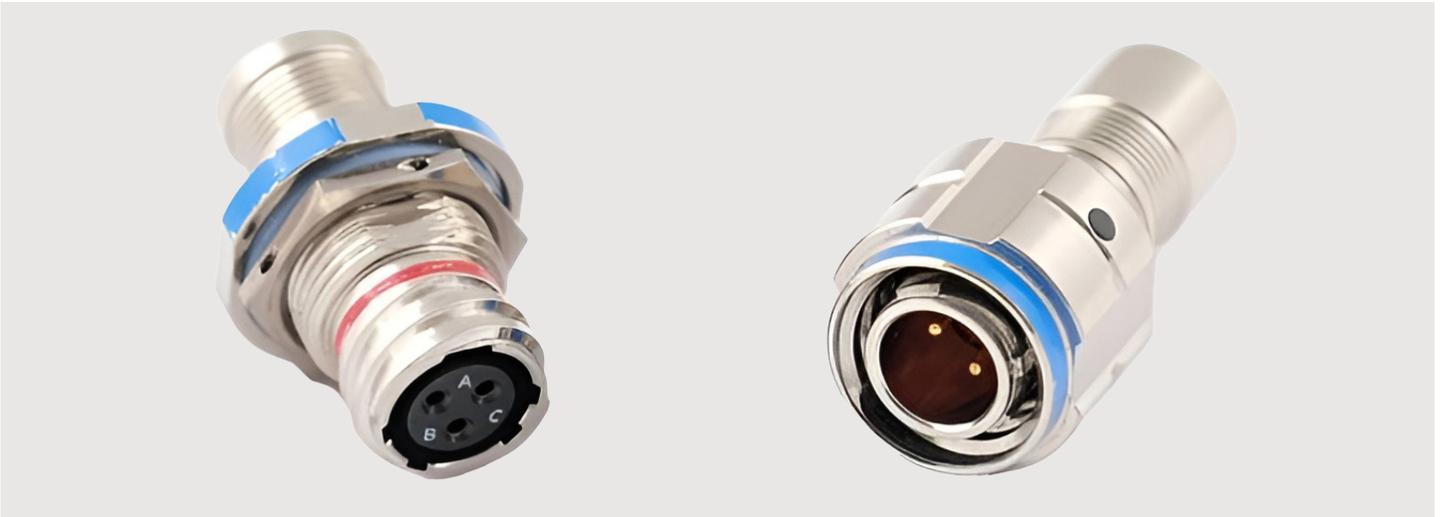


# 387TV – SIZE 7 38999

Double-start thread miniature connector derived from MIL-DTL-38999 Series III

PDS - 386



## A miniature 38999 solution for video, Ethernet, data transmission, and more.

Amphenol's 387TV Size 7 Connectors are derived from MIL-DTL-38999 Series III and are dedicated to applications where miniature size and low weight are critical. This range can accommodate size 8 high-speed contacts (Coax, Twinax, Quadrax, 1 Gb & 10 Gb Octonet) and any 38999 size 9 contacts arrangement, as well as fiber optics.

### FEATURES AND BENEFITS:

- The smallest connector derived from MIL-DTL-38999 series III\*
- Single-way grounded version & multi-pin insert arrangements
- Data, high-speed contacts and Fiber optic
- Ruggedized product with resistance to shocks & vibrations
- Several materials et plating's available, with RoHS & REACH compliant versions
- Several receptacles style: Oval flange, Jam nut
- Shells always with an integrated back shell for crimp versions
- Multi-pin versions use the same contacts and inserts as size 9 38999 Series III
- Many versions available: Integrated backshell, stand-off (double flange), reduced flange

### APPLICATIONS:

- Battlefield Communication C5ISR
- Ground Vehicles
- Military Avionics
- Commercial Air
- Navy

### ENVIRONMENTAL & ELECTRICAL CHARACTERISTICS:

- 500 mating cycles
- -65 °C (-85 °F) to +175 °C (347 °F) or 200 °C (392 °F) depending on material & plating
- From 48 to 500 hours of salt spray depending on material & plating
- IPX7 when mated and fully cabled
- Shell-to-shell conductivity from 1 to 10 mΩ depending on materials & platings
- Shell-to-shell bottoming, grounding fingers on the plug shell
- Insulation resistance at Ambient temperatures: 5.103 mΩ
- Contact rating from 3 to 23 Amps

### CONTACT OPTIONS:

- 1 grounded version & 4 multi-pin arrangements
- Contacts size 23 HD to 8
- Signal, Power, High-speed versions (Coax, Twinax, Quadrax, Octonet...), and optical termini
- Crimp & PC-Tails (gold & tinned versions)

