INDUSTRIAL@AMPHENOL
TRUSTED GLOBALLY

Amphenol Sine Systems, **USA**
Amphenol Tuchel Industrial, **GmbH**
Amphenol Audio, **USA**

Featuring Radsok® Technology

eco|mate® rm

Rugged Metal Shielded Connectors

www.amphenol-sine.com | +1 800 394 7732

We Are Amphenol

Global Interconnect Solution Supplier

For over 80 years Amphenol has enjoyed success as the interconnection technology provider of choice to industry leading companies around the world. Our organization works with leading manufacturers across a wide range of applications - including Energy Generation & Distribution, Transportation, Heavy Equipment, Factory Automation, Wireless Outdoor, Information Technology and Data Communications Equipment, Mobile Devices, Mobile Networks, Broadband Communication, Military and Commercial Aerospace, Industrial, Automotive and Chip Card Readers - enabling smarter, faster and better technologies to connect products to customer solutions.

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 9001:2008 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.

We are one of the largest interconnect solution suppliers in the world and supply a wide range of product solutions globally. The industrial market footprint of Amphenol covers more than 30 countries.

eco|mate® rm
Rugged Metal Shielded Connectors

Table of Contents

Table of Contents (con't)

Introduction to eco|mate® rm

Quick Reliable Mating

Bayonet Coupling
With a quick twist of the bayonet coupling system, these connectors provide positive tactile feedback to insure confident mating. This feature also reduces time and labor during installation.

Economical and Flexible

Mixed Power & Signal Layouts
Power and signal contacts can be combined in a variety of inserts providing a highly flexible interconnect solution to reduce system complexity and minimize installation costs.

Waterproof

IP67
Ideal for temporary submersion, (acheiving IP67) where water and dust protection are needed.

Corrosion Resistant

Salt Spray Standard Nickel 48 Hours, Black or Green Zinc 96 Hours
Designed to withstand climate ingress and exposure to salt spray or a corrosive atmosphere while still maintaining mechanical and electrical functionality.

Wide Ranging Contact System

Flexible Contact Solutions
Our contact system offers the flexibility of using a wide variety of contact styles and wire gauges within various connectors, shell sizes and insert layouts, providing customers with a total solution.

eco|mate® rm
Rugged Metal Shielded Connectors

Typical Applications


Instrumentation Measurement


Robotics - Machine Tools


Building Automation & Control


Telecom -Data Infrastructure


Welding


Medical

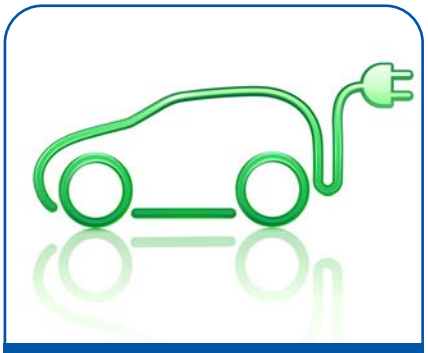

Aerospace


Energy - Power


Military


Automotive


Off Road - Mining - Railway


Electric Vehicles

eco|mate® rm
Rugged Metal Shielded Connectors

Series Overview

The eco|mate® rm series is the connector of choice wherever there are demanding interconnect architectures. The multi-way connectors are available in 7 shell sizes and 25 insert arrangements with a variety of wire gauge options. It is the high performance, cost effective solution of choice for our customers.

The series includes two kinds of connectors: Standard Products and High Amperage. Standard Products are widely used, standardized connectors, while the High Amperage connectors are designed to endure large currents and high voltage. Typically used within hybrid electric vehicles, High Amperage connectors are available in single pole, high power arrangements featuring RADSOK® technology. RADSOK® products are offered exclusively by Amphenol. Custom developed solutions are available in both styles.

Our eco|mate®rm products are designed to be a competitive alternative to other industry standard products while maintaining the best possible mechanical and environmental quality on the market. Our eco|mate® rm products feature IP67 environmental sealing qualities, rugged nickel plated aluminum outer shells and bayonet locking systems that require only a 1/3 turn. An audible locking "click" indicates proper installation.

The versatility of having three available contact styles allows for a broad variety of insert arrangements.

- Machined
- Stamped & Formed
- Power

The eco|mate® rm Standard Product is our standard rugged metal shielded circular connector series available in 7 shell sizes and multiple insert arrangements.

The high amperage eco|mate® rm with RADSOK® technology is our single pole power connector series ranging from 86A to 300A.

eco|mate®rm industrial grade circular connectors are manufactured to be intermateable with other industry standard connectors. All connectors are RoHS compliant. The eco|mate® rm Series meets the standards of UL1977. The file number is E491265.

eco | mate® rm Standard Products
starting on page 21

eco | mate® rm
Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C

  Operating Temperature: -40°C to +125°C
  (for parts with a silicone seal, ending in 03)
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- High-Density Contact Arrangements Available
- UL ECBT2 Certified

eco | mate® rm High Amperage Products
starting on page 179

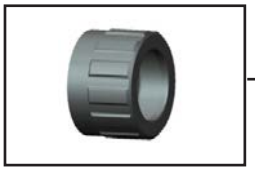
High Amperage eco | mate® rm with RADSOK® Technology

- Single Pole High Power Arrangements
- 3.6mm-10mm Contact Sizes
- Operating Temperature: -40°C to +125°C
- RoHS Compliant
- 4 Shell Sizes
- Operating Voltage: 630V
- Current Rating at 25°C: 86A-300A
- Flammability Rating: UL94-V0
- High Reliability
- Low Contact Engagement / Separation Forces
- Low Contact Resistance
- High Mating Cycle Durability

eco|mate® rm
Rugged Metal Shielded Connectors

Connector Configurations

End Cap for Individual Wire Sealing



Short Cable Gland

Long Cable Gland

Right Angle Cable Gland

Overmolded

Choice of Contacts
- Machined
- Stamped and Formed

Plug

eco | mate® rm Series

Plug Kit includes Connector, Backshell and Contacts

Custom Solutions Available For:

- **Various Applications**
- **Extreme Environments**
- **Reducing the Number of Suppliers**
- **Molded Strain Relief**
- **Minimize Stress on Conductors**
- **360 ° Shielding Available**
- **Custom Logo**
- **Enhanced Sealing Properties**

Contact the Factory to learn more

Connector Guide

Connector Solutions:
see page 19 for parts grouped by insert arrangement

Receptacle Choices

Wall Mounted

Jam Nut

Choice of Contacts

- Machined
- Stamped and Formed

End Cap for Individual Wire Sealing

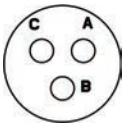
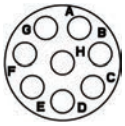
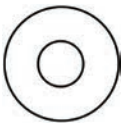
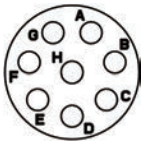
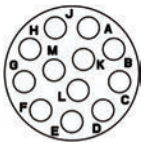
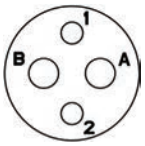
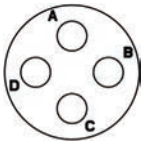
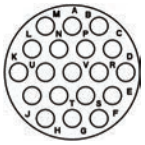
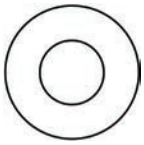
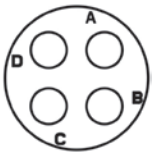
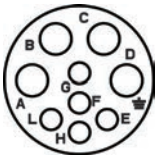
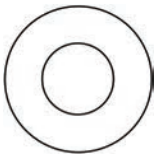
Faceview

eco | mate® rm Series

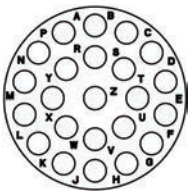
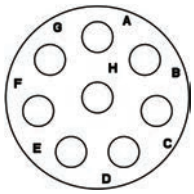
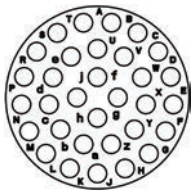
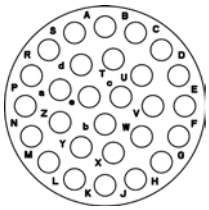
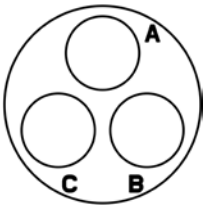
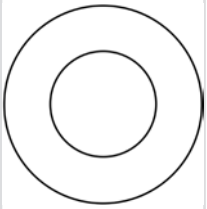
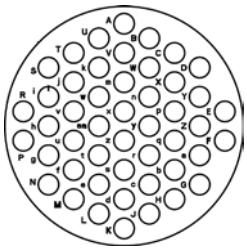
Receptacle Kit includes
Receptacle, Gasket
& Contacts

eco|mate® rm
Rugged Metal Shielded Connectors

Insert Arrangements

	RT0					RTHP
Shell Size	Contact #16 (Ø 1.6)		Mixed Power & Signal		Contact 2.5mm	Contact #20 (Ø 1.0)	Single Pin Power RADSOK®
10	 4 positions Contact #16 (Ø 1.6) 13A 300V *see page 29*		 4 positions Contact #16 (Ø 1.6) & #20 (Ø 1.0) 13A & 20# 5A 350V AC/DC *see page 37*		Consult factory	 6 positions Contact #20 (Ø 1.0) 5A, 7A(machined) 150V *see page 71*	Consult factory
12	 3 positions Contact #16 (Ø 1.6) 13A 300V *see page 21*	 8 positions Contact #16 (Ø 1.6) 13A 300V *see page 79*	Consult factory		Consult factory	 10 positions Contact #20 (Ø 1.0) 5A, 7.5A(machined) 150V *see page 111*	 1 position Contact 3.6mm 86A 630V AC/DC *see page 179*
14	 8 positions Contact #16 (Ø 1.6) 13A 300V AC/DC *page 87*	 12 positions Contact #16 (Ø 1.6) 13A 300V *see page 119*	 Consult factory 4 positions Contact 2.5mm #16 (Ø 1.6) 23A &13A 350V AC/DC *see page 47*	Consult factory	 4 positions Contact 2.5mm 23A 350V AC/DC *see page 55*	 19 positions Contact #20 (Ø 1.0) 5A, 7.5A(machined) 150V *see page 127*	 1 position Contact 6mm 120A 630V AC/DC *see page 183*
16	 19 positions Contact # 16 (Ø 1.6) 13A 300V *see page 135*		 4 positions Contact #8 (Ø 3.6) 45A 500V AC/DC *see page 63*	 9 positions Contact 2.5mm & # 16 (Ø 1.6) 23A & 13A 350V AC/DC *see page 103*	Consult factory	 26 positions Contact #20 (Ø 1.0) 5A, 7.5A(machined) 150V *see page 151*	 1 position Contact 8mm 120A - 180A 630V AC/DC *see page 187*

Connector Guide

Shell Size	RT0				RTHP
	Contact #16 (Ø 1.6)	Mixed Power & Signal	Contact 2.5mm	Contact #20 (Ø 1.0) or Contact 3.6mm	Single Pin Power RADSOK®
18	 23 positions Contact #16 (Ø 1.6) 13A 300V *see page 143*	Consult factory	 8 positions Contact 2.5mm 23A 375V AC/DC *see page 95*	 32 positions Contact #20 (Ø 1.0) 5A, 7.5A 150V *see page 167*	Consult factory
20	 28 positions Contact #16 (Ø 1.6) 13A 300V *see page 159*	Consult factory	Consult factory	RTHP  3 positions Contact 3.6mm 86A 630V *see page 197*	 1 position Contact 10mm 120A - 300A 630V *see page 191*
24	 48 positions Contact #16 (Ø 1.6) 13A 300V *see page 177*	Consult factory	Consult factory	Consult factory	Consult factory

Insert Arrangements are Pin Faceview

eco|mate® rm

Rugged Metal Shielded Connectors

General Technical Characteristics

Materials

- **Zinc Alloy Shells**
- **Metal Alloy Backshells and Cable Glands**
- **Aluminum Alloy, Nickel Plated Coupling Ring**
- **Stainless Steel Coupling Spring**
- **Contacts Plating Options**
  Gold Flash over Tin
  Tin
  Silver
  5µ, 10µ, 15µ, 30µ
  Gold Flash
  Other platings on request
- **Insulation Resistance**
  5000 megohms minimum of 25° C
- **Insulation Inserts**
  Thermoplastic, UL94 V-0

Environmental

- **IP67**
- **Operating Temperature**
  -40° to 105° C - Standard Products with NBR Seal
  -40° to 125° C -Standard Products with Silicone Seal
  -40° to 125° C -High Amperage Products with RADSOK® technology
- **Flammability Rating** UL94 V-0
- **Salt Spray**
  Per MIL-STD-202 method 101
  -48 h (standard version)
  -96 h (black anodized coupling ring)
  Higher salt spray resistance (200/500h) upon request
- **Sealing**
  In mated condition and in combination with sealed backshell
- **Fluid Resistance**
  Gas, oil, mineral oil, acid bath, basic bath

Connector Guide

Electrical

- **In Accordance With**
  UL 1977: Certificate ECBT2
  File number: E491265
- **More information**
  see “Technical Section” starting on page 228

Mechanical

- **Durability**
  RT Series : >500 mating cycles
  RTHP Series: >100 mating cycles
- **Vibration**
  10-2000 Hz, level of 20 G’s
- **Thermal Shock**
  No cracking, chipping or leaking after 20 test cycles from -55°C to 125°C
- **Contact Resistance**
  #16 <6 mΩ
  #20 <15 mΩ
  eco | mate® rm with RADSOK® < 1m Ω

Connector Guide

GuardSafe™ Locking Clips

Amphenol's **GuardSafe™ Locking Clips** are designed to complement the **eco|mate® rm** multi-way connector and **Amphenol PT\26482 Series** cylindrical metal bayonet coupling systems, and are suitable for many rough, harsh environmental applications. Featuring non-corrosive, plastic construction with clamshell functionality, they are resistant to brake and transmission fluid, oils, grease, salt, dirt and other contaminants. Compliant with new FM standards, the GuardSafe™ Locking Clip offers an extra layer of protection from an inadvertent uncoupling of the connector.

Cost Effective Safety Protection

GuardSafe™ Locking Clips render quick disconnections not "normally arching" by eliminating access to the coupling nut and requiring a tool for removal.

Easy to Use

User-friendly, easy to install and service.

Suitability

GuardSafe™ Locking Clips are suitable to be used with wiring methods in accordance with Class I, Division 2 wiring practices per the National Electric Code (NEC), ANSI,\NFPA 70, Article 501.4(B).

Installation:
Locate the clip over the connector coupling nut with the lanyard towards the plug adapter as shown. Close the safety clip.

Removal:
Locate a screwdriver on first latch as shown. Push down the latch then twist the screwdriver. Repeat actions for second latch.

Locking Clips are also Compatible with **Amphenol PT\26482 Series** Cylindrical Metal Bayonet Coupling Systems!

Go to www.amphenol-sine.com
for more information about the PT Series

eco|mate® rm	
Shell Size	**Part #**
10	108039110
12	108039112
14	108039114
16	108039116
18	108039118
20	108039120
22	108039122
24	108039124

Connector Guide

Connector Kits

Q: *Why are we offering "kits"?*

A: *Making "kits" available to our customers allows for reducing the number of part numbers necessary for any given project, whether for in-house production or field serviceable applications.*

Amphenol's **eco|mate® rm Rugged Metal Shielded Connector Kits** offer mated multi-way connector parts available in 6 shell sizes and 12 insert arrangements, with a variety of wire gauge options. **eco|mate® rm** industrial circular connectors are designed to be intermateable with other industry standard connectors. All connectors are RoHS compliant.

Plug Kit
Including Connector, Backshell & Contacts

Square Flange Receptacle Kit
Including Receptacle, Gasket & Contacts

Jam Nut Receptacle Kit
Including Receptacle & Contacts

Market Applications:
- Instrumentation Measurement
- Robotics
- Machine Tools
- Building Automation & Control
- Telecom - Data Infrastructure
- Welding
- Medical
- Aerospace
- Energy Power
- Military
- Automotive
- Off Road
- Mining
- Railway
- Electric Vehicles

eco|mate® rm Kits
- 6 shell sizes/12 insert configurations
- Insert arrangements from 4-32 contacts
- Operating voltage of 150V or 300V
- Current rating: 5A, 7.5A(machined) or 13A (signal contacts)
- Alternate keying positions available
- Plastic inserts with flammability rating of UL94-V0

eco|mate® rm
Rugged Metal Shielded Connectors

Connector Solutions

eco|mate® rm Standard Products

High Amperage eco|mate® rm with RADSOK® Technology

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

STEP 2
Choose Backshell Style

Jam Nut Receptacles


RT07123PNH


RT07123SNH


RT07123PNHEC


RT07123SNHEC

OR

Square Flange Receptacles


RT00123PNH


RT00123SNH


RT00123PNHEC


RT00123SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug


RT06123PNH


RT06123SNH


RT06123PNHEC


RT06123SNHEC

Backshell


RT0S-12CG-S1


RT0S-12CG-S2


RT0L-12CG-S1


RT0L-12CG-S2


RT0B-12CG-S1


RT0B-12CG-S2

OR

Plug Kit Including Connector, Backshell & Contacts

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 26

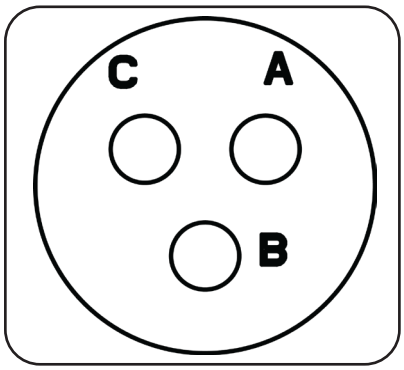
Shell Size: 12 **Number of Contacts: 3** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT07123PNH	RT07123SNH	Jam Nut Receptacle	1,5	2,5
RT07123PNHEC	RT07123SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT07123PNH-K	RT07123SNH-K	Jam Nut Receptacle Kit	1,5	2,5
RT06123PNH	RT06123SNH	Plug	6	7
RT06123PNHEC	RT06123SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT06123PNH-K	RT06123SNH-K	Plug Kit	6	7
RT00123PNH	RT00123SNH	Square Flange Receptacle	10,14	11,14
RT00123PNHEC	RT00123SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT00123PNH-K	RT00123SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 26
**See page 23 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-12CG-S1	Short Cord Grip (straight)	6-10.5	15	✓
RT0S-12CG-S2	Short Cord Grip (straight)	8.5-12.5	15	✓
RT0L-12CG-S1	Long Cord Grip (straight)	6-10.5	16	✓
RT0L-12CG-S2	Long Cord Grip (straight)	8.5-12.5	16	✓
RT0B-12CG-S1	Cord Grip (90°)	6-10.5	17	✓
RT0B-12CG-S2	Cord Grip (90°)	8.0-12.5	17	✓

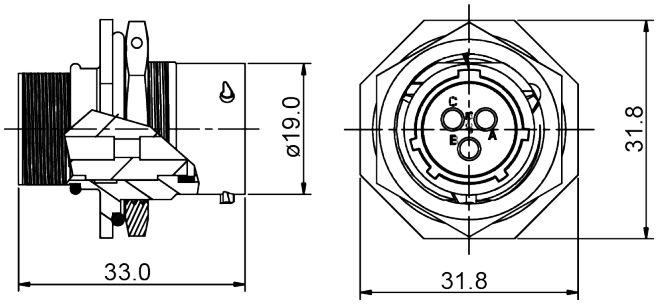
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 12 **Number of Contacts: 3** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

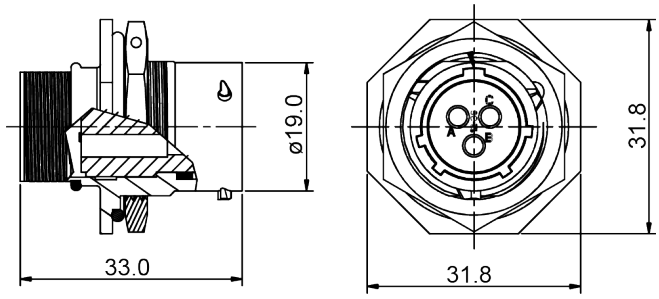
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



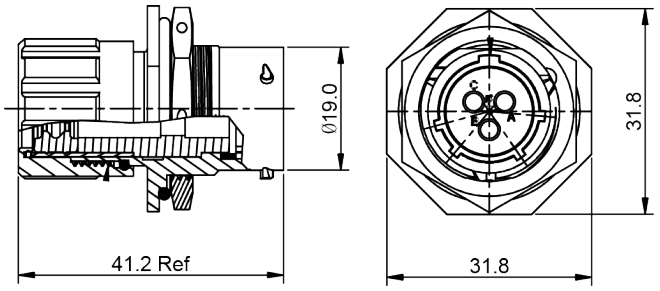
Male Figure 1 RT07123PNH

Jam Nut Receptacle



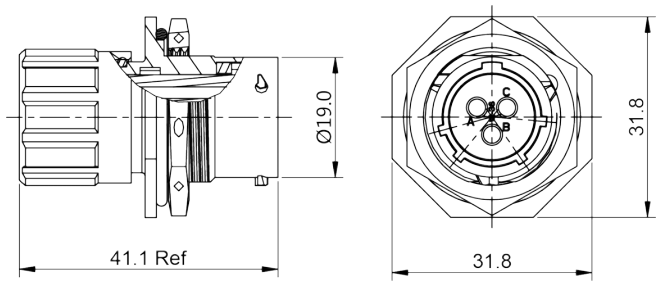
Female Figure 2 RT07123SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT07123PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT07123SNHEC

Jam Nut Receptacle Panel Cutout

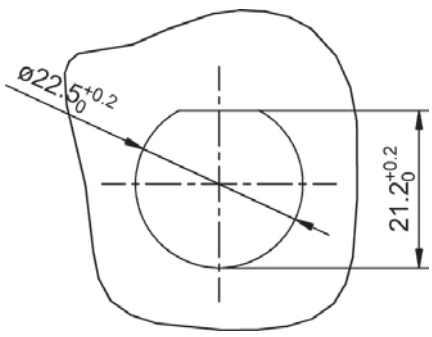


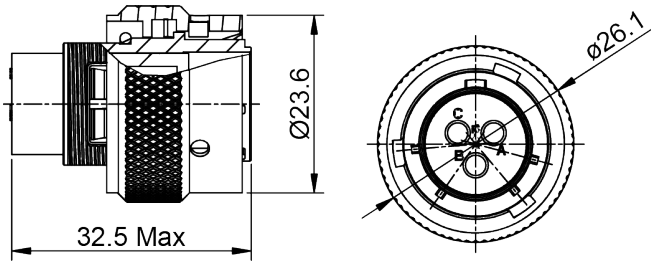
Figure 5

Shell Size: 12 **Number of Contacts: 3** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

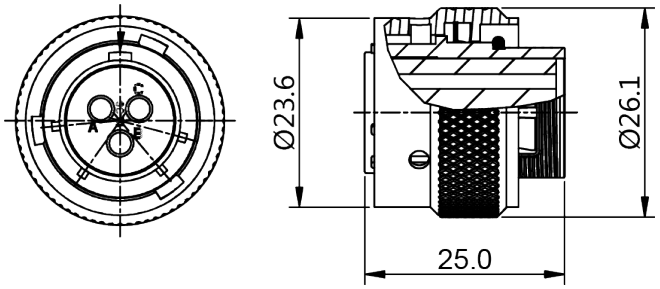
Dimensions Plug

Plug



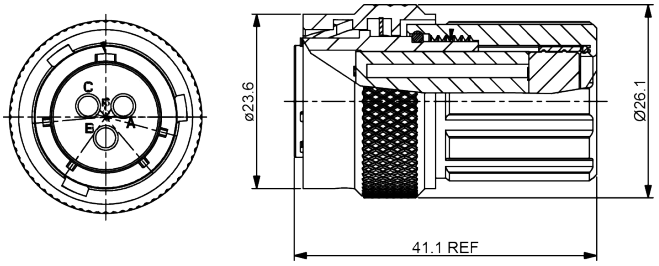
Male Figure 6 RT06123PNH

Plug



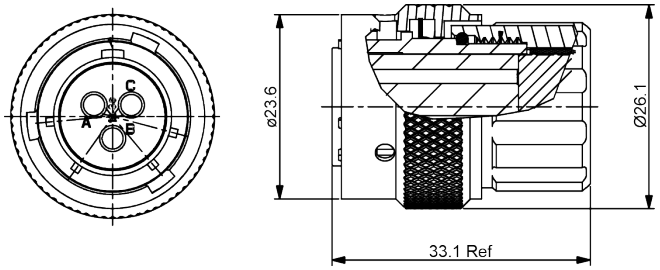
Female Figure 7 RT06123SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT06123PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT06123SNHEC

Individual Sealing Wire Range

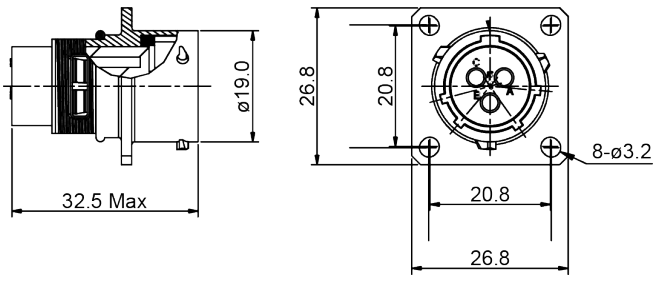
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
16	Ø2.0mm - Ø3.2mm	14 - 24 AWG

Shell Size: 12 **Number of Contacts: 3** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

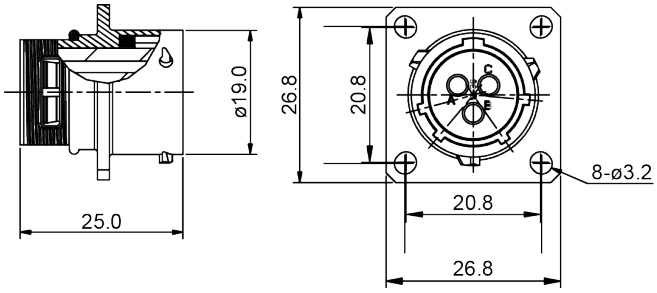
Dimensions Square Flange Receptacle

Square Flange Receptacle



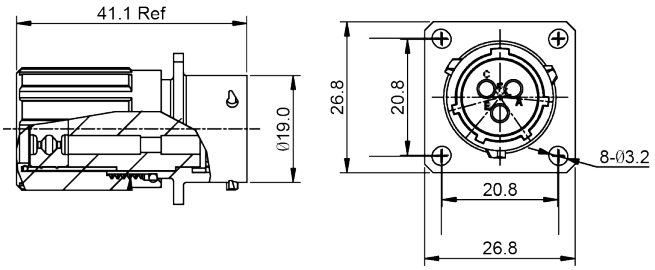
Male Figure 10 RT00123PNH

Square Flange Receptacle



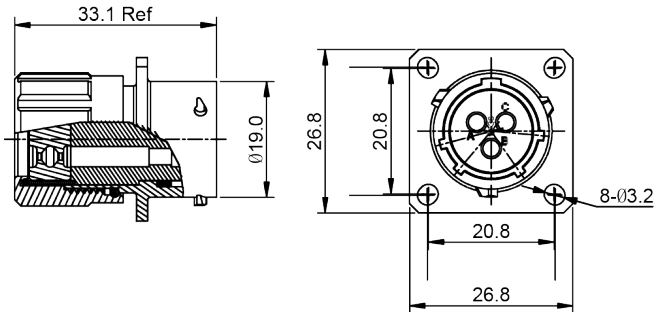
Female Figure 11 RT00123SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT00123PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT00123SNHEC

Square Flange Receptacle Panel Cutout

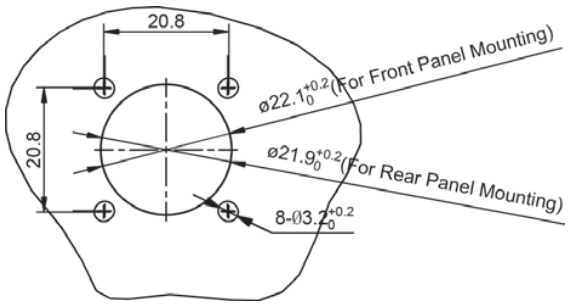


Figure 14

Shell Size: 12 **Number of Contacts: 3** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

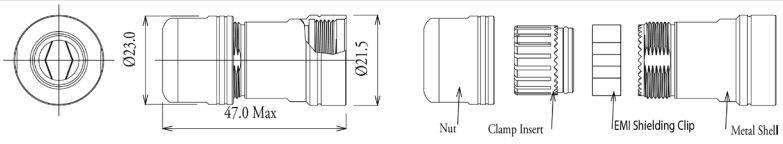


Figure 15

Long Cord Grip (straight)

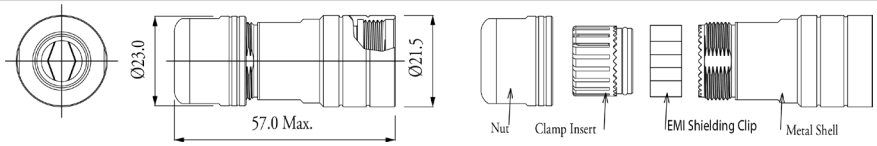


Figure 16

Cord Grip (90°)

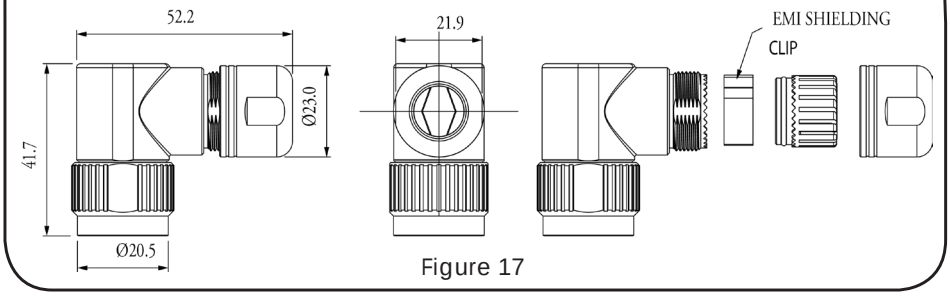


Figure 17

Accessories

Locking Clip with Lanyard

NEW! See Page 16

108039112

Plug Dustcap with Chain

RT612DCG

Plug Dustcap without Chain

RT612DC

Receptacle Dustcap with Chain

RT012DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT012RL

Receptacle Dustcap without Chain

RT012DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011912

Sealing Plug, Size 16

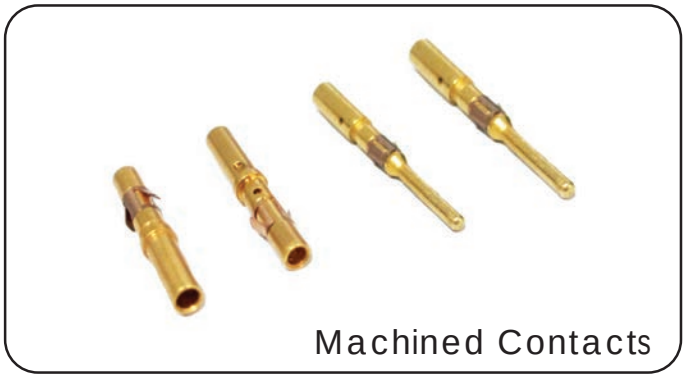
CA-4016-59

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD12B

Shell Size: 12 **Number of Contacts: 3** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts


Machined Contacts

Crimp Contacts, Machined

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
MP14M23F	MS14M23F	14	2.0-2.5	Gold Flash
MP14M23G5	MS14M23G5	14	2.0-2.5	Gold 5µ"
MP14M23G10	MS14M23G10	14	2.0-2.5	Gold 10µ"
MP14M23G15	MS14M23G15	14	2.0-2.5	Gold 15µ"
MP14M23G30	MS14M23G30	14	2.0-2.5	Gold 30µ"
MP16M23F	MS16M23F	18-16	.75-1.5	Gold Flash
MP16M23G5	MS16M23G5	18-16	.75-1.5	Gold 5µ"
MP16M23G10	MS16M23G10	18-16	.75-1.5	Gold 10µ"
MP16M23G15	MS16M23G15	18-16	.75-1.5	Gold 15µ"
MP16M23G30	MS16M23G30	18-16	.75-1.5	Gold 30µ"
MP20M23F	MS20M23F	22-20	.34-.50	Gold Flash
MP20M23G5	MS20M23G5	22-20	.34-.50	Gold 5µ"
MP20M23G10	MS20M23G10	22-20	.34-.50	Gold 10µ"
MP20M23G15	MS20M23G15	22-20	.34-.50	Gold 15µ"
MP20M23G30	MS20M23G30	22-20	.34-.50	Gold 30µ"
MP24M23F	MS24M23F	26-24	.14-.25	Gold Flash
MP24M23G5	MS24M23G5	26-24	.14-.25	Gold 5µ"
MP24M23G10	MS24M23G10	26-24	.14-.25	Gold 10µ"
MP24M23G15	MS24M23G15	26-24	.14-.25	Gold 15µ"
MP24M23G30	MS24M23G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Crimp Tool for Machined Contacts

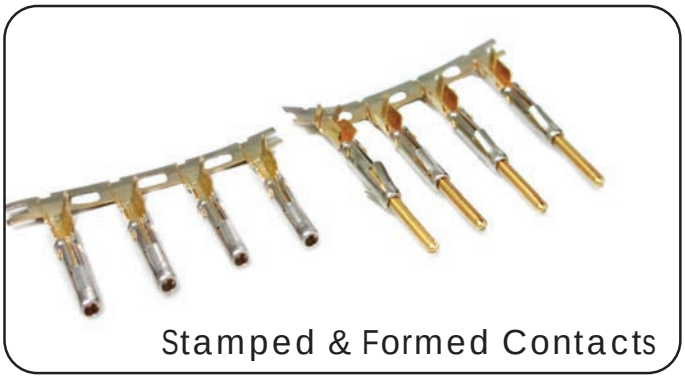

MFX-3959

Pneumatic Crimp Tool for Machined Contacts


MFX-3960

Shell Size: 12 **Number of Contacts: 3** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)



Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP14M2F	SS14M2F	14	2.0-2.5	Gold Flash
SP14M2G5	SS14M2G5	14	2.0-2.5	Gold 5µ"
SP14M2G10	SS14M2G10	14	2.0-2.5	Gold 10µ"
SP14M2G15	SS14M2G15	14	2.0-2.5	Gold 15µ"
SP14M2G30	SS14M2G30	14	2.0-2.5	Gold 30µ"
SP16M2F	SS16M2F	18-16	.75-1.5	Gold Flash
SP16M2G5	SS16M2G5	18-16	.75-1.5	Gold 5µ"
SP16M2G10	SS16M2G10	18-16	.75-1.5	Gold 10µ"
SP16M2G10	SS16M2G15	18-16	.75-1.5	Gold 15µ"
SP16M2G30	SS16M2G30	18-16	.75-1.5	Gold 30µ"
SP20M2F	SS20M2F	22-20	.34-.50	Gold Flash
SP20M2G5	SS20M2G5	22-20	.34-.50	Gold 5µ"
SP20M2G10	SS20M2G10	22-20	.34-.50	Gold 10µ"
SP20M2G15	SS20M2G15	22-20	.34-.50	Gold 15µ"
SP20M2G30	SS20M2G30	22-20	.34-.50	Gold 30µ"
SP24M2F	SS24M2F	22-20	.14-.25	Gold Flash
SP24M2G5	SS24M2G5	26-24	.14-.25	Gold 5µ"
SP24M2G10	SS24M2G10	26-24	.14-.25	Gold 10µ"
SP24M2G15	SS24M2G15	26-24	.14-.25	Gold 15µ"
SP24M2G30	SS24M2G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact

QXRT16

Hand Tool, Stamped & Formed Contact, Size 16, 20-14AWG

MFX-3954

Crimp Die for Stamped & Formed Contact

MFX-3957

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

STEP 2
Choose Backshell Style

Jam Nut Receptacles


RT07104PNH


RT07104SNH


RT07104PNHEC


RT07104SNHEC

OR

Square Flange Receptacles


RT00104PNH


RT00104SNH


RT00104PNHEC


RT00104SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug


RT06104PNH


RT06104SNH


RT06104PNHEC


RT06104SNHEC

Backshell


RT0S-10CG-S1


RT0S-10CG-S2


RT0L-10CG-S1


RT0L-10CG-S2

OR

Plug Kit Including Connector, Backshell & Contacts

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 34

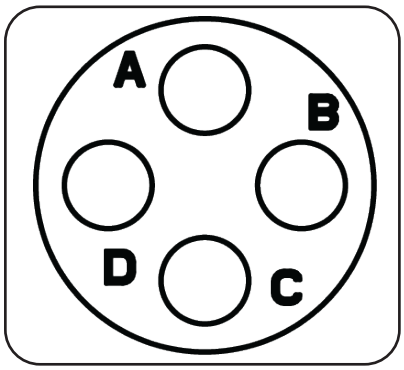
Shell Size: 10 **Number of Contacts: 4** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT07104PNH	RT07104SNH	Jam Nut Receptacle	1,5	2,5
RT07104PNHEC	RT07104SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT07104PNH-K	RT07104SNH-K	Jam Nut Receptacle Kit	1,5	2,5
RT06104PNH	RT06104SNH	Plug	6	7
RT06104PNHEC	RT06104SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT06104PNH-K	RT06104SNH-K	Plug Kit	6	7
RT00104PNH	RT00104SNH	Square Flange Receptacle	10,14	11,14
RT00104PNHEC	RT00104SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT00104PNH-K	RT00104SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 34
**See page 31 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-10CG-S1	Short Cord Grip (straight)	3-6.5	15	✓
RT0S-10CG-S2	Short Cord Grip (straight)	5-8.5	15	✓
RT0L-10CG-S1	Long Cord Grip (straight)	3-6.5	16	✓
RT0L-10CG-S2	Long Cord Grip (straight)	5-8.5	16	✓

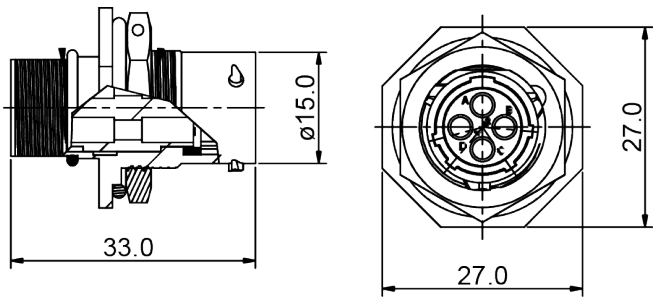
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 10 **Number of Contacts: 4** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

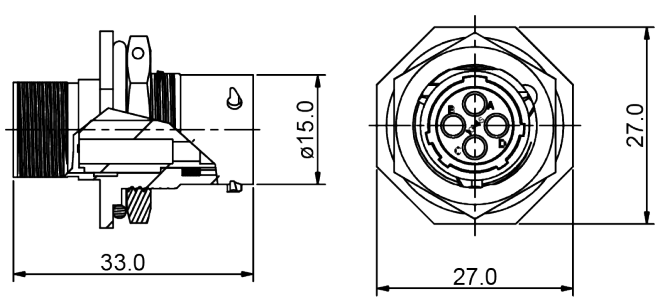
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



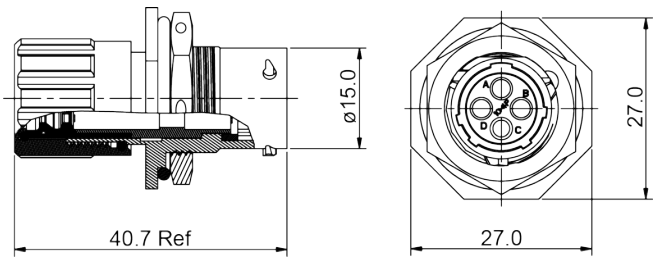
Male Figure 1 RT07104PNH

Jam Nut Receptacle



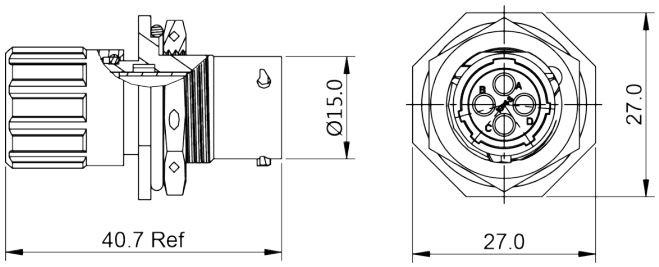
Female Figure 2 RT07104SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT07104PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT07104SNHEC

Jam Nut Receptacle Panel Cutout

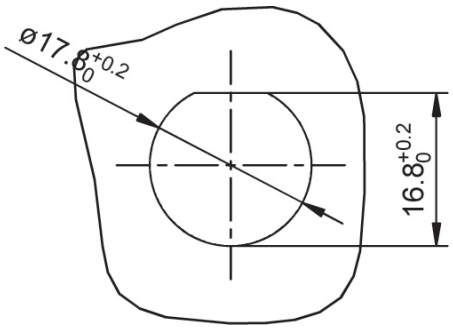


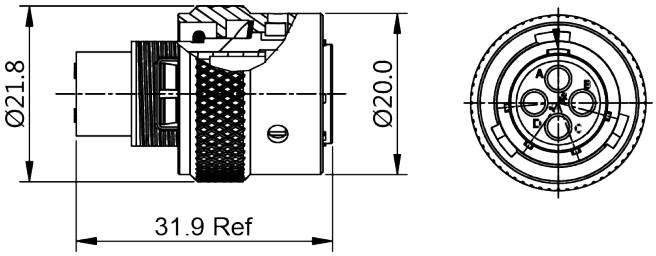
Figure 5

Shell Size: 10 **Number of Contacts: 4** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

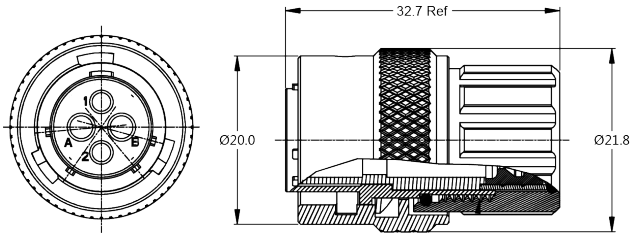
Dimensions Plug

Plug



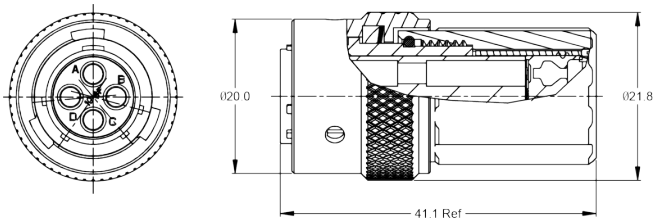
Male Figure 6 RT06104PNH

Plug



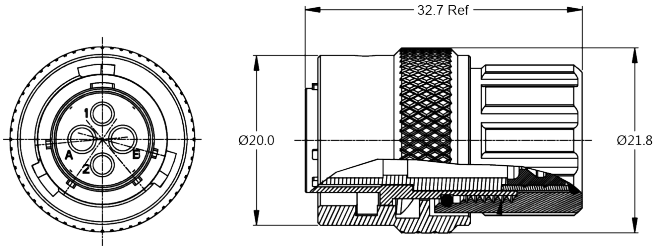
Female Figure 7 RT06104SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT06104PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT06104SNHEC

Individual Sealing Wire Range

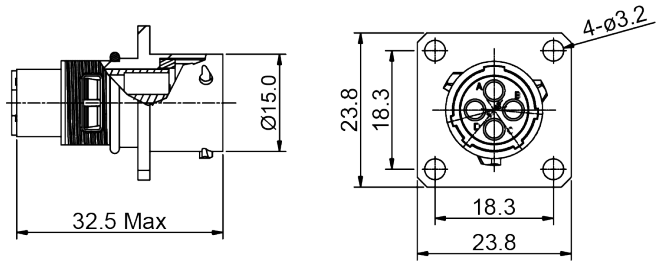
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
16	Ø2.0mm - Ø3.2mm	14 - 24 AWG

Shell Size: 10 **Number of Contacts: 4** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

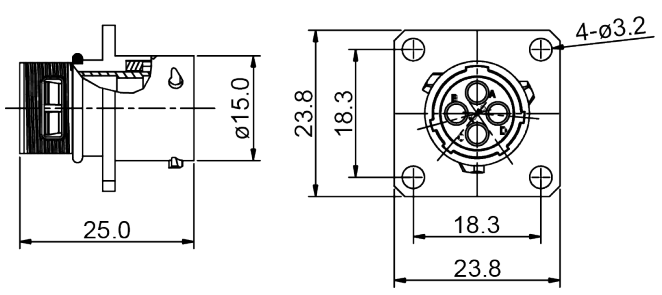
Dimensions Square Flange Receptacle

Square Flange Receptacle



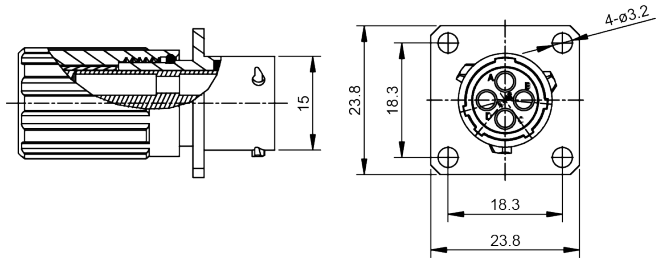
Male Figure 10 RT00104PNH

Square Flange Receptacle



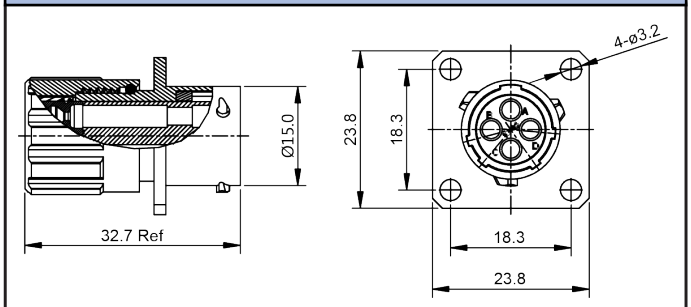
Female Figure 11 RT00104SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT00104PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT00104SNHEC

