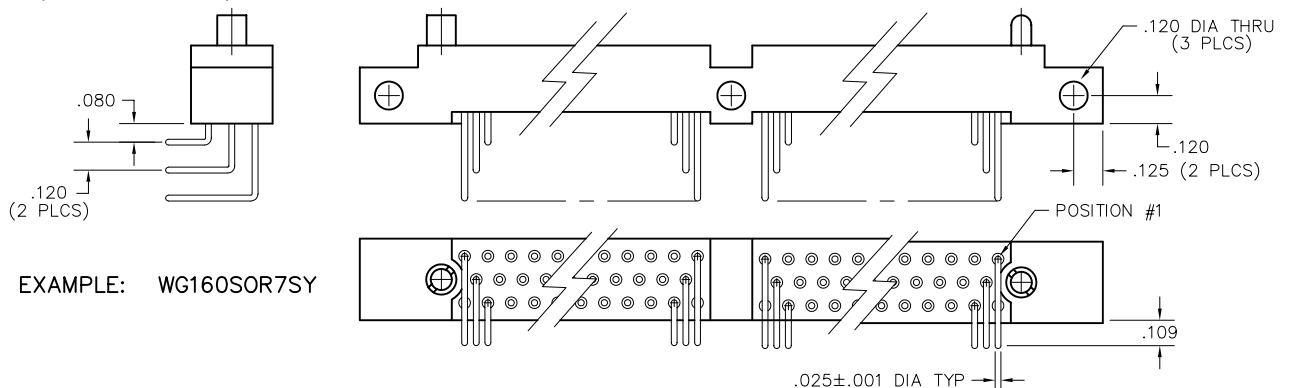
TYPE CONTACTS/TERMINATIONS:  
 PR7 Pin, right angle, dip solder, .109" x .025" dia  
 PR9 Pin, right angle, dip solder, .140" x .025" dia  
 PR11 Pin, right angle, dip solder, .172" x .025" dia

TYPE CONTACTS/TERMINATIONS:  
 SAC Socket, straight, solder cup (.035" I.D.)  
 SAD7 Socket, straight, dip solder, .109" x .027" dia  
 SAD9 Socket, straight, dip solder, .140" x .027" dia  
 SAD11 Socket, straight, dip solder, .172" x .027" dia  
 SAF3 Socket, straight, flex circuit, .050"  
 SAF6 Socket, straight, flex circuit, .093"  
 SAF9 Socket, straight, flex circuit, .140"  
 SAG7 Socket, straight, dip solder, .109" x .018" dia  
 SAG9 Socket, straight, dip solder, .140" x .018" dia  
 SAG11 Socket, straight, dip solder, .172" x .018" dia  
 SAP Socket, straight, pin termination .150", connector saver  
 SAW24 Socket, straight, wire wrap<sup>®</sup>, .375"  
 SAW40 Socket, straight, wire wrap<sup>®</sup>, .625"  
 SOR7 Socket, right angle, dip solder, .109" x .025" dia  
 SOR9 Socket, right angle, dip solder, .140" x .025" dia  
 SOR11 Socket, right angle, dip solder, .172" x .025" dia

HARDWARE	
• Plug facial seal gaskets and hoods; order separately or add "Q" in part number. Example: WG160PR9QJ. See "Gaskets" and "Hoods" in Accessories section for instructions.	
SY Guide set	SY Guide set
SY-# Guide set, polarized	SY-# Guide set, polarized
SYL Guide set, long	SYL Guide set, long
JT Turning jackset, .435"	J Fixed jackset
JTA Turning jackset, .135"	JL Fixed jackset, long
JTB Hex turning jackset, .135"	
JTC Hex turning jackset, .435"	
JTL Turning jackset, long, .635"	

OPTIONS	
• Option Codes: Add to the end of the part number. Example: WG160PR9SY548. Call factory for additional codes.	
-342	Remove mounting ears. (.250" each end)
-548	Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
-B82	Termination face sealed against conformal coating
-D01	Pretinned contact terminations (except solder cups, wire wraps <sup>®</sup> and flex contacts) with 63/37 or 60/40 solder. <input checked="" type="checkbox"/>
-P39	Pretinned contact terminations (except solder cups, wire wraps <sup>®</sup> and flex contacts) with SAC305 solder (lead free).
-G69	Solder cups fixed in an outward orientation (otherwise contacts will rotate)

= Option not RoHS compliant



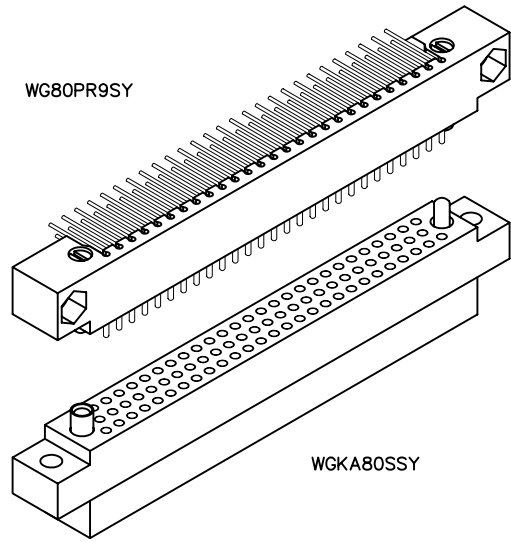
# 3 • ROW PC Card to Chassis

.100"

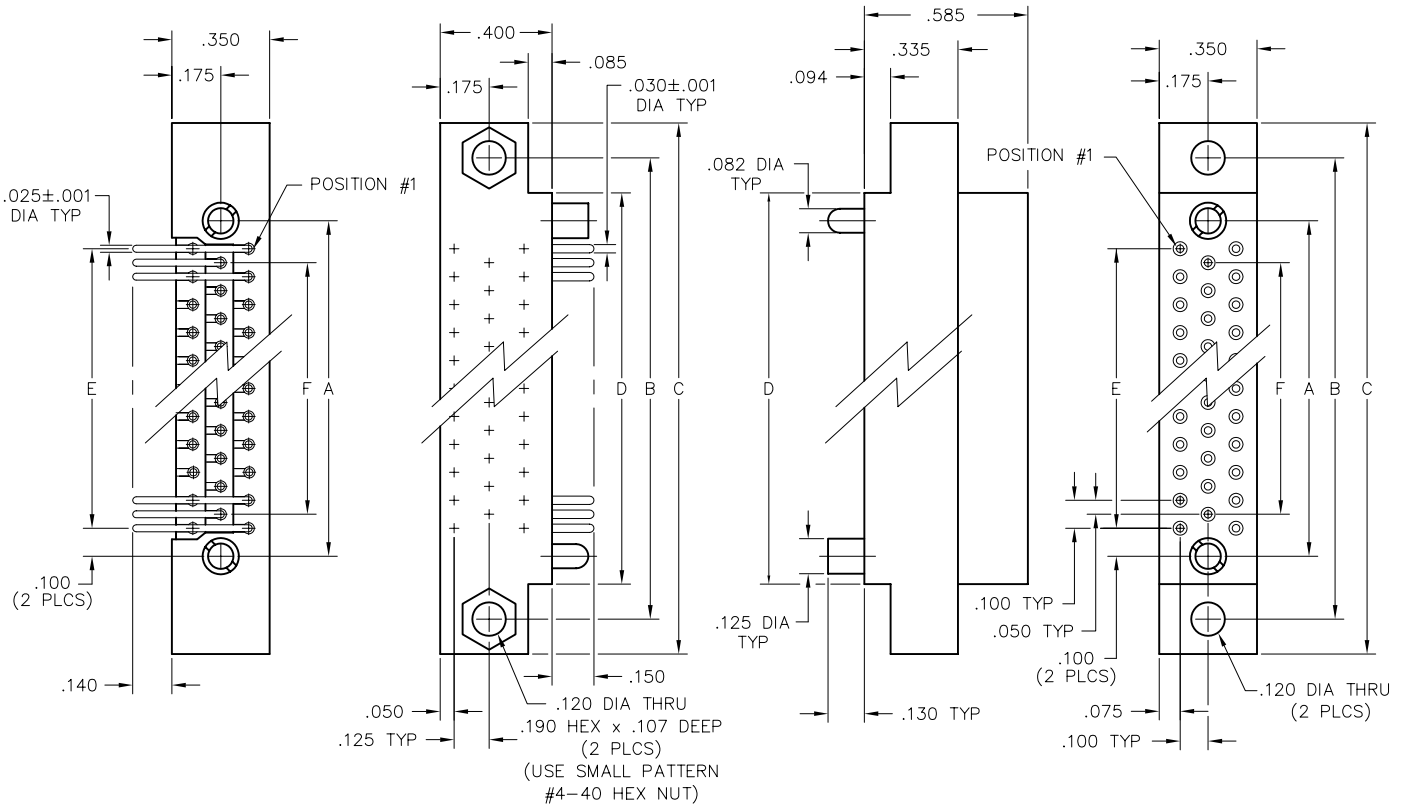
**WG - WGKA**

50 thru 160

WG80PR9SY



WGKA80SSY



PLUG

RECEPTACLE

DIMENSIONS						
SIZE	A	B	C	D	E	F
50	1.800	2.250	2.500	2.000	1.600	1.500
62	2.200	2.650	2.900	2.400	2.000	1.900
80	2.800	3.250	3.500	3.000	2.600	2.500
92	3.200	3.650	3.900	3.400	3.000	2.900
104	3.600	4.050	4.300	3.800	3.400	3.300
160*	2.850	3.075	6.400	5.900	2.600	2.500

\* = SEE OPPOSITE PAGE FOR 160 POSITION CONFIGURATION

PLUG: WG 80 PR9 SY  
 RECEPTACLE: WGKA 80 S SY  
 XXXX XX XXX XX

**PLUG**

**RECEPTACLE**

**SERIES**

<p>WG Plug, right angle, with mounting ears</p> <ul style="list-style-type: none"> <li>WGKA and WGDXA also mate with WGV connectors. "A" means contacts are included.</li> </ul>	<p>WGKA Receptacle, straight, crimp removable, with mounting ears</p>
--	---

**SIZE**

XX Number of contacts (50, 62, 80, 92, 104 or 160)	XX Number of contacts (50, 62, 80, 92, 104 or 160)
--	--

**CONTACTS**

- The use of gaskets is not recommended with crimp socket contacts.
- The contact type determines image of connector. Pin, right angle contacts are always plug image. Straight pin contacts or socket contacts are receptacle image.
- When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.

**TYPE CONTACTS/TERMINATIONS:**

PR7 Pin, right angle, dip solder, .109" x .025" dia
PR9 Pin, right angle, dip solder, .140" x .025" dia
PR11 Pin, right angle, dip solder, .172" x .025" dia
PRW40 Pin, right angle, wire wrap®, .625"

**TYPE CONTACTS/TERMINATIONS:**

S Socket, straight, crimp removable, 22 AWG
SA Same as above
P Pin, straight, crimp removable, 22 AWG

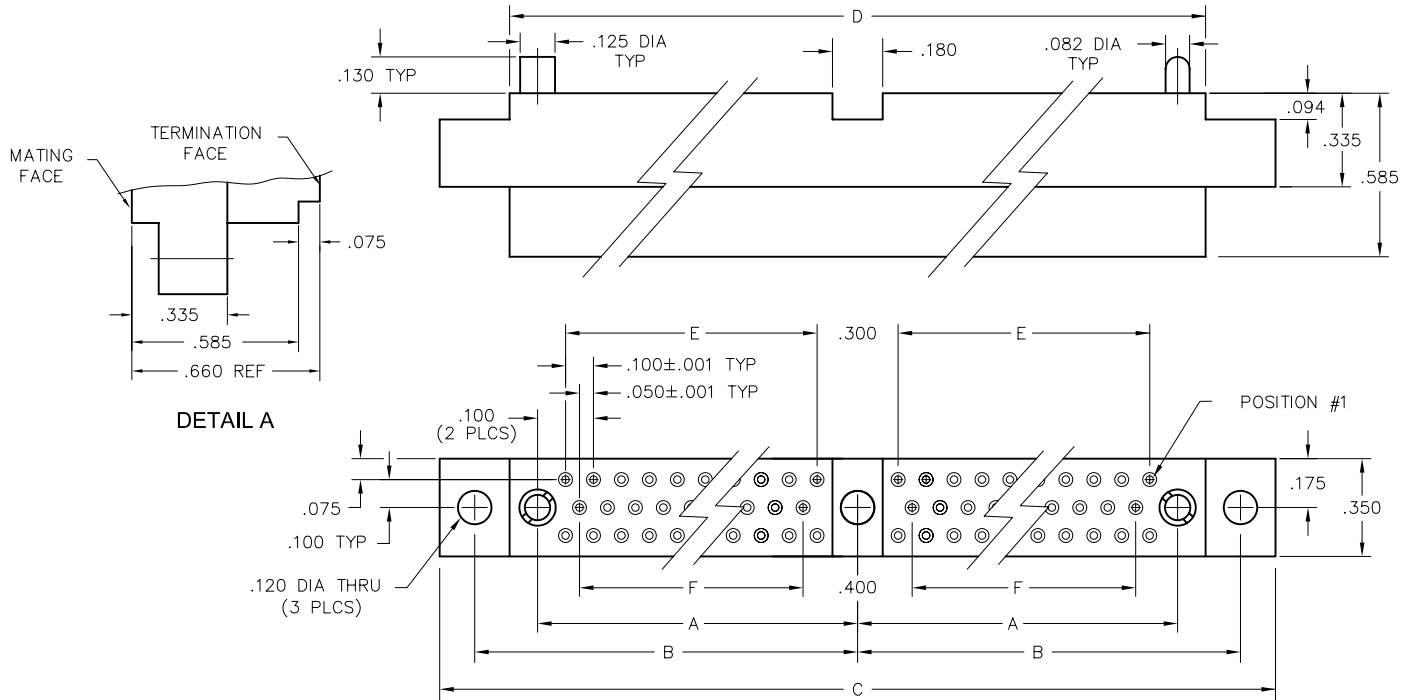
**HARDWARE**

- Plug facial seal gaskets and hoods; order separately or add "Q" in part number. Example: WTA10PD9QJ. See "Gaskets" and "Hoods" in Accessories section for instructions.

SY Guide set	SY Guide set
SY-# Guide set, polarized	SY-# Guide set, polarized

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WGKA80SSY-C45. Call factory for additional codes.
- 548 Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
- A53 Socket, straight, crimp removable, 20 AWG
- C45 Additional .075" material at termination face for strain relief of crimped wires (22 AWG only). See Detail A below.



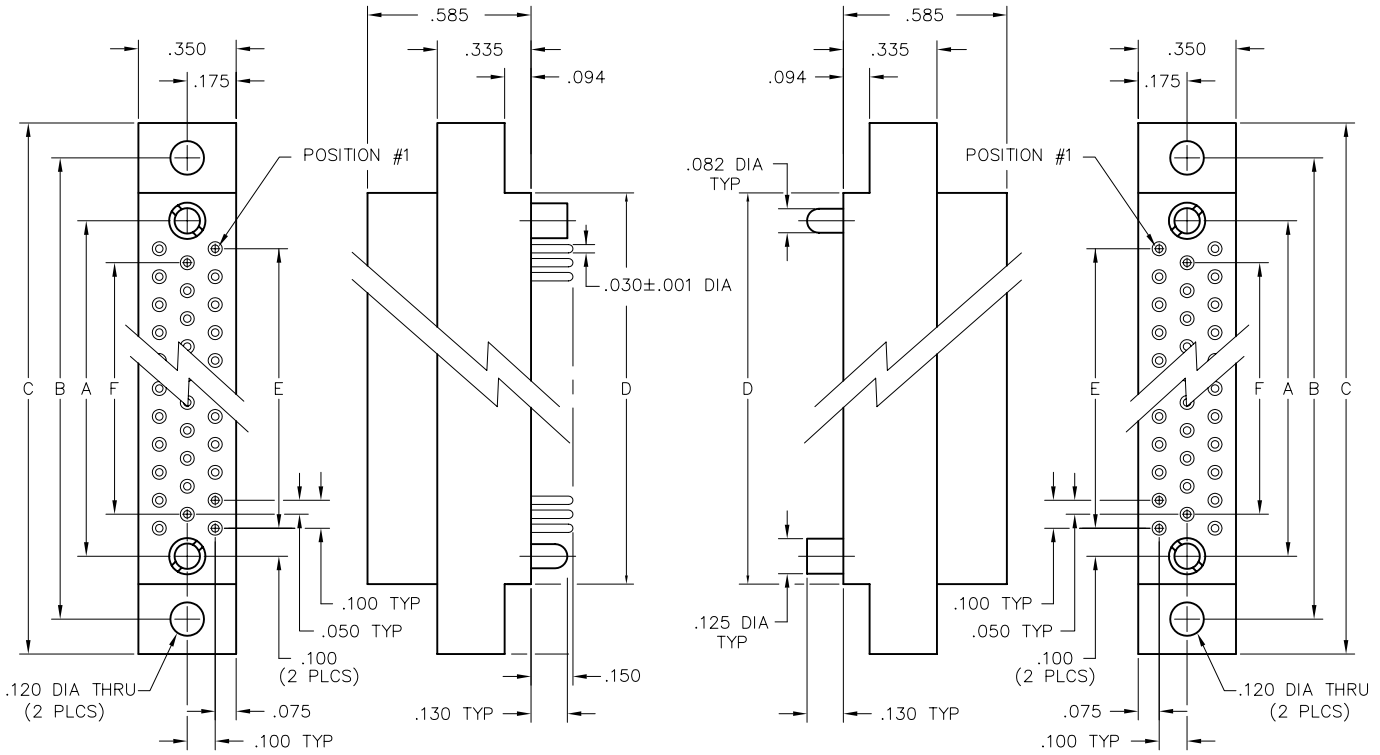
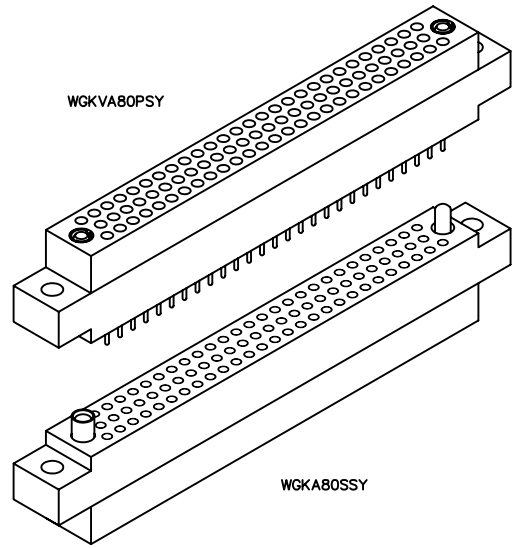
EXAMPLE: WGKA160SSY

# 3 • ROW Chassis to Chassis

.100"

## WGKVA - WGKA

50 thru 160



PLUG

RECEPTACLE

DIMENSIONS						
SIZE	A	B	C	D	E	F
50	1.800	2.250	2.500	2.000	1.600	1.500
62	2.200	2.650	2.900	2.400	2.000	1.900
80	2.800	3.250	3.500	3.000	2.600	2.500
92	3.200	3.650	3.900	3.400	3.000	2.900
104	3.600	4.050	4.300	3.800	3.400	3.300
160*	2.850	3.075	6.400	5.900	2.600	2.500

\* = SEE OPPOSITE PAGE FOR 160 POSITION CONFIGURATION

PLUG: WGKVA 80 P SY  
 RECEPTACLE: WGKA 80 S SY  
 XXXXX XX XXX XX

**PLUG**

**RECEPTACLE**

**SERIES**

<p>WGKVA Plug, straight, crimp removable, with mounting ears</p> <ul style="list-style-type: none"> <li>WGKVA and WGKA also mate with WG or WGV connectors. "A" means contacts are included.</li> </ul>	<p>WGKA Receptacle, straight, crimp removable, with mounting ears</p>
---	---

**SIZE**

XX Number of contacts (50, 62, 80, 92, 104 or 160)	XX Number of contacts (50, 62, 80, 92, 104 or 160)
--	--

**CONTACTS**

- The use of gaskets is not recommended with crimp socket contacts.
- When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.

**TYPE CONTACTS/TERMINATIONS:**

P Pin, straight, crimp removable, 22 AWG  
 S Socket, straight, crimp removable, 22 AWG  
 SA Same as above

**TYPE CONTACTS/TERMINATIONS:**

S Socket, straight, crimp removable, 22 AWG  
 SA Same as above  
 P Pin, straight, crimp removable, 22 AWG

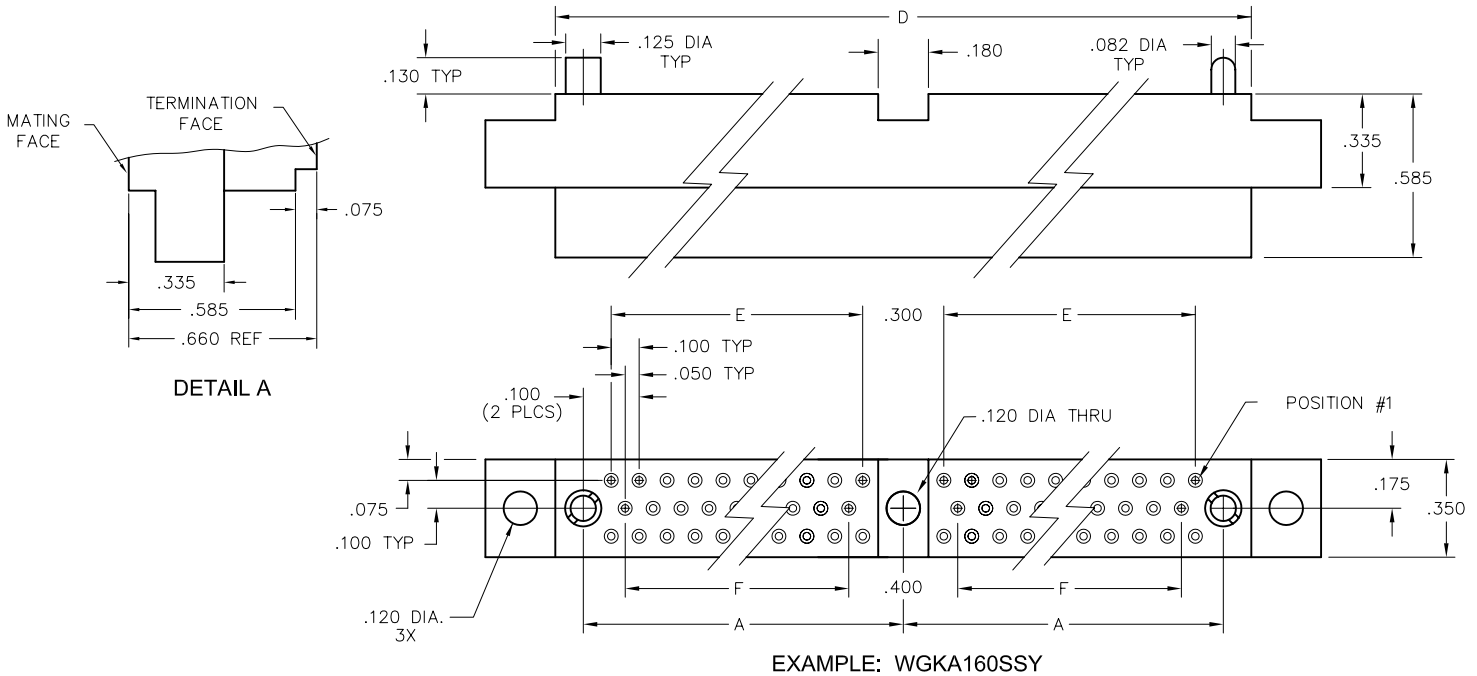
**HARDWARE**

SY Guide set  
 SY-# Guide set, polarized  
 J Fixed jackset  
 JT Turning jackset, .500"  
 JTA Turning jackset, .200"  
 JTB Hex turning jackset, .200"  
 JTC Hex turning jackset, .500"  
 JTL Turning jackset, long, .700"

SY Guide set  
 SY-# Guide set, polarized  
 J Fixed jackset  
 JT Turning jackset, .500"  
 JTA Turning jackset, .200"  
 JTB Hex turning jackset, .200"  
 JTC Hex turning jackset, .500"  
 JTL Turning jackset, long, .700"

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WGDXA80SSY-C45. Call factory for additional codes.
- A53 Socket, straight, crimp removable, 20 AWG
- C45 Additional .075" material at termination face for strain relief of crimped wires (22 AWG only). See Detail A below.





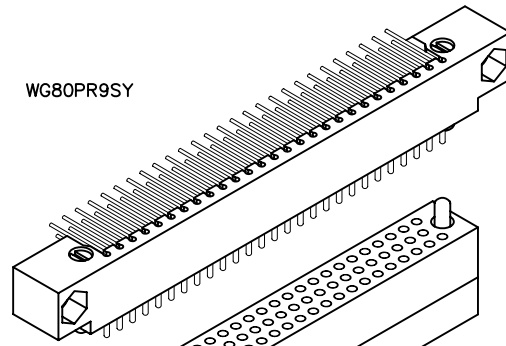
# 3 • ROW PC Card to Chassis

.100"

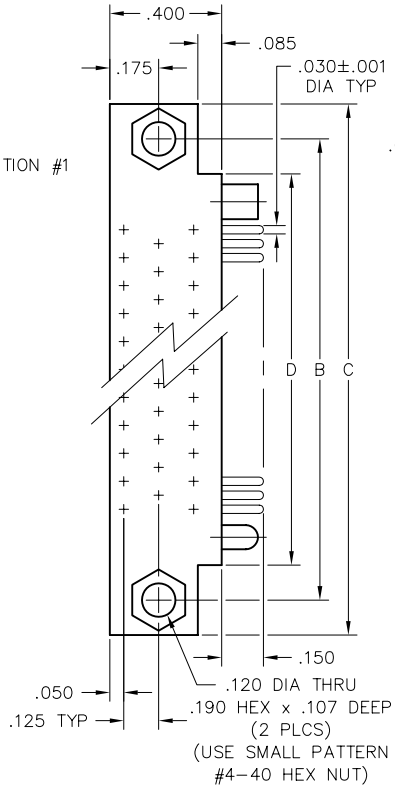
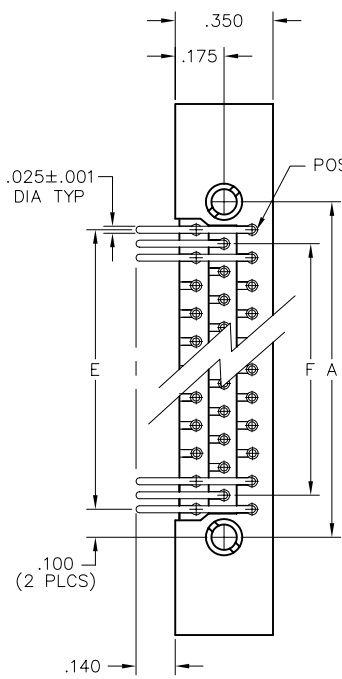
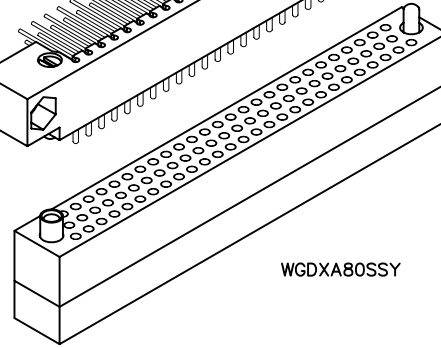
**WG - WGDXA**

50 thru 160

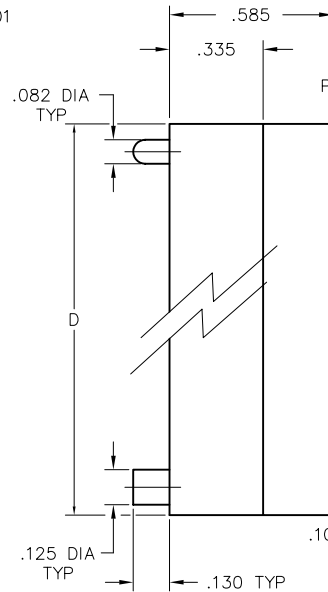
WG80PR9SY



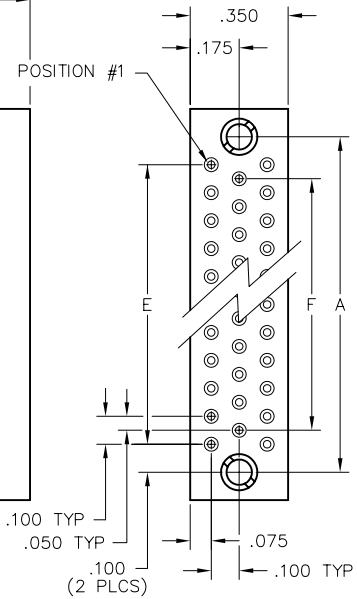
WGDXA80SSY



PLUG



RECEPTACLE



DIMENSIONS						
SIZE	A	B	C	D	E	F
50	1.800	2.250	2.500	2.000	1.600	1.500
62	2.200	2.650	2.900	2.400	2.000	1.900
80	2.800	3.250	3.500	3.000	2.600	2.500
92	3.200	3.650	3.900	3.400	3.000	2.900
104	3.600	4.050	4.300	3.800	3.400	3.300
160*	2.850	3.075	6.400	5.900	2.600	2.500

\* = SEE OPPOSITE PAGE FOR 160 POSITION CONFIGURATION

PLUG: WG 80 PR9 SY  
 RECEPTACLE: WGDXA 80 S SY  
 XXXXX XX XXX XX

**PLUG**

**RECEPTACLE**

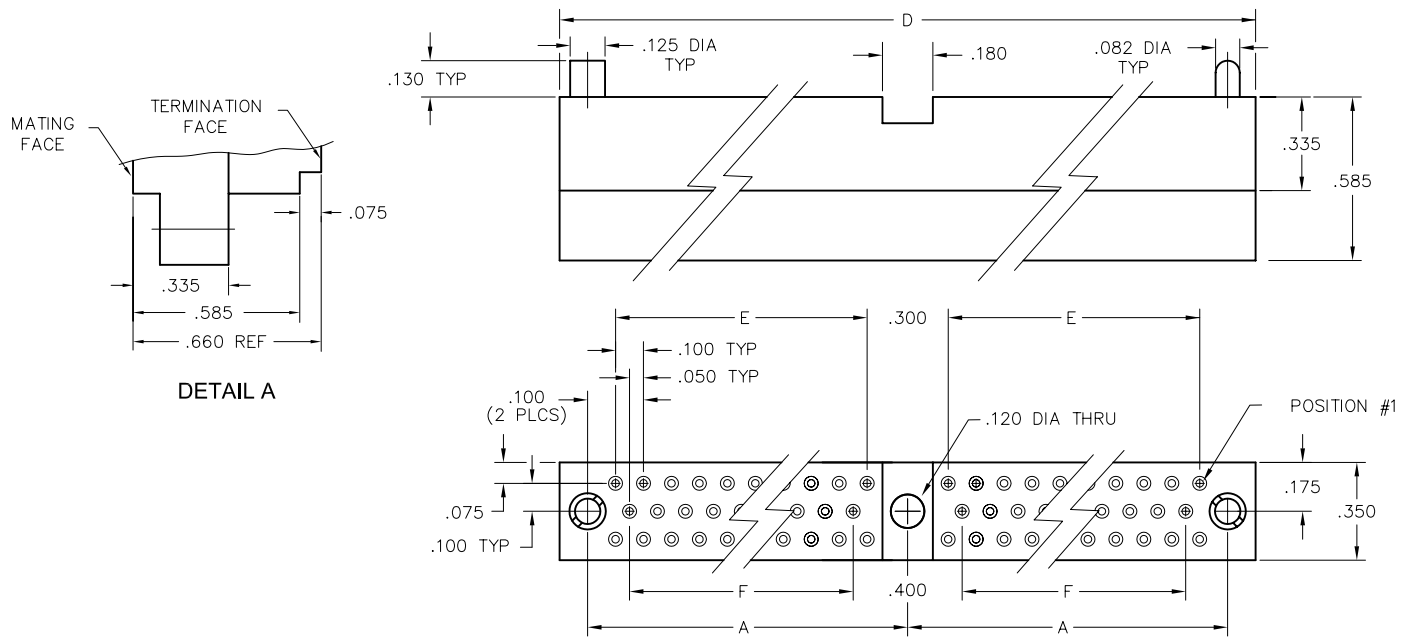
SERIES	
WG Plug, right angle, with mounting ears	WGDXA Receptacle, straight, crimp removable, without mounting ears
<ul style="list-style-type: none"> <li>WGKA and WGDXA also mate with WGV connectors. "A" means contacts are included.</li> </ul>	

SIZE	
XX Number of contacts (50, 62, 80, 92, 104 or 160)	XX Number of contacts (50, 62, 80, 92, 104 or 160)

CONTACTS	
<ul style="list-style-type: none"> <li>The use of gaskets is not recommended with crimp socket contacts.</li> <li>The contact type determines the image of the connector. Pin, right angle contacts are always plug image. Straight pin or sockets are receptacle image.</li> <li>When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.</li> </ul>	
<p>TYPE CONTACTS/TERMINATIONS:</p> <p>PR7 Pin, right angle, dip solder, .109" x .025" dia</p> <p>PR9 Pin, right angle, dip solder, .140" x .025" dia</p> <p>PR11 Pin, right angle, dip solder, .172" x .025" dia</p> <p>PRW40 Pin, right angle, wire wrap®, .625"</p>	<p>TYPE CONTACTS/TERMINATIONS:</p> <p>S Socket, straight, crimp removable, 22 AWG</p> <p>SA Same as above</p> <p>P Pin, straight, crimp removable, 22 AWG</p>

HARDWARE	
SY Guide set	SY Guide set
SY# Guide set, polarized	SY# Guide set, polarized
J Fixed jackset	J Fixed jackset
	JT Turning jackset, .500"
	JTA Turning jackset, .200"
	JTB Hex turning jackset, .200"
	JTC Hex turning jackset, .500"
	JTL Turning jackset, long, .700"

OPTIONS	
<ul style="list-style-type: none"> <li>Option Codes: Add to the end of the part number. Example: WGDXA80SSY-C45. Call factory for additional codes.</li> </ul>	
-548	Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
-A53	Socket, straight, crimp removable, 20 AWG
-C45	Additional .075" material at termination face for strain relief of crimped wires (22 AWG only). See Detail A below.



