



# RT360™

Circular Connectors



We are Amphenol Sine Systems.

We are a global leader in providing you with interconnection options and solutions.

We fulfill the needs of Industrial, Factory Automation, Heavy Duty and Custom-design markets.

Amphenol Sine Systems, with its 42 year history, 325+ employees worldwide and 3 global facilities, draws on the extensive worldwide resources of Amphenol Corporation to find solutions for our customers. Our engineers design innovative combinations of industry standard connectors and application specific shielding components to create assembly systems that set the standards for performance, reliability, and cost effectiveness. Our engineering, materials, and manufacturing organizations meet the high standards imposed by ISO 9001 as well as many customer specific quality systems. Our performance has earned us ship to stock and world class performance awards from many major OEMs.



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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.

| TECHNICAL DATA                  | RT Series                     | RTOW Series | RTHP Series     |
|---------------------------------|-------------------------------|-------------|-----------------|
| Temperature Range               | -40°C to +105°C or 125°C      |             | -40°C to +125°C |
| Protection                      | IP67, IP68                    |             | IP67, IP68      |
| DATA - ACCORDING TO UL 840      | RT Series                     | RTOW Series | RTHP Series     |
| Degree of Protection            | 3                             |             |                 |
| Over Voltage Category           | III                           |             |                 |
| MATERIALS                       | RT Series                     | RTOW Series | RTHP Series     |
| Housing Body                    | Zinc alloy, Die-cast          |             |                 |
| Coupling Nut                    | Aluminum alloy, Nickel-plated |             |                 |
| Insulation Inserts              | Thermosplastic, UL 94 / V0    |             |                 |
| Contacts                        | Brass, Gold-plated            |             |                 |
| Seals                           | Silicone                      |             |                 |
| ELECTRICAL DATA                 | RT Series                     | RTOW Series | RTHP Series     |
| Max. Current (Max. Wire Gauge)  | Max. 40A                      | Max. 7.5A   | Max. 455A       |
| Maximum Voltage                 | 300V AC/DC                    | 150V AC/DC  | 630V AC/DC      |
| Contact Resistance              | < 6 mΩ                        | < 15 mΩ     | < 1 mΩ          |
| Test Voltage (Between Contacts) | 2000V                         | 1500V       | 6000V           |
| Minimum Mating Cycles           | > 200                         |             |                 |
| Salt Spray Resistance           | 48,96h (customized 200,500h)  |             |                 |
| Shielded                        | Cord Grip                     |             |                 |



RT Series



RTOW Series



RTHP Series

### RT Series

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

### RTOW Series

- 6 shell sizes and 5 insert configurations
- Mating with MIL-C-24682 series connectors
- High density arrangements from 6-32 contacts
- 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-VO
- RoHS compliant

### RTHP Series

- 4 shell sizes and 5 insert configurations
- Single pole High Power arrangements
- 3.6mm-10mm contact sizes
- Operating voltage of 630V
- Current rating: 56A-455A (see page 5)
- Plastic inserts with flammability rating of UL94-VO
- RoHS compliant

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

| SERIES | SHELL TYPE | SHELL SIZE | INSERT ARRANGEMENT | TYPE OF CONTACTS | INSERT POLARIZATION | APPLICATION | PLATING | DESIGN VARIATION |
|--------|------------|------------|--------------------|------------------|---------------------|-------------|---------|------------------|
| *      | *          | *          | *                  | *                | *                   | *           | *       | *                |

## RT/RTOW SERIES

### SERIES

- RT
- RTOW

### SHELL TYPE

- 0: Wall mount recep.
- 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

### APPLICATION

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

### 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)

### DESIGN VARIATION

- EC: Standard version for 18-14AWG with end cap
- MM: Reduced seal for 24-20AWG with end cap

## RTHP SERIES

### SERIES

- RTHP

### SHELL TYPE

- 0: Wall mount recep.
- 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 IP67/69

### 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)

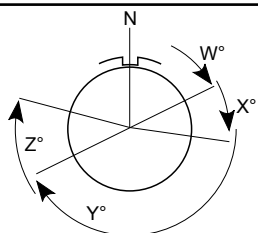
### DESIGN VARIATION

- Blank: Standard version
- C: Crimp contact
- EC: Crimp contact with end cap
- FG: Crimp contact with flex grip
- H: Flat hole
- M: Screw tail
- S: Crimp contact with cord grip

