

# Product Data Sheet

## Amphenol® AIPT Connector Series

No. 186

**An Innovative New Connector Series  
from Amphenol.**

**A Low Cost Industrial Series.**

**Completely Intermateable with  
MIL-C-26482 Connectors.**

Amphenol, the leader in providing innovative interconnection products, now offers the industrial marketplace the AIPT, a low cost MIL-C-26482 type connector series specifically designed for use with automated termination.

This new series consists of straight plugs with optional strain relief and box mount receptacles. Amphenol's AIPT is based on the popular MIL-C-26482 connector series. The AIPT incorporates an innovative stamped and formed crimp contact design, with a hard dielectric insert of UL approved material. The AIPT uses modified MIL-C-26482 metal shells, thus retaining the ruggedness and durability that applications in the industrial marketplace demand.

This innovative series has been specifically designed for the non-environmental industrial marketplace and has applications in, but not limited to, the following markets: traffic control, machine tool, factory automation, motion control and instrumentation.

This connector series significantly reduces costs by increasing the customer's manufacturing throughput. The AIPT's reeled, stamped and formed contacts are compatible with the Amphenol Vari-Crimp 2000 automated stripper/crimper technology. Also available are crimp applicators for several other popular stripper/crimper machines capable of B-style crimp terminations to 20-24 gauge wire. After crimping, tool-free insertion of terminated contacts is literally a "snap". Simple insertion of the contacts into the insert locks them in place.



### AIPT FEATURES AND BENEFITS

- Lower total installed cost
- Increased manufacturing throughput, by utilization of automated stripper/crimpers
- Size 20 crimp pin and socket contacts for 20-24 AWG wire
- Contacts are tool-free, rear insertable
- Contacts are front releasable
- Box mount receptacles and plugs with optional strain reliefs
- Six popular shells and insert patterns (see reverse side for contact arrangement illustrations)
- 3-point bayonet coupling provides visual, audible and tactile indication of complete coupling
- Closed-entry socket insert prevents probe damage
- Inserts molded from UL approved PPS thermoplastic
- Standard plating in olive drab cadmium. Alternate cadmium free plating is available.

**Notice:** Specifications are subject to change without notice. Contact your nearest Amphenol Corporation Sales Office for the latest specifications. All statements, information and data given herein are believed to be accurate and reliable but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied. Statements or suggestions concerning possible use of our products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should assume that all safety measures are indicated or that other measures may not be required. Specifications are typical and may not apply to all connectors.

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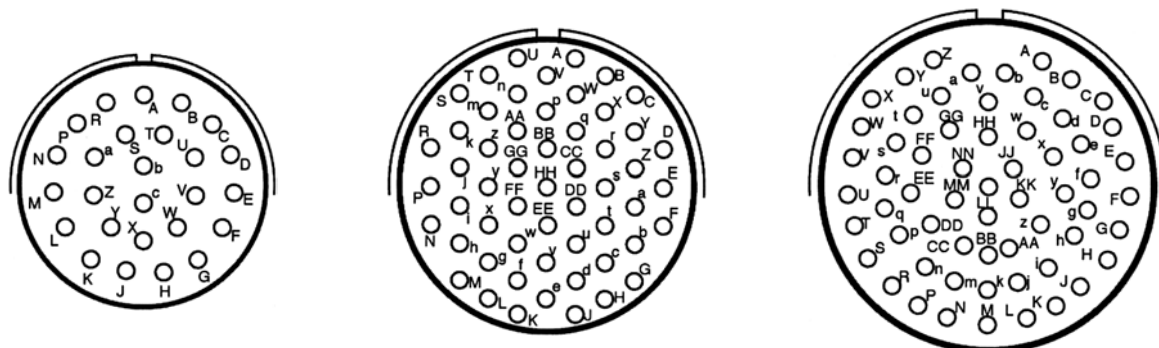
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# Amphenol

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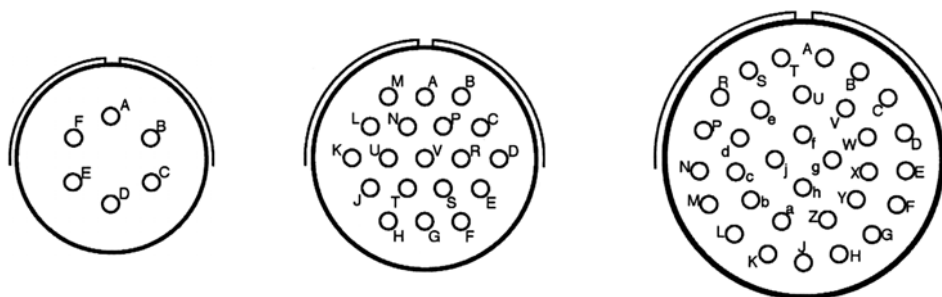
## AIPT INSERT ARRANGEMENTS

