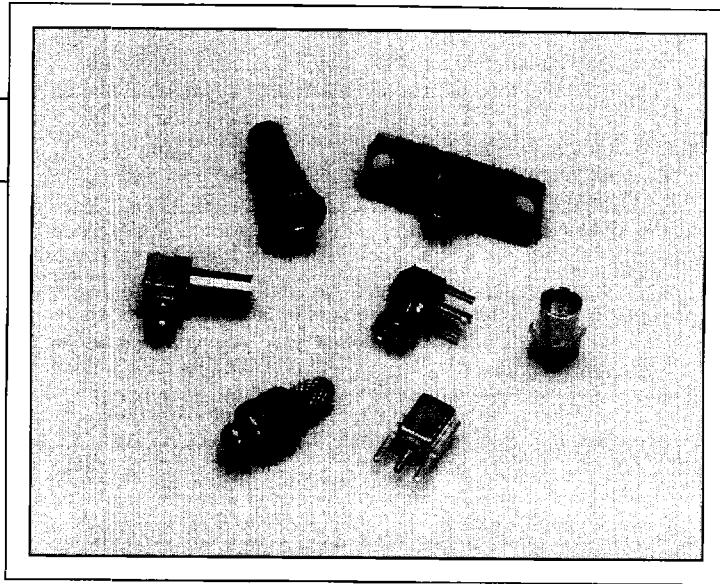


**PMMX  
33 SERIES**

**Microminiature Connectors**



Where smaller size, lighter weight and space savings are critical to design, the PMMX connector series offers a size reduction of approximately 45% over the SMB subminiature series. Operating to 6 GHz, the PMMX offers a snap-on mating and a unique body design. Constructed of brass for durability and ruggedness, the PMMX is an impedance controlled 50 Ohm connector. The PMMX is available in straight and right angle configurations to accommodate flexible, conformable and semi-rigid cable groups, as well as surface mount and printed circuit versions.

**Contents:**

- Specifications/Interface Drawings
- Solder, Turret
- Crimp/Crimp, Crimp
- Printed Circuit Mount
- Mating Height Dimensions
- Application Information/  
Mounting Hole Dimensions
- Tape & Reel Packaging
- Recommended Soldering Profiles

# PMMX 33 SERIES

*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE*

## MECHANICAL

### MATERIALS

Bodies and Male Contacts: Brass per ASTM B 16.  
 Ferrules and Caps: Brass per ASTM B 16.  
 Insulation: Teflon (PTFE) per ASTM D 1457.  
 Female Contacts and Springs: Beryllium Copper per ASTM B 196.

### PLATING

Gold per MIL-G-45204.  
 Copper per MIL-C-14550.  
 Nickel per QQ-N-290.

## FINISH

### BODIES AND CONTACTS\*

"A": .000050 Min. Gold over Nickel.

## MATING CHARACTERISTICS

Engagement: 3.4 lbs. Max.  
 Disengagement: 1.3 - 3.4 lbs.  
 Durability: 500 Cycles.