Square Flange Receptacle Panel Cutout

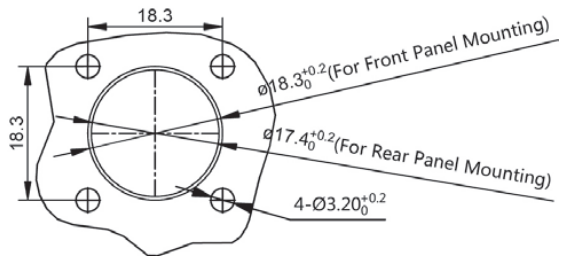


Figure 14

Shell Size: 10 **Number of Contacts: 4** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

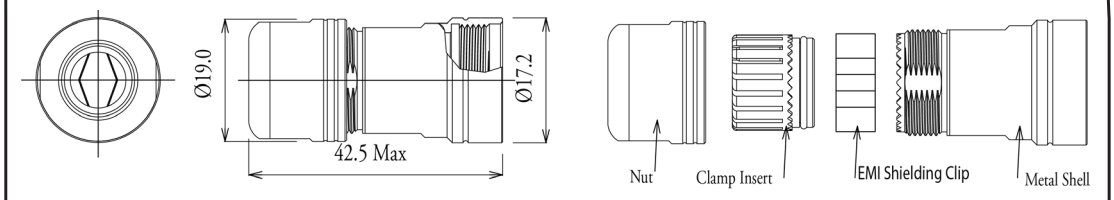


Figure 15

Long Cord Grip (straight)

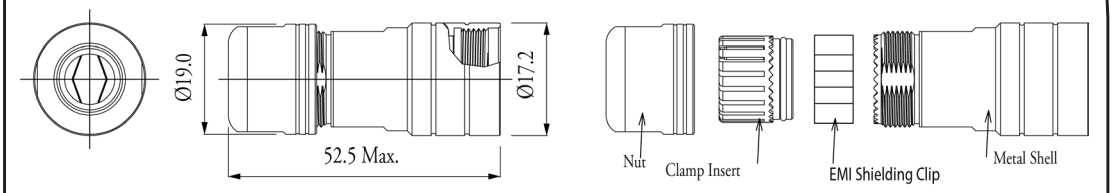


Figure 16

Accessories

Locking Clip with Lanyard

NEW! See Page 16

108039110

Plug Dustcap with Chain

RT610DCG

Plug Dustcap without Chain

RT610DC

Receptacle Dustcap without Chain

RT010DC

Receptacle Dustcap with Chain

RT010DCG

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011910

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT010RL

Sealing Plug, Size 16

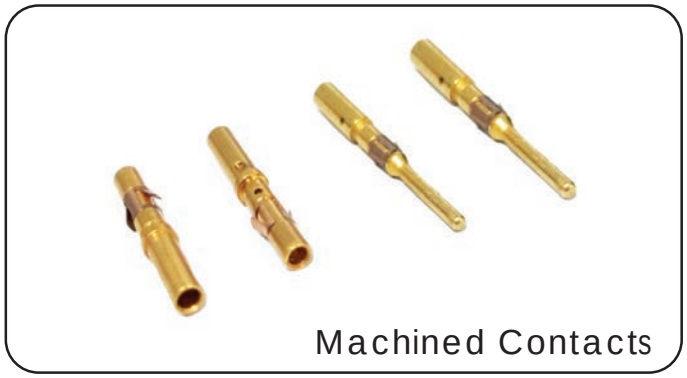
CA-4016-59

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD10B

Shell Size: 10 **Number of Contacts: 4** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts


Machined Contacts

Crimp Contacts, Machined

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
MP14M23F	MS14M23F	14	2.0-2.5	Gold Flash
MP14M23G5	MS14M23G5	14	2.0-2.5	Gold 5µ"
MP14M23G10	MS14M23G10	14	2.0-2.5	Gold 10µ"
MP14M23G15	MS14M23G15	14	2.0-2.5	Gold 15µ"
MP14M23G30	MS14M23G30	14	2.0-2.5	Gold 30µ"
MP16M23F	MS16M23F	18-16	.75-1.5	Gold Flash
MP16M23G5	MS16M23G5	18-16	.75-1.5	Gold 5µ"
MP16M23G10	MS16M23G10	18-16	.75-1.5	Gold 10µ"
MP16M23G15	MS16M23G15	18-16	.75-1.5	Gold 15µ"
MP16M23G30	MS16M23G30	18-16	.75-1.5	Gold 30µ"
MP20M23F	MS20M23F	22-20	.34-.50	Gold Flash
MP20M23G5	MS20M23G5	22-20	.34-.50	Gold 5µ"
MP20M23G10	MS20M23G10	22-20	.34-.50	Gold 10µ"
MP20M23G15	MS20M23G15	22-20	.34-.50	Gold 15µ"
MP20M23G30	MS20M23G30	22-20	.34-.50	Gold 30µ"
MP24M23F	MS24M23F	26-24	.14-.25	Gold Flash
MP24M23G5	MS24M23G5	26-24	.14-.25	Gold 5µ"
MP24M23G10	MS24M23G10	26-24	.14-.25	Gold 10µ"
MP24M23G15	MS24M23G15	26-24	.14-.25	Gold 15µ"
MP24M23G30	MS24M23G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Crimp Tool for Machined Contacts


MFX-3959

Pneumatic Crimp Tool for Machined Contact


MFX-3960

Shell Size: 10 **Number of Contacts: 4** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)

Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP14M2F	SS14M2F	14	2.0-2.5	Gold Flash
SP14M2G5	SS14M2G5	14	2.0-2.5	Gold 5µ"
SP14M2G10	SS14M2G10	14	2.0-2.5	Gold 10µ"
SP14M2G15	SS14M2G15	14	2.0-2.5	Gold 15µ"
SP14M2G30	SS14M2G30	14	2.0-2.5	Gold 30µ"
SP16M2F	SS16M2F	18-16	.75-1.5	Gold Flash
SP16M2G5	SS16M2G5	18-16	.75-1.5	Gold 5µ"
SP16M2G10	SS16M2G10	18-16	.75-1.5	Gold 10µ"
SP16M2G10	SS16M2G15	18-16	.75-1.5	Gold 15µ"
SP16M2G30	SS16M2G30	18-16	.75-1.5	Gold 30µ"
SP20M2F	SS20M2F	22-20	.34-.50	Gold Flash
SP20M2G5	SS20M2G5	22-20	.34-.50	Gold 5µ"
SP20M2G10	SS20M2G10	22-20	.34-.50	Gold 10µ"
SP20M2G15	SS20M2G15	22-20	.34-.50	Gold 15µ"
SP20M2G30	SS20M2G30	22-20	.34-.50	Gold 30µ"
SP24M2F	SS24M2F	22-20	.14-.25	Gold Flash
SP24M2G5	SS24M2G5	26-24	.14-.25	Gold 5µ"
SP24M2G10	SS24M2G10	26-24	.14-.25	Gold 10µ"
SP24M2G15	SS24M2G15	26-24	.14-.25	Gold 15µ"
SP24M2G30	SS24M2G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact

QXRT16

Hand Tool, Stamped & Formed Contact, Size 16, 20-14AWG

MFX-3954

Crimp Die for Stamped & Formed Contact

MFX-3957

STEP 1 Choose Receptacle Style	STEP 2 Choose Plug Style	STEP 2 Choose Backshell Style

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Jam Nut Receptacles


RT07102PNH


RT07102SNH


RT07102PNHEC


RT07102SNHEC

OR

Square Flange Receptacles


RT00102PNH


RT00102SNH


RT00102PNHEC


RT00102SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug


RT06102PNH


RT06102SNH


RT06102PNHEC


RT06102SNHEC

Backshell


RT0S-10CG-S1


RT0S-10CG-S2


RT0L-10CG-S1


RT0L-10CG-S2

OR

Plug Kit Including Connector, Backshell & Contacts

CONTACTS SOLD SEPARATELY SEE PAGE 42

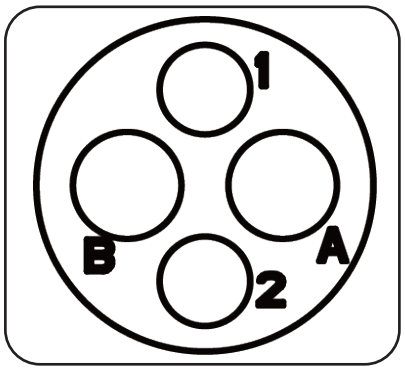
Shell Size: 10 **Number of Contacts: 4** **Contact Size: Mixed 16 & 20**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm
Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT07102PNH	RT07102SNH	Jam Nut Receptacle	1,5	2,5
RT07102PNHEC	RT07102SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT06102PNH	RT06102SNH	Plug	6	7
RT06102PNHEC	RT06102SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT00102PNH	RT00102SNH	Square Flange Receptacle	10,14	11,14
RT00102PNHEC	RT00102SNHEC	Square Flange Receptacle with O-ring Seal	12,14	13,14
RT00102PNHEC	RT00102SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT00102PNH-K	RT00102SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 42
**See page 39 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-10CG-S1	Short Cord Grip (straight)	3-6.5	15	✓
RT0S-10CG-S2	Short Cord Grip (straight)	5-8.5	15	✓
RT0L-10CG-S1	Long Cord Grip (straight)	3-6.5	16	✓
RT0L-10CG-S2	Long Cord Grip (straight)	5-8.5	16	✓

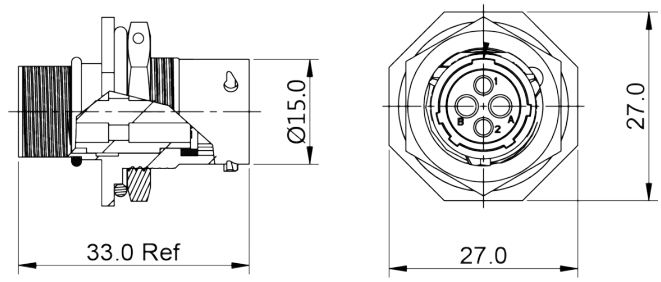
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 10 **Number of Contacts: 4** **Contact Size: Mixed 16 & 20**

Sealing: IP67 Salt Spray: 48h

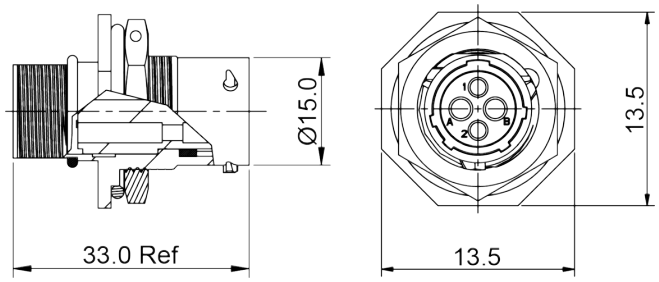
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



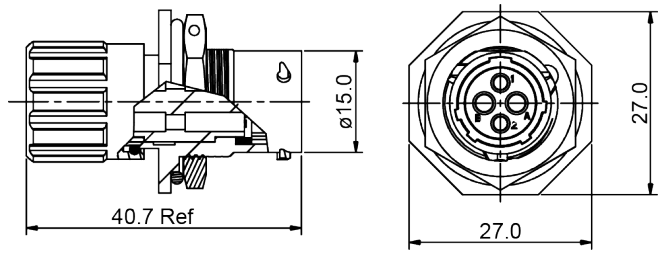
Male Figure 1 RT07102PNH

Jam Nut Receptacle



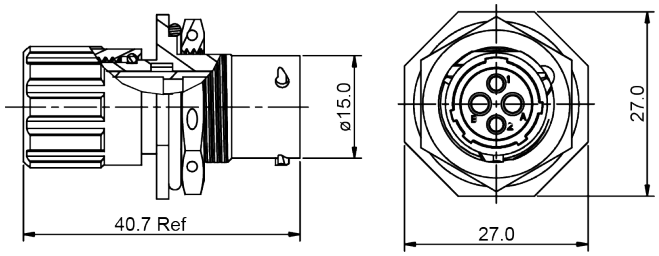
Female Figure 2 RT07102SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT07102PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT07102SNHEC

Jam Nut Receptacle Panel Cutout

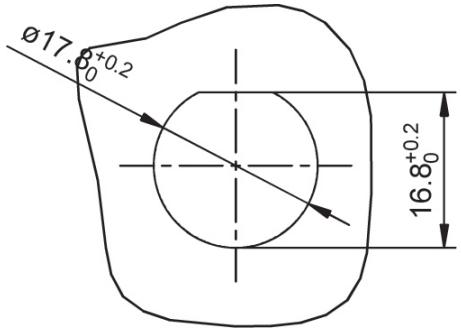


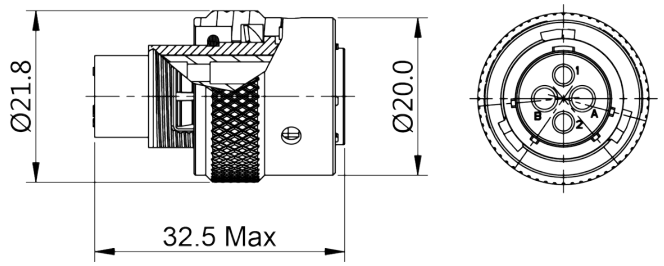
Figure 5

Shell Size: 10 **Number of Contacts: 4** **Contact Size: Mixed 16 & 20**

Sealing: IP67 Salt Spray: 48h

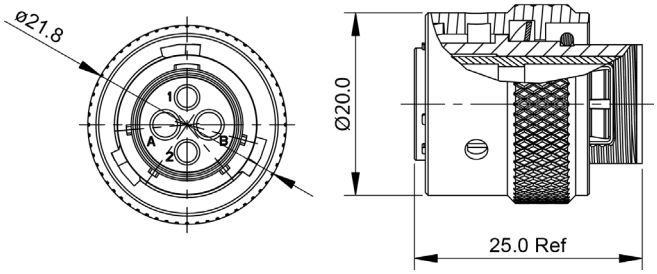
Dimensions Plug

Plug



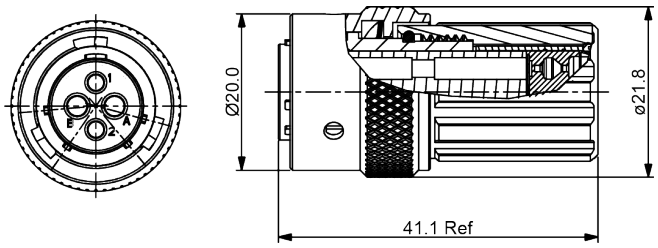
Female Figure 6 RT06102PNH

Plug



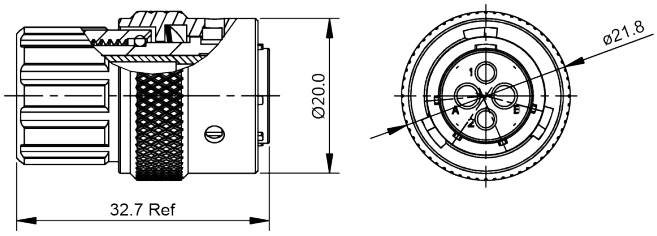
Female Figure 7 RT06102SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT06102PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT06102SNHEC

Individual Sealing Wire Range

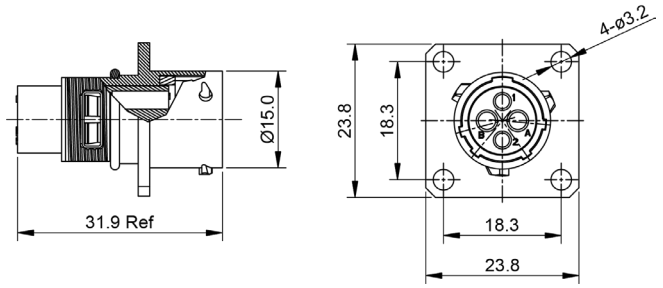
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
16	Ø2.0mm - Ø3.2mm	14 - 24 AWG
20	Ø1.6mm - Ø2.6mm	20-30 AWG

Shell Size: 10 **Number of Contacts: 4** **Contact Size: Mixed 16 & 20**

Sealing: IP67 Salt Spray: 48h

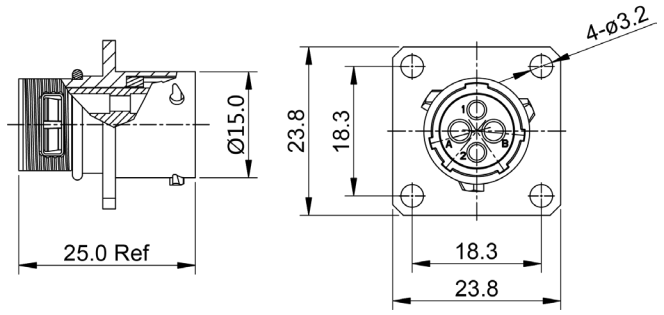
Dimensions Square Flange Receptacle

Square Flange Receptacle



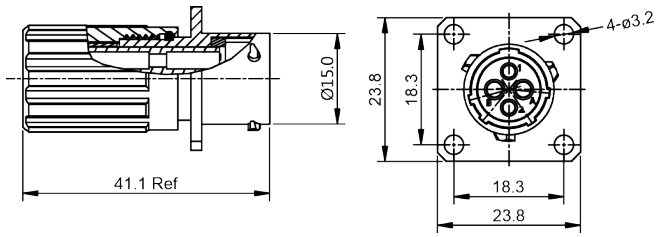
Male Figure 10 RT00102PNH

Square Flange Receptacle



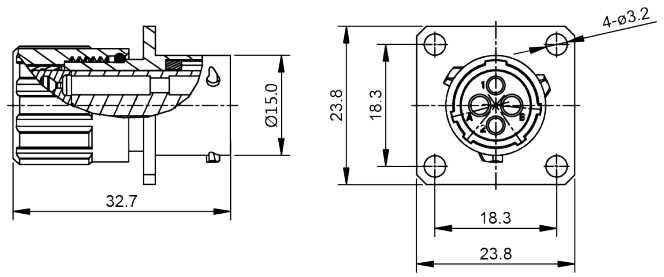
Female Figure 11 RT00102SNH

Square Flange Receptacle with O-ring Seal with End Cap with Individual Rear Wire Seal



Male Figure 12 RT00102PNHEC

Square Flange Receptacle with O-ring Seal with End Cap with Individual Rear Wire Seal



Female Figure 13 RT00102SNHEC

Square Flange Receptacle Panel Cutout

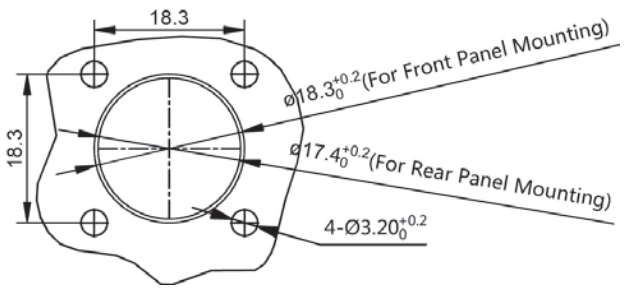


Figure 14

Shell Size: 10 **Number of Contacts: 4** **Contact Size: Mixed 16 & 20**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

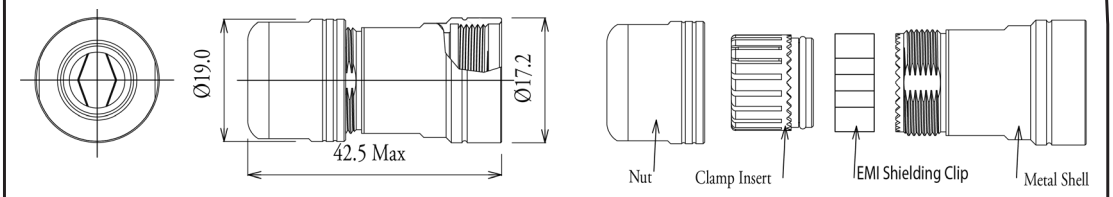


Figure 15

Long Cord Grip (straight)

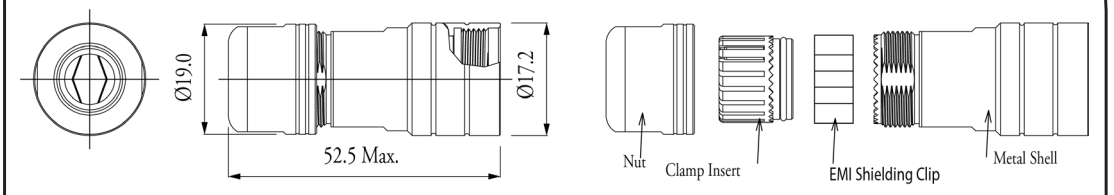


Figure 16

Accessories

Plug Dustcap with Chain

RT610DCG

Plug Dustcap without Chain

RT610DC

Receptacle Dustcap with Chain

RT010DCG

Receptacle Dustcap without Chain

RT010DC

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT010RL

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011910

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD10B

Locking Clip with Lanyard

108039110

NEW! See Page 16

Sealing Plug, Size 16

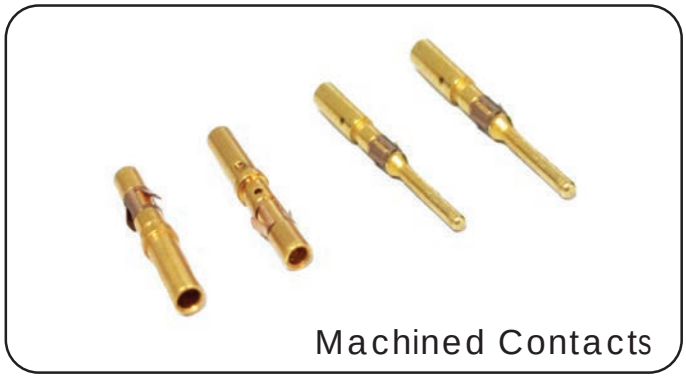
CA-4016-59

Sealing Plug, Size 20

AT13-204-2005

Shell Size: 10 **Number of Contacts: 4** **Contact Size: Mixed 16 & 20**
Sealing: IP67 Salt Spray: 48h

Contacts


Machined Contacts

Crimp Contacts, Machined

Part Number		Contact Size	AWG	Wire Range (mm²)	Plating
Male	Female				
MP14M23F	MS14M23F	16	14	2.0-2.5	Gold Flash
MP14M23G5	MS14M23G5	16	14	2.0-2.5	Gold 5µ"
MP14M23G10	MS14M23G10	16	14	2.0-2.5	Gold 10µ"
MP14M23G15	MS14M23G15	16	14	2.0-2.5	Gold 15µ"
MP14M23G30	MS14M23G30	16	14	2.0-2.5	Gold 30µ"
MP16M23F	MS16M23F	16	18-16	.75-1.5	Gold Flash
MP16M23G5	MS16M23G5	16	18-16	.75-1.5	Gold 5µ"
MP16M23G10	MS16M23G10	16	18-16	.75-1.5	Gold 10µ"
MP16M23G15	MS16M23G15	16	18-16	.75-1.5	Gold 15µ"
MP16M23G30	MS16M23G30	16	18-16	.75-1.5	Gold 30µ"
MP20M23F	MS20M23F	16	22-20	.34-.50	Gold Flash
MP20M23G5	MS20M23G5	16	22-20	.34-.50	Gold 5µ"
MP20M23G10	MS20M23G10	16	22-20	.34-.50	Gold 10µ"
MP20M23G15	MS20M23G15	16	22-20	.34-.50	Gold 15µ"
MP20M23G30	MS20M23G30	16	22-20	.34-.50	Gold 30µ"
MP24M23F	MS24M23F	16	26-24	.14-.25	Gold Flash
MP24M23G5	MS24M23G5	16	26-24	.14-.25	Gold 5µ"
MP24M23G10	MS24M23G10	16	26-24	.14-.25	Gold 10µ"
MP24M23G15	MS24M23G15	16	26-24	.14-.25	Gold 15µ"
MP24M23G30	MS24M23G30	16	26-24	.14-.25	Gold 30µ"

Shell Size: 10 **Number of Contacts: 4** **Contact Size: Mixed 16 & 20**
Sealing: IP67 Salt Spray: 48h

Crimp Contacts Machined (con't)

Machined Contacts

Part Number		Contact Size	AWG	Wire Range (mm²)	Plating
Male	Female				
MP20W23F	MS20W23F	20	22-20	.34-.50	Gold Flash
MP20W23G5	MS20W23G5	20	22-20	.34-.50	Gold 5µ"
MP20W23G10	MS20W23G10	20	22-20	.34-.50	Gold 10µ"
MP20W23G15	MS20W23G15	20	22-20	.34-.50	Gold 15µ"
MP20W23G30	MS20W23G30	20	22-20	.34-.50	Gold 30µ"
MP24W23F	MS24W23F	20	.13-.25	26-24	Gold Flash
MP24W23G5	MS24W23G5	20	.13-.25	26-24	Gold 5µ"
MP24W23G10	MS24W23G10	20	.13-.25	26-24	Gold 10µ""
MP24W23G15	MS24W23G15	20	.13-.25	26-24	Gold 15µ"
MP24W23G30	MS24W23G30	20	.13-.25	26-24	Gold 30µ"
MP28W23F	MS28W23F	20	30-28	.05-.08	Gold Flash
MP28W23G5	MS28W23G5	20	30-28	.05-.08	Gold 5µ"
MP28W23G10	MS28W23G10	20	30-28	.05-.08	Gold 10µ"
MP28W23G15	MS28W23G15	20	30-28	.05-.08	Gold 15µ"
MP28W23G30	MS28W23G30	20	30-28	.05-.08	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact

QXRT16

Contact Extraction Tool, #20 (Ø 1.0) Contact

QXRT20

Pneumatic Crimp Tool for Machined Contacts

MFX-3960

Hand Crimp Tool for Machined Contacts

MFX-3959

Shell Size: 10 **Number of Contacts: 4** **Contact Size: Mixed 16 & 20**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		Contact Size	AWG	Max Wire (mm²)	Plating
Male	Female				
SP14M2F	SS14M2F	16	14	2.0-2.5	Gold Flash
SP14M2G5	SS14M2G5	16	14	2.0-2.5	Gold 5µ"
SP14M2G10	SS14M2G10	16	14	2.0-2.5	Gold 10µ"
SP14M2G15	SS14M2G15	16	14	2.0-2.5	Gold 15µ"
SP14M2G30	SS14M2G30	16	14	2.0-2.5	Gold 30µ"
SP16M2F	SS16M2F	16	18-16	.75-1.5	Gold Flash
SP16M2G5	SS16M2G5	16	18-16	.75-1.5	Gold 5µ"
SP16M2G10	SS16M2G10	16	18-16	.75-1.5	Gold 10µ"
SP16M2G10	SS16M2G15	16	18-16	.75-1.5	Gold 15µ"
SP16M2G30	SS16M2G30	16	18-16	.75-1.5	Gold 30µ"
SP20M2F	SS20M2F	16	22-20	.34-.50	Gold Flash
SP20M2G5	SS20M2G5	16	22-20	.34-.50	Gold 5µ"
SP20M2G10	SS20M2G10	16	22-20	.34-.50	Gold 10µ"
SP20M2G15	SS20M2G15	16	22-20	.34-.50	Gold 15µ"
SP20M2G30	SS20M2G30	16	22-20	.34-.50	Gold 30µ"
SP24M2F	SS24M2F	16	22-20	.14-.25	Gold Flash
SP24M2G5	SS24M2G5	16	26-24	.14-.25	Gold 5µ"
SP24M2G10	SS24M2G10	16	26-24	.14-.25	Gold 10µ"
SP24M2G15	SS24M2G15	16	26-24	.14-.25	Gold 15µ"
SP24M2G30	SS24M2G30	16	26-24	.14-.25	Gold 30µ"

Shell Size: 10 **Number of Contacts: 4** **Contact Size: Mixed 16 & 20**
Sealing: IP67 Salt Spray: 48h

Crimp Contacts, Stamped & Formed (con't)

Part Number		Contact Size	AWG	Max Wire (mm²)	Plating
Male	Female				
SP20W2F	SS20W2F	20	22-20	.34-.50	Gold Flash
SP20W2G10	SS20W2G10	20	22-20	.34-.50	Gold 10µ"
SP20W2G15	SS20W2G15	20	22-20	.34-.50	Gold 15µ"
SP20W2G30	SS20W2G30	20	22-20	.34-.50	Gold 30µ"
SP20W2G5	SS20W2G5	20	22-20	.34-.50	Gold 5µ"
SP24W2F	SS24W2F	20	26-24	.14-.25	Gold Flash
SP24W2G5	SS24W2G5	20	26-24	.14-.25	Gold 5µ"
SP24W2G10	SS24W2G10	20	26-24	.14-.25	Gold 10µ"
SP24W2G15	SS24W2G15	20	26-24	.14-.25	Gold 15µ"
SP24W2G30	SS24W2G30	20	26-24	.14-.25	Gold 30µ"
SP28W2F	SS28W2F	20	30-28	.05-.08	Gold Flash
SP28W2G5	SS28W2G5	20	30-28	.05-.08	Gold 5µ"
SP28W2G10	SS28W2G10	20	30-28	.05-.08	Gold 10µ"
SP28W2G15	SS28W2G15	20	30-28	.05-.08	Gold 15µ"
SP28W2G30	SS28W2G30	20	30-28	.05-.08	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact

QXRT16

Contact Extraction Tool, #20 (Ø 1.0) Contact

QXRT20

Hand Tool for Stamped & Formed Contact, Size 16, 20-14AWG

MFX-3954

Hand Tool for Stamped & Formed Contact, Size 20, 20-28AWG

MFX-3958

Crimp Die for Stamped & Formed Contact

MFX-3957

STEP 1 Choose Receptacle Style	STEP 2 Choose Plug Style	STEP 2 Choose Backshell Style

Jam Nut Receptacles


RT07142PNH


RT07142SNH


RT07142PNHEC


RT07142SNHEC

OR

Square Flange Receptacles


RT00142PNH


RT00142SNH


RT00142PNHEC


RT00142SNHEC

Plug


RT06142PNH


RT06142SNH


RT06142PNHEC


RT06142SNHEC

Backshell


RT0S-14CG-S1


RT0S-14CG-S2


RT0L-14CG-S1


RT0L-14CG-S2


RT0B-14CG-S1


RT0B-14CG-S2

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 52

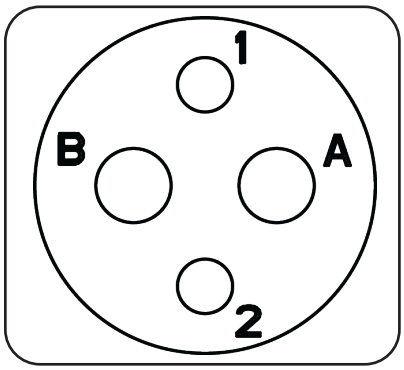
Shell Size: 14 **Number of Contacts: 4** **Contact Size: Mixed 2.5mm & 16**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm
Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts.
Please add "03" to the end of the part number when ordering.
Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT07142PNH	RT07142SNH	Jam Nut Receptacle with O-ring Seal	1,5	2,5
RT07142PNHEC	RT07142SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT06142PNH	RT06142SNH	Plug with O-ring Seal	6	7
RT06142PNHEC	RT06142SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT00142PNH	RT00142SNH	Square Flange Receptacle	10,14	11,14
RT00142PNHEC	RT00142SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14

Contacts supplied separately see page 52
**See page 49 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-14CG-S1	Short Cord Grip (straight)	6-10.5	15	✓
RT0S-14CG-S2	Short Cord Grip (straight)	8.5-12.5	15	✓
RT0L-14CG-S1	Long Cord Grip (straight)	6-10.5	16	✓
RT0L-14CG-S2	Long Cord Grip (straight)	8.5-12.5	16	✓
RT0B-14CG-S1	Cord Grip (90°)	6-10.5	17	✓
RT0B-14CG-S2	Cord Grip (90°)	8.0-12.5	17	✓

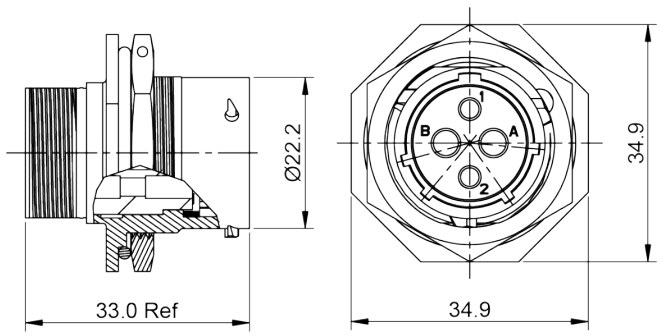
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 14 **Number of Contacts: 4** **Contact Size: Mixed 2.5mm & 16**

Sealing: IP67 Salt Spray: 48h

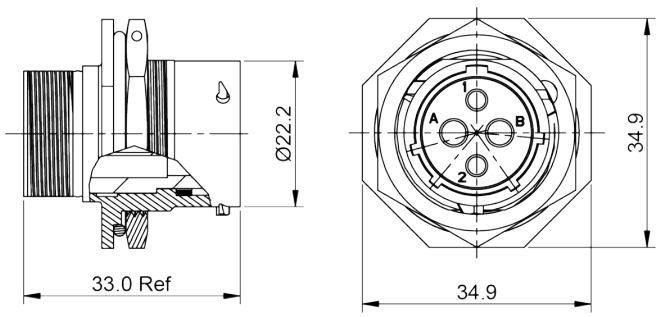
Dimensions Jam Nut Receptacle

Jam Nut Receptacle with O-ring Seal



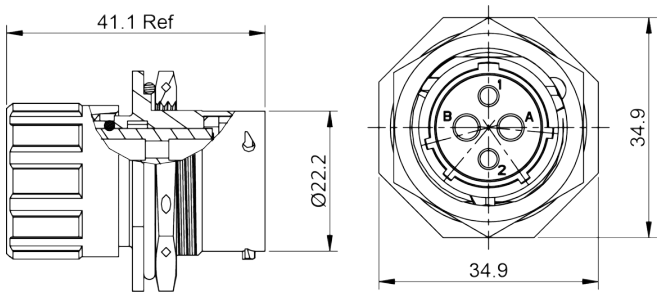
Male Figure 1 RT07142PNH

Jam Nut Receptacle with O-ring Seal



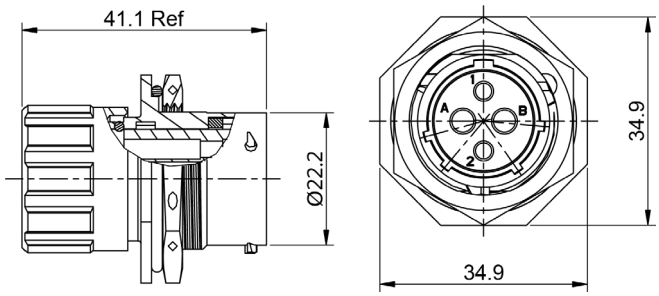
Female Figure 2 RT07142SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT07142PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT07142SNHEC

Jam Nut Receptacle Panel Cutout

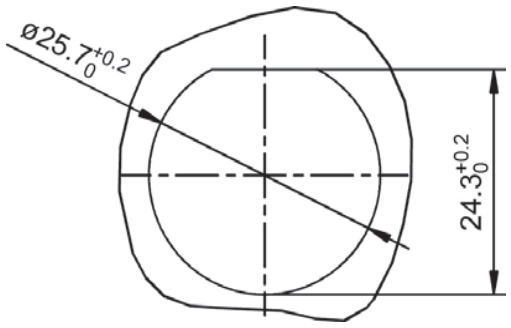


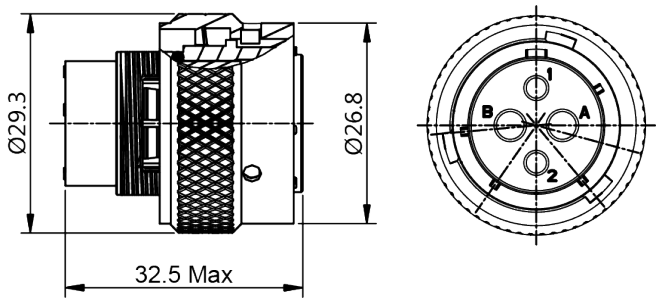
Figure 5

Shell Size: 14 **Number of Contacts: 4** **Contact Size: Mixed 2.5mm & 16**

Sealing: IP67 Salt Spray: 48h

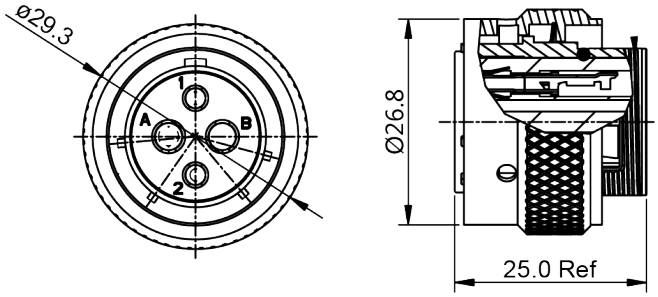
Dimensions Plug

Plug with O-ring Seal



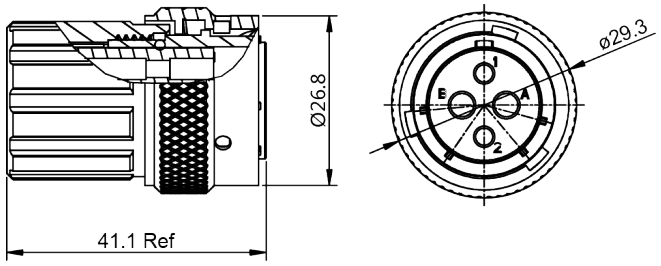
Male Figure 6 RT06142PNH

Plug with O-ring Seal



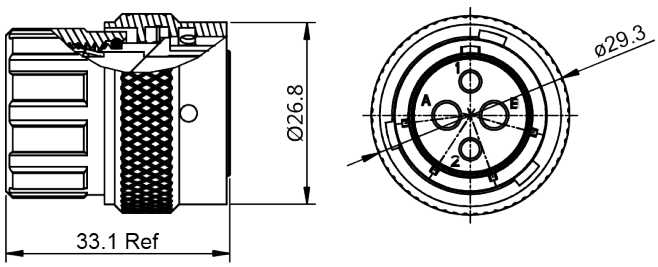
Female Figure 7 RT06142SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT06142PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT06142SNHEC

Individual Sealing Wire Range

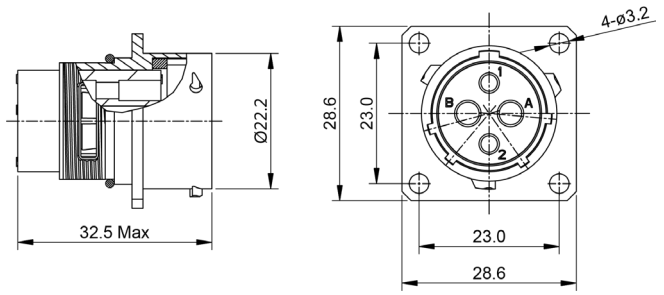
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
2.5mm	Ø3.3mm - Ø4.3mm	14 - 12 AWG
16	Ø2.0mm - Ø3.2mm	14 - 24 AWG

Shell Size: 14 **Number of Contacts: 4** **Contact Size: Mixed 2.5mm & 16**

Sealing: IP67 Salt Spray: 48h

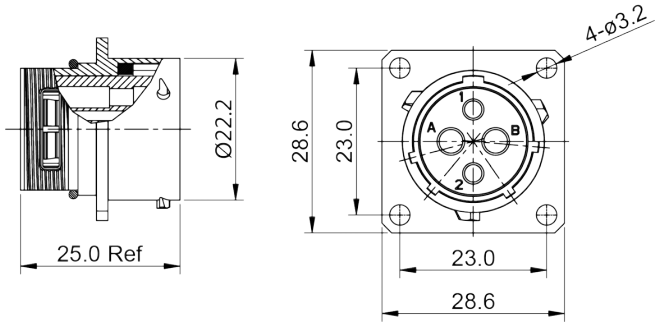
Dimensions Square Flange Receptacle

Square Flange Receptacle



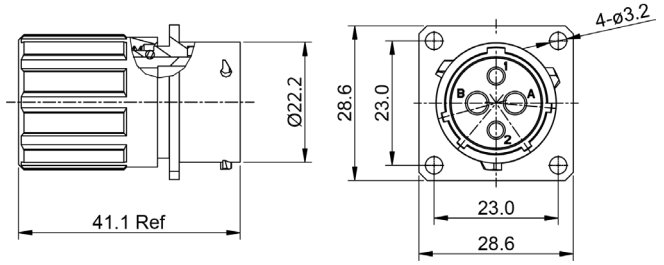
Male Figure 10 RT00142PNH

Square Flange Receptacle



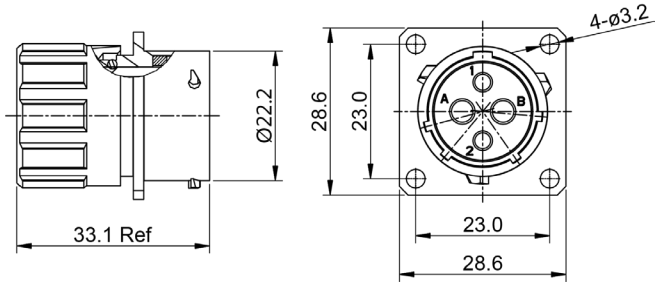
Female Figure 11 RT00142SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT00142PNHEC

Square Flange Receptacle with O-ring Seal Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT00142SNHEC

Square Flange Receptacle Panel Cutout

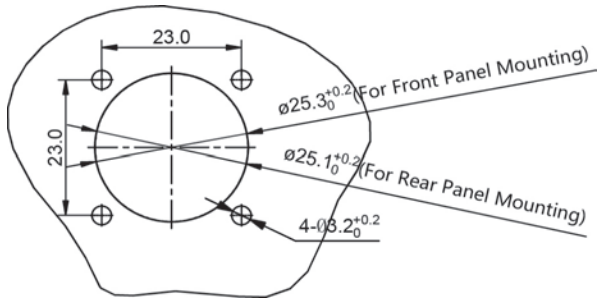


Figure 14

Shell Size: 14 **Number of Contacts: 4** **Contact Size: Mixed 2.5mm & 16**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

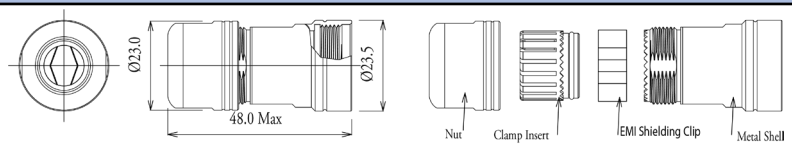


Figure 15

Long Cord Grip (straight)

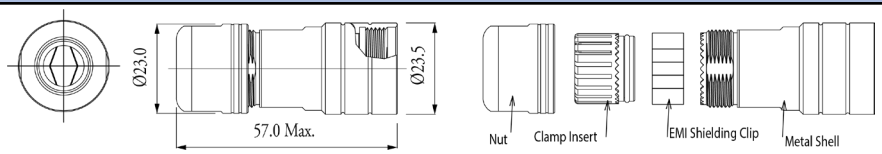


Figure 16

Cord Grip (90°)

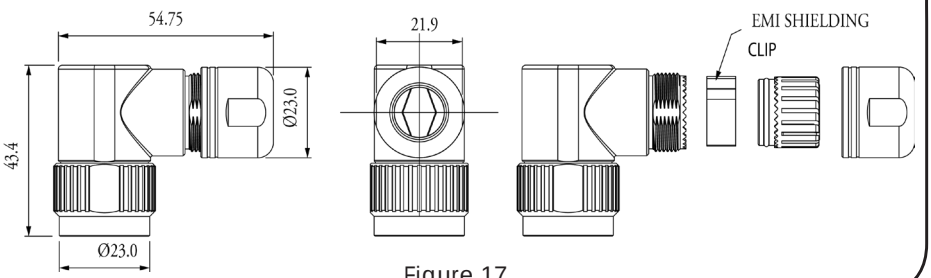


Figure 17

Accessories

Locking Clip with Lanyard

NEW! See Page 16

108039114

Plug Dustcap with Chain

RT614DCG

Plug Dustcap without Chain

RT614DC

Receptacle Dustcap with Chain

RT014DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT014RL

Receptacle Dustcap without Chain

RT014DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011914

Sealing Plug, Size 16

CA-4016-59

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

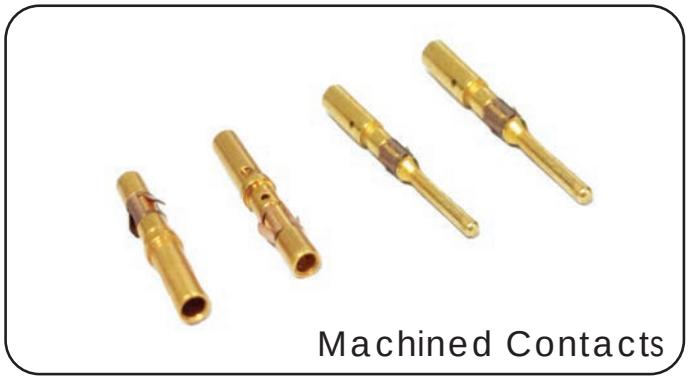
RTFD14B

Sealing Plug,, Size 2.5mm

A114017

Shell Size: 14 **Number of Contacts: 4** **Contact Size: Mixed 2.5mm & 16**
Sealing: IP67 Salt Spray: 48h