# BUILD A PART NUMBER: 387TV CRIMP CONNECTORS

| 1. Series    | 2. Shell Style | 3. Crimp Contacts | 4. Contact Type | 5. Material and Plating | 6. Contact Arrangement | 7. Contact Gender | 8. Keying | 9. With or without Contact | 10. Deviation |
|--------------|----------------|-------------------|-----------------|-------------------------|------------------------|-------------------|-----------|----------------------------|---------------|
| <b>387TV</b> | <b>07</b>      | <b>R</b>          | <b>CQ</b>       | <b>W</b>                | <b>07-05</b>           | <b>P</b>          | <b>-</b>  | <b>-</b>                   | <b>F312</b>   |

| 1. Series    |                  |
|--------------|------------------|
| <b>387TV</b> | Crimp Connectors |

| 3. Crimp Contacts |                              |
|-------------------|------------------------------|
| <b>R</b>          | For W, F, K, S and B Plating |
| <b>Blank</b>      | For ZN & TZ Plating          |

| 4. Contact Type |   |
|-----------------|---|
| <b>GC</b>       | Coax 50Ω - 07-05 <b>G</b> only                              |
| <b>GM</b>       | Coax 75Ω for RG179 cable type - 07-05 <b>G</b> only         |
| <b>GV</b>       | Coax 75Ω for PIC V75268 cable type - 07-05 <b>G</b> only    |
| <b>GT</b>       | Twinax - 07-05 <b>G</b> only                                |
| <b>GQ</b>       | Quadrx 100Ω - 07-05 <b>G</b> only                           |
| <b>GO</b>       | Octonet-07-05 <b>G</b> only                                 |
| <b>G</b>        | Ground Plane without contact - Mandatory for 07-05 <b>G</b> |
| <b>M</b>        | Coax 75Ω #12-07-12 contact arrangement only                 |
| <b>Blank</b>    | Standard signal Contact (07-09, 07-12, 07-12, 07-35, 07-98) |

| 2. Shell Style |  |                                  |             |
|----------------|--|----------------------------------|-------------|
|                | Shell Type                                       | Associated Materials and Plating | Temperature |
| <b>06</b>      | Plug with integrated Backshell                   | W, ZN, ZR                        | +175°C      |
| <b>S06*</b>    |  | F, K, S, B                       | +200°C*     |
| <b>07</b>      | Jam Nut Receptacle with Integrated Backshell     | W, ZN, ZR                        | +175°C      |
| <b>S07*</b>    |  | F, K, S, B                       | +200°C*     |
| <b>03</b>      | Oval Flange Receptacle with Integrated Backshell | W, ZN, ZR                        | +175°C      |
| <b>S03*</b>    |  | F, K, S, B                       | +200°C*     |

\*(S) Stand for 200°C compatibility. Omit for High-Density inserts HD, inserts with Quadrx contacts and differential Twinax contacts Q are +175°C maxi compatible.

| 5. Material and Plating |                |   |
|-------------------------|----------------|---|
|                         | Shell Material | Shell Finish  |
| <b>W</b>                | Aluminum       | Olive Drab Cadmium  |
| <b>F</b>                |                | Nickel                        |
| <b>ZN</b>               |                | Black Zinc Nickel            |
| <b>ZR</b>               |                | Black Zinc Nickel CRVI Free  |

\*Copper aluminum alloy For other materials, please consult us

| 6. Contact Arrangement  |          |              |                |
|---|----------|--------------|----------------|
| Layout  |          | Contact Size | Total Contacts |
|  | 07-05 G  | 8            | 1              |
|  | 07-09 HD | 23           | 9              |
|  | 07-12    | 12           | 1              |
|  | 07-35    | 22D          | 6              |
|  | 07-98    | 20           | 3              |

| 7. Contact Gender |   |
|-------------------|---|
| <b>P</b>          | Pin (500 cycles) - 07-05 <b>G</b> Mandatory for Receptacles |
| <b>S</b>          | Socket (500 cycles) - 07-05 <b>G</b> Mandatory for Plugs    |

| 8. Keying    |            |
|--------------|------------|
| <b>Blank</b> | For Normal |
| <b>A</b>     |            |
| <b>B</b>     |            |
| <b>C</b>     |            |
| <b>D</b>     |            |

| 9. With or Without Contact |                            |
|----------------------------|----------------------------|
| <b>Blank</b>               | Delivered with contacts    |
| <b>LC</b>                  | Delivered without contacts |

| 10. Deviation |                                       |                          |
|---------------|---------------------------------------|--------------------------|
| Deviation     | Description                           | Shell Type Compatibility |
| <b>F312</b>   | Reduced Flange Receptacle             | 07 / S07                 |
| <b>F506</b>   | Oval Flange equipped with Clinch Nuts | 03 / S03*                |

