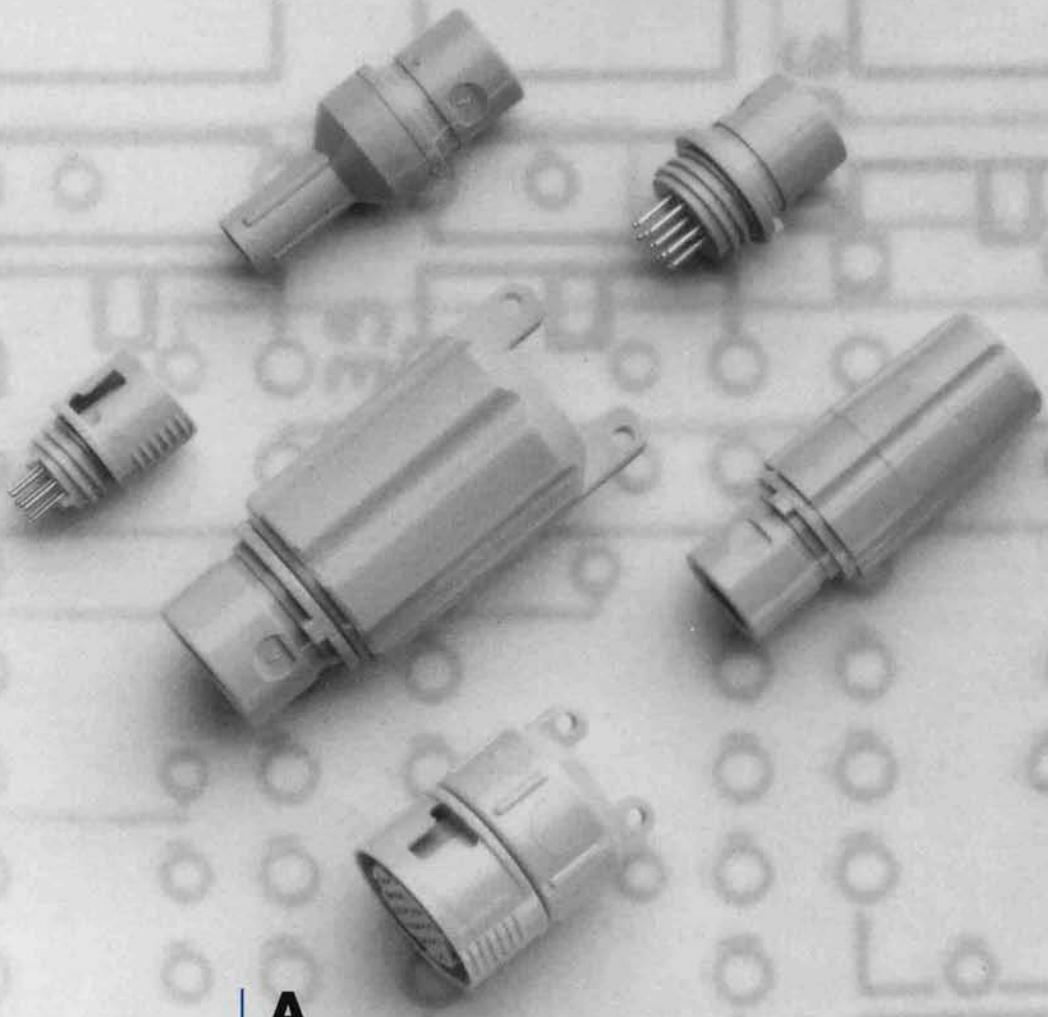
WPI Viking

THORKOM CIRCULAR CONNECTORS



A Commitment To Service

FEATURES

- Available in various shell sizes, high density contact arrangements and mounting styles
- Quick connect and disconnect with either POSI-LOK or V-LOK coupling
- U.L. approved, 94V-2
- "High temperature resistant" thermoplastic for autoclaving processes
- Low unit cost
- Durable and competitively priced screw machined contacts
- Screw machined dip solder contacts
- Various backshell and strain relief options
- Environmental molded cable assemblies

U.L. listed under U.L. File No. E74125

PERFORMANCE CHARACTERISTICS

- Current Rating on Contacts: 5 Amperes
- Dielectric Withstanding Voltage: 1500 VRMS Maximum @ Sea Level, 600 VRMS @ 70,000 feet (21,336 meters)
- Ambient Temperature: -55° to +125° C. (-67° to +257° F.)
- Insulation Resistance: 5,000 Megohms Minimum
- Contact Retention: 10 lbs. (4.5 kg) axially after one cycle.