### 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/RTOW Series Machined Contacts

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

### SERIES

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

### WIRE SIZE

- **14:** 14AWG (.25mm); **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

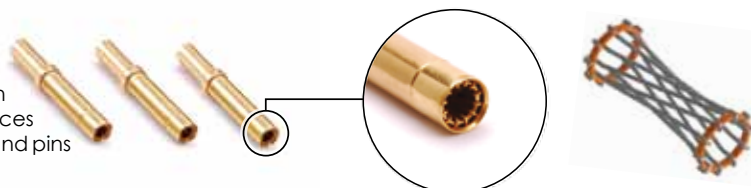
- **T:** Tin; **F:** Gold Flash; **G:** Gold Plate [Thickness: 10u"]; **G30:** Gold Plate [Thickness: 30u"]; **N:** Nickel; **S:** Plating Silver (5um)

| Contact Size | Wire Range |         | Plating    | Male P/N   | Female P/N |
|--------------|------------|---------|------------|------------|------------|
|              | AWG        | mm      |            |            |            |
| 8            | 10-8       | 6-10    | Silver     | MP10A23S   | MS10A23S   |
| 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 |



**RockSolid™**  
Connections  
Hyperbolic Contact  
Option

- 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/RTOW 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                                                       | 10mm                                                      |
|---------------------------|---------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| 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) | 455A (23°C)<br>425A (40°C)<br>342A (80°C)<br>222A (120°C) |
| Contact Resistance        | = 0.15mΩ                                                | = 0.11mΩ                                                 | = 0.08mΩ                                                  | = 0.03mΩ                                                  |
| Mating Force              | = 6N                                                    | = 12N                                                    | = 18N                                                     | = 24.8N                                                   |
| m                         | 6.1g                                                    | 17.5g                                                    | 32g                                                       | 55.2g                                                     |
| l                         | 13.2mm                                                  | 21.9mm                                                   | 25.7mm                                                    | 25.7mm                                                    |
| di                        | 3.6mm                                                   | 6mm                                                      | 8mm                                                       | 10mm                                                      |
| da                        | 6mm                                                     | 9.5mm                                                    | 13.5mm                                                    | 15.7mm                                                    |
| Plating                   | Grid: Silver<br>Sleeve: Silver                          | Grid: Silver<br>Sleeve: Silver                           | Grid: Silver<br>Sleeve: Silver                            | Grid: Silver<br>Sleeve: Silver                            |

**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.

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

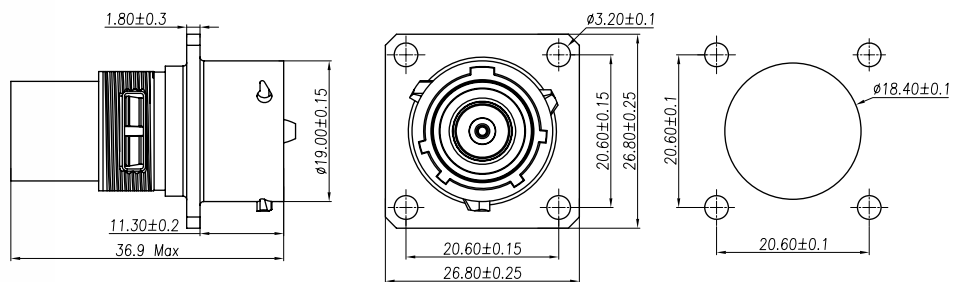
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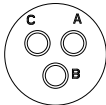
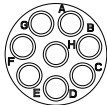
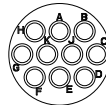
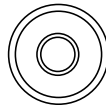
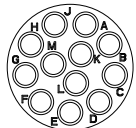
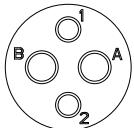
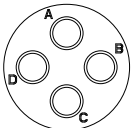
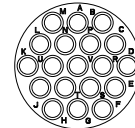
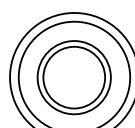
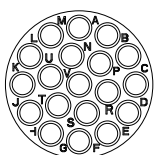
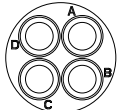
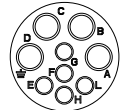
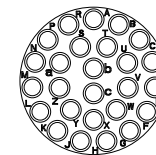
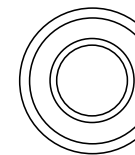
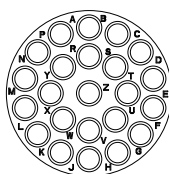
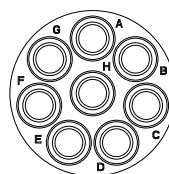
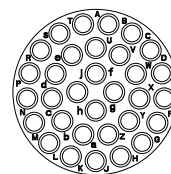
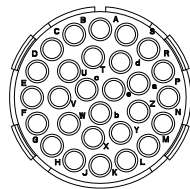
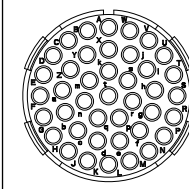
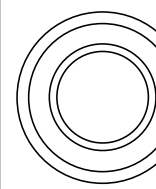
| Contact Size | Wire Range | Plating | Male P/N | Female P/N | Type          |
|--------------|------------|---------|----------|------------|---------------|
| 3.6mm        | 8-10mm     | Silver  | HP10ACS  | HS10ACS    | Crimp         |
|              |            |         | HP10ASS  | HS10ASS    | 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 |