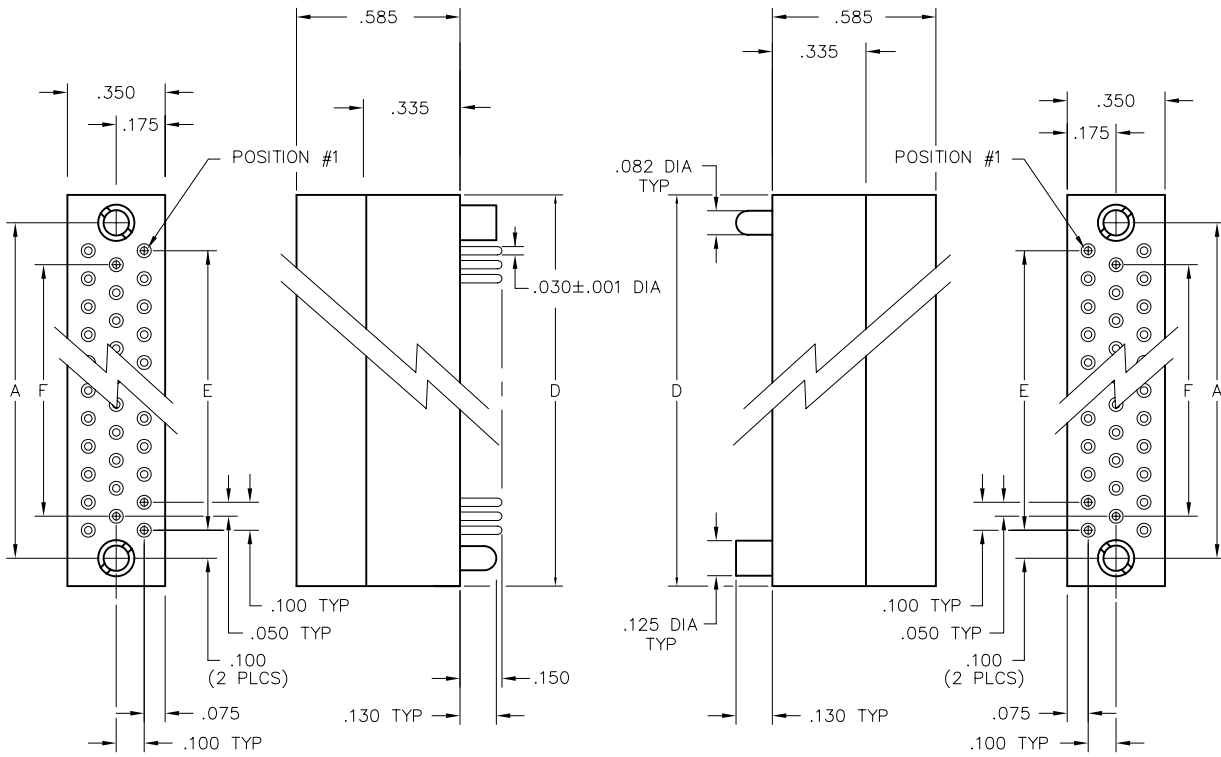
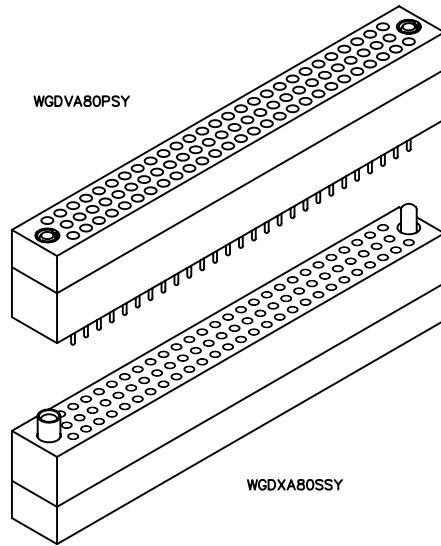


# 3 • ROW Chassis to Chassis

.100"

## WGDVA - WGDXA

50 thru 160



PLUG

RECEPTACLE

DIMENSIONS				
SIZE	A	D	E	F
50	1.800	2.000	1.600	1.500
62	2.200	2.400	2.000	1.900
80	2.800	3.000	2.600	2.500
92	3.200	3.400	3.000	2.900
104	3.600	3.800	3.400	3.300
160*	2.850	5.900	2.600	2.500

\* = SEE OPPOSITE PAGE FOR 160 POSITION CONFIGURATION



PLUG: WGDVA 80 P SY  
 RECEPTACLE: WGDXA 80 S SY  
 XXXXX XX XXX XX

**PLUG**

**RECEPTACLE**

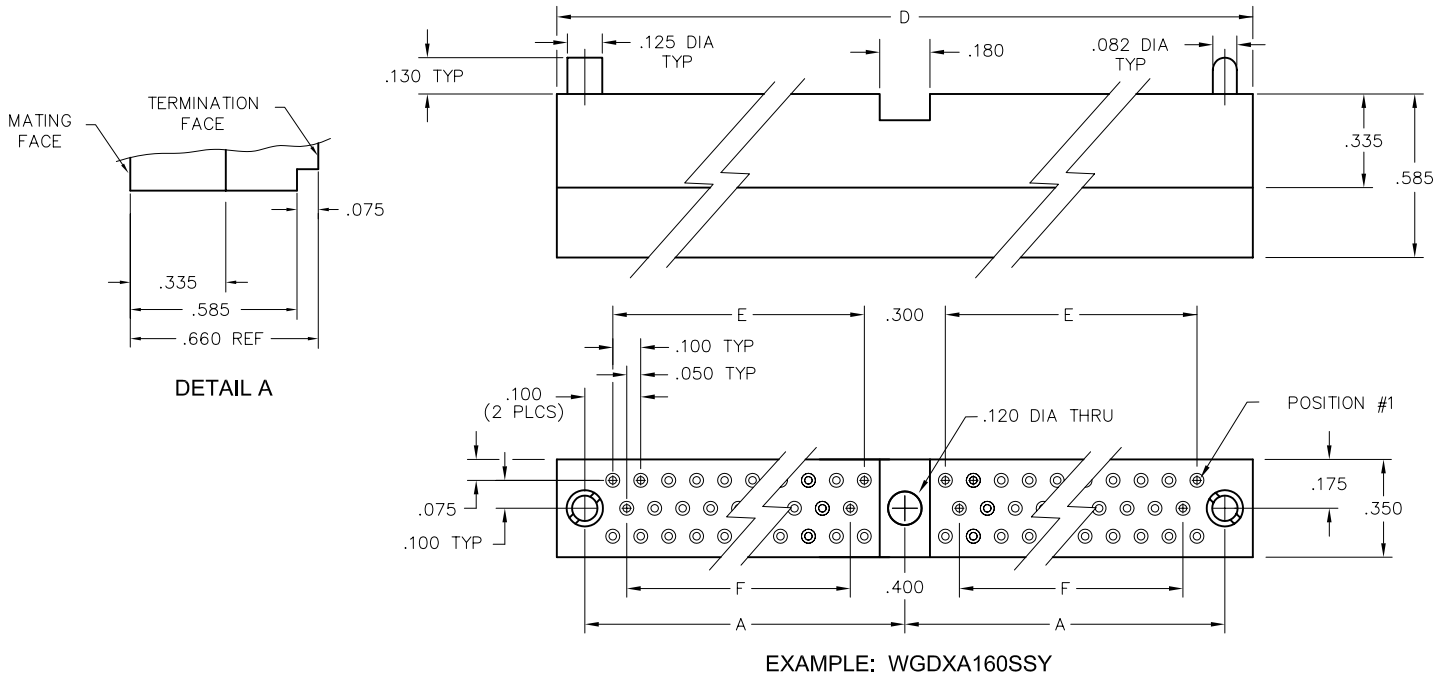
SERIES	
WGDVA Plug, straight, crimp removable, without mounting ears	WGDXA Receptacle, straight, crimp removable, without mounting ears
<ul style="list-style-type: none"> <li>WGDVA and WGDXA also mate with WG or WGV connectors. "A" means contacts are included.</li> </ul>	

SIZE	
XX Number of contacts (50, 62, 80, 92, 104 or 160)	XX Number of contacts (50, 62, 80, 92, 104 or 160)

CONTACTS	
<ul style="list-style-type: none"> <li>The use of gaskets is not recommended with crimp socket contacts.</li> <li>When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.</li> </ul>	
<p>TYPE CONTACTS/TERMINATIONS:</p> <p>P Pin, straight, crimp removable, 22 AWG</p> <p>S Socket, straight, crimp removable, 22 AWG</p> <p>SA Same as above</p>	<p>TYPE CONTACTS/TERMINATIONS:</p> <p>S Socket, straight, crimp removable, 22 AWG</p> <p>SA Same as above</p> <p>P Pin, straight, crimp removable, 22 AWG</p>

HARDWARE	
SY Guide set	SY Guide set
SY-# Guide set, polarized	SY-# Guide set, polarized
J Fixed jackset	J Fixed jackset
JT Turning jackset, .500"	JT Turning jackset, .500"
JTA Turning jackset, .200"	JTA Turning jackset, .200"
JTB Hex turning jackset, .200"	JTB Hex turning jackset, .200"
JTC Hex turning jackset, .500"	JTC Hex turning jackset, .500"
JTL Turning jackset, long, .700"	JTL Turning jackset, long, .700"

OPTIONS	
<ul style="list-style-type: none"> <li>Option Codes: Add to the end of the part number. Example: WGDXA80SSY-C45. Call factory for additional codes.</li> </ul>	
-A53 Socket, straight, crimp removable, 20 AWG	
-C45 Additional .075" material at termination face for strain relief of crimped wires (22 AWG only). See Detail A below.	



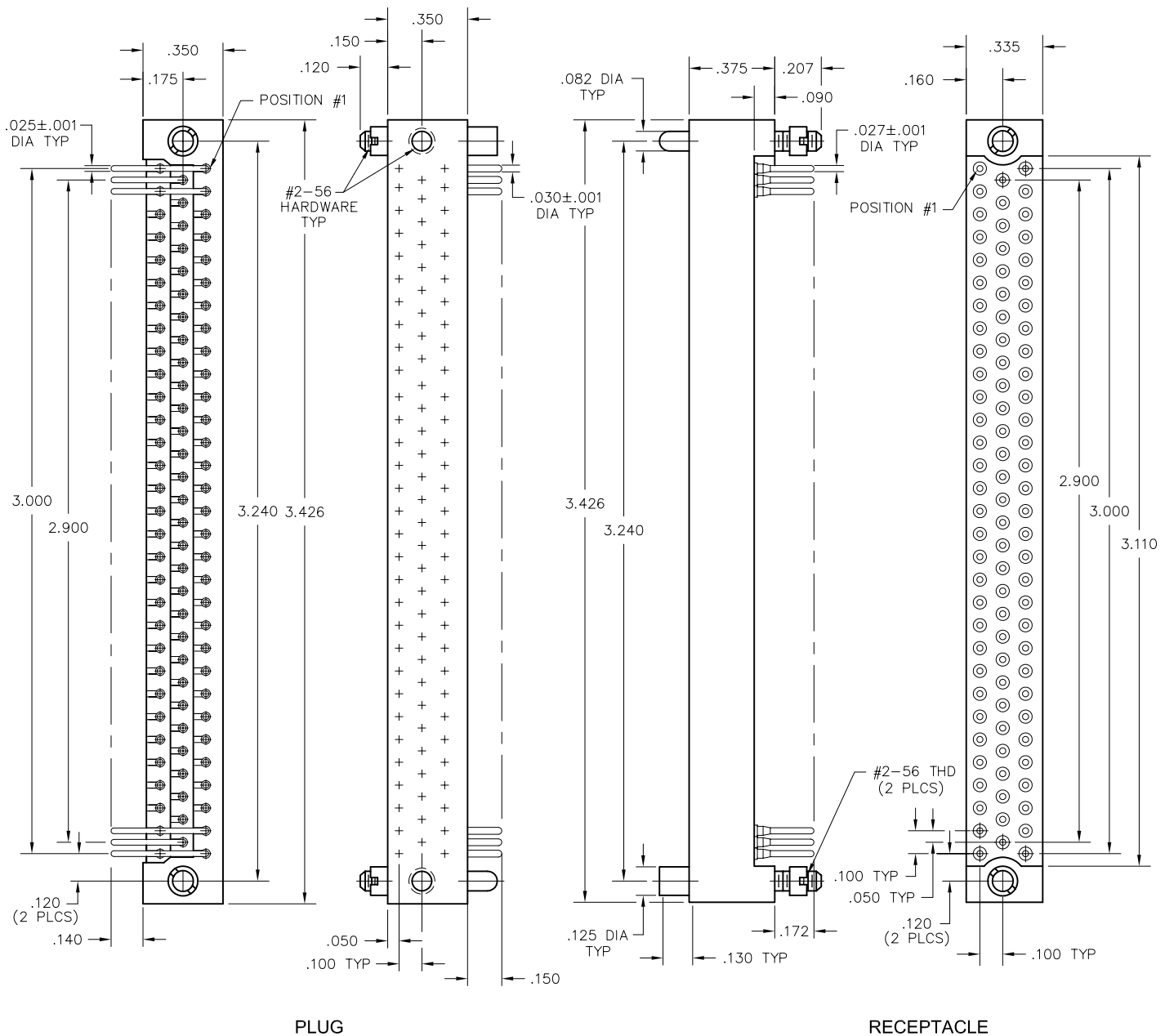
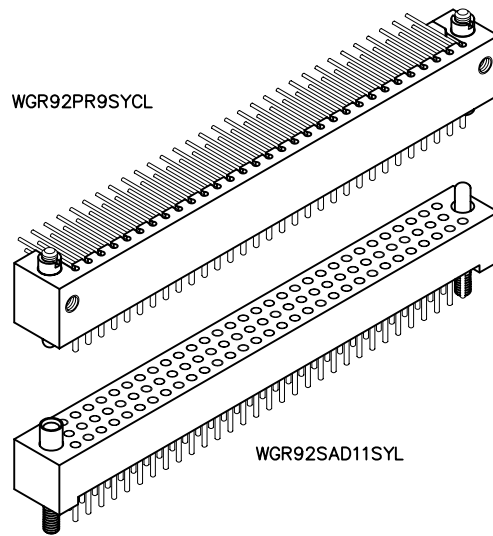


# 3 • ROW PC Card to Board or Chassis

.100"

**WGR - WGR**

92 Contacts



PLUG: WGR 92 PR9 SYCL  
 RECEPTACLE: WGR 92 SAD11 SYL  
 XXX XX XXXXX XXXX

**PLUG**

**RECEPTACLE**

SERIES	
WGR Plug, right angle, without mounting ears	WGR Receptacle, straight, without mounting ears

SIZE	
92 Number of contacts	92 Number of contacts

CONTACTS	
----------	--

- When pin contacts are used, standard hardware orientation places the female hardware next to the #1 pin contact.
- When socket contacts are used, standard hardware orientation places the male hardware next to the #1 socket contact.

TYPE CONTACTS/TERMINATIONS:

PR7	Pin, right angle, dip solder, .109" x .025" dia
PR9	Pin, right angle, dip solder, .140" x .025" dia
PR11	Pin, right angle, dip solder, .172" x .025" dia

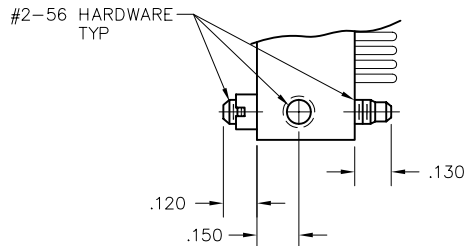
TYPE CONTACTS/TERMINATIONS:

SAC	Socket, straight, solder cup (.035" I.D.)
SAD7	Socket, straight, dip solder, .109" x .027" dia
SAD9	Socket, straight, dip solder, .140" x .027" dia
SAD11	Socket, straight, dip solder, .172" x .027" dia
SAD16	Socket, straight, dip solder, .250" x .027" dia
SAG7	Socket, straight, dip solder, .109" x .018" dia
SAG9	Socket, straight, dip solder, .140" x .018" dia
SAG11	Socket, straight, dip solder, .172" x .018" dia
SAP	Socket, straight, pin termination .150", connector saver
SAW40	Socket, straight, wire wrap®, .625"
SAF6	Socket, straight, flex circuit, .093"

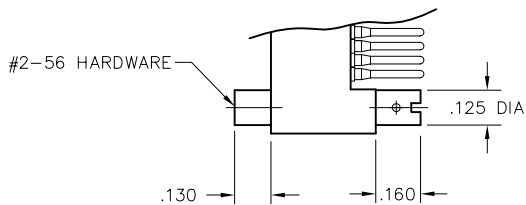
HARDWARE	
SYCL Guide set, cross hole mount	SYL Guide set, long
JCL Fixed jackset, cross hole mount	JT Turning jackset, .460"
	JTA Turning jackset, .160"

OPTIONS	
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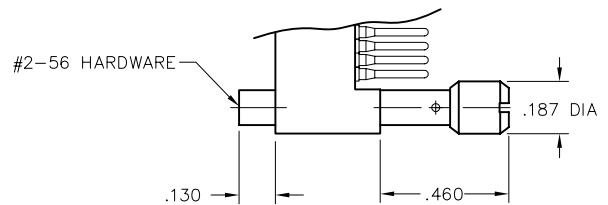
- Option Codes: Add to the end of the part number. Example: WGR92PR9JCL-D01. Call factory for additional codes.
- D01 Pretinned contact terminations (except solder cups, wire wraps® and flex contacts) with 63/37 or 60/40 solder.
- P39 Pretinned contact terminations (except solder cups, wire wraps® and flex contacts) with SAC305 solder (lead free).
- = Option not RoHS compliant



EXAMPLE: -JCL HARDWARE (PLUG)



EXAMPLE: -JTA HARDWARE (RECEPTACLE)



EXAMPLE: -JT HARDWARE (RECEPTACLE)



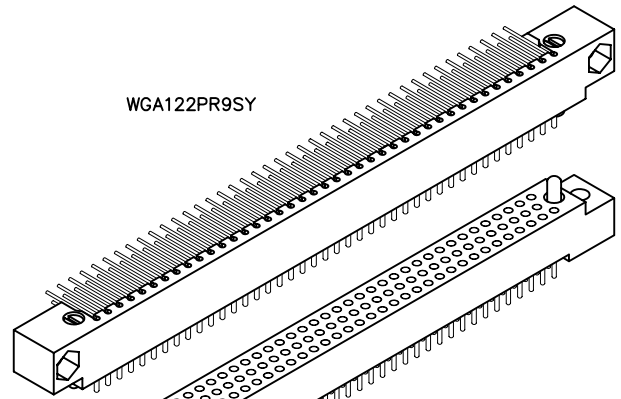
# 3 • ROW PC Card to Board or Chassis

.100"

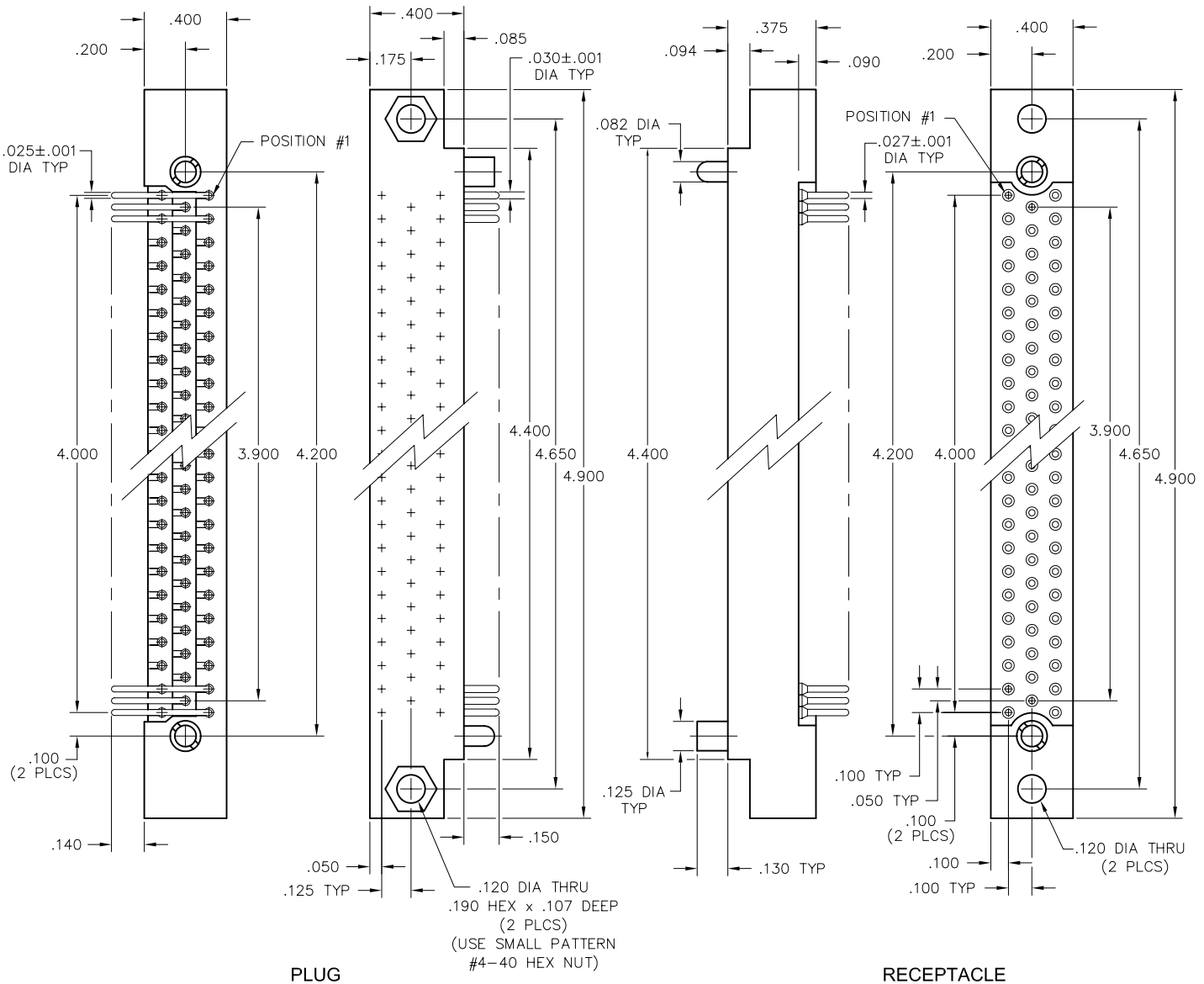
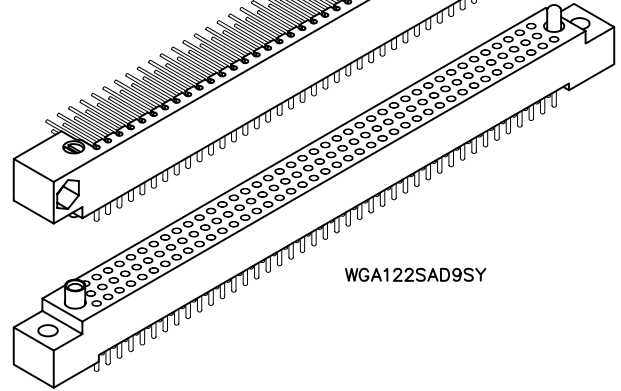
**WGA - WGA**

122 Contacts

WGA122PR9SY



WGA122SAD9SY



**PLUG**

**RECEPTACLE**

SERIES	
WGA Plug, right angle, with mounting ears	WGA Receptacle, straight, with mounting ears WGA Receptacle, right angle, with mounting ears

SIZE	
122 Number of contacts	122 Number of contacts

**CONTACTS**

- The contact type determines image of connector. Pin, right angle contacts are always plug image. Straight pin contacts or socket contacts are receptacle image.

TYPE CONTACTS/TERMINATIONS:

PR7	Pin, right angle, dip solder, .109" x .025" dia
PR9	Pin, right angle, dip solder, .140" x .025" dia
PR11	Pin, right angle, dip solder, .172" x .025" dia
PRW32	Pin, right angle, wire wrap <sup>®</sup> , .500"

TYPE CONTACTS/TERMINATIONS:

SAC	Socket, straight, solder cup (.035" I.D.)
SAD7	Socket, straight, dip solder, .109" x .027" dia
SAD9	Socket, straight, dip solder, .140" x .027" dia
SAD11	Socket, straight, dip solder, .172" x .027" dia
SAF3	Socket, straight, flex circuit, .050"
SAF6	Socket, straight, flex circuit, .093"
SAF9	Socket, straight, flex circuit, .140"
SAG7	Socket, straight, dip solder, .109" x .018" dia
SAG9	Socket, straight, dip solder, .140" x .018" dia
SAG11	Socket, straight, dip solder, .172" x .018" dia
SAP	Socket, straight, pin termination .150", connector saver
SAW24	Socket, straight, wire wrap <sup>®</sup> , .375"
SAW40	Socket, straight, wire wrap <sup>®</sup> , .625"
SOR7	Socket, right angle, dip solder, .109" x .025" dia
SOR9	Socket, right angle, dip solder, .140" x .025" dia
SOR11	Socket, right angle, dip solder, .172" x .025" dia

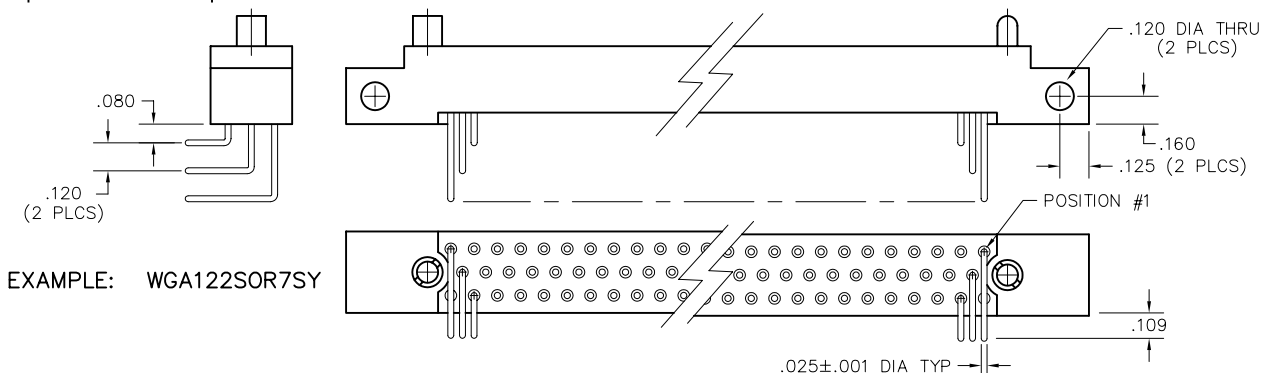
**HARDWARE**

SY	Guide set	SY	Guide set
SY-#	Guide set, polarized	SY-#	Guide set, polarized
SYL	Guide set, long	SYL	Guide set, long
J	Fixed jackset	J	Fixed jackset
JT	Turning jackset, .435"	JL	Fixed jackset, long
JTA	Turning jackset, .135"	JT	Turning jackset, .460"
JTB	Hex turning jackset, .135"	JTA	Turning jackset, .160"
JTC	Turning jackset, .435"	JTB	Hex turning jackset, .160"
JTL	Turning jackset, long, .635"	JTC	Turning jackset, .460"
		JTL	Turning jackset, long, .660"

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WGA122PR9SY548. Call factory for additional codes.
- 342 Remove mounting ears. (.250" each end)
- 548 Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
- B82 Termination face sealed against conformal coating
- D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder. ☒
- P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)
- 413 Straight pin contacts in right angle plug molding with solder cup terminals extending .100" beyond molding.
- D54 Combine -B82 and -D01 special codes.

☒ = Option not RoHS compliant





PLUG: WGAV 122 PD9 SY  
 RECEPTACLE: WGA 122 SAD9 SY  
 XXXX XXX XXXX XX

**PLUG**

**RECEPTACLE**

SERIES	
WGAV Plug, straight, with mounting ears	WGA Receptacle, straight, with mounting ears WGA Receptacle, right angle, with mounting ears

SIZE	
122 Number of contacts	122 Number of contacts

**CONTACTS**

- Pin or socket contacts can be used in either plug or receptacle.
- When pin contacts are used, standard hardware orientation places the female hardware next to the #1 pin contact.
- When socket contacts are used, standard hardware orientation places the male hardware next to the #1 socket contact.

TYPE CONTACTS/TERMINATIONS:

PC	Pin, straight, solder cup (.035" I.D.)
PD7	Pin, straight, dip solder, .109" x .027" dia
PD9	Pin, straight, dip solder, .140" x .027" dia
PD11	Pin, straight, dip solder, .172" x .027" dia
PD15	Pin, straight, dip solder, .234" x .027" dia
PF6	Pin, straight, flex circuit, .093"

TYPE CONTACTS/TERMINATIONS:

SAC	Socket, straight, solder cup (.035" I.D.)
SAD7	Socket, straight, dip solder, .109" x .027" dia
SAD9	Socket, straight, dip solder, .140" x .027" dia
SAD11	Socket, straight, dip solder, .172" x .027" dia
SAF3	Socket, straight, flex circuit, .050"
SAF6	Socket, straight, flex circuit, .093"
SAF9	Socket, straight, flex circuit, .140"
SAG7	Socket, straight, dip solder, .109" x .018" dia
SAG9	Socket, straight, dip solder, .140" x .018" dia
SAG11	Socket, straight, dip solder, .172" x .018" dia
SAP	Socket, straight, pin termination .150", connector saver
SAW24	Socket, straight, wire wrap <sup>®</sup> , .375"
SAW40	Socket, straight, wire wrap <sup>®</sup> , .625"
SOR7	Socket, right angle, dip solder, .109" x .025" dia
SOR9	Socket, right angle, dip solder, .140" x .025" dia
SOR11	Socket, right angle, dip solder, .172" x .025" dia

**HARDWARE**

- Plug facial seal gaskets and hoods; order separately or add "Q" in part number. Example: WGAV122PD9QJ. See "Gaskets" and "Hoods" in Accessories section for instructions.

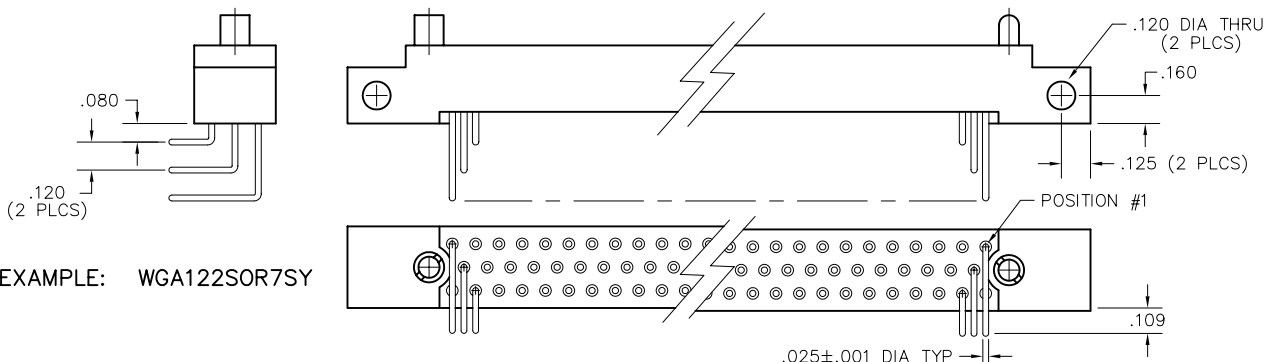
SY	Guide set
SY-#	Guide set, polarized
SYL	Guide set, long
J	Fixed jackset
JL	Fixed jackset, long
JT	Turning jackset, .460"
JTA	Turning jackset, .160"
JTB	Hex turning jackset, .160"
JTC	Hex turning jackset, .460"
JTL	Turning jackset, long, .660"

SY	Guide set
SY-#	Guide set, polarized
SYL	Guide set, long
J	Fixed jackset
JL	Fixed jackset, long
JT	Turning jackset, .460"
JTA	Turning jackset, .160"
JTB	Hex turning jackset, .160"
JTC	Hex turning jackset, .460"
JTL	Turning jackset, long, .660"

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WGAV122PD9SY-D01. Call factory for additional codes.
- 342 Remove mounting ears, (.250" each end)
- B82 Termination face sealed against conformal coating
- D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
- P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- G69 Solder cups fixed in an outward orientation (otherwise contacts will rotate)

= Option not RoHS compliant



EXAMPLE: WGA122SOR7SY





PLUG: WRF 100 PC JTL  
 RECEPTACLE: WRF 100 SAD11 JL  
 XXX XXX XXXXX XXX

**PLUG**

**RECEPTACLE**

SERIES	
WRF	Plug, straight, without mounting ears
WRF	Receptacle, straight, without mounting ears

SIZE	
100	Number of contacts
100	Number of contacts

CONTACTS	
<ul style="list-style-type: none"> <li>• Contact identification: Looking at the mating face of the connector, each contact has a double indicator designation, including a row letter and a position number. Rows "A" &amp; "C" contain odd numbers 1 thru 49; rows "B" &amp; "D" contain even numbers 2 thru 50.</li> </ul>	
PC	Pin, straight, solder cup
PD11	Pin, straight, dip solder, .172" x .027" dia
PF6	Pin, straight, flex circuit, .093"
SAC	Socket, straight, solder cup (.035" I.D.)
SAD9	Socket, straight, dip solder, .140" x .027" dia
SAD11	Socket, straight, dip solder, .172" x .027" dia
SAP	Socket, straight, pin termination .150", connector saver

HARDWARE	
JTB	Hex turning jackset, .200"
JTL	Long turning jackset, .700"
J	Fixed jackset
JL	Fixed jackset, long

OPTIONS	
<ul style="list-style-type: none"> <li>• Option Codes: Add to the end of the part number. Example: WRF100SAD11JL-D54. Call factory for additional codes.</li> </ul>	
-B82	Termination face sealed against conformal coating
-D01	Pretinned contact terminations (except solder cups, wire wraps <sup>®</sup> and flex contacts) with 63/37 or 60/40 solder. <input checked="" type="checkbox"/>
-P39	Pretinned contact terminations (except solder cups, wire wraps <sup>®</sup> and flex contacts) with SAC305 solder (lead free).
-D54	Combine -B82 & -D01 special codes
<input checked="" type="checkbox"/> = Option not RoHS compliant	



PLUG: WRD 122 PR11 JCL  
 RECEPTACLE: WRD 122 SAC JTA  
 XXX XXX XXXX XXX

**PLUG**

**RECEPTACLE**

**SERIES**

WRD Plug, right angle, without mounting ears	WRD Receptacle, straight, without mounting ears
	WRD Receptacle, right angle, without mounting ears

**SIZE**

122 Number of contacts	122 Number of contacts
------------------------	------------------------

**CONTACTS**

TYPE CONTACTS/TERMINATIONS:	TYPE CONTACTS/TERMINATIONS:
PR5 Pin, right angle, dip solder, .078" x .025" dia	SAC Socket, straight, solder cup (.035" I.D.)
PR7 Pin, right angle, dip solder, .109" x .025" dia	SAD7 Socket, straight, dip solder, .109" x .027" dia
PR9 Pin, right angle, dip solder, .140" x .025" dia	SAD9 Socket, straight, dip solder, .140" x .027" dia
PR11 Pin, right angle, dip solder, .172" x .025" dia	SAD11 Socket, straight, dip solder, .172" x .027" dia
	SAD15 Socket, straight, dip solder, .234" x .027" dia
	SAF3 Socket, straight, flex circuit, .050"
	SAF6 Socket, straight, flex circuit, .093"
	SAG7 Socket, straight, dip solder, .109" x .018" dia
	SAG9 Socket, straight, dip solder, .140" x .018" dia
	SAG11 Socket, straight, dip solder, .172" x .018" dia
	SAP Socket, straight, pin termination .150", connector saver
	SOR9 Socket, right angle, dip solder, .140"

**HARDWARE**

SYCL Guide set, cross hole mount	J Fixed Jackset
SYCL-# Guide set, cross hole mount, polarized	JTA Turning jackset, .160"
JCL Fixed jackset, cross hole mount	JTB Hex turning jackset, .160"
JTB Turning jackset, no cross hole	JTL Long turning jackset, .640"
	SY Guide set
	SY-# Guide set, polarized

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WRD122SAD9SY-D54. Call factory for additional codes.
  - B82 Termination face sealed against conformal coating
  - D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
  - P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
  - D54 Combine -B82 & -D01 special codes
- = Option not RoHS compliant



PLUG: WRDV 122 PD9 JL  
 RECEPTACLE: WRD 122 SAD9 JTA  
 XXXX XXX XXXX XXX

**PLUG**

**RECEPTACLE**

**SERIES**

WRDV Plug, straight, without mounting ears	WRD Receptacle, straight, without mounting ears
	WRD Receptacle, right angle, without mounting ears

**SIZE**

122 Number of contacts	122 Number of contacts
------------------------	------------------------

**CONTACTS**

- Pin or socket contacts can be used in either plug or receptacle.
- When pin contacts are used, standard hardware orientation places the female hardware next to the #1 pin contact.
- When socket contacts are used, standard hardware orientation places the male hardware next to the #1 socket contact.