APPLICATIONS

- THORKOM connectors have been used in a broad variety of commercial and industrial applications. Some of these include:
- Computer Equipment
- Medical Instrumentation
- Automotive
- Communications
- Marine
- Aviation
- Process Control
- Audio Equipment
- Consumer Electronics
- Agriculture

MATERIALS AND FINISHES

- Connector Housing: High Strength Thermoplastic, U.L. 94V-2 approved or "High Temperature Resistant" thermoplastic material for autoclaving processes*, U.L. 94V-O approved
- Sealed Gasket: Neoprene Rubber
- Screw Machined Contacts: Copper Alloy (stainless steel hood over socket tines), gold plated per MIL-G-45204B Type II, Grade C over nickel (.000010" gold) or tin plated per MIL-T-10727A Type I, bright finish (.000200" min.)
- Cable Clamps: Aluminum, Chemical Conversion Coating
- Panel Mount Retaining Ring: Carbon Steel
- Strain Relief and Cable Clamp Backshells: High Strength Thermoplastic, U.L. 94V-2 approved
- Stove Pipe and Tie Strap Backshells: High Density Polyethylene, U.L. 94V-2 approved
- Contacts No. 22 (accepts 22-24-26 AWG wire)

*Nonstandard material, please contact factory for price and delivery.

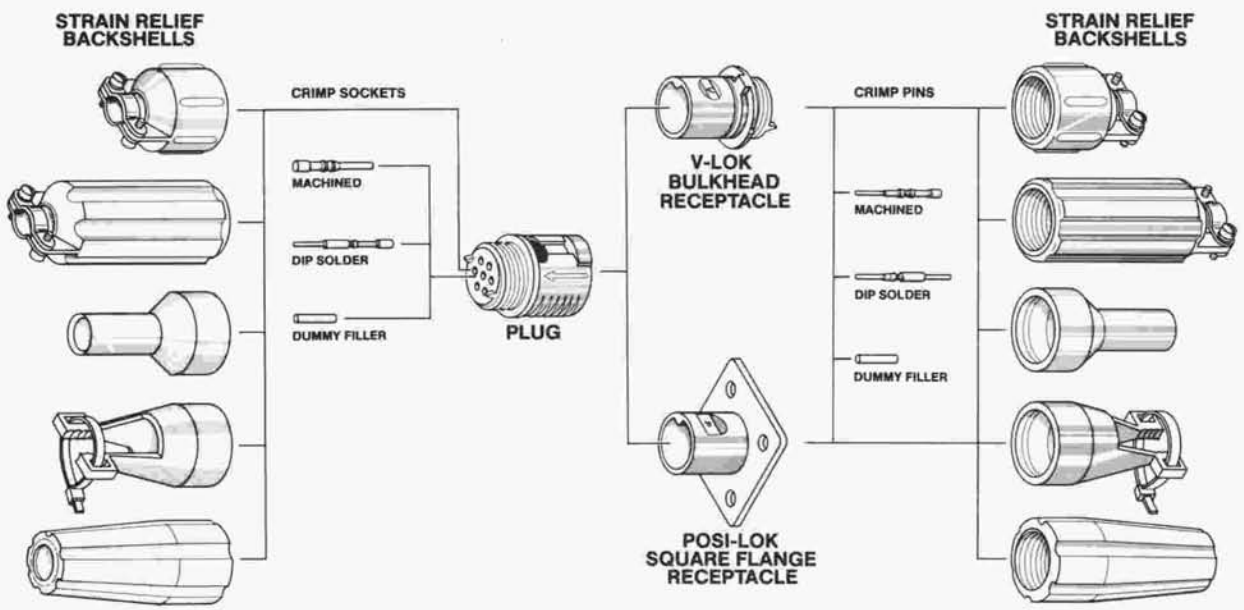
STEPS IN SELECTING THORKOM CONNECTORS

To assist you in selecting and ordering our connectors for your specific application, we have some suggested guidelines to follow:

1. Type of cable to be used (jacketed, shielded, coil, straight, AWG of individual wire)
2. Where connector is used (bulkhead, cable to cable)
3. What are the current requirements (volts, amps, etc.)
4. Size of connector and type (number of contacts, right angle or straight)
5. Strain relief (yes or no, if yes, type of backshell)
6. Type of approval connector needs to meet (U.L., CSA, VDE)

All these questions, when answered, will help expedite the placing of your order and ensure your receiving the correct product.