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

Part Number: RTHP0121PNH-16C

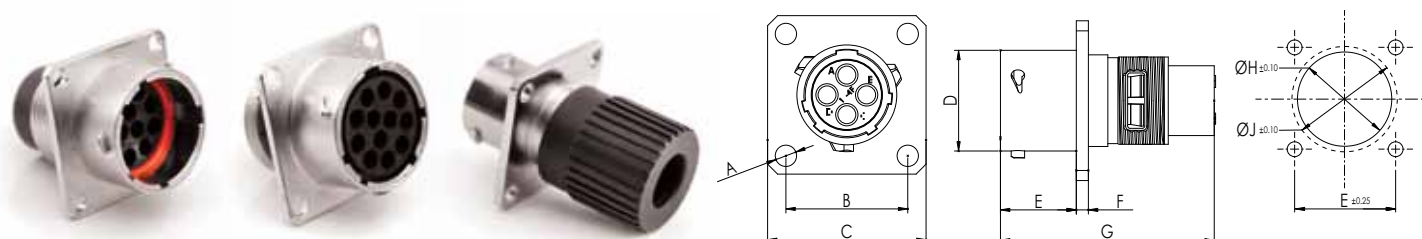


## Insert Configuration

| RT                                                                                                                       |                                                                                              |                                                                                           |                                                                                                                                  | RTOW                                                                                                              | 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 RTOW, <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    | <br>12-8 | 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>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>4x#8(46A)<br>400 AC/DC            | <br>16-9<br>4x2.5mm<br>5x#16   | 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 |

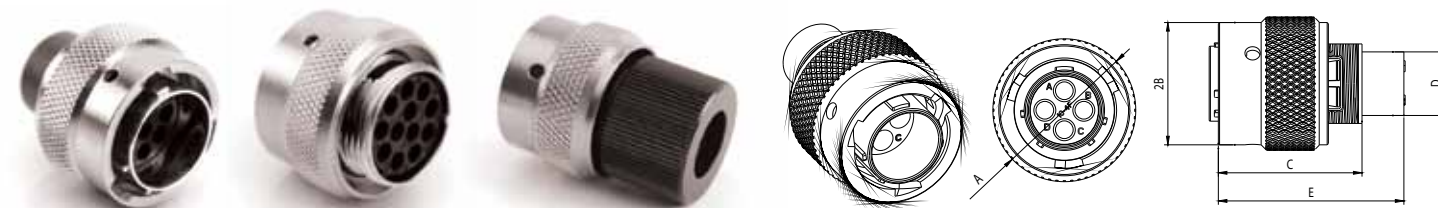
All dimensions are in mm. Face Views are not actual size and are only meant as a representation.