Contacts


Machined Contacts

Crimp Contacts, Machined

Part Number		Contact Size	AWG	Wire Range (mm²)	Plating
Male	Female				
MP14M23F	MS14M23F	16	14	2.0-2.5	Gold Flash
MP14M23G5	MS14M23G5	16	14	2.0-2.5	Gold 5µ"
MP14M23G10	MS14M23G10	16	14	2.0-2.5	Gold 10µ"
MP14M23G15	MS14M23G15	16	14	2.0-2.5	Gold 15µ"
MP14M23G30	MS14M23G30	16	14	2.0-2.5	Gold 30µ"
MP16M23F	MS16M23F	16	18-16	.75-1.5	Gold Flash
MP16M23G5	MS16M23G5	16	18-16	.75-1.5	Gold 5µ"
MP16M23G10	MS16M23G10	16	18-16	.75-1.5	Gold 10µ"
MP16M23G15	MS16M23G15	16	18-16	.75-1.5	Gold 15µ"
MP16M23G30	MS16M23G30	16	18-16	.75-1.5	Gold 30µ"
MP20M23F	MS20M23F	16	22-20	.34-.50	Gold Flash
MP20M23G5	MS20M23G5	16	22-20	.34-.50	Gold 5µ"
MP20M23G10	MS20M23G10	16	22-20	.34-.50	Gold 10µ"
MP20M23G15	MS20M23G15	16	22-20	.34-.50	Gold 15µ"
MP20M23G30	MS20M23G30	16	22-20	.34-.50	Gold 30µ"
MP24M23F	MS24M23F	16	26-24	.14-.25	Gold Flash
MP24M23G5	MS24M23G5	16	26-24	.14-.25	Gold 5µ"
MP24M23G10	MS24M23G10	16	26-24	.14-.25	Gold 10µ"
MP24M23G15	MS24M23G15	16	26-24	.14-.25	Gold 15µ"
MP24M23G30	MS24M23G30	16	26-24	.14-.25	Gold 30µ"

Tools

Extraction Tool 2.5mm Contact


QXRT12S

Hand Crimp Tool for Machined Contacts


MFX-3959

Pneumatic Crimp Tool for Machined Contacts


MFX-3960

Shell Size: 14 **Number of Contacts: 4** **Contact Size: Mixed 2.5mm & 16**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts


2.5mm

Crimp Contacts, Stamped & Formed

Part Number		Contact Size	AWG	Wire Range (mm²)	Plating
Male	Female				
SP12A1T	SS12A1T	2.5mm	14-12	2.5-3.5	Tin
SP14M2F	SS14M2F	16	14	2.0-2.5	Gold Flash
SP14M2G5	SS14M2G5	16	14	2.0-2.5	Gold 5µ"
SP14M2G10	SS14M2G10	16	14	2.0-2.5	Gold 10µ"
SP14M2G15	SS14M2G15	16	14	2.0-2.5	Gold 15µ"
SP14M2G30	SS14M2G30	16	14	2.0-2.5	Gold 30µ"
SP16M2F	SS16M2F	16	18-16	.75-1.5	Gold Flash
SP16M2G5	SS16M2G5	16	18-16	.75-1.5	Gold 5µ"
SP16M2G10	SS16M2G10	16	18-16	.75-1.5	Gold 10µ"
SP16M2G10	SS16M2G15	16	18-16	.75-1.5	Gold 15µ"
SP16M2G30	SS16M2G30	16	18-16	.75-1.5	Gold 30µ"
SP20M2F	SS20M2F	16	22-20	.34-.50	Gold Flash
SP20M2G5	SS20M2G5	16	22-20	.34-.50	Gold 5µ"
SP20M2G10	SS20M2G10	16	22-20	.34-.50	Gold 10µ"
SP20M2G15	SS20M2G15	16	22-20	.34-.50	Gold 15µ"
SP20M2G30	SS20M2G30	16	22-20	.34-.50	Gold 30µ"
SP24M2F	SS24M2F	16	22-20	.14-.25	Gold Flash
SP24M2G5	SS24M2G5	16	26-24	.14-.25	Gold 5µ"
SP24M2G10	SS24M2G10	16	26-24	.14-.25	Gold 10µ"
SP24M2G15	SS24M2G15	16	26-24	.14-.25	Gold 15µ"
SP24M2G30	SS24M2G30	16	26-24	.14-.25	Gold 30µ"

Tools

Extraction Tool 2.5mm Contact


QXRT12S

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

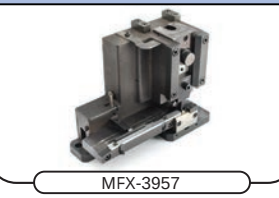
Hand Tool, Stamped & Formed Contact, 2.5 mm


MFX-3962

Hand Tool, Stamped & Formed Contact, Size 16


MFX-3954

Crimp Die for Stamped & Formed Contact


MFX-3957

STEP 1 Choose Receptacle Style	STEP 2 Choose Plug Style	STEP 2 Choose Backshell Style

Jam Nut Receptacles


RT07144PNH


RT07144SNH


RT07144PNHEC


RT07144SNHEC

OR

Square Flange Receptacles


RT00144PNH


RT00144SNH


RT00144PNHEC


RT00144SNHEC

Plug


RT06144PNH


RT06144SNH


RT06144PNHEC


RT06144SNHEC

Backshell


RT0S-14CG-S1


RT0S-14CG-S2


RT0L-14CG-S1


RT0L-14CG-S2


RT0B-14CG-S1


RT0B-14CG-S2

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 60

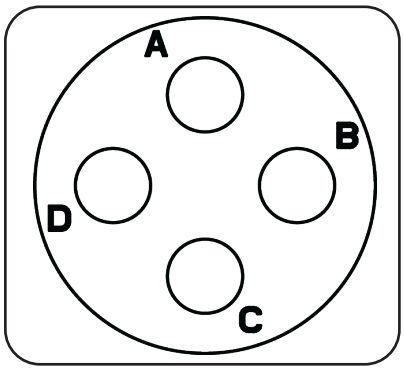
Shell Size: 14 **Number of Contacts: 4** **Contact Size: 2.5mm**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT07144PNH	RT07144SNH	Jam Nut Receptacle	1,5	2,5
RT07144PNHEC	RT07144SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT06144PNH	RT06144SNH	Plug	6	7
RT06144PNHEC	RT06144SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT00144PNH	RT00144SNH	Square Flange Receptacle	10	11,14
RT00144PNHEC	RT00144SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14

Contacts supplied separately see page 60
**See page 57 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-14CG-S1	Short Cord Grip (straight)	6-10.5	15	✓
RT0S-14CG-S2	Short Cord Grip (straight)	8.5-12.5	15	✓
RT0L-14CG-S1	Long Cord Grip (straight)	6-10.5	16	✓
RT0L-14CG-S2	Long Cord Grip (straight)	8.5-12.5	16	✓
RT0B-14CG-S1	Cord Grip (90°)	6-10.5	17	✓
RT0B-14CG-S2	Cord Grip (90°)	8.0-12.5	17	✓

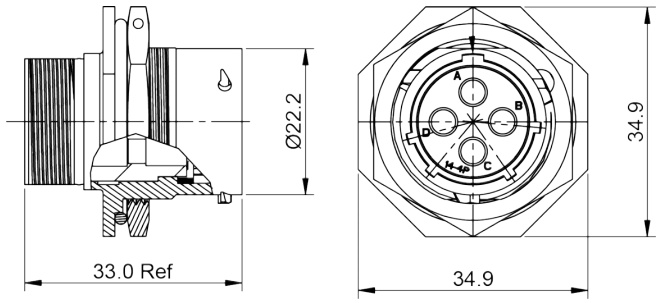
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 14 **Number of Contacts: 4** **Contact Size: 2.5mm**

Sealing: IP67 Salt Spray: 48h

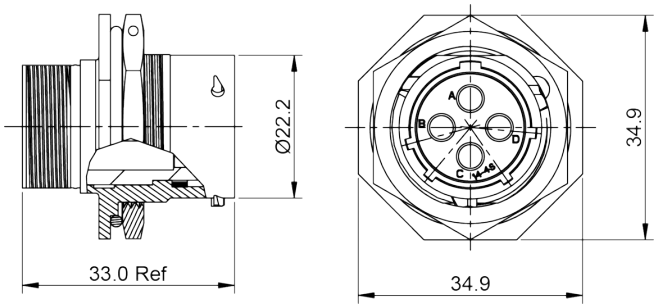
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



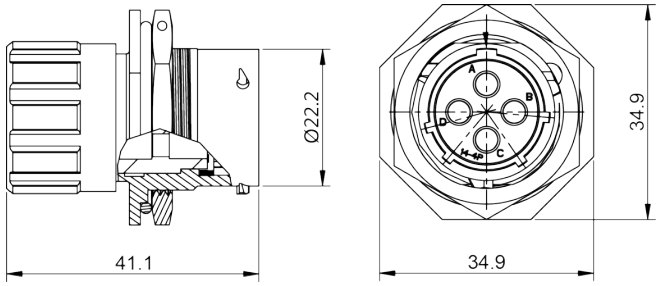
Male Figure 1 RT07144PNH

Jam Nut Receptacle



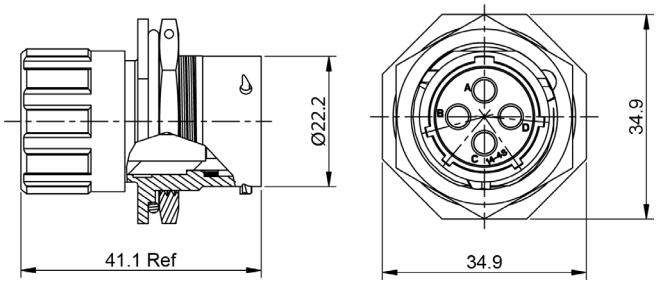
Female Figure 2 RT07144SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 3 RT07144PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT07144SNHEC

Jam Nut Receptacle Panel Cutout

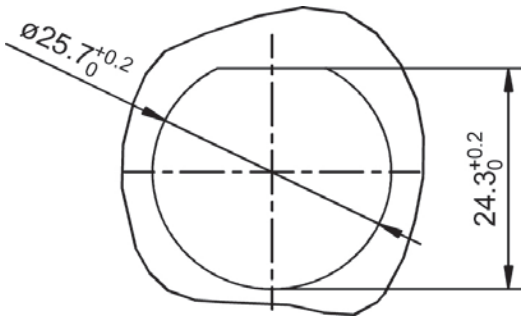


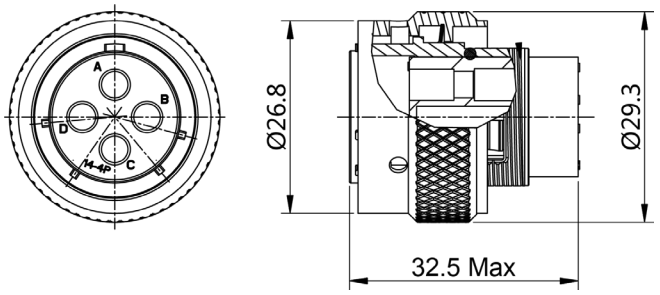
Figure 5

Shell Size: 14 **Number of Contacts: 4** **Contact Size: 2.5mm**

Sealing: IP67 Salt Spray: 48h

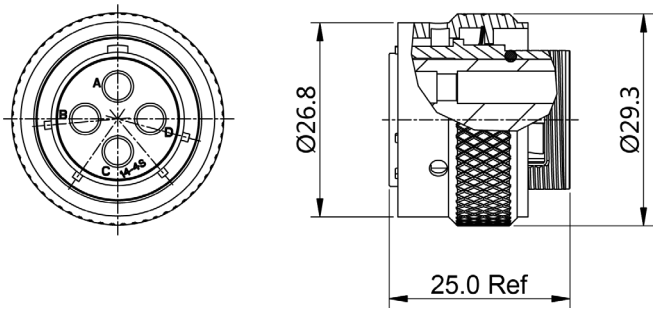
Dimensions Plug

Plug



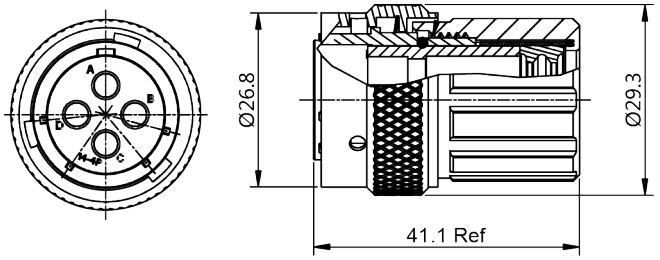
Male Figure 6 RT06144PNH

Plug



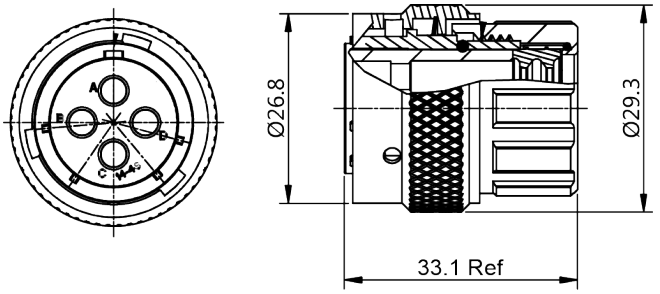
Female Figure 7 RT06144SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT06144PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT06144SNHEC

Individual Sealing Wire Range

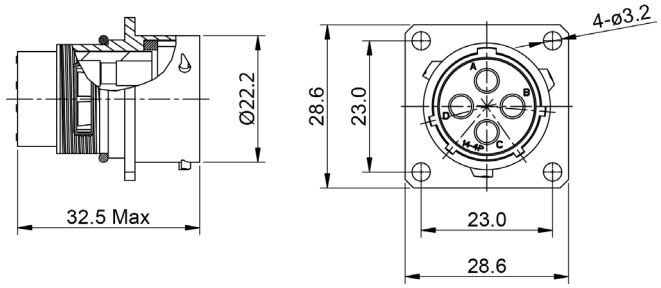
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
2.5mm	Ø3.3mm - Ø4.3mm	14 - 12 AWG

Shell Size: 14 **Number of Contacts: 4** **Contact Size: 2.5mm**

Sealing: IP67 Salt Spray: 48h

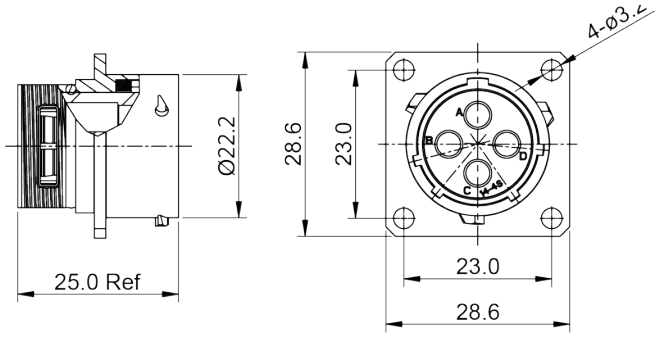
Dimensions Square Flange Receptacle

Square Flange Receptacle



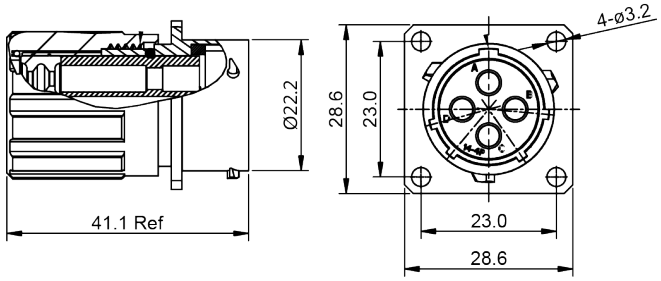
Male Figure 10 RT00144PNH

Square Flange Receptacle



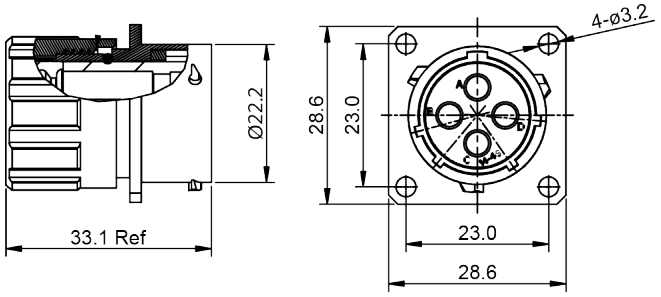
Female Figure 11 RT00144SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT00144PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT00144SNHEC

Square Flange Receptacle Panel Cutout

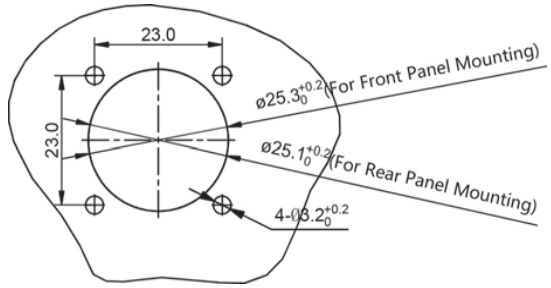


Figure 14

Shell Size: 14 **Number of Contacts: 4** **Contact Size: 2.5mm**
Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

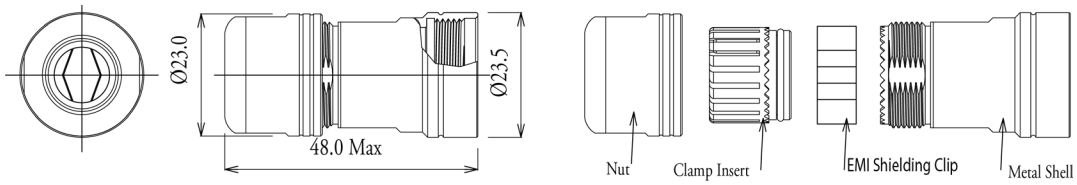


Figure 15

Long Cord Grip (straight)

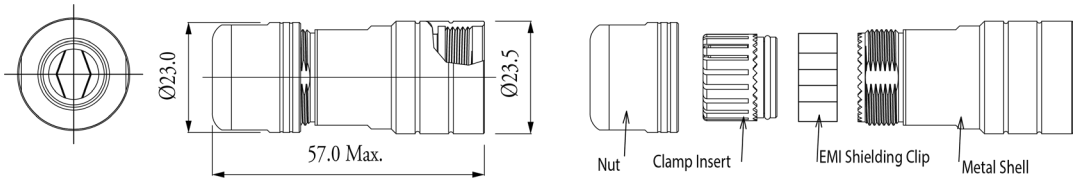


Figure 16

Cord Grip (90°)

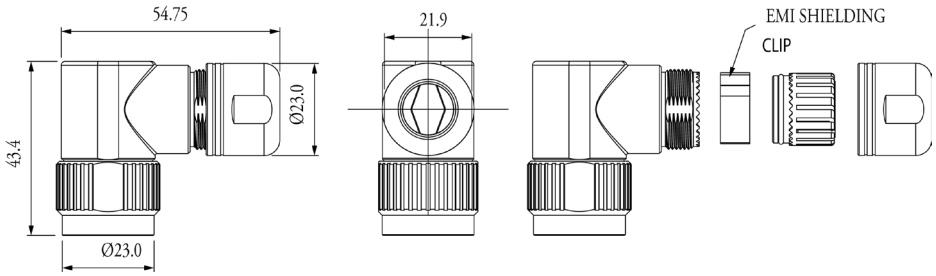


Figure 17

Shell Size: 14 **Number of Contacts: 4** **Contact Size: 2.5mm**
Sealing: IP67 Salt Spray: 48h

Contacts


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP12A1T	SS12A1T	14-12	2.5-3.5	Tin

No machined contacts are available for this group

Tools

Extraction Tool 2.5mm Contact


QXRT12S

Hand Tool, Stamped & Formed Contact, 2.5 mm


MFX-3962

Shell Size: 14 **Number of Contacts: 4** **Contact Size: 2.5mm**
Sealing: IP67 Salt Spray: 48h

Accessories

Plug Dustcap with Chain

RT614DCG

Plug Dustcap without Chain

RT614DC

Receptacle Dustcap with Chain

RT014DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT014RL

Receptacle Dustcap without Chain

RT014DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011914

Sealing Plug, Size 2,5mm

A114017

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD14B

Locking Clip with Lanyard

NEW! See Page 16

108039114

STEP 1 Choose Receptacle Style	STEP 2 Choose Plug Style	STEP 2 Choose Backshell Style

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Jam Nut Receptacles


RT07164PNH


RT07164SNH


RT07164PNHEC


RT07164SNHEC

OR

Square Flange Receptacles


RT00164PNH


RT00164SNH


RT00164PNHEC


RT00164SNHEC

Plug


RT06164PNH


RT06164SNH


RT06164PNHEC


RT06164SNHEC

Backshell


RT0S-16CG-S1


RT0S-16CG-S2


RT0L-16CG-S1


RT0L-16CG-S2


RT0B-16CG-S1


RT0B-16CG-S2

CONTACTS SOLD SEPARATELY SEE PAGE 68

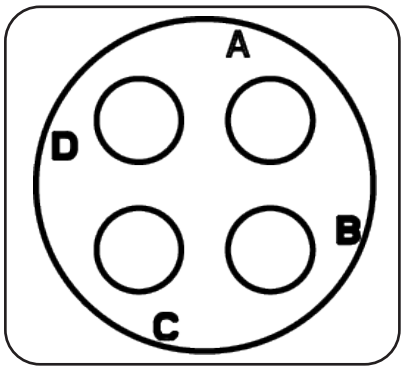
Shell Size: 16 **Number of Contacts: 4** **Contact Size: 3.6mm**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm
Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT07164PNH	RT07164SNH	Jam Nut Receptacle	1,5	2,5
RT07164PNHEC	RT07164SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT06164PNH	RT06164SNH	Plug	6	7
RT06164PNHEC	RT06164SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT00164PNH	RT00164SNH	Square Flange Receptacle	10,14	11,14
RT00164PNHEC	RT00164SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14

Contacts supplied separately see page 68
**See page 65 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-16CG-S1	Short Cord Grip (straight)	9.0-14.5	15	✓
RT0S-16CG-S2	Short Cord Grip (straight)	13.5-17	15	✓
RT0L-16CG-S1	Long Cord Grip (straight)	9.0-14.5	16	✓
RT0L-16CG-S2	Long Cord Grip (straight)	13.5-17	16	✓
RT0B-16CG-S1	Cord Grip (90°)	9.5-14.5	17	✓
RT0B-16CG-S2	Cord Grip (90°)	13.5-17.0	17	✓

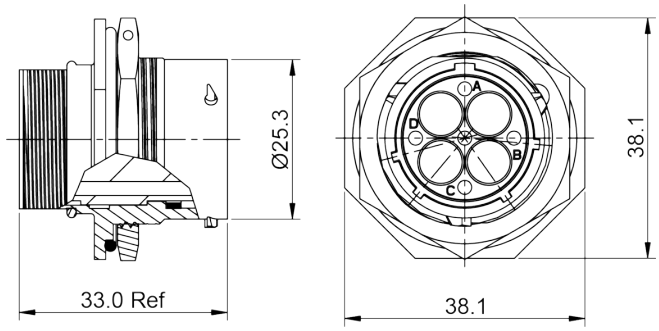
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 16 **Number of Contacts: 4** **Contact Size: 3.6mm**

Sealing: IP67 Salt Spray: 48h

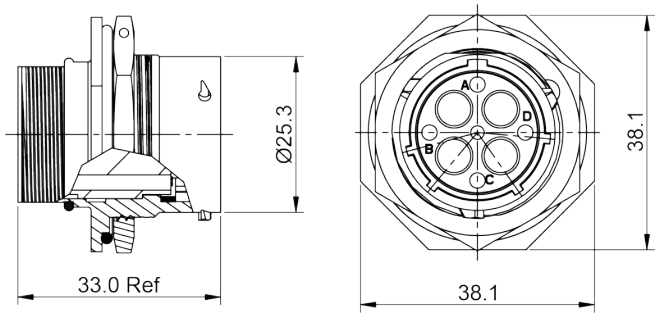
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



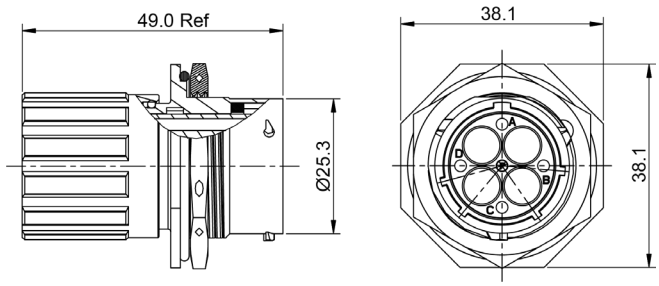
Male Figure 1 RT07164PNH

Jam Nut Receptacle



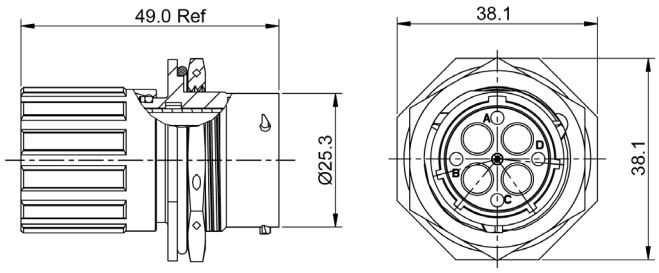
Female Figure 2 RT07164SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT07164PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT07164SNHEC

Jam Nut Receptacle Panel Cutout

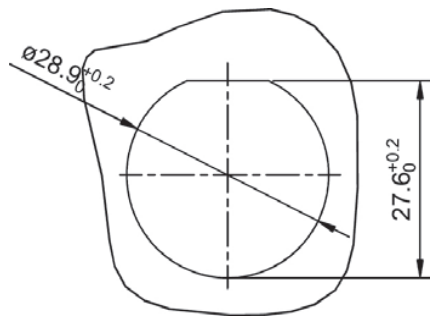


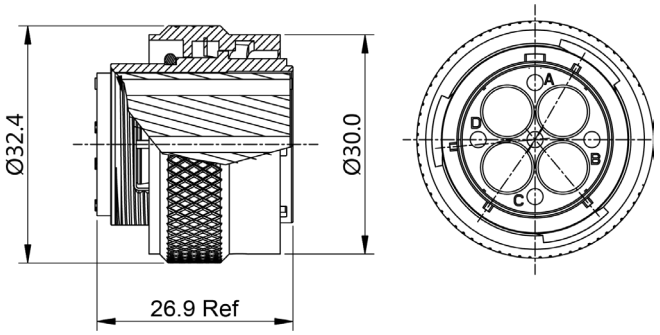
Figure 5

Shell Size: 16 **Number of Contacts: 4** **Contact Size: 3.6mm**

Sealing: IP67 Salt Spray: 48h

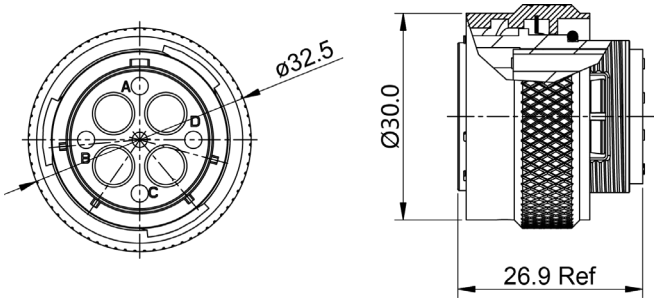
Dimensions Plug

Plug



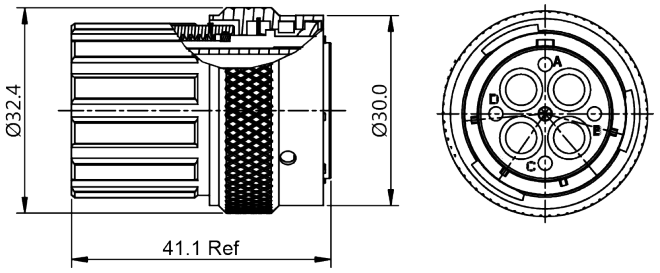
Male Figure 6 RT06164PNH

Plug



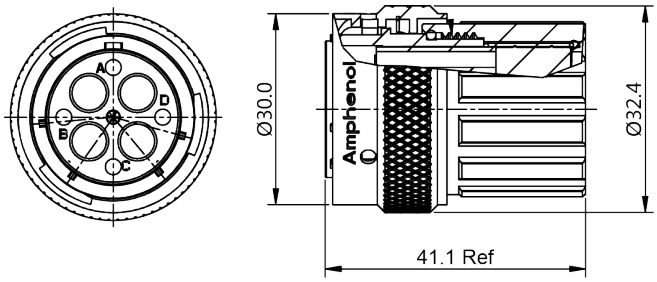
Female Figure 7 RT06164SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT06164PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT06164SNHEC

Individual Sealing Wire Range

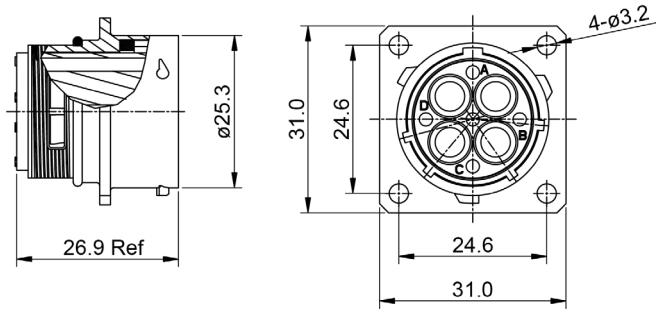
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
3.6mm	Ø2.8mm - Ø5.8mm	12 - 10 AWG

Shell Size: 16 **Number of Contacts: 4** **Contact Size: 3.6mm**

Sealing: IP67 Salt Spray: 48h

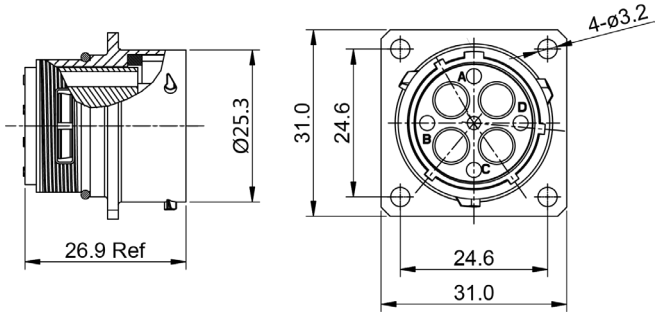
Dimensions Square Flange Receptacle

Square Flange Receptacle



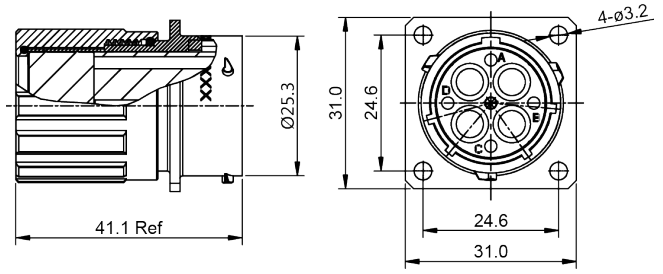
Male Figure 10 RT00164PNH

Square Flange Receptacle



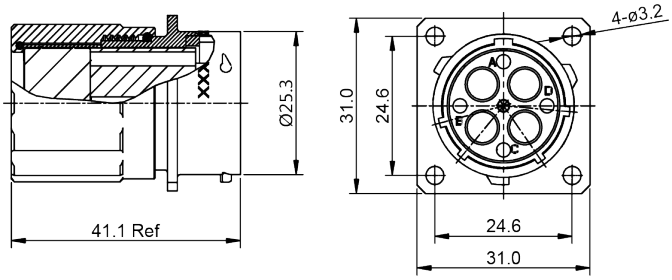
Female Figure 11 RT00164SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT00164PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT00164SNHEC

Square Flange Receptacle Panel Cutout

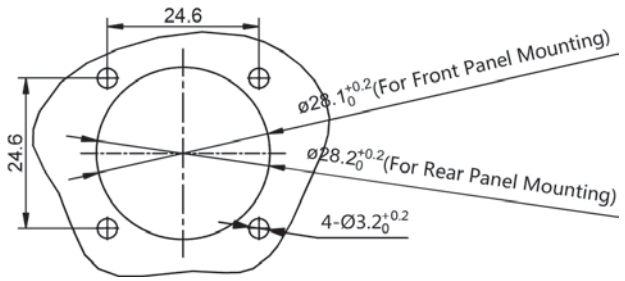


Figure 14

Shell Size: 16 **Number of Contacts: 4** **Contact Size: 3.6mm**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

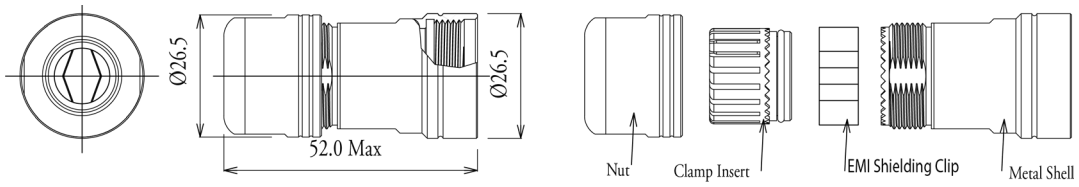


Figure 15

Long Cord Grip (straight)

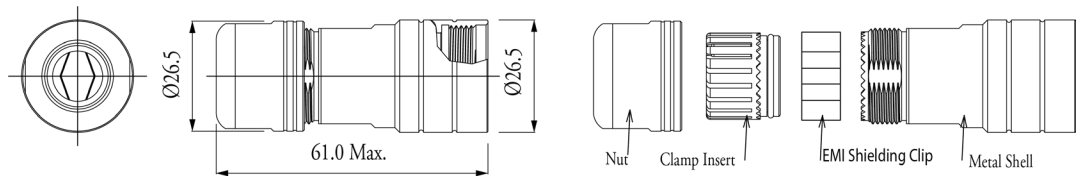


Figure 16

Cord Grip (90°)

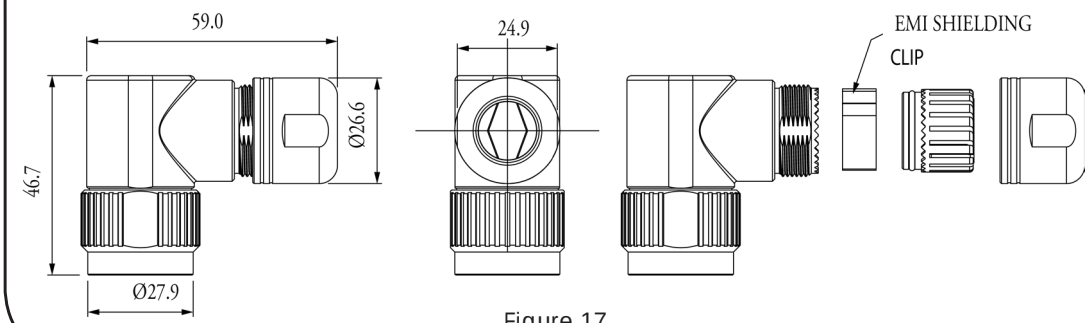
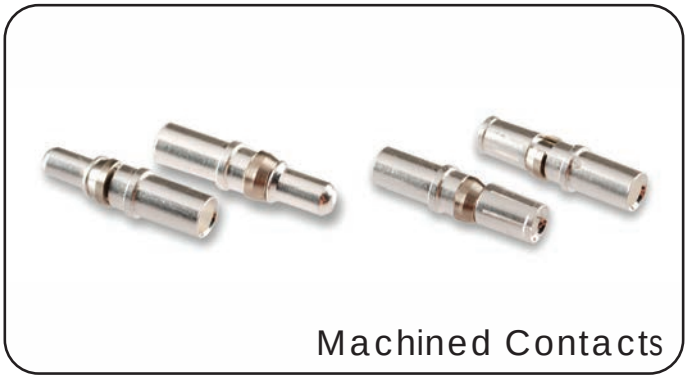


Figure 17

Shell Size: 16 **Number of Contacts: 4** **Contact Size: 3.6mm**
Sealing: IP67 Salt Spray: 48h

Contacts



Machined Contacts

Crimp Contacts, Machined

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
MP10A23S	MS10A23S	8	3.0-6.0	Silver Plated

no stamped & formed contacts are available for this groupt

Tools

Extraction Tool 3.6mm Contact

QXRT08

Extraction Tool (for eco | mate® rm with Radsok) 3.6mm Contact

QXRT08R

Crimper

M300BT

Locator

TP968

Shell Size: 16 **Number of Contacts: 4** **Contact Size: 3.6mm**
Sealing: IP67 Salt Spray: 48h

Accessories

Plug Dustcap with Chain

RT616DCG

Plug Dustcap without Chain

RT616DC

Receptacle Dustcap with Chain

RT016DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT016RL

Receptacle Dustcap without Chain

RT016DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011916

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD16B

Locking Clip with Lanyard

NEW! See Page 16

108039116

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

STEP 2
Choose Backshell Style

Jam Nut Receptacles


RT0W7106PNH


RT0W7106SNH


RT0W7106PNHEC


RT0W7106SNHEC

OR

Square Flange Receptacles


RT0W0106PNH


RT0W0106SNH


RT0W0106PNHEC


RT0W0106SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug


RT0W6106PNH


RT0W6106SNH


RT0W6106PNHEC


RT0W6106SNHEC

Backshell


RT0S-10CG-S1


RT0S-10CG-S2


RT0L-10CG-S1


RT0L-10CG-S2

OR

Plug Kit Including Connector, Backshell & Contacts

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 76

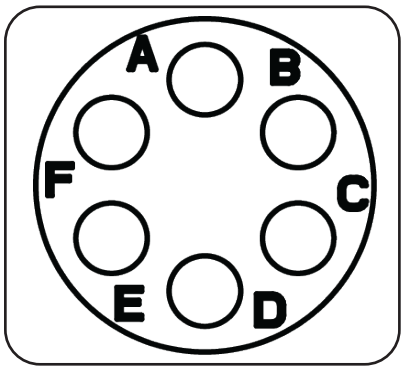
Shell Size: 10 **Number of Contacts: 6** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT0W7106PNH	RT0W7106SNH	Jam Nut Receptacle	1,5	2,5
RT0W7106PNHEC	RT0W7106SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT0W7106PNH-K	RT0W7106SNH-K	Jam Nut Receptacle Kit	1,5	2,5
RT0W6106PNH	RT0W6106SNH	Plug	6	7
RT0W6106PNHEC	RT0W6106SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT0W6106PNH-K	RT0W6106SNH-K	Plug Kit	6	7
RT0W0106PNH	RT0W0106SNH	Square Flange Receptacle	10,14	11,14
RT0W0106PNHEC	RT0W0106SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT0W0106PNH-K	RT0W0106SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 76
**See page 73 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-10CG-S1	Short Cord Grip (straight)	3-6.5	15	✓
RT0S-10CG-S2	Short Cord Grip (straight)	5-8.5	15	✓
RT0L-10CG-S1	Long Cord Grip (straight)	3-6.5	16	✓
RT0L-10CG-S2	Long Cord Grip (straight)	5-8.5	16	✓

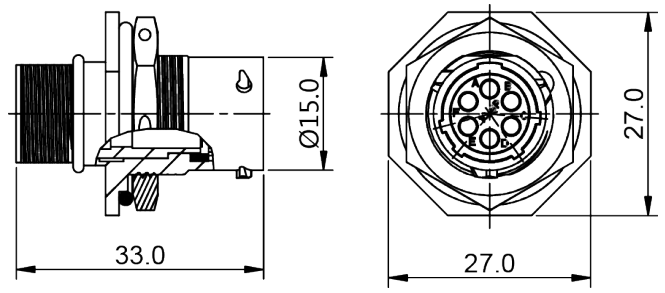
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 10 **Number of Contacts: 6** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

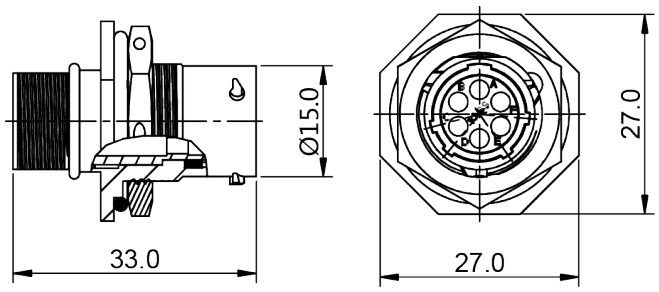
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



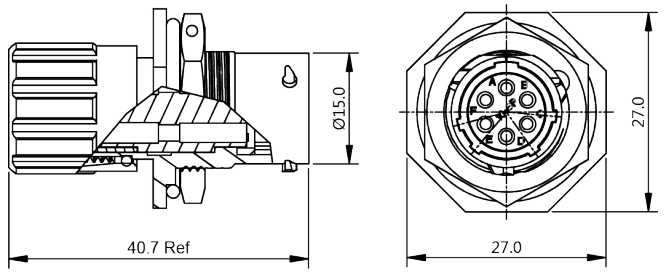
Male Figure 1 RT0W7106PNH

Jam Nut Receptacle



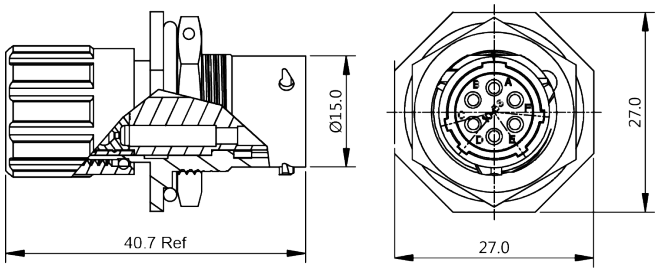
Female Figure 2 RT0W7106SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT0W7106PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT0W7106SNHEC

Jam Nut Receptacle Panel Cutout

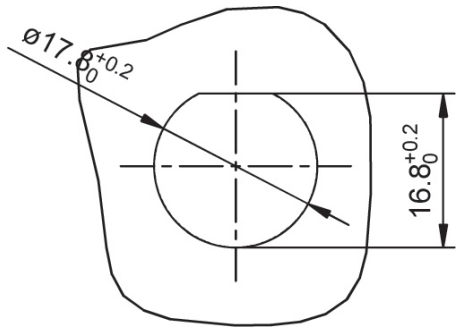


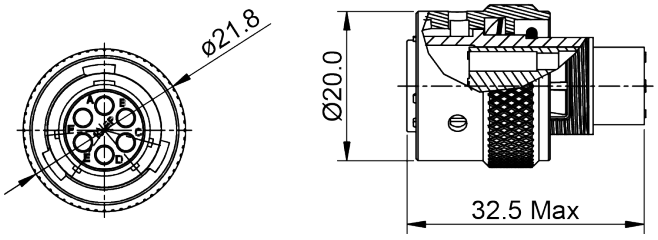
Figure 5

Shell Size: 10 **Number of Contacts: 6** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

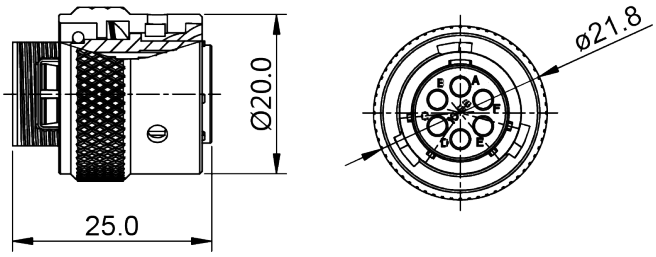
Dimensions Plug

Plug



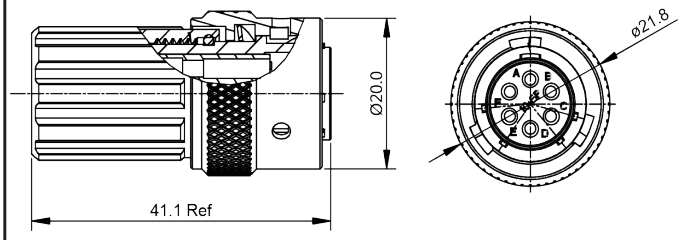
Male Figure 6 RT0W6106PNH

Plug



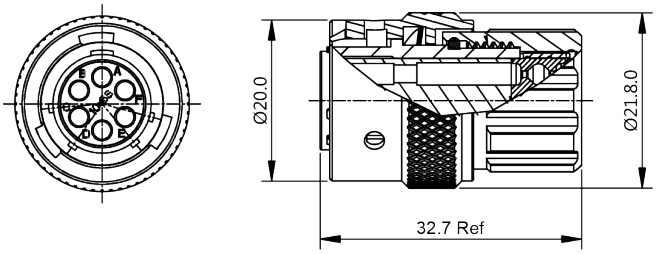
Female Figure 7 RT0W6106SNH

Plug with O-ring Seal and End Cap
with Individual Rear Wire Seal



Male Figure 8 RT0W6106PNHEC

Plug with O-ring Seal and End Cap
with Individual Rear Wire Seal



Female Figure 9 RT0W6106SNHEC

Individual Sealing Wire Range

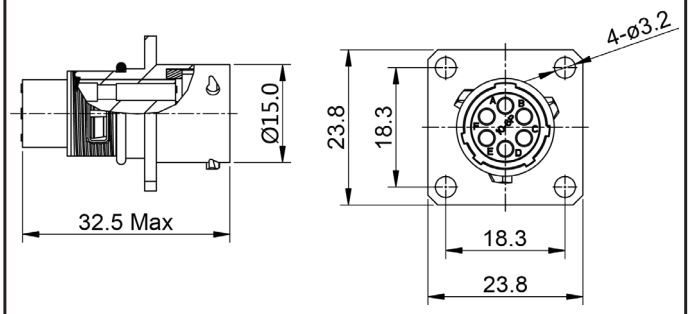
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
20	Ø1.6mm - Ø2.6mm	20 - 30 AWG

Shell Size: 10 **Number of Contacts: 6** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