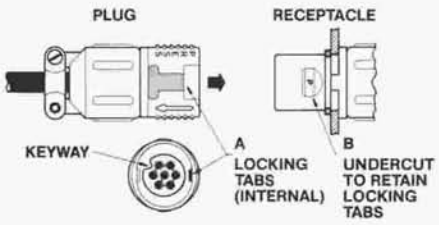
THORKOM CONNECTORS, BACKSHELLS AND CONTACTS



HOW TO MATE AND UNMATE THORKOM

THORKOM connectors can be mated and unmated by means of two locking styles: V-LOK or POSI-LOK.

The plugs used for both locking styles are identical. The receptacles differ in the latch configurations.

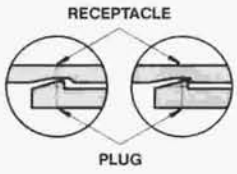


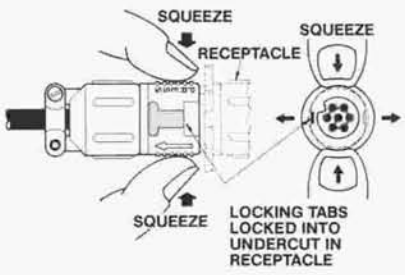
TO MATE PLUGS AND RECEPTACLES:

1. Turn plug so "keyed" insulator faces align.
2. Push plug into receptacle until locking tabs (A) snap into undercuts (B).

TWO LOCKING STYLES

V-LOK **POSI-LOK**





TO UNMATE PLUGS FROM POSI-LOK RECEPTACLES:

1. Squeeze finger grips to flex plastic coupling area. The locking tabs will deflect outward and unlock.
2. Pull plug from receptacle.

TO UNMATE PLUGS FROM V-LOK RECEPTACLES:

Simply pull plug from receptacle.
Do not turn or twist.
Do not use hand tools.

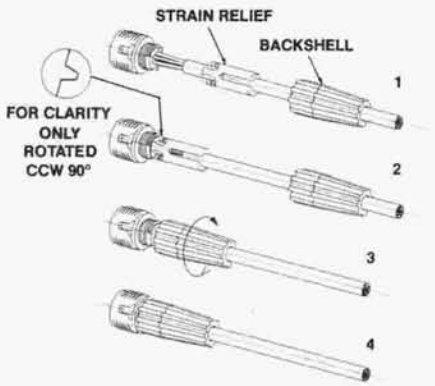
HOW TO APPLY STRAIN RELIEF BACKSHELL

STEP 1
Insert backshell and strain relief on cable before inserting contacts into insulator.

STEP 2
Align stand-offs on insulator with slots on strain relief and mate them together.

STEP 3
Slide backshell over strain relief to meet threads. Do not turn backshell before this, or you may disengage strain relief from correct position. When backshell is against insulator threads push and turn in the same motion as to ensure continual mating of strain relief.

STEP 4
Continue to turn backshell until it bottoms out on insulator. (Hand tight only)



ORDERING INFORMATION

CONNECTORS - A connector order consists of connector and backshell. To order, use the chart shown below and combine component part numbers as required to suit your needs.

CONTACTS - Contacts for Thorkom connectors must be ordered separately. Ordering information for contacts is provided on pages 4 and 7. To order, use the chart shown below.

T	B	R	07	2	*	1	P

THORKOM

B Bulkhead (7 & 12 only) (pg. 5)
N Plug and Receptacle (pg. 5-6)

K Bulkhead or Plug (24 pos. only) (pg.5)
F Square flange (24 pos. only) (pg. 6)

R Receptacle (pg. 5-7)
P Plug (pg. 3-4)

07 7 Contact positions
12 12 Contact positions
24 24 Contact positions

BACKSHELLS: (pg.8-9)
1*0 Cable Backshell
1*1 Without Backshell
1*2 Stove Pipe Backshell
1*3 Tie Strap Backshell
1*5 Long Cable Clamp Backshell
2*1 Strain Relief, 7 position, Cable Dia. .150 - .185
2*2 Strain Relief, 7 position, Cable Dia. .190 - .220
2*3 Strain Relief, 7 position, Cable Dia. .240 - .255
2*4 Strain Relief, 12 position, Cable Dia. .230 - .260
2*5 Strain Relief, 12 position, Cable Dia. .275 - .300
2*6 Strain Relief, 12 position, Cable Dia. .335 - .345

