

**Amphenol**  
SINESYSTEMS

# RT360™

Circular Connectors



**INTERCONNECTING YOUR WORLD**



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## Description

RT360™ industrial circular connectors are multiway connector available in 6 shell sizes and 22 insert arrangements with a variety of wire gauge options. RT360 industrial circular connectors were designed to be intermateable with other industrial connector families.

|  |  |
|--|--|
| Shells                                   | Zinc Alloy   |
| Backshells and Cable Glands              |  |
| Coupling Ring                            | Aluminum   |
| Coupling Spring                          | Spring Stainless Steel   |
| Interfacial Seal                         | Standard: NBR / Optional: Silicone   |
| Insert                                   | Glass-filled Thermoplast UL94-V0   |
| Finish                                   | Nickel   |
| RoHS Compliant                           | Yes  |
| Operating Temp                           | NBR: -40°C to +105°C / Silicone: -45°C to +125°C   |
| Insulation Resistance                    | 5000 MΩ min.   |
| Durability                               | 500 matings and unmatings  |
| Vibration Resistance                     | per MIL-STD202 method 204  |
| Thermal Shock                            | per MIL-STD202 method 207  |
| Corrosion                                | Salt spray per MIL-STD 202, method 101; 48h (standard version), 96h (black anodized coupling ring) <b>*Higher salt spray resistance (200/500h) upon request.</b> |
| Degree of Water Protection per DIN 40050 | IP67 in mated condition and in combination with sealed back shell.<br>*Consult Factory for additional Degree of Protection                                       |

## Features & Benefits



RT Series



RTHP Series

### RT Series - 20AWG

- High density arrangements from 6-41 contacts
- 6 shell sizes and 6 insert configurations
- Operating voltage of 150V
- Current rating of 7.5A with machined contacts and 5A with stamped and formed contacts
- Alternate keying positions available
- Plastic inserts with flammability rating of UL94-V0
- RoHS compliant

### RT Series - 16AWG

- 16AWG and mixed Power and Signal arrangements from 4-28 contacts
- 6 shell sizes and 11 insert configurations
- Operating voltage of 300V
- Current rating: 13A(signal contacts)
- Alternate keying positions available
- Plastic inserts with flammability rating of UL94-V0
- RoHS compliant

### RTHP Series

- Single pole High Power arrangements
- 4 shell sizes and 5 insert configurations
- 3.6mm-10mm contact sizes
- Operating voltage of 630V
- Current rating at 80°C: 86A-342A
- Plastic inserts with flammability rating of UL94-V0
- RoHS compliant

# Part Ordering Guide - RT & RTHP Series Plugs & Receptacles

| SERIES | STYLE | SHELL TYPE | INSERT ARRANGEMENT | TYPE OF CONTACTS | INSERT POLARIZATION | APPLICATION | DESIGN VARIATION | PLATING | INTERFACIAL SEAL VARIATION |
|--------|-------|------------|--------------------|------------------|---------------------|-------------|------------------|---------|----------------------------|
| *      | *     | *          | *                  | *                | *                   | *           | *                | *       | *                          |

## RT SERIES

### SERIES

- RT

### SHELL TYPE

- 0: Wall mount recep.
- 1: Inline receptacle
- 6: Cable plug
- 7: Jam nut recep. / rear panel mount

### SHELL SIZE

- 10, 12, 14, 16, 18, 20

### INSERT ARRANGEMENT

- See Page 7

### TYPE OF CONTACTS

- P: Pin contacts
- S: Socket contacts

### INSERT POLARIZATION (See Detail below)

- N: Standard version
- W, X, Y, Z: Custom orientation (consult Factory)

### APPLICATION

- Blank: Standard version (no o-ring)
- H: Standard version, water protection IP67

### DESIGN VARIATION

- Blank: Standard version
- EC: End cap & standard seal for wire 18~14AWG
- MM: End cap & reduced seal for wire 24~20AWG

### PLATING

- Blank: Standard is nickel plating (48hr salt spray)
- 1: Black anodized, jam nut (96hr salt spray)
- 2: Black anodized coupling ring (96hr salt spray)

### INTERFACIAL SEAL VARIATION

- Blank: Standard version, NBR
- 03: O-ring and seal gasket is silicone rubber
- 04: O-ring and seal gasket is Viton

## RTHP SERIES

### SERIES

- RT

### SHELL TYPE

- 0: Wall mount recep.
- 1: Inline receptacle
- 6: Cable plug
- 7: Jam nut recep. / rear panel mount

### SHELL SIZE

- 12, 14, 16, 20

### INSERT ARRANGEMENT

- See Page 7

### TYPE OF CONTACTS

- P: Pin contacts
- S: Socket contacts

### INSERT POLARIZATION

- N: Standard version

### APPLICATION

- Blank: Standard version (no o-ring)
- H: Standard version, water protection IP67

### DESIGN VARIATION

- Blank: Standard version
- EC: End cap

### PLATING

- Blank: Standard is nickel plating (48hr salt spray)
- 1: Black anodized, jam nut (96hr salt spray)
- 2: Black anodized coupling ring (96hr salt spray)

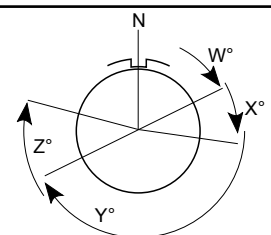
### INTERFACIAL SEAL VARIATION

- Blank: Standard version, NBR
- 03: O-ring and seal gasket is silicone rubber
- 04: O-ring and seal gasket is Viton

### Detail

Mating Face View of Pin Inserts

The five positions (W, X, Y, Z and Normal) differ in degree of rotation for various sizes and arrangements.