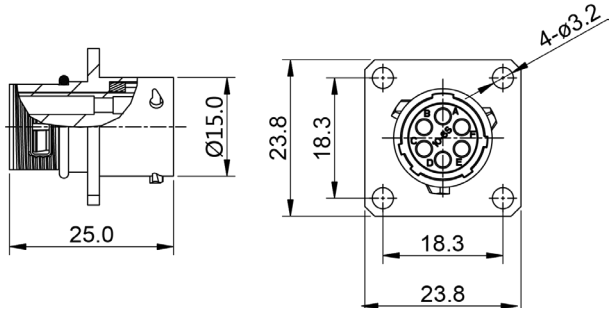
Dimensions Square Flange Receptacle

Square Flange Receptacle



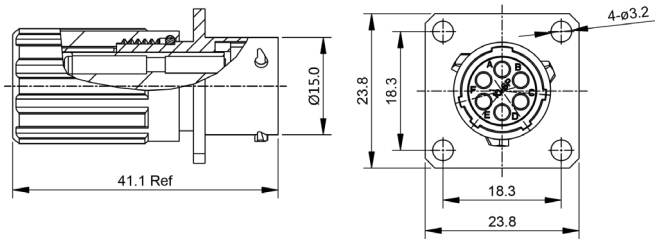
Female Figure 10 RT0W0106PNH

Square Flange Receptacle



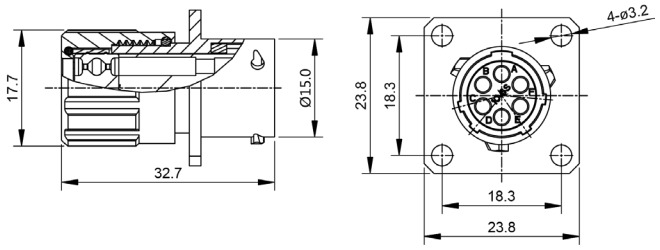
Female Figure 11 RT0W0106SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT0W0106PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT0W0106SNHEC

Square Flange Receptacle Panel Cutout

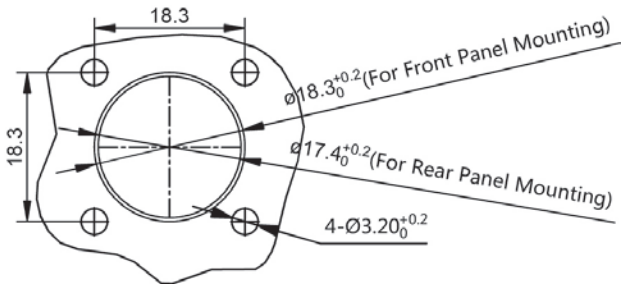


Figure 14

Shell Size: 10 **Number of Contacts: 6** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

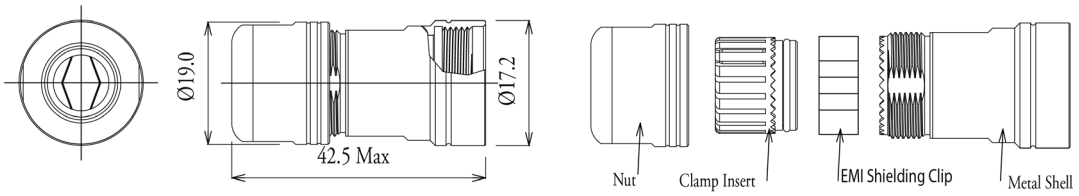


Figure 15

Long Cord Grip (straight)

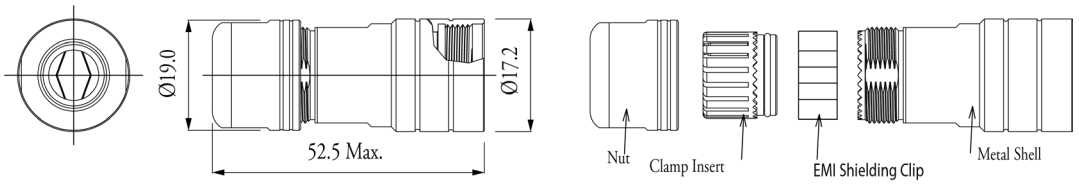


Figure 16

Accessories

Locking Clip with Lanyard

NEW! See Page 16

108039110

Plug Dustcap with Chain

RT610DCG

Plug Dustcap without Chain

RT610DC

Receptacle Dustcap with Chain

RT010DCG

Receptacle Dustcap without Chain

RT010DC

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT010RL

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011910

Sealing Plug, Size 20

AT13-204-2005

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD10B

Shell Size: 10 **Number of Contacts: 6** **Contact Size: 20**
Sealing: IP67 Salt Spray: 48h

Contacts

Machined Contacts

Crimp Contacts, Machined (7.5A)

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
MP20W23F	MS20W23F	22-20	.34-.50	Gold Flash
MP20W23G5	MS20W23G5	22-20	.34-.50	Gold 5µ"
MP20W23G10	MS20W23G10	22-20	.34-.50	Gold 10µ"
MP20W23G15	MS20W23G15	22-20	.34-.50	Gold 15µ"
MP20W23G30	MS20W23G30	22-20	.34-.50	Gold 30µ"
MP24W23F	MS24W23F	26-24	.13-.25	Gold Flash
MP24W23G5	MS24W23G5	26-24	.13-.25	Gold 5µ"
MP24W23G10	MS24W23G10	26-24	.13-.25	Gold 10µ"
MP24W23G15	MS24W23G15	26-24	.13-.25	Gold 15µ"
MP24W23G30	MS24W23G30	26-24	.13-.25	Gold 30µ"
MP28W23F	MS28W23F	30-28	.05-.08	Gold Flash
MP28W23G5	MS28W23G5	30-28	.05-.08	Gold 5µ"
MP28W23G10	MS28W23G10	30-28	.05-.08	Gold 10µ"
MP28W23G15	MS28W23G15	30-28	.05-.08	Gold 15µ"
MP28W23G30	MS28W23G30	30-28	.05-.08	Gold 30µ"

Tools

Contact Extraction Tool, #20 (Ø 1.0) Contact

QXRT20

Hand Crimp Tool for Machined Contacts

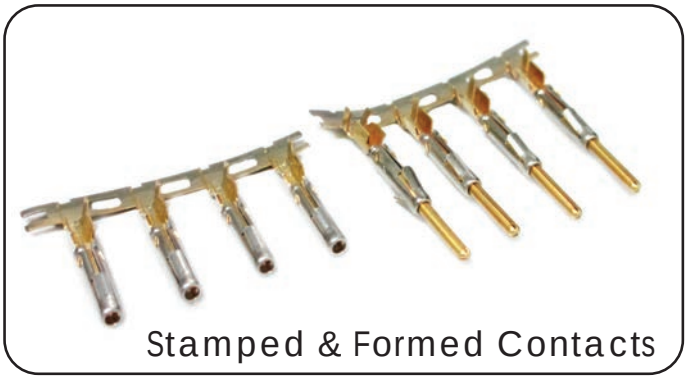
MFX-3959

Pneumatic Crimp Tool for Machined Contact

MFX-3960

Shell Size: 10 **Number of Contacts: 6** **Contact Size: 20**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed (5A)

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP20W2F	SS20W2F	22-20	.34-.50	Gold Flash
SP20W2G5	SS20W2G5	22-20	.34-.50	Gold 5µ"
SP20W2G10	SS20W2G10	22-20	.34-.50	Gold 10µ"
SP20W2G15	SS20W2G15	22-20	.34-.50	Gold 15µ"
SP20W2G30	SS20W2G30	22-20	.34-.50	Gold 30µ"
SP24W2F	SS24W2F	26-24	.14-.25	Gold Flash
SP24W2G5	SS24W2G5	26-24	.14-.25	Gold 5µ"
SP24W2G10	SS24W2G10	26-24	.14-.25	Gold 10µ"
SP24W2G15	SS24W2G15	26-24	.14-.25	Gold 15µ"
SP24W2G30	SS24W2G30	26-24	.14-.25	Gold 30µ"
SP28W2F	SS28W2F	30-28	.05-.08	Gold Flash
SP28W2G5	SS28W2G5	30-28	.05-.08	Gold 5µ"
SP28W2G10	SS28W2G10	30-28	.05-.08	Gold 10µ"
SP28W2G15	SS28W2G15	30-28	.05-.08	Gold 15µ"
SP28W2G30	SS28W2G30	30-28	.05-.08	Gold 30µ"

Tools

Contact Extraction Tool, #20 (Ø 1.0) Contact


QXRT20

Hand Tool for Stamped & Formed Contact, Size 20, 20-28AWG


MFX-3958

Crimp Die for Stamped & Formed Contact


MFX-3957

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

STEP 2
Choose Backshell Style

Jam Nut Receptacles


RT07128PNH


RT07128SNH


RT07128PNHEC


RT07128SNHEC

OR

Square Flange Receptacles


RT00128PNH


RT00128SNH


RT00128PNHEC


RT00128SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug


RT06128PNH


RT06128SNH


RT06128SNHEC


RT06128PNHEC

Backshell


RT0S-12CG-S1


RT0S-12CG-S2


RT0L-12CG-S1


RT0L-12CG-S2


RT0B-12CG-S1


RT0B-12CG-S2

OR

Plug Kit Including Connector, Backshell & Contacts

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 84

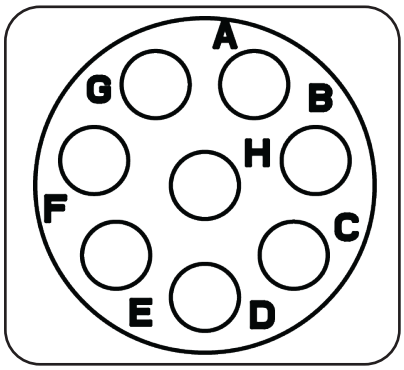
Shell Size: 12 **Number of Contacts: 8** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT07128PNH	RT07128SNH	Jam Nut Receptacle	1,5	2,5
RT07128PNHEC	RT07128SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT07128PNH-K	RT07128SNH-K	Jam Nut Receptacle Kit	1,5	2,5
RT06128PNH	RT06128SNH	Plug	6	7
RT06128PNHEC	RT06128SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT06128PNH-K	RT06128SNH-K	Plug Kit	6	7
RT00128PNH	RT00128SNH	Square Flange Receptacle	10	11,14
RT00128PNHEC	RT00128SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT00128PNH-K	RT00128SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 84
**See page 81 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-12CG-S1	Short Cord Grip (straight)	6-10.5	15	✓
RT0S-12CG-S2	Short Cord Grip (straight)	8.5-12.5	15	✓
RT0L-12CG-S1	Long Cord Grip (straight)	6-10.5	16	✓
RT0L-12CG-S2	Long Cord Grip (straight)	8.5-12.5	16	✓
RT0B-12CG-S1	Cord Grip (90°)	6-10.5	17	✓
RT0B-12CG-S2	Cord Grip (90°)	8.0-12.5	17	✓

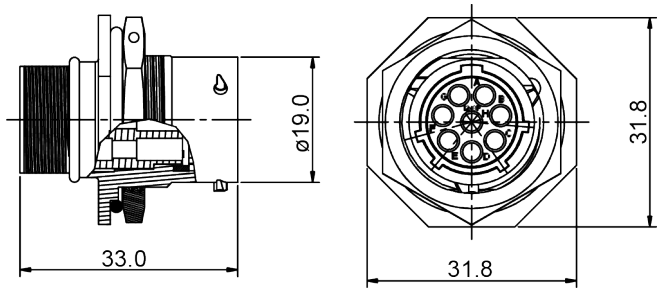
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 12 **Number of Contacts: 8** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

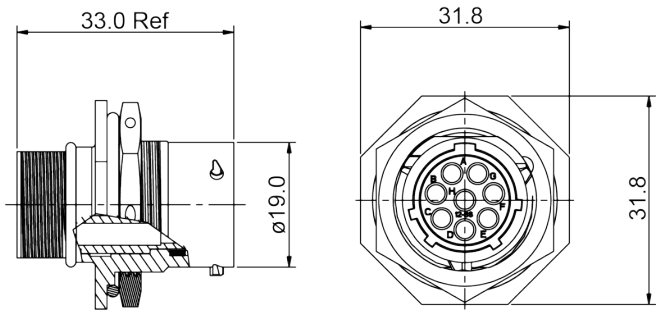
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



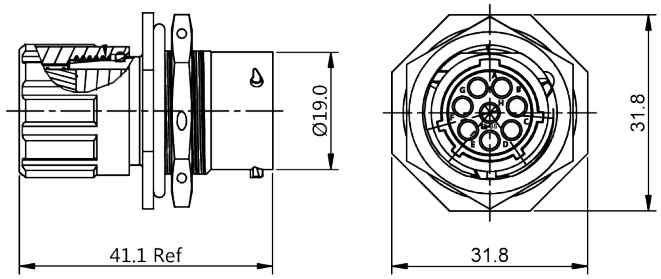
Male Figure 1 RT07128PNH

Jam Nut Receptacle



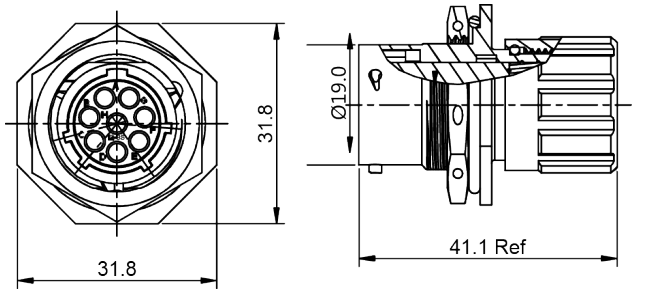
Female Figure 2 RT07128SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT07128PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT07128SNHEC

Jam Nut Receptacle Panel Cutout

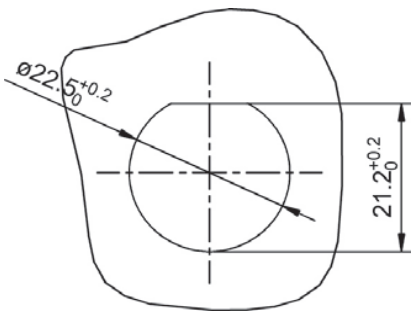


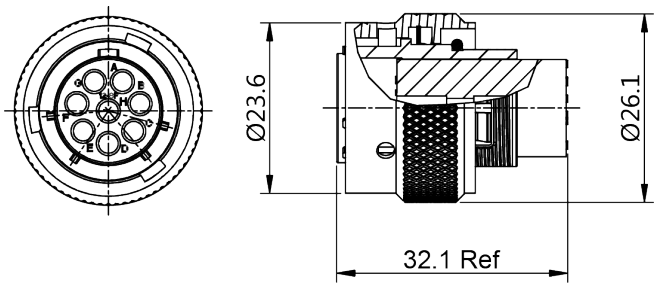
Figure 5

Shell Size: 12 **Number of Contacts: 8** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

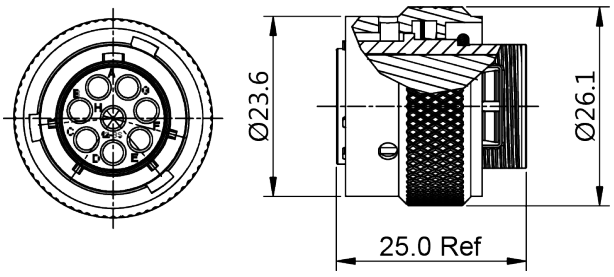
Dimensions Plug

Plug



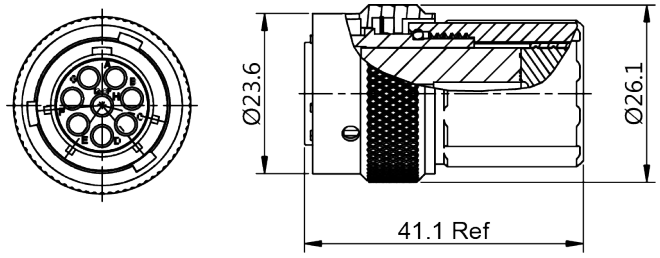
Male Figure 6 RT06128PNH

Plug



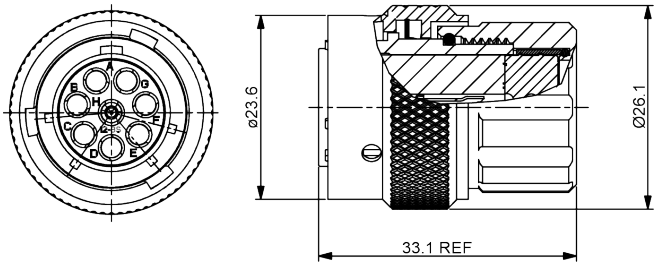
Female Figure 7 RT06128SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT06128PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT06128SNHEC

Individual Sealing Wire Range

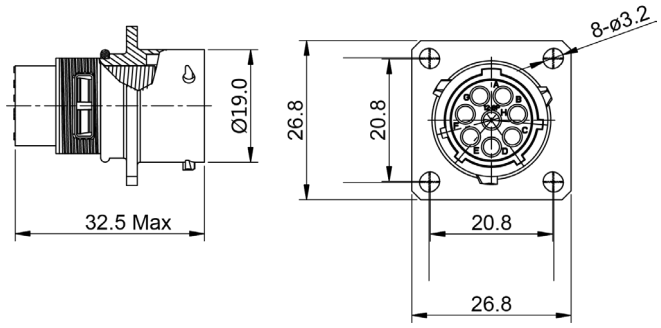
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
16	Ø2.0mm - Ø3.2mm	14 - 24 AWG

Shell Size: 12 **Number of Contacts: 8** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

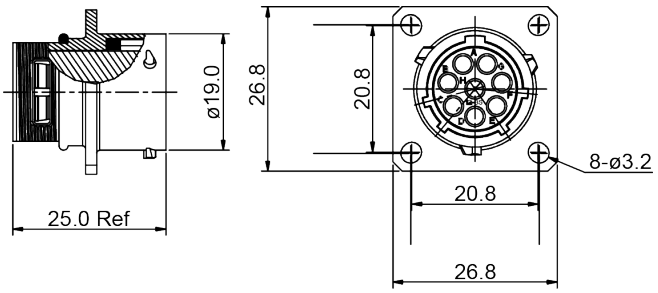
Dimensions Square Flange Receptacle

Square Flange Receptacle



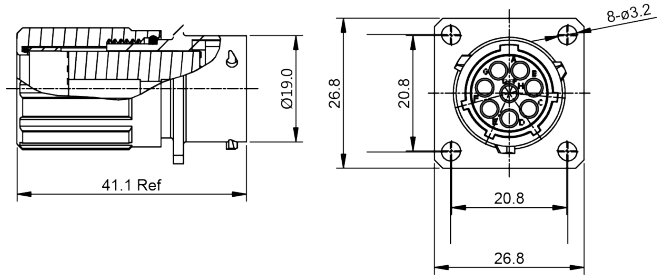
Male Figure 10 RT00128PNH

Square Flange Receptacle



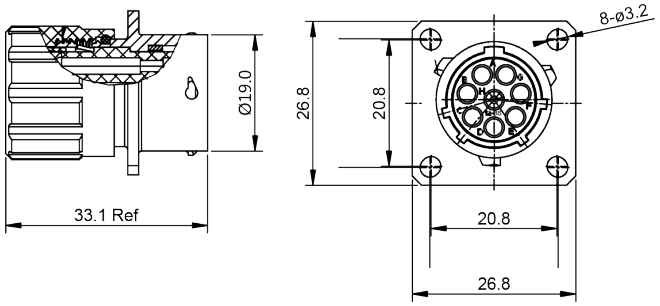
Female Figure 11 RT00128SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT00128PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT00128SNHEC

Square Flange Receptacle Panel Cutout

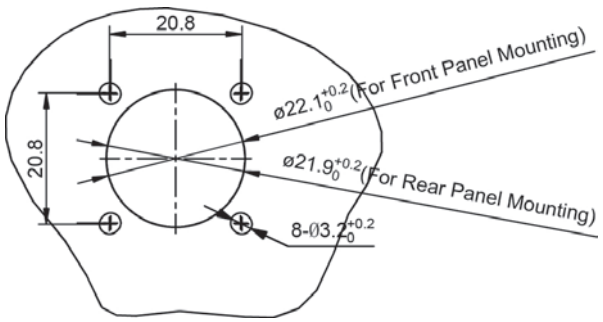


Figure 14

Shell Size: 12 **Number of Contacts: 8** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

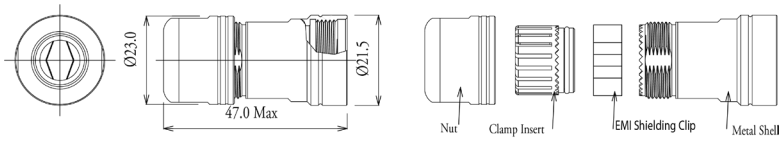


Figure 15

Long Cord Grip (straight)

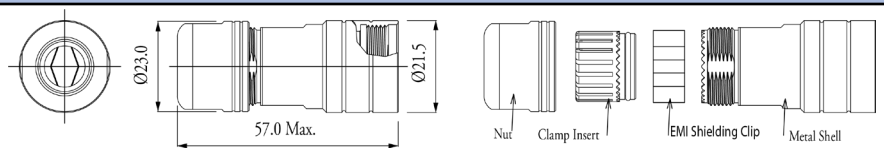


Figure 16

Cord Grip (90°)

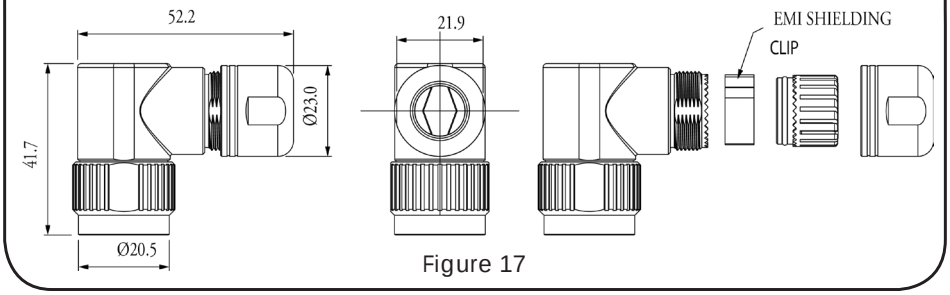


Figure 17

Accessories

Locking Clip with Lanyard

NEW! see Page 16

108039112

Plug Dustcap with Chain

RT612DCG

Plug Dustcap without Chain

RT612DC

Receptacle Dustcap with Chain

RT012DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT012RL

Receptacle Dustcap without Chain

RT012DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011912

Sealing Plug, Size 16

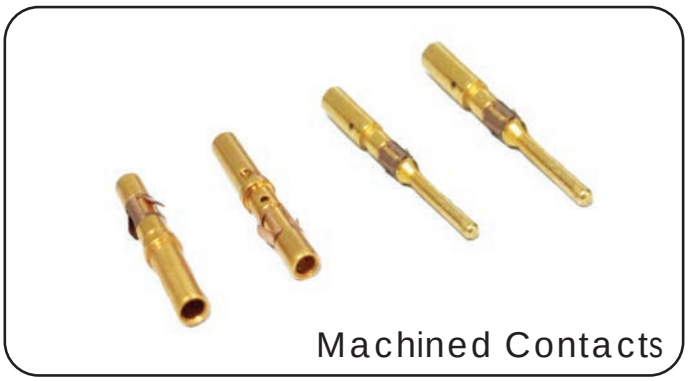
CA-4016-59

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD12B

Shell Size: 12 **Number of Contacts: 8** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts


Machined Contacts

Crimp Contacts, Machined

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
MP14M23F	MS14M23F	14	2.0-2.5	Gold Flash
MP14M23G5	MS14M23G5	14	2.0-2.5	Gold 5µ"
MP14M23G10	MS14M23G10	14	2.0-2.5	Gold 10µ"
MP14M23G15	MS14M23G15	14	2.0-2.5	Gold 15µ"
MP14M23G30	MS14M23G30	14	2.0-2.5	Gold 30µ"
MP16M23F	MS16M23F	18-16	.75-1.5	Gold Flash
MP16M23G5	MS16M23G5	18-16	.75-1.5	Gold 5µ"
MP16M23G10	MS16M23G10	18-16	.75-1.5	Gold 10µ"
MP16M23G15	MS16M23G15	18-16	.75-1.5	Gold 15µ"
MP16M23G30	MS16M23G30	18-16	.75-1.5	Gold 30µ"
MP20M23F	MS20M23F	22-20	.34-.50	Gold Flash
MP20M23G5	MS20M23G5	22-20	.34-.50	Gold 5µ"
MP20M23G10	MS20M23G10	22-20	.34-.50	Gold 10µ"
MP20M23G15	MS20M23G15	22-20	.34-.50	Gold 15µ"
MP20M23G30	MS20M23G30	22-20	.34-.50	Gold 30µ"
MP24M23F	MS24M23F	26-24	.14-.25	Gold Flash
MP24M23G5	MS24M23G5	26-24	.14-.25	Gold 5µ"
MP24M23G10	MS24M23G10	26-24	.14-.25	Gold 10µ"
MP24M23G15	MS24M23G15	26-24	.14-.25	Gold 15µ"
MP24M23G30	MS24M23G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Crimp Tool for Machined Contacts

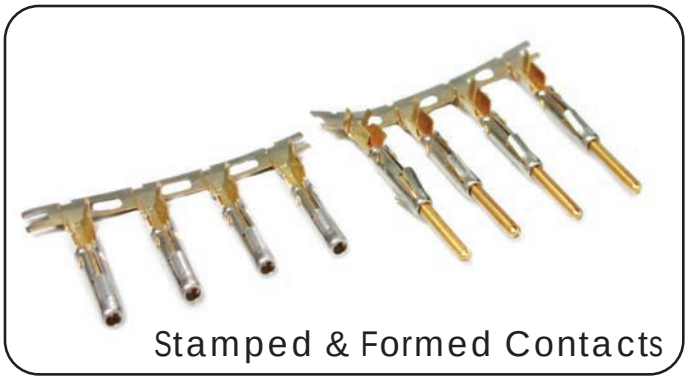

MFX-3959

Pneumatic Crimp Tool for Machined Contacts


MFX-3960

Shell Size: 12 **Number of Contacts: 8** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP14M2F	SS14M2F	14	2.0-2.5	Gold Flash
SP14M2G5	SS14M2G5	14	2.0-2.5	Gold 5µ"
SP14M2G10	SS14M2G10	14	2.0-2.5	Gold 10µ"
SP14M2G15	SS14M2G15	14	2.0-2.5	Gold 15µ"
SP14M2G30	SS14M2G30	14	2.0-2.5	Gold 30µ"
SP16M2F	SS16M2F	18-16	.75-1.5	Gold Flash
SP16M2G5	SS16M2G5	18-16	.75-1.5	Gold 5µ"
SP16M2G10	SS16M2G10	18-16	.75-1.5	Gold 10µ"
SP16M2G10	SS16M2G15	18-16	.75-1.5	Gold 15µ"
SP16M2G30	SS16M2G30	18-16	.75-1.5	Gold 30µ"
SP20M2F	SS20M2F	22-20	.34-.50	Gold Flash
SP20M2G5	SS20M2G5	22-20	.34-.50	Gold 5µ"
SP20M2G10	SS20M2G10	22-20	.34-.50	Gold 10µ"
SP20M2G15	SS20M2G15	22-20	.34-.50	Gold 15µ"
SP20M2G30	SS20M2G30	22-20	.34-.50	Gold 30µ"
SP24M2F	SS24M2F	22-20	.14-.25	Gold Flash
SP24M2G5	SS24M2G5	26-24	.14-.25	Gold 5µ"
SP24M2G10	SS24M2G10	26-24	.14-.25	Gold 10µ"
SP24M2G15	SS24M2G15	26-24	.14-.25	Gold 15µ"
SP24M2G30	SS24M2G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Tool, Stamped & Formed Contact, Size 16, 20-14AWG


MFX-3954

Crimp Die for Stamped & Formed Contact


MFX-3957

STEP 1 Choose Receptacle Style	STEP 2 Choose Plug Style	STEP 2 Choose Backshell Style

Jam Nut Receptacles


RT07148PNH


RT07148SNH


RT07148PNHEC


RT07148SNHEC

OR

Square Flange Receptacles


RT00148PNH


RT00148SNH


RT00148PNHEC


RT00148SNHEC

Plug


RT06148SNH


RT06148PNH


RT06148PNHEC


RT06148SNHEC

Backshell


RT0S-14CG-S1


RT0S-14CG-S2


RT0L-14CG-S1


RT0L-14CG-S2


RT0B-14CG-S1


RT0B-14CG-S2

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 92

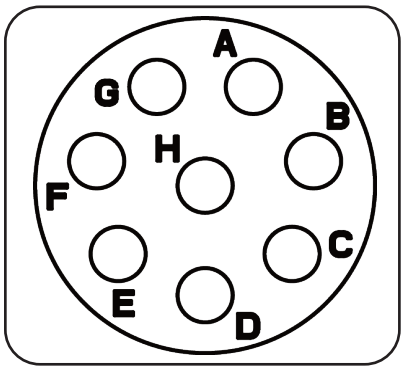
Shell Size: 14 **Number of Contacts: 8** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT07148PNH	RT07148SNH	Jam Nut Receptacle with O-ring Seal	1,5	2,5
RT07148PNHEC	RT07148SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT06148PNH	RT06148SNH	Plug with O-ring Seal	6	7
RT06148PNHEC	RT06148SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT00148PNH	RT00148SNH	Square Flange Receptacle with O-ring Seal**	10,14	11,14
RT00148PNHEC	RT00148SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14

Contacts supplied separately see page 92
**See page 89 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-14CG-S1	Short Cord Grip (straight)	6-10.5	15	✓
RT0S-14CG-S2	Short Cord Grip (straight)	8.5-12.5	15	✓
RT0L-14CG-S1	Long Cord Grip (straight)	6-10.5	16	✓
RT0L-14CG-S2	Long Cord Grip (straight)	8.5-12.5	16	✓
RT0B-14CG-S1	Cord Grip (90°)	6-10.5	17	✓
RT0B-14CG-S2	Cord Grip (90°)	8.0-12.5	17	✓

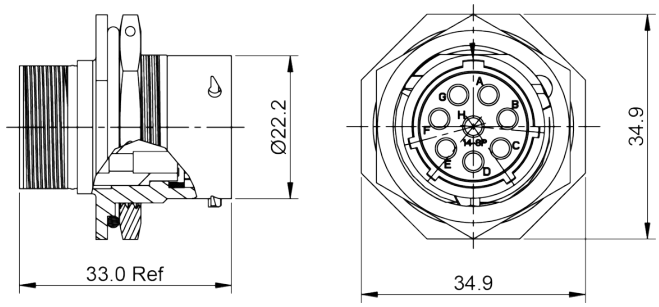
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 14 **Number of Contacts: 8** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

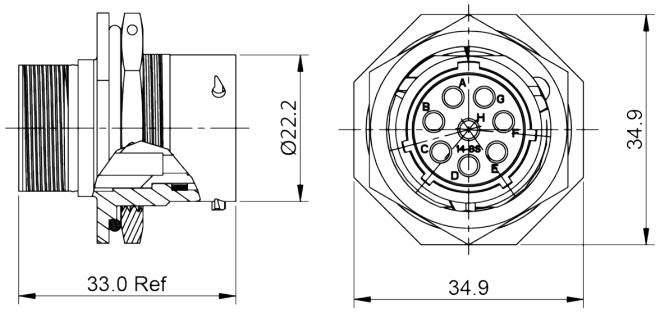
Dimensions Jam Nut Receptacle

Jam Nut Receptacle with O-ring Seal



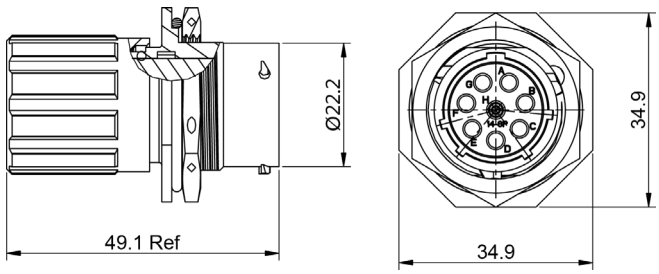
Male Figure 1 RT07148PNH

Jam Nut Receptacle with O-ring Seal



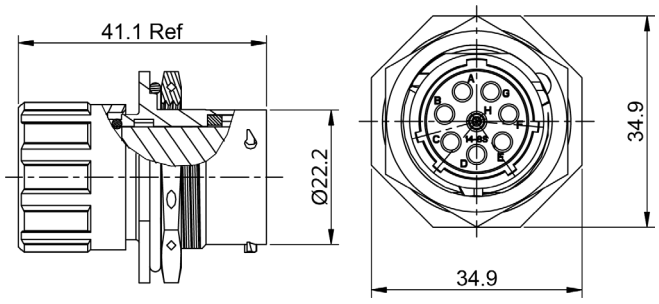
Female Figure 2 RT07148SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT07148PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT07148SNHEC

Jam Nut Receptacle Panel Cutout

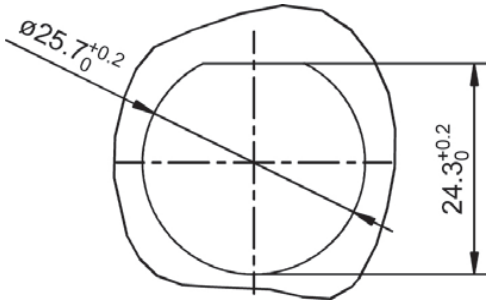


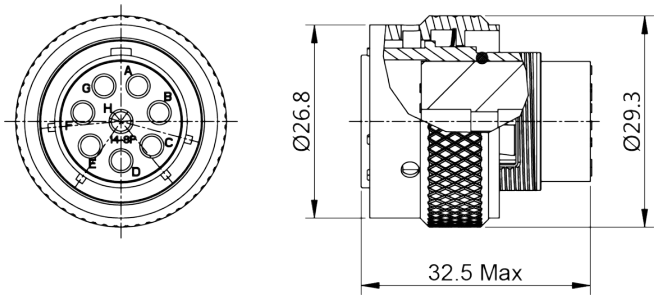
Figure 5

Shell Size: 14 **Number of Contacts: 8** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

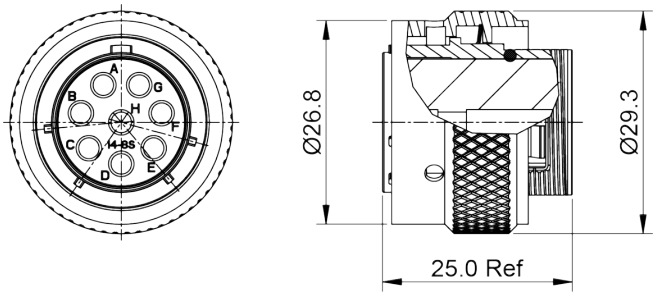
Dimensions Plug

Plug with O-ring Seal



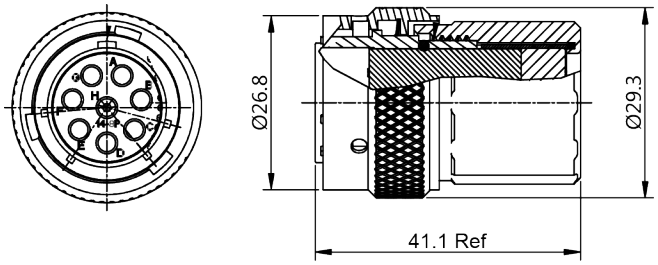
Male Figure 6 RT06148PNH

Plug with O-ring Seal



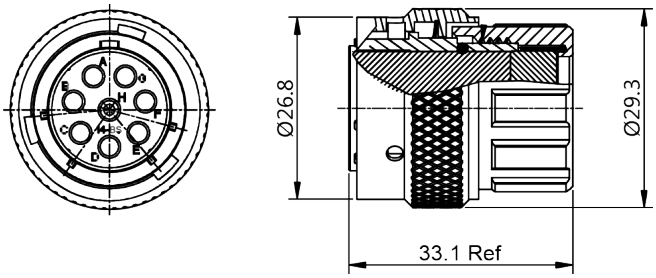
Female Figure 7 RT06148SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT06148PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT06148SNHEC

Individual Sealing Wire Range

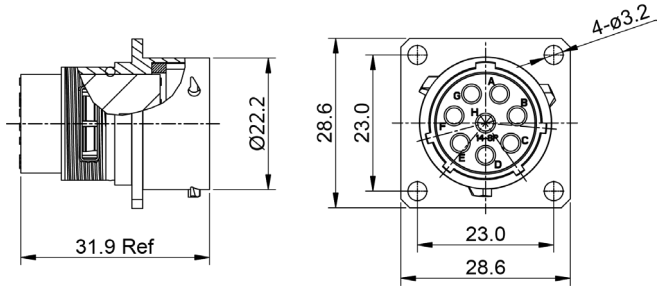
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
16	Ø2.0mm - Ø3.2mm	14 - 24 AWG

Shell Size: 14 **Number of Contacts: 8** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

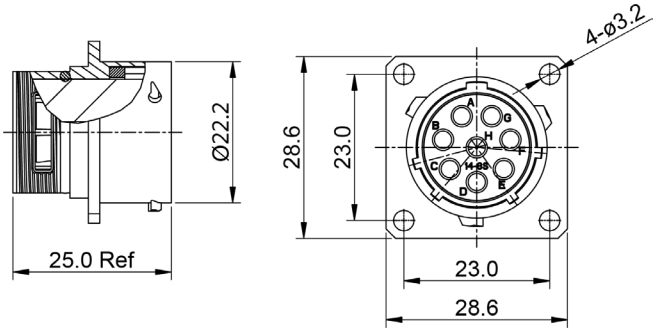
Dimensions Square Flange Receptacle

Square Flange Receptacle with O-ring Seal



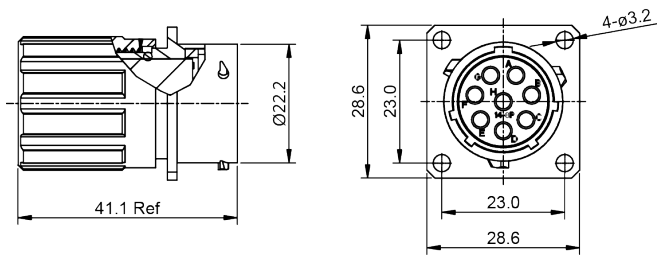
Male Figure 10 RT00148PNH

Square Flange Receptacle with O-ring Seal



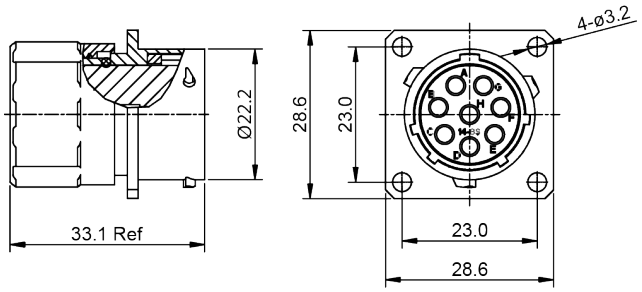
Female Figure 11 RT00148SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT00148PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT00148SNHEC

Square Flange Receptacle Panel Cutout

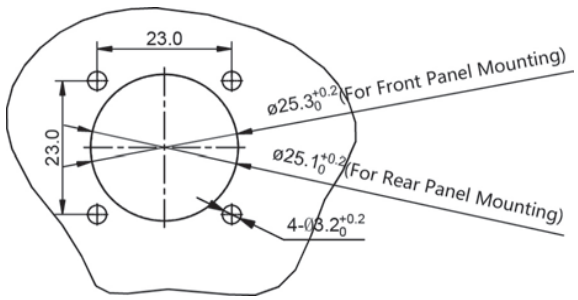


Figure 14

Shell Size: 14 **Number of Contacts: 8** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

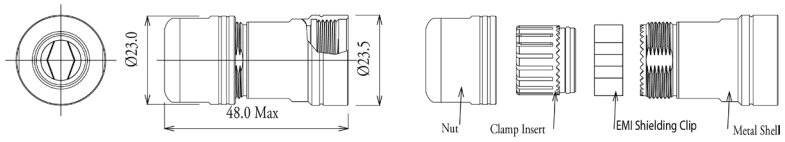


Figure 15

Long Cord Grip (straight)

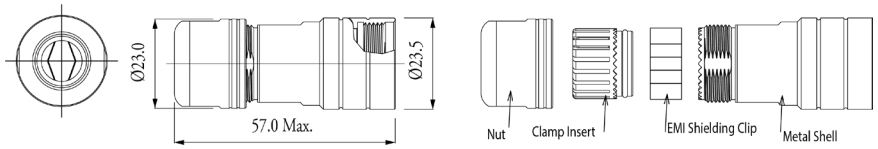


Figure 16

Cord Grip (90°)

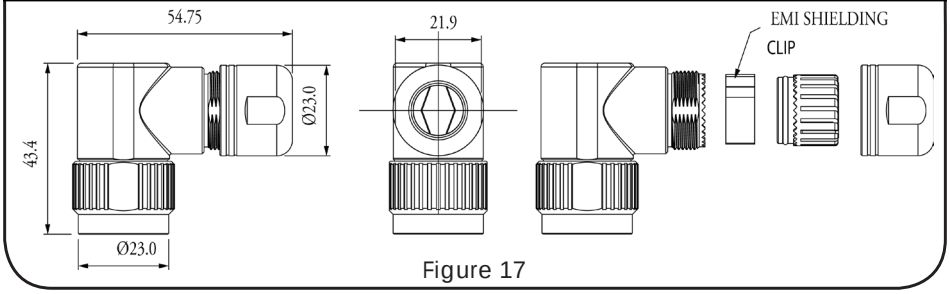


Figure 17

Accessories

Locking Clip with Lanyard

NEW! See Page 16

108039114

Plug Dustcap with Chain

RT614DCG

Plug Dustcap without Chain

RT614DC

Receptacle Dustcap with Chain

RT014DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT014RL

Receptacle Dustcap without Chain

RT014DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011914

Sealing Plug, Size 16

CA-4016-59

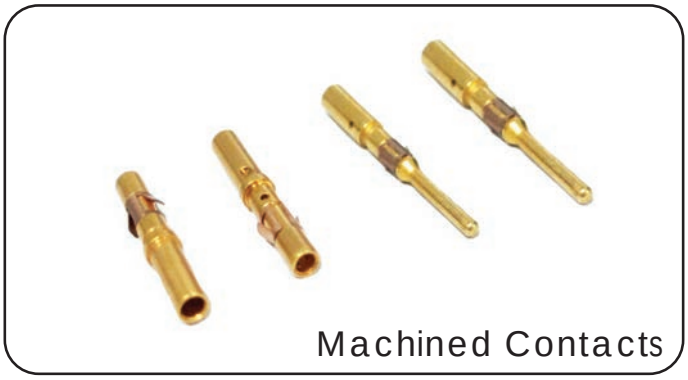
Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD12B

Shell Size: 14 **Number of Contacts: 8** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

Contacts



Machined Contacts

Crimp Contacts, Machined

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
MP14M23F	MS14M23F	14	2.0-2.5	Gold Flash
MP14M23G5	MS14M23G5	14	2.0-2.5	Gold 5µ"
MP14M23G10	MS14M23G10	14	2.0-2.5	Gold 10µ"
MP14M23G15	MS14M23G15	14	2.0-2.5	Gold 15µ"
MP14M23G30	MS14M23G30	14	2.0-2.5	Gold 30µ"
MP16M23F	MS16M23F	18-16	.75-1.5	Gold Flash
MP16M23G5	MS16M23G5	18-16	.75-1.5	Gold 5µ"
MP16M23G10	MS16M23G10	18-16	.75-1.5	Gold 10µ"
MP16M23G15	MS16M23G15	18-16	.75-1.5	Gold 15µ"
MP16M23G30	MS16M23G30	18-16	.75-1.5	Gold 30µ"
MP20M23F	MS20M23F	22-20	.34-.50	Gold Flash
MP20M23G5	MS20M23G5	22-20	.34-.50	Gold 5µ"
MP20M23G10	MS20M23G10	22-20	.34-.50	Gold 10µ"
MP20M23G15	MS20M23G15	22-20	.34-.50	Gold 15µ"
MP20M23G30	MS20M23G30	22-20	.34-.50	Gold 30µ"
MP24M23F	MS24M23F	26-24	.14-.25	Gold Flash
MP24M23G5	MS24M23G5	26-24	.14-.25	Gold 5µ"
MP24M23G10	MS24M23G10	26-24	.14-.25	Gold 10µ"
MP24M23G15	MS24M23G15	26-24	.14-.25	Gold 15µ"
MP24M23G30	MS24M23G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact

QXRT16

Hand Crimp Tool for Machined Contacts

MFX-3959

Pneumatic Crimp Tool for Machined Contacts

MFX-3960

Shell Size: 14 **Number of Contacts: 8** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP14M2F	SS14M2F	14	2.0-2.5	Gold Flash
SP14M2G5	SS14M2G5	14	2.0-2.5	Gold 5µ"
SP14M2G10	SS14M2G10	14	2.0-2.5	Gold 10µ"
SP14M2G15	SS14M2G15	14	2.0-2.5	Gold 15µ"
SP14M2G30	SS14M2G30	14	2.0-2.5	Gold 30µ"
SP16M2F	SS16M2F	18-16	.75-1.5	Gold Flash
SP16M2G5	SS16M2G5	18-16	.75-1.5	Gold 5µ"
SP16M2G10	SS16M2G10	18-16	.75-1.5	Gold 10µ"
SP16M2G10	SS16M2G15	18-16	.75-1.5	Gold 15µ"
SP16M2G30	SS16M2G30	18-16	.75-1.5	Gold 30µ"
SP20M2F	SS20M2F	22-20	.34-.50	Gold Flash
SP20M2G5	SS20M2G5	22-20	.34-.50	Gold 5µ"
SP20M2G10	SS20M2G10	22-20	.34-.50	Gold 10µ"
SP20M2G15	SS20M2G15	22-20	.34-.50	Gold 15µ"
SP20M2G30	SS20M2G30	22-20	.34-.50	Gold 30µ"
SP24M2F	SS24M2F	22-20	.14-.25	Gold Flash
SP24M2G5	SS24M2G5	26-24	.14-.25	Gold 5µ"
SP24M2G10	SS24M2G10	26-24	.14-.25	Gold 10µ"
SP24M2G15	SS24M2G15	26-24	.14-.25	Gold 15µ"
SP24M2G30	SS24M2G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Tool, Stamped & Formed Contact, Size16, 20-14AWG