**TYPE CONTACTS/TERMINATIONS:**

PC	Pin, straight, solder cup (.035" I.D.)
PD7	Pin, straight, dip solder, .109" x .027" dia
PD9	Pin, straight, dip solder, .140" x .027" dia
PD11	Pin, straight, dip solder, .172" x .027" dia
PD15	Pin, straight, dip solder, .234" x .027" dia

**TYPE CONTACTS/TERMINATIONS:**

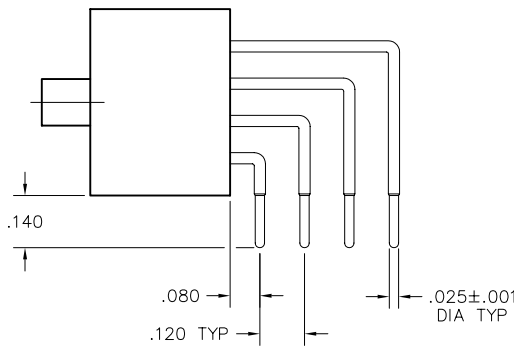
SAC	Socket, straight, solder cup (.035" I.D.)
SAD7	Socket, straight, dip solder, .109" x .027" dia
SAD9	Socket, straight, dip solder, .140" x .027" dia
SAD11	Socket, straight, dip solder, .172" x .027" dia
SAD15	Socket, straight, dip solder, .234" x .027" dia
SAF3	Socket, straight, flex circuit, .050"
SAF6	Socket, straight, flex circuit, .093"
SAG7	Socket, straight, dip solder, .109" x .018" dia
SAG9	Socket, straight, dip solder, .140" x .018" dia
SAG11	Socket, straight, dip solder, .172" x .018" dia
SAP	Socket, straight, pin termination .150", connector saver
SOR9	Socket, right angle, dip solder, .140" x .025" dia

**HARDWARE**

J	Fixed jackset	J	Fixed jackset
JL	Fixed jackset, long	JL	Fixed jackset, long
JTA	Turning jackset, .160"	JTA	Turning jackset, .160"
JTB	Hex turning jackset, .160"	JTB	Hex turning jackset, .160"
JTL	Long turning jackset, .660"	JTL	Long turning jackset, .660"
SY	Guide set	SY	Guide set
SY-#	Guide set, polarized	SY-#	Guide set, polarized

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WRD122SAD9SY-D01. Call factory for additional codes.
  - B82 Termination face sealed against conformal coating
  - D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
  - P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
  - D54 Combine -B82 & -D01 special codes
- = Option not RoHS compliant



EXAMPLE: WRD122SOR9J



PLUG: WRD 122 PR11 JCL  
 RECEPTACLE: WRDDXA 122 S JTB  
 XXXXX XX XXX XX

**PLUG**

**RECEPTACLE**

**SERIES**

WRD Plug, right angle, without mounting ears	WRDDXA Receptacle, straight, crimp removable, without mounting ears
--	---

- WRDDXA mates with WRD and WRDV connectors. "A" means contacts are included.

**SIZE**

122 Number of contacts	122 Number of contacts
------------------------	------------------------

**CONTACTS**

- The use of gaskets is not recommended with crimp socket contacts.
- WRDDXA\*\* includes full complement of WTK2222 (S or PA) crimp removable contacts packaged with connectors. See "Contacts" in Accessories section to order separately.
- When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.

**TYPE CONTACTS/TERMINATIONS:**

PR7 Pin, right angle, dip solder, .109" x .025" dia  
 PR9 Pin, right angle, dip solder, .140" x .025" dia  
 PR11 Pin, right angle, dip solder, .172" x .025" dia

**TYPE CONTACTS/TERMINATIONS:**

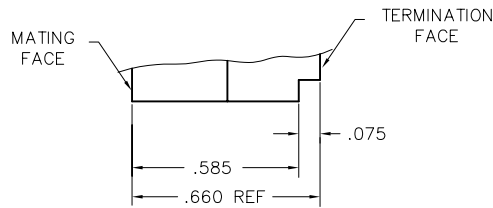
S Socket, straight, crimp removable, 22 AWG  
 SA Same as above  
 P Pin, straight, crimp removable, 22 AWG

**HARDWARE**

JCL Fixed jackset, cross hole mount	SY Guide set
SYCL Guide set, cross hole mount	SY-# Guide set, polarized
SYCL-# Guide set, cross hole mount, polarized	SYL Guide set, long
	JTA Turning jackset, .200"
	JTB Hex turning jackset, .200"
	JTL Long turning jackset, .700"

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: WRDDXA122SSY-C45. Call factory for additional codes.
- A53 Socket, straight, crimp removable, 20 AWG
- C45 Additional .075" material at termination face for strain relief of crimped wires (22 AWG only). See Detail A below.



DETAIL A





PLUG: WTB 20-3 PR9 SC  
 RECEPTACLE: WTB 20-3 SAC SC  
 XXX XXXX XXX XX

PLUG		RECEPTACLE	
<b>SERIES</b>			
WTB	Plug, right angle, with mounting ears	WTB	Receptacle, straight, with mounting ears
<b>SIZE</b>			
20-3	20 right angle signal pins, plus 3 straight or right angle removable coax sockets	20-3	20 straight signal pins, plus 3 straight removable coax pins
<b>CONTACTS</b>			
TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:	
PR7	Pin, right angle, dip solder, .109" x .025" dia	SAC	Socket, straight, solder cup (.035" I.D.)
PR9	Pin, right angle, dip solder, .140" x .025" dia	SAD9	Socket, straight, dip solder, .140" x .027" dia
PR11	Pin, right angle, dip solder, .172" x .025" dia	SAD11	Socket, straight, dip solder, .172" x .027" dia
		SAD15	Socket, straight, dip solder, .234" x .027" dia
		SAG7	Socket, straight, dip solder, .109" x .018" dia
		SAG9	Socket, straight, dip solder, .140" x .018" dia
		SAG11	Socket, straight, dip solder, .172" x .018" dia
<b>HARDWARE</b>			
SC	Guide set	SC	Guide set
SC-#	Guide set, polarized	SC-#	Guide set, polarized

**OPTIONS**

- Molded insulator: Diallyl Phthalate per ASTM-D5948 (GDI-30F or SDG-F)
  - Removable type coax contacts sold separately. See "Coax Contacts" in Accessories section for instructions.
  - Coax Contacts:
    - WTC188P = straight pin (to be installed in receptacle insulator only)
    - WTC196P = straight pin (to be installed in receptacle insulator only)
    - WTC085P = straight pin (to be installed in receptacle insulator only)
    - WTC188S = straight socket (to be installed in plug insulator only)
    - WTC196S = straight socket (to be installed in plug insulator only)
    - WTC085S = straight socket (to be installed in plug insulator only)
    - WTC10SRD9 = right angle socket (to be installed in plug insulator only)
  - Option Codes: Add to the end of the part number. Example: WTB20-3SAD11SC-C34. Call factory for additional codes.
    - 342 Remove mounting ears. (.250" each end)
    - C34 Remove .225" standoff so connector is flush to board (receptacle only).
    - G69 Solder cups are fixed in an outward orientation, otherwise contacts can rotate.
    - D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
    - P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- = Option not RoHS compliant



PLUG: WTB 20-6 PR9 SC  
 RECEPTACLE: WTB 20-6 SAC SC  
 XXX XXXX XXX XX

PLUG		RECEPTACLE	
<b>SERIES</b>			
WTB	Plug, right angle, with mounting ears	WTB	Receptacle, straight, with mounting ears
<b>SIZE</b>			
20-6	20 right angle signal pins, plus 6 straight or right angle removable coax sockets	20-6	20 straight signal pins, plus 6 straight removable coax pins
<b>CONTACTS</b>			
TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:	
PR7	Pin, right angle, dip solder, .109" x .025" dia	SAC	Socket, straight, solder cup (.035" I.D.)
PR9	Pin, right angle, dip solder, .140" x .025" dia	SAD9	Socket, straight, dip solder, .140" x .027" dia
PR11	Pin, right angle, dip solder, .172" x .025" dia	SAD11	Socket, straight, dip solder, .172" x .027" dia
		SAD15	Socket, straight, dip solder, .234" x .027" dia
		SAG7	Socket, straight, dip solder, .109" x .018" dia
		SAG9	Socket, straight, dip solder, .140" x .018" dia
		SAG11	Socket, straight, dip solder, .172" x .018" dia
<b>HARDWARE</b>			
SC	Guide set	SC	Guide set
SC-#	Guide set, polarized	SC-#	Guide set, polarized

**OPTIONS**

- Molded insulator: Diallyl Phthalate per ASTM-D5948 (GDI-30F or SDG-F)
  - Removable type coax contacts sold separately. See "Coax Contacts" in Accessories section for instructions.
  - Coax Contacts:
    - WTC188P = straight pin (to be installed in receptacle insulator only)
    - WTC196P = straight pin (to be installed in receptacle insulator only)
    - WTC085P = straight pin (to be installed in receptacle insulator only)
    - WTC188S = straight socket (to be installed in plug insulator only)
    - WTC196S = straight socket (to be installed in plug insulator only)
    - WTC085S = straight socket (to be installed in plug insulator only)
    - WTC10SRD9 = right angle socket (to be installed in plug insulator only)
  - Option Codes: Add to the end of the part number. Example: WTB20-6SAD9SC342. Call factory for additional codes.
    - 342 Remove mounting ears. (.250" each end)
    - C34 Remove .225" standoff so connector is flush to board (receptacle only).
    - G69 Solder cups are fixed in an outward orientation, otherwise contacts can rotate.
    - D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
    - P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- = Option not RoHS compliant

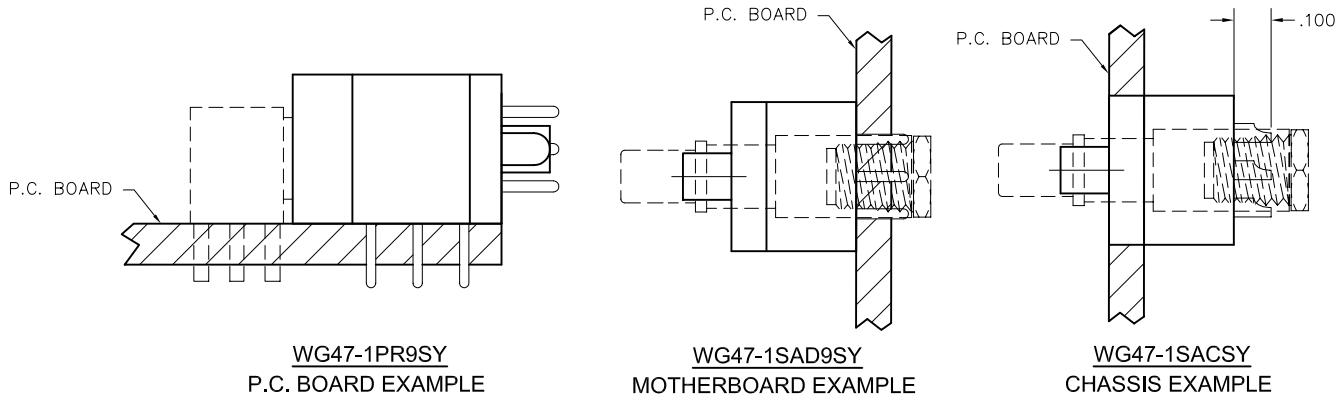


PLUG: WG 47-1 PR11 SY  
 RECEPTACLE: WG 47-1 SAD9 SY  
 XX 47-1 XXXX XX

PLUG		RECEPTACLE	
<b>SERIES</b>			
WG	Plug, right angle, with mounting ears	WG	Receptacle, straight, with mounting ears
<b>SIZE</b>			
47-1	47 right angle signal pins, plus 1 right angle or straight removable coax socket	47-1	47 straight signal pins, plus 1 straight removable coax pin
<b>CONTACTS</b>			
TYPE CONTACTS/TERMINATIONS: PR7 Pin, right angle, dip solder, .109" x .025" dia PR9 Pin, right angle, dip solder, .140" x .025" dia PR11 Pin, right angle, dip solder, .172" x .025" dia		TYPE CONTACTS/TERMINATIONS: SAC Socket, straight, solder cup (.035" I.D.) SAD9 Socket, straight, dip solder, .140" x .027" dia SAD11 Socket, straight, dip solder, .172" x .027" dia SAD15 Socket, straight, dip solder, .234" x .027" dia SAG7 Socket, straight, dip solder, .109" x .018" dia SAG9 Socket, straight, dip solder, .140" x .018" dia SAG11 Socket, straight, dip solder, .172" x .018" dia	
<b>HARDWARE</b>			
SY	Guide set	SY	Guide set
SY-#	Guide set, polarized	SY-#	Guide set, polarized

**OPTIONS**

- Molded insulator (plug only): Diallyl Phthalate per ASTM-D5948 (GDI-30F or SDG-F)
  - Removable type coax contacts sold separately. See "Coax Contacts" in Accessories section for instructions.
  - Coax Contacts:
    - WTC188P = straight pin (to be installed in receptacle insulator only)
    - WTC196P = straight pin (to be installed in receptacle insulator only)
    - WTC085P = straight pin (to be installed in receptacle insulator only)
    - WTC188S = straight socket (to be installed in plug insulator only)
    - WTC196S = straight socket (to be installed in plug insulator only)
    - WTC085S = straight socket (to be installed in plug insulator only)
    - WTC10SRD9 = right angle socket (to be installed in plug insulator only)
  - Option Codes: Add to the end of the part number. Example: WG47-1SACSY-C34. Call factory for additional codes.
    - 342 Remove mounting ears. (.250" each end)
    - 548 Bond #4-40 small pattern nut into mounting holes (for right angle plug connectors only).
    - C34 Remove .225" standoff so connector is flush to board (receptacle only).
    - G69 Solder cups are fixed in an outward orientation, otherwise contacts can rotate.
    - D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder. ☒
    - P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC 305 solder (lead free).
- ☒ = Option not RoHS compliant



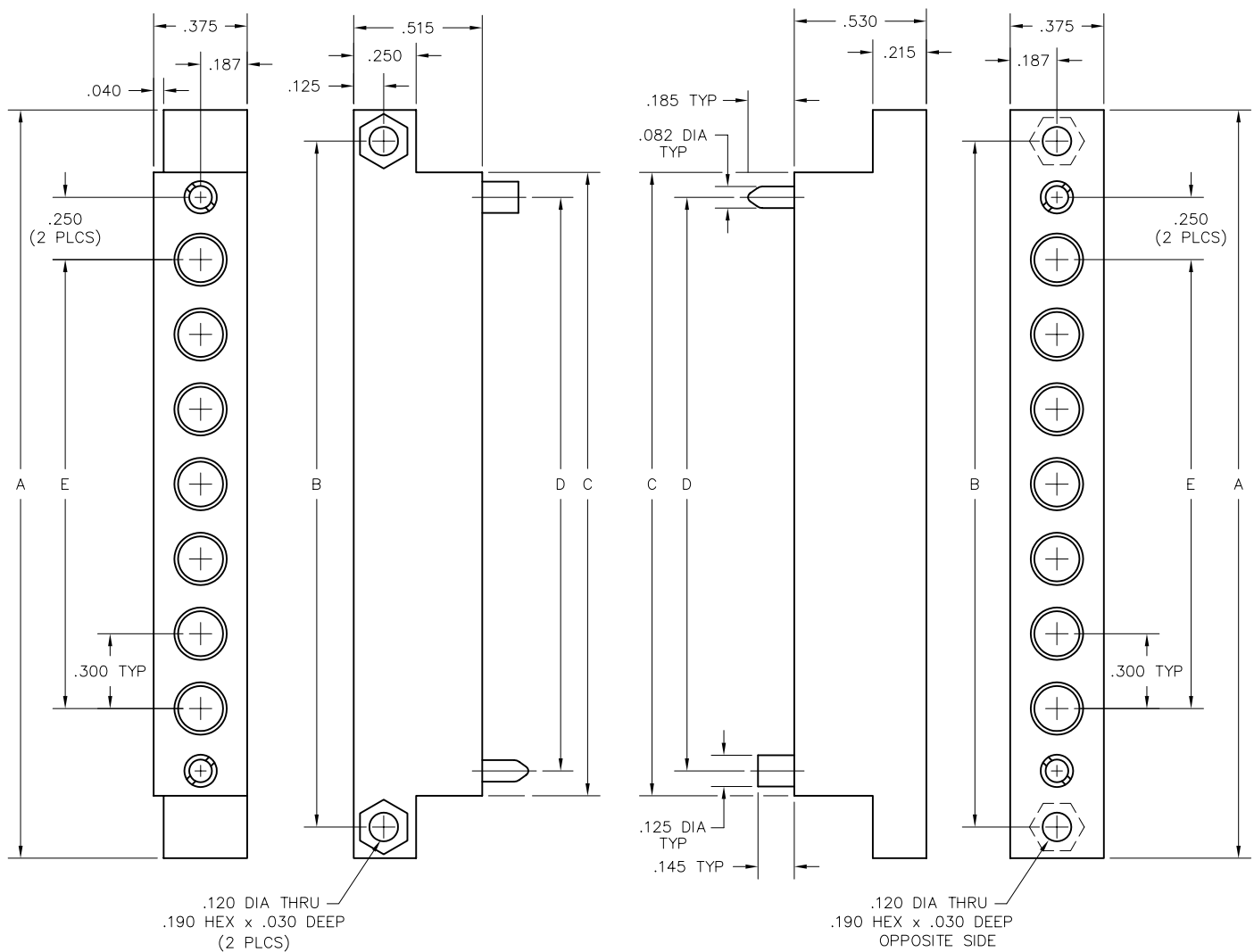
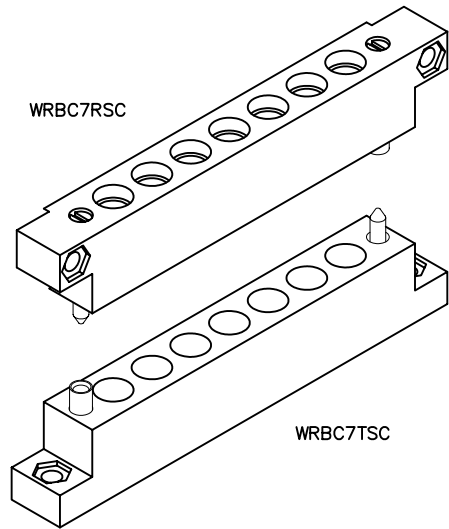


# 1 • ROW Coax Connectors PC Card to Chassis

.300"

**WRBC - WRBC**

1, 7 & 11 Contacts



PLUG

RECEPTACLE

DIMENSIONS					
SIZE	A	B	C	D	E
1*	.875	.625	.375	—	—
7	3.000	2.750	2.500	2.300	1.800
11	4.200	3.950	3.700	3.500	3.000

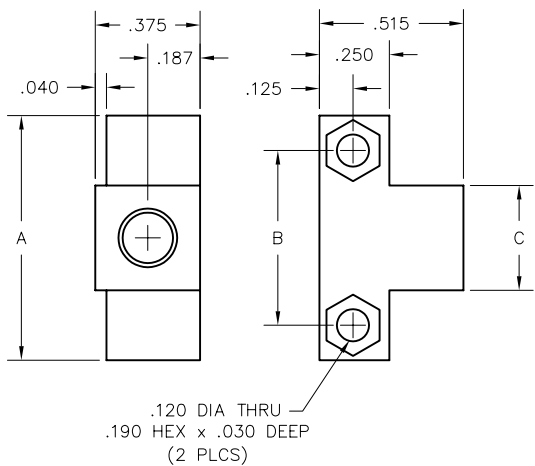
\* = SEE OPPOSITE PAGE FOR 1 POSITION CONFIGURATION

PLUG:	WRBC	7	R	SC
RECEPTACLE:	WRBC	7	T	SC
	XXXX	XX	X	XX

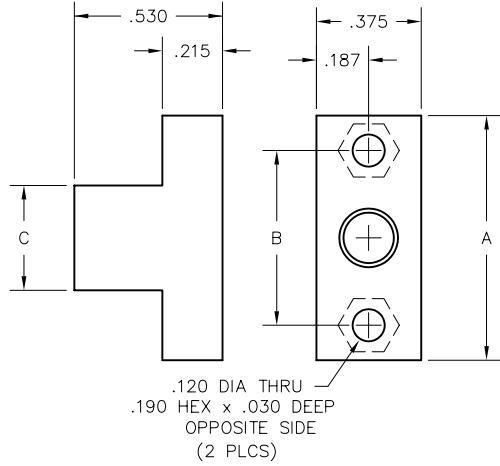
PLUG		RECEPTACLE	
<b>SERIES</b>			
WRBC	Plug, right angle, with mounting ears	WRBC	Receptacle, straight, with mounting ears
<b>SIZE</b>			
XX	Number of coax contacts (1, 7 or 11)	XX	Number of coax contacts (1, 7 or 11)
<b>CONTACTS</b>			
R	TYPE CONTACTS/TERMINATIONS: Sockets, straight or right angle, removable coax contacts	T	TYPE CONTACTS/TERMINATIONS: Pins, straight, removable coax contacts
<b>HARDWARE</b>			
SC	Guide set	SC	Guide set
SC-#	Guide set, polarized	SC-#	Guide set, polarized

**OPTIONS**

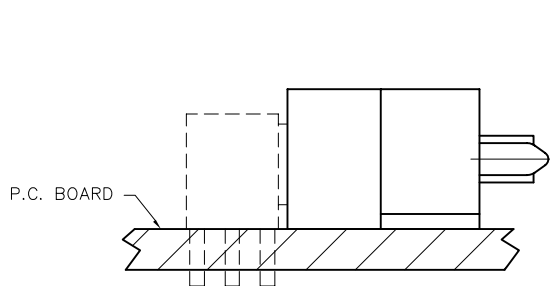
- Removable type coax contacts sold separately. See "Coax Contacts" in Accessories section for instructions.
- Coax Contacts:
  - WTC188P = straight pin (to be installed in receptacle insulator only)
  - WTC196P = straight pin (to be installed in receptacle insulator only)
  - WTC085P = straight pin (to be installed in receptacle insulator only)
  - WTC188S = straight socket (to be installed in plug insulator only)
  - WTC196S = straight socket (to be installed in plug insulator only)
  - WTC085S = straight socket (to be installed in plug insulator only)
  - WTC10SRD9 = right angle socket (to be installed in plug insulator only)



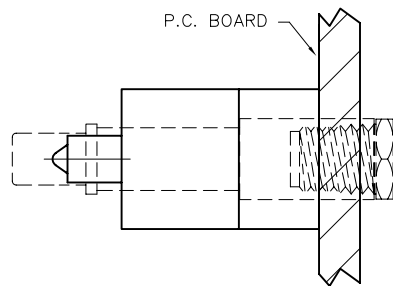
**WRBC1R**



**WRBC1T**



**WRBC7RSC**  
P.C. BOARD EXAMPLE



**WRBC7TSC**  
MOTHERBOARD EXAMPLE

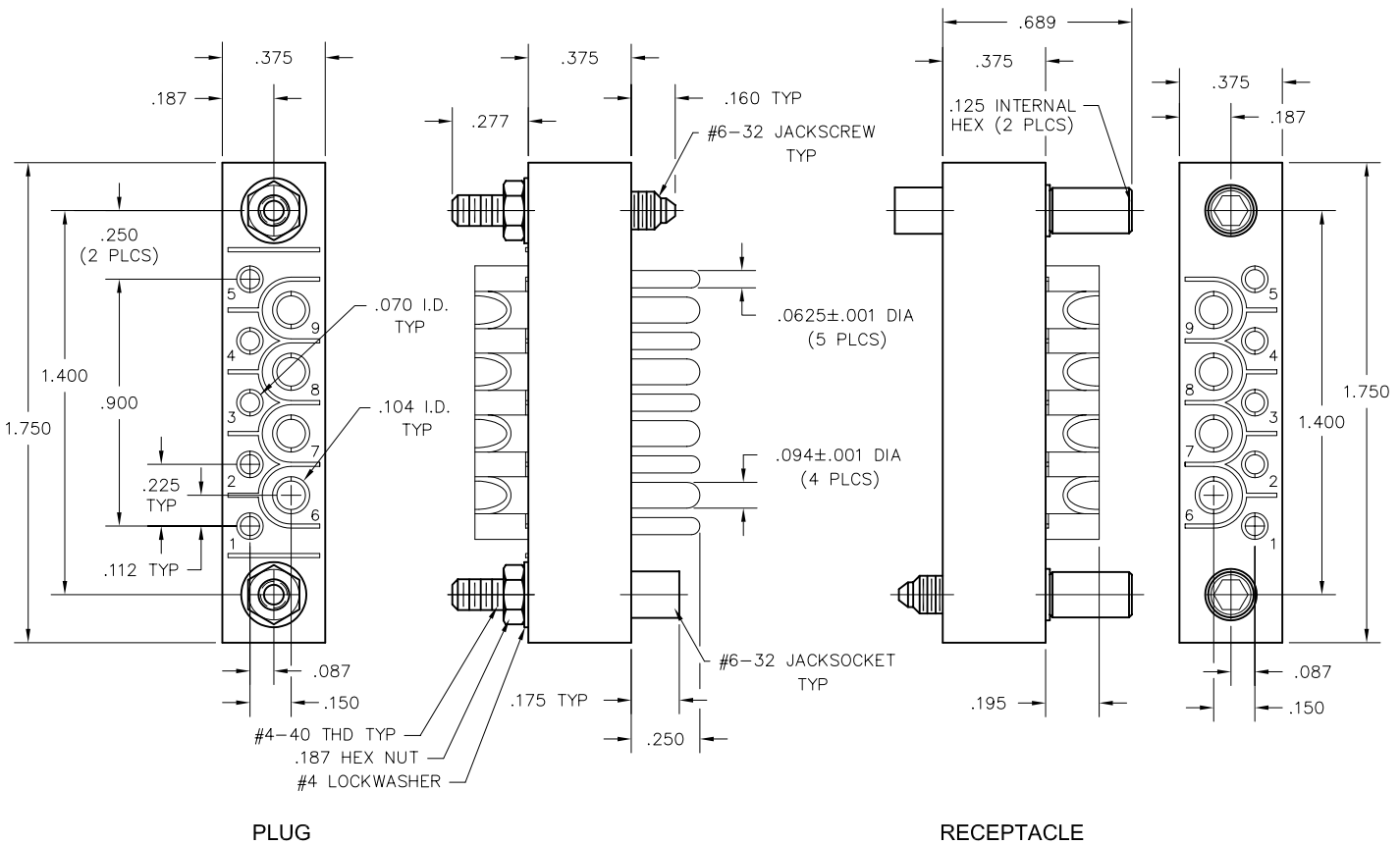
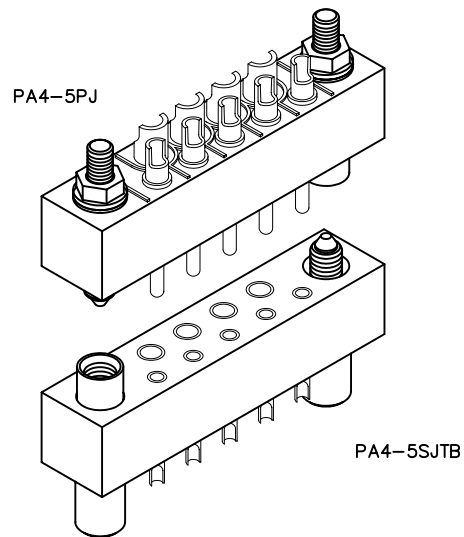
# MISC. CONNECTORS

## Power Cable to Chassis

.225"

**PA - PA**

5 & 4-5 Contacts



SEE OPPOSITE PAGE FOR 5 POSITION CONFIGURATION.  
SEE PAGE W-77 & W-78 FOR 10 POSITION CONFIGURATION.