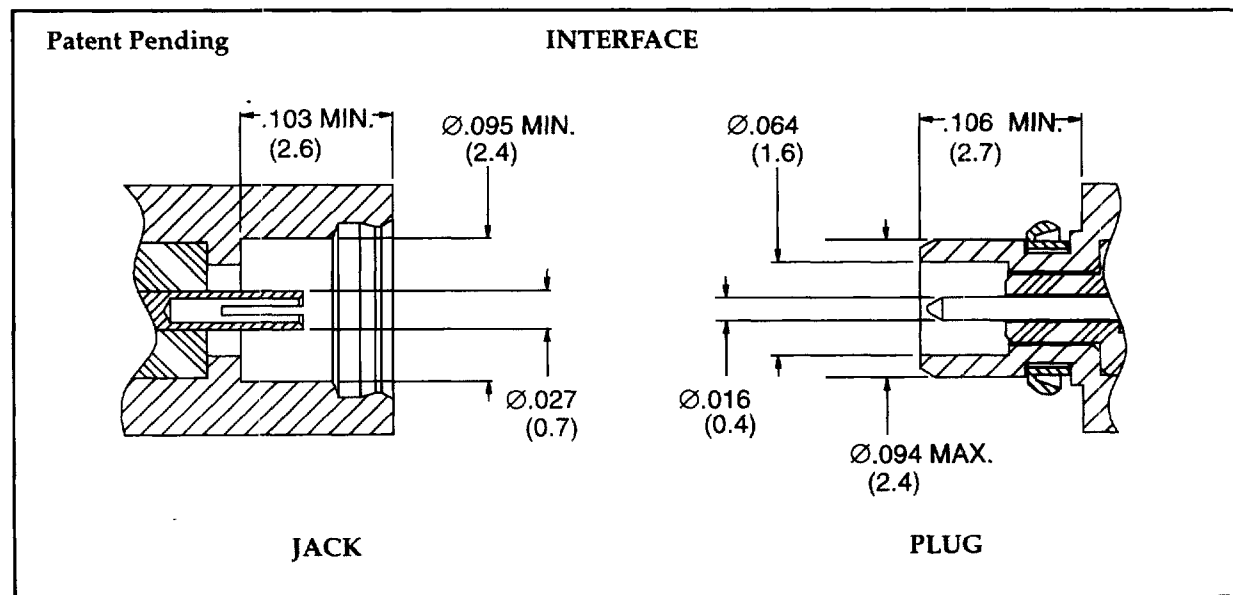
## ELECTRICAL

Impedance: 50 Ohms.  
 Frequency Range: 0-6 GHz.  
 Voltage Rating: 170 V RMS.  
 Insulation Resistance: 5,000 Megohms Min.  
 Temperature Rating: -85° F to +257° F (-65° C to +125° C).

DWV: 500 V RMS.  
 Contact Resistance: Center Contact - 5.0 Milliohms.  
 Outer Contact - 3.0 Milliohms.  
 VSWR: 1.20 Typ. for Straight Connectors.  
 1.30 Typ. for Right Angle Connectors.  
 RF Leakage: 55dB Min. at 1 GHz.  
 Insertion Loss: 0.2 dB Max. / 1 GHz.

## ENVIRONMENTAL

Vibration, High Frequency: MIL-STD-202, Method 204, Condition B.  
 Shock: MIL-STD-202, Method 213, Condition A.  
 Thermal Shock: MIL-STD-202, Method 107, Test Condition B at +185° F (+85° C).  
 Corrosion: MIL-STD-202, Method 101, Test Condition B.



\* All other components plated to meet environmental requirements.




**THE PHOENIX COMPANY**  
 of CHICAGO, INC.

Dimensions are subject to change without notice.  
 555 Pond Drive • Wood Dale, IL 60191-1192 • Toll Free (800)323-9562

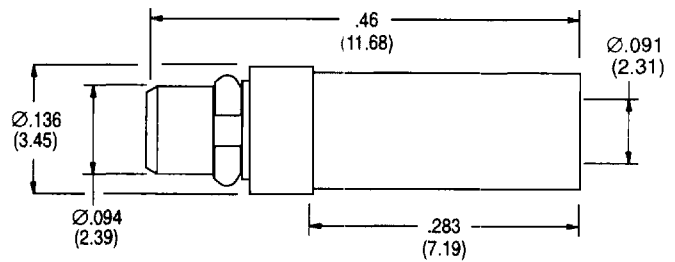
**PALCO CONNECTOR**

A subsidiary of The Phoenix Company


# PMMX 33 SERIES SOLDER, TURRET

Part Number	Cable
33-0200-0860*	RG405-M17/133 (.086 S.R.)
 ACTUAL SIZE	
*See Specification Page for finish suffix.	

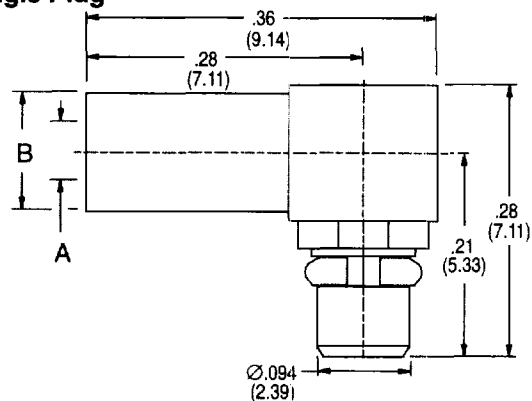
## Straight Plug




## Solder

Part Number	Cable	A	B
33-2200-0470*	M17/151 (.047 S.R.)	Ø.051 (1.30)	Ø.085 (2.16)
33-2200-0860*	RG405-M17/133 (.086 S.R.)	Ø.091 (2.31)	Ø.120 (3.05)
 ACTUAL SIZE			
*See Specification Page for finish suffix.			