MFX-3954

Crimp Die for Stamped & Formed Contact


MFX-3957

STEP 1 Choose Receptacle Style	STEP 2 Choose Plug Style	STEP 2 Choose Backshell Style

Jam Nut Receptacles


RT07188PNH


RT07188SNH


RT07188PNHEC


RT07188SNHEC

OR

Square Flange Receptacles


RT00188PNH


RT00188SNH


RT00188PNHEC


RT00188SNHEC

Plug


RT06188PNH


RT06188SNH


RT06188PNHEC


RT06188SNHEC

Backshell


RT0S-18CG-S1


RT0S-18CG-S2


RT0L-18CG-S1


RT0L-18CG-S2

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 100

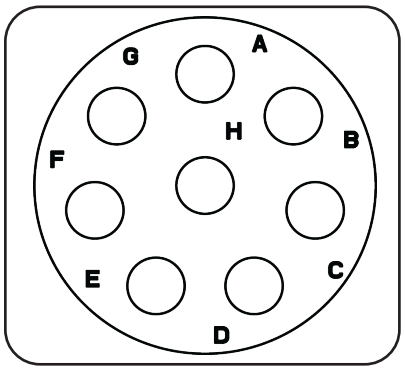
Shell Size: 18 **Number of Contacts: 8** **Contact Size: 2.5mm**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT07188PNH	RT07188SNH	Jam Nut Receptacle	1,5	2,5
RT07188PNHEC	RT07188SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT06188PNH	RT06188SNH	Plug	6	7
RT06188PNHEC	RT06188SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT00188PNH	RT00188SNH	Square Flange Receptacle	10,14	11,14
RT00188PNHEC	RT00188SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14

Contacts supplied separately see page 100
**See page 97 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-18CG-S1	Short Cord Grip (straight)	9.0-14.5	15	✓
RT0S-18CG-S2	Short Cord Grip (straight)	13.5-17	15	✓
RT0L-18CG-S1	Long Cord Grip (straight)	9.0-14.5	16	✓
RT0L-18CG-S2	Long Cord Grip (straight)	13.5-17	16	✓

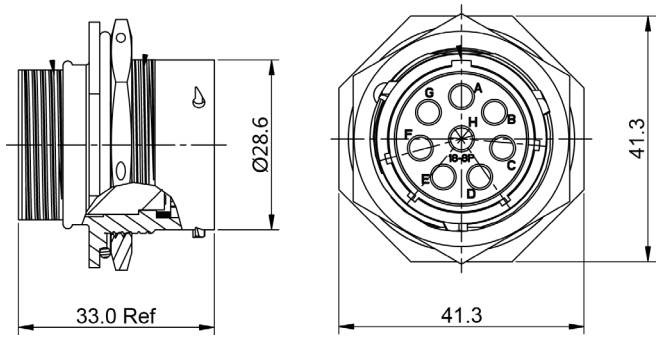
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 18 **Number of Contacts: 8** **Contact Size: 2.5mm**

Sealing: IP67 Salt Spray: 48h

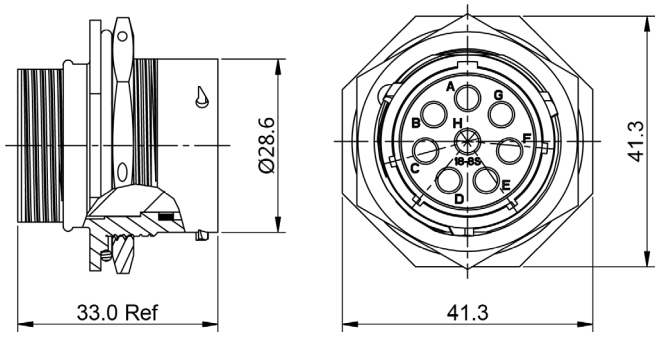
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



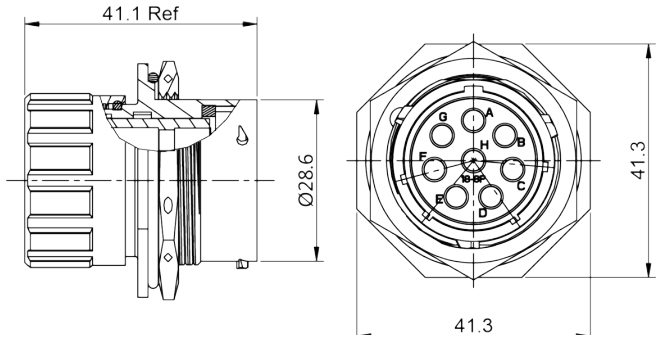
Male Figure 1 RT07188PNH

Jam Nut Receptacle



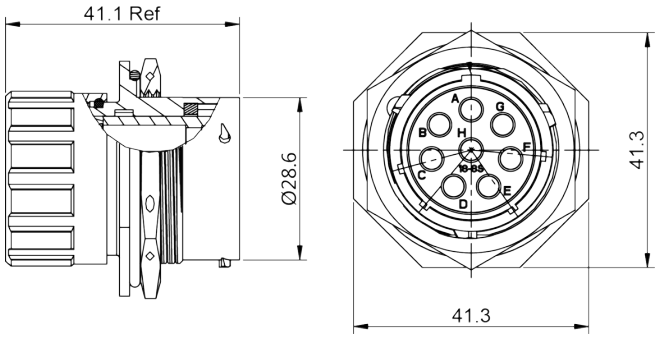
Female Figure 2 RT07188SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT07188PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT07188SNHEC

Jam Nut Receptacle Panel Cutout

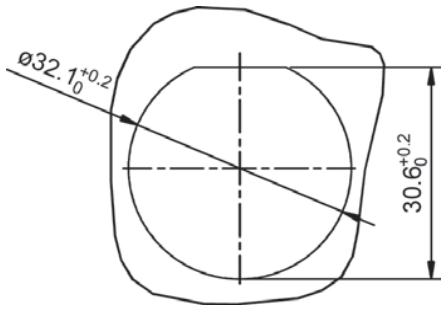


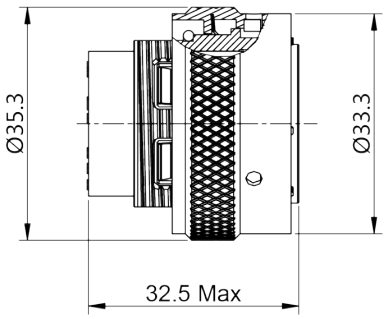
Figure 5

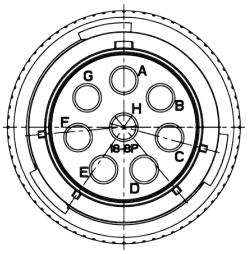
Shell Size: 18 **Number of Contacts: 8** **Contact Size: 2.5mm**

Sealing: IP67 Salt Spray: 48h

Dimensions Plug

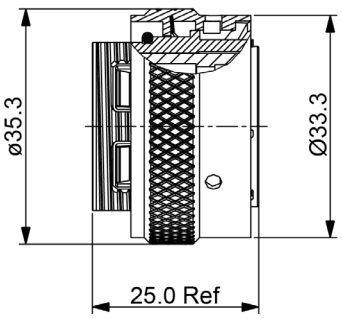
Plug

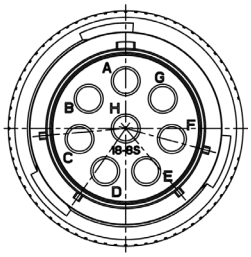




Male Figure 6 RT06188PNH

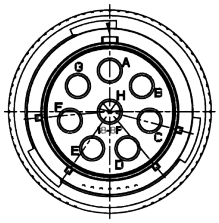
Plug

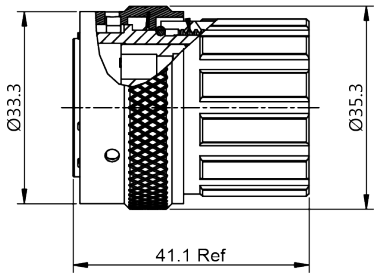




Female Figure 7 RT06188SNH

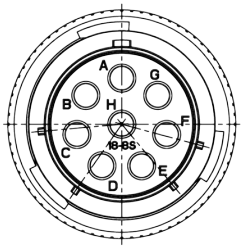
Plug with O-ring Seal and End Cap with Individual Rear Wire Seal

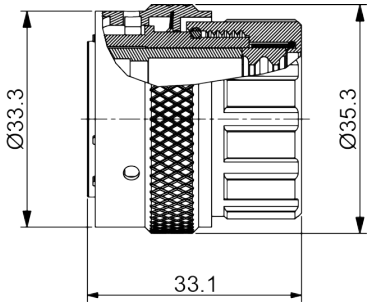




Male Figure 8 RT06188PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal





Female Figure 9 RT06188SNHEC

Individual Sealing Wire Range

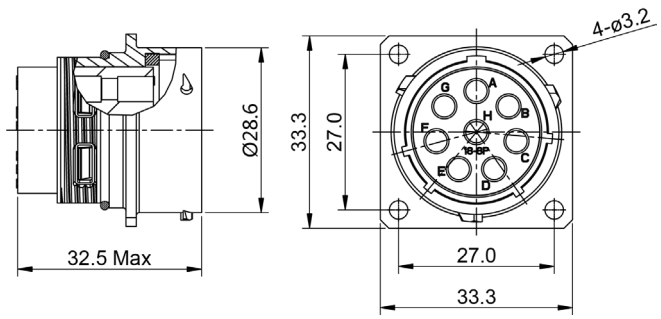
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
2.5mm	Ø3.3mm - Ø4.3mm	14 - 12 AWG

Shell Size: 18 **Number of Contacts: 8** **Contact Size: 2.5mm**

Sealing: IP67 Salt Spray: 48h

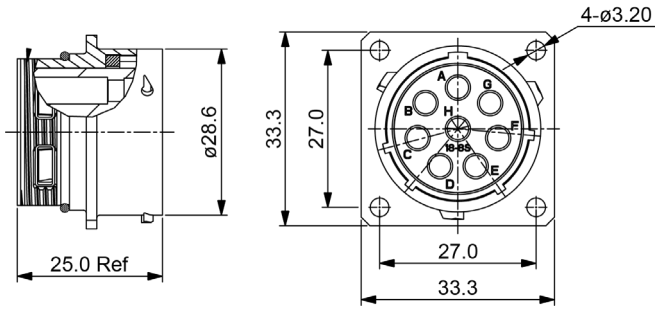
Dimensions Square Flange Receptacle

Square Flange Receptacle



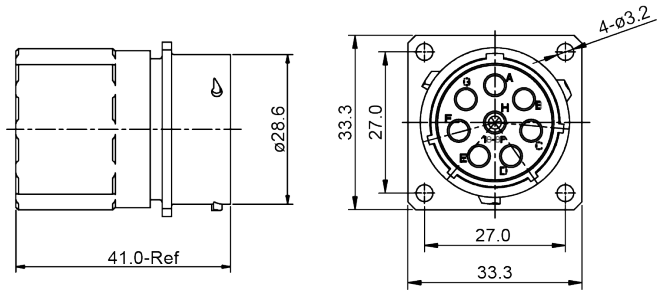
Male Figure 10 RT00188PNH

Square Flange Receptacle



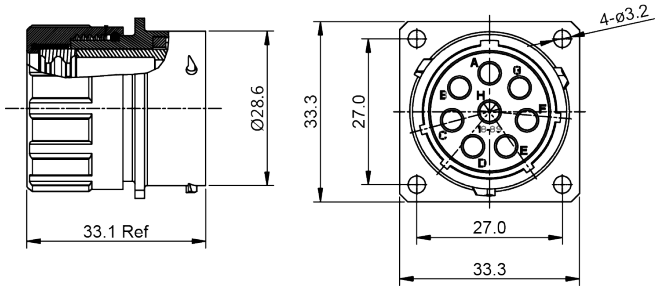
Female Figure 11 RT00188SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT00188PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT00188SNHEC

Square Flange Receptacle Panel Cutout

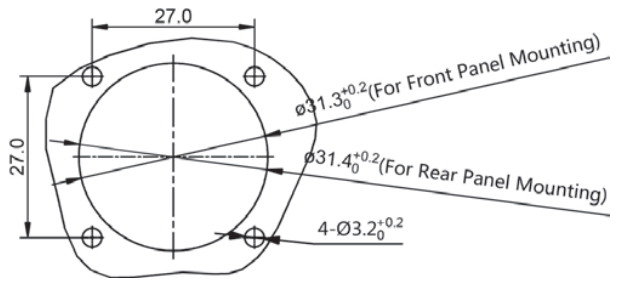


Figure 14

Shell Size: 18 **Number of Contacts: 8** **Contact Size: 2.5mm**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

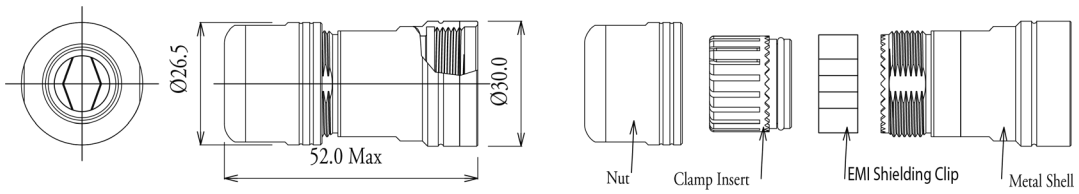


Figure 15

Long Cord Grip (straight)

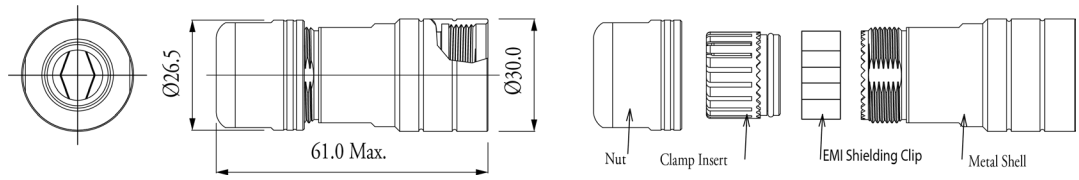


Figure 16

Shell Size: 18 **Number of Contacts: 8** **Contact Size: 2.5mm**
Sealing: IP67 Salt Spray: 48h

Contacts

Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP12A1T	SS12A1T	14-12	2.5-3.5	Tin

no machined contacts are available for this group

Tools

Extraction Tool 2.5mm Contact

QXRT12S

Hand Tool, Stamped & Formed Contact, 2.5 mm

MFX-3962

Shell Size: 18 **Number of Contacts: 8** **Contact Size: 2.5mm**

Sealing: IP67 Salt Spray: 48h

Accessories

Plug Dustcap with Chain

RT618DCG

Plug Dustcap without Chain

RT618DC

Receptacle Dustcap with Chain

RT018DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT018RL

Receptacle Dustcap without Chain

RT018DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011918

Sealing Plug, Size 2.5 mm

A114017

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD18B

Locking Clip with Lanyard

NEW! See Page 16

108039118

STEP 1 Choose Receptacle Style	STEP 2 Choose Plug Style	STEP 2 Choose Backshell Style

Jam Nut Receptacles


RT071609PNH


RT071609SNH


RT07169PNHEC


RT07169SNHEC

OR

Square Flange Receptacles


RT00169PNH


RT00169SNH


RT00169PNHEC


RT00169SNHEC

Plug


RT061609SNH


RT061609PNH


RT061609PNHEC


RT061609SNHEC

Backshell


RT0S-16CG-S1


RT0S-16CG-S2


RT0L-16CG-S1


RT0L-16CG-S2


RT0B-16CG-S1


RT0B-16CG-S2

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 108

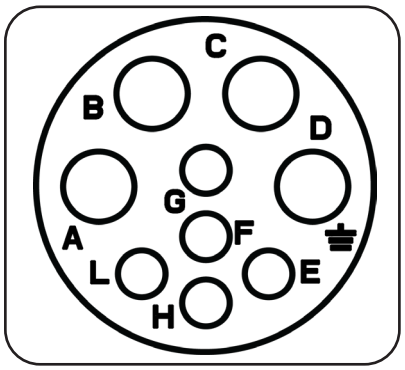
Shell Size: 16 **Number of Contacts: 9** **Contact Size: Mixed 2.5mm & 16**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm
Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts.
Please add "03" to the end of the part number when ordering.
Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT071609PNH	RT071609SNH	Jam Nut Receptacle with O-ring Seal	1,5	2,5
RT07169PNHEC	RT07169SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT061609PNH	RT061609SNH	Plug with O-ring Seal	6	7
RT061609PNHEC	RT061609SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT00169PNH	RT00169SNH	Square Flange Receptacle with O-ring Seal	10,14	11,14
RT00169PNHEC	RT00169SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14

Contacts supplied separately see page 108
**See page 105 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-16CG-S1	Short Cord Grip (straight)	9.0-14.5	15	✓
RT0S-16CG-S2	Short Cord Grip (straight)	13.5-17	15	✓
RT0L-16CG-S1	Long Cord Grip (straight)	9.0-14.5	16	✓
RT0L-16CG-S2	Long Cord Grip (straight)	13.5-17	16	✓
RT0B-16CG-S1	Cord Grip (90°)	9.5-14.5	17	✓
RT0B-16CG-S2	Cord Grip (90°)	13.5-17.0	17	✓

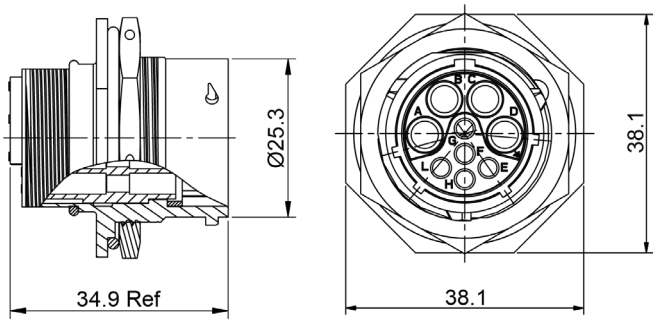
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 16 **Number of Contacts: 9** **Contact Size: Mixed 2.5mm & 16**

Sealing: IP67 Salt Spray: 48h

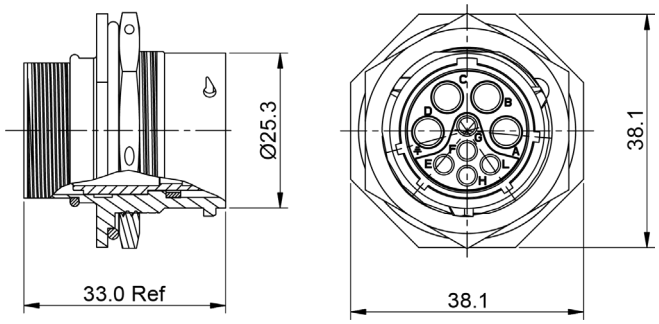
Dimensions Jam Nut Receptacle

Jam Nut Receptacle with O-ring Seal



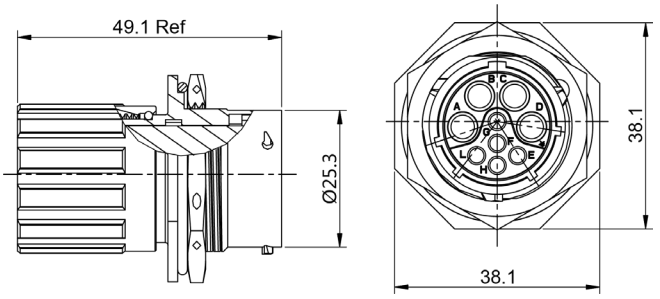
Male Figure 1 RT07169PNH

Jam Nut Receptacle with O-ring Seal



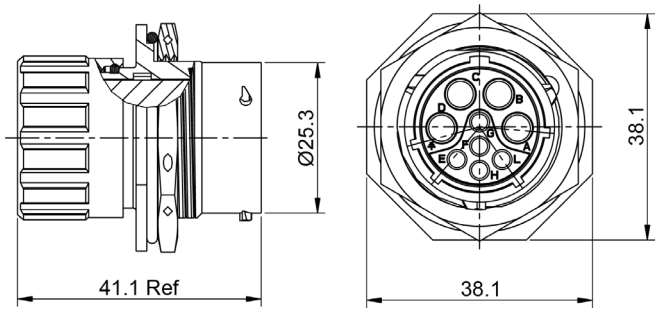
Female Figure 2 RT07169SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT07169PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT07169SNHEC

Jam Nut Receptacle Panel Cutout

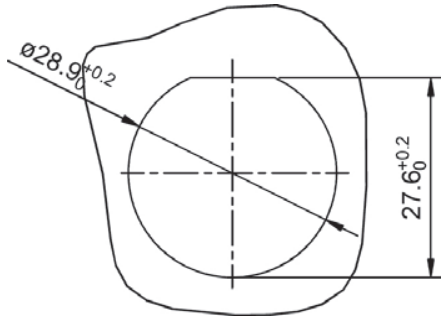


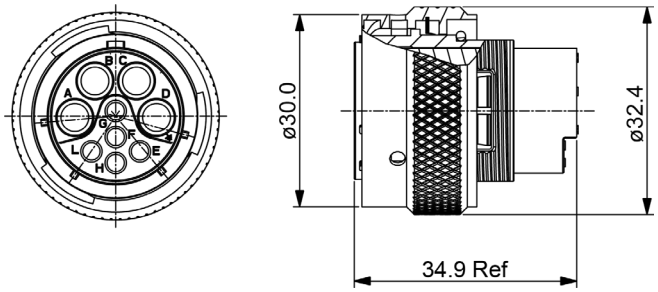
Figure 5

Shell Size: 16 **Number of Contacts: 9** **Contact Size: Mixed 2.5mm & 16**

Sealing: IP67 Salt Spray: 48h

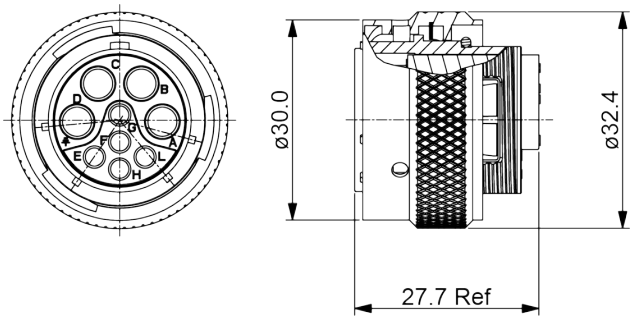
Dimensions Plug

Plug with O-ring Seal



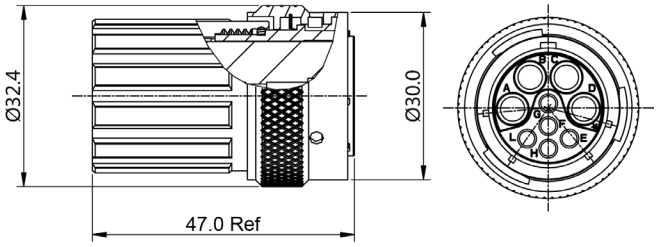
Male Figure 6 RT06169PNH

Plug with O-ring Seal



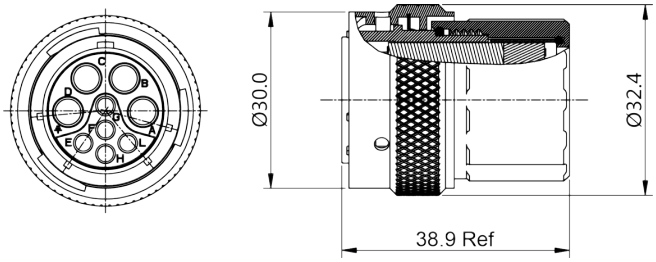
Female Figure 7 RT06169SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT06169PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT06169SNHEC

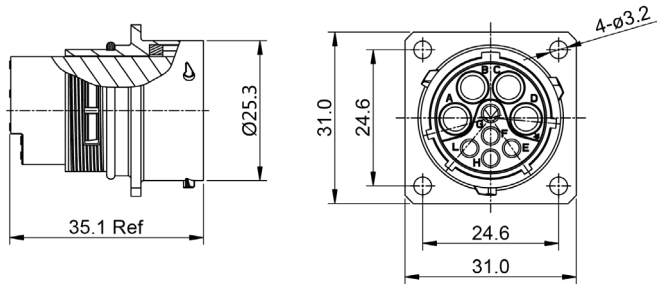
Individual Sealing Wire Range

Contact Size	Insulation Overall Diameter (min-max)	Wire Range
2.5mm	Ø3.3mm - Ø4.3mm	14 - 12 AWG
16	Ø2.0mm - Ø3.2mm	14 - 24 AWG

Shell Size: 16 **Number of Contacts: 9** **Contact Size: Mixed 2.5mm & 16**
Sealing: IP67 Salt Spray: 48h

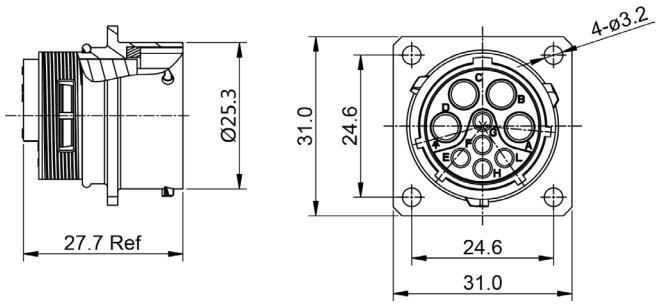
Dimensions Square Flange Receptacle

Square Flange Receptacle with O-ring Seal



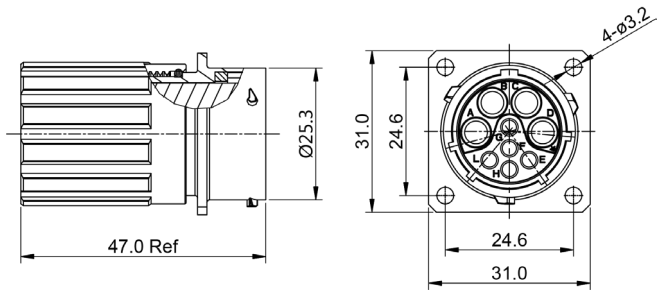
Male Figure 10 RT00169PNH

Square Flange Receptacle with O-ring Seal



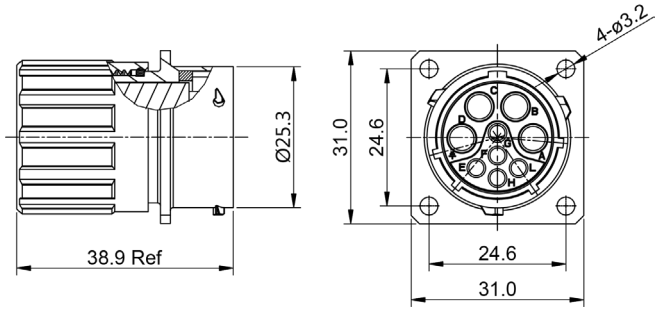
Female Figure 11 RT00169SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT00169PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT00169SNHEC

Square Flange Receptacle Panel Cutout

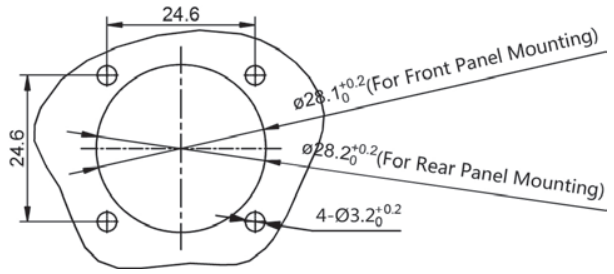


Figure 14

Shell Size: 16 **Number of Contacts: 9** **Contact Size: Mixed 2.5mm & 16**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

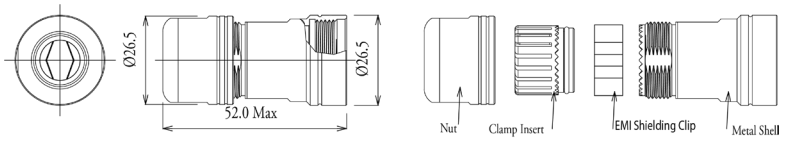


Figure 15

Long Cord Grip (straight)

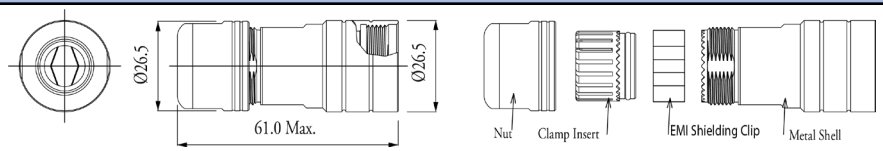


Figure 16

Cord Grip (90°)

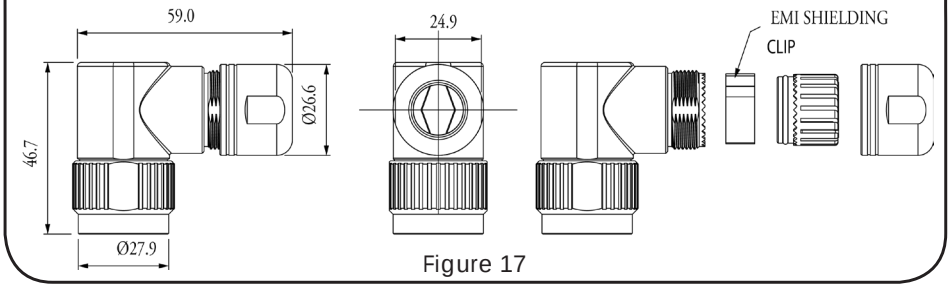


Figure 17

Accessories

Plug Dustcap with Chain

RT616DCG

Plug Dustcap without Chain

RT616DC

Receptacle Dustcap with Chain

RT016DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT016RL

Receptacle Dustcap without Chain

RT016DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011916

Sealing Plug, Size 2.5mm

A114017

Sealing Plug, Size 16

CA-4016-59

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD16B

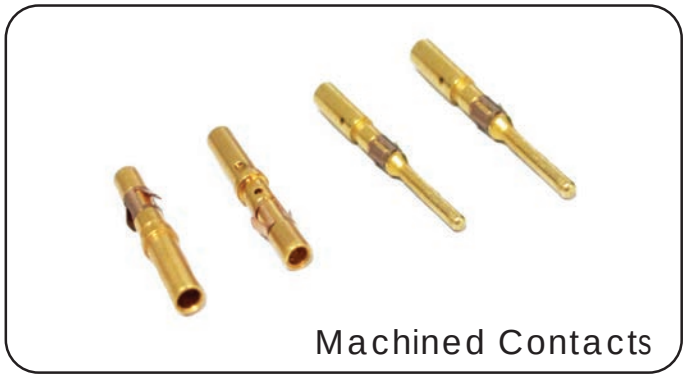
Locking Clip with Lanyard

NEW! See Page 16

108039116

Shell Size: 16 **Number of Contacts: 9** **Contact Size: Mixed 2.5mm & 16**
Sealing: IP67 Salt Spray: 48h

Contacts


Machined Contacts

Crimp Contacts, Machined

Part Number		Contact Size	AWG	Wire Range (mm²)	Plating
Male	Female				
MP14M23F	MS14M23F	16	14	2.0-2.5	Gold Flash
MP14M23G5	MS14M23G5	16	14	2.0-2.5	Gold 5µ"
MP14M23G10	MS14M23G10	16	14	2.0-2.5	Gold 10µ"
MP14M23G15	MS14M23G15	16	14	2.0-2.5	Gold 15µ"
MP14M23G30	MS14M23G30	16	14	2.0-2.5	Gold 30µ"
MP16M23F	MS16M23F	16	18-16	.75-1.5	Gold Flash
MP16M23G5	MS16M23G5	16	18-16	.75-1.5	Gold 5µ"
MP16M23G10	MS16M23G10	16	18-16	.75-1.5	Gold 10µ"
MP16M23G15	MS16M23G15	16	18-16	.75-1.5	Gold 15µ"
MP16M23G30	MS16M23G30	16	18-16	.75-1.5	Gold 30µ"
MP20M23F	MS20M23F	16	22-20	.34-.50	Gold Flash
MP20M23G5	MS20M23G5	16	22-20	.34-.50	Gold 5µ"
MP20M23G10	MS20M23G10	16	22-20	.34-.50	Gold 10µ"
MP20M23G15	MS20M23G15	16	22-20	.34-.50	Gold 15µ"
MP20M23G30	MS20M23G30	16	22-20	.34-.50	Gold 30µ"
MP24M23F	MS24M23F	16	26-24	.14-.25	Gold Flash
MP24M23G5	MS24M23G5	16	26-24	.14-.25	Gold 5µ"
MP24M23G10	MS24M23G10	16	26-24	.14-.25	Gold 10µ"
MP24M23G15	MS24M23G15	16	26-24	.14-.25	Gold 15µ"
MP24M23G30	MS24M23G30	16	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Crimp Tool for Machined Contacts


MFX-3959

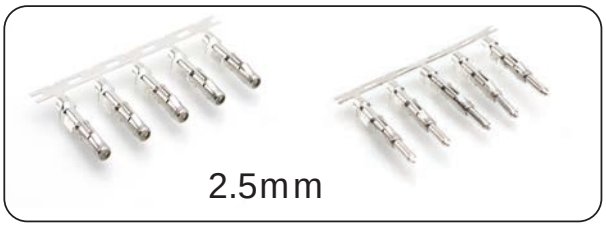
Pneumatic Crimp Tool for Machined Contacts


MFX-3960

Shell Size: 16 **Number of Contacts: 9** **Contact Size: Mixed 2.5mm & 16**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts


2.5mm

Crimp Contacts, Stamped & Formed

Part Number		Contact Size	AWG	Wire Range (mm²)	Plating
Male	Female				
SP12A1T	SS12A1T	2.5mm	14-12	2.0-2.5	Tin
SP14M2F	SS14M2F	16	14	2.0-2.5	Gold Flash
SP14M2G5	SS14M2G5	16	14	2.0-2.5	Gold 5µ"
SP14M2G10	SS14M2G10	16	14	2.0-2.5	Gold 10µ"
SP14M2G15	SS14M2G15	16	14	2.0-2.5	Gold 15µ"
SP14M2G30	SS14M2G30	16	14	2.0-2.5	Gold 30µ"
SP16M2F	SS16M2F	16	18-16	.75-1.5	Gold Flash
SP16M2G5	SS16M2G5	16	18-16	.75-1.5	Gold 5µ"
SP16M2G10	SS16M2G10	16	18-16	.75-1.5	Gold 10µ"
SP16M2G10	SS16M2G15	16	18-16	.75-1.5	Gold 15µ"
SP16M2G30	SS16M2G30	16	18-16	.75-1.5	Gold 30µ"
SP20M2F	SS20M2F	16	22-20	.34-.50	Gold Flash
SP20M2G5	SS20M2G5	16	22-20	.34-.50	Gold 5µ"
SP20M2G10	SS20M2G10	16	22-20	.34-.50	Gold 10µ"
SP20M2G15	SS20M2G15	16	22-20	.34-.50	Gold 15µ"
SP20M2G30	SS20M2G30	16	22-20	.34-.50	Gold 30µ"
SP24M2F	SS24M2F	16	22-20	.14-.25	Gold Flash
SP24M2G5	SS24M2G5	16	26-24	.14-.25	Gold 5µ"
SP24M2G10	SS24M2G10	16	26-24	.14-.25	Gold 10µ"
SP24M2G15	SS24M2G15	16	26-24	.14-.25	Gold 15µ"
SP24M2G30	SS24M2G30	16	26-24	.14-.25	Gold 30µ"

Tools

Extraction Tool 2.5mm Contact


QXRT12S

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Crimp Die for Stamped & Formed Contact


MFX-3957

Hand Tool, Stamped & Formed Contact, 2.5 mm


MFX-3962

Hand Tool, Stamped & Formed Contact, Size 16, 20-14AWG


MFX-3954

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

STEP 2
Choose Backshell Style

Jam Nut Receptacles


RT0W71210PNH


RT0W71210SNH


RT0W71210PNHEC


RT0W71210SNHEC

OR

Square Flange Receptacles


RT0W01210PNH


RT0W01210SNH


RT0W01210PNHEC


RT0W01210SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug


RT0W61210PNH


RT0W61210SNH


RT0W61210PNHEC


RT0W61210SNHEC

Backshell


RT0S-12CG-S1


RT0S-12CG-S2


RT0L-12CG-S1


RT0L-12CG-S2


RT0B-12CG-S1


RT0B-12CG-S2

OR

Plug Kit Including Connector, Backshell & Contacts

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 116

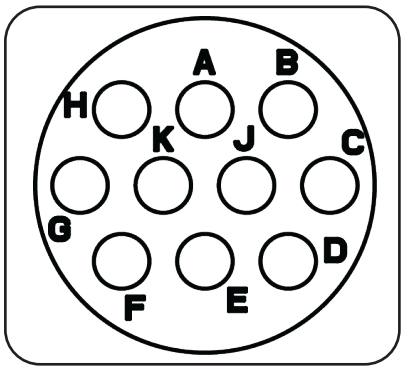
Shell Size: 12 **Number of Contacts: 10** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT0W71210PNH	RT0W71210SNH	Jam Nut Receptacle	1,5	2,5
RT0W71210PNHEC	RT0W71210SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT0W71210PNH-K	RT0W71210SNH-K	Jam Nut Receptacle Kit	1,5	2,5
RT0W61210PNH	RT0W61210SNH	Plug	6	7
RT0W61210PNHEC	RT0W61210SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT0W61210PNH-K	RT0W61210SNH-K	Plug Kit	6	7
RT0W01210PNH	RT0W01210SNH	Square Flange Receptacle	10,14	11,14
RT0W01210PNHEC	RT0W01210SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT0W01210PNH-K	RT0W01210SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 116
**See page 113 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-12CG-S1	Short Cord Grip (straight)	6-10.5	15	✓
RT0S-12CG-S2	Short Cord Grip (straight)	8.5-12.5	15	✓
RT0L-12CG-S1	Long Cord Grip (straight)	6-10.5	16	✓
RT0L-12CG-S2	Long Cord Grip (straight)	8.5-12.5	16	✓
RT0B-12CG-S1	Cord Grip (90°)	6-10.5	17	✓
RT0B-12CG-S2	Cord Grip (90°)	8.0-12.5	17	✓

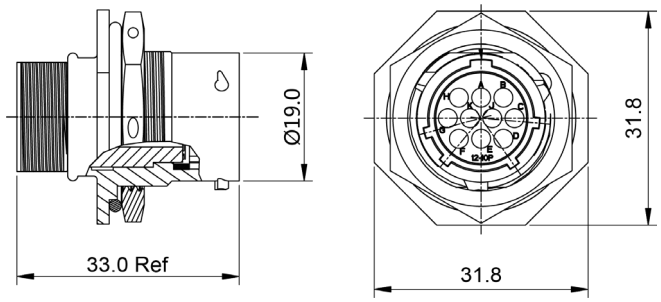
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 12 **Number of Contacts: 10** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

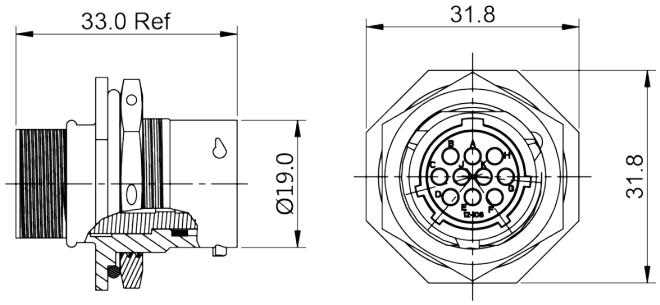
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



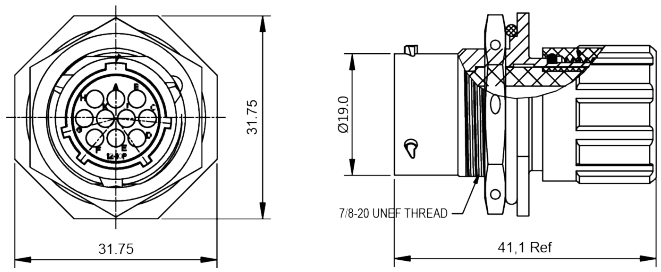
Male Figure 1 RT0W71210PNH

Jam Nut Receptacle



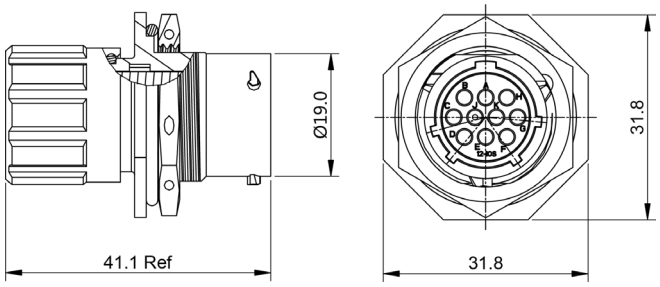
Female Figure 2 RT0W71210SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT0W71210PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT0W71210SNHEC

Jam Nut Receptacle Panel Cutout

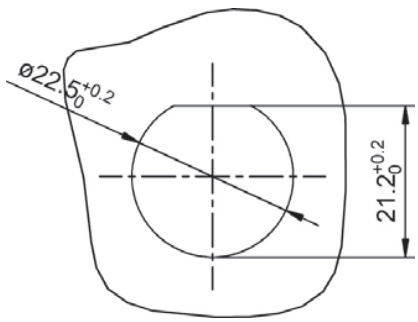


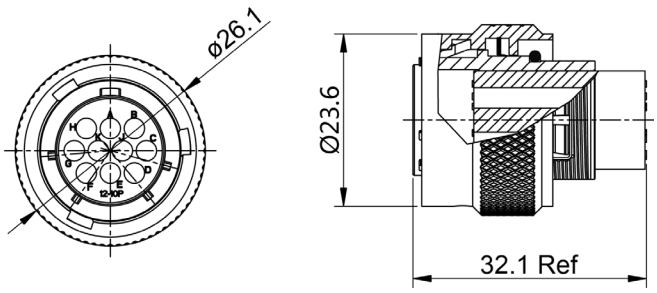
Figure 5

Shell Size: 12 **Number of Contacts: 10** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

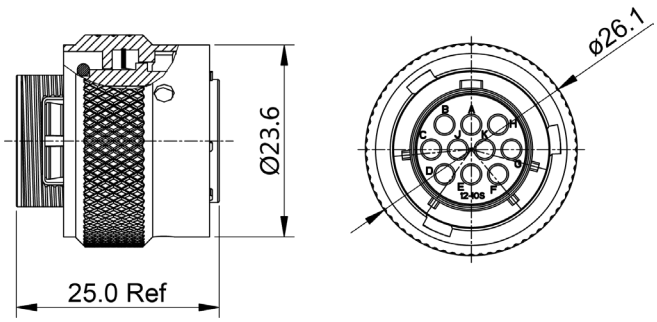
Dimensions Plug

Plug



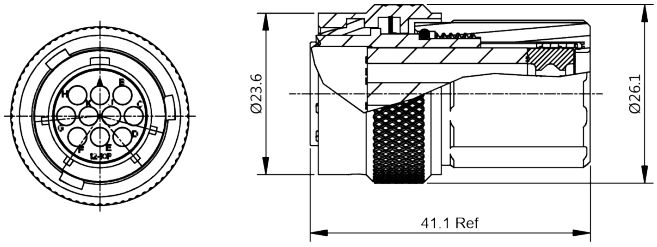
Male Figure 6 RT0W61210PNH

Plug



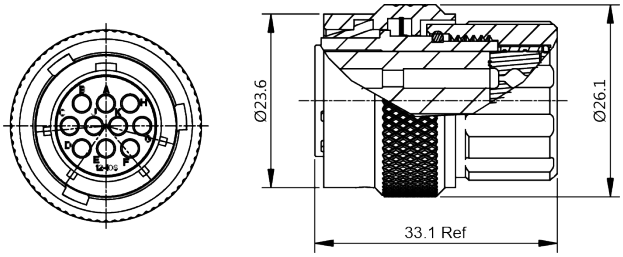
Female Figure 7 RT0W61210SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT0W61210PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT0W61210SNHEC

Individual Sealing Wire Range

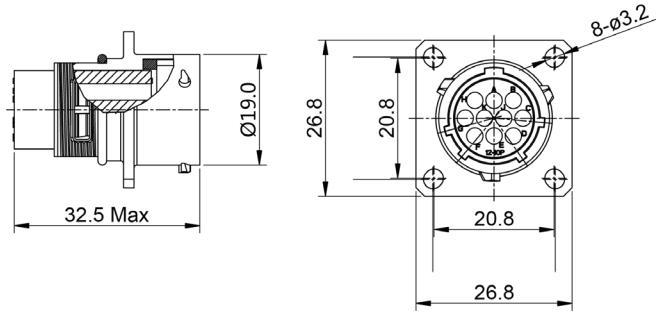
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
20	Ø1.6mm - Ø2.6mm	20 - 30 AWG

Shell Size: 12 **Number of Contacts: 10** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