**Note:** Higher salt spray resistance (200/500h) upon request.

# Part Ordering Guide - RT Series Machined Contacts

| SERIES | WIRE SIZE | CONTACT SIZE | CONTACT PACKAGING | DESIGN VARIATION | GROUNDING CONTACT | PLATING |
|--------|-----------|--------------|-------------------|------------------|-------------------|---------|
| *      | *         | *            | *                 | *                | *                 | *       |

## SERIES

- **MP:** Male; **MS:** Female

## WIRE SIZE

- **14:** 14AWG (2.5mm); **16:** 18-16AWG (.75-1.5mm); **20:** 22-20AWG (.34-.50mm);
- **24:** 26-24AWG (.14-.25mm); **28:** 30-28AWG (.05-.08mm); **8:** 10-8AWG (6-10mm)

## CONTACT SIZE

- **M:** Size 16; **W:** Size 20; **A:** Size 8 Power Contact

## CONTACT PACKAGING

- **BP:** Bulk Pack only

## DESIGN VARIATION

- **23:** Crimp Barrel; **12E0xx:** PCB tail, for RT00( wall mouting receptacle) **xx** is outer length of PCB tail; **12E7xx:** PCB tail, for RT07( Jam Nut Receptacle) **xx** is outer length of PCB tail; **RS8:** Radsok 3.6mm, crimp barrel

## GROUNDING CONTACT

- **GE1:** For Male GND contacts (1 mm longer) add **GE1** to the part number (ex: MP16M23GE1G15); **GE1:** For Female GND contacts (1.5 mm longer) add **GE1** to the p/n (ex: MS16M23GE1G15); **GE7:** For Female Last Mate contacts (0.6 mm shorter) add **GE7** to the part number (ex: MS16M23GE7G15)

## PLATING

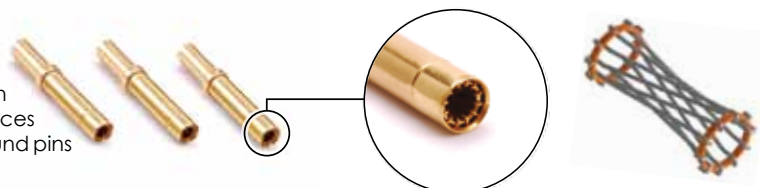
- **T:** Tin; **F:** Gold Flash; **G:** Gold Plate [Thickness: 10u"]; **G30:** Gold Plate [Thickness: 30u"]; **N:** Nickel; **S:** Plating Silver (5um)



| Contact Size | Wire Range |         | Plating    | Male P/N   | Female P/N |
|--------------|------------|---------|------------|------------|------------|
|              | AWG        | mm      |            |            |            |
| 8            | 10-8       | 6-10    | Silver     | MP8A23S    | MS8A23S    |
| 16           | 14         | 2.5     | Silver     | MP14M23S   | MS14M23S   |
|              |            |         | Gold Flash | MP14M23F   | MS14M23F   |
|              |            |         | Gold 30u"  | MP14M23G30 | MS14M23G30 |
| 16           | 18-16      | .75-1.5 | Silver     | MP16M23S   | MS16M23S   |
|              |            |         | Gold Flash | MP16M23F   | MS16M23F   |
|              |            |         | Gold 30u"  | MP16M23G30 | MS16M23G30 |
| 16           | 22-20      | .34-.50 | Silver     | MP20M23S   | MS20M23S   |
|              |            |         | Gold Flash | MP20M23F   | MS20M23F   |
|              |            |         | Gold 30u"  | MP20M23G30 | MS20M23G30 |
| 16           | 26-24      | .14-.25 | Silver     | MP24M23S   | MS24M23S   |
|              |            |         | Gold Flash | MP24M23F   | MS24M23F   |
|              |            |         | Gold 30u"  | MP24M23G30 | MS24M23G30 |
| 20           | 22-20      | .34-.50 | Silver     | MP20W23S   | MS20W23S   |
|              |            |         | Gold Flash | MP20W23F   | MS20W23F   |
|              |            |         | Gold 30u"  | MP20W23G30 | MS20W23G30 |
| 20           | 30-28      | .05-.08 | Silver     | MP28W23S   | MS28W23S   |
|              |            |         | Gold Flash | MP28W23F   | MS28W23F   |
|              |            |         | Gold 30u"  | MP28W23G30 | MS28W23G30 |



- Longer contact life
- Lower contact resistance
- Immunity to shock and vibration
- Low insertion and extraction forces
- Contact area extends 360° around pins





# Part Ordering Guide - RT Series Stamped & Formed Contacts

| SERIES | WIRE SIZE<br>AWG CRIMP | CONTACT SIZE | CONTACT PACKAGING | DESIGN VARIATION | PLATING |
|--------|------------------------|--------------|-------------------|------------------|---------|
| *      | *                      | *            | *                 | *                | *       |

## SERIES

- **SP:** Male; **SS:** Female

## WIRE SIZE

- **2.5mm:** 2.5mm; **16:** 18-16AWG (.75-1.5mm); **20:** 22-20AWG (.34-.50mm); **24:** 26-24AWG (.14-.25mm); **28:** 30-28AWG (.05-.08mm)