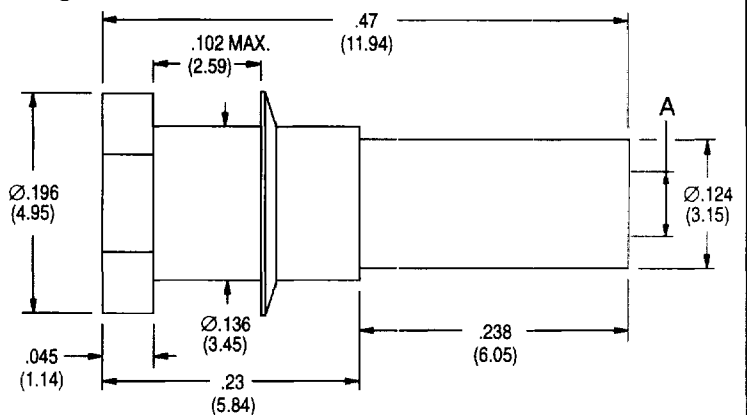
## Right Angle Plug




## Solder

Part Number	Cable	Center Contact	A
33-1208-0860*	RG405-M17/133 (.086 S.R.)	Solder	Ø.091 (2.31)
33-1808-0400*	RG178,196,404	Crimp	Ø.040 (1.02)
 ACTUAL SIZE			
*See Specification Page for finish suffix.			

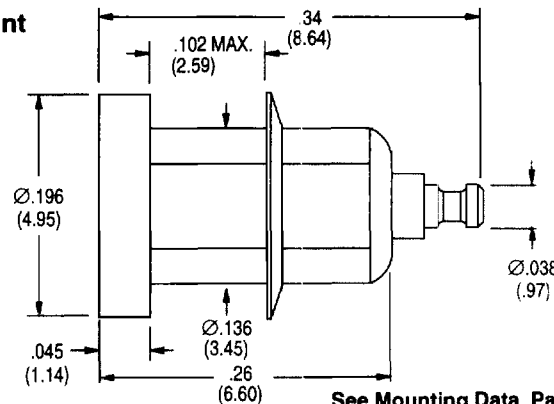
## Straight Jack, Bulkhead Mount



See Mounting Data Page, Fig. 6

Part Number	
33-1508-00*	
 ACTUAL SIZE	
*See Specification Page for finish suffix.	

## Bulk Head Mount Receptacle



## Turret Terminal

See Mounting Data Page, Fig. 6



**THE PHOENIX COMPANY**  
of CHICAGO, INC.

Dimensions are subject to change without notice.

**PALCO CONNECTOR**

A subsidiary of The Phoenix Company

555 Pond Drive • Wood Dale, IL 60191-1192 • Toll Free (800)323-9562

**PMMX 33 SERIES  
CRIMP\CRIMP, CRIMP**

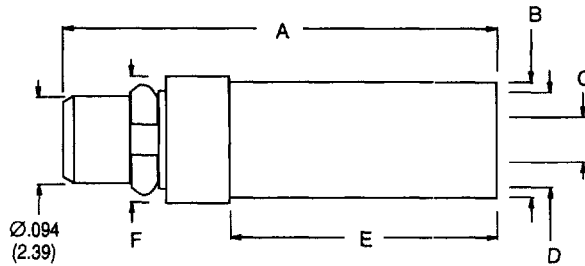
Part Number	A	B DIA.	C DIA.	D DIA.	E	F DIA.	Cable
33-0900-0400*	.46 (11.68)	.124 (3.15)	.040 (1.02)	.092 (2.34)	.280 (7.11)	.137 (3.48)	RG178,196,404
33-0900-0670*	.51 (12.95)	.152 (3.58)	.128 (3.25)	.067 (1.70)	.250 (6.35)	.170 (4.32)	RG316,188,174
33-0900-2670*	.51 (12.95)	.179 (4.55)	.142 (3.61)	.067 (1.70)	.250 (6.35)	.170 (4.32)	RG316 D.S. (M17/152)

**Straight Plug**



ACTUAL SIZE

\*See Specification Page for finish suffix.