For other deviations. Please consult us.  
\*Oval Flange receptacle equipped with clinch nuts are not available in Black Zinc Nickel, Bronze, or Stainless Steel

# BUILD A PART NUMBER: 387TV PCB RECEPTACLES

| 1. Series    | 2. Shell Style | 3. Contact Type | 4. Material and Plating | 5. PC Tail Contacts | 6. Contact Arrangement | 7. Contact Gender | 8. Keying | 9. Deviation |
|--------------|----------------|-----------------|-------------------------|---------------------|------------------------|-------------------|-----------|--------------|
| <b>387TV</b> | <b>07</b>      | <b>M</b>        | <b>c</b>                | <b>W</b>            | <b>07-05</b>           | <b>P</b>          | <b>-</b>  | <b>F312</b>  |

## 1. Series

|              |                  |
|--------------|------------------|
| <b>387TV</b> | Crimp Connectors |
|--------------|------------------|

## 3. Contact Type

|              |   |
|--------------|---|
| <b>GC</b>    | Coax 50Ω - 07-05 <b>G</b> only                              |
| <b>GM</b>    | Coax 75Ω for RG179 Cable Type - 07-05 <b>G</b> only         |
| <b>GT</b>    | Twinax - 07-05 <b>G</b> only                                |
| <b>GQ</b>    | Quadrax 100Ω - 07-05 <b>G</b> only                          |
| <b>GO</b>    | Octonet-07-05 <b>G</b> only                                 |
| <b>M</b>     | Coax 75Ω #12 • 07-12 Contact Arrangement Only               |
| <b>Blank</b> | Standard Signal Contact (07-09, 07-12, 07-12, 07-35, 07-98) |

## 2. Shell Style

|             | Shell Type             | Associated Materials and Plating | Temperature |
|-------------|------------------------|----------------------------------|-------------|
| <b>07</b>   | Jam Nut Receptacle     | W, ZN, ZR                        | +175°C      |
| <b>S07*</b> |                        | F, K, S, B                       | +200°C*     |
| <b>03</b>   | Oval Flange Receptacle | W, ZN, ZR                        | +175°C      |
| <b>S03*</b> |                        | F, K, S, B                       | +200°C*     |

\*For Connectors with Quadrax and differential Twinax contacts please omit the (S) corresponding to 200°C compatibility. Quadrax contacts and differential Twinax contacts are +175°C maxi compatible.

## 4. Material and Plating

|           | Shell Material | Shell Finish  |
|-----------|----------------|---|
| <b>W</b>  | Aluminum       | Olive Drab Cadmium  |
| <b>F</b>  |                | Nickel                       |
| <b>ZN</b> |                | Black Zinc Nickel            |
| <b>ZR</b> |                | Black Zinc Nickel CRVI Free  |

\*Copper aluminum alloy for other materials, please consult us

## 5. PC Tail Contacts

|           |                 |
|-----------|-----------------|
| <b>CI</b> | Standard Length |
|-----------|-----------------|

For other length, please consult us

## 6. Contact Arrangement

| Layout  | Contact Size | Total Contacts |
|---|--------------|----------------|
|  | 07-05 G      | 8              |
|  | 07-09 HD     | 23             |
|  | 07-12        | 12             |
|  | 07-35        | 22D            |
|  | 07-98        | 20             |

## 7. Contact Gender

|          |  |
|----------|--|
| <b>P</b> | Pin (500 cycles) - 07-05 G Mandatory for Receptacles |
| <b>S</b> | Socket (500 cycles)                                  |

## 8. Keying

|              |            |
|--------------|------------|
| <b>Blank</b> | For Normal |
| <b>A</b>     |            |
| <b>B</b>     |            |
| <b>C</b>     |            |
| <b>D</b>     |            |

For other deviations. Please consult us. \*Oval Flange receptacle equipped with clinch nuts are not available in Black Zinc Nickel, Bronze, or Stainless Steel

## 9. Deviation

| Shell Style                  | PC Tail Finish / Tinning |                |                   |              | Shell Type Compatibility |
|------------------------------|--------------------------|----------------|-------------------|--------------|--------------------------|
|                              | Tin Lead                 | Silver Tin     | Silber Tin Copper | Gold         |                          |
| Standard                     | <b>F404</b>              | <b>F404LF</b>  | <b>F404LFC</b>    | <b>Blank</b> | All                      |
| Stand-off Reduced Flange     | <b>F059</b>              | <b>F059LF</b>  | <b>F059LFC</b>    | <b>F059H</b> | 07 / S07                 |
| Oval Flange with Clinch Nuts | <b>F506G</b>             | <b>F506GLF</b> | <b>F506LFC</b>    | <b>F506</b>  | 03 / S03*                |