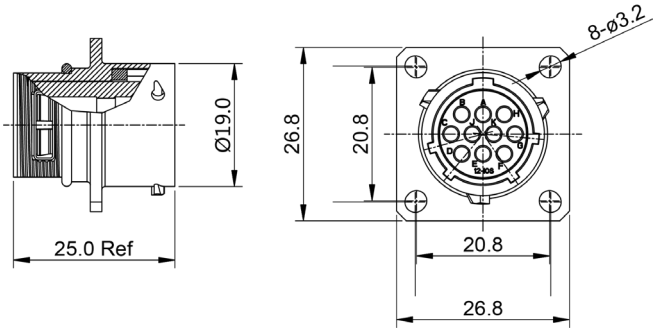
Dimensions Square Flange Receptacle

Square Flange Receptacle



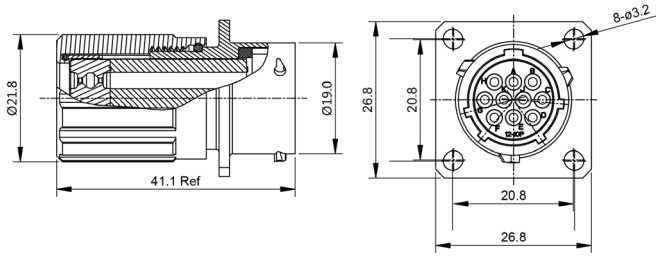
Male Figure 10 RT0W01210PNH

Square Flange Receptacle



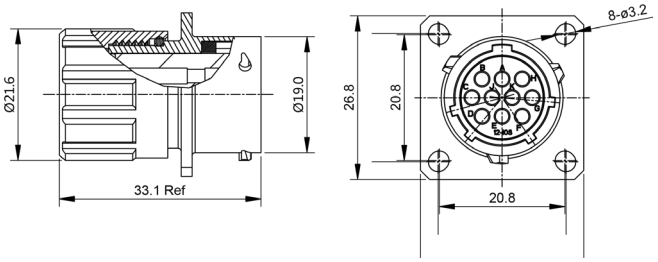
Female Figure 11 RT0W01210SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT0W01210PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT0W01210SNHEC

Square Flange Receptacle Panel Cutout

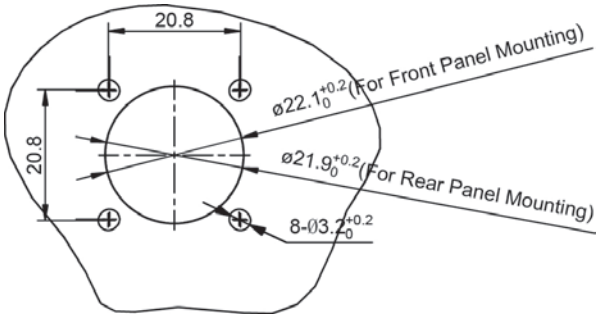


Figure 14

Shell Size: 12 **Number of Contacts: 10** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

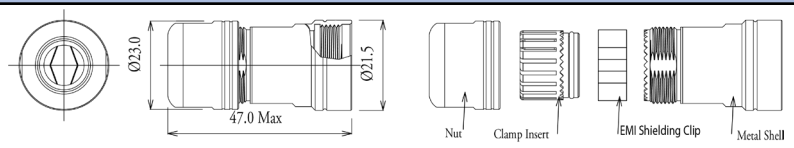


Figure 15

Long Cord Grip (straight)

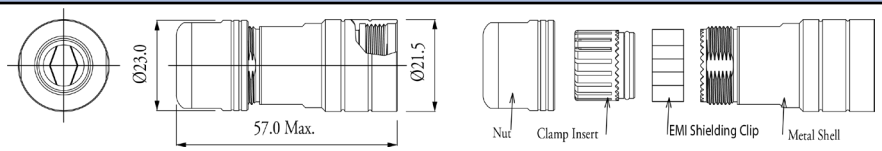


Figure 16

Cord Grip (90°)

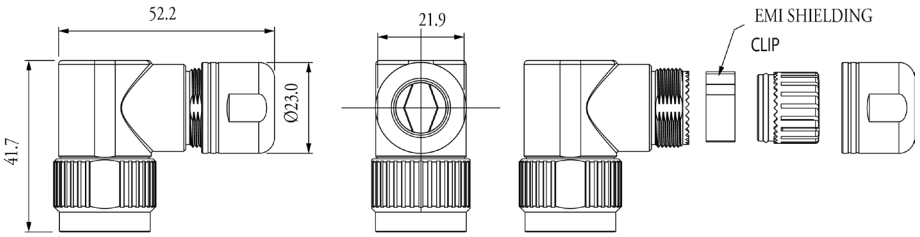


Figure 17

Accessories

Locking Clip with Lanyard

NEW! See Page 16

108039112

Plug Dustcap with Chain

RT612DCG

Plug Dustcap without Chain

RT612DC

Receptacle Dustcap with Chain

RT012DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT012RL

Receptacle Dustcap without Chain

RT012DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011912

Sealing Plug, Size 20

AT13-204-2005

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD12B

Shell Size: 12 **Number of Contacts: 10** **Contact Size: 20**
Sealing: IP67 Salt Spray: 48h

Contacts

Machined Contacts

Crimp Contacts, Machined

Part Number		AWG	Wire Ranget (mm²)	Plating
Male	Female			
MP20W23F	MS20W23F	22-20	.34-.50	Gold Flash
MP20W23G5	MS20W23G5	22-20	.34-.50	Gold 5µ"
MP20W23G10	MS20W23G10	22-20	.34-.50	Gold 10µ"
MP20W23G15	MS20W23G15	22-20	.34-.50	Gold 15µ"
MP20W23G30	MS20W23G30	22-20	.34-.50	Gold 30µ"
MP24W23F	MS24W23F	26-24	.13-.25	Gold Flash
MP24W23G5	MS24W23G5	26-24	.13-.25	Gold 5µ"
MP24W23G10	MS24W23G10	26-24	.13-.25	Gold 10µ"
MP24W23G15	MS24W23G15	26-24	.13-.25	Gold 15µ"
MP24W23G30	MS24W23G30	26-24	.13-.25	Gold 30µ"
MP28W23F	MS28W23F	30-28	.05-.08	Gold Flash
MP28W23G5	MS28W23G5	30-28	.05-.08	Gold 5µ"
MP28W23G10	MS28W23G10	30-28	.05-.08	Gold 10µ"
MP28W23G15	MS28W23G15	30-28	.05-.08	Gold 15µ"
MP28W23G30	MS28W23G30	30-28	.05-.08	Gold 30µ"

Tools

Contact Extraction Tool, #20 (Ø 1.6) Contact

QXRT20

Hand Crimp Tool for Machined Contacts

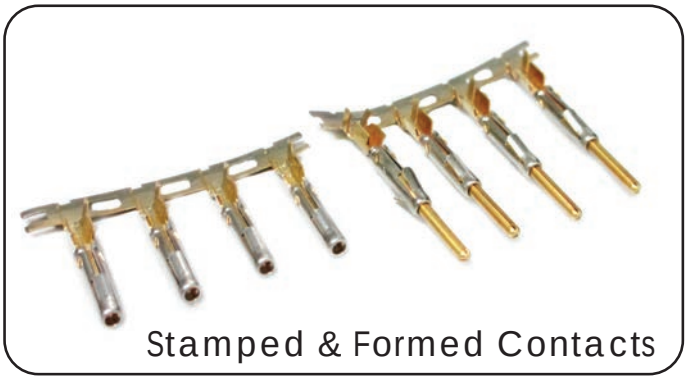
MFX-3959

Pneumatic Crimp Tool for Machined Contact

MFX-3960

Shell Size: 12 **Number of Contacts: 10** **Contact Size: 20**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP20W2F	SS20W2F	22-20	.34-.50	Gold Flash
SP20W2G5	SS20W2G5	22-20	.34-.50	Gold 5µ"
SP20W2G10	SS20W2G10	22-20	.34-.50	Gold 10µ"
SP20W2G15	SS20W2G15	22-20	.34-.50	Gold 15µ"
SP20W2G30	SS20W2G30	22-20	.34-.50	Gold 30µ"
SP24W2F	SS24W2F	26-24	.14-.25	Gold Flash
SP24W2G5	SS24W2G5	26-24	.14-.25	Gold 5µ"
SP24W2G10	SS24W2G10	26-24	.14-.25	Gold 10µ"
SP24W2G15	SS24W2G15	26-24	.14-.25	Gold 15µ"
SP24W2G30	SS24W2G30	26-24	.14-.25	Gold 30µ"
SP28W2F	SS28W2F	30-28	.05-.08	Gold Flash
SP28W2G5	SS28W2G5	30-28	.05-.08	Gold 5µ"
SP28W2G10	SS28W2G10	30-28	.05-.08	Gold 10µ"
SP28W2G15	SS28W2G15	30-28	.05-.08	Gold 15µ"
SP28W2G30	SS28W2G30	30-28	.05-.08	Gold 30µ"

Tools

Contact Extraction Tool, #20 (Ø 1.6) Contact


QXRT20

Hand Tool, Stamped & Formed Contact, Size 20, 20-28AWG


MFX-3958

Crimp Die for Stamped & Formed Contact


MFX-3957

STEP 1 Choose Receptacle Style	STEP 2 Choose Plug Style	STEP 2 Choose Backshell Style

Jam Nut Receptacles


RT071412PNH


RT071412SNH


RT071412PNHEC


RT071412SNHEC

OR

Square Flange Receptacles


RT001412PNH


RT001412SNH


RT001412PNHEC


RT001412SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug


RT061412PNH


RT061412SNH


RT061412PNHEC


RT061412SNHEC

Backshell


RT0S-14CG-S1


RT0S-14CG-S2


RT0L-14CG-S1


RT0L-14CG-S2


RT0B-14CG-S1


RT0B-14CG-S2

OR

Plug Kit Including Connector, Backshell & Contacts

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 124

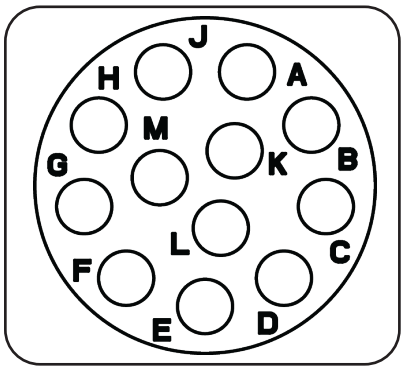
Shell Size: 14 **Number of Contacts: 12** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT071412PNH	RT071412SNH	Jam Nut Receptacle	1,5	2,5
RT071412PNHEC	RT071412SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT071412PNH-K	RT071412SNH-K	Jam Nut Receptacle Kit	1,5	2,5
RT061412PNH	RT061412SNH	Plug	6	7
RT061412PNHEC	RT061412SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT061412PNH-K	RT061412SNH-K	Plug Kit	6	7
RT001412PNH	RT001412SNH	Square Flange Receptacle	10,14	11,14
RT001412PNHEC	RT001412SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT001412PNH-K	RT001412SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 124
**See page 121 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-14CG-S1	Short Cord Grip (straight)	6-10.5	15	✓
RT0S-14CG-S2	Short Cord Grip (straight)	8.5-12.5	15	✓
RT0L-14CG-S1	Long Cord Grip (straight)	6-10.5	16	✓
RT0L-14CG-S2	Long Cord Grip (straight)	8.5-12.5	16	✓
RT0B-14CG-S1	Cord Grip (90°)	6-10.5	17	✓
RT0B-14CG-S2	Cord Grip (90°)	8.0-12.5	17	✓

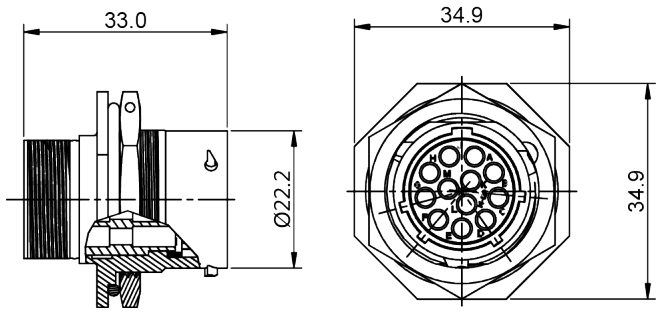
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 14 **Number of Contacts: 12** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

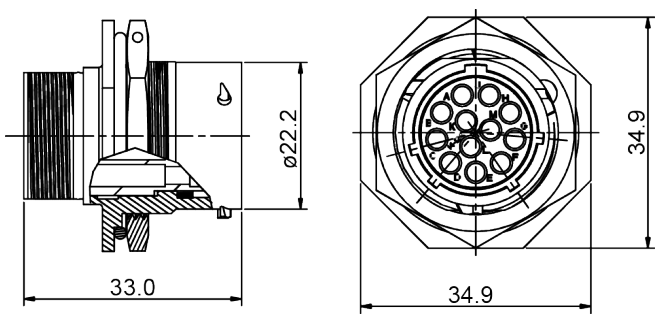
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



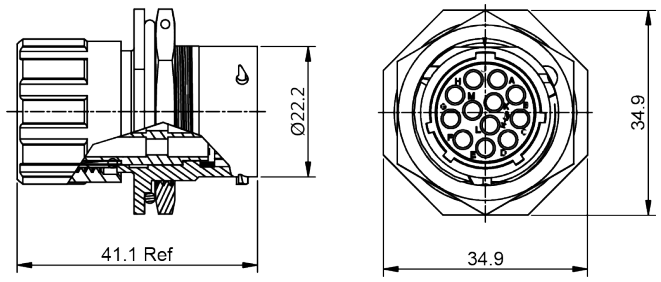
Male Figure 1 RT071412PNH

Jam Nut Receptacle



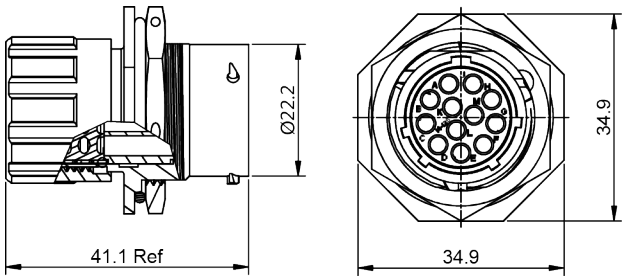
Female Figure 2 RT071412SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT071412PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT071412SNHEC

Jam Nut Receptacle Panel Cutout

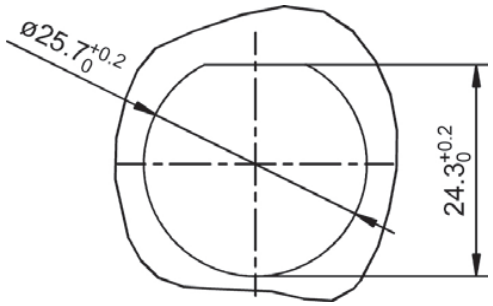


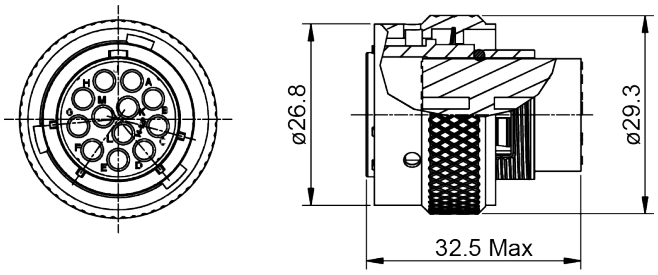
Figure 5

Shell Size: 14 **Number of Contacts: 12** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

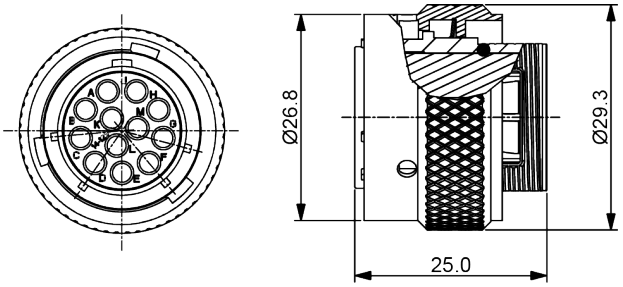
Dimensions Plug

Plug



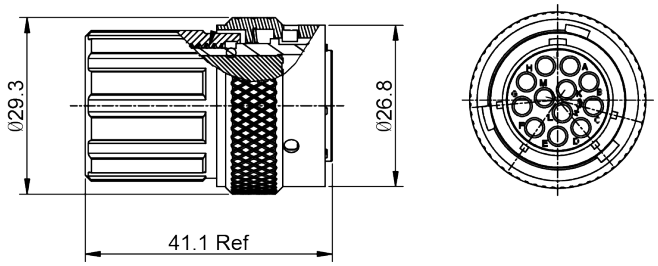
Male Figure 6 RT061412PNH

Plug



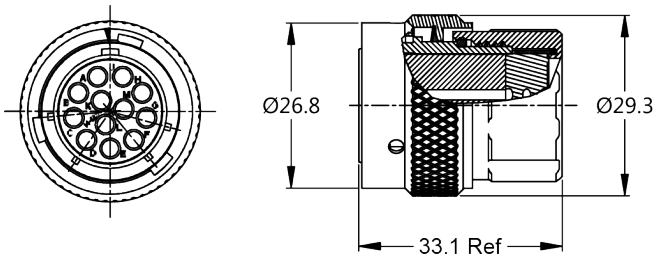
Female Figure 7 RT061412SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT061412PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT061412SNHEC

Individual Sealing Wire Range

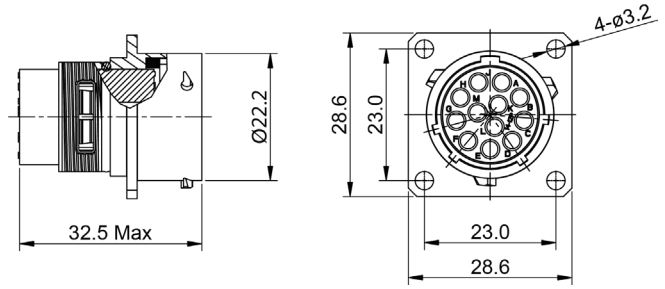
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
16	Ø2.0mm - Ø3.2mm	14 - 24 AWG

Shell Size: 14 **Number of Contacts: 12** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

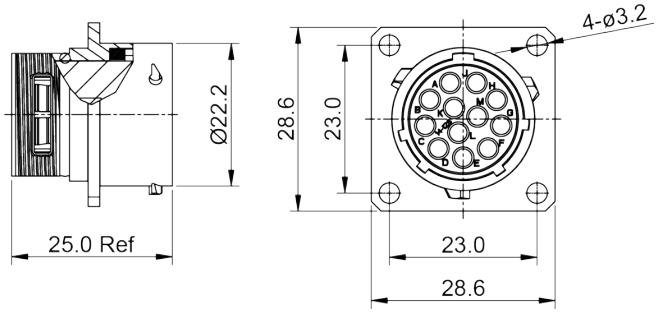
Dimensions Square Flange Receptacle

Square Flange Receptacle



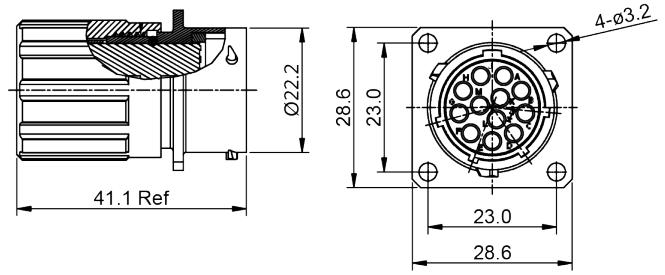
Male Figure 10 RT001412PNH

Square Flange Receptacle



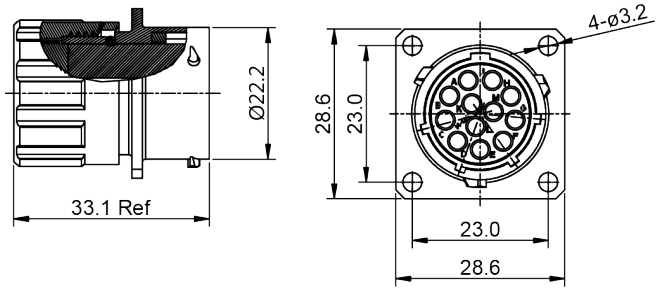
Female Figure 11 RT001412SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT001412PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT001412SNHEC

Square Flange Receptacle Panel Cutout

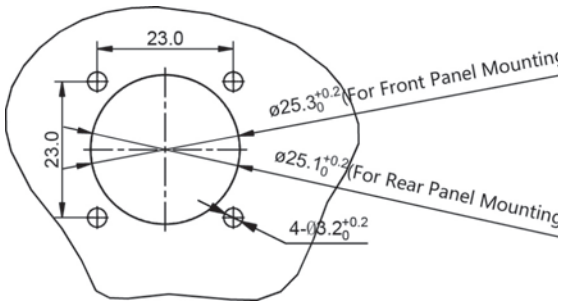


Figure 14

Shell Size: 14 **Number of Contacts: 12** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

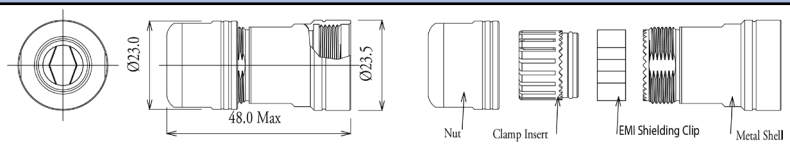


Figure 15

Long Cord Grip (straight)

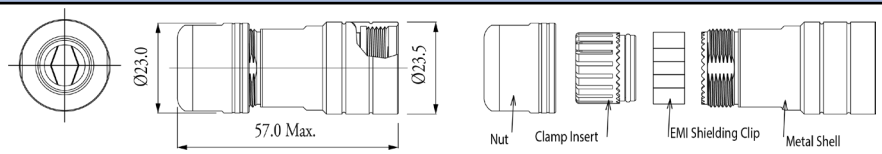


Figure 16

Cord Grip (90°)

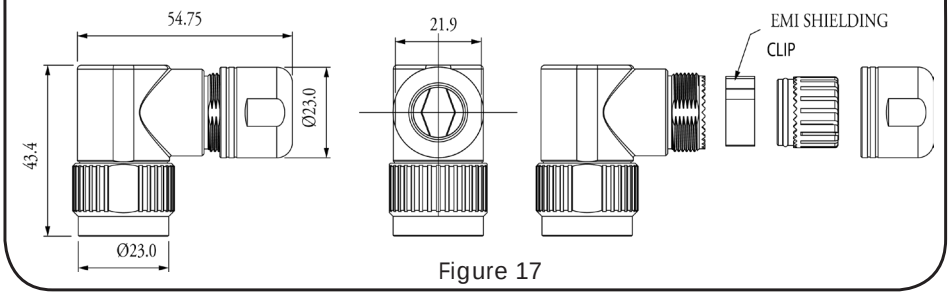


Figure 17

Accessories

Locking Clip with Lanyard

NEW! See Page 16

108039114

Plug Dustcap with Chain

RT614DCG

Plug Dustcap without Chain

RT614DC

Receptacle Dustcap with Chain

RT014DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT014RL

Receptacle Dustcap without Chain

RT014DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011914

Sealing Plug

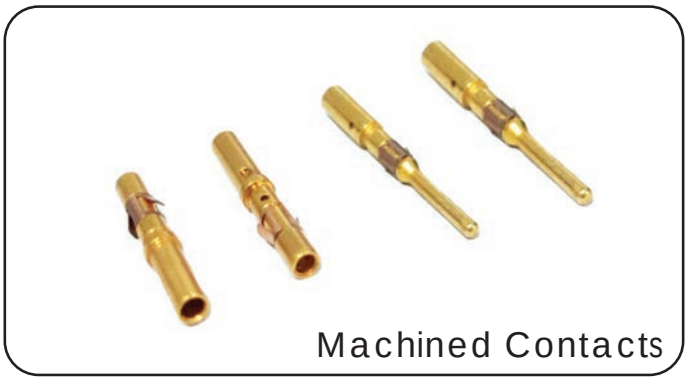
CA-4016-59

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD14B

Shell Size: 14 **Number of Contacts: 12** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts


Machined Contacts

Crimp Contacts, Machined

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
MP14M23F	MS14M23F	14	2.0-2.5	Gold Flash
MP14M23G5	MS14M23G5	14	2.0-2.5	Gold 5µ"
MP14M23G10	MS14M23G10	14	2.0-2.5	Gold 10µ"
MP14M23G15	MS14M23G15	14	2.0-2.5	Gold 15µ"
MP14M23G30	MS14M23G30	14	2.0-2.5	Gold 30µ"
MP16M23F	MS16M23F	18-16	.75-1.5	Gold Flash
MP16M23G5	MS16M23G5	18-16	.75-1.5	Gold 5µ"
MP16M23G10	MS16M23G10	18-16	.75-1.5	Gold 10µ"
MP16M23G15	MS16M23G15	18-16	.75-1.5	Gold 15µ"
MP16M23G30	MS16M23G30	18-16	.75-1.5	Gold 30µ"
MP20M23F	MS20M23F	22-20	.34-.50	Gold Flash
MP20M23G5	MS20M23G5	22-20	.34-.50	Gold 5µ"
MP20M23G10	MS20M23G10	22-20	.34-.50	Gold 10µ"
MP20M23G15	MS20M23G15	22-20	.34-.50	Gold 15µ"
MP20M23G30	MS20M23G30	22-20	.34-.50	Gold 30µ"
MP24M23F	MS24M23F	26-24	.14-.25	Gold Flash
MP24M23G5	MS24M23G5	26-24	.14-.25	Gold 5µ"
MP24M23G10	MS24M23G10	26-24	.14-.25	Gold 10µ"
MP24M23G15	MS24M23G15	26-24	.14-.25	Gold 15µ"
MP24M23G30	MS24M23G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Crimp Tool for Machined Contacts

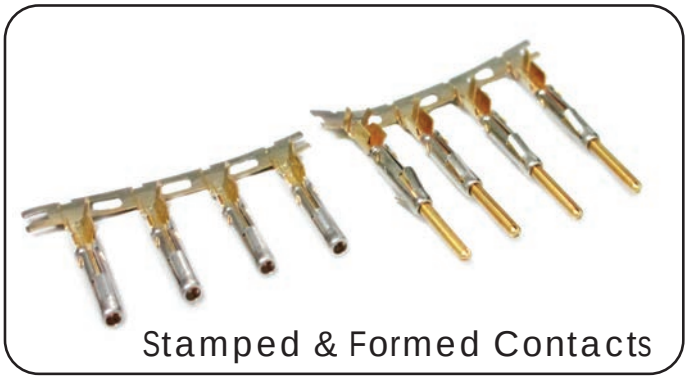

MFX-3959

Pneumatic Crimp Tool for Machined Contacts


MFX-3960

Shell Size: 14 **Number of Contacts: 12** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP14M2F	SS14M2F	14	2.0-2.5	Gold Flash
SP14M2G5	SS14M2G5	14	2.0-2.5	Gold 5µ"
SP14M2G10	SS14M2G10	14	2.0-2.5	Gold 10µ"
SP14M2G15	SS14M2G15	14	2.0-2.5	Gold 15µ"
SP14M2G30	SS14M2G30	14	2.0-2.5	Gold 30µ"
SP16M2F	SS16M2F	18-16	.75-1.5	Gold Flash
SP16M2G5	SS16M2G5	18-16	.75-1.5	Gold 5µ"
SP16M2G10	SS16M2G10	18-16	.75-1.5	Gold 10µ"
SP16M2G10	SS16M2G15	18-16	.75-1.5	Gold 15µ"
SP16M2G30	SS16M2G30	18-16	.75-1.5	Gold 30µ"
SP20M2F	SS20M2F	22-20	.34-.50	Gold Flash
SP20M2G5	SS20M2G5	22-20	.34-.50	Gold 5µ"
SP20M2G10	SS20M2G10	22-20	.34-.50	Gold 10µ"
SP20M2G15	SS20M2G15	22-20	.34-.50	Gold 15µ"
SP20M2G30	SS20M2G30	22-20	.34-.50	Gold 30µ"
SP24M2F	SS24M2F	22-20	.14-.25	Gold Flash
SP24M2G5	SS24M2G5	26-24	.14-.25	Gold 5µ"
SP24M2G10	SS24M2G10	26-24	.14-.25	Gold 10µ"
SP24M2G15	SS24M2G15	26-24	.14-.25	Gold 15µ"
SP24M2G30	SS24M2G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Tool, Stamped & Formed Contact, Size 16, 20-14AWG


MFX-3954

Crimp Die for Stamped & Formed Contact


MFX-3957

STEP 1 Choose Receptacle Style	STEP 2 Choose Plug Style	STEP 2 Choose Backshell Style

SEE TABLE ON NEXT PAGE FOR PART DETAILS

Jam Nut Receptacles


RT0W71419PNH


RT0W71419SNH


RT0W71419PNHEC


RT0W71419SNHEC

OR

Square Flange Receptacles


RT0W01419PNH


RT0W01419SNH


RT0W01419PNHEC


RT0W01419SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug


RT0W61419PNH


RT0W61419SNH


RT0W61419PNHEC


RT0W61419SNHEC

Backshell


RT0S-14CG-S1


RT0S-14CG-S2


RT0L-14CG-S1


RT0L-14CG-S2


RT0B-14CG-S1


RT0B-14CG-S2

OR

Plug Kit Including Connector, Backshell & Contacts

CONTACTS SOLD SEPARATELY SEE PAGE 132

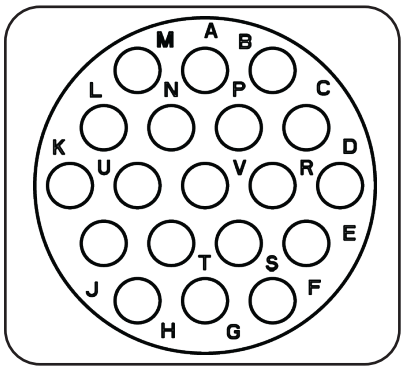
Shell Size: 14 **Number of Contacts: 19** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT0W71419PNH	RT0W71419SNH	Jam Nut Receptacle	1,5	2,5
RT0W71419PNHEC	RT0W71419SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT0W71419PNH-K	RT0W71419SNH-K	Jam Nut Receptacle Kit	1,5	2,5
RT0W61419PNH	RT0W61419SNH	Plug	6	7
RT0W61419PNHEC	RT0W61419SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT0W61419PNH-K	RT0W61419SNH-K	Plug Kit	1,5	2,5
RT0W01419PNH	RT0W01419SNH	Square Flange Receptacle	10,14	11,14
RT0W01419PNHEC	RT0W01419SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT0W01419PNH-K	RT0W01419SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 132
**See page 129 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-14CG-S1	Short Cord Grip (straight)	6-10.5	15	✓
RT0S-14CG-S2	Short Cord Grip (straight)	8.5-12.5	15	✓
RT0L-14CG-S1	Long Cord Grip (straight)	6-10.5	16	✓
RT0L-14CG-S2	Long Cord Grip (straight)	8.5-12.5	16	✓
RT0B-14CG-S1	Cord Grip (90°)	6-10.5	17	✓
RT0B-14CG-S2	Cord Grip (90°)	8.0-12.5	17	✓

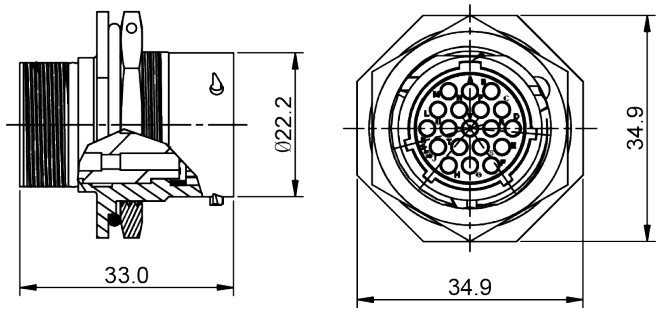
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 14 **Number of Contacts: 19** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

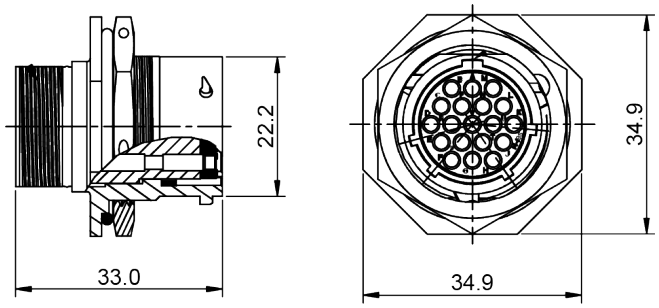
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



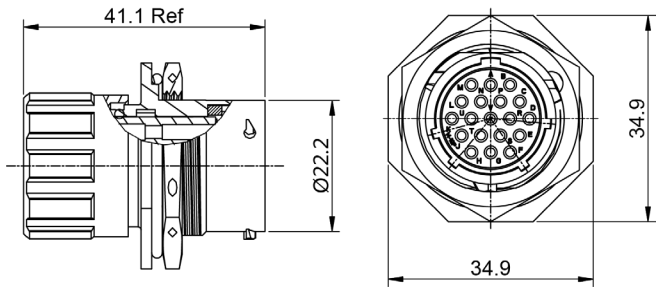
Male Figure 1 RT0W71419PNH

Jam Nut Receptacle



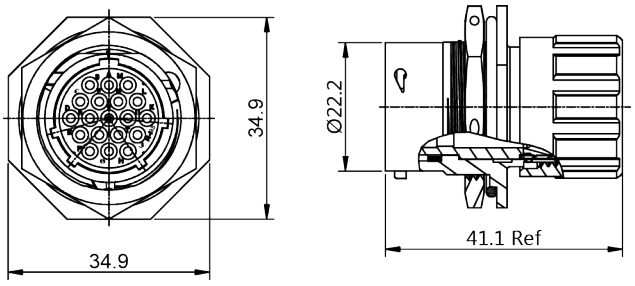
Female Figure 2 RT0W71419SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT0W71419PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT0W71419SNHEC

Jam Nut Receptacle Panel Cutout

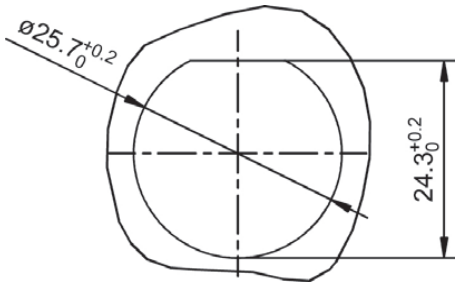


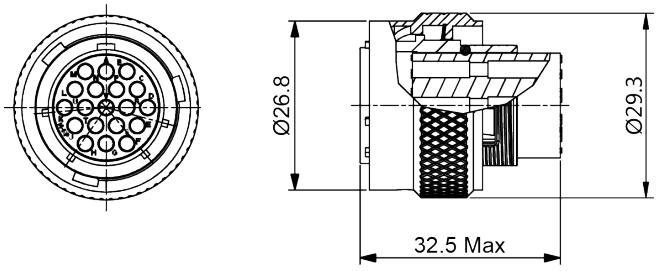
Figure 5

Shell Size: 14 **Number of Contacts: 19** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

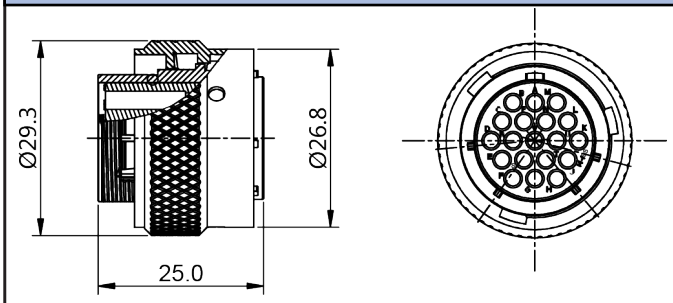
Dimensions Plug

Plug



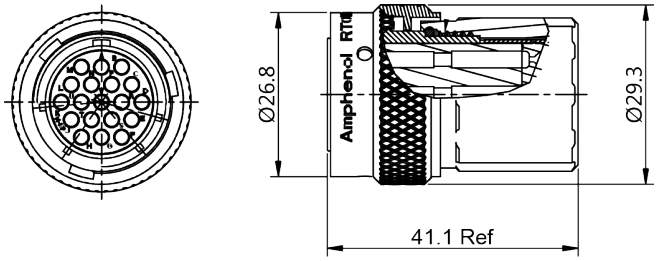
Male Figure 6 RT0W61419PNH

Plug



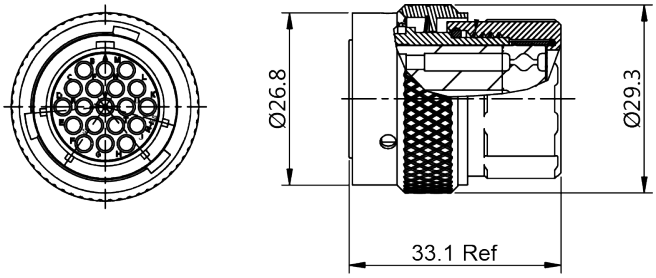
Female Figure 7 RT0W61419SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT0W61419PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT0W61419SNHEC

Individual Sealing Wire Range

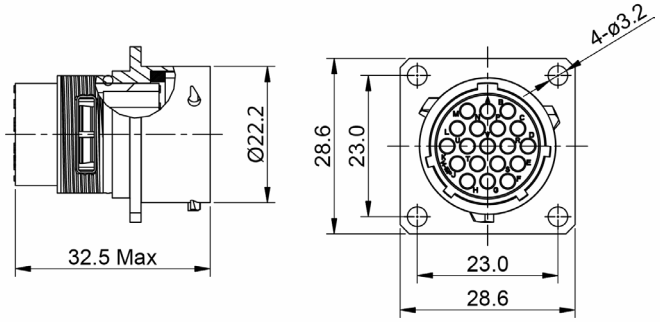
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
20	Ø1.6mm - Ø2.6mm	20 - 30 AWG

Shell Size: 14 **Number of Contacts: 19** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

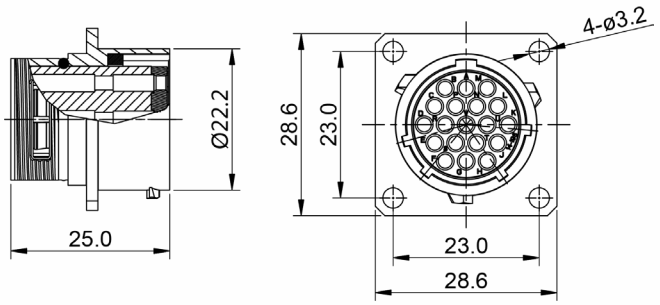
Dimensions Square Flange Receptacle

Square Flange Receptacle



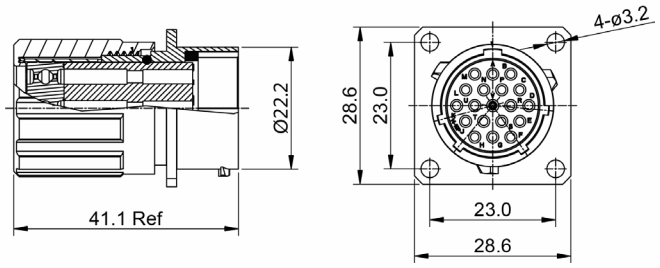
Male Figure 10 RT0W01419PNH

Square Flange Receptacle



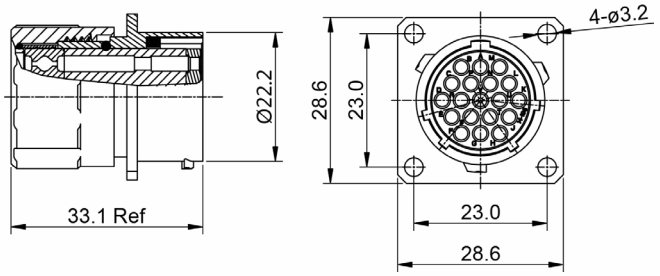
Female Figure 11 RT0W01419SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT0W01419PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT0W01419SNHEC

Square Flange Receptacle Panel Cutout

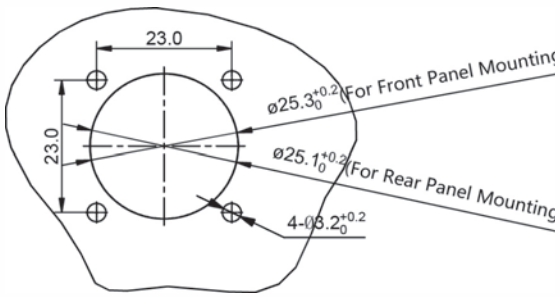


Figure 14

Shell Size: 14 **Number of Contacts: 19** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

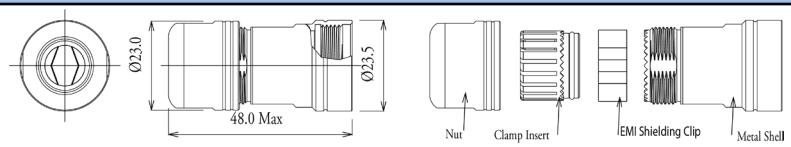


Figure 15

Long Cord Grip (straight)

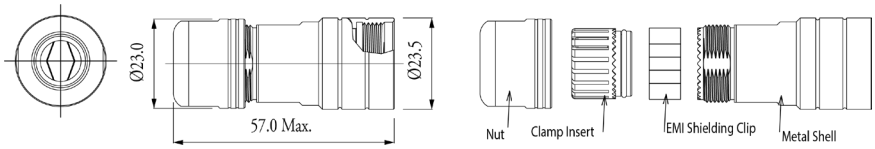


Figure 16

Cord Grip (90°)

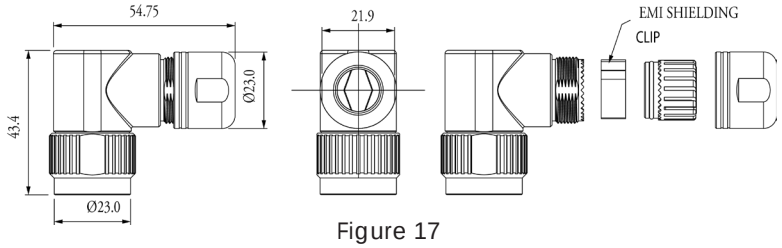


Figure 17

Accessories

Locking Clip with Lanyard

NEW! See Page 16

108039114

Plug Dustcap with Chain

RT614DCG

Plug Dustcap without Chain

RT614DC

Receptacle Dustcap with Chain

RT014DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT014RL

Receptacle Dustcap without Chain

RT014DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011914

Sealing Plug, Size 20

AT13-204-2005

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD14B

Shell Size: 14 **Number of Contacts: 19** **Contact Size: 20**
Sealing: IP67 Salt Spray: 48h

Contacts

Machined Contacts

Crimp Contacts, Machined (7.5A Max)

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
MP20W23F	MS20W23F	22-20	.34-.50	Gold Flash
MP20W23G5	MS20W23G5	22-20	.34-.50	Gold 5µ"
MP20W23G10	MS20W23G10	22-20	.34-.50	Gold 10µ"
MP20W23G15	MS20W23G15	22-20	.34-.50	Gold 15µ"
MP20W23G30	MS20W23G30	22-20	.34-.50	Gold 30µ"
MP24W23F	MS24W23F	26-24	.13-.25	Gold Flash
MP24W23G5	MS24W23G5	26-24	.13-.25	Gold 5µ"
MP24W23G10	MS24W23G10	26-24	.13-.25	Gold 10µ"
MP24W23G15	MS24W23G15	26-24	.13-.25	Gold 15µ"
MP24W23G30	MS24W23G30	26-24	.13-.25	Gold 30µ"
MP28W23F	MS28W23F	30-28	.05-.08	Gold Flash
MP28W23G5	MS28W23G5	30-28	.05-.08	Gold 5µ"
MP28W23G10	MS28W23G10	30-28	.05-.08	Gold 10µ"
MP28W23G15	MS28W23G15	30-28	.05-.08	Gold 15µ"
MP28W23G30	MS28W23G30	30-28	.05-.08	Gold 30µ"

Tools

Contact Extraction Tool, #20 (Ø 1.0) Contact

QXRT20

Hand Crimp Tool for Machined Contacts

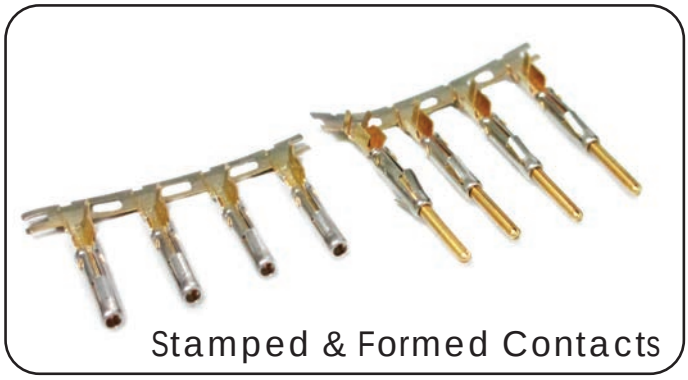
MFX-3959

Pneumatic Crimp Tool for Machined Contact

MFX-3960

Shell Size: 14 **Number of Contacts: 19** **Contact Size: 20**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed (5A Max)

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP20W2F	SS20W2F	22-20	.34-.50	Gold Flash
SP20W2G5	SS20W2G5	22-20	.34-.50	Gold 5µ"
SP20W2G10	SS20W2G10	22-20	.34-.50	Gold 10µ"
SP20W2G15	SS20W2G15	22-20	.34-.50	Gold 15µ"
SP20W2G30	SS20W2G30	22-20	.34-.50	Gold 30µ"
SP24W2F	SS24W2F	26-24	.14-.25	Gold Flash
SP24W2G5	SS24W2G5	26-24	.14-.25	Gold 5µ"
SP24W2G10	SS24W2G10	26-24	.14-.25	Gold 10µ"
SP24W2G15	SS24W2G15	26-24	.14-.25	Gold 15µ"
SP24W2G30	SS24W2G30	26-24	.14-.25	Gold 30µ"
SP28W2F	SS28W2F	30-28	.05-.08	Gold Flash
SP28W2G5	SS28W2G5	30-28	.05-.08	Gold 5µ"
SP28W2G10	SS28W2G10	30-28	.05-.08	Gold 10µ"
SP28W2G15	SS28W2G15	30-28	.05-.08	Gold 15µ"
SP28W2G30	SS28W2G30	30-28	.05-.08	Gold 30µ"