**Crimp\Crimp**

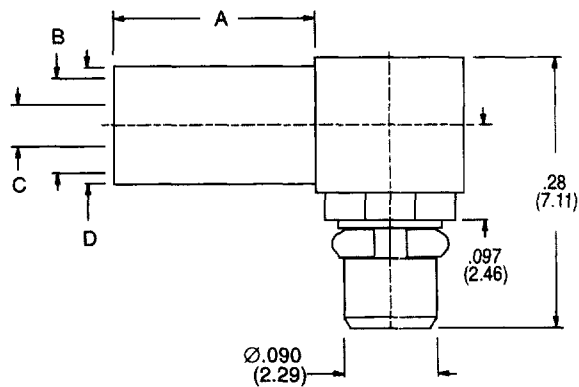
Part Number	A	B DIA.	C DIA.	D DIA.	Cable
33-2800-0400*	.200 (5.08)	.124 (3.15)	.040 (1.02)	.120 (3.04)	RG178,196,404
33-2800-0670*	.250 (6.35)	.152 (3.58)	.128 (3.25)	.152 (3.58)	RG316,188,174
33-2800-2670*	.250 (6.35)	.179 (4.55)	.142 (3.61)	.179 (4.55)	RG316 D.S. (M17/152)

**Right Angle Plug**



ACTUAL SIZE

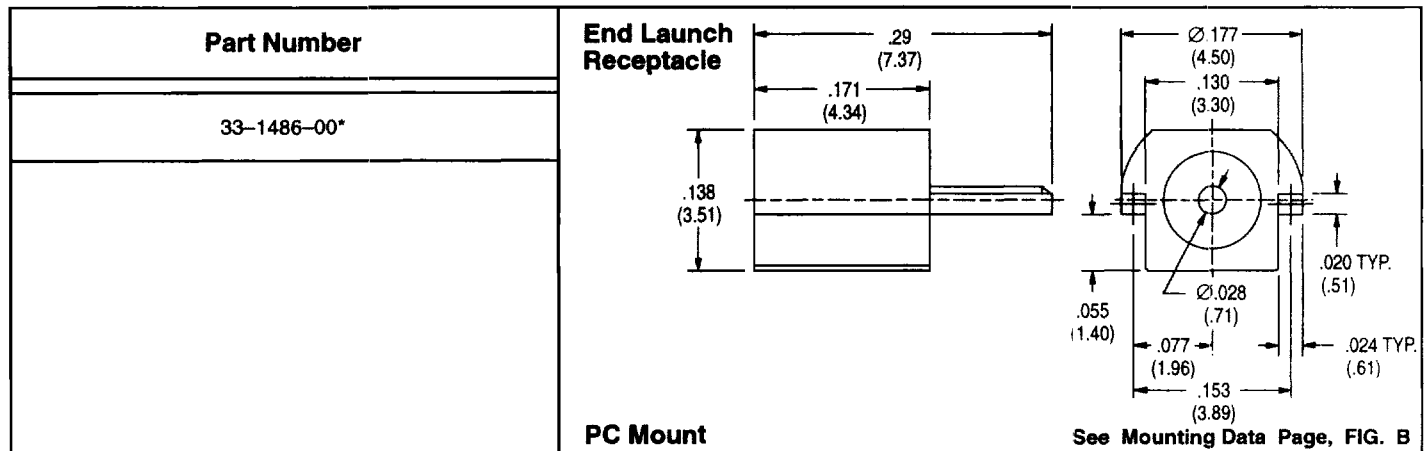
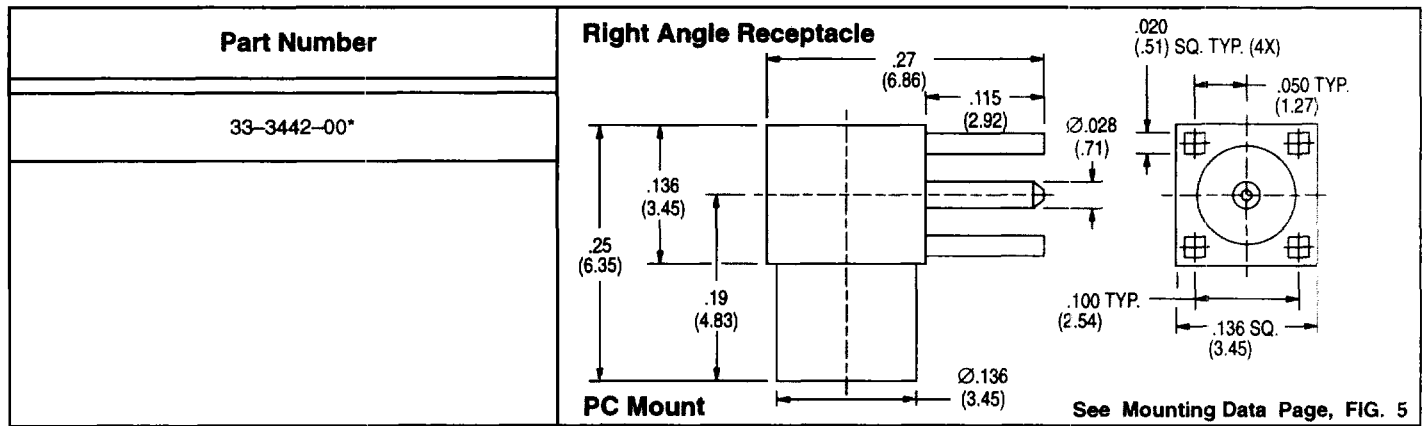
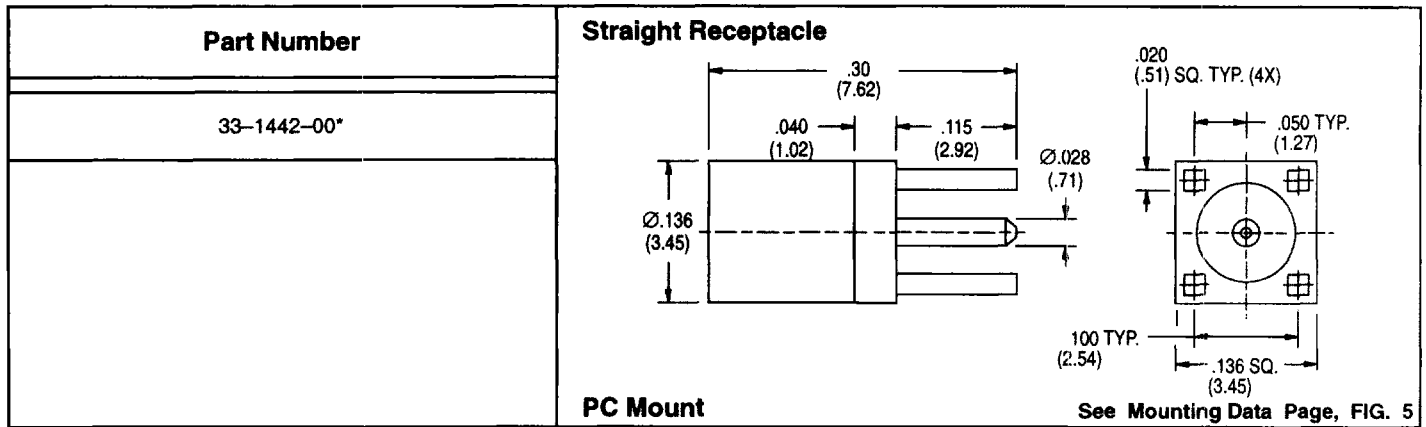
\*See Specification Page for finish suffix.