LOCKING STYLE:
(use for receptacle only)

P-POSI-LOK
V-V-LOK

Color
0 - Gray 2 - Blue 4 - Yellow 6 - Red
1 - Black 3 - Orange 5 - Green

TP-100	A U

CONTACT PLATING:
Au Gold Plate
T Tin Plate

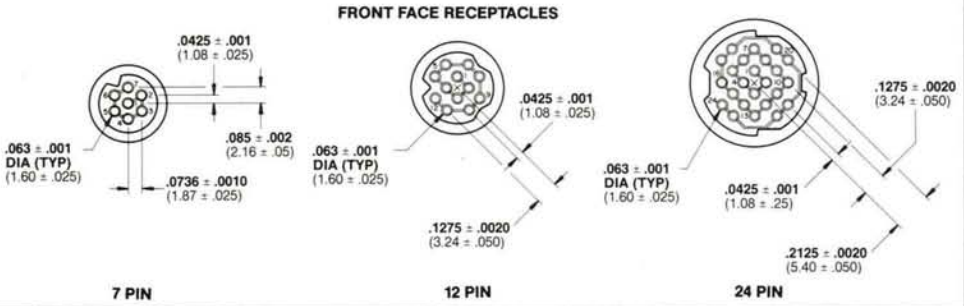
TYPE OF CONTACT:
(pgs. 4 and 7)

TS-100 Screw Machined Contact (Loose)
TP-100 Screw Machined Pin Contact (Loose)
DS-100 Dip Solder Socket Contact (Loose)
DP-100 Dip Solder Pin Contact (Loose)
TD-200 Dummy Filler

Receptacles

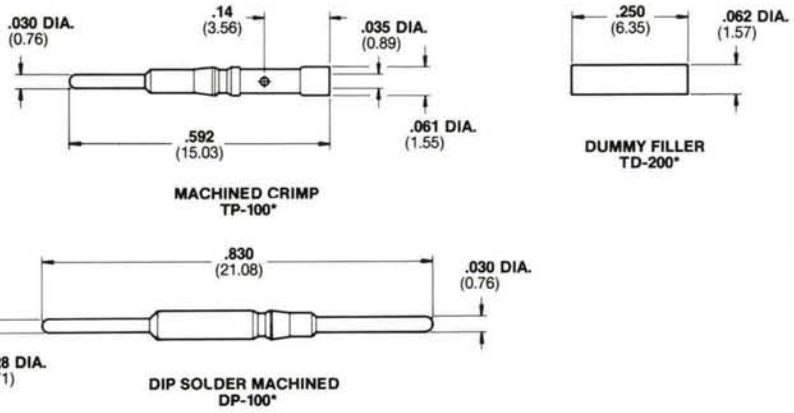
CONTACT PATTERNS

THORKOM subminiature cylindricals offer high contact density within minimum shell sizes. Shown here are contact hole patterns for the three THORKOM shell sizes.



PIN CONTACTS

Pin contacts are available in a screw machined type. Pins are typically used with receptacles. Contacts accept 22-26 AWG wire and use MIL-T-22520 crimp tool (screw machined contact only). To order contacts separately, use part numbers below.



*Add Au for gold plate or T for tin plate

ORDERING INFORMATION

To order backshells separately, use ordering diagram below. See page 2 for ordering backshells as part of complete assemblies.

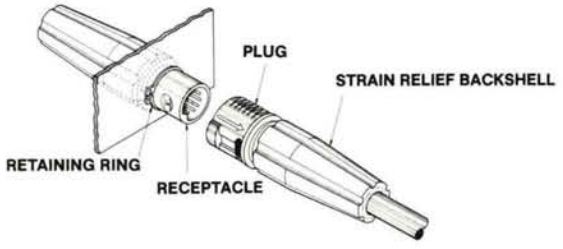
TP-100	AU

TYPE OF PIN CONTACT:

TP-100*	Screw Machine Pin Contact
DP-100*	Dip Solder Pin Contact
TD-200	Dummy Filler
AU	Gold
T	Tin

WIRE TO WIRE APPLICATIONS

This diagram illustrates a bulkhead mounted receptacle with attached strain relief backshell.



DIP SOLDER APPLICATIONS

Using dip solder contacts, THORKOM receptacles may be soldered directly into printed circuit boards or flexible circuitry. The dip solder contact is also used as a solder post for pressure or temperature transducer applications.