## CONTACT SIZE

- **M:** Size 16; **W:** Size 20; **A:** 2.5mm contact

## CONTACT PACKAGING

- **Blank:** 3,000 pc reel; **L:** Loose Piece

## DESIGN VARIATION

- **1:** Crimp type

## PLATING

- **T:** Tin; **F:** Gold Flash; **G:** Gold Plate [Thickness: 10u"]; **G30:** Gold Plate [Thickness: 30u"]; **N:** Nickel; **S:** Silver



| Contact Size | Wire Range |         | Plating    | Male P/N  | Female P/N |
|--------------|------------|---------|------------|-----------|------------|
|              | AWG        | mm      |            |           |            |
| 2.5mm        | NA         | 2.5     | Tin        | SP12A1T   | SS12A1T    |
| 16           | 14         | 2.5     | Gold Flash | SP14M1F   | SS14M1F    |
|              |            |         | Gold 10u"  | SP14M1G10 | SS14M1G10  |
|              |            |         | Gold 30u"  | SP14M1G30 | SS14M1G30  |
| 16           | 18-16      | .75-1.5 | Gold Flash | SP16M1F   | SS16M1F    |
|              |            |         | Gold 10u"  | SP16M1G10 | SS16M1G10  |
|              |            |         | Gold 30u"  | SP16M1G30 | SS16M1G30  |
| 16           | 22-20      | .34-.50 | Gold Flash | SP20M1F   | SS20M1F    |
|              |            |         | Gold 10u"  | SP20M1G10 | SS20M1G10  |
|              |            |         | Gold 30u"  | SP20M1G30 | SS20M1G30  |
| 16           | 26-24      | .14-.25 | Gold Flash | SP24M1F   | SS24M1F    |
|              |            |         | Gold 10u"  | SP24M1G10 | SS24M1G10  |
|              |            |         | Gold 30u"  | SP24M1G30 | SS24M1G30  |
| 20           | 22-20      | .34-.50 | Gold Flash | SP20W1F   | SS20W1F    |
|              |            |         | Gold 10u"  | SP20W1G10 | SS20W1G10  |
|              |            |         | Gold 30u"  | SP20W1G30 | SS20W1G30  |
| 20           | 26-24      | .14-.25 | Gold Flash | SP24W1F   | SS24W1F    |
|              |            |         | Gold 10u"  | SP24W1G10 | SS24W1G10  |
|              |            |         | Gold 30u"  | SP24W1G30 | SS24W1G30  |

# RADSOK® Technical Information

## High Reliability

Unique RADSOK® design and construction technology create an electrical contact interface that exceeds typical interconnect requirements. Applications in Aerospace, Medical, Industrial, Automotive, Mining, Offshore and other harsh environments depend on high reliability of the Amphenol RADSOK® technology.

## Low Contact Engagement/Separation Forces

The hyperbolic lamella socket contact construction distributes normal forces over a high percentage of the mating surface. This creates a smooth, even engagement effort. This force distribution also contributes to excellent performance in vibration applications with resistance to typical fretting corrosion.

## Low Contact Resistance

The large interface between the socket lamella and pin surface result in very low contact resistance, enabling the RADSOK® contacts' high current ratings compared to traditional power contact designs.

## High Mating Cycle Durability

RADSOK® contacts with typical silver plating finishes have demonstrated survival of 20,000 mating cycles. Specialized plating and contact lubricants can extend cycle life to 200,000 mating or higher. Even with continuous exposure to harsh environmental abuse (salt, sand and high humidity), RADSOK® contacts have been tested to maintain low contact resistance beyond 10,000 mating cycles.



| RTHP RADSOK®              | 3.6mm   | 6mm  | 8mm   |
|---------------------------|---|--|---|
| Current<br>(DIN EN 60512) | 115A (23°C)<br>107A (40°C)<br>86A (80°C)<br>56A (120°C) | 155A (23°C)<br>148A (40°C)<br>116A (80°C)<br>77A (120°C) | 240A (23°C)<br>235A (40°C)<br>185A (80°C)<br>120A (120°C) |
| Contact Resistance        | = 0.15mΩ  | = 0.11mΩ   | = 0.08mΩ  |
| Mating Force              | = 10NV  | = 20N  | = 50N   |
| m                         | 1.5g  | 5.6g   | 14.5g   |
| l                         | 13.2mm  | 21.9mm   | 25.7mm  |
| di                        | 3.6mm   | 6mm  | 8mm   |
| da                        | 6mm   | 9.5mm  | 13.5mm  |
| Plating                   | Grid: Silver<br>Sleeve: Silver                          | Grid: Silver<br>Sleeve: Tinned                           | Grid: Silver<br>Sleeve: Tinned                            |

**Note:** The given electrical values correspond to a single contact. With the addition of a housing, an increased number of poles or other modifications, the values must be adjusted downwards accordingly.