The following insert arrangements are currently available in the new AIPT series of connectors.



|                           |              |              |              |
|---------------------------|--------------|--------------|--------------|
| <b>Insert Arrangement</b> | <b>16-26</b> | <b>22-55</b> | <b>24-61</b> |
| <b>Service Rating</b>     | <b>I</b>     | <b>I</b>     | <b>I</b>     |
| <b>Number of Contacts</b> | <b>26</b>    | <b>55</b>    | <b>61</b>    |
| <b>Contact Size</b>       | <b>20</b>    | <b>20</b>    | <b>20</b>    |

The following insert arrangements will soon be available in the AIPT connector series.



|                           |             |              |              |
|---------------------------|-------------|--------------|--------------|
| <b>Insert Arrangement</b> | <b>10-6</b> | <b>14-19</b> | <b>18-32</b> |
| <b>Service Rating</b>     | <b>I</b>    | <b>I</b>     | <b>I</b>     |
| <b>Number of Contacts</b> | <b>6</b>    | <b>19</b>    | <b>32</b>    |
| <b>Contact Size</b>       | <b>20</b>   | <b>20</b>    | <b>20</b>    |

Contact Amphenol, Sidney NY for the availability of additional insert arrangements.

## SHELL DIMENSIONS

Refer to Amphenol® Miniature Cylindrical Connector (MIL-C-26482) Catalog 12-070 for shell dimensional drawings.

## INSERT MARKING

Inserts are marked front and back with raised black lettering. Inserts may be ink stamped as a special option.

## AIPT CONNECTOR SERIES

### Material and Finishes

Shells, Backshell and Accessories . . . Aluminum alloy with cadmium plate/olive drab chromate finish is standard.  
Alternate platings available.

Inserts . . . . . UL approved PPS material

### Performance Characteristics

Contact Size . . . . . 20 Gauge

Contact Type . . . . . Crimp; selectively gold plated; stamped and formed; rear insertable and front releasable

Contact Current Rating . . . . . 7.5 Amps

Insulation Resistance . . . . . > 5,000 Meg-ohms

Typical Contact Resistance . . . . . Initial 65 mV at 7.5 Amps; After 500 mating cycles 70 mV

Leakage Current . . . . . < 1.0 mA @ 1,500 VAC

Operating Temperature . . . . . -55° C to +125°C

### PART NUMBER LEGEND AND HOW TO ORDER

| <u>AIPT</u> | <u>06</u> | <u>A</u> | <u>22</u> | - | <u>55</u> | <u>P</u> | <u>W</u> | <u>(SR)</u> | <u>( )</u> |
|-------------|-----------|----------|-----------|---|-----------|----------|----------|-------------|------------|
| 1           | 2         | 3        | 4         |   | 5         | 6        | 7        | 8           | 9          |

1. Connector Type  
AIPT designates Amphenol® Industrial PT with crimp contacts
2. Shell Style  
"02" designates box mount receptacle  
"05" designates plug only. (No backshell or strain-relief).  
"06" designates straight cable connecting plug  
See Amphenol Catalog 12-070 for shell style drawings.
3. Service Class or special contact termination.  
"A" designates general duty
4. Shell Size  
Sizes 16, 22, 24 available currently. Sizes 10, 14, 18 available soon.
5. Insert Arrangement  
See opposite page for insert arrangement availability.
6. Contact Type (P designates pin, S designates socket)  
Contacts are provided on reels, approx. 7,000 per reel.
7. Insert Rotation  
"W", "X", "Y" or "Z" designates the degrees the insert is rotated from "normal" position.  
No letter is required for normal position.

| Shell Size | Insert | W  | X   | Y   | Z   |
|------------|--------|----|-----|-----|-----|
| 10         | 6      | 90 | —   | —   | —   |
| 14         | 19     | 30 | 165 | —   | —   |
| 16         | 26     | 60 | —   | 275 | 338 |
| 18         | 32     | 85 | 138 | 222 | 265 |
| 22         | 55     | 30 | 142 | 226 | 314 |
| 24         | 61     | 90 | 180 | 270 | 324 |

8. "SR" designates optional strain relief clamp.  
Only available for plug "06" shell style.
9. Alternate plating and special features designation.  
(023) Electroless nickel (conductive)  
(027) Black zinc cobalt (conductive)  
Standard plating, olive drab cadmium, requires no suffix. Consult Amphenol for additional options.