PLUG:	PA	4-5	S	JTB
RECEPTACLE:	PA	4-5	P	J
	XX	XXX	X	XXX

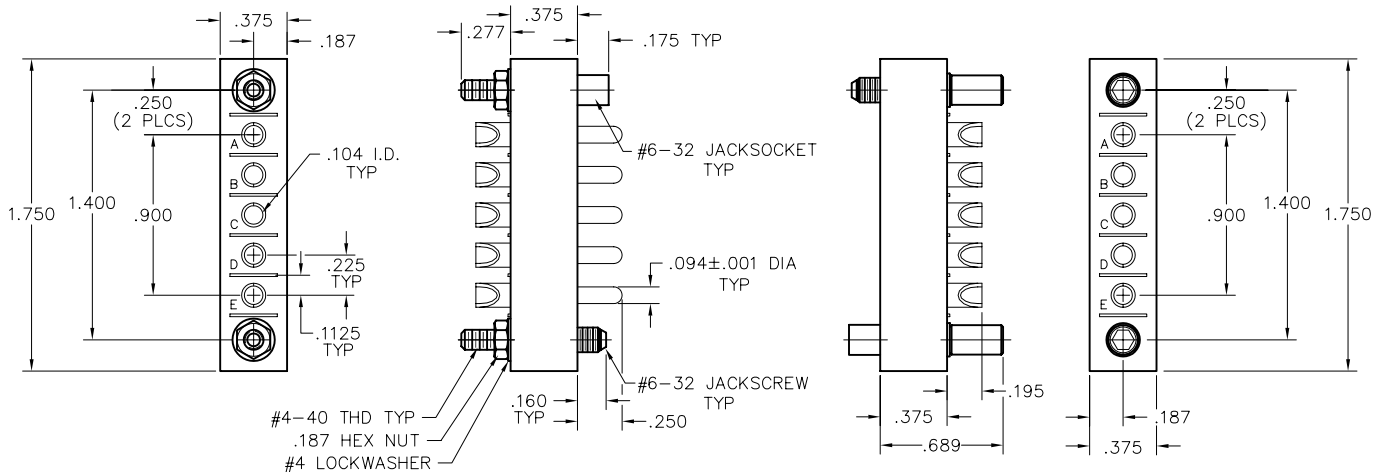
PLUG		RECEPTACLE	
<b>SERIES</b>			
PA	Power connectors	PA	Power connectors
<b>SIZE</b>			
5	5 #12 contacts	5	5 #12 contacts
4-5	4 #12 contacts & 5 #16 contacts	4-5	4 #12 contacts & 5 #16 contacts
<b>CONTACTS</b>			
TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:	
P	Pin, straight, solder cup	S	Socket, straight, solder cup
PD11	Pin, straight, dip solder, .172" x .062" dia	SD11	Socket, straight, dip solder, .172" x .062" dia
<b>HARDWARE</b>			
SY	Guide set	SY	Guide set
J	Fixed jackset	J	Fixed jackset
JT	Turning jackset, 1.054"	JT	Turning jackset, 1.054"
JTB	Hex turning jackset, .314"	JTB	Hex turning jackset, .314"
JTL	Long turning jackset, 1.175"	JTL	Long turning jackset, 1.175"

**OPTIONS**

- Hood (PA5H) for use with PA5 and PA4-5 connectors. Specify JTL hardware when using hood.
  - For hood strain relief, add "H" to "JTL" hardware. Example: PA5SJTLH.
  - 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<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder.
- P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with SAC305 solder (lead free).
- = Option not RoHS compliant

**NOTES:**

Molded bodies: Diallyl phthalate per ASTM-D5948 (GDI-30F or SDG-F)  
 Contact rating: #12 contacts = 23 amps  
                   #16 contacts = 13 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: #12 contacts=.023 volt maximum drop @ 23 amps (.001 ohms)  
                           #16 contacts=.023 volt maximum drop @ 13 amps (.002 ohms)  
 Engagement force: 24 ounces maximum average per contact



PLUG  
EXAMPLE: PA5PJ

RECEPTACLE  
EXAMPLE: PA5SJTB

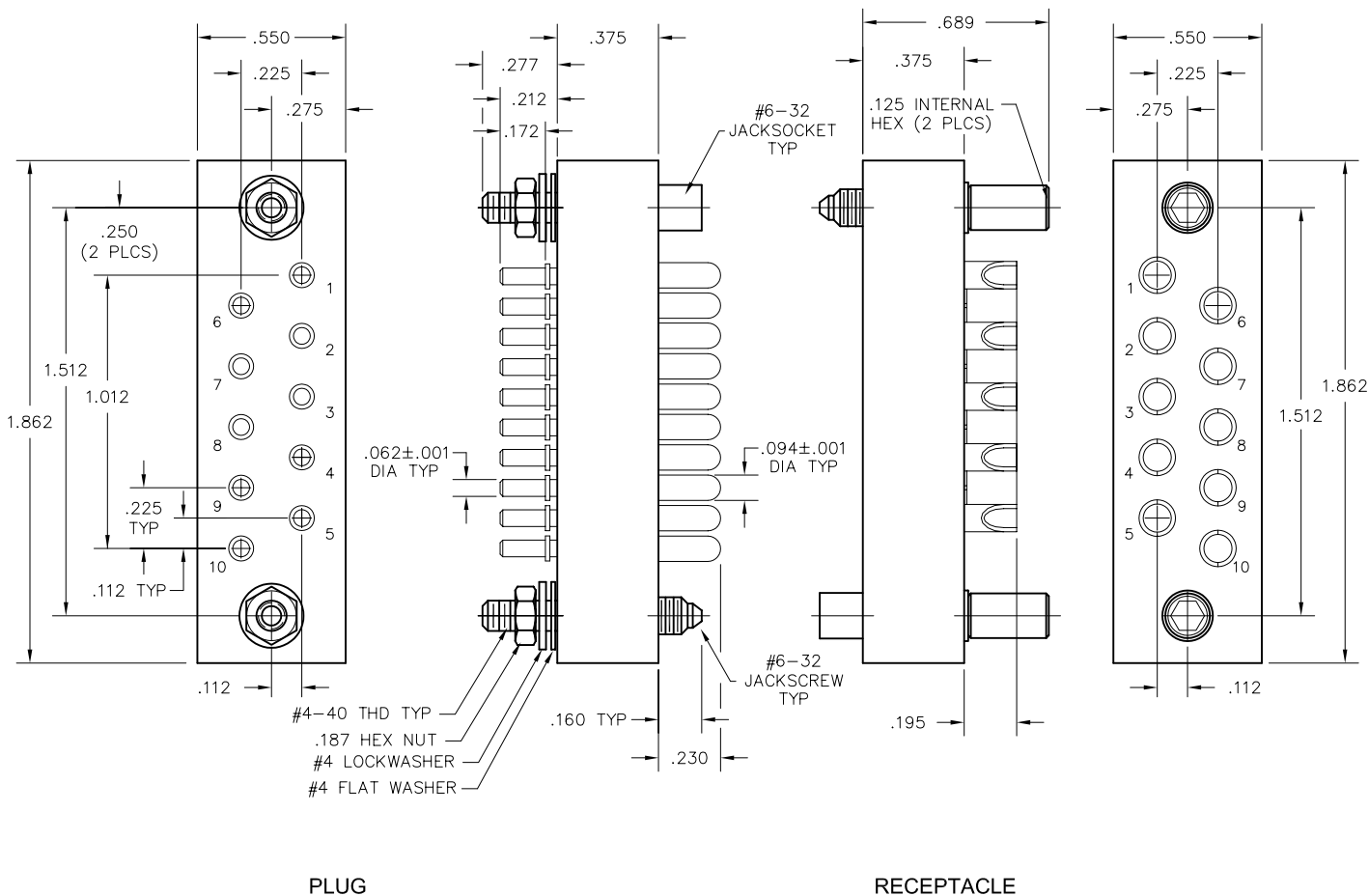
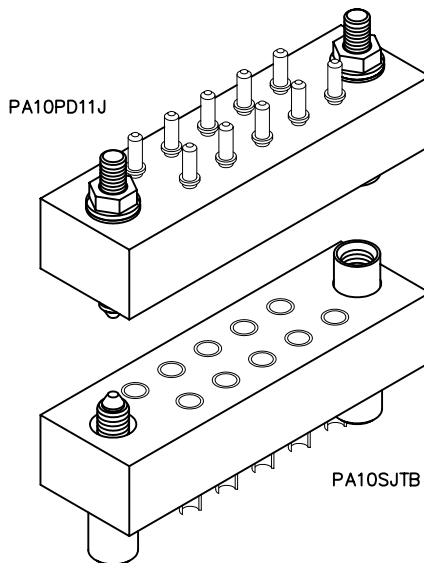
# MISC. CONNECTORS

## Power Cable to Chassis

.225"

**PA - PA**

10 Contacts



SEE OPPOSITE PAGE FOR 10 POSITION RIGHT ANGLE PLUG CONFIGURATION.

PLUG:	PA	10	S	JTB
RECEPTACLE:	PA	10	P	J
	XX	XX	X	XXX

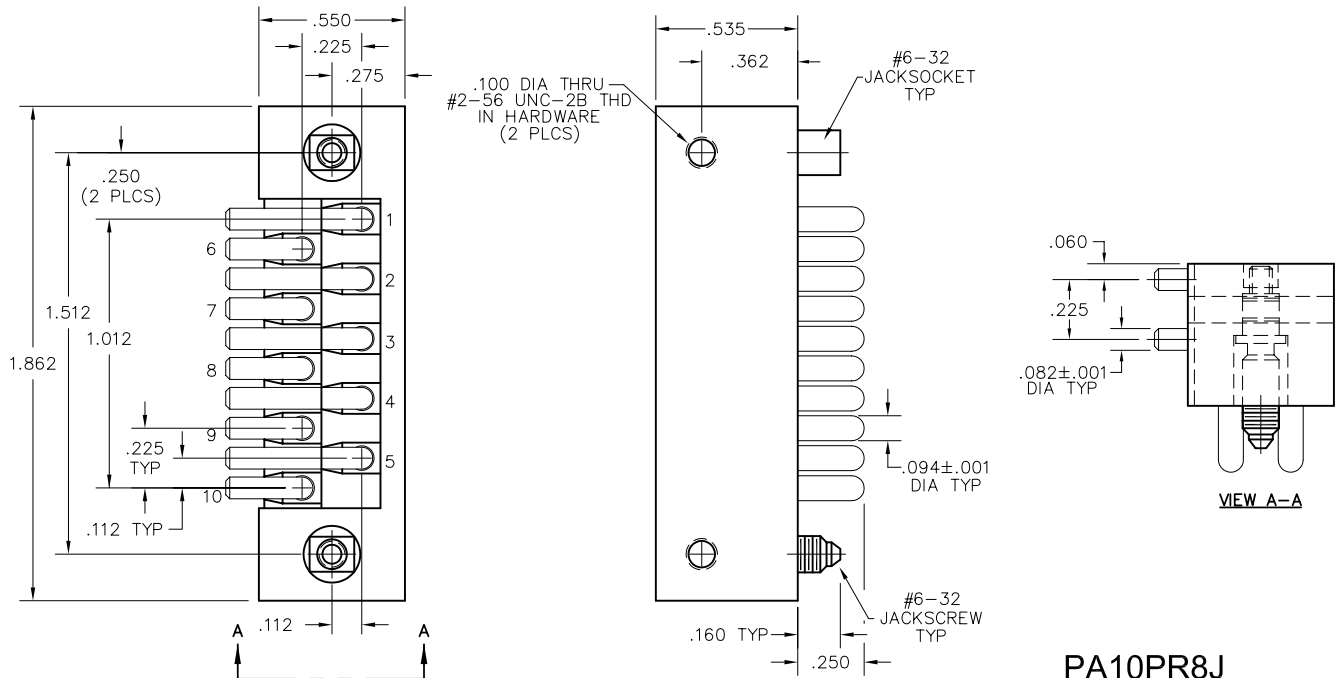
PLUG		RECEPTACLE	
<b>SERIES</b>			
PA	Power connectors	PA	Power connectors
<b>SIZE</b>			
10	10 #12 contacts	10	10 #12 contacts
<b>CONTACTS</b>			
<b>TYPE CONTACTS/TERMINATIONS:</b> P Pin, straight, solder cup PD11 Pin, straight, dip solder, .172" x .062" dia PR7 Pin, right angle, dip solder, .109" x .082" dia PR8 Pin, right angle, dip solder, .125" x .082" dia		<b>TYPE CONTACTS/TERMINATIONS:</b> S Socket, straight, solder cup SD11 Socket, straight, dip solder, .172" x .062"	
<b>HARDWARE</b>			
SY	Guide set	SY	Guide set
J	Fixed jackset	J	Fixed jackset
JT	Turning jackset, 1.054" (straight plug only)	JT	Turning jackset, 1.054"
JTB	Hex turning jackset, .314" (straight plug only)	JTB	Hex turning jackset, .314"
JTL	Long turning jackset, 1.175"	JTL	Long turning jackset, 1.175"

**OPTIONS**

- Option Codes: Add to the end of the part number. Example: PA10PD11SY-P39. Call factory for additional codes.
- D01 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder. ☒
- P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> 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



**PA10PR8J**



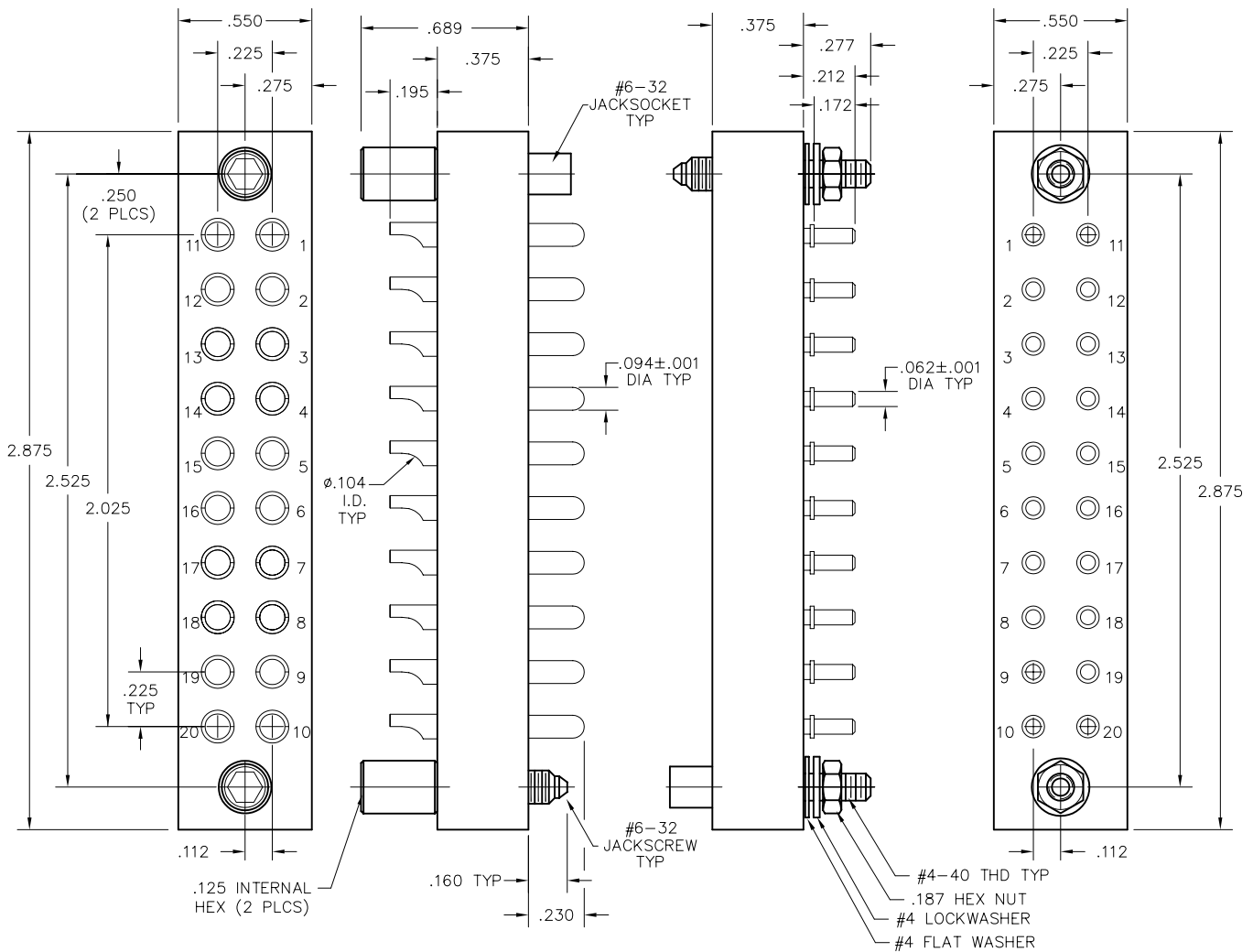
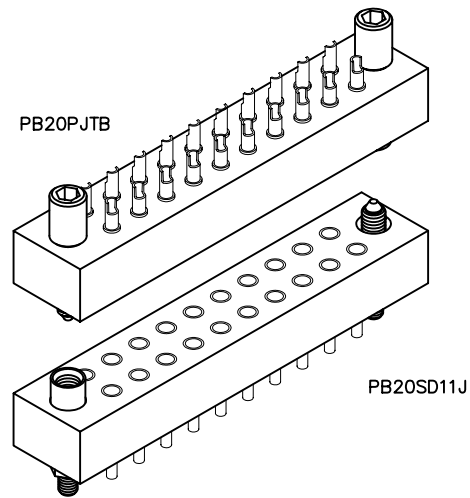
# MISC. CONNECTORS

## Power Cable to Chassis

.225"

**PB - PB**

20 Contacts



PLUG

RECEPTACLE

SEE OPPOSITE PAGE FOR 20 POSITION RIGHT ANGLE PLUG CONFIGURATION.

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

**PLUG**

**RECEPTACLE**

**SERIES**

PB	Power connectors		PB	Power connectors
----	------------------	--	----	------------------

**SIZE**

20	20 #12 contacts		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**

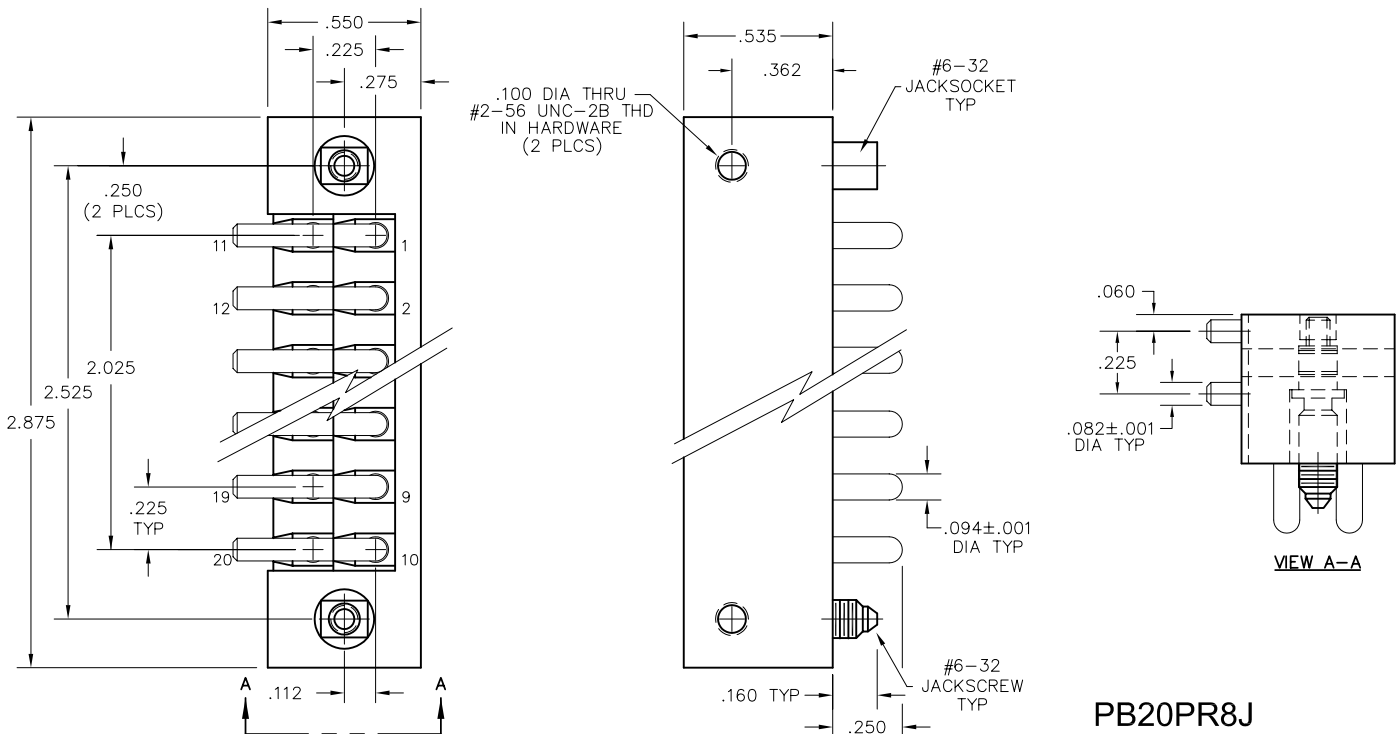
SY Guide set  
 J Fixed jackset  
 JT Turning jackset, 1.054" (straight plug only)  
 JTB Hex turning jackset, .314" (straight plug only)  
 JTL Long turning jackset, 1.175"

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<sup>®</sup> and flex contacts) with 63/37 or 60/40 solder. ☒
  - P39 Pretinned contact terminations (except solder cups, wire wraps<sup>®</sup> 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**

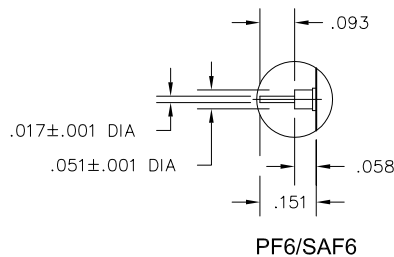
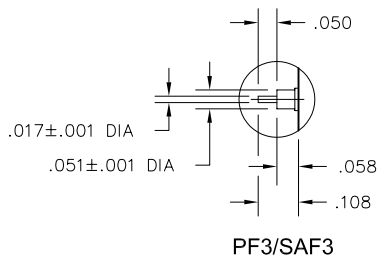
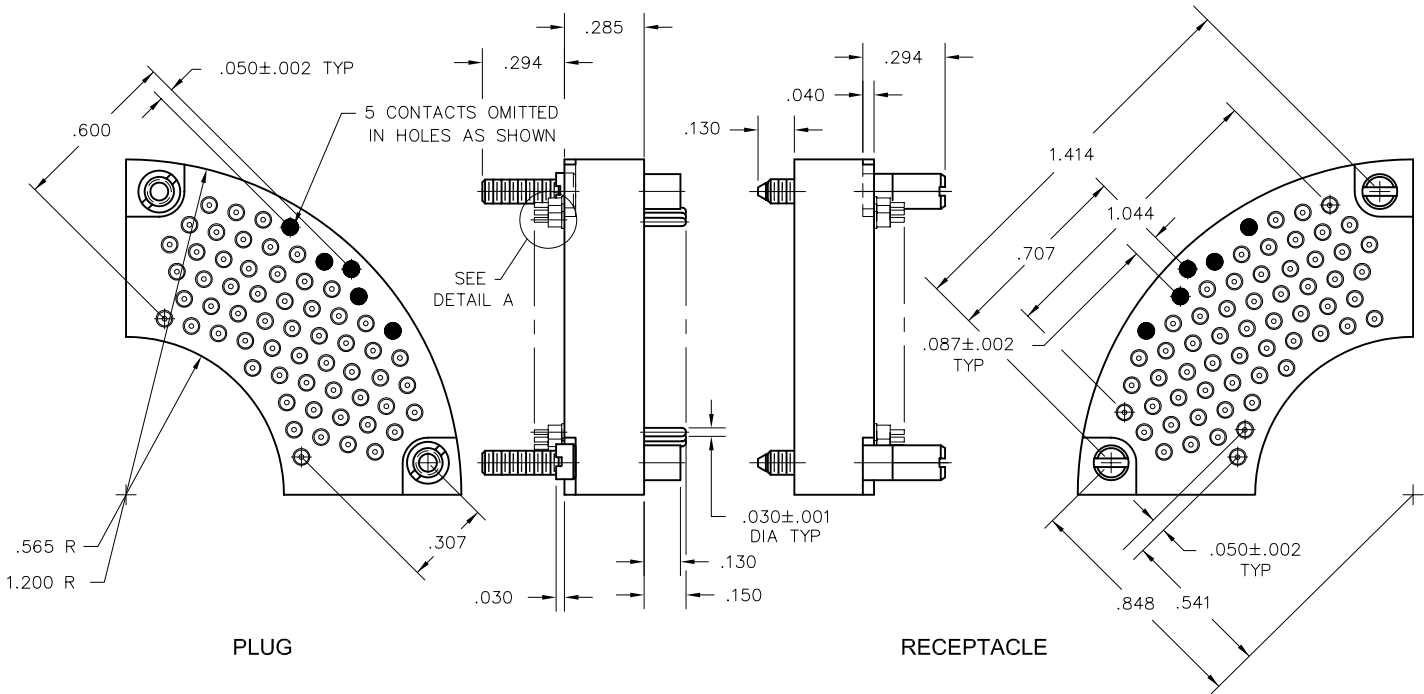
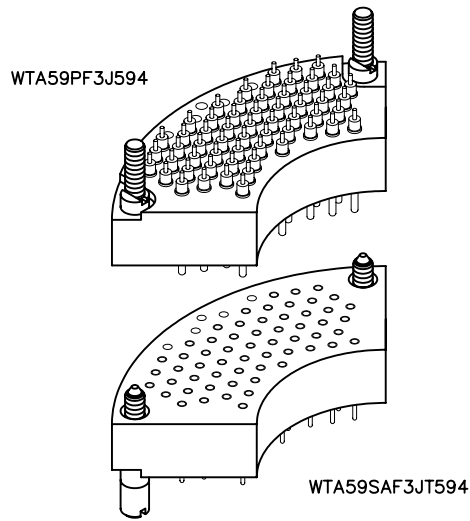


# MISC CONNECTORS Quarter Round Sandwich Boards

.087" x .050"

**WTA - WTA**

59 Contacts



DETAIL A

PLUG: WTA 59 PF3 J594  
 RECEPTACLE: WTA 59 SAF3 JT594  
 XXX XX XXXX XXXXX

PLUG		RECEPTACLE	
<b>SERIES</b>			
WTA	Plug, straight	WTA	Receptacle, straight
<b>SIZE</b>			
59	Number of contacts	59	Number of contacts
<b>CONTACTS</b>			
TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:	
PC	Pin, straight, solder cup (.035" I.D.)	SAC	Socket, straight, solder cup (.035" I.D.)
PF3	Pin, straight, flex circuit, .050"	SAF3	Socket, straight, flex circuit, .050"
PF6	Pin, straight, flex circuit, .093"	SAF6	Socket, straight, flex circuit, .093"
<b>HARDWARE</b>			
J594	Fixed jacksockets	JT594	Turning jackscrews, slot head
		JTB594	Turning jackscrews, 5/64" internal hex head

**OPTIONS**

- The connector is loaded with 59 contacts in a 64 position quarter round insulator (-594).
- Insulator: glass filled nylon per ASTM-D4066.
- Not recommended for use with lead free solder process.
- To order connector without hardware, leave hardware designator out of part number. Example: WTA59SAF3-594.

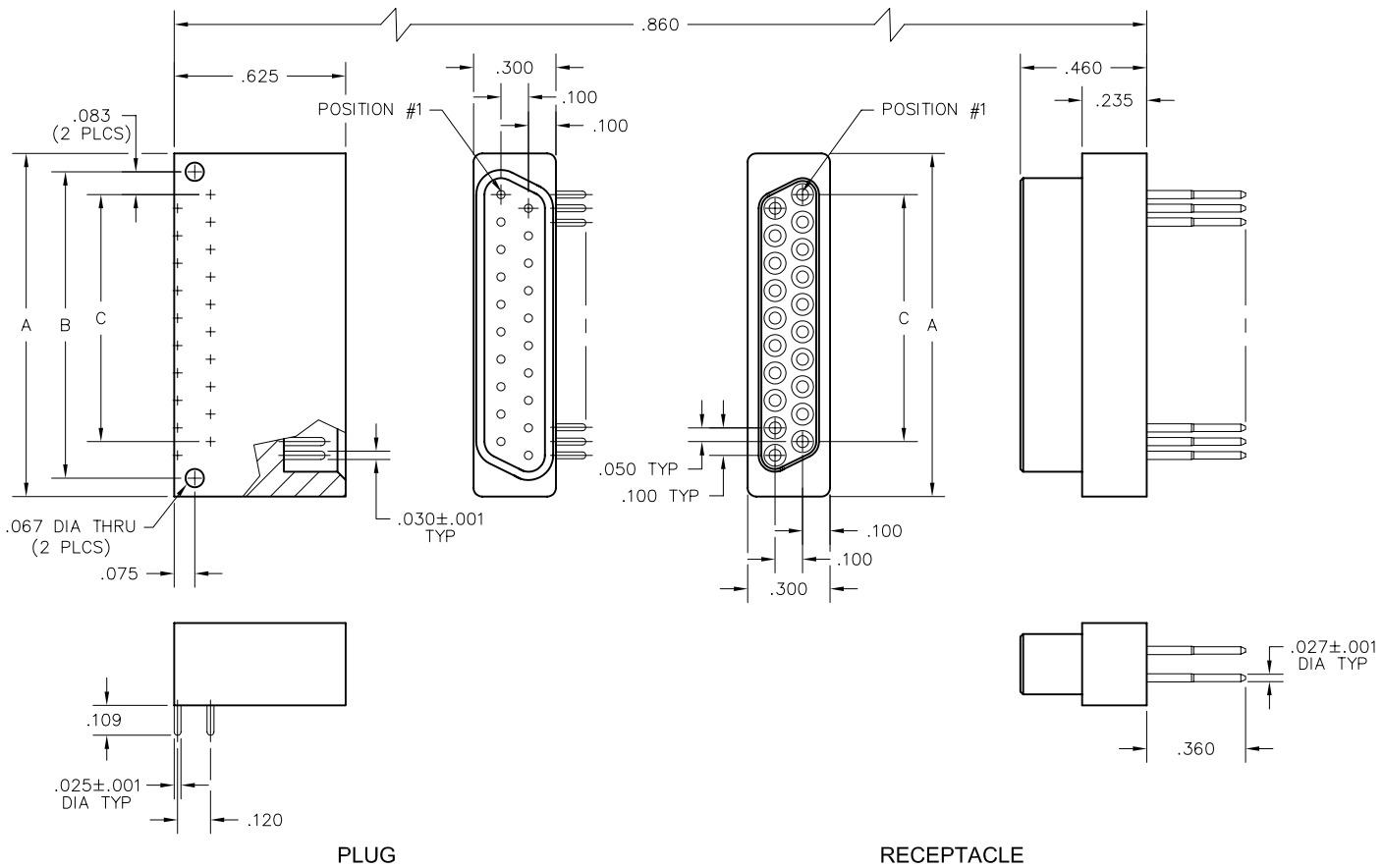
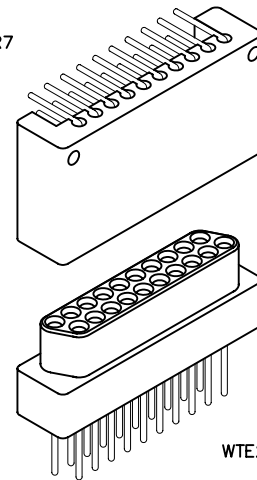
# MISC CONNECTORS Pin Protected PC Card to Board

.100"

**WTE - WTE**

10 & 20 Contacts

WTE20PR7



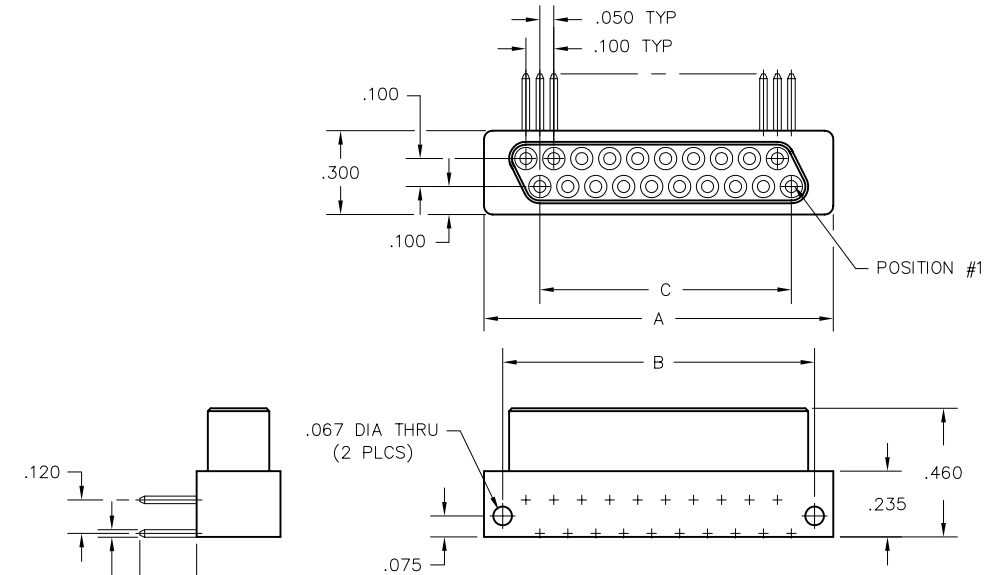
DIMENSIONS			
SIZE	A	B	C
10	.750	.616	.400
20	1.250	1.116	.900



PLUG: WTE 20 PR7  
 RECEPTACLE: WTE 20 SAD23  
 XXX XX XXXXX

PLUG		RECEPTACLE	
<b>SERIES</b>			
WTE	Plug, right angle (male pins, female shell)	WTE	Receptacle, straight (female pins, male shell)
		WTE	Receptacle, right angle (female pins, male shell)
<b>SIZE</b>			
XX	Number of contacts (10 or 20)	XX	Number of contacts (10 or 20)
<b>CONTACTS</b>			
TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:	
PR5	Pin, right angle, dip solder, .081"	SAD9	Socket, straight, dip solder, .140"
PR7	Pin, right angle, dip solder, .109"	SAD23	Socket, straight, dip solder, .360"
		SAR13	Socket, right angle, dip solder, .203"
<b>OPTIONS</b>			

- Cannot pre-tin these connectors.
- Insulator: glass filled nylon per ASTM-D4066.
- Not recommended for use with lead free solder process.