# Part Ordering Guide - RTHP Series Machined Contacts

| SERIES | WIRE SIZE | CONTACT SIZE | CONTACT PACKAGING | DESIGN VARIATION | PLATING |
|--------|-----------|--------------|-------------------|------------------|---------|
| *      | *         | *            | *                 | *                | *       |

**SERIES**

- **HP:** Male; **HS:** Female

**WIRE SIZE**

- **10:** 8-10mm<sup>2</sup>; **16:** 13-16mm<sup>2</sup>; **25:** 20-25mm<sup>2</sup>; **35:** 30-35mm<sup>2</sup>; **50:** 40-50mm<sup>2</sup>; **75:** 70-75mm<sup>2</sup>

**CONTACT SIZE**

- **A:** 3.6mm; **B:** 6mm; **C:** 8mm; **D:** 10mm

**CONTACT PACKAGING**

- **BP:** Bulk Pack Only

**DESIGN VARIATION**

- **C:** Crimp Barrel; **P:** PCB Tail; **S:** Screw Tail; **W:** Soldier Tail; **H:** Flat Hole Tail

**PLATING**

- **T:** Tin; **F:** Gold Flash; **G:** Gold Plate [Thickness: 10u"]; **G30:** Gold Plate [Thickness: 30u"]; **N:** Nickel; **S:** Plating Silver (5um)



| Contact Size | Wire Range | Plating | Male P/N | Female P/N | Type          |
|--------------|------------|---------|----------|------------|---------------|
| 3.6mm        | 8-10mm     | Silver  | HP10ACS  | HS10ACS    | Crimp         |
|              |            |         | HP10ASS  | HS10ASS    | Screwtail     |
|              |            |         | HP10AHS  | HS10AHS    | Flathole Tail |
| 6mm          | 20-25mm    | Silver  | HP25BCS  | HS25BCS    | Crimp         |
|              |            |         | HP25BSS  | HS25BSS    | Screwtail     |
|              |            |         | HP25BHS  | HS25BHS    | Flathole Tail |
| 8mm          | 30-35mm    | Silver  | HP35CCS  | HS35CCS    | Crimp         |
|              |            |         | HP35CSS  | HS35CSS    | Screwtail     |
|              |            |         | HP35CHS  | HS35CHS    | Flathole Tail |
| 10mm         | 40-50mm    | Silver  | HP50DCS  | HS50DCS    | Crimp         |
|              |            |         | HP50DSS  | HS50DSS    | Screwtail     |
|              |            |         | HP50DHS  | HS50DHS    | Flathole Tail |

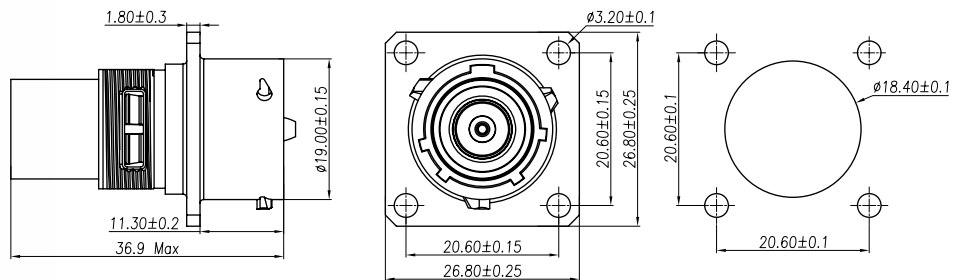
Consult Factory for additional Touch Proof options.

## Typical Product Picture and Installation Dimension - RTHP Series





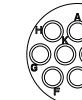
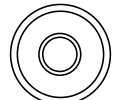
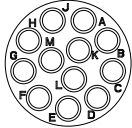
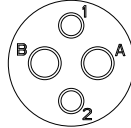
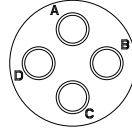
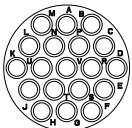
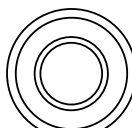
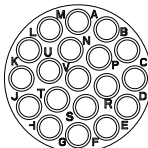
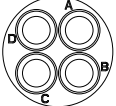
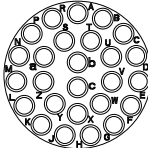
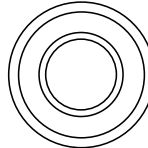
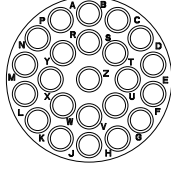
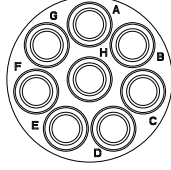
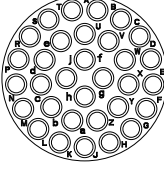
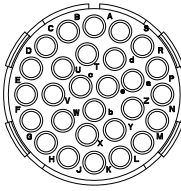
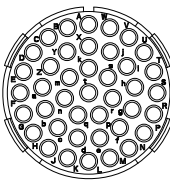
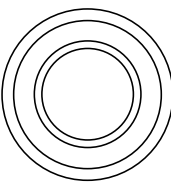
To be used within HV and EV when enduring large current and high voltage