## Box and Wall Mounts



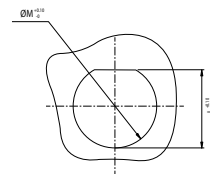
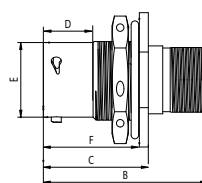
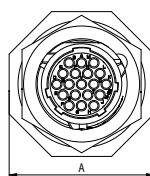
|          | A    | B     | C     | D     | E     | F    | G     | H     | J     |
|----------|------|-------|-------|-------|-------|------|-------|-------|-------|
| Shell 10 | 3.20 | 18.30 | 23.80 | 15.00 | 11.30 | 1.80 | 31.85 | 17.30 | 14.20 |
| Shell 12 | 3.20 | 20.62 | 26.20 | 19.00 | 11.30 | 1.80 | 31.85 | 21.80 | 18.40 |
| Shell 14 | 3.20 | 23.00 | 28.60 | 22.20 | 11.30 | 1.80 | 31.85 | 25.00 | 21.50 |
| Shell 16 | 3.20 | 24.60 | 31.00 | 25.30 | 11.30 | 1.80 | 31.85 | 28.10 | 24.60 |
| Shell 18 | 3.20 | 26.95 | 33.30 | 28.55 | 11.30 | 1.80 | 31.85 | 31.30 | 27.80 |
| Shell 20 | 3.20 | 29.50 | 36.50 | 31.70 | 14.55 | 2.40 | 33.65 | 34.50 | 30.90 |

## Straight Plugs



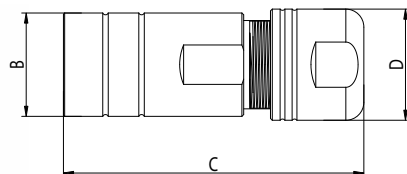
|          | A     | B     | C     | D     | E     |
|----------|-------|-------|-------|-------|-------|
| Shell 10 | 21.80 | 20.00 | 23.50 | 10.40 | 30.35 |
| Shell 12 | 26.10 | 23.60 | 23.50 | -     | 30.35 |
| Shell 14 | 29.30 | 26.80 | 25.32 | 16.65 | 32.17 |
| Shell 16 | 32.45 | 30.00 | 23.50 | 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     | L     | M     |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| Shell 10 | 27.00 | 33.00 | 21.10 | 10.00 | 15.00 | 19.30 | 16.40 | 17.30 |
| Shell 12 | 31.80 | 33.00 | 21.10 | 10.00 | 19.00 | 19.30 | 20.70 | 22.00 |
| Shell 14 | 34.90 | 33.00 | 21.10 | 10.00 | 22.20 | 19.30 | 24.00 | 25.20 |
| Shell 16 | 38.10 | 33.00 | 21.10 | 10.00 | 25.30 | 19.30 | 27.00 | 28.30 |
| Shell 18 | 41.30 | 33.00 | 21.10 | 10.00 | 28.55 | 19.30 | 30.00 | 31.60 |
| Shell 20 | 46.10 | 39.00 | 26.50 | 10.00 | 31.70 | 24.70 | 33.80 | 35.20 |

## Cord Grips

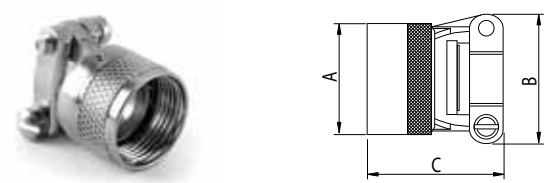


EMC Grounding Ring included

|          | Amphenol P/N | Cable Range | A (Thread)      | B     | C     |
|----------|--------------|-------------|-----------------|-------|-------|
| Shell 10 | RTOL-10CG-S1 | 3 to 6.5    | 9/16-24 UNEF    | 50.00 | 18.50 |
|          | RTOL-10CG-S2 | 5 to 8.5    |                 |       |       |
| Shell 12 | RTOL-12CG-S1 | 6 to 10.5   | 11/16-24 UNEF   | 54.00 | 23.00 |
|          | RTOL-12CG-S2 | 8 to 12.5   |                 |       |       |
| Shell 14 | RTOL-14CG-S1 | 6 to 10.5   | 13/16-20 UNEF   | 54.00 | 23.00 |
|          | RTOL-14CG-S2 | 8 to 12.5   |                 |       |       |
| Shell 16 | RTOL-16CG-S1 | 9.5 to 14.5 | 15/16-20 UNEF   | 60.00 | 26.50 |
|          | RTOL-16CG-S2 | 13.5 to 18  |                 |       |       |
| Shell 18 | RTOL-18CG-S1 | 9.5 to 14.5 | 1" 1/16-18 UNEF | 60.00 | 28.20 |
|          | RTOL-18CG-S2 | 13.5 to 18  |                 |       |       |
| Shell 20 | RTOL-20CG-S1 | 16.5 to 22  | 1" 3/16-18 UNEF | 63.50 | 33.00 |
|          | 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    | 21.60 | 31.00 |
| Shell 12     | RT12SR | 8.2              | 11/16-24 UNEF   | 25.00 | 31.50 |
| Shell 14     | RT14SR | 10.0             | 13/16-20 UNEF   | 27.40 | 34.00 |
| Shell 16     | RT16SR | 13.0             | 15/16-20 UNEF   | 29.40 |       |
| Shell 18     | RT18SR | 16.0             | 1" 1/16-18 UNEF | 35.20 | 31.40 |
| Shell 20     | RT20SR | 21.0             | 1" 3/16-18 UNEF | 37.60 | 32.00 |