RECEPTACLE  
 EXAMPLE: WTE20SAR13

DIMENSIONS			
SIZE	A	B	C
10	.750	.616	.400
20	1.250	1.116	.900



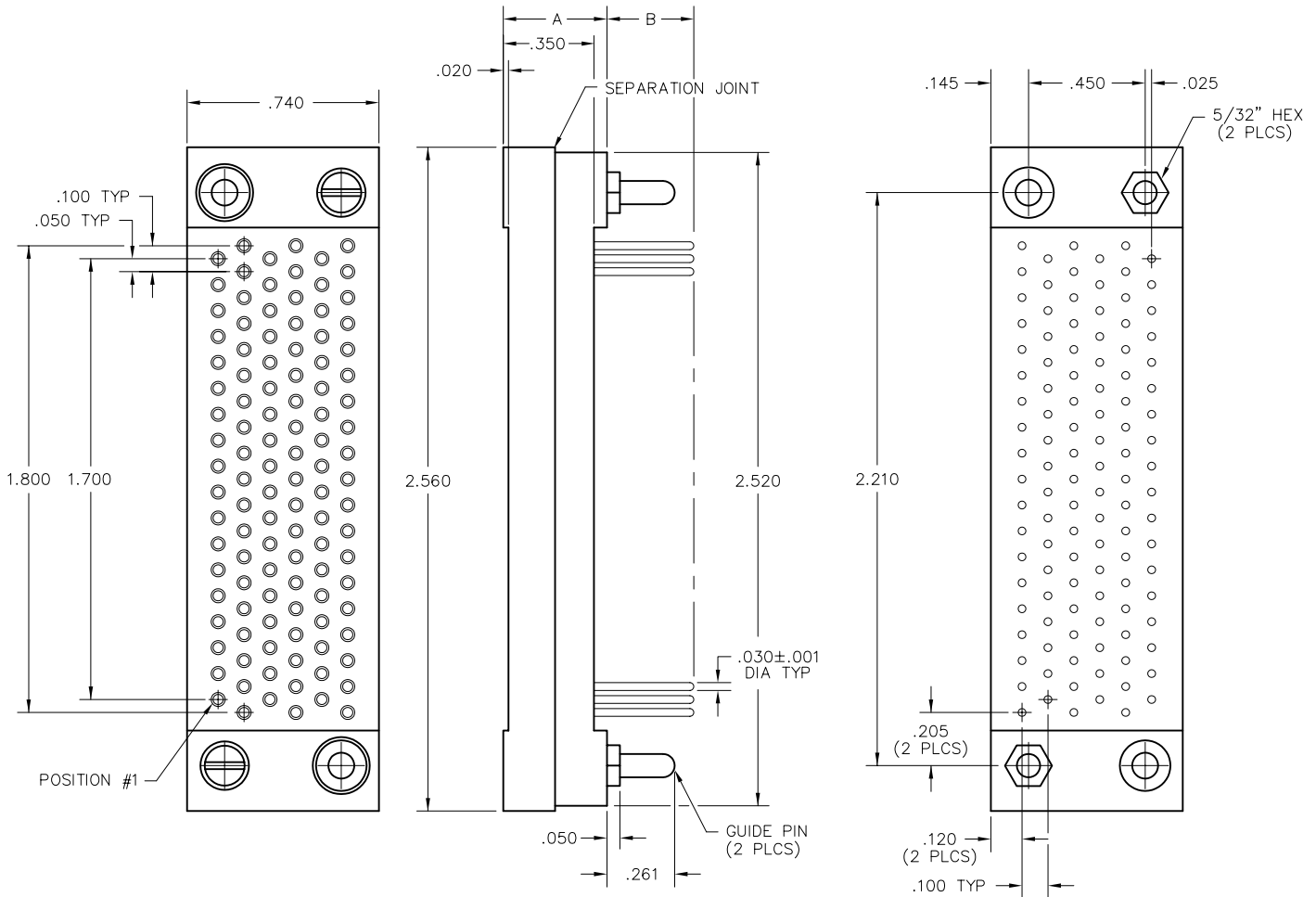
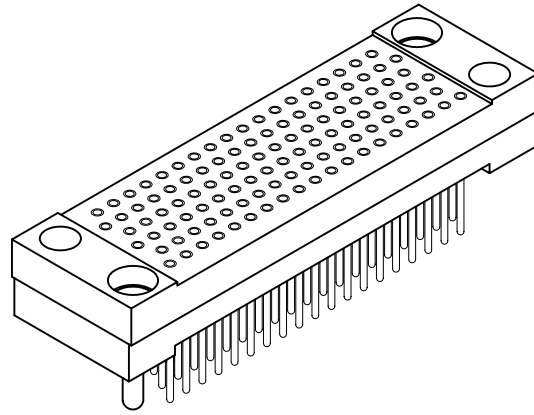
# MISC CONNECTORS

## Stackable Board to Board

.100"

**WE**

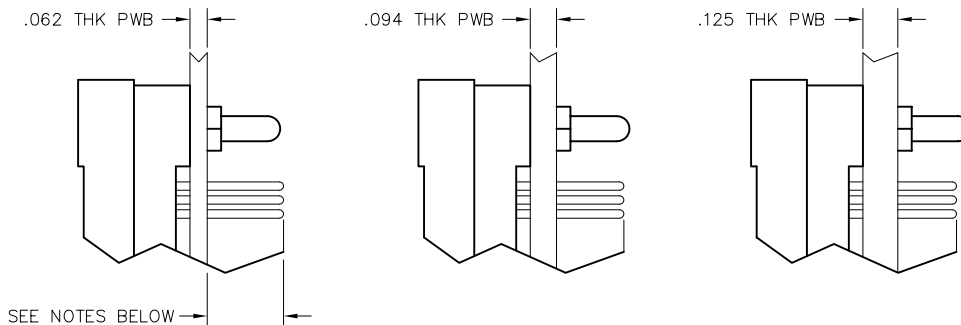
111 Contacts



DIMENSIONS			
STYLE	A	B ± .015	TYPE
WEA	.400	.335	STACKABLE
WEB	.450	.130	MOTHER BOARD
WEB	.450	.335	STACKABLE
WEC	.495	.335	STACKABLE

WEA 111 111A SP21 GB  
 XXX XXX XXXX XXXX XX

SERIES	
WEA	Molding height .400"
WEB	Molding height .450"
WEC	Molding height .495"
SIZE	
111	Number of positions
LOADING	
111A	Fully loaded
CONTACTS	
TYPE CONTACTS/TERMINATIONS:	
SP21	Socket, stackable, .335" termination length
SP9	Socket, dip solder, .130" termination length
HARDWARE	
GA	Guide set, motherboard
GB	Guide set, stackable



**Notes:**

Dimensions "A" & "B" represent current configurations. Board thickness information is for reference only. Contacts are individually replaced by removing the guide pins and screws. Molding halves will separate at the designated joint.

**For Stackable Applications:**

Minimum contact termination length to be .190" beyond PWB for minimum recommended mating in this series. Maximum contact termination length to be .250" beyond PWB.

**For Mother Board Applications:**

Termination lengths typically extend .047" beyond PWB (example: a .062" board would typically require a .109" termination length, dimension "B").



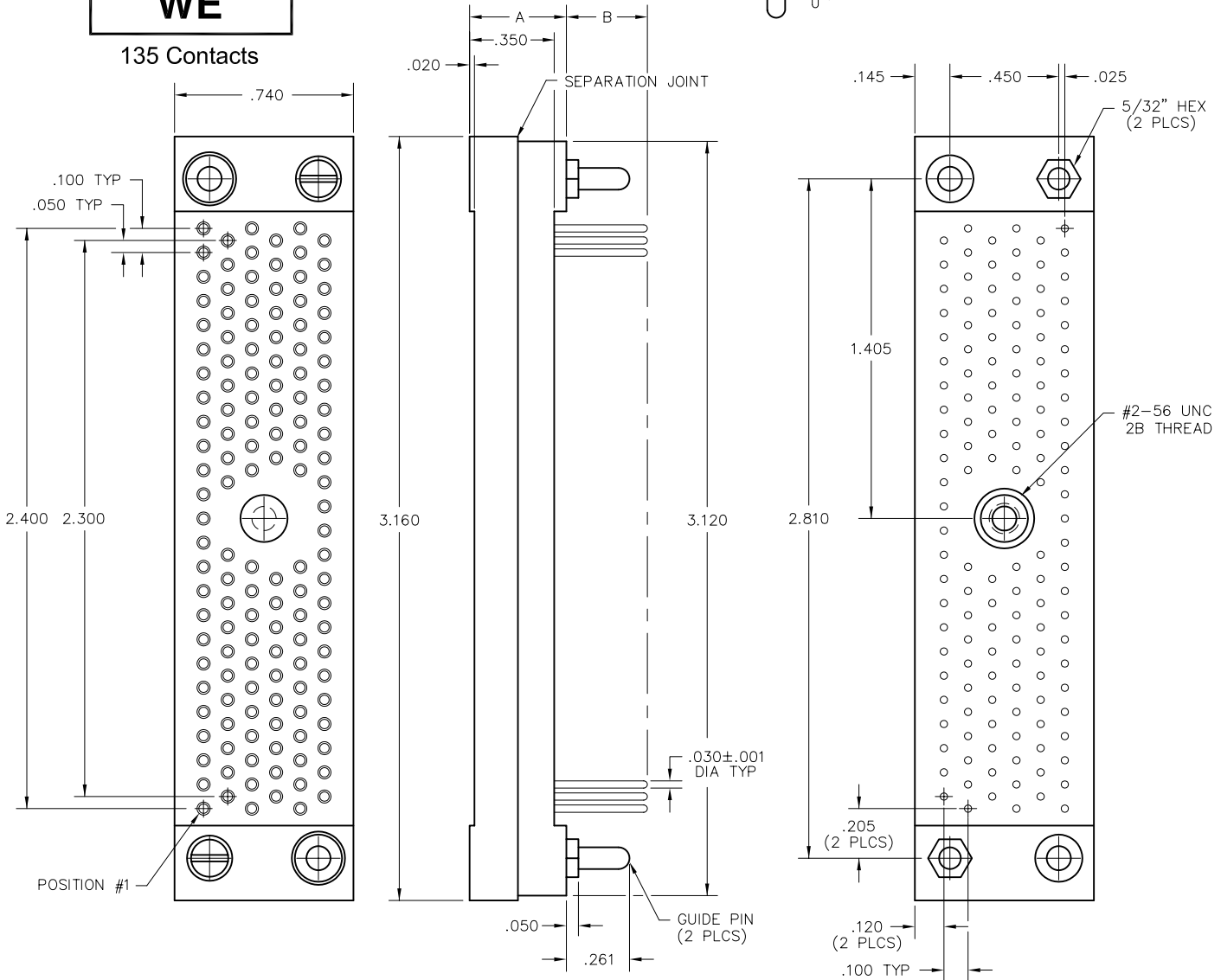
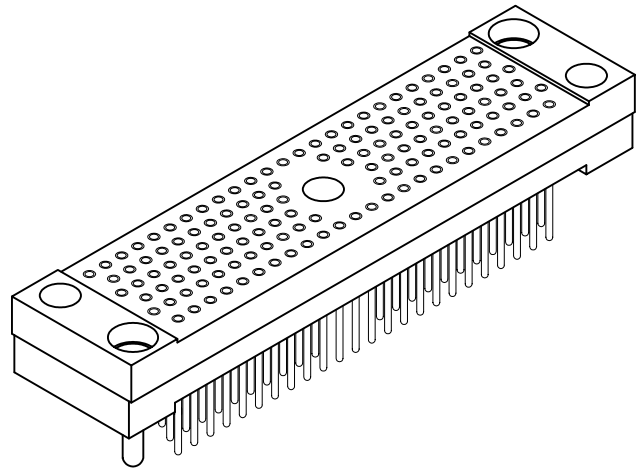
# MISC CONNECTORS

## Stackable Board to Board

.100"

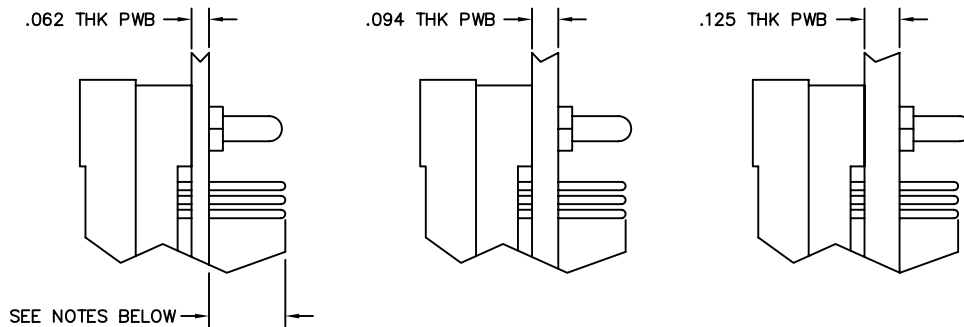
**WE**

135 Contacts



DIMENSIONS			
STYLE	A	B±.015	TYPE
WEA	.465	.335	STACKABLE
WEA	.465	.130	MOTHER BOARD
WEB	.500	.335	STACKABLE
WEB	.500	.130	MOTHER BOARD
WEC	.740	.335	STACKABLE
WEC	.740	.130	MOTHER BOARD

<b>SERIES</b>					
WEA	Molding height .465"				
WEB	Molding height .500"				
WEC	Molding height .740"				
<b>SIZE</b>					
135	Number of positions				
<b>LOADING</b>					
135A	Fully loaded				
<b>CONTACTS</b>					
TYPE CONTACTS/TERMINATIONS:					
SP21	Socket, stackable, .335" termination length				
SP9	Socket, dip solder, .130" termination length				
<b>HARDWARE</b>					
GA	Guide set, motherboard				
GB	Guide set, stackable				



**Notes:**

Dimensions "A" & "B" represent current configurations. Board thickness information is for reference only. Contacts are individually replaced by removing the guide pins and screws. Molding halves will separate at the designated joint.

**For Stackable Applications:**

Minimum contact termination length to be .190" beyond PWB for minimum recommended mating in this series. Maximum contact termination length to be .250" beyond PWB.

**For Mother Board Applications:**

Termination lengths typically extend .047" beyond PWB (example: a .062" board would typically require a .109" termination length, dimension "B").

## "W" SERIES ACCESSORIES

# Contents

## "W" Series

### Hardware, Contacts and Accessories

#### Accessories

WA-2	Floating Mounts
WA-4	Face Seal Gaskets for WTA-WTB Series
WA-5	Face Seal Gaskets for WG-WGA-WGE Series
WA-6	Hoods for WTA, WTAX Series
WA-7	Hoods for WTD, WTDX Series
WA-8	Adapter Sleeve, Coax Removal Tool, Extension Nuts
WA-9	Nut Spanner Wrench, Crimp & Removal Tools

#### Contacts

WA-10	#22 Pin Contacts, #22 Socket Contacts
WA-11	Crimp Removable Contacts, Coax Contacts

#### Hardware

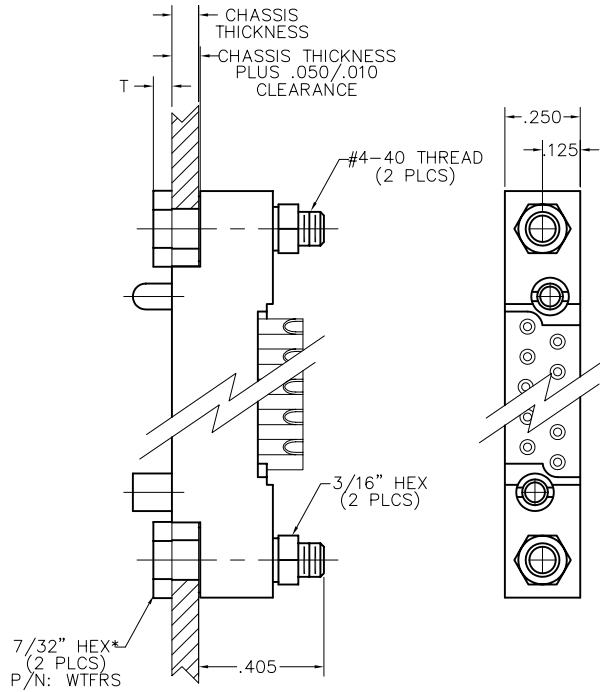
WA-12	Fixed Jacksets, Turning Jacksets
WA-14	Guide Sets
WA-15	Hardware Availability Chart
WA-17	Polarization - "D" Shaped Guide Sets
WA-18	Polarizing Pin Application

#### Military Cross Reference

WA-19	Military Cross Reference Chart
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## Accessories

### Floating Mounts for WTB-WTK Receptacles



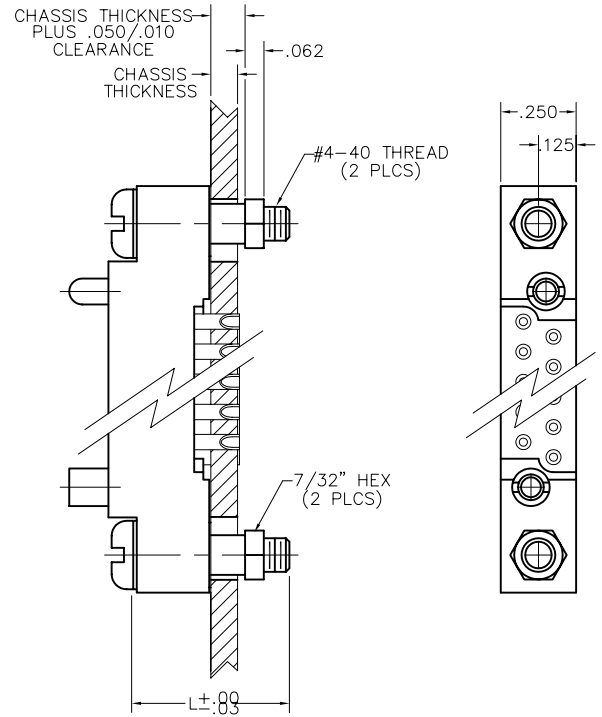
FLOATING MOUNT  
REAR

DIMENSIONS			
CHASSIS THICKNESS	MOUNTING SCREW HEX HEAD	MOUNTING SCREW ROUND HEAD	T
.062	WTFRS062	WTFRAS062	.062
.093	WTFRS093	WTFRAS093	.062
.125	WTFRS125	WTFRAS125	.050

CONNECTOR SIZES 10-70 REQUIRE 2 WTFRS SCREW ASSEMBLIES.

CONNECTOR SIZES OVER 70 REQUIRE 2 WTFRS ASSEMBLIES AND ONE WTFRA SCREW ASSEMBLY.

\* - 7/32 DIA ROUND HEAD - WTFRAS  
CENTER POSITION ON SIZES OVER 70

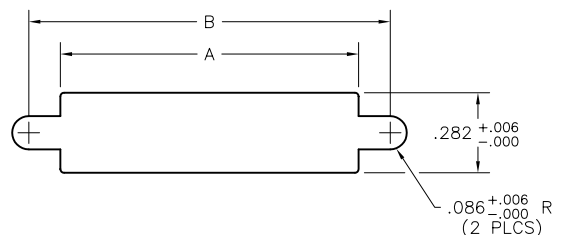


FLOATING MOUNT  
FRONT

DIMENSIONS			
CHASSIS THICKNESS	BUSHING	QTY. REQ. FOR SIZES 10-70	L
.062	WTFFS062	2	.50
.093	WTFFS093		.50
.125	WTFFS125		.56

DIMENSIONS					
SIZE	A +.006 -.000	B ±.003	SIZE	A +.006 -.000	B ±.003
10	.882	1.100	44	2.582	2.800
14	1.082	1.300	50	2.882	3.100
20	1.382	1.600	54	3.082	3.300
24	1.582	1.800	56	3.182	3.400
26	1.682	1.900	60	3.382	3.600
30	1.882	2.100	66	3.682	3.900
36	2.182	2.400	70	3.882	4.100
40	2.382	2.600			

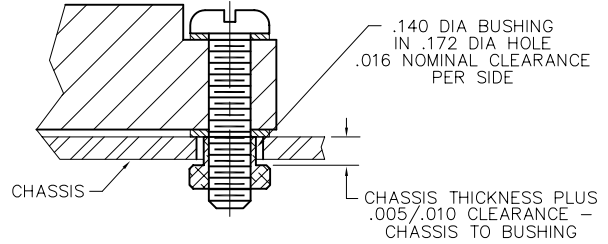
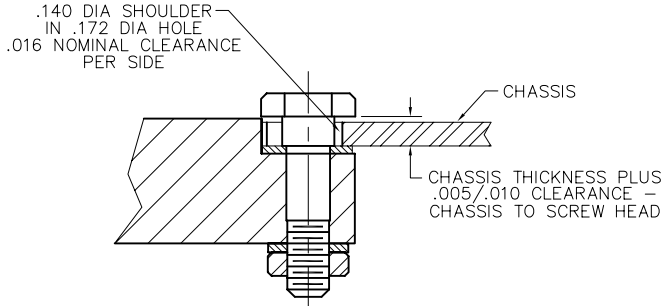
### CHASSIS CUTOUT WTB-WTK, SIZES 10-70



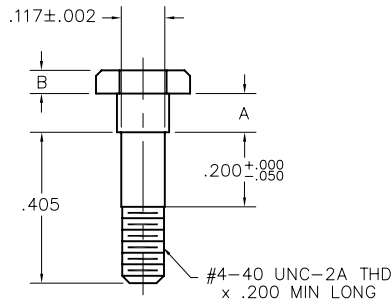


# Accessories

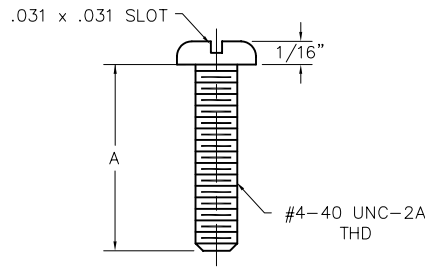
## Floating Mounts for WTB-WTK Receptacles



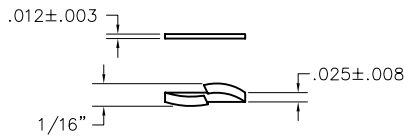
**FLOATING STUD, HEX HEAD**  
7/32±.005 HEX HEAD



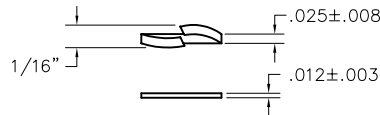
**FLOATING STUD, ROUND HEAD**  
.212±.007 DIA HEAD



**FLAT WASHER**  
.215 O.D. x .120 I.D.



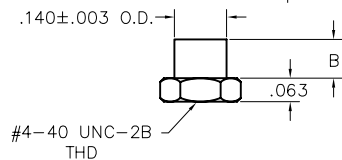
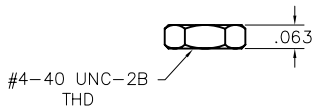
**SPLIT LOCKWASHER**  
.212±.015 O.D. x .115 I.D.



**SPLIT LOCKWASHER**  
.212±.015 O.D. x .115 I.D.

**FLAT WASHER**  
.215 O.D. x .120 I.D.

**HEX NUT**  
3/16±.005



**FLOATING BUSHING**  
7/32" HEX

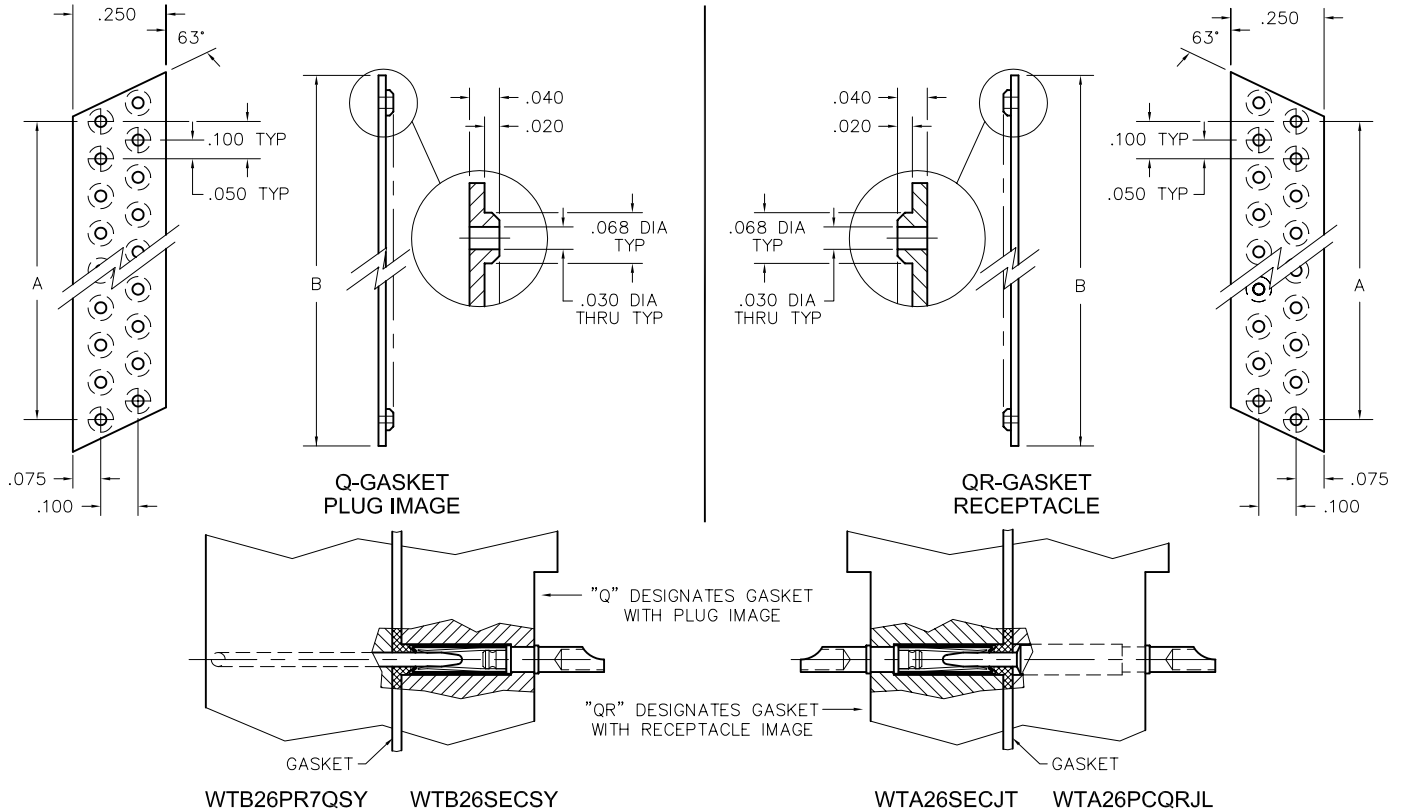
PART NUMBER	A $\begin{smallmatrix} +.000 \\ -.005 \end{smallmatrix}$	B $\begin{smallmatrix} +.000 \\ -.005 \end{smallmatrix}$	CHASSIS THICKNESS
WTFRS062	.073	.062	.062
WTFRS093	.104	.062	.093
WTFRS125	.135	.050	.125

PART NUMBER	A $\begin{smallmatrix} +.000 \\ -.030 \end{smallmatrix}$	B $\pm .003$	CHASSIS THICKNESS
WTFFS040	.439	.051	.040
WTFFS062	.500	.073	.062
WTFFS093	.500	.104	.093
WTFFS125	.562	.135	.125
WTFFS200	.625	.210	.200

PART DESCRIPTION	MATERIAL SPECIFICATION	FINISH SPECIFICATION	WTFRS	WTFRAS	WTFFS
FLOATING STUD 7/32" DIA, ROUND HEAD	SST SERIES 300 PER ASTM-A582 AND/OR QQ-S-763/766	PASSIVATE PER SAE AMS- QQ-P-35 OR ASTM-A967		X	
FLOATING STUD 7/32" HEX HEAD			X		
FLOATING BUSHING 7/32" HEX HEAD					X
MOUNTING SCREW 7/32" DIA, ROUND HEAD					X
#4 LOCKWASHER			X	X	X
#4 FLAT WASHER			X	X	X
HEX NUT #4-40			X	X	

# Accessories

Face Seal Gaskets for  
WTA-WTB Series



FOR CONNECTOR CODE	USE TWO GASKETS CODE NUMBER
WTB90PR	WTB45Q
WTB100PR	WTB50Q
WTB120PR	WTB60Q

**NOTES:**

1. DUE TO THE ELASTICITY OF SILICONE RUBBER, A & B DIMENSIONS ARE FOR REFERENCE ONLY. THE ACCUMULATIVE TOLERANCE FOR LINEAR HOLE CENTERS SHALL BE NO MORE THAN  $\pm .030$  FOR EACH INCH OF SPACE BETWEEN END HOLES.
2. MATERIAL: SILICONE RUBBER, CLASS 2A OR 2B, GRADE 50 PER A-A-59588.
3. FOR USE WITH MALE (PIN) CONNECTORS ONLY.
4. CHECK SALES DEPARTMENT FOR COMBINATION CONNECTOR AND GASKET CODES. EXAMPLE: WTB26PR7QSY-1.

CODE CHART							
NO. OF CONTACTS	A	B	GASKET CODE (PLUG IMAGE)	FOR USE WITH	GASKET CODE (RCPT IMAGE)	FOR USE WITH	
10	.400	.625	WTB10Q	WTA-P-JT JTA JTL	WTB10QR	WTA-P-J JL	
14	.600	.825	WTB14Q		WTB14QR		
20	.900	1.125	WTB20Q		WTB20QR		
24	1.100	1.325	WTB24Q		WTB24QR		
26	1.200	1.425	WTB26Q		WTB26QR		
30	1.400	1.625	WTB30Q		WTB30QR		
36	1.700	1.925	WTB36Q		WTB36QR		WTAX-P-SY SYL
40	1.900	2.125	WTB40Q		WTB40QR		
44	2.100	2.325	WTB44Q		WTB44QR		
50	2.400	2.625	WTB50Q		WTB50QR		
54	2.600	2.825	WTB54Q	WTB54QR			
56	2.700	2.925	WTB56Q	WTB56QR			
60	2.900	3.125	WTB60Q	WTB60QR			
66	3.200	3.425	WTB66Q	WTB66QR			
70	3.400	3.625	WTB70Q				
				WTB-P-SY			

Ask About AirBorn's Accelerated Delivery Service

# Accessories

Face Seal Gaskets for  
WG-WGA-WGE Series

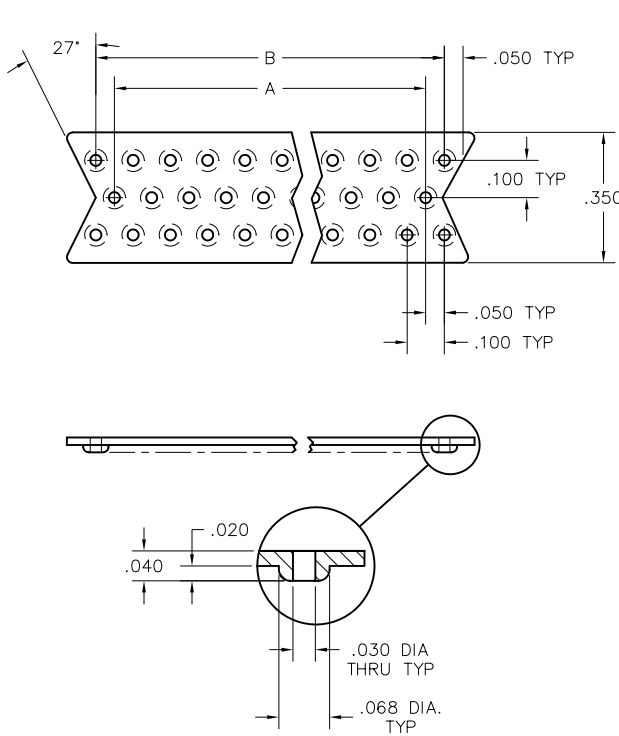


FIGURE 1

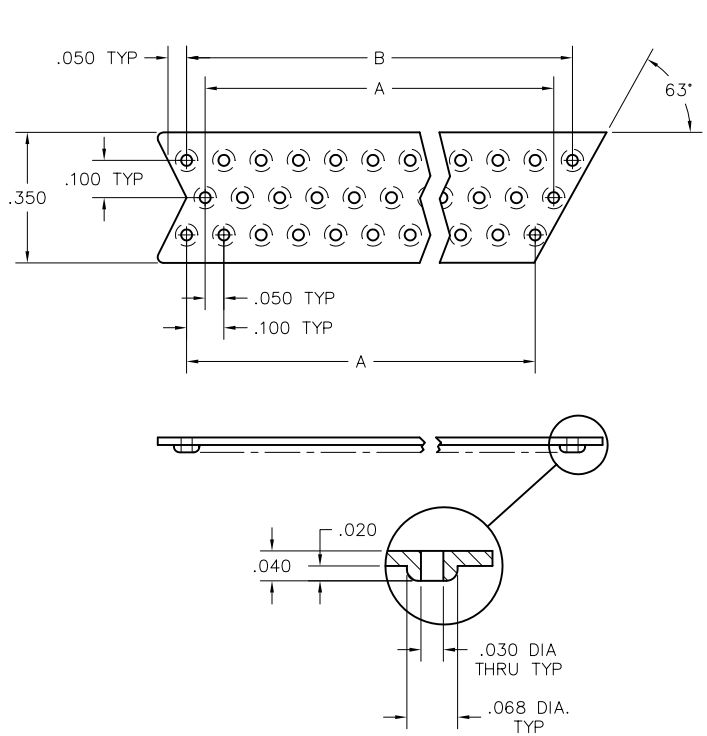


FIGURE 2

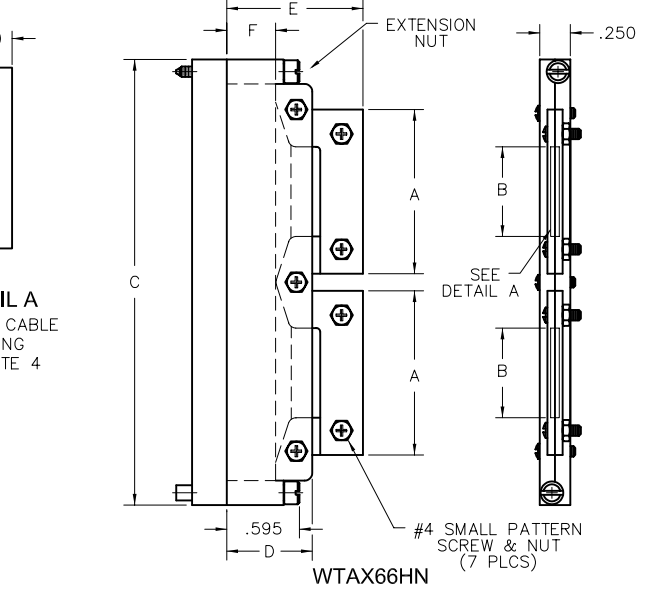
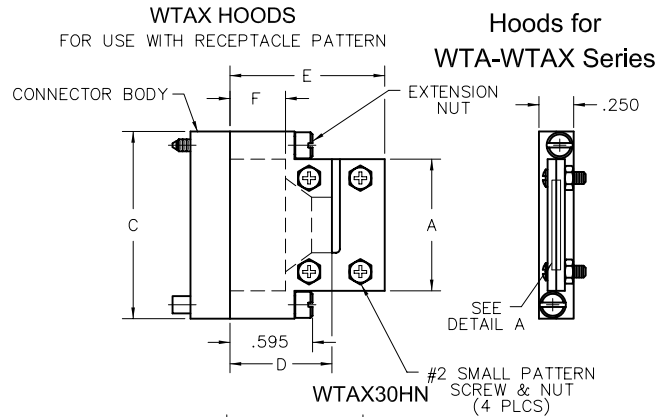
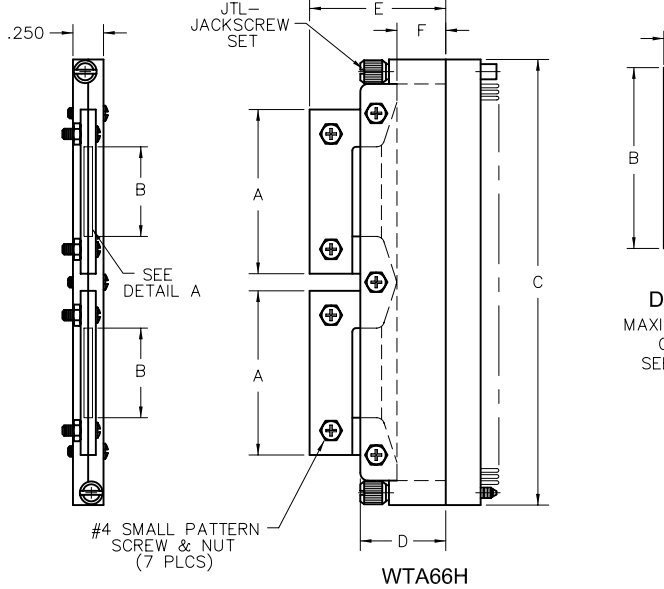
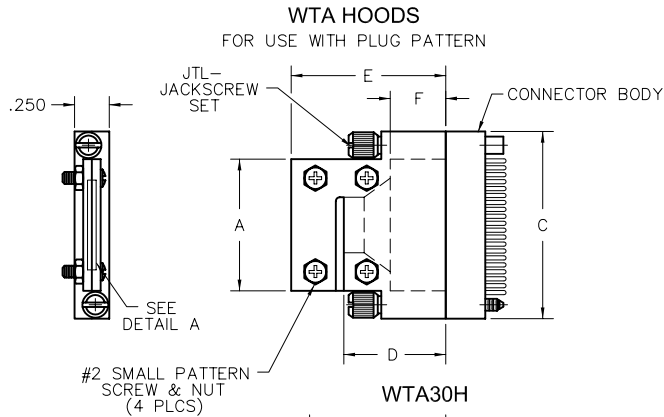
**NOTES:**

1. DUE TO THE ELASTICITY OF SILICONE RUBBER, A & B DIMENSIONS ARE FOR REFERENCE ONLY. THE ACCUMULATIVE TOLERANCE FOR LINEAR HOLE CENTERS SHALL BE NO MORE THAN  $\pm .030$  FOR EACH INCH OF SPACE BETWEEN END HOLES.
2. MATERIAL: SILICONE RUBBER, CLASS 2A OR 2B, GRADE 50 PER A-A-59588.
3. FOR USE WITH MALE (PIN) CONNECTORS ONLY.
4. CHECK SALES DEPARTMENT FOR COMBINATION CONNECTOR AND GASKET CODES. EXAMPLE: WG80PR7QSY-1.