Wall Mounting Receptacle for Crimp Barrel

Part Number: RTHP0121PNH-16C

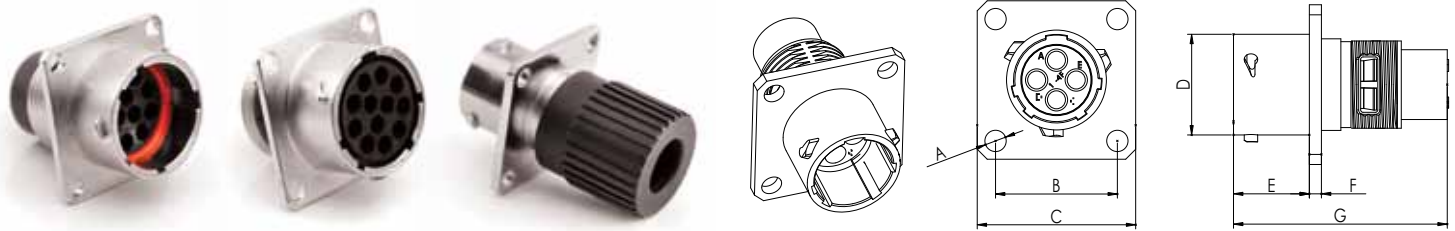


# Insert Configuration

| RTO   |   |  |   |  | RTHP Radsok®   |
|---|---|--|---|--|--|
| #16 Contacts (1.6mm)<br>13A/250V  | VDE Versions<br>Mixed Power/Signal  | Contacts<br>(2.5mm)  | #20 Contacts<br>(1.0mm)<br>5A/150V <b>(1)</b><br>7.5A/150V <b>(2)</b>   | Single<br>Pin Power  |  |
| <b>Note:</b> Specific to RTO, <b>(1)</b> refers to Stamped and Formed contacts; <b>(2)</b> refers to Machined contacts. |   |  |   |  |  |
| Shell<br>10   | <br>10-4             | <br>10-2<br>2x#16(13A)/2X#20(5A)<br>350V AC/DC  | N/A   | <br>10-6    | N/A  |
| Shell<br>12   | <br>12-3             | N/A  | N/A   | <br>12-10   | <br>12-1<br>1x3.6mm (86A)<br>600V AC/DC   |
| Shell<br>14   | <br>14-12<br>1x3.6mm | <br>14-2<br>2x2.5(23A)/2x#16(13A)<br>350V AC/DC | <br>14-4<br>(23A)<br>350V AC/DC | <br>14-19   | <br>14-1<br>1x6mm (116A)<br>600V AC/DC    |
| Shell<br>16   | <br>16-19          | <br>16-4<br>4x3.6(46A)<br>400 AC/DC           | N/A   | <br>16-26 | <br>16-1<br>1x8mm (185A)<br>600V AC/DC  |
| Shell<br>18   | <br>18-23          | N/A  | <br>18-8<br>(23A) 375V AC/DC  | <br>18-32 | N/A  |
| Shell<br>20   | <br>20-28          | N/A  | N/A   | <br>20-41 | <br>20-1<br>1x10mm (342A)<br>600V AC/DC |

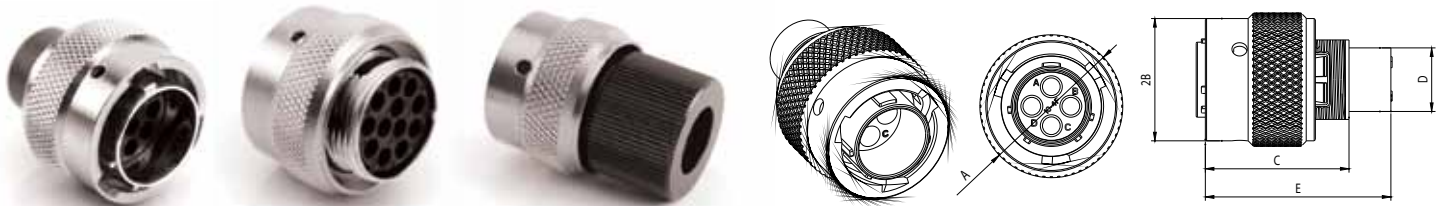
All dimensions are in mm. Face Views are not actual size and are only meant as a representation.

## Box and Wall Mounts



|          | A    | B     | C     | D     | E     | F    | G     | G + End Cap Male | G + End Cap Female |
|----------|------|-------|-------|-------|-------|------|-------|------------------|--------------------|
| Shell 10 | 3.20 | 18.30 | 23.80 | 15.00 | 11.30 | 1.80 | 31.85 | 40.65            | 32.70              |
| Shell 12 | 3.20 | 20.62 | 26.20 | 19.00 | 11.30 | 1.80 | 31.85 |                  |                    |
| Shell 14 | 3.20 | 23.00 | 28.60 | 22.20 | 11.30 | 1.80 | 31.85 |                  |                    |
| Shell 16 | 3.20 | 24.60 | 31.00 | 25.30 | 11.30 | 1.80 | 31.85 |                  |                    |
| Shell 18 | 3.20 | 26.95 | 33.30 | 28.55 | 11.30 | 1.80 | 31.85 |                  |                    |
| Shell 20 | 3.20 | 29.50 | 36.50 | 31.70 | 14.55 | 2.40 | 33.65 |                  |                    |

## Straight Plugs



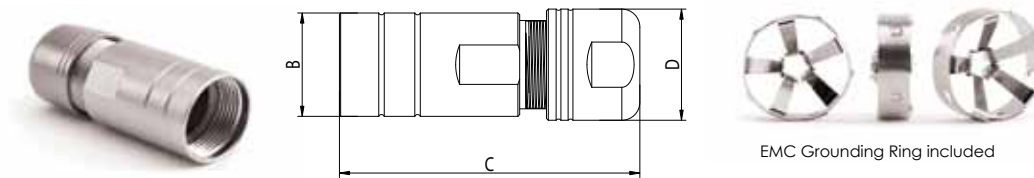
|          | A     | B     | C     | D     | E     | H + End Cap Male | H + End Cap Female |
|----------|-------|-------|-------|-------|-------|------------------|--------------------|
| Shell 10 | 21.80 | 20.00 | 23.50 | 10.40 | 30.35 | 40.65            | 32.70              |
| Shell 12 | 26.10 | 23.60 | 23.50 | -     | 30.35 |                  |                    |
| Shell 14 | 29.30 | 26.80 | 25.32 | 16.65 | 32.17 |                  |                    |
| Shell 16 | 32.45 | 30.00 | 23.50 | 19.50 | 30.35 |                  |                    |
| Shell 18 | 35.25 | 33.30 | 23.50 | 21.90 | 30.45 |                  |                    |
| Shell 20 | 38.55 | 36.55 | 25.80 | 25.20 | 30.65 |                  |                    |