Tools

Contact Extraction Tool, #20 (Ø 1.0) Contact


QXRT20

Hand Tool, Stamped & Formed Contact, Size 20, 20-28AWG


MFX-3958

Crimp Die for Stamped & Formed Contact


MFX-3957

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

STEP 2
Choose Backshell Style

Jam Nut Receptacles


RT071619PNH


RT071619SNH


RT071619PNHEC


RT071619SNHEC

OR

Square Flange Receptacles


RT001619PNH


RT001619SNH


RT001619PNHEC


RT001619SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug


RT061619PNH


RT061619SNH


RT061619PNHEC


RT061619SNHEC

Backshell


RT0S-16CG-S1


RT0S-16CG-S2


RT0L-16CG-S1


RT0L-16CG-S2


RT0B-16CG-S1


RT0B-16CG-S2

OR

Plug Kit Including Connector, Backshell & Contacts

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 140

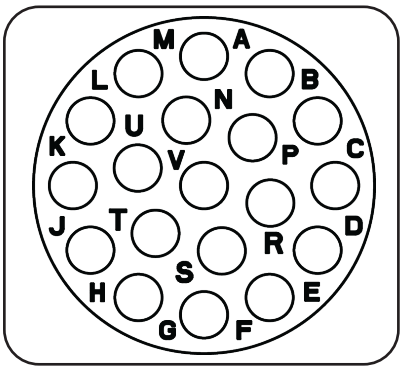
Shell Size: 16 **Number of Contacts: 19** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT071619PNH	RT071619SNH	Jam Nut Receptacle	1,5	2,5
RT071619PNHEC	RT071619SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT071619PNH-K	RT071619SNH-K	Jam Nut Receptacle Kit	1,5	2,5
RT061619PNH	RT061619SNH	Plug	6	7
RT061619PNHEC	RT061619SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT061619PNH-K	RT061619SNH-K	Plug Kit	6	7
RT001619PNH	RT001619SNH	Square Flange Receptacle	10,14	11,14
RT001619PNHEC	RT001619SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT001619PNH-K	RT001619SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 140
**See page 137 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-16CG-S1	Short Cord Grip (straight)	9.0-14.5	15	✓
RT0S-16CG-S2	Short Cord Grip (straight)	13.5-17	15	✓
RT0L-16CG-S1	Long Cord Grip (straight)	9.0-14.5	16	✓
RT0L-16CG-S2	Long Cord Grip (straight)	13.5-17	16	✓
RT0B-16CG-S1	Cord Grip (90°)	9.5-14.5	17	✓
RT0B-16CG-S2	Cord Grip (90°)	13.5-17.0	17	✓

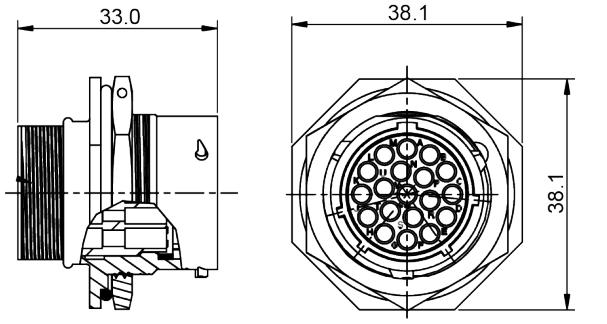
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 16 **Number of Contacts: 19** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

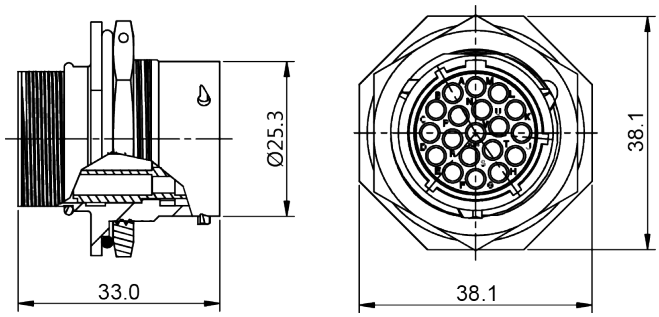
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



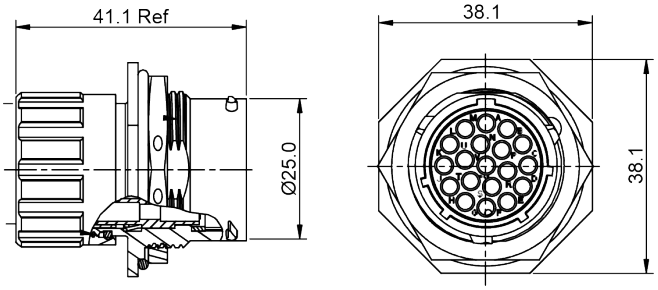
Male Figure 1 RT071619PNH

Jam Nut Receptacle



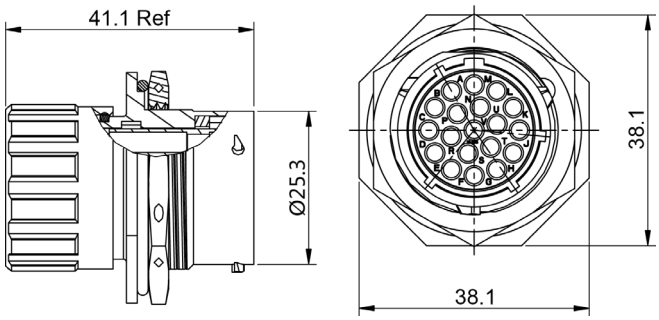
Female Figure 2 RT071619SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 3 RT071619PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT071619SNHEC

Jam Nut Receptacle Panel Cutout

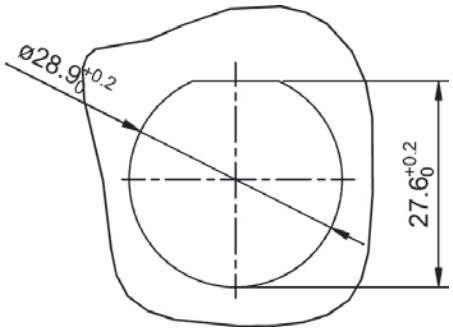


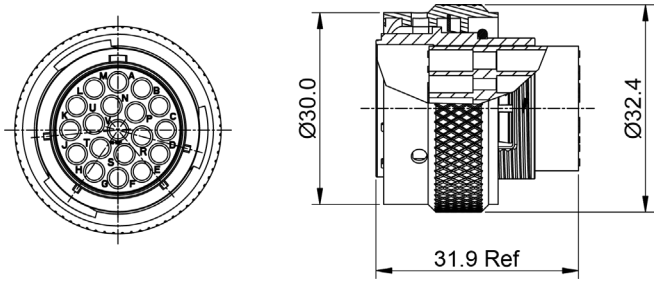
Figure 5

Shell Size: 16 **Number of Contacts: 19** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

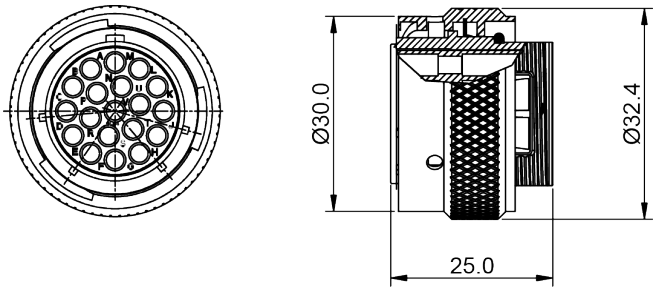
Dimensions Plug

Plug



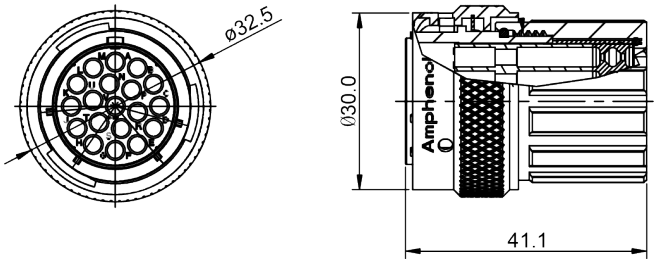
Male Figure 6 RT061619PNH

Plug



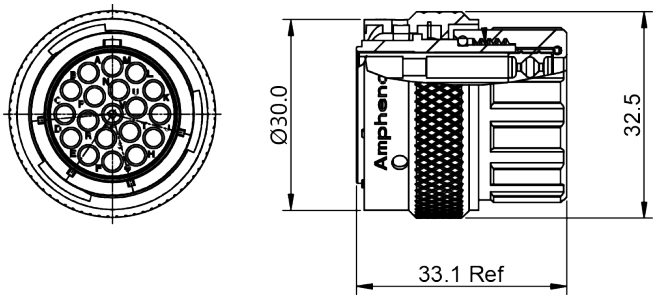
Female Figure 7 RT061619SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT061619PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT061619SNHEC

Individual Sealing Wire Range

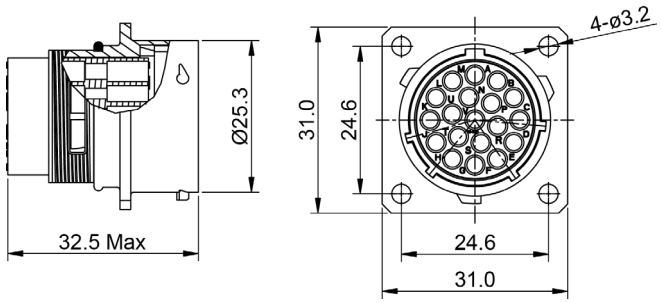
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
16	Ø2.0mm - Ø3.2mm	14 - 24 AWG

Shell Size: 16 **Number of Contacts: 19** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

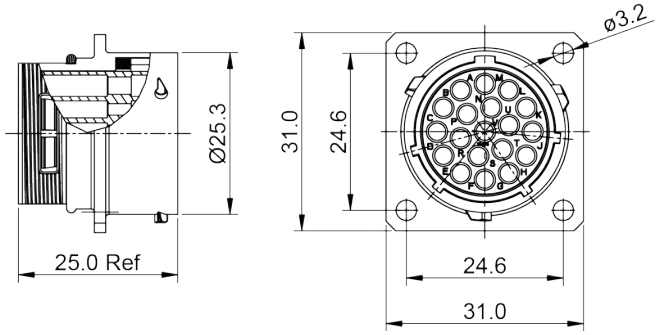
Dimensions Square Flange Receptacle

Square Flange Receptacle



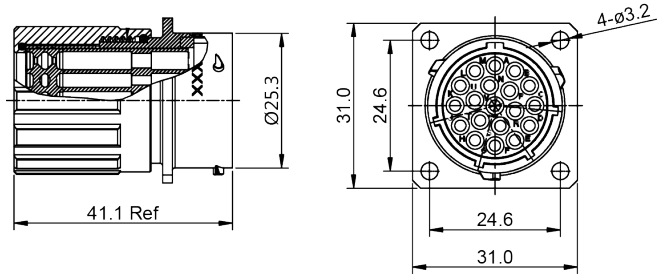
Male Figure 10 RT001619PNH

Square Flange Receptacle



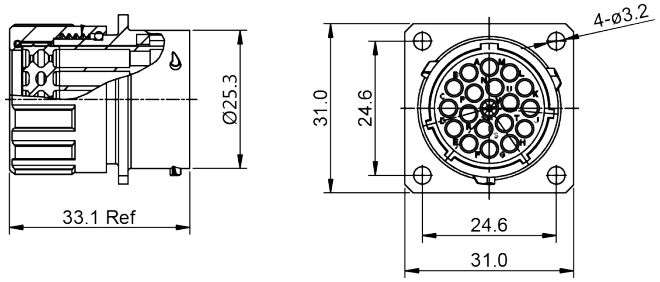
Female Figure 11 RT001619SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT001619PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT001619SNHEC

Square Flange Receptacle Panel Cutout

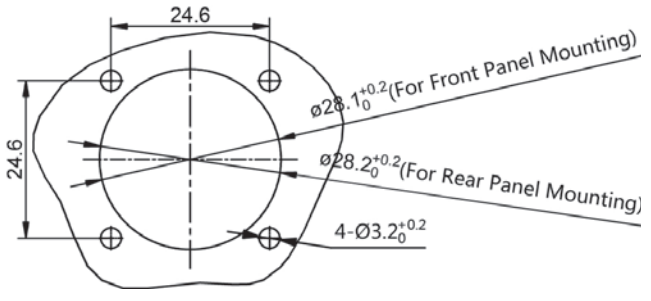


Figure 14

Shell Size: 16 **Number of Contacts: 19** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

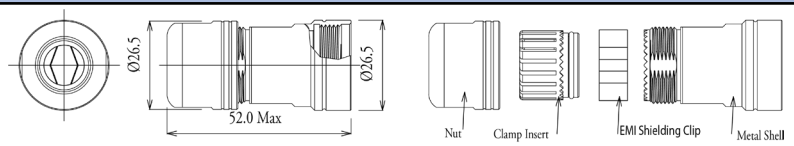


Figure 15

Long Cord Grip (straight)

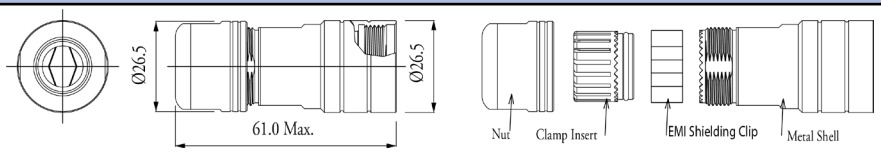


Figure 16

Cord Grip (90°)

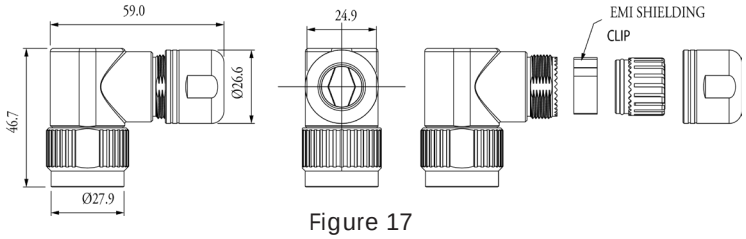


Figure 17

Accessories

Locking Clip with Lanyard

NEW! See Page 16

108039116

Plug Dustcap with Chain

RT616DCG

Plug Dustcap without Chain

RT616DC

Receptacle Dustcap with Chain

RT016DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT016RL

Receptacle Dustcap without Chain

RT016DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011916

Sealing Plug, Size 16

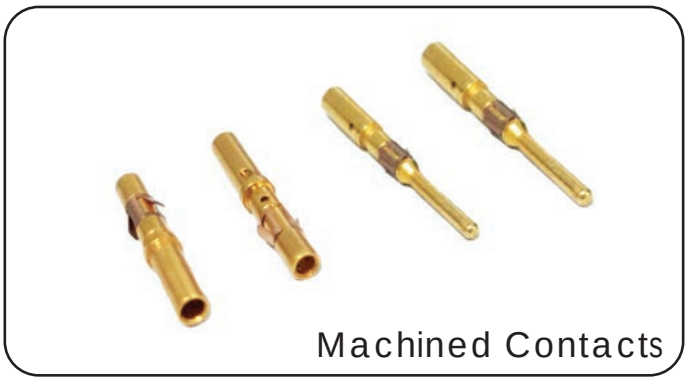
CA-4016-59

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD16B

Shell Size: 16 **Number of Contacts: 19** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts


Machined Contacts

Crimp Contacts, Machined

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
MP14M23F	MS14M23F	14	2.0-2.5	Gold Flash
MP14M23G5	MS14M23G5	14	2.0-2.5	Gold 5µ"
MP14M23G10	MS14M23G10	14	2.0-2.5	Gold 10µ"
MP14M23G15	MS14M23G15	14	2.0-2.5	Gold 15µ"
MP14M23G30	MS14M23G30	14	2.0-2.5	Gold 30µ"
MP16M23F	MS16M23F	18-16	.75-1.5	Gold Flash
MP16M23G5	MS16M23G5	18-16	.75-1.5	Gold 5µ"
MP16M23G10	MS16M23G10	18-16	.75-1.5	Gold 10µ"
MP16M23G15	MS16M23G15	18-16	.75-1.5	Gold 15µ"
MP16M23G30	MS16M23G30	18-16	.75-1.5	Gold 30µ"
MP20M23F	MS20M23F	22-20	.34-.50	Gold Flash
MP20M23G5	MS20M23G5	22-20	.34-.50	Gold 5µ"
MP20M23G10	MS20M23G10	22-20	.34-.50	Gold 10µ"
MP20M23G15	MS20M23G15	22-20	.34-.50	Gold 15µ"
MP20M23G30	MS20M23G30	22-20	.34-.50	Gold 30µ"
MP24M23F	MS24M23F	26-24	.14-.25	Gold Flash
MP24M23G5	MS24M23G5	26-24	.14-.25	Gold 5µ"
MP24M23G10	MS24M23G10	26-24	.14-.25	Gold 10µ"
MP24M23G15	MS24M23G15	26-24	.14-.25	Gold 15µ"
MP24M23G30	MS24M23G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Crimp Tool for Machined Contacts


MFX-3959

Pneumatic Crimp Tool for Machined Contacts


MFX-3960

Shell Size: 16 **Number of Contacts: 19** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP14M2F	SS14M2F	14	2.0-2.5	Gold Flash
SP14M2G5	SS14M2G5	14	2.0-2.5	Gold 5µ"
SP14M2G10	SS14M2G10	14	2.0-2.5	Gold 10µ"
SP14M2G15	SS14M2G15	14	2.0-2.5	Gold 15µ"
SP14M2G30	SS14M2G30	14	2.0-2.5	Gold 30µ"
SP16M2F	SS16M2F	18-16	.75-1.5	Gold Flash
SP16M2G5	SS16M2G5	18-16	.75-1.5	Gold 5µ"
SP16M2G10	SS16M2G10	18-16	.75-1.5	Gold 10µ"
SP16M2G10	SS16M2G15	18-16	.75-1.5	Gold 15µ"
SP16M2G30	SS16M2G30	18-16	.75-1.5	Gold 30µ"
SP20M2F	SS20M2F	22-20	.34-.50	Gold Flash
SP20M2G5	SS20M2G5	22-20	.34-.50	Gold 5µ"
SP20M2G10	SS20M2G10	22-20	.34-.50	Gold 10µ"
SP20M2G15	SS20M2G15	22-20	.34-.50	Gold 15µ"
SP20M2G30	SS20M2G30	22-20	.34-.50	Gold 30µ"
SP24M2F	SS24M2F	22-20	.14-.25	Gold Flash
SP24M2G5	SS24M2G5	26-24	.14-.25	Gold 5µ"
SP24M2G10	SS24M2G10	26-24	.14-.25	Gold 10µ"
SP24M2G15	SS24M2G15	26-24	.14-.25	Gold 15µ"
SP24M2G30	SS24M2G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Tool, Stamped & Formed Contact, Size 16, 20-14AWG


MFX-3954

Crimp Die for Stamped & Formed Contact


MFX-3957

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

STEP 2
Choose Backshell Style

Jam Nut Receptacles


RT071823PNH


RT071823SNH


RT071823PNHEC


RT071823SNHEC

OR

Square Flange Receptacles


RT001823PNH


RT001823SNH


RT001823PNHEC


RT001823SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug


RT061823PNH


RT061823SNH


RT061823PNHEC


RT061823SNHEC

Backshell


RT0S-18CG-S1


RT0S-18CG-S2


RT0L-18CG-S1


RT0L-18CG-S2

OR

Plug Kit Including Connector, Backshell & Contacts

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 148

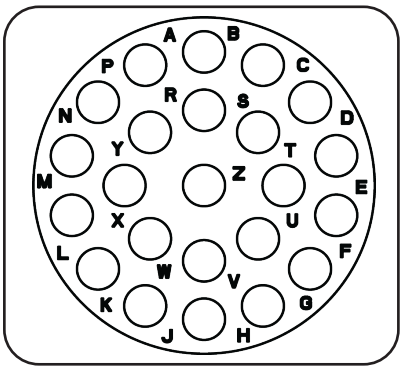
Shell Size: 18 **Number of Contacts: 23** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT071823PNH	RT071823SNH	Jam Nut Receptacle	1,5	2,5
RT071823PNHEC	RT071823SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT071823PNH-K	RT071823SNH-K	Jam Nut Receptacle Kit	1,5	2,5
RT061823PNH	RT061823SNH	Plug	6	7
RT061823PNHEC	RT061823SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT061823PNH-K	RT061823SNH-K	Plug Kit	1,5	2,5
RT001823PNH	RT001823SNH	Square Flange Receptacle	10,14	11,14
RT001823PNHEC	RT001823SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT001823PNH-K	RT001823SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 148
**See page 145 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-18CG-S1	Short Cord Grip (straight)	9.0-14.5	15	✓
RT0S-18CG-S2	Short Cord Grip (straight)	13.5-17	15	✓
RT0L-18CG-S1	Long Cord Grip (straight)	9.0-14.5	16	✓
RT0L-18CG-S2	Long Cord Grip (straight)	13.5-17	16	✓

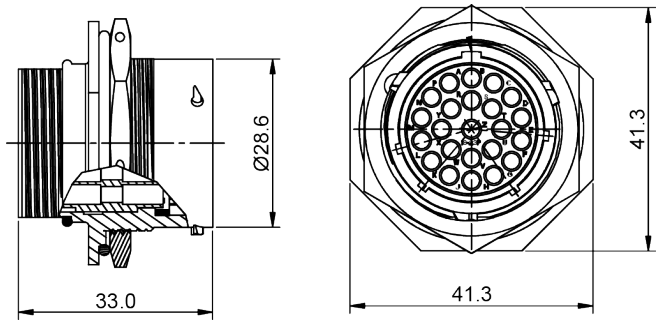
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 18 **Number of Contacts: 23** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

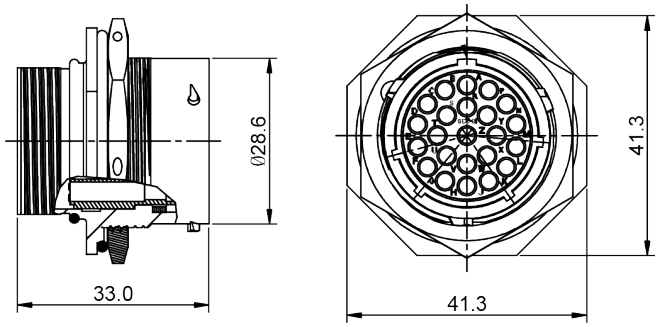
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



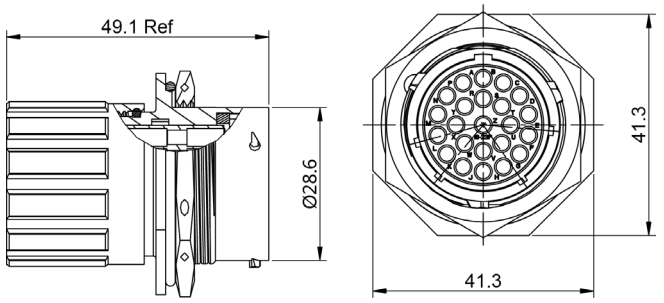
Male Figure 1 RT071823PNH

Jam Nut Receptacle



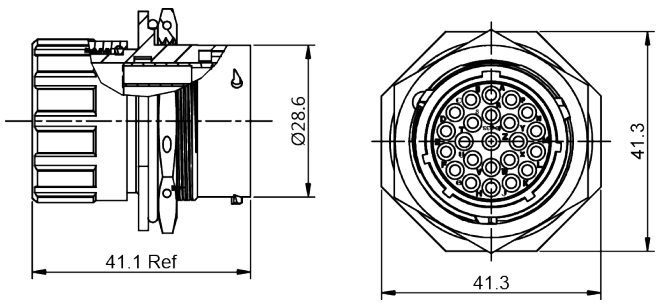
Female Figure 2 RT071823SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT071823PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT071823SNHEC

Jam Nut Receptacle Panel Cutout

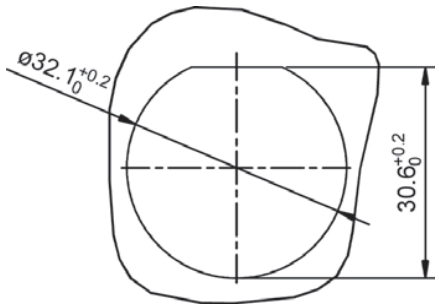


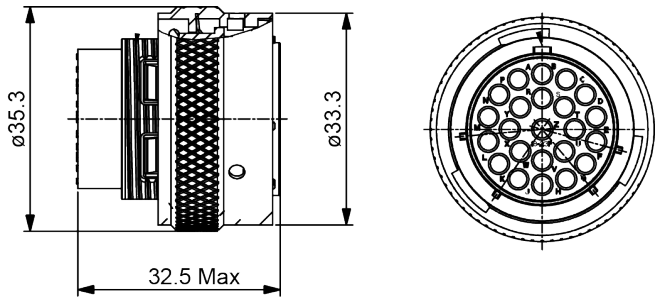
Figure 5

Shell Size: 18 **Number of Contacts: 23** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

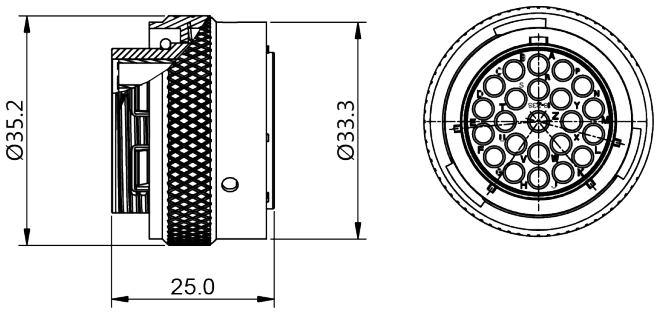
Dimensions Plug

Plug



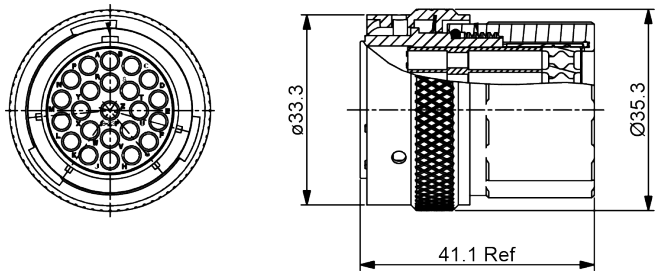
Male Figure 6 RT061823PNH

Plug



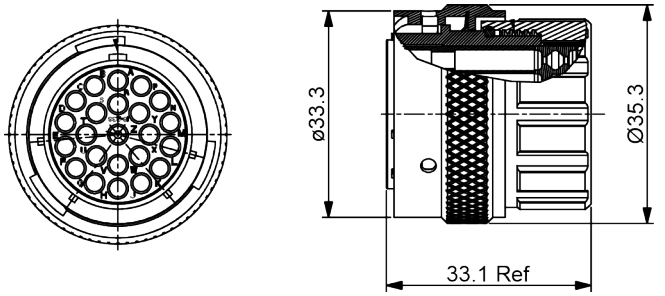
Female Figure 7 RT061823SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT061823PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT061823SNHEC

Individual Sealing Wire Range

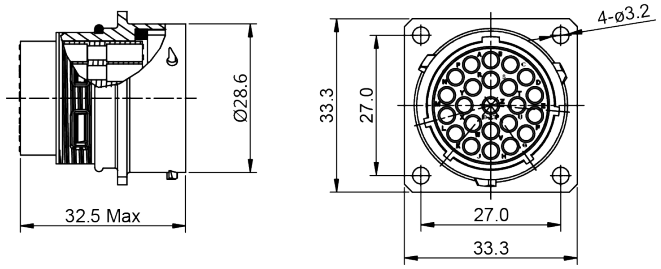
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
16	Ø2.0mm - Ø3.2mm	14 - 24 AWG

Shell Size: 18 **Number of Contacts: 23** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

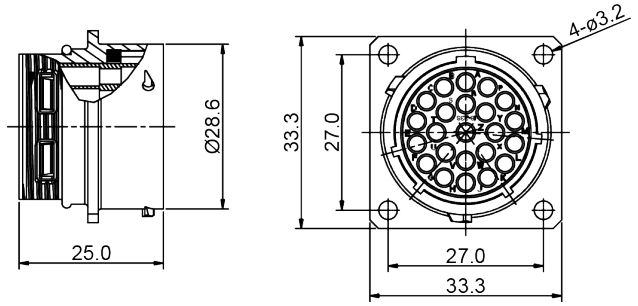
Dimensions Square Flange Receptacle

Square Flange Receptacle



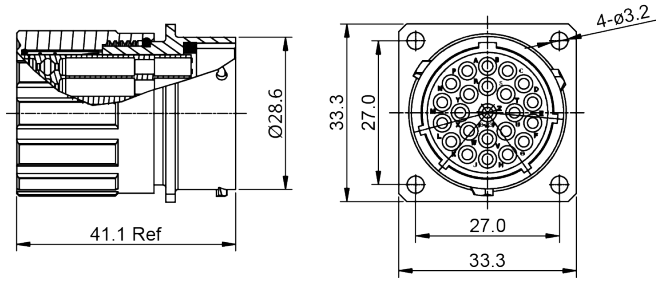
Male Figure 10 RT001823PNH

Square Flange Receptacle



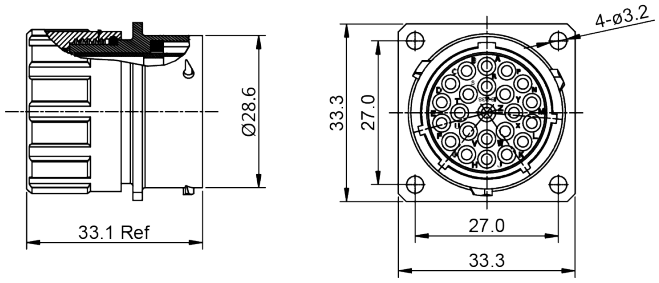
Female Figure 11 RT001823SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT001823PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT001823SNHEC

Square Flange Receptacle Panel Cutout

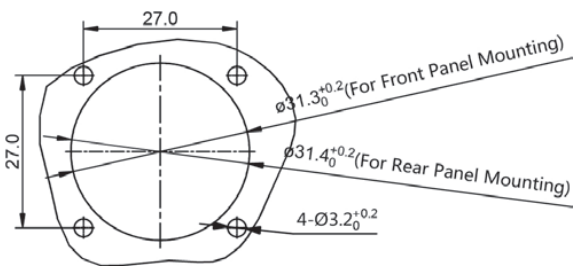


Figure 14

Shell Size: 18 **Number of Contacts: 23** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

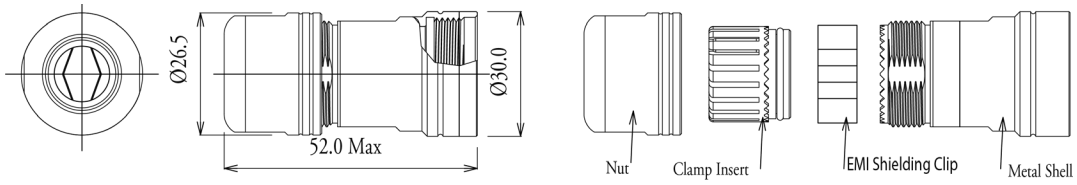


Figure 15

Long Cord Grip (straight)

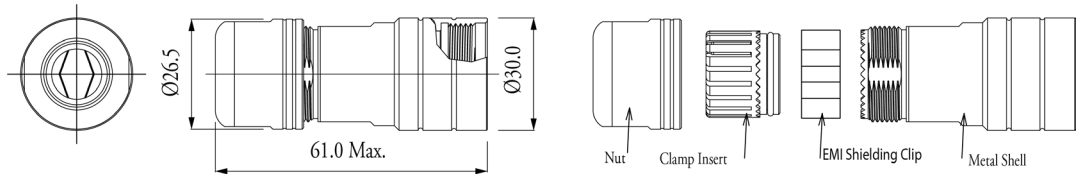


Figure 16

Accessories

Locking Clip with Lanyard

NEW! See Page 16

108039118

Plug Dustcap with Chain

RT618DCG

Plug Dustcap without Chain

RT618DC

Receptacle Dustcap with Chain

RT018DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT018RL

Receptacle Dustcap without Chain

RT018DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011918

Sealing Plug, Size 16

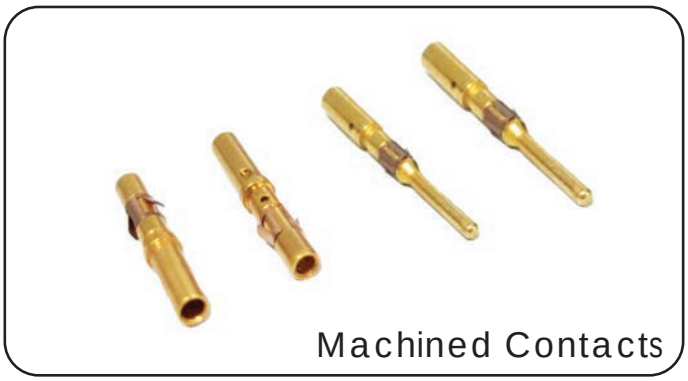
CA-4016-59

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD18B

Shell Size: 18 **Number of Contacts: 23** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts


Machined Contacts

Crimp Contacts, Machined

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
MP14M23F	MS14M23F	14	2.0-2.5	Gold Flash
MP14M23FG5	MS14M23G5	14	2.0-2.5	Gold 5µ"
MP14M23FG10	MS14M23G10	14	2.0-2.5	Gold 10µ"
MP14M23FG15	MS14M23G15	14	2.0-2.5	Gold 15µ"
MP14M23G30	MS14M23G30	14	2.0-2.5	Gold 30µ"
MP16M23F	MS16M23F	18-16	.75-1.5	Gold Flash
MP16M23G5	MS16M23G5	18-16	.75-1.5	Gold 5µ"
MP16M23G10	MS16M23G10	18-16	.75-1.5	Gold 10µ"
MP16M23G15	MS16M23G15	18-16	.75-1.5	Gold 15µ"
MP16M23G30	MS16M23G30	18-16	.75-1.5	Gold 30µ"
MP20M23F	MS20M23F	22-20	.34-.50	Gold Flash
MP20M23G5	MS20M23G5	22-20	.34-.50	Gold 5µ"
MP20M23G10	MS20M23G10	22-20	.34-.50	Gold 10µ"
MP20M23G15	MS20M23G15	22-20	.34-.50	Gold 15µ"
MP20M23G30	MS20M23G30	22-20	.34-.50	Gold 30µ"
MP24M23F	MS24M23F	26-24	.14-.25	Gold Flash
MP24M23G5	MS24M23G5	26-24	.14-.25	Gold 5µ"
MP24M23G10	MS24M23G10	26-24	.14-.25	Gold 10µ"
MP24M23G15	MS24M23G15	26-24	.14-.25	Gold 15µ"
MP24M23G30	MS24M23G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Crimp Tool for Machined Contacts

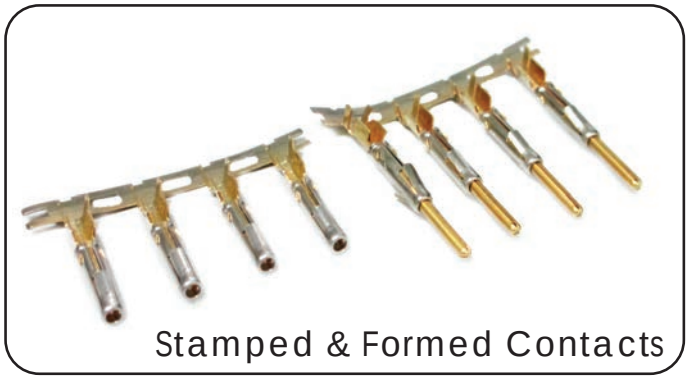

MFX-3959

Pneumatic Crimp Tool for Machined Contacts


MFX-3960

Shell Size: 18 **Number of Contacts: 23** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP14M2F	SS14M2F	14	2.0-2.5	Gold Flash
SP14M2G5	SS14M2G5	14	2.0-2.5	Gold 5µ"
SP14M2G10	SS14M2G10	14	2.0-2.5	Gold 10µ"
SP14M2G15	SS14M2G15	14	2.0-2.5	Gold 15µ"
SP14M2G30	SS14M2G30	14	2.0-2.5	Gold 30µ"
SP16M2F	SS16M2F	18-16	.75-1.5	Gold Flash
SP16M2G5	SS16M2G5	18-16	.75-1.5	Gold 5µ"
SP16M2G10	SS16M2G10	18-16	.75-1.5	Gold 10µ"
SP16M2G10	SS16M2G15	18-16	.75-1.5	Gold 15µ"
SP16M2G30	SS16M2G30	18-16	.75-1.5	Gold 30µ"
SP20M2F	SS20M2F	22-20	.34-.50	Gold Flash
SP20M2G5	SS20M2G5	22-20	.34-.50	Gold 5µ"
SP20M2G10	SS20M2G10	22-20	.34-.50	Gold 10µ"
SP20M2G15	SS20M2G15	22-20	.34-.50	Gold 15µ"
SP20M2G30	SS20M2G30	22-20	.34-.50	Gold 30µ"
SP24M2F	SS24M2F	22-20	.14-.25	Gold Flash
SP24M2G5	SS24M2G5	26-24	.14-.25	Gold 5µ"
SP24M2G10	SS24M2G10	26-24	.14-.25	Gold 10µ"
SP24M2G15	SS24M2G15	26-24	.14-.25	Gold 15µ"
SP24M2G30	SS24M2G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Tool, Stamped & Formed Contact, Size 16, 20-14AWG


MFX-3954

Crimp Die for Stamped & Formed Contact


MFX-3957

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

STEP 2
Choose Backshell Style

Jam Nut Receptacles


RT0W71626PNH


RT0W71626SNH


RT0W71626PNHEC


RT0W71626SNHEC

OR

Square Flange Receptacles


RT0W01626PNH


RT0W01626SNH


RT0W01626PNHEC


RT0W01626SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug


RT0W61626PNH


RT0W61626SNH


RT0W61626PNHEC


RT0W61626SNHEC

Backshell


RT0S-16CG-S1


RT0S-16CG-S2


RT0L-16CG-S1


RT0L-16CG-S2


RT0B-16CG-S1


RT0B-16CG-S2

OR

Plug Kit Including Connector, Backshell & Contacts

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 156

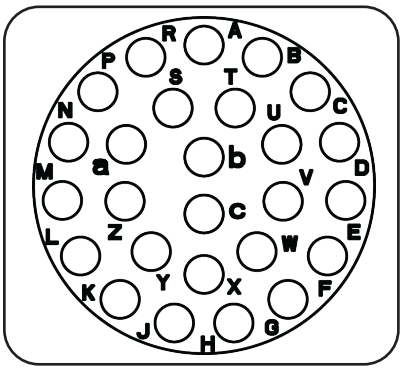
Shell Size: 16 **Number of Contacts: 26** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT0W71626PNH	RT0W71626SNH	Jam Nut Receptacle	1,5	2,5
RT0W71626PNHEC	RT0W71626SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT0W71626PNH-K	RT0W71626SNH-K	Jam Nut Receptacle Kit	1,5	2,5
RT0W61626PNH	RT0W61626SNH	Plug	6	7
RT0W61626PNHEC	RT0W61626SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT0W61626PNH-K	RT0W61626SNH-K	Plug Kit	6	7
RT0W01626PNH	RT0W01626SNH	Square Flange Receptacle	10,14	11,14
RT0W01626PNHEC	RT0W01626SNHEC	Square Flange Receptacle with Unshielded Backshell and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT0W01626PNH-K	RT0W01626SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 156
**See page 153 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-16CG-S1	Short Cord Grip (straight)	9.0-14.5	15	✓
RT0S-16CG-S2	Short Cord Grip (straight)	13.5-17	15	✓
RT0L-16CG-S1	Long Cord Grip (straight)	9.0-14.5	16	✓
RT0L-16CG-S2	Long Cord Grip (straight)	13.5-17	16	✓
RT0B-16CG-S1	Cord Grip (90°)	9.5-14.5	17	✓
RT0B-16CG-S2	Cord Grip (90°)	13.5-17.0	17	✓

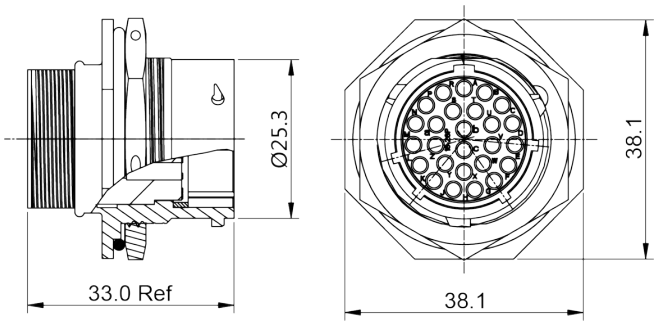
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 16 **Number of Contacts: 26** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

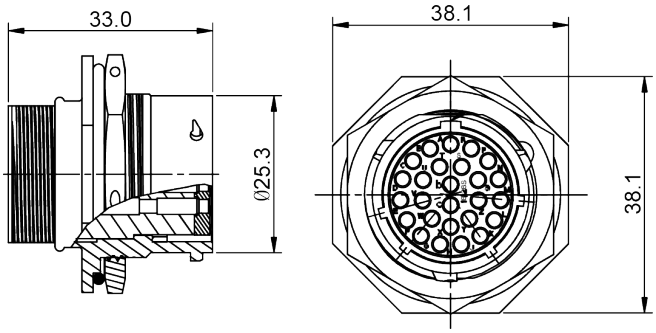
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



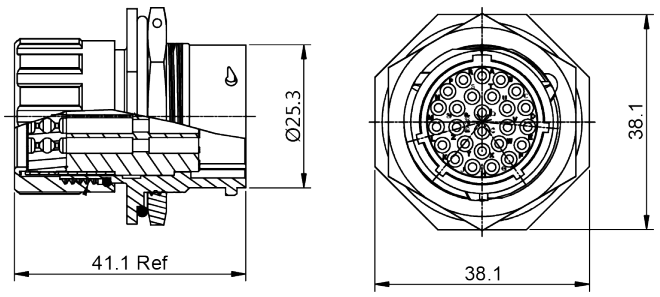
Male Figure 1 RT0W71626PNH

Jam Nut Receptacle



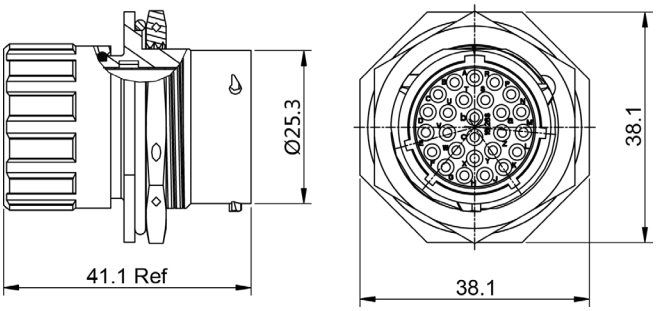
Female Figure 2 RT0W71626SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT0W71626PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT0W71626SNHEC

Jam Nut Receptacle Panel Cutout

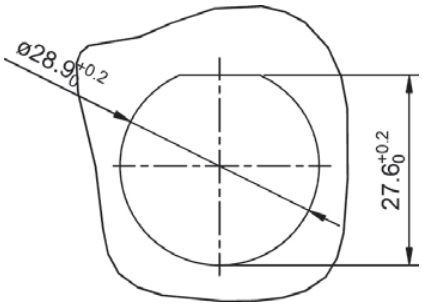


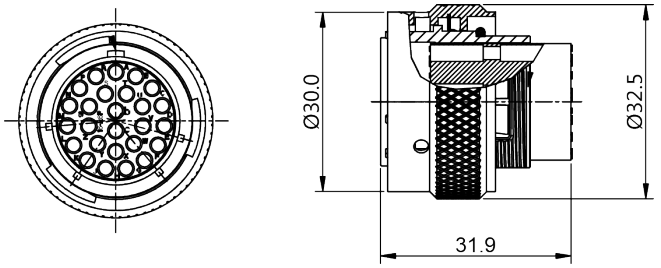
Figure 5

Shell Size: 16 **Number of Contacts: 26** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

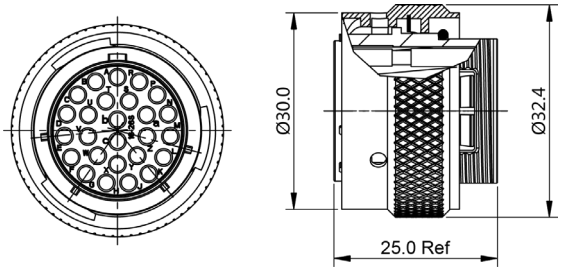
Dimensions Plug

Plug



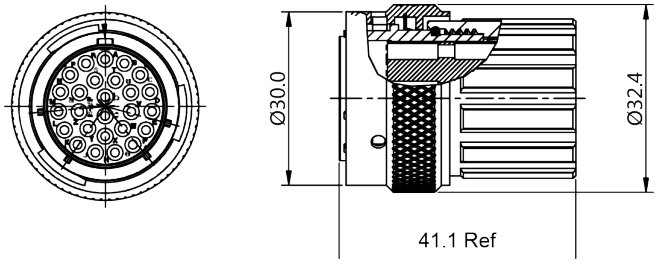
Male Figure 6 RT0W61626PNH

Plug



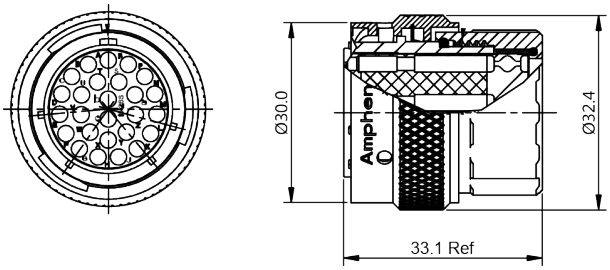
Female Figure 7 RT0W61626SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT0W61626PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT0W61626SNHEC