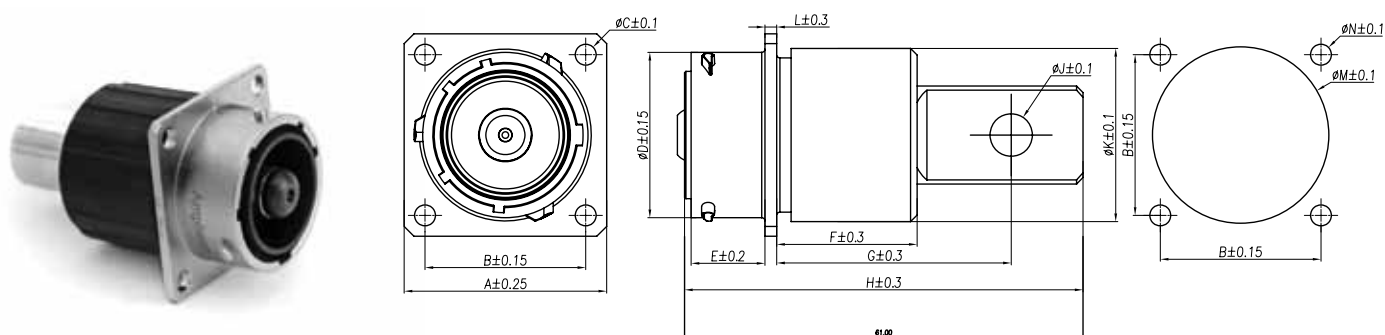
**Metal Cable Clamp Cord Grip Plating Options Example:** RT10SR( ); RT10SR1; RT10SR2

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

1: Black anodized (96hr salt spray)

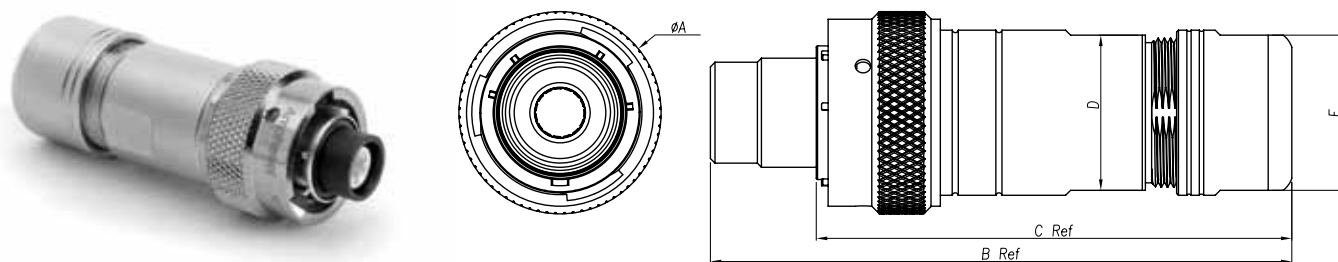


## Wall Mounted Receptacle for Flat Hole Tail



| Amphenol P/N |               | A     | B     | ΦC   | ΦD    | E     | F     | G     | H     | J    | K     | L    | ΦN   | ΦM    |
|--------------|---------------|-------|-------|------|-------|-------|-------|-------|-------|------|-------|------|------|-------|
| Shell 12     | RTHP0121PN-H1 | 26.80 | 20.60 | 3.20 | 19.00 | 11.35 | 19.60 | 34.00 | 55.10 | 5.50 | 21.80 | 1.80 | 3.20 | 22.50 |
| Shell 14     | RTHP0141PN-H1 | 23.00 | 28.60 |      | 22.20 |       | 17.20 | 28.50 | 53.10 | 5.50 | 23.90 |      |      | 24.50 |
| Shell 16     | RTHP0161PN-H1 | 24.60 | 31.00 |      | 25.30 |       | 21.50 | 35.90 | 61.00 | 6.50 | 26.50 |      |      | 27.00 |
| Shell 20     | RTHP0201PN-H1 | 29.40 | 26.50 | 4.20 | 31.70 | 14.55 | 22.20 | 40.10 | 72.00 | 8.50 | 33.50 | 2.40 | 4.20 | 34.00 |