## Jam Nut Receptacle



|          | A     | B     | C     | D     | E    | F     | G     | G + End Cap Male | G + End Cap Female |
|----------|-------|-------|-------|-------|------|-------|-------|------------------|--------------------|
| Shell 10 | 22.20 | 27.00 | 16.23 | 15.00 | 2.20 | 19.30 | 33.00 | 40.70            | 40.70              |
| Shell 12 | 20.50 | 27.00 | 31.75 | 19.00 | 2.20 | 19.30 | 33.00 |                  |                    |
| Shell 14 | 23.60 | 30.20 | 34.90 | 22.20 | 2.20 | 19.30 | 33.00 |                  |                    |
| Shell 16 | 26.85 | 33.30 | 38.10 | 25.30 | 3.70 | 19.30 | 33.30 |                  |                    |
| Shell 18 | 29.86 | 36.50 | 41.30 | 28.55 | 2.50 | 19.30 | 33.00 |                  |                    |
| Shell 20 | 33.95 | 39.70 | 46.10 | 31.70 | 3.60 | 24.70 | 38.55 |                  |                    |

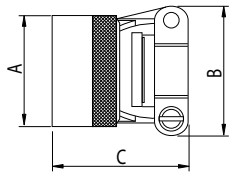
## Cord Grips



|          | Amphenol P/N | Cable Range | A (Thread)      | B    | C     |
|----------|--------------|-------------|-----------------|------|-------|
| Shell 10 | RTOL-10CG-S1 | 3 to 6.5    | 9/16-24 UNEF    | 50   | 18.50 |
|          | RTOL-10CG-S2 | 5 to 8.5    |                 |      |       |
| Shell 12 | RTOL-12CG-S1 | 6 to 10.5   | 11/16-24 UNEF   | 54   | 23.00 |
|          | RTOL-12CG-S2 | 8 to 12.5   |                 |      |       |
| Shell 14 | RTOL-14CG-S1 | 6 to 10.5   | 13/16-20 UNEF   | 54   | 23.00 |
|          | RTOL-14CG-S2 | 8 to 12.5   |                 |      |       |
| Shell 16 | RTOL-16CG-S1 | 9.5 to 14.5 | 15/16-20 UNEF   | 60   | 26.50 |
|          | RTOL-16CG-S2 | 13.5 to 18  |                 |      |       |
| Shell 18 | RTOL-18CG-S1 | 9.5 to 14.5 | 1" 1/16-18 UNEF | 60   | 28.20 |
|          | RTOL-18CG-S2 | 13.5 to 18  |                 |      |       |
| Shell 20 | RTOL-20CG-S1 | 16.5 to 22  | 1" 3/16-18 UNEF | 63.5 | 33    |
|          | RTOL-20CG-S2 | 21.5 to 24  |                 |      |       |

All dimensions are in mm.

## Metal Cable Clamp Cord Grip



|          | Amphenol P/N | Max. Cable Diam. | A (Thread)      | B    | C    |
|----------|--------------|------------------|-----------------|------|------|
| Shell 10 | RT10SR       | 5.0              | 9/16-24 UNEF    | 21.6 | 31.0 |
| Shell 12 | RT12SR       | 8.2              | 11/16-24 UNEF   | 25.0 | 31.5 |
| Shell 14 | RT14SR       | 10.0             | 13/16-20 UNEF   | 27.4 | 34.0 |
| Shell 16 | RT16SR       | 13.0             | 15/16-20 UNEF   | 29.4 |      |
| Shell 18 | RT18SR       | 16.0             | 1" 1/16-18 UNEF | 35.2 | 31.4 |
| Shell 20 | RT20SR       | 21.0             | 1" 3/16-18 UNEF | 37.6 | 32.0 |

**Metal Cable Clamp Cord Grip Plating Options Example:** RT10SR( ); RT10SR1; RT10SR2

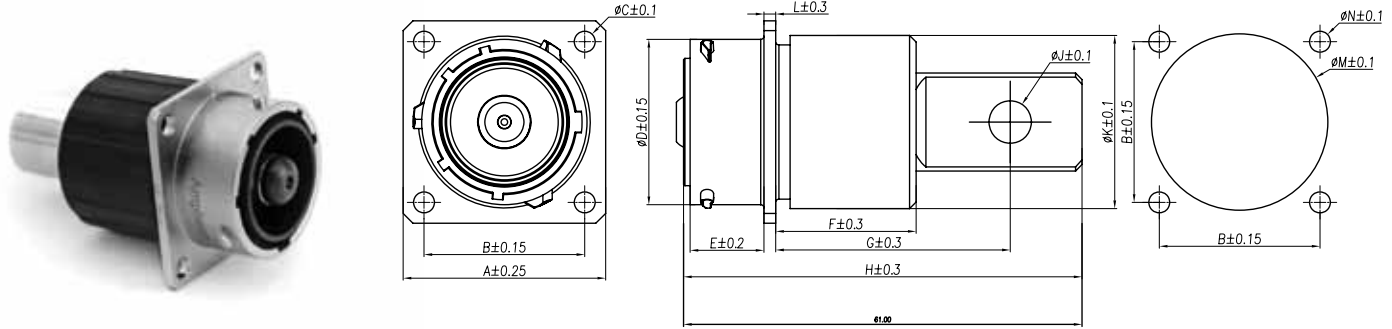
( ): Standard is nickel plating (48hr salt spray)