**Crimp**



# PMMX 33 SERIES PRINTED CIRCUIT MOUNT



\*See Specification Page for finish suffix.



**THE PHOENIX COMPANY**  
of CHICAGO, INC.

Dimensions are subject to change without notice.

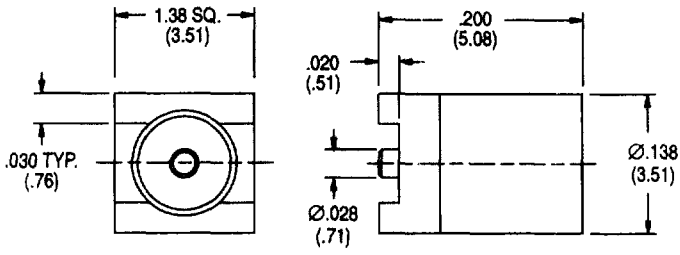
**PALCO CONNECTOR**

A subsidiary of The Phoenix Company

555 Pond Drive • Wood Dale, IL 60191-1192 • Toll Free (800)323-9562

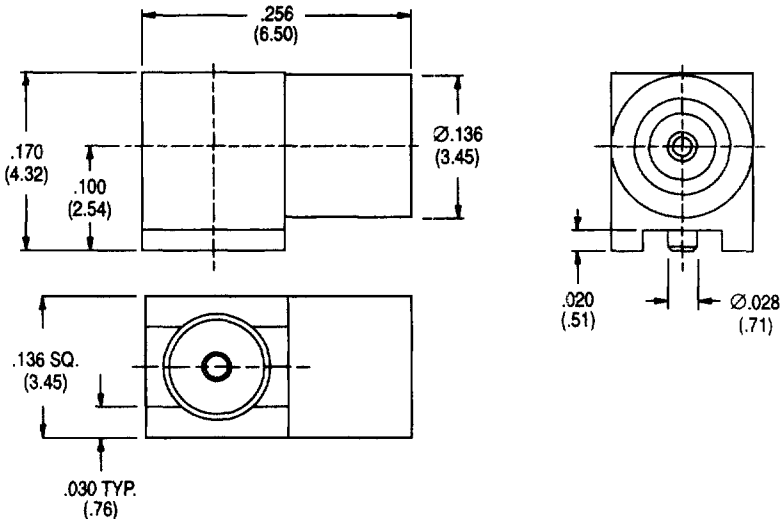
# PMMX 33 SERIES SURFACE MOUNT

<b>Part Number</b>	<b>Straight Receptacle</b>
33-1449-01*	
Consult Factory About Tape and Reel Packaging	



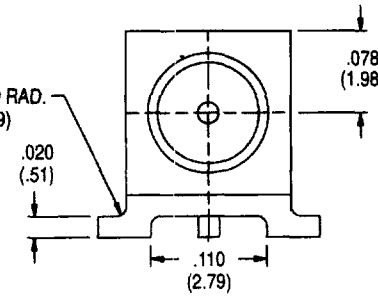
**Surface Mount**
**No Mounting Data Available**

<b>Part Number</b>	<b>Right Angle Receptacle</b>
33-3449-01*	
Consult Factory About Tape and Reel Packaging	

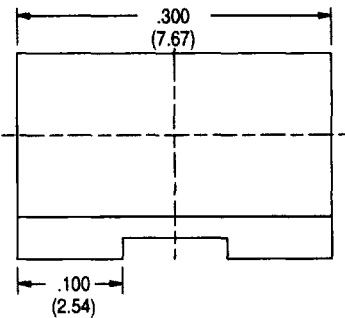


**Surface Mount**
**No Mounting Data Available**

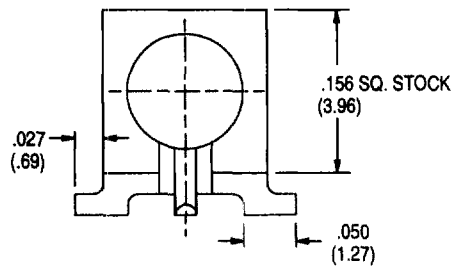
**INTERFACE**



**SIDE**



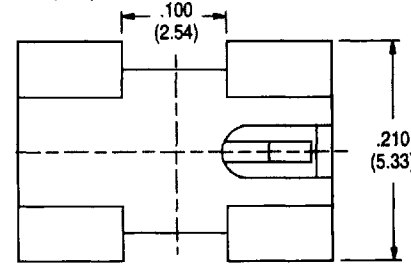
**BACK**



**END LAUNCH,  
SURFACE MOUNT PMMX**

PART NUMBER TO BE DETERMINED

**BOTTOM**



\*See Specification Page for finish suffix.