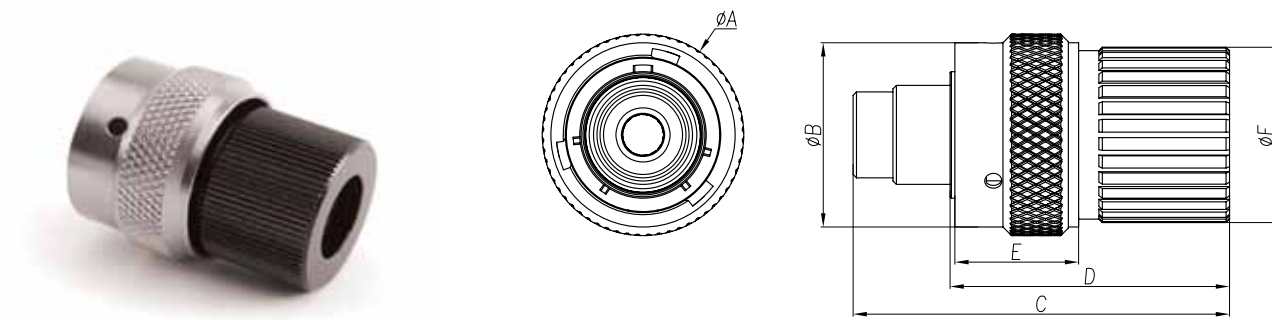
## Straight Cable Plug with Cord Grip Solutions



| Amphenol P/N |                  | A     | B      | C     | D     | E     | Wire size             | Cable max. |
|--------------|------------------|-------|--------|-------|-------|-------|-----------------------|------------|
| Shell 12     | RTHP6121SNH-16S2 | 26.10 | 79.30  | 73.30 | 19.90 | 21.90 | 13-16 mm <sup>2</sup> | 12.50      |
| Shell 14     | RTHP6141SNH-25S2 | 29.30 | 86.40  | 72.30 | 19.90 | 21.90 | 20-25 mm <sup>2</sup> | 12.50      |
| Shell 16     | RTHP6161SNH-35S2 | 32.50 | 93.30  | 76.30 | 24.90 | 24.90 | 30-35 mm <sup>2</sup> | 17.50      |
| Shell 20     | RTHP6201SNH-70S2 | 38.60 | 100.90 | 80.80 | 28.90 | 28.90 | 70-75 mm <sup>2</sup> | 20.00      |

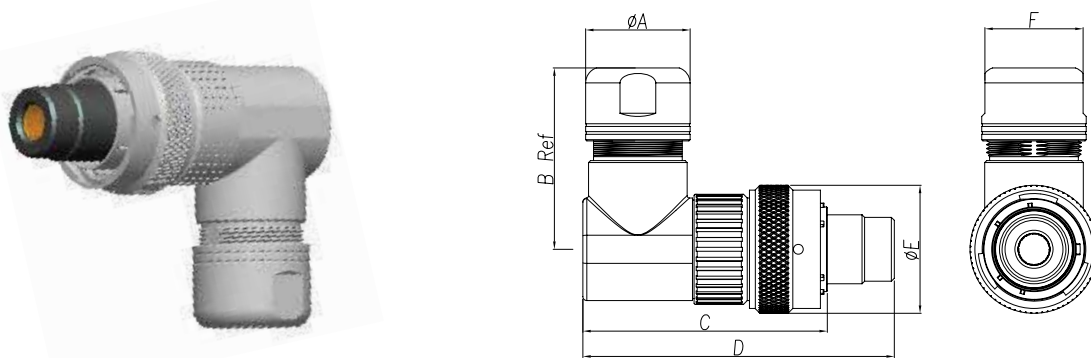
All dimensions are in mm.