1: Black anodized (96hr salt spray)

2: Black anodized (96hr salt spray)

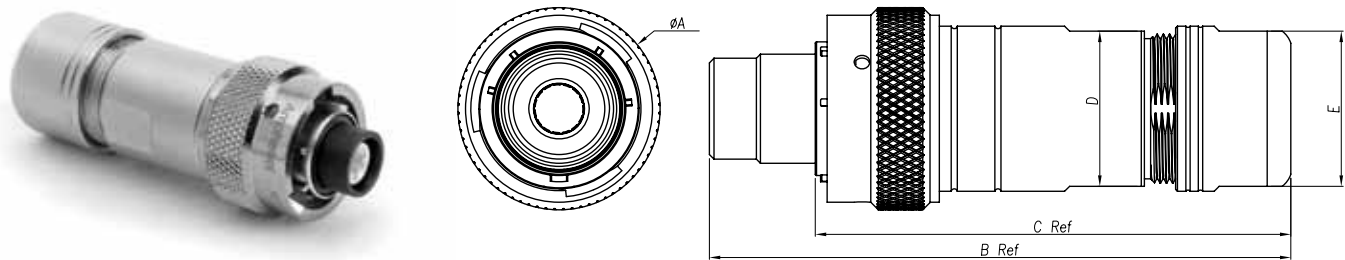


## Wall Mounted Receptacle for Flat Hole Tail



| Amphenol P/N |               | A    | B    | ΦC  | ΦD   | E     | F    | G    | H    | J   | K    | L   | ΦN  | ΦM   |
|--------------|---------------|------|------|-----|------|-------|------|------|------|-----|------|-----|-----|------|
| Shell 12     | RTHP0121PN-H1 | 26.8 | 20.6 | 3.2 | 19.0 | 11.35 | 19.6 | 34.0 | 55.1 | 5.5 | 21.8 | 1.8 | 3.2 | 22.5 |
| Shell 14     | RTHP0141PN-H1 | 23.0 | 28.6 |     | 22.2 |       | 17.2 | 28.5 | 53.1 | 5.5 | 23.9 |     |     | 24.5 |
| Shell 16     | RTHP0161PN-H1 | 24.6 | 31.0 |     | 25.3 |       | 21.5 | 35.9 | 61.0 | 6.5 | 26.5 |     |     | 27.0 |
| Shell 20     | RTHP0201PN-H1 | 29.4 | 26.5 | 4.2 | 31.7 | 14.55 | 22.2 | 40.1 | 72.0 | 8.5 | 33.5 | 2.4 | 4.2 | 34.0 |

## Straight Cable Plug with Cord Grip Solutions

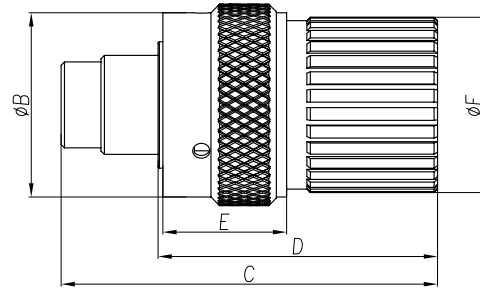
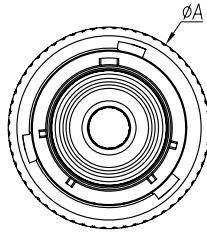


| Amphenol P/N |                  | A    | B     | C    | D    | E    | Wire size             | Cable max. |
|--------------|------------------|------|-------|------|------|------|-----------------------|------------|
| Shell 12     | RTHP6121SNH-16S2 | 26.1 | 79.3  | 73.3 | 19.9 | 21.9 | 13-16 mm <sup>2</sup> | 12.5 mm    |
| Shell 14     | RTHP6141SNH-25S2 | 29.3 | 86.4  | 72.3 | 19.9 | 21.9 | 20-25 mm <sup>2</sup> | 12.5 mm    |
| Shell 16     | RTHP6161SNH-35S2 | 32.5 | 93.3  | 76.3 | 24.9 | 24.9 | 30-35 mm <sup>2</sup> | 17.5 mm    |
| Shell 20     | RTHP6201SNH-70S2 | 38.6 | 100.9 | 80.8 | 28.9 | 28.9 | 70-75 mm <sup>2</sup> | 20.0 mm    |

All dimensions are in mm.