**THE PHOENIX COMPANY**  
of CHICAGO, INC.

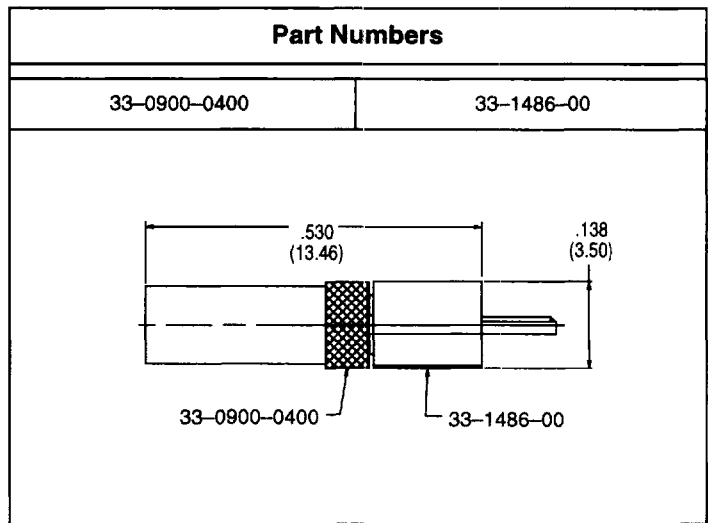
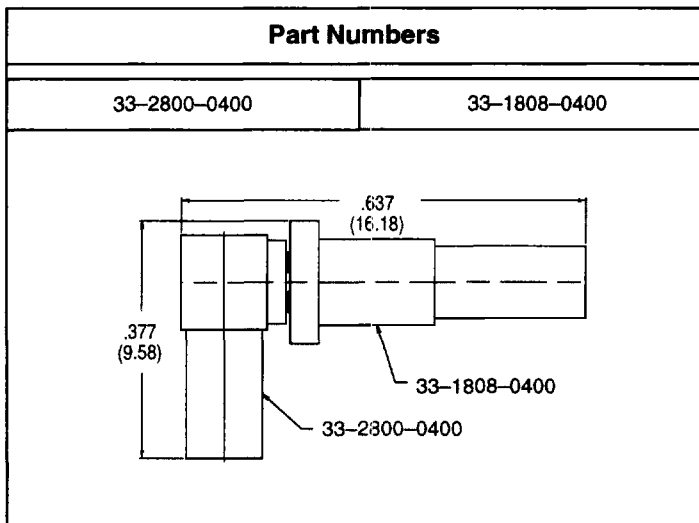
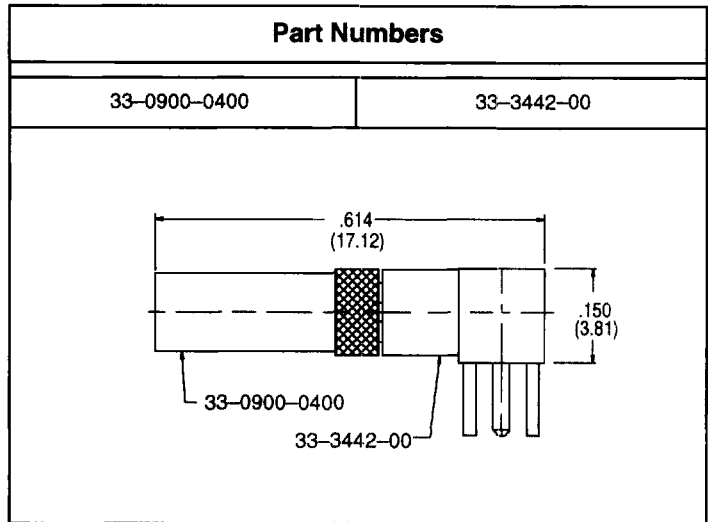
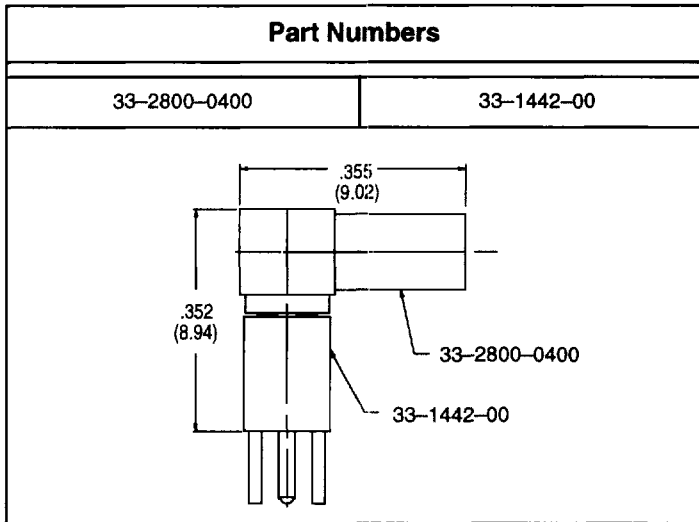
Dimensions are subject to change without notice.