## Straight Cable Plug with End Cap



|          | Amphenol P/N     | A     | B     | C     | D     | E     | $\phi F$ | Wire size             | Cable max. |
|----------|------------------|-------|-------|-------|-------|-------|----------|-----------------------|------------|
| Shell 12 | RTHP6121SNH-16EC | 26.10 | 23.60 | 38.70 | 32.70 | 18.00 | 21.80    | 13-16 mm <sup>2</sup> | 12.50      |
| Shell 14 | RTHP6141SNH-25EC | 29.30 | 26.80 | 54.80 | 40.70 |       | 25.50    | 20-25 mm <sup>2</sup> | 12.50      |
| Shell 16 | RTHP6161SNH-35EC | 32.50 | 30.00 | 57.70 | 40.70 |       | 27.50    | 30-35 mm <sup>2</sup> | 17.50      |
| Shell 20 | RTHP6201SNH-70EC | 38.60 | 36.60 | 62.70 | 42.70 | 19.00 | 34.50    | 70-75 mm <sup>2</sup> | 20.00      |

## Straight Cable Plug with 90° Cord Grip Solutions



|          | Amphenol P/N      | A     | B     | C     | D     | $\phi E$ | $\phi F$ | Wire size             | Cable max. |
|----------|-------------------|-------|-------|-------|-------|----------|----------|-----------------------|------------|
| Shell 12 | RTHP6121SNH-16BS2 | 23.00 | 43.00 | 58.70 | 64.70 | 26.10    | 21.90    | 13-16 mm <sup>2</sup> | 12.50      |
| Shell 14 | RTHP6141SNH-25BS2 | 26.50 | 46.00 | 62.00 | 76.10 | 29.30    | 24.90    | 20-25 mm <sup>2</sup> | 12.50      |
| Shell 16 | RTHP6161SNH-35BS2 | 26.50 | 46.00 | 62.00 | 79.00 | 29.30    | 24.90    | 30-35 mm <sup>2</sup> | 17.50      |
| Shell 20 | RTHP6201SNH-70BS2 | 31.00 | 54.30 | 75.00 | 95.00 | 26.60    | 29.00    | 70-75 mm <sup>2</sup> | 20.00      |

Accessories & Tooling

Dust Caps



| Amphenol P/N |          | A max. | B     | C max. |
|--------------|----------|--------|-------|--------|
| Shell 10     | RT010DCG | 21.80  | 42.00 | 30.20  |
| Shell 12     | RT012DCG | 24.60  |       |        |
| Shell 14     | RT014DCG | 27.80  |       |        |
| Shell 16     | RT016DCG | 31.00  |       |        |
| Shell 18     | RT018DCG | 35.30  |       |        |
| Shell 20     | RT020DCG | 38.60  |       |        |

Sealing Plugs



| Amphenol P/N |            | mm   |
|--------------|------------|------|
| 16AWG        | CA-4016-59 | 1.50 |
| 20AWG        | CA-4020-59 | 0.50 |

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)



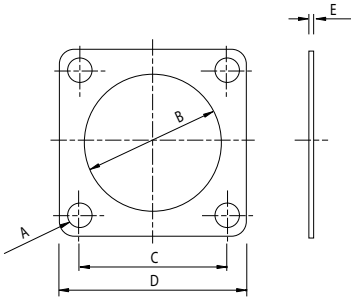
| Amphenol P/N |          |
|--------------|----------|
| 16AWG        | MFX-3957 |
| 20AWG        | MFX-3964 |
| 2.5mm        | MFX-3965 |

# Pneumatic Crimp Tool (Machined Contacts)



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

# Gaskets



| Amphenol P/N |         | ØA ±0.1 | ØB ±0.01 | C ±0.25 | D ±0.25 | E ±0.2 |
|--------------|---------|---------|----------|---------|---------|--------|
| Shell 10     | RTFD10B | 3.30    | 15.90    | 18.30   | 23.80   | 0.80   |
| Shell 12     | RTFD12B |         | 19.00    | 20.60   | 26.20   |        |
| Shell 14     | RTFD14B |         | 22.20    | 23.00   | 28.60   |        |
| Shell 16     | RTFD16B |         | 25.40    | 24.60   | 31.00   |        |
| Shell 18     | RTFD18B |         | 28.60    | 27.00   | 33.30   |        |
| Shell 20     | RTFD20B |         | 31.80    | 29.40   | 36.50   |        |

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

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