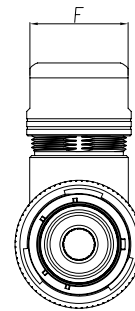
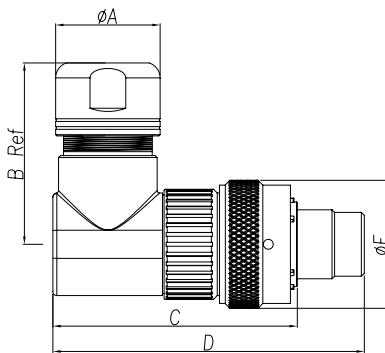


## Straight Cable Plug with End Cap



|          | Amphenol P/N     | A    | B    | C    | D    | E    | ΦF   | Wire size             | Cable max. |
|----------|------------------|------|------|------|------|------|------|-----------------------|------------|
| Shell 12 | RTHP6121SNH-16EC | 26.1 | 23.6 | 38.7 | 32.7 | 18.0 | 21.8 | 13-16 mm <sup>2</sup> | 12.5 mm    |
| Shell 14 | RTHP6141SNH-25EC | 29.3 | 26.8 | 54.8 | 40.7 |      | 25.5 | 20-25 mm <sup>2</sup> | 12.5 mm    |
| Shell 16 | RTHP6161SNH-35EC | 32.5 | 30.0 | 57.7 | 40.7 |      | 27.5 | 30-35 mm <sup>2</sup> | 17.5 mm    |
| Shell 20 | RTHP6201SNH-70EC | 38.6 | 36.6 | 62.7 | 42.7 | 19.0 | 34.5 | 70-75 mm <sup>2</sup> | 20.0 mm    |

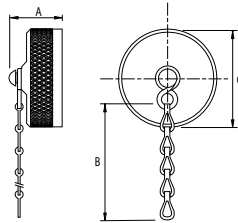
## Straight Cable Plug with 90° Cord Grip Solutions



|          | Amphenol P/N      | A    | B    | C    | D    | ΦE   | ΦF   | Wire size             | Cable max. |
|----------|-------------------|------|------|------|------|------|------|-----------------------|------------|
| Shell 12 | RTHP6121SNH-16BS2 | 23.0 | 43.0 | 58.7 | 64.7 | 26.1 | 21.9 | 13-16 mm <sup>2</sup> | 12.5 mm    |
| Shell 14 | RTHP6141SNH-25BS2 | 26.5 | 46.0 | 62.0 | 76.1 | 29.3 | 24.9 | 20-25 mm <sup>2</sup> | 12.5 mm    |
| Shell 16 | RTHP6161SNH-35BS2 | 26.5 | 46.0 | 62.0 | 79.0 | 29.3 | 24.9 | 30-35 mm <sup>2</sup> | 17.5 mm    |
| Shell 20 | RTHP6201SNH-70BS2 | 31.0 | 54.3 | 75.0 | 95.0 | 26.6 | 29.0 | 70-75 mm <sup>2</sup> | 20.0 mm    |

## Accessories & Tooling

### Dust Caps



### Sealing Plugs



|          | Amphenol P/N | A max. | B     | C max. |
|----------|--------------|--------|-------|--------|
| Shell 10 | RT010DCG     | 21.8   | 42.00 | 30.20  |
| Shell 12 | RT012DCG     | 24.6   |       |        |
| Shell 14 | RT014DCG     | 27.8   |       |        |
| Shell 16 | RT016DCG     | 31.0   |       |        |
| Shell 18 | RT018DCG     | 35.3   |       |        |
| Shell 20 | RT020DCG     | 38.6   |       |        |

|       | Amphenol P/N | mm  |
|-------|--------------|-----|
| 16AWG | CA-4016-59   | 1.5 |
| 20AWG | CA-4020-59   | 0.5 |

### Stamp Contact Tool

(Stamped and Formed Contacts)



|       | Amphenol P/N |
|-------|--------------|
| 16AWG | MFX-3954     |
| 20AWG | MFX-3958     |
| 2.5mm | MFX-3962     |

### Universal Hand Crimp Tool

(Machined Contacts)



|  | Amphenol P/N |
|--|--------------|
|  | MFX-3959     |

### Contact Extraction Tool



|       | Amphenol P/N |
|-------|--------------|
| 16AWG | QXRT16       |
| 20AWG | QXRT20       |
| 2.5mm | QXRT12S      |

All dimensions are in mm.

## Crimp Die (Stamped and Formed Contacts)



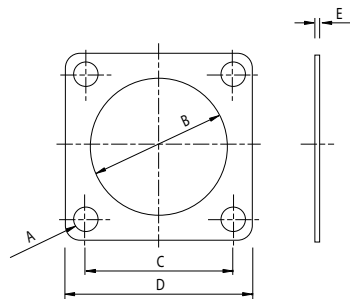
| Amphenol P/N |          |
|--------------|----------|
| 16AWG        | MFX-3957 |
| 20AWG        | MFX-3964 |
| 2.5mm        | MFX-3965 |

## Pneumatic Crimp Tool (Machined Contacts)



| Amphenol P/N |
|--------------|
| MFX-3960     |

## Gaskets



| Amphenol P/N |         | $\varnothing A \pm 0.1$ | $\varnothing B \pm 0.01$ | $C \pm 0.25$ | $D \pm 0.25$ | $E \pm 0.2$ |
|--------------|---------|-------------------------|--------------------------|--------------|--------------|-------------|
| Shell 10     | RTFD10B | 3.3                     | 15.9                     | 18.3         | 23.8         | 0.8         |
| Shell 12     | RTFD12B |                         | 19.0                     | 20.6         | 26.2         |             |
| Shell 14     | RTFD14B |                         | 22.2                     | 23.0         | 28.6         |             |
| Shell 16     | RTFD16B |                         | 25.4                     | 24.6         | 31.0         |             |
| Shell 18     | RTFD18B |                         | 28.6                     | 27.0         | 33.3         |             |
| Shell 20     | RTFD20B |                         | 31.8                     | 29.4         | 36.5         |             |

Gasket material is NBR. For other options, please consult factory.

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