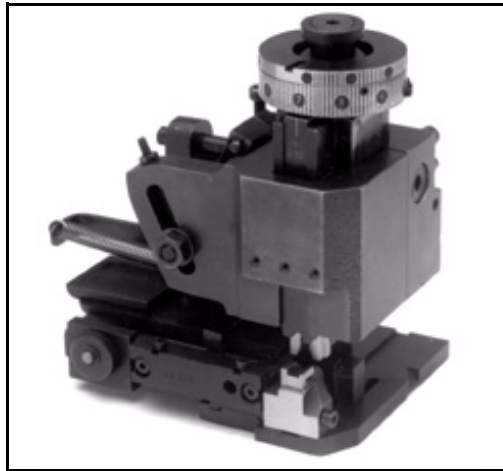
## AIPT SERIES TOOLING

### Tooling Part Numbers

Amphenol VariCrimp 2000 Press Options:

|              |                                                                  |
|--------------|------------------------------------------------------------------|
| 359-2800-11  | Press with crimp contact applicator and stripper unit            |
| 359-2500-11  | Press with crimp contact applicator only (Stripper not included) |
| 359-2600-11  | Crimp contact applicator only*                                   |
| 11-12208     | AIPT hand crimp tool                                             |
| 11-12210     | Removal tool for socket contacts                                 |
| M81969/14-10 | Plastic removal tool for pin contacts                            |

\* Advise factory of manufacturer of press in which crimper is to be installed.  
Amphenol crimper is compatible with most common automatic presses.



**CRIMP CONTACT APPLICATOR**

### CRIMP CONTACT APPLICATOR

- Fully automated
- Adjustment to .078" (2mm) for both wire and insulation
- Crimping height adjustment within .0078" (0.02mm) throughout range
- Adjustments easy to read on graduated rotary head
- Adjustments easily made by hand
- Standard left-to-right feed, or available in right-to-left feed
- Rotary head sits firmly and straight on press seat
- Easy to remove and install (single screw). Separate applicators can be set up for common needs; simply alternate applicators with press.
- Compatible with most common two-station automatic crimp presses (Advise Amphenol of the press currently in use).

### VARICRIMP 2000 PRESS WITH STRIPPER/CRIMPER

#### Variety of Configurations

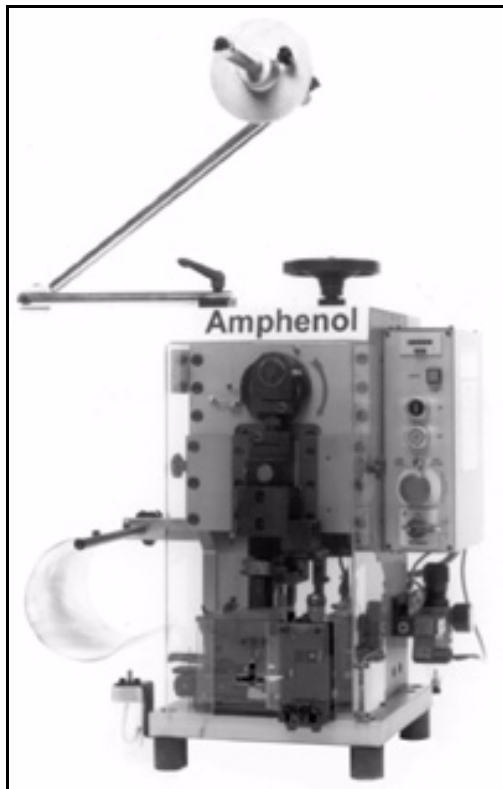
- Press with crimp contact applicator and stripper unit, all inclusive
- Press with crimp contact applicator, without stripper unit
- Crimp contact applicator only, includes die set

#### Features and Benefits

- Stripping and crimping in one operation
- Fast and cost effective; 2,000 terminations per hour
- Accommodates a variety of tools
- Easy to install and adjust
- Worn parts are easy to replace
- Crimp contact applicator unit can be changed in minutes
- Long service life
- Full service support from Amphenol

#### Specifications

- Left-to-right feed
- Uses standard 220 volt single phase current
- Requires cable outer jacket stripped to  $\geq .79"$  (20mm)



**VARICRIMP 2000 PRESS  
WITH STRIPPER/CRIMPER**

- Stripper cutter actuation is pneumatic: requires compressed air at 70 psi (6 bar)

For further information and assistance on ordering Amphenol® AIPT connectors and tooling products, contact your local Amphenol sales office or:

Amphenol Corporation  
Amphenol Aerospace  
40 – 60 Delaware Avenue