**PALCO CONNECTOR**

A subsidiary of The Phoenix Company

555 Pond Drive • Wood Dale, IL 60191-1192 • Toll Free (800)323-9562

# PMMX 33 SERIES MATING HEIGHT DIMENSIONS



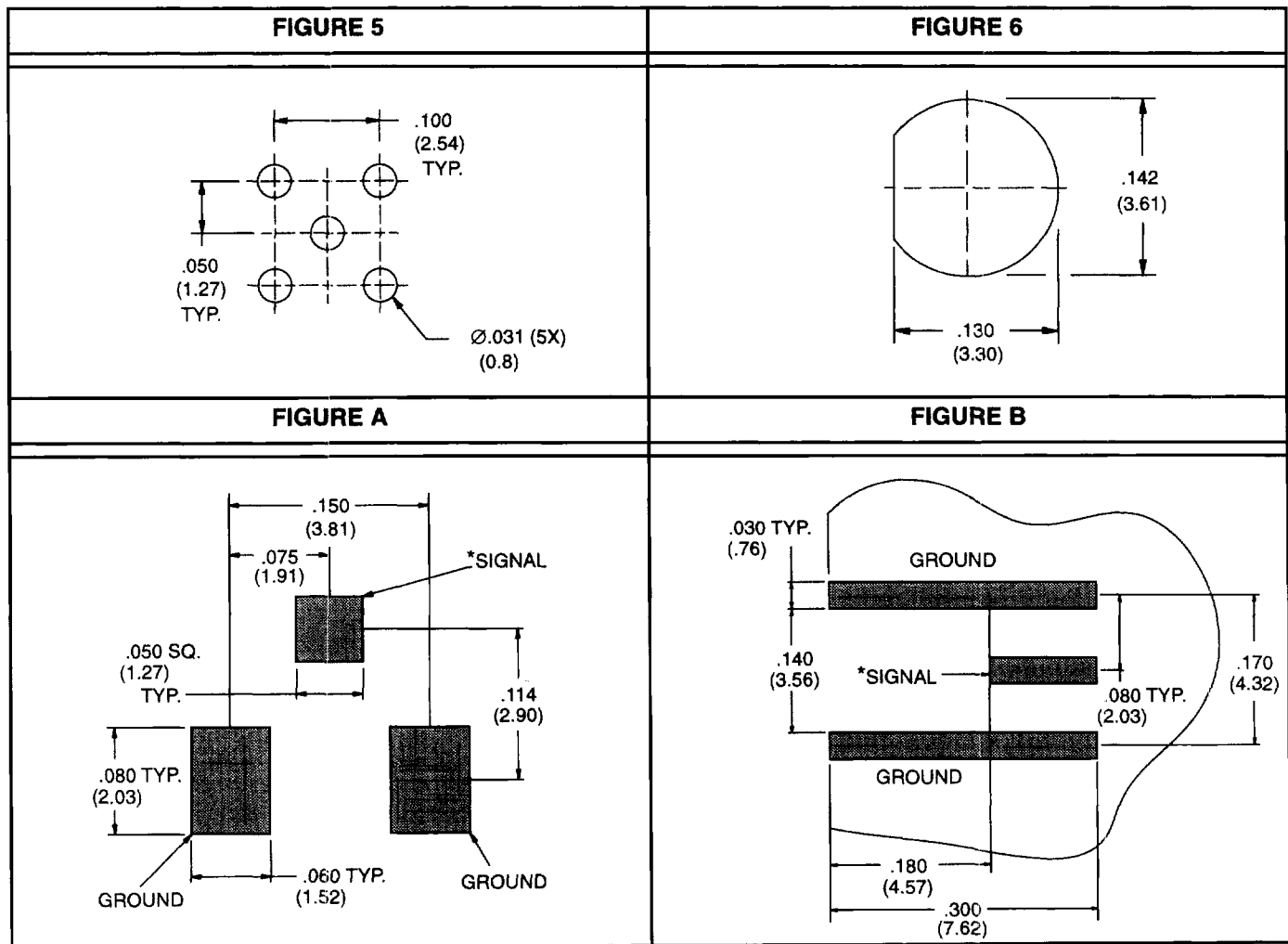
# APPLICATION INFORMATION

## CRIMP TOOLING

PART NUMBER	BRAID CRIMP	CONTACT CRIMP
33-0900-0400	Hex Die .128 (Per M22520/5-03).	Hex Die .030 Y460S
33-0900-0670	Hex Die .128 (Per M22520/5-03).	Hex Die .030 Y460S
33-0900-2670	Hex Die .151 (Per M22520/5-37).	Hex Die .030 Y460S
33-1808-0400	Hex Die .105 (Per M22520/5-03).	Hex Die .030 Y460S
33-2800-0400	Hex Die .105 (Per M22520/5-03).	
33-2800-0670	Hex Die .128 (Per M22520/5-03).	
33-2800-2670	Hex Die .151 (Per M22520/5-37).	

**NOTE:** All contacts have optional solder hole.

## MOUNTING HOLE DIMENSIONS



**\*NOTE:** We recommend that the final size and shape of the signal trace be optimized to compensate for differences in board material and thickness. All traces should be 1 oz. for maximum adhesion.



# NOTES