CODE CHART					
NO. OF CONTACTS	A	B	FIGURE	GASKET CODE	FOR USE WITH
50	1.500	1.600	1	WG50Q	WG-P-JT JTA JTL
80	2.500	2.600	1	WG80Q	
92	2.900	3.000	1	WG92Q	
61	1.900	2.000	2	WG61Q	WGV-P-SY SYL
52	1.600	1.700	2	WG52Q	
62	1.900	2.000	1	WG62Q	WG-PR-SY
70	2.200	2.300	1	WG70Q	

FOR CONNECTOR CODE	USE TWO GASKETS CODE NUMBER
WGA122PR	WG61Q
WG104PR	WG52Q
WG160PR	WG80Q

# Accessories



**DETAIL A**  
MAXIMUM CABLE  
OPENING  
SEE NOTE 4

WTA HOODS, PLUG IMAGE						WTAX HOODS, RECEPTACLE IMAGE						PART NO. DESIGNATION					
PART NO.	A	B $\pm .015$ $-.025$	C	D	E	F	PART NO.	A	B $\pm .015$ $-.025$	C	D	E	F	SERIES	SIZE	HOOD DESIGNATION	FOR HARDWARE TYPE
WTA20H	.950	.400	1.350				WTAX20H	1.450	.800	1.850				WTA	20 THRU 70	H	JTL - LONG TURNING JACKSCREW SET
WTA30H	1.450	.800	1.850			WTAX30H	1.450	.800	1.850								
WTA36H	1.300	.750	2.150			WTAX36H	1.300	.750	2.150								
WTA40H	1.500	.950	2.350			WTAX40H	1.500	.950	2.350								
WTA44H	1.700	1.150	2.550			WTAX44H	1.700	1.150	2.550				WTAX	30 THRU 70	HN	J - FIXED JACKSCREW SET SY - GUIDE SET	
WTA50H	2.000	1.450	2.850	.700	1.115	.400	WTAX50H	2.000	1.450	2.850	.700	1.115					.400
WTA54H	2.200	1.650	3.050			WTAX54H	1.950	1.400	3.050								
WTA56H	2.060	1.500	3.150			WTAX56H	2.060	1.500	3.150								
WTA60H	1.240	.700	3.350			WTAX60H	1.240	.700	3.350								
WTA66H	1.350	.735	3.650			WTAX66H	1.345	.735	3.650								
WTA70H	1.445	.885	3.850			WTAX70H	1.445	.885	3.850								

**NOTES:**

- DIMENSIONS ARE SYMMETRICAL ABOUT CENTER LINE.
- HOODS ARE SUPPLIED UNASSEMBLED.
- HOOD MATERIAL: POLYETHYLENE, HIGH DENSITY  
CLAMPING SCREWS AND NUTS: STAINLESS STEEL
- THE TOP CLAMPS ARE FLEXIBLE TO ACCOMMODATE MAXIMUM CABLE BUNDLE.
- CHECK WITH SALES DEPARTMENT FOR SIZES NOT LISTED.
- SCREWS SUPPLIED ARE CROSS-RECESS ONLY.
- TOLERANCES:  $\pm .015$
- SIZES 20-30 USE #2 SMALL PATTERN SCREW & NUT.  
SIZES 36-70 USE #4 SMALL PATTERN SCREW & NUT.
- HOODS CANNOT BE USED ON CONNECTORS SPECIFYING THE -C45 OPTION CODE.

**EXAMPLES:**

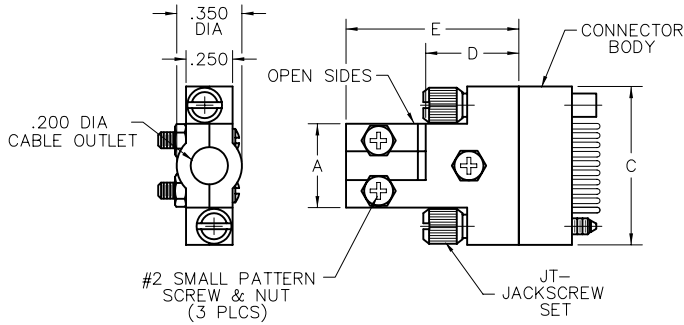
- WTA\*\*H = DESIGNATES HOOD USED WITH JTL HARDWARE
- WTA\*\*HN = DESIGNATES HOOD USED WITH J OR SY HARDWARE (INCLUDES EXTENSION NUTS).
- WTAHN = DESIGNATES EXTENSION NUTS ONLY.

\*\* = DESIGNATES CONNECTOR SIZE. SEE PAGE WA-7 FOR ADDITIONAL INFORMATION ON EXTENSION NUTS.

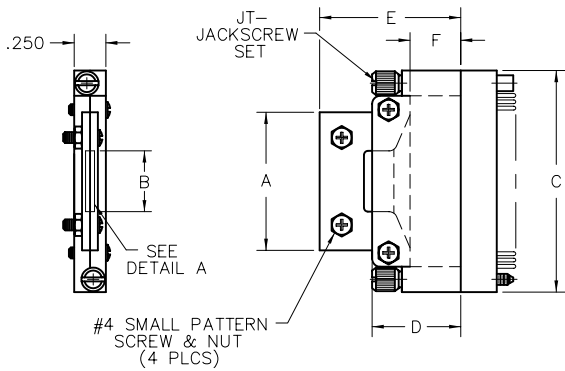
# Accessories

## Hoods for WTD-WTDX Series

**WTD HOODS**  
FOR USE WITH PLUG PATTERN

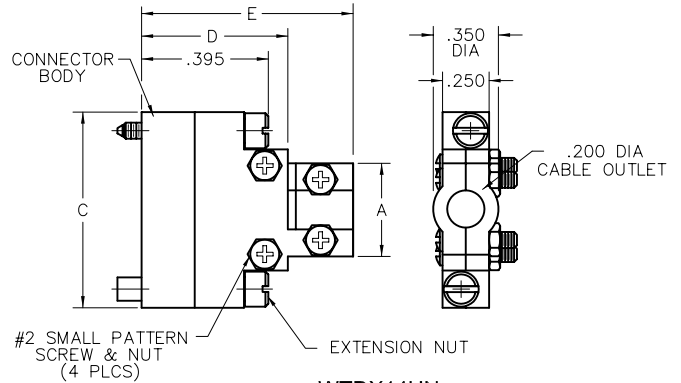


**WTD10H**

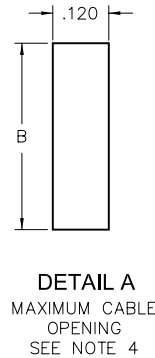


**WTD26H**

**WTDX HOODS**  
FOR USE WITH RECEPTACLE PATTERN



**WTDX14HN**



PART NO. DESIGNATION			
SERIES	SIZE	HOOD DESIGNATION	FOR HARDWARE TYPE
WTD		H	JT - TURNING JACKSCREW SET
WTDX	10, 14 & 26	HN	J - FIXED JACKSCREW SET SY - GUIDE SET

CODE CHART													
WTD HOODS, PLUG IMAGE							WTDX HOODS, RECEPTACLE IMAGE						
PART NO.	A	B $\pm .015$ $-.025$	C	D	E	F	PART NO.	A	B $\pm .015$ $-.025$	C	D	E	F
WTD10H	.450	—	.850	.500	.850	.200	WTDX10H	.450	—	.850	.500	.850	—
WTD14H	.500	—	1.050				WTDX14H	.500	—	1.050			
WTD26H	1.090	.540	1.650		.915		WTDX26H	1.250	.600	1.650		.915	.200

**NOTES:**

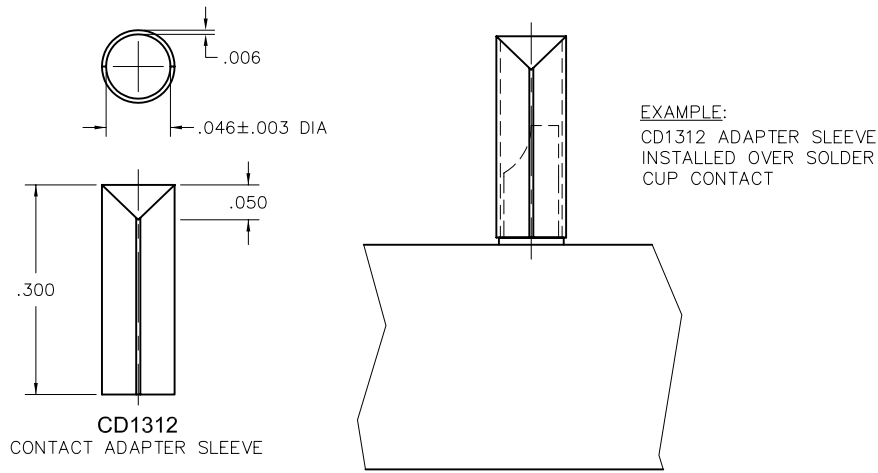
- DIMENSIONS ARE SYMMETRICAL ABOUT CENTER LINE.
- HOODS ARE SUPPLIED UNASSEMBLED.
- HOOD MATERIAL: POLYETHYLENE, HIGH DENSITY CLAMPING SCREWS AND NUTS: STAINLESS STEEL
- THE TOP CLAMPS ARE FLEXIBLE TO ACCOMMODATE MAXIMUM CABLE BUNDLE.
- CHECK WITH SALES DEPARTMENT FOR SIZES NOT LISTED.
- SEE PAGE WA-5 FOR WTA-WTAX SERIES HOODS.
- IF USED WITH WTA OR WTAX CONNECTORS IS DESIRED, LEAD DRESS AREA WILL BE AT A MINIMUM.
- SCREWS SUPPLIED ARE CROSS-RECESS ONLY.
- TOLERANCES:  $\pm .015$
- SIZES 10 & 14 USE #2 SMALL PATTERN SCREW & NUT. SIZE 26 USE #4 SMALL PATTERN SCREW & NUT.
- HOODS CANNOT BE USED ON CONNECTORS SPECIFYING THE -C45 OPTION CODE.

**EXAMPLES:**

- WTD\*\*H = DESIGNATES HOOD USED WITH JT HARDWARE  
 WTD\*\*HN = DESIGNATES HOOD USED WITH J OR SY HARDWARE (INCLUDES EXTENSION NUTS).  
 WTDHN = DESIGNATES EXTENSION NUTS ONLY.  
 \*\* = DESIGNATES CONNECTOR SIZE. SEE PAGE WA-7 FOR ADDITIONAL INFORMATION ON EXTENSION NUTS.

## Accessories

Adapter Sleeve for  
Solder Cup Contacts



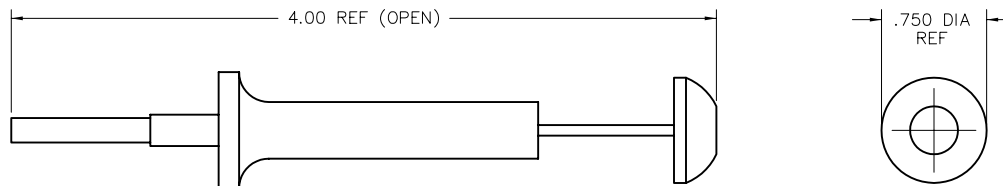
CD1312  
CONTACT ADAPTER SLEEVE

**NOTES:**

1. MATERIAL: BeCu PER ASTM-B194.  
FINISH: GOLD PLATE PER MIL-G-45204
2. CONTACT ADAPTER SLEEVE IS DESIGNED TO ACCEPT #20 WIRE.
3. WITH USE OF THE ADAPTER SLEEVE, EFFECTIVE DIAMETER IS EXPANDED TO .050 I.D.
4. THE CD1312 WILL ALSO ACCEPT: 3 TWISTED OF #28 WIRE  
2 TWISTED OF #26 WIRE

## Accessories

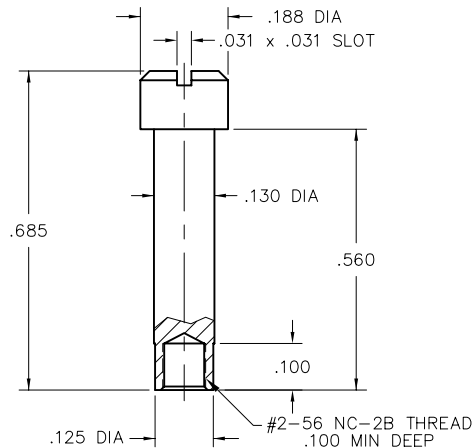
Coax Removal Tool  
for WTC Contacts



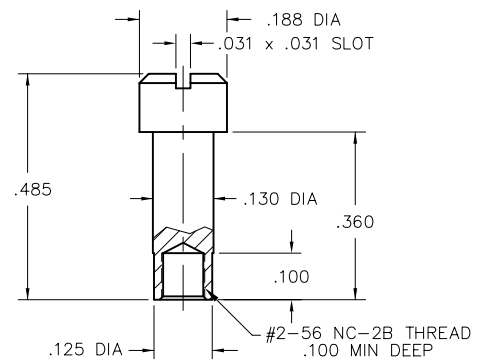
TR2679  
REMOVAL TOOL

## Accessories

Extension Nuts



WTAHN  
FOR USE WITH WTAH & WTAXH  
HOODS. SEE PAGE WA-5.



WTDHN  
FOR USE WITH WTDH & WTDXH  
HOODS. SEE PAGE WA-6.

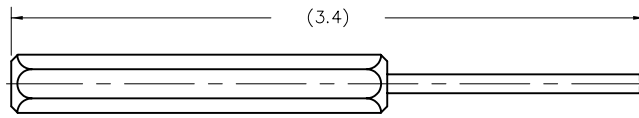
**NOTES:**

1. EXTENSION NUTS ARE NECESSARY FOR HOODS WHEN CONNECTOR INVOLVED HAS FIXED HARDWARE.  
FOR EXAMPLE: GUIDE SET (SY) OR FIXED JACKSCREW SET (J).
2. TWO EXTENSION NUTS ARE REQUIRED PER HOOD.
3. MATERIAL: STAINLESS STEEL, TYPE 303.
4. INSTALLATION: REMOVE NUT FROM HARDWARE ON TERMINATION SIDE OF CONNECTOR USING TN1680, NUT SPANNER WRENCH. INSTALL EXTENSION NUT IN ITS PLACE. FOR INFORMATION ON TN1680 SEE WA-8.

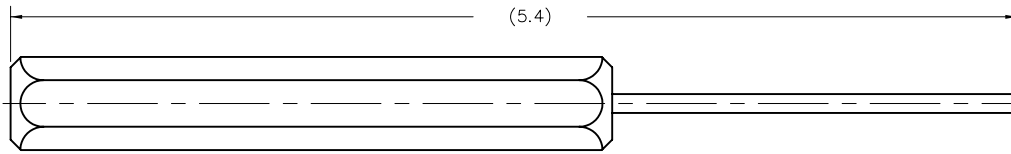
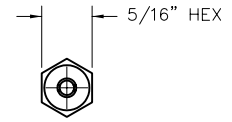


## Accessories

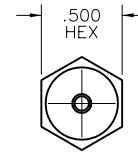
### Nut Spanner Wrenches



TN1680



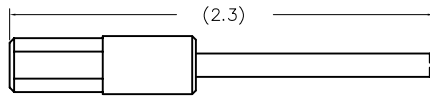
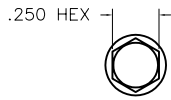
TN4612



USING EITHER OF THE SPANNER WRENCHES SHOWN ABOVE, GUIDE SETS MAY BE REMOVED AND REPOSITIONED IN ANY OF THE 64 POLARIZING POSITIONS. REFER TO PAGE WA-18 FOR POLARIZATION CHART.

CAUTION: WHEN POLARIZED POSITIONS ARE CHANGED, APPLY LOCTITE 242® TO THREADS.

IF SPANNER NUTS ARE DIFFICULT TO REMOVE DUE TO HARDENED LOCTITE®, APPLY HEAT (300° F) TO NUT AREA FOR ONE HOUR AND REPEAT REMOVAL OPERATION.

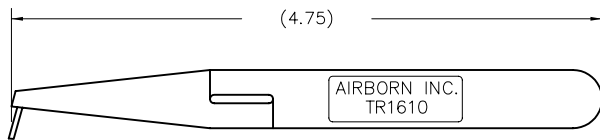


TN21243

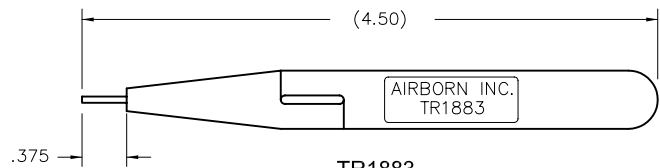
THE 1/4" DRIVE SPANNER WRENCH ABOVE IS DESIGNED FOR USE IN TORQUE WRENCHES

## Accessories

### Insertion & Removal Tools



TR1610

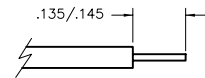
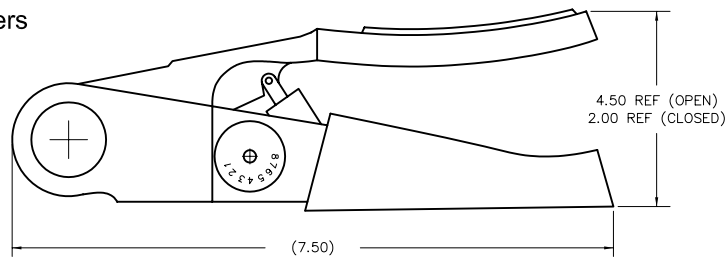


TR1883

## Accessories

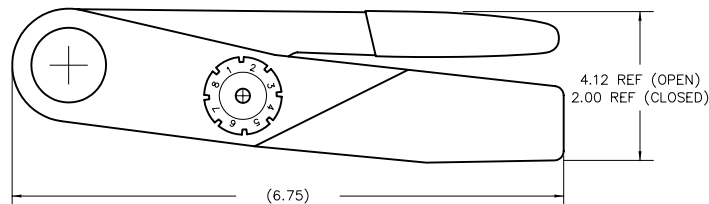
### Crimp Tools & Positioners

TC2963 - CRIMP TOOL  
REF M22520/2-01  
TP1696 - POSITIONER  
REF M22520/2-06  
(REF ASTRO TOOL CORP.)



INSULATION STRIPPING  
EXPOSE .135/.145 BARE WIRE  
LENGTH FOR INSERTION INTO  
CONTACT.

TC1652 - CRIMP TOOL  
REF M22520/2-01  
TP1653 - POSITIONER  
REF M22520/2-06  
(REF DANIELS MFG. CORP.)

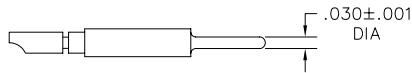


TOOL SELECTION TABLE		
CONTACT	TOOL NO.	POSITIONER
WTK2222PA		TP1985
WTK2222S	TC1652 OR TC2963	TP1653 OR TP1696
WTK2220S657		TP2435

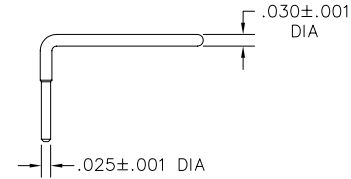
## Contacts

#22 Pins & Sockets  
for WT, WTA, WTB, WTK,  
WG & WGA Series

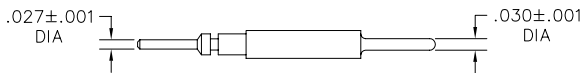
### PINS



**PC** Pin, straight, solder cup



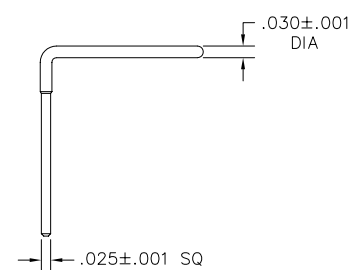
**PR**  
PR5 Pin, right angle, dip solder, .081" x .025" dia  
PR7 Pin, right angle, dip solder, .109" x .025" dia  
PR9 Pin, right angle, dip solder, .140" x .025" dia  
PR11 Pin, right angle, dip solder, .172" x .025" dia  
PR15 Pin, right angle, dip solder, .234" x .025" dia  
PRD4 Pin, right angle, dip solder, .063" x .030" dia  
PRD7 Pin, right angle, dip solder, .109" x .030" dia  
PRD8 Pin, right angle, dip solder, .125" x .030" dia



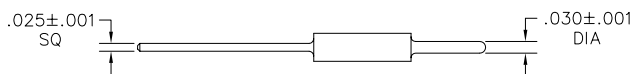
**PD**  
PD9 Pin, straight, dip solder, .140"  
PD11 Pin, straight, dip solder, .172"



**PF**  
PF3 Pin, straight, flex circuit, .050"  
PF6 Pin, straight, flex circuit, .093"

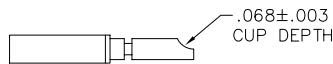


**PRW**  
PRW32 Pin, right angle, wire wrap®, .500"  
PRW34 Pin, right angle, wire wrap®, .531"  
PRW40 Pin, right angle, wire wrap®, .625"

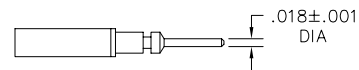


**PW** PW40 Pin, straight, wire wrap®, .625"

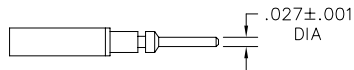
### SOCKETS



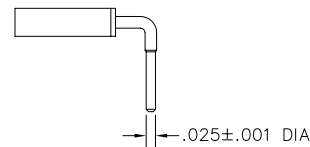
**SAC** SAC Socket, straight, solder cup, closed entry



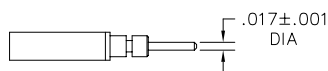
**SAG**  
SAG7 Socket, straight, dip solder, .109"  
SAG9 Socket, straight, dip solder, .140"  
SAG11 Socket, straight, dip solder, .172"



**SAD**  
SAD7 Socket, straight, dip solder, .109"  
SAD9 Socket, straight, dip solder, .140"  
SAD11 Socket, straight, dip solder, .172"  
SAD15 Socket, straight, dip solder, .234"  
SAD16 Socket, straight, dip solder, .250"



**SAR**  
SAR7 Socket, right angle, dip solder, .109"  
SAR9 Socket, right angle, dip solder, .140"  
SAR11 Socket, right angle, dip solder, .172"



**SAF**  
SAF3 Socket, straight, flex circuit, .050"  
SAF6 Socket, straight, flex circuit, .093"

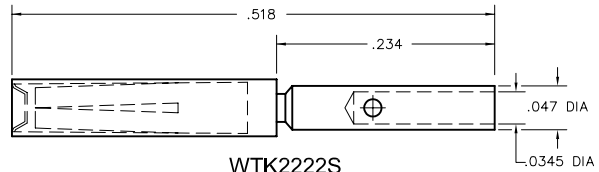


**SAW**  
SAW24 Socket, straight, wire wrap®, .375"  
SAW40 Socket, straight, wire wrap®, .625"



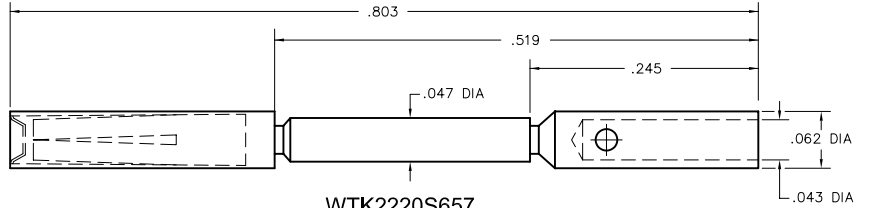
# Contacts

Crimp Removable for  
 WTDX, WTDXA, WTK, WTKA Series  
 WGDY, WGDYA, WGK, WGKA Series

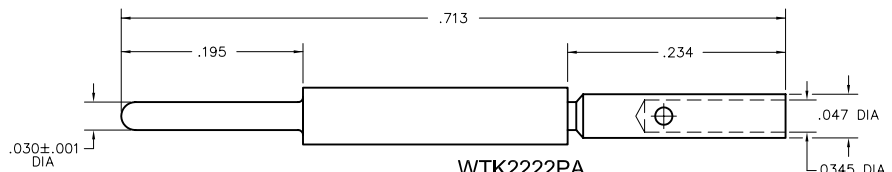


**WTK2222S**  
 SOCKET, CRIMP REMOVABLE

**WTK2222SA**  
 SOCKET, LOW FORCE, CRIMP REMOVABLE,  
 22 GAGE BARREL



**WTK2220S657**  
 SOCKET, CRIMP REMOVABLE,  
 20 GAGE BARREL

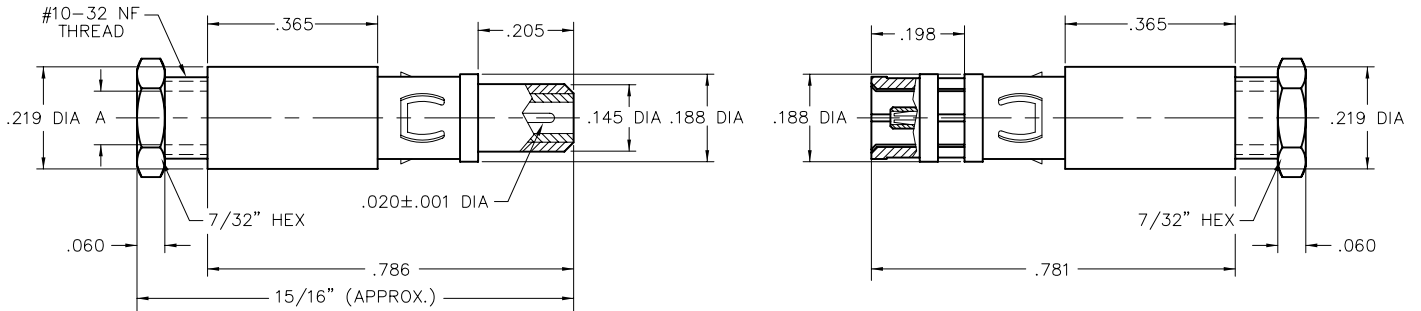


**WTK2222PA**  
 PIN, CRIMP REMOVABLE,  
 22 GAGE BARREL

Note: When using crimp contacts with 20 gage barrel, barrel must be cut off prior to removing contact from connector body.

# Contacts

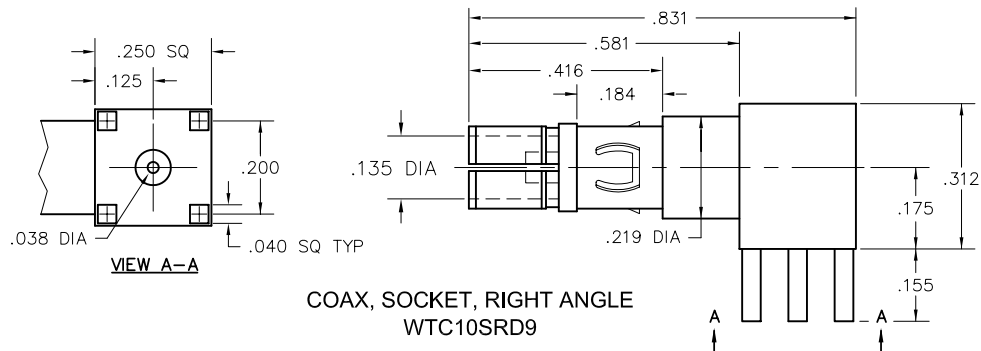
Coax



COAX, MALE

COAX, FEMALE

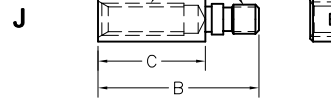
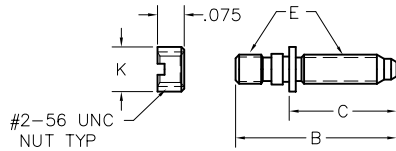
PART #	DESCRIPTION	DIA "A"	CABLE TYPE	PART #	DESCRIPTION
WTC188P	COAX, STRAIGHT, PIN	.115	RG174, RG188, RG316	WTC188S	COAX, STRAIGHT, SOCKET
WTC196P		.089	RG178, RG196	WTC196S	
WTC085P			SEMI-RIGID, .085-50 OHM	WTC085S	



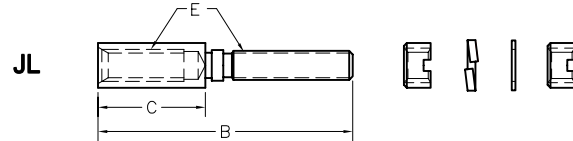
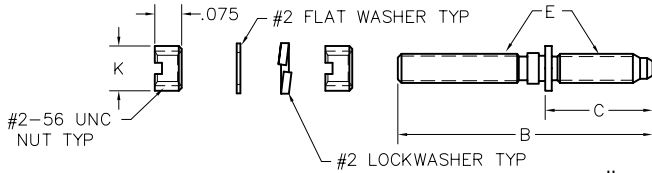
COAX, SOCKET, RIGHT ANGLE  
 WTC10SRD9

## Jacksets

### Fixed Jacksets

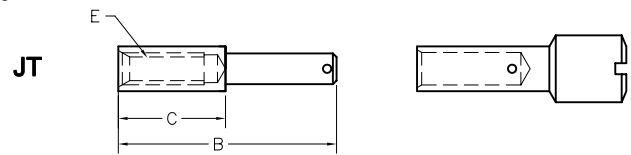
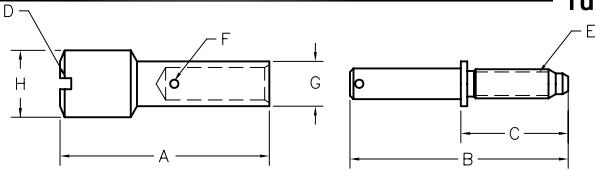


- J** Fixed jackset  
**JFF** Two fixed jacksockets  
**JFM** Fixed jackset, reversed  
**JMM** Two fixed jackscrews

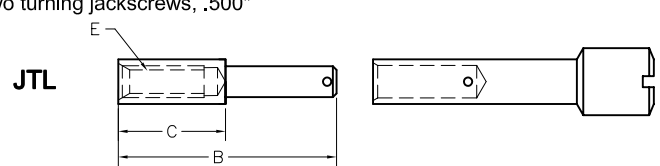
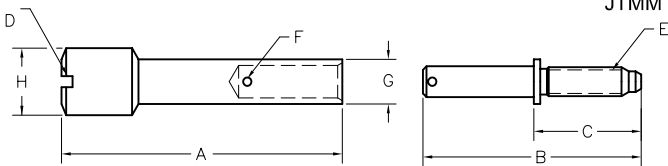


- JL** Fixed jackset, long  
**JLFF** Two fixed jacksockets, long  
**JLFM** Fixed jackset, long, reversed  
**JLMM** Two fixed jackscrews, long

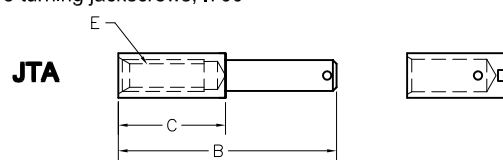
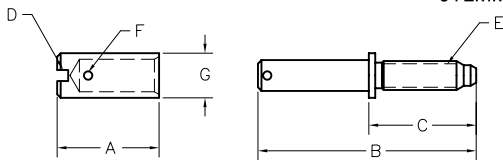
### Turning Jacksets



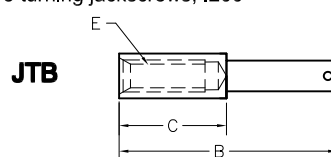
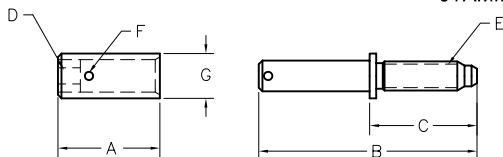
- JT** Turning jackset, .500"  
**JTFF** Two turning jacksockets, .500"  
**JTFM** Turning jackset, reversed, .500"  
**JTMM** Two turning jackscrews, .500"



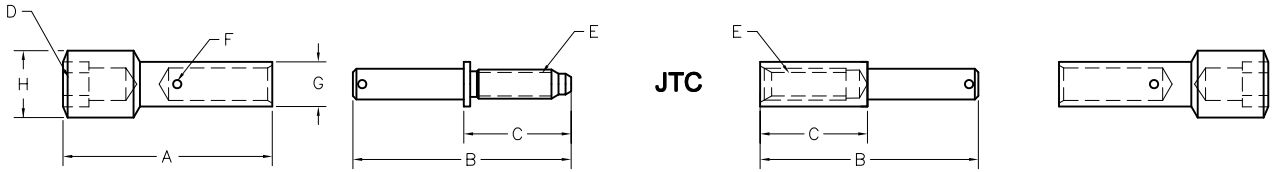
- JTL** Turning jackset, .700"  
**JTLFF** Two turning jacksockets, .700"  
**JTLFM** Turning jackset, reversed, .700"  
**JTLMM** Two turning jackscrews, .700"



- JTA** Turning jackset, .200"  
**JTAFF** Two turning jacksockets, .200"  
**JTAFM** Turning jackset, reversed, .200"  
**JTAMM** Two turning jackscrews, .200"



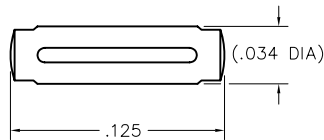
- JTB** Turning jackset, .200"  
**JTBFF** Two turning jacksockets, .200"  
**JTBFM** Turning jackset, reversed, .200"  
**JTBMM** Two turning jackscrews, .200"



JTC Turning jackset, .500"  
 JTCFF Two turning jacksockets, .500"  
 JTCFM Turning jackset, reversed, .500"  
 JTCMM Two turning jackscrews, .500"

**GROOVE PIN**

SEE NOTE 1



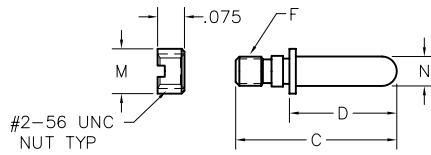
**Notes:**

1. Groove pin secures knob to jackscrew and jackscrew on turning hardware.
2. For nut spanner wrench, refer to Data Sheet on WA-9.
3. When installing fixed jacksets, apply Loctite® to threads.
4. Under normal conditions, jackscrews are at socket contact position #1, and jacksockets are at pin contact position #1.
5. Spanner nuts, lockwashers and flat washers shall be supplied separately.

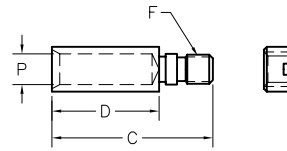
DIMENSIONS											
HARDWARE TYPE	FOR MOLDING TYPE	A	B	C	D	E	F	G	H	K	
J	WTA, WTB	—	.450	.300	—	#2-56 UNC THD	—	—	—	.125 DIA	
JL	WTA, WTB	—	.712		—		—	—	—	—	.125 DIA
JT	WTA, WTB WTDX, WTK	.585	.610 .860		.031 x .031 SLOT		.187 DIA	—	—	—	—
JTA	WTA, WTB WTDX, WTK	.285	.610 .860		.031 x .031 SLOT		.125 DIA	—	—	—	—
JTB	WTA, WTB WTDX, WTK	.285	.610 .860		5/64 INT HEX		.125 DIA	.033 DIA	.125 DIA	.125 DIA	—
JTC	WTA, WTB WTDX, WTK	.585	.610 .860		7/64 INT HEX		.187 DIA	—	—	—	—
JTL	WTA, WTB WTDX, WTK	.785	.610 .860		.031 x .031 SLOT		.187 DIA	—	—	—	—

## Guide Sets

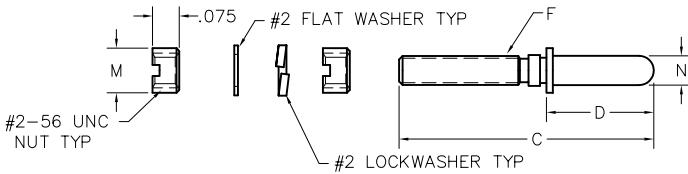
### Guide Sets



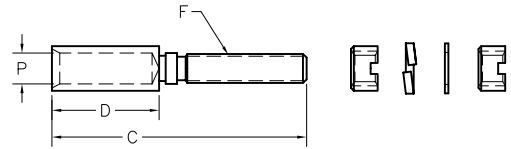
**SY**



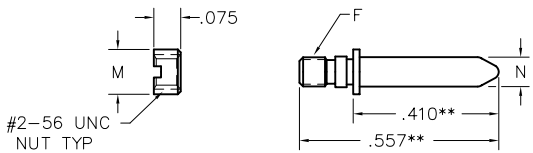
SY Guide set  
 SYFF Two guide sockets  
 SYFM Guide set, reversed  
 SYMM Two guide pins



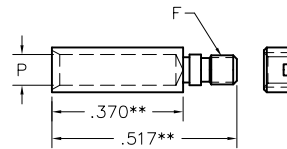
**SYL**



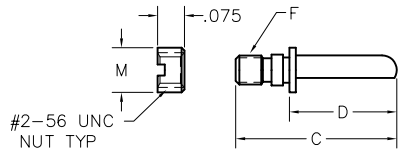
SYL Guide set  
 SYLFF Two guide sockets  
 SYLFM Guide set, reversed  
 SYLMM Two guide pins



**SC**

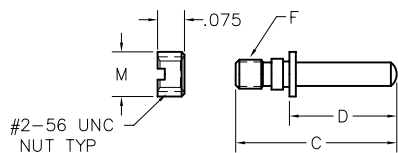
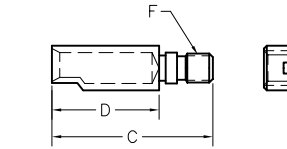


### Guide Sets, Polarized



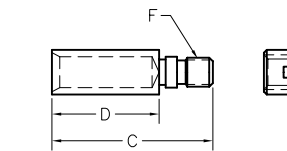
**SY-**

SEE NOTE 1



**SY-**

SEE NOTE 2



#### Notes:

- For polarized "D" shaped guides, see WA-17. Polarizing also available for SYL- and SC- guide sets. To order, use P/N WTBSY-\*, WTBSYL-\* or WTBSC-\*. See WA-17 for dash number requirement (example WTBSY-33).
- For universal type test connector, see WA-17.
- For nut spanner wrench, refer to Data Sheet on WA-9.
- When installing guide sets, apply Loctite® to threads.
- Under normal conditions, jackscrews are at socket contact position #1, and jacksockets are at pin contact position #1.
- Spanner nuts, lockwashers and flat washers shall be supplied separately.

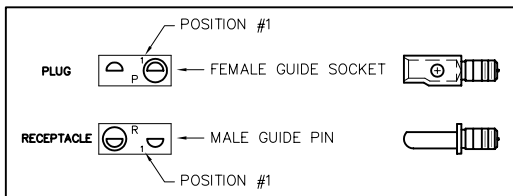
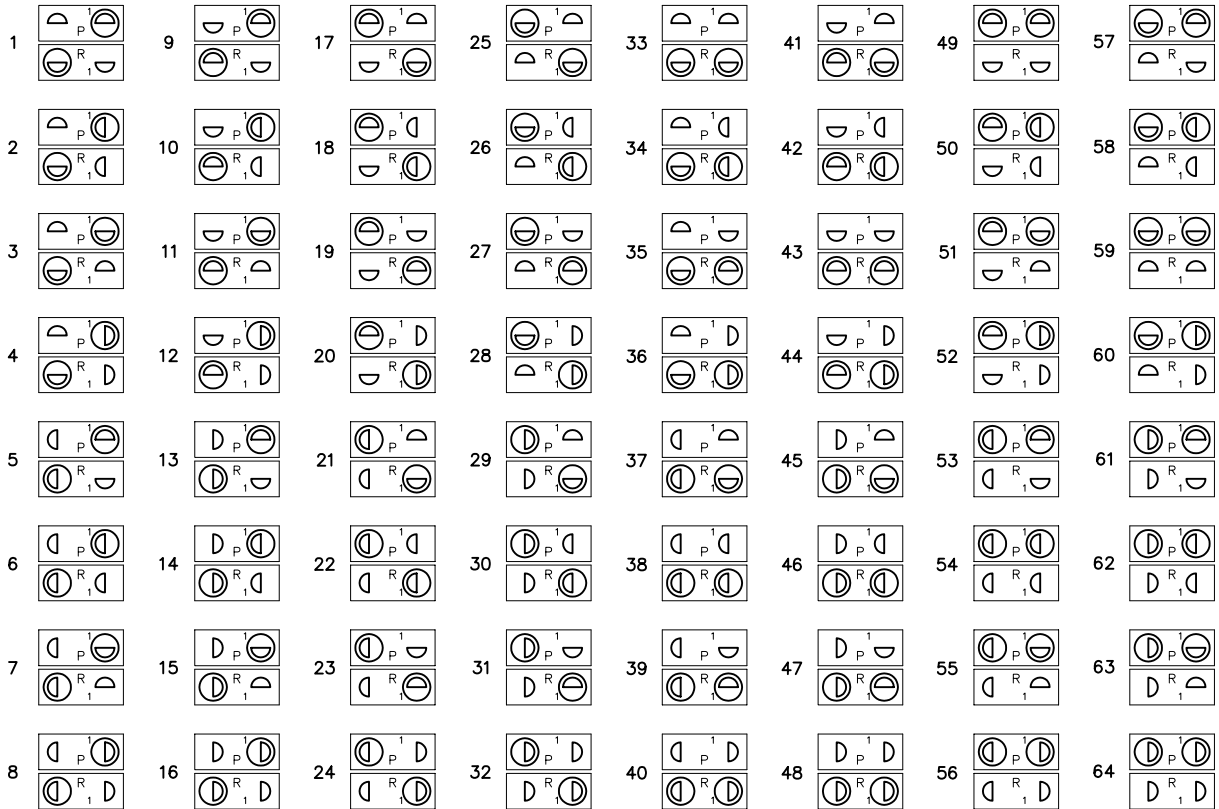
DIMENSIONS							
PART NUMBER	FOR MOLDING TYPE	C	D	F	M	N	P
WTBSC	WTB COAX	**	**	#2-56 UNC THD	.125 DIA	.082 DIA	.086 DIA
WTBSY	WTA,WTB,WG,WGA	.450	.300				
WTBSY	WTBT	.653					
WTKSY	WTK	.712					
WTBSYL	WTA,WTB,WG						

## Hardware Availability by Connector Series

<b>WTA / B WG - Receptacle</b>											<b>Body Height = .335</b>		
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	
<b>WTB / WG - Plug</b>											<b>Body Height = .400</b>		
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	
<b>WGA - Receptacle</b>											<b>Body Height = .375</b>		
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	
<b>WGA - Plug</b>											<b>Body Height = .400</b>		
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	
<b>WGR92 - Receptacle</b>											<b>Body Height = .375</b>		
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	
<b>WGR92 - Plug</b>											<b>Body Height = .350</b>		
Style:	JCL	SYCL	SYCL-*				JTA	JTB	JT	JTL			
Mating:	.130	.130	.130				.130	.130	.130	.130			
Termn:	.247	.120	.120				.205	.205	.505	.705			
<b>WRD122 - Receptacle</b>											<b>Body Height = .375</b>		
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	
<b>WRD122 - Plug</b>											<b>Body Height = .635</b>		
Style:	JCL	SYCL	SYCL-*										
Mating:	.130	.130	.010										
Termn:	----	----	----										
<b>WRF100 - Receptacle</b>											<b>Body Height = .534</b>		
Style:	J	JL											
Mating:	.130	.130											
Termn:	----	.250											
<b>WRF100 - Plug</b>											<b>Body Height = .430</b>		
Style:								JTB				JTL	
Mating:								.130				.130	
Termn:								.190				.705	
<b>WRTBT - Receptacle</b>											<b>Body Height = .525</b>		
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	
<b>PA - Receptacle</b>											<b>Body Height = .375</b>		
Style:	SY	J						JTB		JT			
Mating:	.175	.160						.175		.175			
Termn:	.200	.277						.314		1.054			
<b>PA - Plug</b>											<b>Body Height = .375</b>		
Style:	SY	J						JTB		JT		JTL	
Mating:	.210	.160						.160		.160		.175	
Termn:	.273	.277						.314		1.054		1.170	

## Hardware Availability by Connector Series

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



For optimum safety, use polarization number 1-6-11-16-17-22-27 or 32 when possible. These positions will exclude entry of guide pins at both ends of connectors when an attempt is made to mate incorrectly.

Select the appropriate two digit number above and include in the hardware code of the part number.

Example:  
 Plug                    WTB20PR7SY-1  
 Receptacle            WTB20SECSY-1

To order polarization guide set only, use p/n WTBSY-1. This set consists of one "D-shaped" guide pin, one "D-shaped" guide socket and two spanner nuts (#2-56 UNC thread).

WTBSY-0 is WTBSY-1 except guide set is assembled in connector with the "-1" configuration without applying Loctite.®

To change polarization position of guide sets, order spanner nut wrench, part number TN1680 or TN4612. See WA-9.

SERIES	NO. OF CONTACTS	POLARIZED GUIDE SET CODE	POLAR. GUIDE SET ONLY
WTB WG	10 THRU 160	SY-1 (EX. WTB70SACSY-1)	WTBSY-1
WTB COAX TYPE	20-3, 20-6	SC-1 (EX. WTB20-6SACSC-1)	WTBSC-1
WTK	10 THRU 70	SY-1 (EX. WTKA70SSY-1)	WTKSY-1

### UNIVERSAL TEST CONNECTORS

The following test guide sets are designed to mate with any of several connectors having different polarization positions. Note that the square guide pin in test connector will enter the D-shaped socket in any of the four positions in which it may be installed. Likewise, the round guide socket in test connector will fit the D-shaped pin in any position.

- 65 For positions -1 thru -16
- 66 For positions -17 thru -32
- 67P For positions -33 thru -48
- 67R
- 68P For positions -49 thru -64
- 68R

When ordering -67 or -68 guide sets only, P (plug) or R (receptacle) must be noted. Ex: WTBSY-67R. Not required if guides are assembled in the connector. Ex: WTB70SACSY-67.

WTBSY-65, WTBSC-65 & WTKSY-65 is Universal Guide Set only, consisting of: one square guide pin  
 one round guide socket  
 two spanner nuts (#2-56 thd)

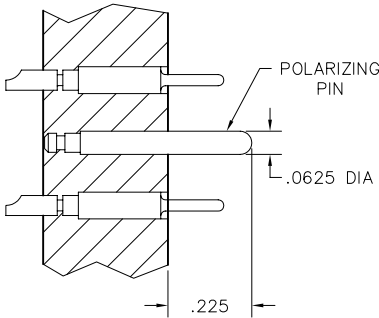
## Polarization

Polarizing Pin Applications

### PIN CONTACT

—STRAIGHT THRU—  
CONNECTOR BODY

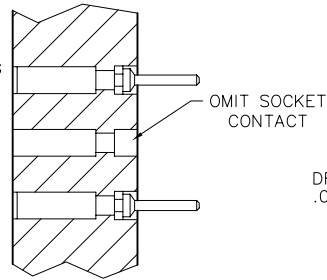
WT, WTA  
WTAV, WTBV



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

### SOCKET CONTACT

WT, WTA, WTAX,  
WTB, WTBX

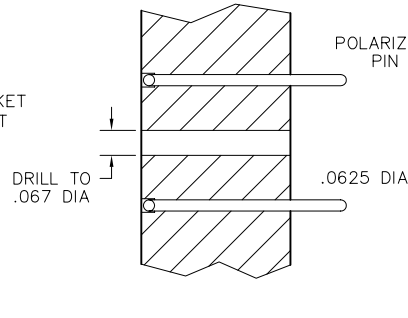


WTA\*\*SAD9JL444-1, -2...

### PIN CONTACT

—RIGHT ANGLE—  
CONNECTOR BODY

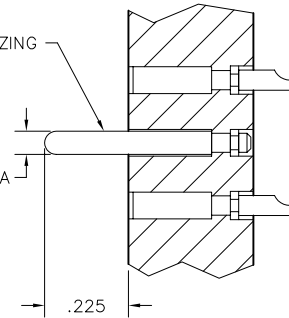
WG, WGA, WGE,  
WT, WTB



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

### SOCKET CONTACT

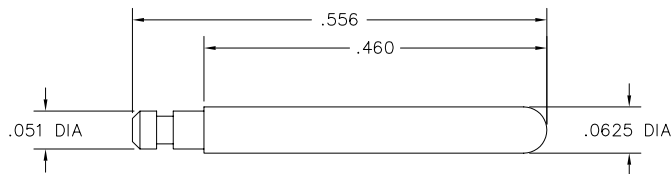
WG, WGA, WGE,  
WT, WTA, WTAX,  
WTB, WTDXA, WTKA



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

#### Notes:

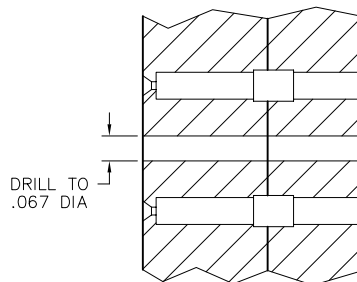
1. CODE 443 - Polarizing pin installed in contact position noted by dash number.
2. CODE 444 - Contact position noted by dash number is left open.
3. Either pin or socket contacts can be used with 443 or 444.
4. \*\* = connector size
5. For additional dimensions and other information, refer to catalog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



STAINLESS STEEL  
POLARIZING PIN

### SOCKET CONTACT

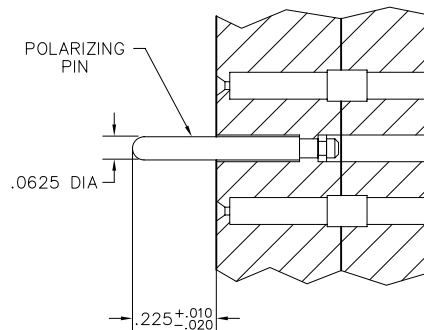
WTDXA, WTKA



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

### SOCKET CONTACT

WTDXA, WTKA



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



## MIL-C-55302/55 thru MIL-C-55302/57 Cross Reference Chart

## Indicates Number of Contacts: 10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66 or 70		## Indicates Number of Contacts: 10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66 or 70	
<b>MIL-C-55302/55 - Standard Insertion Force Contacts - or - MIL-C-55302/55L - Low Insertion Force Contacts</b>		<b>MIL-C-55302/57</b>	
MIL Number	W Series	MIL Number	W Series
/55-A##L /55-A##M /55-A##S /55-A##H	WTA##SACJTL WTA##SACJT WTA##SACJTA WTA##SACJTB	/57A##X /57A##Y /57A##Y-2 thru -64 /57A##Y-0 /57A##S /57A##H	WTB##PR7SY WTB##PR7SY-1 WTB##PR7SY-2 thru -64 WTB##PR7SY-0 WTB##PR7JTA WTB##PR7JTB
/55-B##L /55-B##M /55-B##S /55-B##H	WTA##SAD9JTL WTA##SAD9JT WTA##SAD9JTA WTA##SAD9JTB	/57B##X /57B##Y /57B##Y-2 thru -64 /57B##Y-0 /57B##S /57B##H	WTB##PR9SY WTB##PR9SY-1 WTB##PR9SY-2 thru -64 WTB##PR9SY-0 WTB##PR9JTA WTB##PR9JTB
/55-C##L /55-C##M /55-C##S /55-C##H	WTA##SAD11JTL WTA##SAD11JT WTA##SAD11JTA WTA##SAD11JTB	/57C##X /57C##Y /57C##Y-2 thru -64 /57C##Y-0 /57C##S /57C##H	WTB##PR11SY WTB##PR11SY-1 WTB##PR11SY-2 thru -64 WTB##PR11SY-0 WTB##PR11JTA WTB##PR11JTB
/55-D##L /55-D##M /55-D##S /55-D##H	WTA##SAF3JTL WTA##SAF3JT WTA##SAF3JTA WTA##SAF3JTB	/57-01	TN1680 Spanner Nut Wrench
/55-E##L /55-E##M /55-E##S /55-E##H	WTA##SAD15JTL WTA##SAD15JT WTA##SAD15JTA WTA##SAD15JTB		
/55-F##L /55-F##M /55-F##S /55-F##H	WTA##SAF6JTL WTA##SAF6JT WTA##SAF6JTA WTA##SAF6JTB		
<b>MIL-C-55302/56</b>			
/56A## /56B## /56C## /56D## /56E## /56F##	WTA##PCJL WTA##PD9JL WTA##PD11JL WTA##PW40JL WTA##PF3JL WTA##PF6JL		

## Indicates Number of Contacts: 10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66 or 70		## Indicates Number of Contacts: 10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66 or 70	
MIL-C-55302/58 - Standard Insertion Force Contacts - or - MIL-C-55302/58L - Low Insertion Force Contacts		MIL-C-55302/58	
MIL Number	W Series	MIL Number	W Series
/58-A##X /58-A##Y /58-A##Y-2 thru -64 /58-A##Y-0 /58-A##F /58-A##S /58-A##H	WTB##SACSY WTB##SACSY-1 WTB##SACSY-2 thru -64 WTB##SACSY-0 WTB##SACJ WTB##SACJTA WTB##SACJTB	/58-H##X /58-H##Y /58-H##Y-2 thru -64 /58-H##Y-0 /58-H##F /58-H##S /58-H##H	WTB##SAF6SY WTB##SAF6SY-1 WTB##SAF6SY-2 thru -64 WTB##SAF6SY-0 WTB##SAF6J WTB##SAF6JTA WTB##SAF6JTB
/58-B##X /58-B##Y /58-B##Y-2 thru -64 /58-B##Y-0 /58-B##F /58-B##S /58-B##H	WTB##SAD9SY WTB##SAD9SY-1 WTB##SAD9SY-2 thru -64 WTB##SAD9SY-0 WTB##SAD9J WTB##SAD9JTA WTB##SAD9JTB	<b>/59 ### Indicates Number of Contacts: 90, 100 or 120</b>	
/58-C##X /58-C##Y /58-C##Y-2 thru -64 /58-C##Y-0 /58-C##F /58-C##S /58-C##H	WTB##SAD11SY WTB##SAD11SY-1 WTB##SAD11SY-2 thru -64 WTB##SAD11SY-0 WTB##SAD11J WTB##SAD11JTA WTB##SAD11JTB	/59A###X /59A###Y /59A###Y-2 thru -64 /59A###Y-0 /59A###F /59A###S /59A###H	WTB###PR7SY WTB###PR7SY-1 WTB###PR7SY-2 thru -64 WTB###PR7SY-0 WTB###PR7J WTB###PR7JTA WTB###PR7JTB
/58-D##X /58-D##Y /58-D##Y-2 thru -64 /58-D##Y-0 /58-D##F /58-D##S /58-D##H	WTB##SAW40SY WTB##SAW40SY-1 WTB##SAW40SY-2 thru -64 WTB##SAW40SY-0 WTB##SAW40J WTB##SAW40JTA WTB##SAW40JTB	/59B###X /59B###Y /59B###Y-2 thru -64 /59B###Y-0 /59B###F /59B###S /59B###H	WTB###PR9SY WTB###PR9SY-1 WTB###PR9SY-2 thru -64 WTB###PR9SY-0 WTB###PR9J WTB###PR9JTA WTB###PR9JTB
/58-E##X /58-E##Y /58-E##Y-2 thru -64 /58-E##Y-0 /58-E##F /58-E##S /58-E##H	WTB##SAF3SY WTB##SAF3SY-1 WTB##SAF3SY-2 thru -64 WTB##SAF3SY-0 WTB##SAF3J WTB##SAF3JTA WTB##SAF3JTB	/59C###X /59C###Y /59C###Y-2 thru -64 /59C###Y-0 /59C###F /59C###S /59C###H	WTB###PR11SY WTB###PR11SY-1 WTB###PR11SY-2 thru -64 WTB###PR11SY-0 WTB###PR11J WTB###PR11JTA WTB###PR11JTB
/58-F##X /58-F##Y /58-F##Y-2 thru -64 /58-F##Y-0 /58-F##F /58-F##S /58-F##H	WTB##SAD15SY WTB##SAD15SY-1 WTB##SAD15SY-2 thru -64 WTB##SAD15SY-0 WTB##SAD15J WTB##SAD15JTA WTB##SAD15JTB		

<b>## Indicates Number of Contacts: 90, 100 or 120</b>		<b>## Indicates Number of Contacts: 10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66 or 70</b>	
<b>MIL-C-55302/60 - Standard Insertion Force Contacts - or - MIL-C-55302/60L - Low Insertion Force Contacts</b>		<b>MIL-C-55302/62</b>	
<b>MIL Number</b>	<b>W Series</b>	<b>MIL Number</b>	<b>W Series</b>
/60-A###X	WTB###SACSY	/62-A##L	WTAX##SACJTL
/60-A###Y	WTB###SACSY-1	/62-A##M	WTAX##SACJT
/60-A###Y-2 thru -64	WTB###SACSY-2 thru -64	/62-A##S	WTAX##SACJTA
/60-A###Y-0	WTB###SACSY-0	/62-A##H	WTAX##SACJTB
/60-A###F	WTB###SACJ		
/60-A###S	WTB###SACJTA		
/60-A###H	WTB###SACJTB		
		/62-B##L	WTAX##SAD9JTL
/60-B###X	WTB###SAD9SY	/62-B##M	WTAX##SAD9JT
/60-B###Y	WTB###SAD9SY-1	/62-B##S	WTAX##SAD9JTA
/60-B###Y-2 thru -64	WTB###SAD9SY-2 thru -64	/62-B##H	WTAX##SAD9JTB
/60-B###Y-0	WTB###SAD9SY-0		
/60-B###F	WTB###SAD9J	/62-C##L	WTAX##SAD11JTL
/60-B###S	WTB###SAD9JTA	/62-C##M	WTAX##SAD11JT
/60-B###H	WTB###SAD9JTB	/62-C##S	WTAX##SAD11JTA
		/62-C##H	WTAX##SAD11JTB
/60-C###X	WTB###SAD11SY		
/60-C###Y	WTB###SAD11SY-1	/62-D##L	WTAX##SAF3JTL
/60-C###Y-2 thru -64	WTB###SAD11SY-2 thru -64	/62-D##M	WTAX##SAF3JT
/60-C###Y-0	WTB###SAD11SY-0	/62-D##S	WTAX##SAF3JTA
/60-C###F	WTB###SAD11J	/62-D##H	WTAX##SAF3JTB
/60-C###S	WTB###SAD11JTA		
/60-C###H	WTB###SAD11JTB		
		/62-E##L	WTAX##SAD15JTL
/60-D###X	WTB###SAW40SY	/62-E##M	WTAX##SAD15JT
/60-D###Y	WTB###SAW40SY-1	/62-E##S	WTAX##SAD15JTA
/60-D###Y-2 thru -64	WTB###SAW40SY-2 thru -64	/62-E##H	WTAX##SAD15JTB
/60-D###Y-0	WTB###SAW40SY-0		
/60-D###F	WTB###SAW40J	/62-F##L	WTAX##SAF6JTL
/60-D###S	WTB###SAW40JTA	/62-F##M	WTAX##SAF6JT
/60-D###H	WTB###SAW40JTB	/62-F##S	WTAX##SAF6JTA
		/62-F##H	WTAX##SAF6JTB
/60-E###X	WTB###SAD15SY	<b>MIL-C-55302/63</b>	
/60-E###Y	WTB###SAD15SY-1	/63A##L	WTA##PCJTL
/60-E###Y-2 thru -64	WTB###SAD15SY-2 thru -64	/63A##M	WTA##PCJT
/60-E###Y-0	WTB###SAD15SY-0	/63A##S	WTA##PCJTA
/60-E###F	WTB###SAD15J	/63A##H	WTA##PCJTB
/60-E###S	WTB###SAD15JTA		
/60-E###H	WTB###SAD15JTB		
		/63A##F	WTAV##PCJL
		/63A##X	WTAV##PCSYL
		/63A##Y	WTAV##PCSYL-1
		/63A##Y-2 thru -64	WTAV##PCSYL-2 thru -64
		/63A##Y-0	WTAV##PCSYL-0
<b>## Indicates Number of Contacts: 10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66 or 70</b>			
<b>MIL-C-55302/61</b>			
/61A##	WTB##PR7J		
/61B##	WTB##PR9J		
/61C##	WTB##PR11J		

## Indicates Number of Contacts: 10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66 or 70		## Indicates Number of Contacts: 10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66 or 70	
<b>MIL-C-55302/63</b>		<b>MIL-C-55302/64 - Standard Insertion Force Contacts - or - MIL-C-55302/64L - Low Insertion Force Contacts</b>	
<b>MIL Number</b>	<b>W Series</b>	<b>MIL Number</b>	<b>W Series</b>
/63B##L /63B##M /63B##S /63B##H /63B##F	WTA##PD9JTL WTA##PD9JT WTA##PD9JTA WTA##PD9JTB WTAV##PD9JL	/64-A##F /64-A##X /64-A##Y /64-A##Y-2 thru -64 /64-A##Y-0	WTA##SACJL WTAX##SACSYL WTAX##SACSYL-1 WTAX##SACSYL-2 thru -64 WTAX##SACSYL-0
/63B##X /63B##Y /63B##Y-2 thru -64 /63B##Y-0	WTAV##PD9SYL WTAV##PD9SYL-1 WTAV##PD9SYL-2 thru -64 WTAV##PD9SYL-0	/64-B##F /64-B##X /64-B##Y /64-B##Y-2 thru -64 /64-B##Y-0	WTA##SAD9JL WTAX##SAD9SYL WTAX##SAD9SYL-1 WTAX##SAD9SYL-2 thru -64 WTAX##SAD9SYL-0
/63C##L /63C##M /63C##S /63C##H /63C##F	WTA##PD11JTL WTA##PD11JT WTA##PD11JTA WTA##PD11JTB WTAV##PD11JL	/64-C##F /64-C##X /64-C##Y /64-C##Y-2 thru -64 /64-C##Y-0	WTA##SAD11JL WTAX##SAD11SYL WTAX##SAD11SYL-1 WTAX##SAD11SYL-2 thru -64 WTAX##SAD11SYL-0
/63C##X /63C##Y /63C##Y-2 thru -64 /63C##Y-0	WTAV##PD11SYL WTAV##PD11SYL-1 WTAV##PD11SYL-2 thru -64 WTAV##PD11SYL-0	/64-D##F /64-D##X /64-D##Y /64-D##Y-2 thru -64 /64-D##Y-0	WTA##SAW40JL WTAX##SAW40SYL WTAX##SAW40SYL-1 WTAX##SAW40SYL-2 thru -64 WTAX##SAW40SYL-0
/63D##L /63D##M /63D##S /63D##H /63D##F	WTA##PF3JTL WTA##PF3JT WTA##PF3JTA WTA##PF3JTB WTAV##PF3JL	/64-E##F /64-E##X /64-E##Y /64-E##Y-2 thru -64 /64-E##Y-0	WTA##SAF3JL WTAX##SAF3SYL WTAX##SAF3SYL-1 WTAX##SAF3SYL-2 thru -64 WTAX##SAF3SYL-0
/63D##X /63D##Y /63D##Y-2 thru -64 /63D##Y-0	WTAV##PF3SYL WTAV##PF3SYL-1 WTAV##PF3SYL-2 thru -64 WTAV##PF3SYL-0	/64-F##F /64-F##X /64-F##Y /64-F##Y-2 thru -64 /64-F##Y-0	WTA##SAF6JL WTAX##SAF6SYL WTAX##SAF6SYL-1 WTAX##SAF6SYL-2 thru -64 WTAX##SAF6SYL-0
/63E##L /63E##M /63E##S /63E##H /63E##F	WTA##PF6JTL WTA##PF6JT WTA##PF6JTA WTA##PF6JTB WTAV##PF6JL		
/63E##X /63E##Y /63E##Y-2 thru -64 /63E##Y-0	WTAV##PF6SYL WTAV##PF6SYL-1 WTAV##PF6SYL-2 thru -64 WTAV##PF6SYL-0		

<b>## Indicates Number of Contacts: 10, 14, 20, 24, 26, 30, 36, 40, 44, 50, 54, 56, 60, 66 or 70</b>		<b>Number of Contacts: 160</b>	
<b>MIL-C-55302/65 and /66 - Standard Insertion Force Contacts - or - MIL-C-55302/65L and /66L - Low Insertion Force Contacts</b>		<b>MIL-C-55302/139</b>	
<b>MIL Number</b>	<b>W Series</b>	<b>MIL Number</b>	<b>W Series</b>
/65-##X /65-##Y /65-##Y-2 thru -64 /65-##Y-0 /65-##F /65-##S /65-##H	WTKA##SASY WTKA##SASY-1 WTKA##SASY-2 thru -64 WTKA##SASY-0 WTKA##SAJ WTKA##SAJTA WTKA##SAJTB	/139B160X /139B160Y /139B160Y-2 thru -64 /139B160Y-0 /139B160F /139B160S /139B160H	WG160SAD7SY WG160SAD7SY-1 WG160SAD7SY-2 thru -64 WG160SAD7SY-0 WG160SAD7J WG160SAD7JTA WG160SAD7JTB
/65-01 Crimp Contact /65-02 Crimp Contact /66-##L /66-##M /66-##S /66-##F /66-##H	WTK2222S WTK2222SA Low Force Socket WTDXA##SAJTL WTDXA##SAJT WTDXA##SAJTA WTDXA##SAJ WTDXA##SAJTB	/139C160X /139C160Y /139C160Y-2 thru -64 /139C160Y-0 /139C160F /139C160S /139C160H	WG160SAD9SY WG160SAD9SY-1 WG160SAD9SY-2 thru -64 WG160SAD9SY-0 WG160SAD9J WG160SAD9JTA WG160SAD9JTB
<b>MIL-C-55302/138</b>		<b>Number of Contacts: 160</b>	
/138A160X /138A160Y /138A160Y-2 thru -64 /138A160Y-0 /138A160F /138A160S /138A160H	WG160PR7SY WG160PR7SY-1 WG160PR7SY-2 thru -64 WG160PR7SY-0 WG160PR7J WG160PR7JTA WG160PR7JTB	/139D160X /139D160Y /139D160Y-2 thru -64 /139D160Y-0 /139D160F /139D160S /139D160H	WG160SAW40SY WG160SAW40SY-1 WG160SAW40SY-2 thru -64 WG160SAW40SY-0 WG160SAW40J WG160SAW40JTA WG160SAW40JTB
/138B160X /138B160Y /138B160Y-2 thru -64 /138B160Y-0 /138B160F /138B160S /138B160H	WG160PR9SY WG160PR9SY-1 WG160PR9SY-2 thru -64 WG160PR9SY-0 WG160PR9J WG160PR9JTA WG160PR9JTB	/139E160X /139E160Y /139E160Y-2 thru -64 /139E160Y-0 /139E160F /139E160S /139E160H	WG160SAD11SY WG160SAD11SY-1 WG160SAD11SY-2 thru -64 WG160SAD11SY-0 WG160SAD11J WG160SAD11JTA WG160SAD11JTB
/138C160X /138C160Y /138C160Y-2 thru -64 /138C160Y-0 /138C160F /138C160S /138C160H	WG160PR11SY WG160PR11SY-1 WG160PR11SY-2 thru -64 WG160PR11SY-0 WG160PR11J WG160PR11JTA WG160PR11JTB	/139F160X /139F160Y /139F160Y-2 thru -64 /139F160Y-0 /139F160F /139F160S /139F160H	WG160SAF3SY WG160SAF3SY-1 WG160SAF3SY-2 thru -64 WG160SAF3SY-0 WG160SAF3J WG160SAF3JTA WG160SAF3JTB
<b>MIL-C-55302/139</b>		<b>Number of Contacts: 160</b>	
/139A160X /139A160Y /139A160Y-2 thru -64 /139A160Y-0 /139A160F /139A160S /139A160H	WG160SACSY WG160SACSY-1 WG160SACSY-2 thru -64 WG160SACSY-0 WG160SACJ WG160SACJTA WG160SACJTB	/139H160X /139H160Y /139H160Y-2 thru -64 /139H160Y-0 /139H160F /139H160S /139H160H	WG160SAF6SY WG160SAF6SY-1 WG160SAF6SY-2 thru -64 WG160SAF6SY-0 WG160SAF6J WG160SAF6JTA WG160SAF6JTB

**"WB" SERIES - .050"**  
**MIL-C-55302**



## Contents

### "WB" Series

#### .050" Rectangular Plastic Board Level Connectors

WB-1	Contents
WB-2	Specifications
WB-3	Performance
WB-4	Part number description
	<b>2-Row Connectors - PC Card or SMT to Board, Sizes: 20-132</b>
WB-5	WB Plug, right angle, with mounting ears
	WB Receptacle, straight, with mounting ears
WB-7	WBB, WBA Plug, straight, surface mount, with mounting ears
	WB Receptacle, straight, with mounting ears
WB-9	Hardware
WB-10	WB Board layout - plug, right angle
WB-11	WB Board layout - receptacle, straight
WB-12	WBB, WBA Board layout - plug, straight, surface mount
	<b>Military Cross Reference</b>
WB-13	Chart

## Specifications

### Materials and Finishes \*

<b>Pin Contacts:</b>	Phosphor Bronze per ASTM B 139
<b>Socket Contacts:</b>	BeCu per MIL-C-55302
<b>Contact Finish:</b>	Au per ASTM B 488-, SAE AMS 2422. Localized finish over MIL-C-55302
<b>Molded Insulators:</b>	Glass filled polyphenylene sulfide per MIL-M-24519, Type GST-40F
<b>Keying Features:</b>	Polarized octagonal guides can be a molded integral part of the insulator or separate stainless steel hardware.
<b>Tolerances:</b>	Unless otherwise specified: Fractions = $\pm 1/64$ " Decimals = $\pm 0.010$ " 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





## Performance Reference MIL-C-55302

<b>Contact Rating:</b>	1.5 amperes
<b>Solderability:</b>	Tested to MIL-STD-202, Method 208
<b>Operating Temperature:</b>	-65° to +125° C or -85° to +257° F
<b>Contact Engagement Force:</b>	2.0 oz. maximum with .0189/.0190 diameter test pin in accordance with SAE AS 31971
<b>Contact Separation Force:</b>	.10 oz. maximum with .0169/.0170 diameter test pin in accordance with SAE AS 31971

<u>Category:</u>	<u>Requirements:</u>	<u>Test Method Per:</u> <u>SAE AS 13441</u>
<b>Test Voltage:</b>	600 V, RMS, 60 Hz @ sea level 150 V, RMS, 60 Hz @ 70,000 feet	#3001
<b>Insulation Resistance:</b>	5,000 megohms minimum @ 500 VDC	#3003
<b>Durability:</b>	500 connector mating cycles	
<b>Contact Resistance:</b>	.0375 volt maximum drop @ 1.5 amperes - (.025 ohms)	#3004
<b>Contact Resistance:</b>	.0375 volt maximum drop @ 1.5 amperes -	

## Part Number Description

Each part number consists of four elements: series, size (number of contacts), type of contacts, and type of hardware.

Each catalog page shows the choices available for each of these elements. By selecting one option from each category on the page, you can build a set of connectors to meet your requirements.

Each part number is identified by a combination of letters and/or numbers of varying lengths. These numbers are written together without spaces or punctuation.

**Series:**

The series letters identify the connector body style. Follow choices on each catalog page for series numbers.

**Size:**

The size is determined by the number of contacts in the connector, and is an integral part of the part number. Order only sizes shown on the catalog page unless otherwise noted.

**Contacts:**

Each page also identifies all contact options for a given connector.

**Hardware:**

Hardware options are shown on each catalog page. Follow the choices for each connector.

**Note:**

Each page is as comprehensive as possible. However, if you do not find a particular connector size or option, please contact the factory for further assistance.

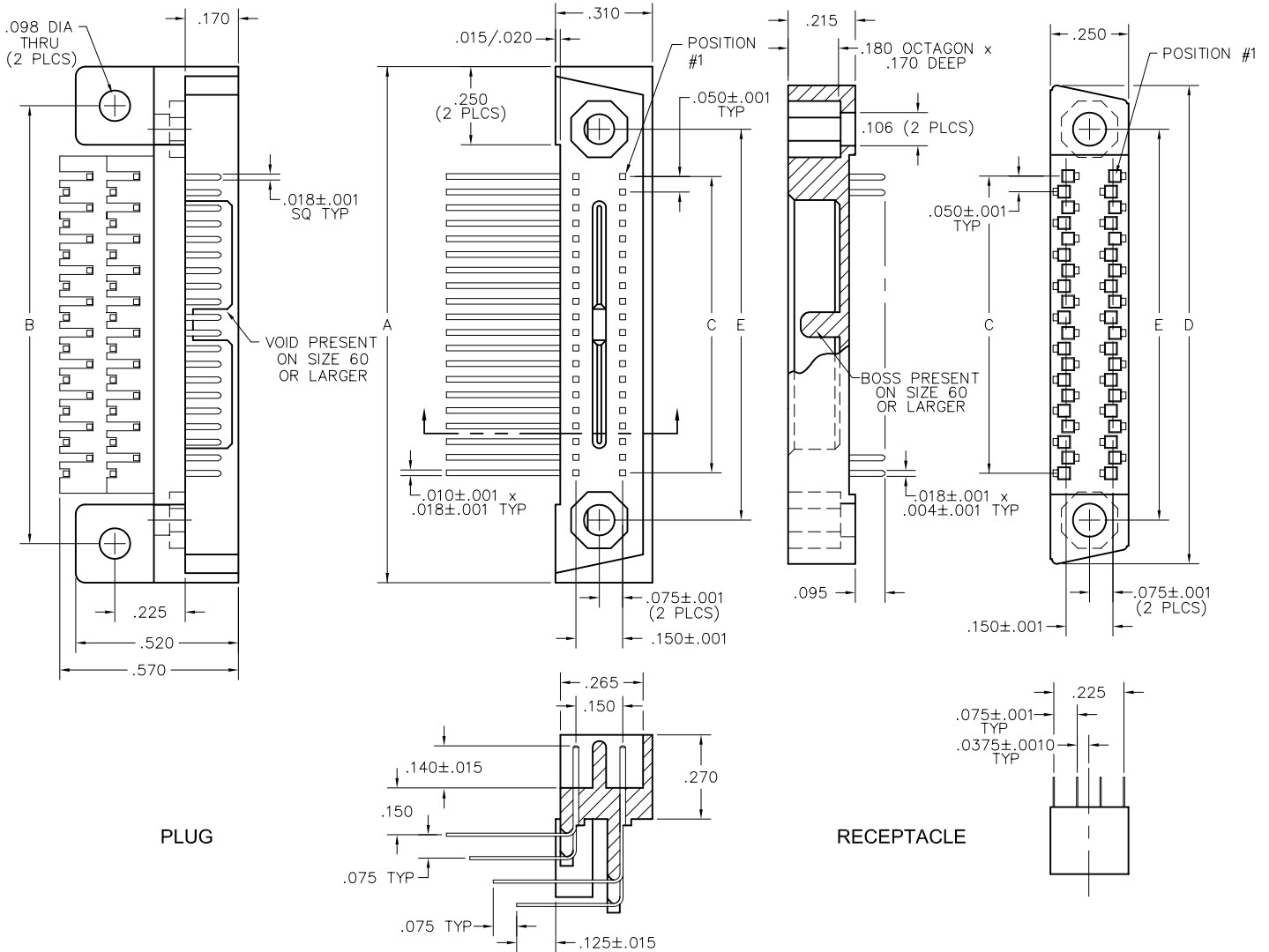
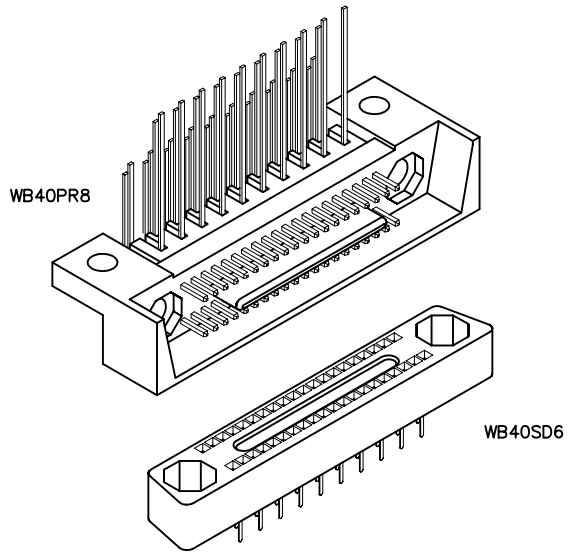


# 2 · ROW PC Card to Chassis or Board

.050"

**WB - WB**

20 thru 132 Contacts



PLUG: WB40PR8  
 RECEPTACLE: WB40SD6  
 XXXXXXXXXXXX

PLUG	SERIES	RECEPTACLE
WB 2 row, right angle, plug, with mounting ears		WB 2 row, straight, receptacle, with mounting ears
SIZE	SIZE	CONTACTS
20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 128, 132	20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 128, 132	TYPE CONTACTS/TERMINATIONS: PR8 Pin, right angle, dip solder, .125" SD6 Socket, straight, dip solder, .095" SD9 Socket, straight, dip solder, .140" SD12 Socket, straight, dip solder, .190" SD19 Socket, straight, dip solder, .300"
HARDWARE	HARDWARE	HARDWARE
K*_* Integral keying guides, polarized KY*_* Stainless steel keying guides, polarized JMM 2 stainless steel fixed jackscrews		STYLE OF HARDWARE: (See WB-9) K*_* Integral keying guides, polarized KY*_* Stainless steel keying guides, polarized JTFF 2 stainless steel turning jackscrews

DIMENSIONS					
SIZE	A	B	C	D	E
20	1.150	.900	.450	1.030	.750
30	1.400	1.150	.700	1.280	1.000
40	1.650	1.400	.950	1.530	1.250
50	1.900	1.650	1.200	1.780	1.500
60	2.150	1.900	1.450	2.030	1.750
70	2.400	2.150	1.700	2.280	2.000
80	2.650	2.400	1.950	2.530	2.250
90	2.900	2.650	2.200	2.780	2.500
100	3.150	2.900	2.450	3.030	2.750
110	3.400	3.150	2.700	3.280	3.000
128	3.850	3.600	3.150	3.730	3.450
132	3.950	3.700	3.250	3.830	3.550



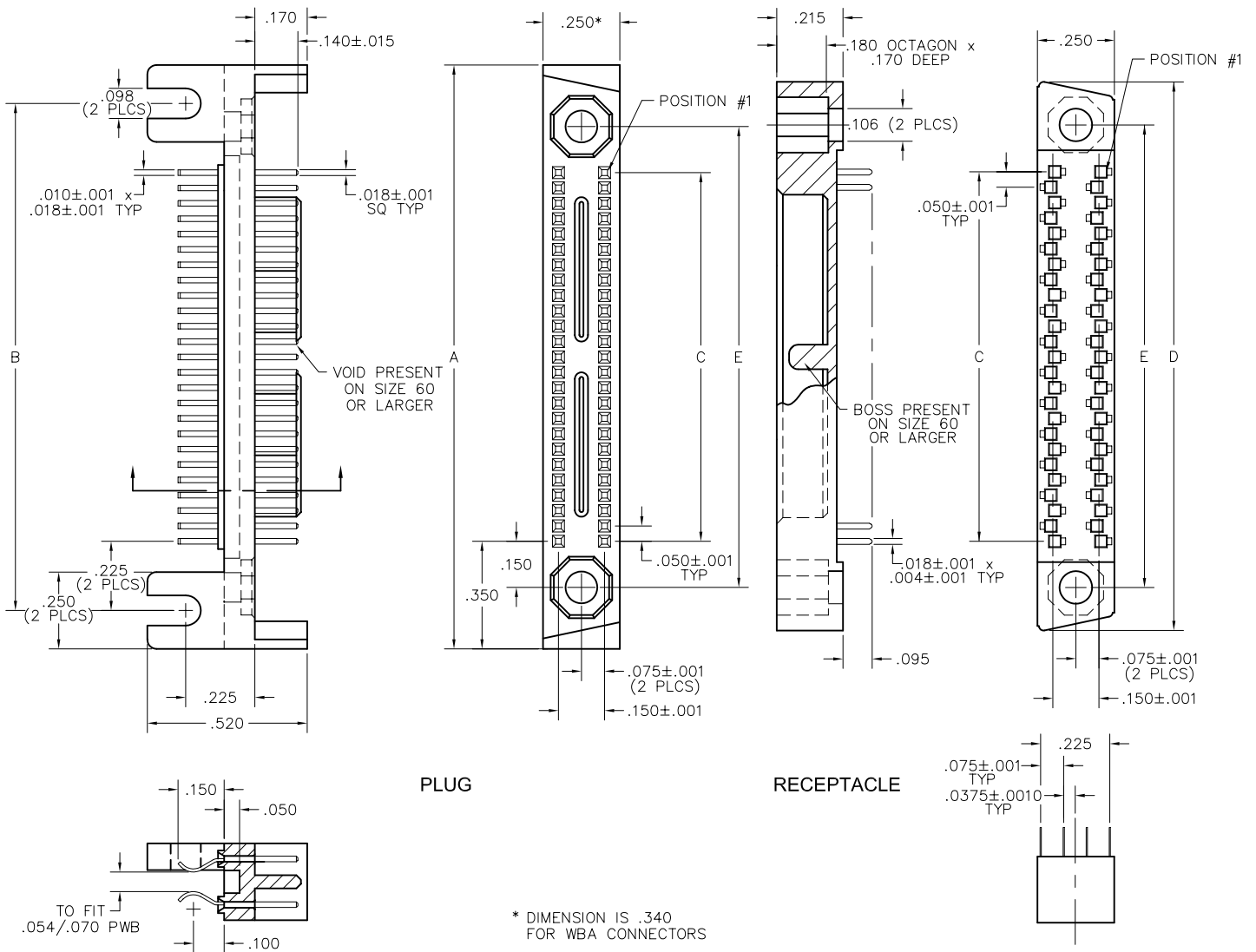
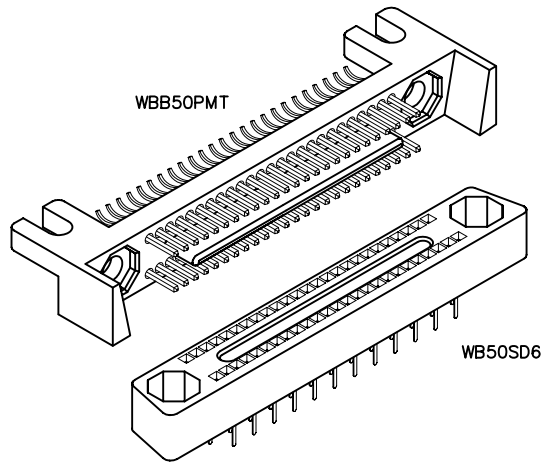
# 2 · ROW SMT Card to Chassis or Board

.050"

**WBB - WB**

**WBA - WB**

20 thru 132 Contacts



PLUG: WBB50PMT  
 RECEPTACLE: WB50SD6  
 XXXXXXXXXXXXX

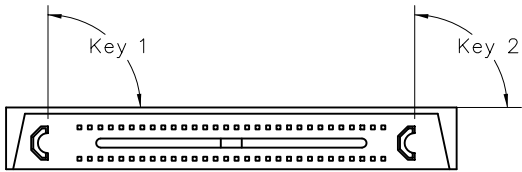
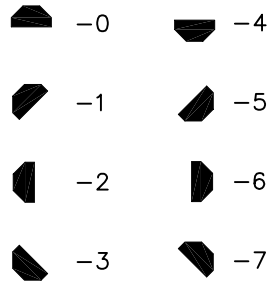
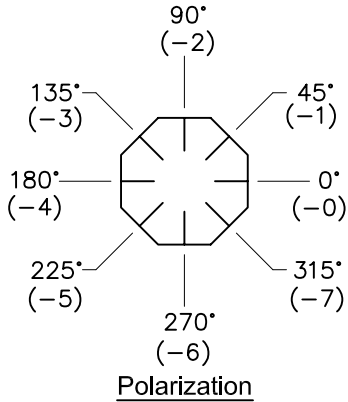
PLUG		RECEPTACLE	
<b>SERIES</b>			
WBB 2 row, SMT, plug, with mounting ears	WBA 2 row, SMT, plug, full skirt, with mounting ears	WB 2 row, straight, receptacle, with mounting ears	
<b>SIZE</b>			
20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 128, 132		20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 128, 132	
<b>CONTACTS</b>			
TYPE CONTACTS/TERMINATIONS:		TYPE CONTACTS/TERMINATIONS:	
PMT Pin, card edge SMT (Board: .054/.070)		SD6 Socket, straight, dip solder, .095"	
		SD9 Socket, straight, dip solder, .140"	
		SD12 Socket, straight, dip solder, .190"	
		SD19 Socket, straight, dip solder, .300"	
<b>HARDWARE</b>			
STYLE OF HARDWARE: (See WB-9)		STYLE OF HARDWARE: (See WB-9)	
K*_* Integral keying guides, polarized		K*_* Integral keying guides, polarized	
KY*_* Stainless steel keying guides, polarized		KY*_* Stainless steel keying guides, polarized	
JMM 2 stainless steel fixed jackscrews		JTFF 2 stainless steel turning jackscrews	

DIMENSIONS					
SIZE	A	B	C	D	E
20	1.150	.900	.450	1.030	.750
30	1.400	1.150	.700	1.280	1.000
40	1.650	1.400	.950	1.530	1.250
50	1.900	1.650	1.200	1.780	1.500
60	2.150	1.900	1.450	2.030	1.750
70	2.400	2.150	1.700	2.280	2.000
80	2.650	2.400	1.950	2.530	2.250
90	2.900	2.650	2.200	2.780	2.500
100	3.150	2.900	2.450	3.030	2.750
110	3.400	3.150	2.700	3.280	3.000
128	3.850	3.600	3.150	3.730	3.450
132	3.950	3.700	3.250	3.830	3.550

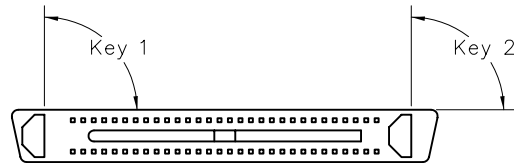
# Hardware

## Polarization

### Integral Keying Guides



Example: WB\*\*PR8K2-2  
(Plug)

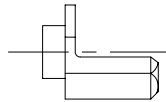


Example: WB\*\*SD6K2-2  
(Receptacle)

- Notes:
1. Each "dash" number represents 45° clocking from horizontal (0°).
  2. The first number designates "Key 1", the second number designates "Key 2".

### Hardware Options:

**Hardware Style: KY\* - \***



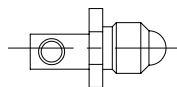
Stainless Steel Polarized Guide

Plug	Mates with	Receptacle	Plug	Mates with	Receptacle
-0		-0	-4		-4
-1		-7	-5		-3
-2		-6	-6		-2
-3		-5	-7		-1

**Hardware Style: JMM**  
(Plug only)



Groove Pin

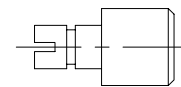


Fixed Jackscrew  
(#4-40 UNC-2A)

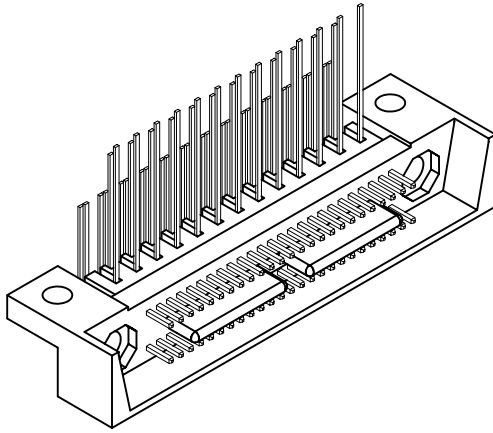
**Hardware Style: JTFF**  
(Receptacle only)



E-Ring



Turning Jacksocket



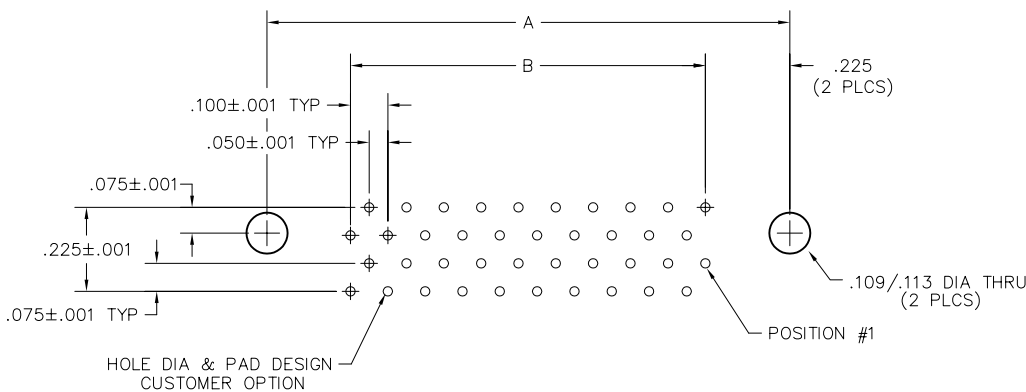
# 2 • ROW Right Angle PTH Plug

.050"

**WB**

20 thru 132 Contacts

Recommended  
Board Layout



DIMENSIONS		
SIZE	A	B
20	.900	.450
30	1.150	.700
40	1.400	.950
50	1.650	1.200
60	1.900	1.450
70	2.150	1.700
80	2.400	1.950
90	2.650	2.200
100	2.900	2.450
110	3.150	2.700
128	3.600	3.150
132	3.700	3.250

**RIGHT ANGLE PTH PLUG**  
PC BOARD VIEWED FROM COMPONENT SIDE

SIZE	CONTACT ID	SIZE	CONTACT ID	SIZE	CONTACT ID			
20	19 17 15 13 11	60	59 57	100	99 97			
	20 18 16 14 12		33 31		53 51			
	9 7 5 3 1		60 58		34 32	100 98	54 52	
	10 8 6 4 2		29 27		3 1	49 47	3 1	
30	30 28 26 24 22 20 18 16	70	70 68	110	110 108			
	29 27 25 23 21 19 17		38 36		58 56			
	15 13 11 9 7 5 3 1		69 67		39 37	109 107	59 57	
	14 12 10 8 6 4 2		35 33		3 1	55 53	3 1	
40	39 37	80	79 77	128	127 125			
	23 21		43 41		67 65			
	40 38		80 78		44 42	128 126	68 66	
	19 17		39 37		3 1	63 61	3 1	
50	20 18	90	40 38	132	64 62			
	4 2		4 2		4 2			
	50 48		28 26		90 88	48 46	131 129	69 67
	49 47		29 27		89 87	49 47	132 130	70 68
60	25 23	100	45 43	132	65 63			
	3 1		3 1		3 1			
	24 22		4 2		4 2	66 64	4 2	
	4 2		4 2		4 2			





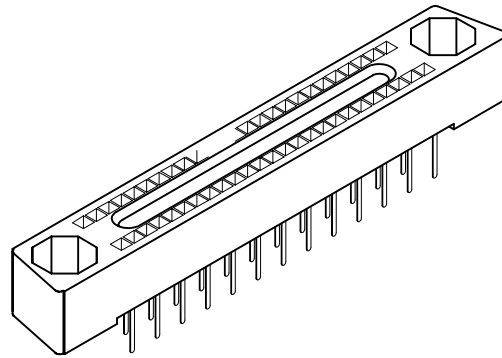
# 2 • ROW Straight PTH Rcpt

.050"

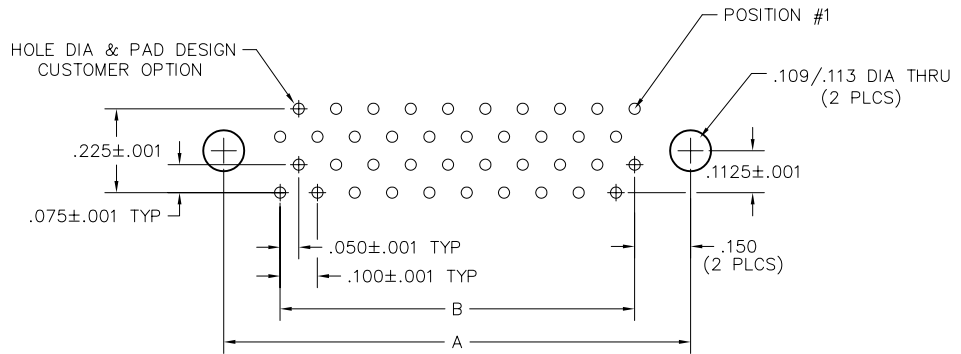
**WB**

20 thru 132 Contacts

Recommended  
Board Layout



DIMENSIONS		
SIZE	A	B
20	.750	.450
30	1.000	.700
40	1.250	.950
50	1.500	1.200
60	1.750	1.450
70	2.000	1.700
80	2.250	1.950
90	2.500	2.200
100	2.750	2.450
110	3.000	2.700
128	3.450	3.150
132	3.550	3.250



STRAIGHT PTH RECEPTACLE  
PC BOARD VIEWED FROM COMPONENT SIDE

SIZE	CONTACT ID	SIZE	CONTACT ID	SIZE	CONTACT ID
20		60		100	
30		70		110	
40		80		128	
50		90		132	

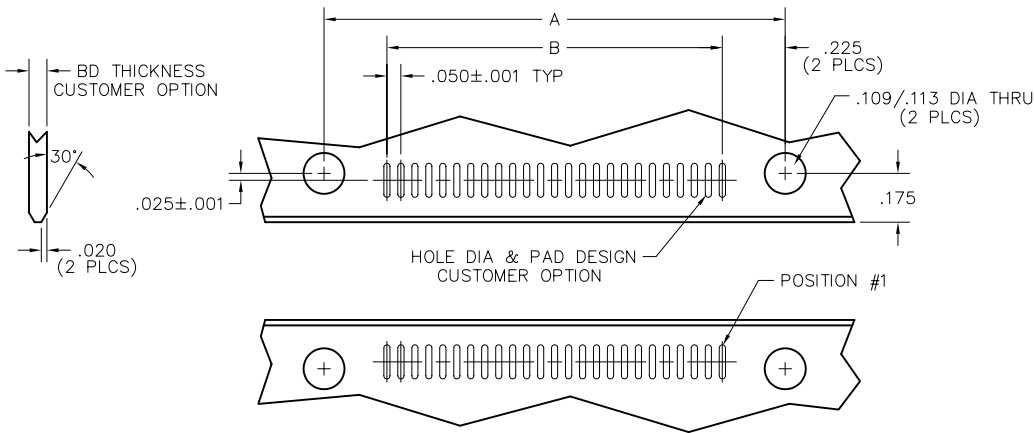
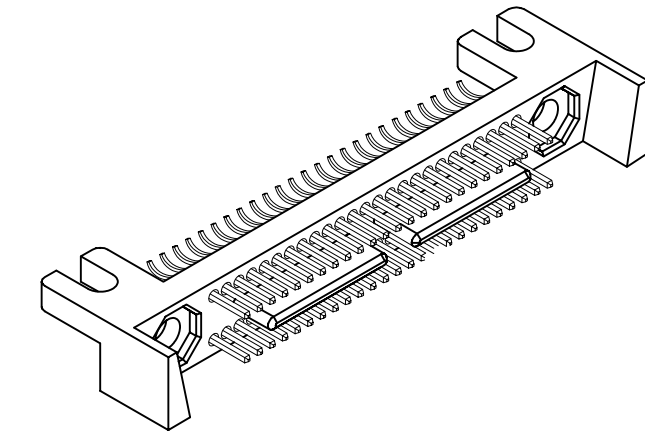
# 2 • ROW Straight SMT Plug

.050"

**WBB, WBA**

20 thru 132 Contacts

Recommended  
Board Layout



DIMENSIONS		
SIZE	A	B
20	.900	.450
30	1.150	.700
40	1.400	.950
50	1.650	1.200
60	1.900	1.450
70	2.150	1.700
80	2.400	1.950
90	2.650	2.200
100	2.900	2.450
110	3.150	2.700
128	3.600	3.150
132	3.700	3.250

STRAIGHT SMT PLUG

SIZE	CONTACT ID	SIZE	CONTACT ID	SIZE	CONTACT ID
20	C 20	60	C 60	100	C 100
	C 19		C 59		C 99
	C 18		C 58		C 98
	C 17				
	C 16				
	C 15				
	C 14				
	C 13				
	C 12				
	C 11				
30	C 30	70	C 70	110	C 110
	C 29		C 69		C 109
	C 28		C 68		C 108
40	C 40	80	C 80	128	C 128
	C 39		C 79		C 127
	C 38		C 78		C 126
50	C 50	90	C 90	132	C 132
	C 49		C 89		C 131
	C 48		C 88		C 130

### Military Cross Reference Chart

MIL Number	WB Series	Size	Description
M55302/117-01	WB20PR8	20	Right angle plug, 3/4 skirt
M55302/117-02	WB30PR8	30	Right angle plug, 3/4 skirt
M55302/117-03	WB40PR8	40	Right angle plug, 3/4 skirt
M55302/117-04	WB50PR8	50	Right angle plug, 3/4 skirt
M55302/117-05	WB60PR8	60	Right angle plug, 3/4 skirt
M55302/117-06	WB70PR8	70	Right angle plug, 3/4 skirt
M55302/117-07	WB80PR8	80	Right angle plug, 3/4 skirt
M55302/117-08	WB90PR8	90	Right angle plug, 3/4 skirt
M55302/117-09	WB100PR8	100	Right angle plug, 3/4 skirt
M55302/117-10	WB110PR8	110	Right angle plug, 3/4 skirt
M55302/117-11	WB128PR8	128	Right angle plug, 3/4 skirt
M55302/118-01	WBB20PMT	20	Surface mount, no skirt
M55302/118-02	WBB30PMT	30	Surface mount, no skirt
M55302/118-03	WBB40PMT	40	Surface mount, no skirt
M55302/118-04	WBB50PMT	50	Surface mount, no skirt
M55302/118-05	WBB60PMT	60	Surface mount, no skirt
M55302/118-06	WBB70PMT	70	Surface mount, no skirt
M55302/118-07	WBB80PMT	80	Surface mount, no skirt
M55302/118-08	WBB90PMT	90	Surface mount, no skirt
M55302/118-09	WBB100PMT	100	Surface mount, no skirt
M55302/118-10	WBB110PMT	110	Surface mount, no skirt
M55302/118-11	WBB128PMT	128	Surface mount, no skirt
M55302/118-12	WBA20PMT	20	Surface mount, full skirt
M55302/118-13	WBA30PMT	30	Surface mount, full skirt
M55302/118-14	WBA40PMT	40	Surface mount, full skirt
M55302/118-15	WBA50PMT	50	Surface mount, full skirt
M55302/118-16	WBA60PMT	60	Surface mount, full skirt
M55302/118-17	WBA70PMT	70	Surface mount, full skirt
M55302/118-18	WBA80PMT	80	Surface mount, full skirt
M55302/118-19	WBA90PMT	90	Surface mount, full skirt
M55302/118-20	WBA100PMT	100	Surface mount, full skirt
M55302/118-21	WBA110PMT	110	Surface mount, full skirt
M55302/118-22	WBA128PMT	128	Surface mount, full skirt
M55302/119-01	WB20SD9/12	20	Receptacle, .140 and .190 lead length
M55302/119-02	WB30SD9/12	30	Receptacle, .140 and .190 lead length
M55302/119-03	WB40SD9/12	40	Receptacle, .140 and .190 lead length
M55302/119-04	WB50SD9/12	50	Receptacle, .140 and .190 lead length
M55302/119-05	WB60SD9/12	60	Receptacle, .140 and .190 lead length
M55302/119-06	WB70SD9/12	70	Receptacle, .140 and .190 lead length
M55302/119-07	WB80SD9/12	80	Receptacle, .140 and .190 lead length
M55302/119-08	WB90SD9/12	90	Receptacle, .140 and .190 lead length
M55302/119-09	WB100SD9/12	100	Receptacle, .140 and .190 lead length
M55302/119-10	WB110SD9/12	110	Receptacle, .140 and .190 lead length
M55302/119-11	WB128SD9/12	128	Receptacle, .140 and .190 lead length
M55302/119-12	WB100SD19	100	Receptacle, .300 lead length
M55302/119-13	WB110SD19	110	Receptacle, .300 lead length
M55302/119-14	WB128SD12	128	Receptacle, .190 lead length