Individual Sealing Wire Range

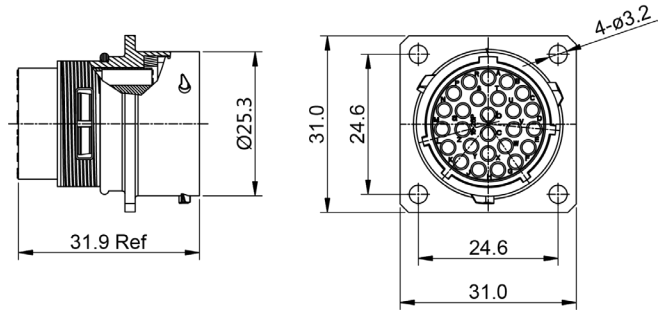
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
20	Ø1.6mm - Ø2.6mm	20 - 30 AWG

Shell Size: 16 **Number of Contacts: 26** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

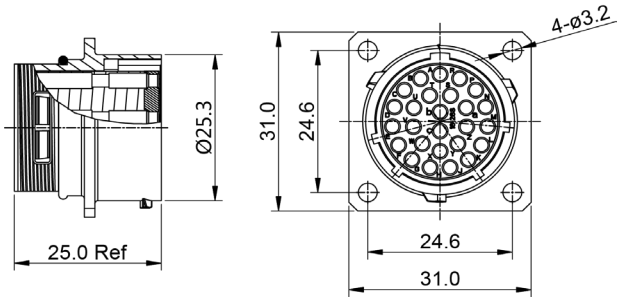
Dimensions Square Flange Receptacle

Square Flange Receptacle



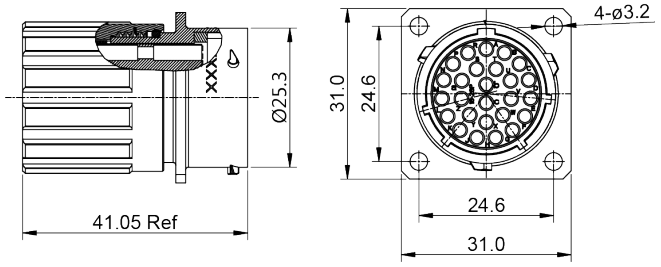
Male Figure 10 RT0W01626PNH

Square Flange Receptacle



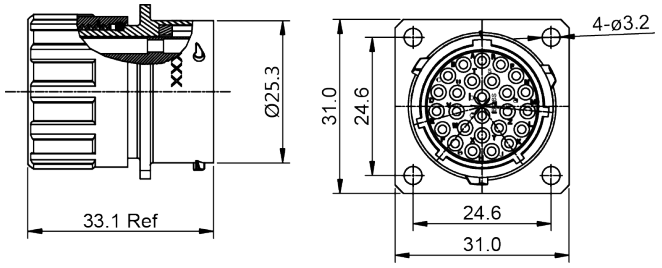
Female Figure 11 RT0W01626SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT0W01626PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT0W01626SNHEC

Square Flange Receptacle Panel Cutout

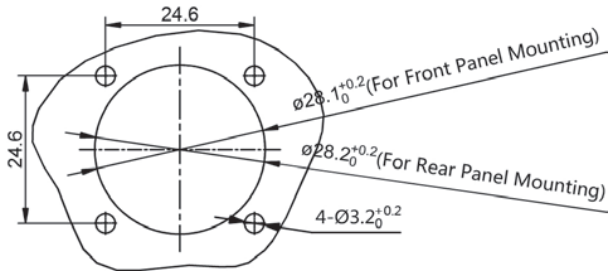


Figure 14

Shell Size: 16 **Number of Contacts: 26** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

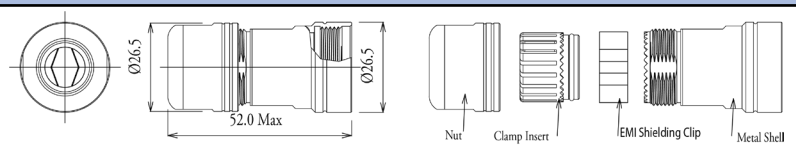


Figure 15

Long Cord Grip (straight)

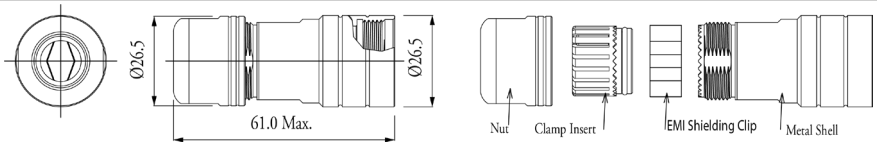


Figure 17

Cord Grip (90°)

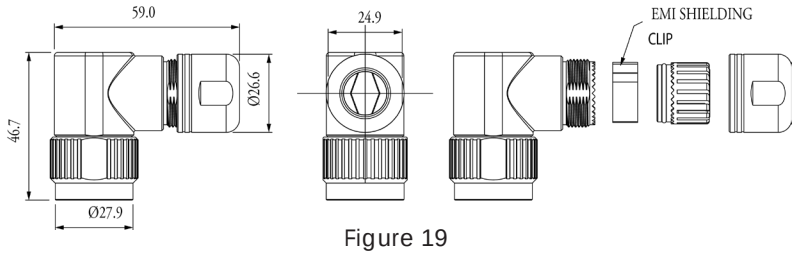


Figure 19

Accessories

Locking Clip with Lanyard

NEW! See Page 16

108039116

Plug Dustcap with Chain

RT616DCG

Plug Dustcap without Chain

RT616DC

Receptacle Dustcap with Chain

RT016DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT016RL

Receptacle Dustcap without Chain

RT016DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011916

Sealing Plug, Size 20

AT13-204-2005

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD16B

Shell Size: 16 **Number of Contacts: 26** **Contact Size: 20**
Sealing: IP67 Salt Spray: 48h

Contacts

Machined Contacts

Crimp Contacts, Machined (7.5A Max)

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
MP20W23F	MS20W23F	22-20	.34-.50	Gold Flash
MP20W23G5	MS20W23G5	22-20	.34-.50	Gold 5µ"
MP20W23G10	MS20W23G10	22-20	.34-.50	Gold 10µ"
MP20W23G15	MS20W23G15	22-20	.34-.50	Gold 15µ"
MP20W23G30	MS20W23G30	22-20	.34-.50	Gold 30µ"
MP24W23F	MS24W23F	26-24	.13-.25	Gold Flash
MP24W23G5	MS24W23G5	26-24	.13-.25	Gold 5µ"
MP24W23G10	MS24W23G10	26-24	.13-.25	Gold 10µ"
MP24W23G15	MS24W23G15	26-24	.13-.25	Gold 15µ"
MP24W23G30	MS24W23G30	26-24	.13-.25	Gold 30µ"
MP28W23F	MS28W23F	30-28	.05-.08	Gold Flash
MP28W23G5	MS28W23G5	30-28	.05-.08	Gold 5µ"
MP28W23G10	MS28W23G10	30-28	.05-.08	Gold 10µ"
MP28W23G15	MS28W23G15	30-28	.05-.08	Gold 15µ"
MP28W23G30	MS28W23G30	30-28	.05-.08	Gold 30µ"

Tools

Contact Extraction Tool, #20 (Ø 1.0) Contact

QXRT20

Hand Crimp Tool for Machined Contacts

MFX-3959

Pneumatic Crimp Tool for Machined Contact

MFX-3960

Shell Size: 16 **Number of Contacts: 26** **Contact Size: 20**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed (5A Max)

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP20W2F	SS20W2F	22-20	.34-.50	Gold Flash
SP20W2G5	SS20W2G5	22-20	.34-.50	Gold 5µ"
SP20W2G10	SS20W2G10	22-20	.34-.50	Gold 10µ"
SP20W2G15	SS20W2G15	22-20	.34-.50	Gold 15µ"
SP20W2G30	SS20W2G30	22-20	.34-.50	Gold 30µ"
SP24W2F	SS24W2F	26-24	.14-.25	Gold Flash
SP24W2G5	SS24W2G5	26-24	.14-.25	Gold 5µ"
SP24W2G10	SS24W2G10	26-24	.14-.25	Gold 10µ"
SP24W2G15	SS24W2G15	26-24	.14-.25	Gold 15µ"
SP24W2G30	SS24W2G30	26-24	.14-.25	Gold 30µ"
SP28W2F	SS28W2F	30-28	.05-.08	Gold Flash
SP28W2G5	SS28W2G5	30-28	.05-.08	Gold 5µ"
SP28W2G10	SS28W2G10	30-28	.05-.08	Gold 10µ"
SP28W2G15	SS28W2G15	30-28	.05-.08	Gold 15µ"
SP28W2G30	SS28W2G30	30-28	.05-.08	Gold 30µ"

Tools

Contact Extraction Tool, #20 (Ø 1.0) Contact


QXRT20

Hand Tool, Stamped & Formed Contact, Size 20, 20-28AWG


MFX-3958

Crimp Die for Stamped & Formed Contact


MFX-3957

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

STEP 2
Choose Backshell Style

Jam Nut Receptacles

RT072028PNH

RT072028SNH

RT072028PNHEC

RT072028SNHEC

OR

Square Flange Receptacles

RT002028PNH

RT002028SNH

RT002028PNHEC

RT002028SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug

RT062028PNH

RT062028SNH

RT062028PNHEC

RT062028SNHEC

Backshell

RT0L-20CPG-S5

RT0L-20CPG-S6

OR

Plug Kit Including Connector, Backshell & Contacts

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 164

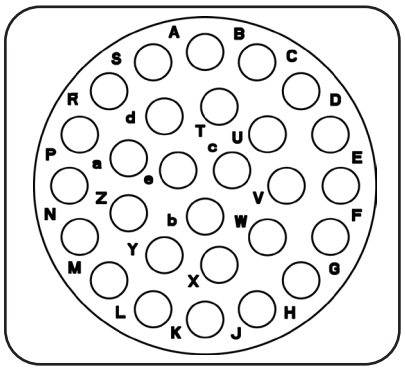
Shell Size: 20 **Number of Contacts: 28** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT072028PNH	RT072028SNH	Jam Nut Receptacle	1,5	2,5
RT072028PNHEC	RT072028SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT072028PNH-K	RT072028SNH-K	Jam Nut Receptacle Kit	1,5	2,5
RT062028PNH	RT062028SNH	Plug	6	7
RT062028PNHEC	RT062028SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT062028PNH-K	RT062028SNH-K	Plug Kit	6	7
RT002028PNH	RT002028SNH	Square Flange Receptacle	10,14	11,14
RT002028PNHEC	RT002028SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT002028PNH-K	RT002028SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 164
**See page 153 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0L-20CPG-S5	Long Cord Grip (straight)	12.5-13.3	15	✓
RT0L-20CPG-S6	Long Cord Grip (straight)	15.5-19.5	15	✓

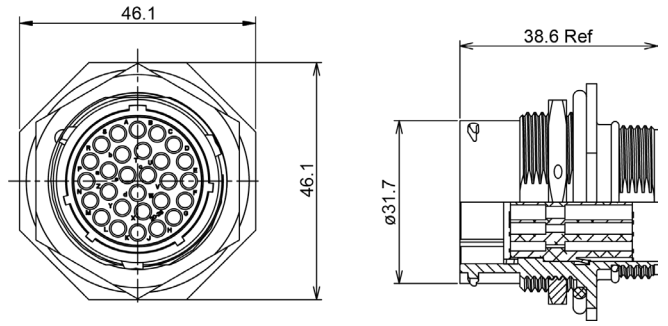
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 20 **Number of Contacts: 28** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

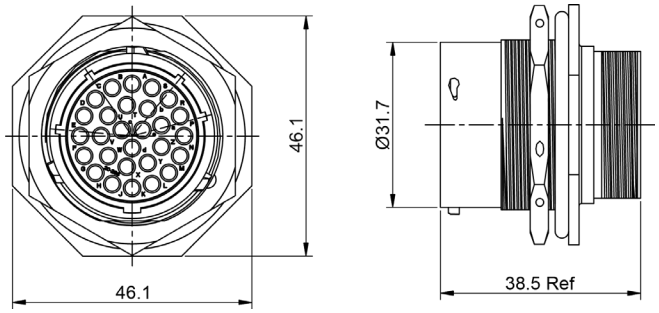
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



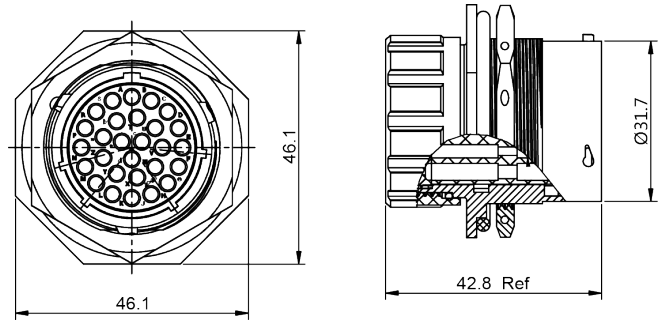
Male Figure 1 RT072028PNH

Jam Nut Receptacle



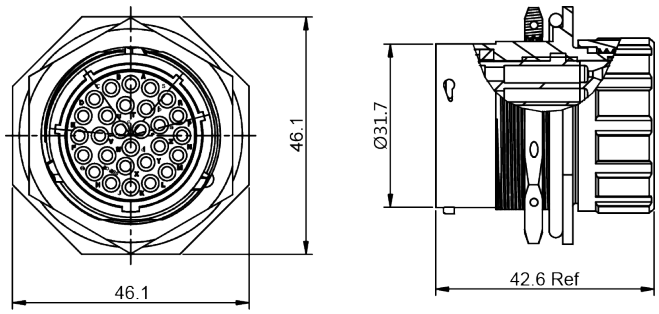
Female Figure 2 RT072028SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT072028PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT072028SNHEC

Jam Nut Receptacle Panel Cutout

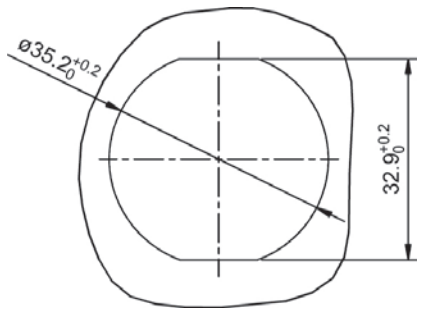
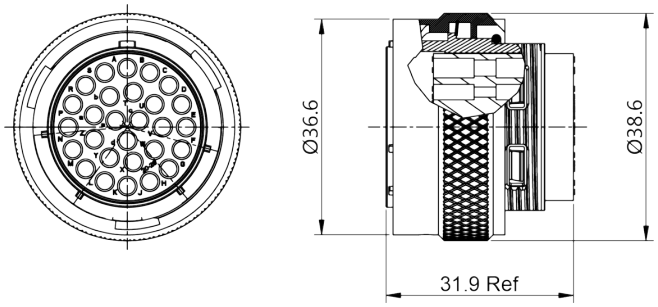


Figure 5

Shell Size: 20 **Number of Contacts: 28** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

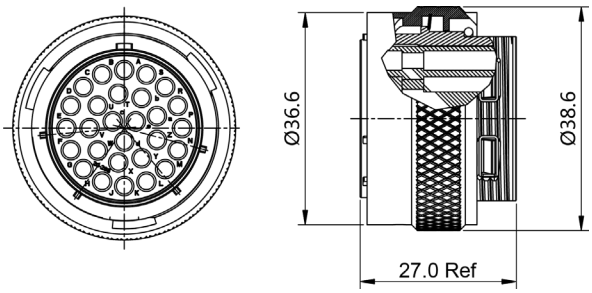
Dimensions Plug

Plug



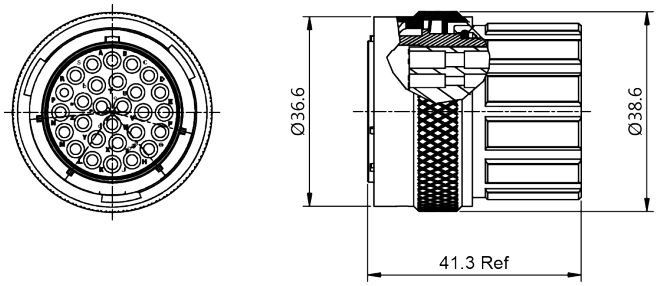
Male Figure 6 RT062028PNH

Plug



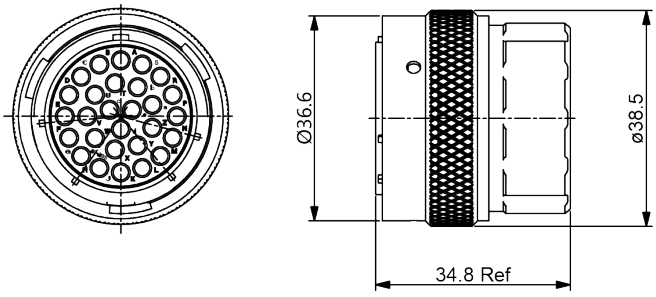
Female Figure 7 RT062028SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT062028PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT062028SNHEC

Individual Sealing Wire Range

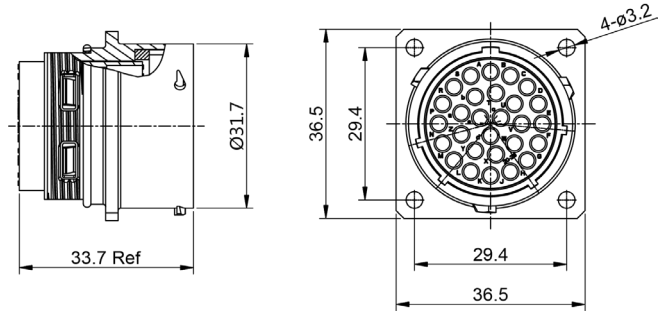
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
16	Ø2.0mm - Ø3.2mm	14 - 24 AWG

Shell Size: 20 **Number of Contacts: 28** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

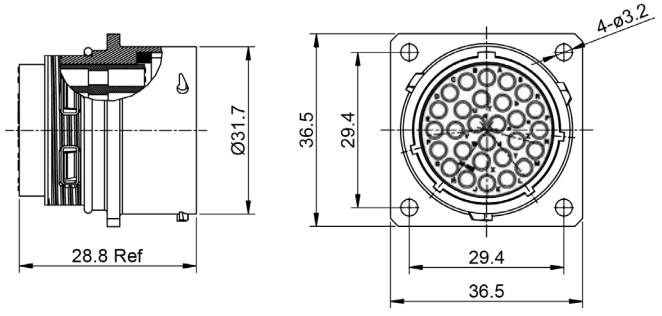
Dimensions Square Flange Receptacle

Square Flange Receptacle



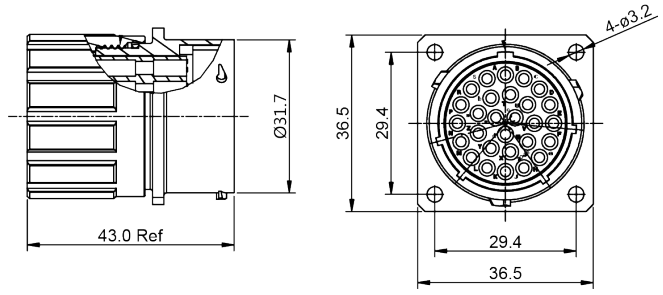
Male Figure 10 RT002028PNH

Square Flange Receptacle



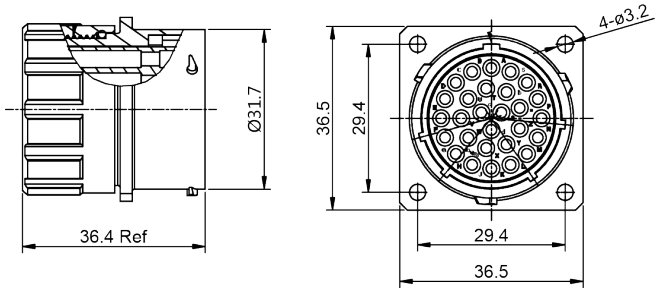
Female Figure 11 RT002028SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT002028PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT002028SNHEC

Square Flange Receptacle Panel Cutout

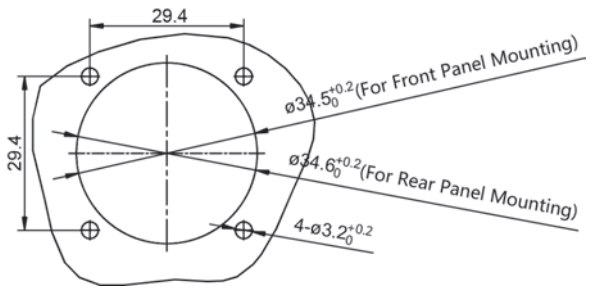


Figure 14

Shell Size: 20 **Number of Contacts: 28** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Long Cord Grip (straight)

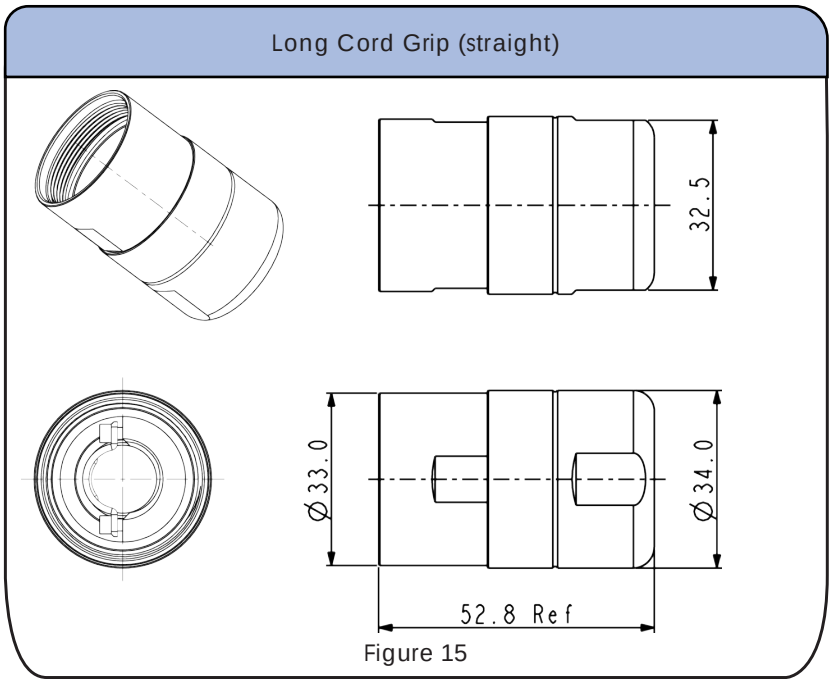


Figure 15

Accessories

Locking Clip with Lanyard

NEW! See Page 16

108039120

Plug Dustcap with Chain

RT620DCG

Plug Dustcap without Chain

RT620DC

Receptacle Dustcap with Chain

RT020DCG

Receptacle Dustcap with Nylon Cord

RT020RL

Receptacle Dustcap without Chain

RT020DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011920

Sealing Plug, Size 16

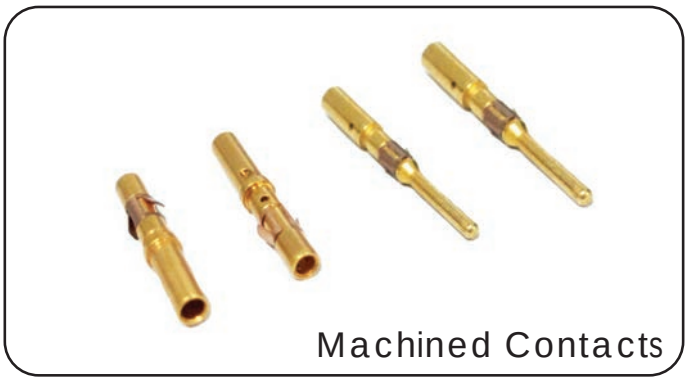
CA-4016-59

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD20B

Shell Size: 20 **Number of Contacts: 28** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts


Machined Contacts

Crimp Contacts, Machined

Part Number		AWG	Wire Range	Plating
Male	Female			
MP14M23F	MS14M23F	14	2.0-2.5	Gold Flash
MP14M23G5	MS14M23G5	14	2.0-2.5	Gold 5µ"
MP14M23G10	MS14M23G10	14	2.0-2.5	Gold 10µ"
MP14M23G15	MS14M23G15	14	2.0-2.5	Gold 15µ"
MP14M23G30	MS14M23G30	14	2.0-2.5	Gold 30µ"
MP16M23F	MS16M23F	18-16	.75-1.5	Gold Flash
MP16M23G5	MS16M23G5	18-16	.75-1.5	Gold 5µ"
MP16M23G10	MS16M23G10	18-16	.75-1.5	Gold 10µ"
MP16M23G15	MS16M23G15	18-16	.75-1.5	Gold 15µ"
MP16M23G30	MS16M23G30	18-16	.75-1.5	Gold 30µ"
MP20M23F	MS20M23F	22-20	.34-.50	Gold Flash
MP20M23G5	MS20M23G5	22-20	.34-.50	Gold 5µ"
MP20M23G10	MS20M23G10	22-20	.34-.50	Gold 10µ"
MP20M23G15	MS20M23G15	22-20	.34-.50	Gold 15µ"
MP20M23G30	MS20M23G30	22-20	.34-.50	Gold 30µ"
MP24M23F	MS24M23F	26-24	.14-.25	Gold Flash
MP24M23G5	MS24M23G5	26-24	.14-.25	Gold 5µ"
MP24M23G10	MS24M23G10	26-24	.14-.25	Gold 10µ"
MP24M23G15	MS24M23G15	26-24	.14-.25	Gold 15µ"
MP24M23G30	MS24M23G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Crimp Tool for Machined Contacts

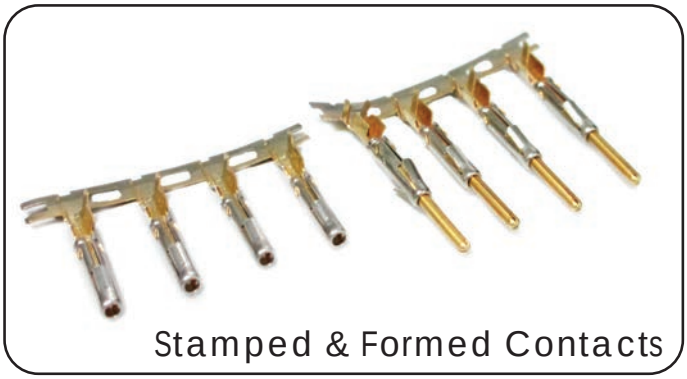
MFX-3959

Pneumatic Crimp Tool for Machined Contacts


MFX-3960

Shell Size: 20 **Number of Contacts: 28** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP14M2F	SS14M2F	14	2.0-2.5	Gold Flash
SP14M2G5	SS14M2G5	14	2.0-2.5	Gold 5µ"
SP14M2G10	SS14M2G10	14	2.0-2.5	Gold 10µ"
SP14M2G15	SS14M2G15	14	2.0-2.5	Gold 15µ"
SP14M2G30	SS14M2G30	14	2.0-2.5	Gold 30µ"
SP16M2F	SS16M2F	18-16	.75-1.5	Gold Flash
SP16M2G5	SS16M2G5	18-16	.75-1.5	Gold 5µ"
SP16M2G10	SS16M2G10	18-16	.75-1.5	Gold 10µ"
SP16M2G10	SS16M2G15	18-16	.75-1.5	Gold 15µ"
SP16M2G30	SS16M2G30	18-16	.75-1.5	Gold 30µ"
SP20M2F	SS20M2F	22-20	.34-.50	Gold Flash
SP20M2G5	SS20M2G5	22-20	.34-.50	Gold 5µ"
SP20M2G10	SS20M2G10	22-20	.34-.50	Gold 10µ"
SP20M2G15	SS20M2G15	22-20	.34-.50	Gold 15µ"
SP20M2G30	SS20M2G30	22-20	.34-.50	Gold 30µ"
SP24M2F	SS24M2F	22-20	.14-.25	Gold Flash
SP24M2G5	SS24M2G5	26-24	.14-.25	Gold 5µ"
SP24M2G10	SS24M2G10	26-24	.14-.25	Gold 10µ"
SP24M2G15	SS24M2G15	26-24	.14-.25	Gold 15µ"
SP24M2G30	SS24M2G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Tool, Stamped & Formed Contact, Size 16, 20-14AWG


MFX-3954

Crimp Die for Stamped & Formed Contact


MFX-3957

STEP 1 Choose Receptacle Style	STEP 2 Choose Plug Style	STEP 2 Choose Backshell Style

Jam Nut Receptacles


RT0W71832PNH


RT0W71832SNH


RT0W71832PNHEC


RT0W71832SNHEC

OR

Square Flange Receptacles


RT0W01832PNH


RT0W01832SNH


RT0W01832PNHEC


RT0W01832SNHEC

Jam Nut Receptacle Kit Including Receptacle & Contacts

Square Flange Receptacle Kit Including Receptacle,Gasket & Contacts

Plug


RT0W61832PNH


RT0W61832SNH


RT0W61832PNHEC


RT0W61832SNHEC

Backshell


RT0S-18CG-S1


RT0S-18CG-S2


RT0L-18CG-S1


RT0L-18CG-S2

OR

Plug Kit Including Connector, Backshell & Contacts

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS SOLD SEPARATELY SEE PAGE 172

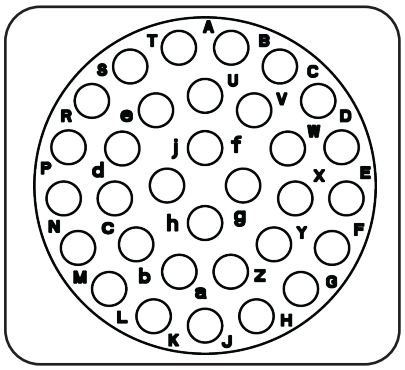
Shell Size: 18 **Number of Contacts: 32** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT0W71832PNH	RT0W71832SNH	Jam Nut Receptacle	1,5	2,5
RT0W71832PNHEC	RT0W71832SNHEC	Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	3,5	4,5
RT0W71832PNH-K	RT0W71832SNH-K	Jam Nut Receptacle Kit	1,5	2,5
RT0W61832PNH	RT0W61832SNH	Plug	6	7
RT0W61832PNHEC	RT0W61832SNHEC	Plug with O-ring Seal and End Cap with Individual Rear Wire Seal**	8	9
RT0W61832PNH-K	RT0W61832SNH-K	Plug Kit	6	7
RT0W01832PNH	RT0W01832SNH	Square Flange Receptacle	10,14	11,14
RT0W01832PNHEC	RT0W01832SNHEC	Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal**	12,14	13,14
RT0W01832PNH-K	RT0W01832SNH-K	Square Flange Receptacle Kit	10,14	11,14

Contacts supplied separately see page 172
**See page 169 for the real seal wire range

Backshells

Part Number	Backshell Type	Cable Range (mm)	Figure Drawings	Shielding
RT0S-18CG-S1	Short Cord Grip (straight)	9.0-14.5	15	✓
RT0S-18CG-S2	Short Cord Grip (straight)	13.5-17	15	✓
RT0L-18CG-S1	Long Cord Grip (straight)	9.0-14.5	16	✓
RT0L-18CG-S2	Long Cord Grip (straight)	13.5-17	16	✓

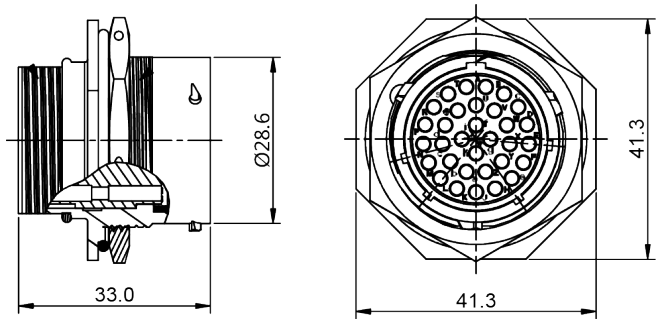
*Connector parts with part numbers ending in EC (with an end cap) were not available for submittal at the time of UL certification.

Shell Size: 18 **Number of Contacts: 32** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

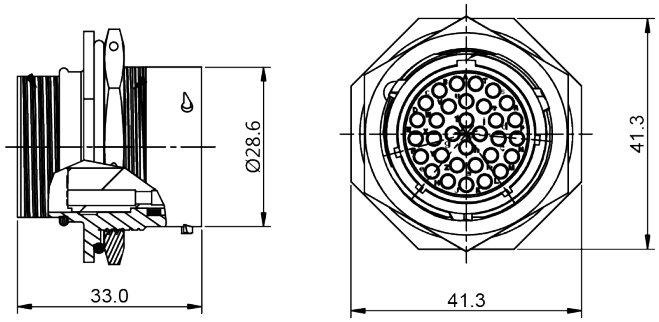
Dimensions Jam Nut Receptacle

Jam Nut Receptacle



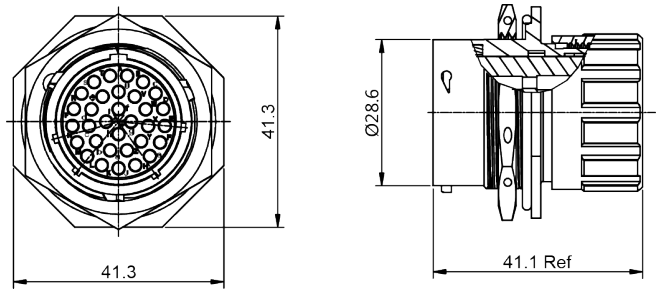
Male Figure 1 RT0W71832PNH

Jam Nut Receptacle



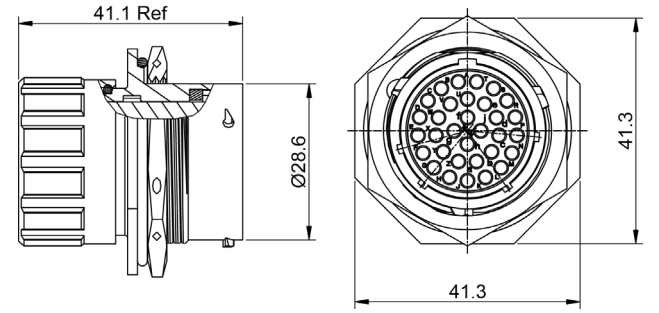
Female Figure 2 RT0W71832SNH

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 3 RT0W71832PNHEC

Jam Nut Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 4 RT0W71832SNHEC

Jam Nut Receptacle Panel Cutout

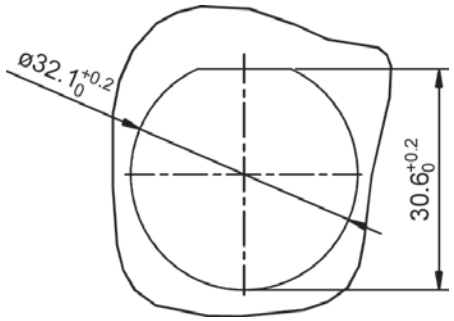


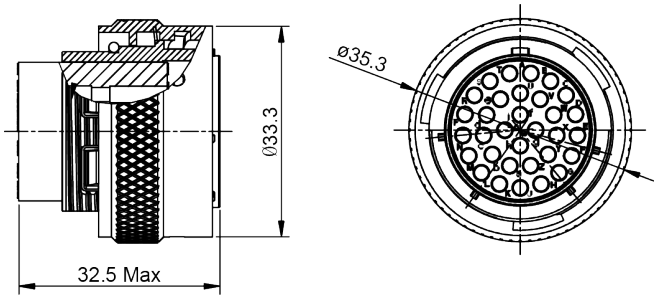
Figure 5

Shell Size: 18 **Number of Contacts: 32** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

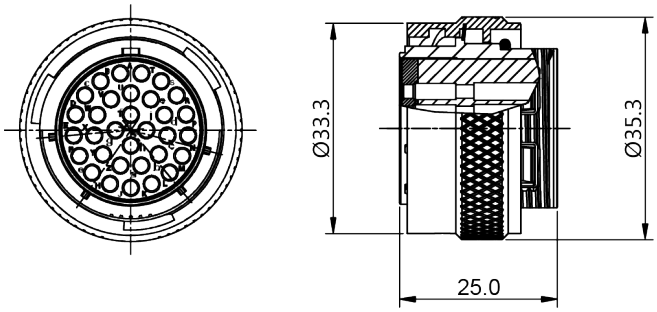
Dimensions Plug

Plug



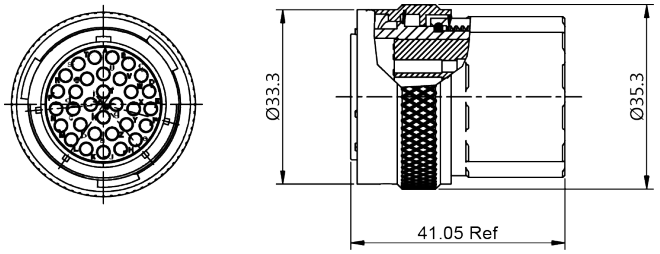
Male Figure 6 RT0W61832PNH

Plug



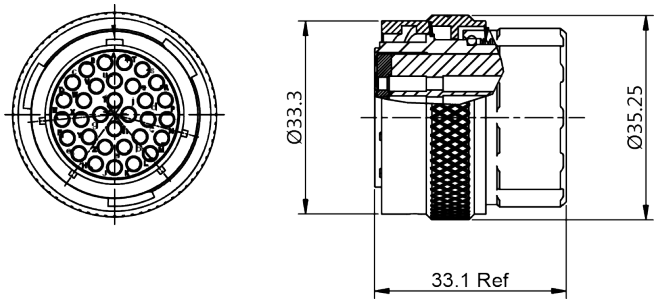
Female Figure 7 RT0W61832SNH

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 8 RT0W61832PNHEC

Plug with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 9 RT0W61832SNHEC

Individual Sealing Wire Range

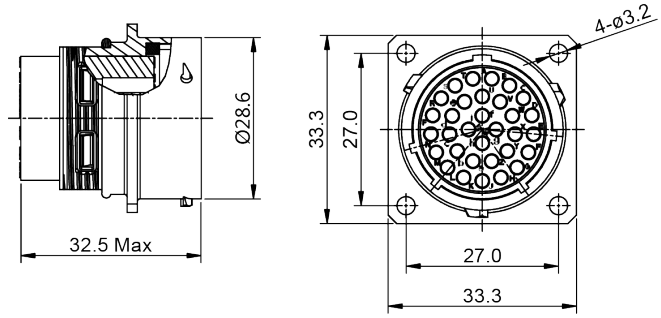
Contact Size	Insulation Overall Diameter (min-max)	Wire Range
20	Ø1.6mm - Ø2.6mm	20 - 30 AWG

Shell Size: 18 **Number of Contacts: 32** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

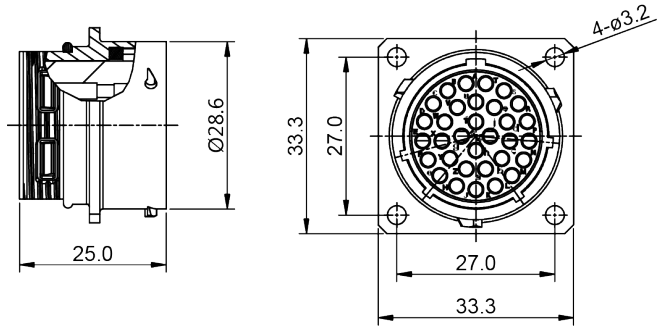
Dimensions Square Flange Receptacle

Square Flange Receptacle



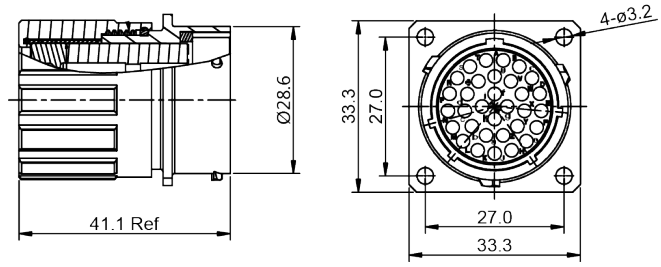
Male Figure 10 RT0W01832PNH

Square Flange Receptacle



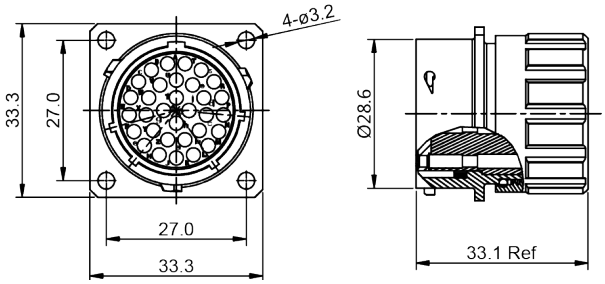
Female Figure 11 RT0W01832SNH

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Male Figure 12 RT0W01832PNHEC

Square Flange Receptacle with O-ring Seal and End Cap with Individual Rear Wire Seal



Female Figure 13 RT0W01832SNHEC

Square Flange Receptacle Panel Cutout

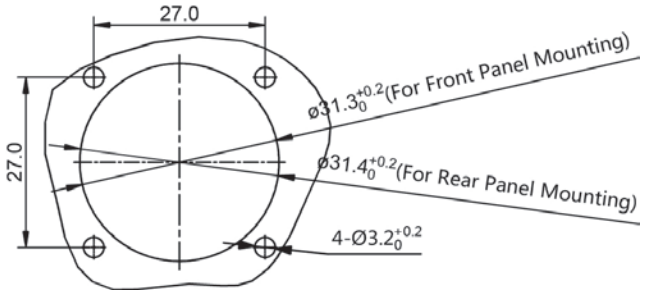


Figure 14

Shell Size: 18 **Number of Contacts: 32** **Contact Size: 20**

Sealing: IP67 Salt Spray: 48h

Dimensions Backshell

Short Cord Grip (straight)

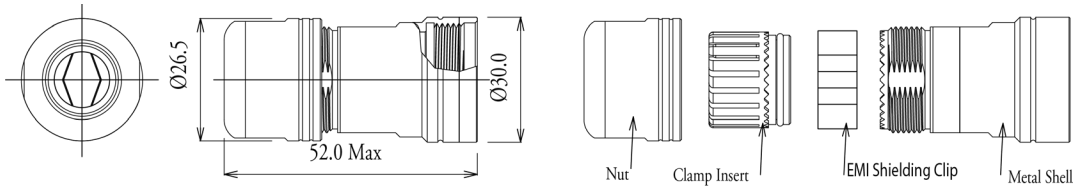


Figure 15

Long Cord Grip (straight)

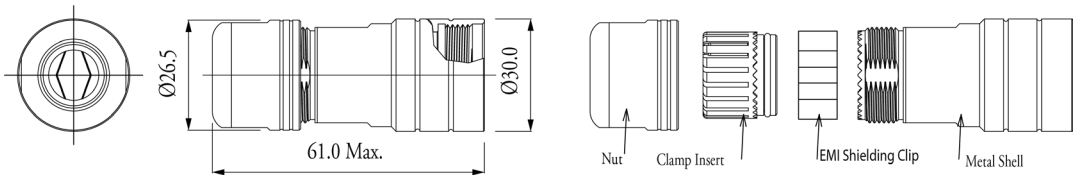


Figure 16

Accessories

Plug Dustcap with Chain

RT618DCG

Plug Dustcap without Chain

RT618DC

Receptacle Dustcap with Chain

RT018DCG

Receptacle Dustcap with Nylon Cord, Made of Rubber

RT018RL

Receptacle Dustcap without Chain

RT018DC

Receptacle Dustcap without Nylon Cord, Rubber Material

RB00011918

Locking Clip with Lanyard

108039118

Sealing Plug, Size 20

AT13-204-2005

Square Flange Receptacle Gaskets, Thickness 0.8mm (±0.2)

RTFD18B

NEW! See Page 16

Shell Size: 18 **Number of Contacts: 32** **Contact Size: 20**
Sealing: IP67 Salt Spray: 48h

Contacts

Machined Contacts

Crimp Contacts, Machined (7.5A Max)

PART NUMBER		AWG	Wire Range (mm²)	Plating
MALE	FEMALE			
MP20W23F	MS20W23F	22-20	.34-.50	Gold Flash
MP20W23G5	MS20W23G5	22-20	.34-.50	Gold 5µ"
MP20W23G10	MS20W23G10	22-20	.34-.50	Gold 10µ"
MP20W23G15	MS20W23G15	22-20	.34-.50	Gold 15µ"
MP20W23G30	MS20W23G30	22-20	.34-.50	Gold 30µ"
MP24W23F	MS24W23F	26-24	.13-.25	Gold Flash
MP24W23G5	MS24W23G5	26-24	.13-.25	Gold 5µ"
MP24W23G10	MS24W23G10	26-24	.13-.25	Gold 10µ"
MP24W23G15	MS24W23G15	26-24	.13-.25	Gold 15µ"
MP24W23G30	MS24W23G30	26-24	.13-.25	Gold 30µ"
MP28W23F	MS28W23F	30-28	.05-.08	Gold Flash
MP28W23G5	MS28W23G5	30-28	.05-.08	Gold 5µ"
MP28W23G10	MS28W23G10	30-28	.05-.08	Gold 10µ"
MP28W23G15	MS28W23G15	30-28	.05-.08	Gold 15µ"
MP28W23G30	MS28W23G30	30-28	.05-.08	Gold 30µ"

Tools

Contact Extraction Tool, #20 (Ø 1.0) Contact

QXRT20

Hand Crimp Tool for Machined Contacts

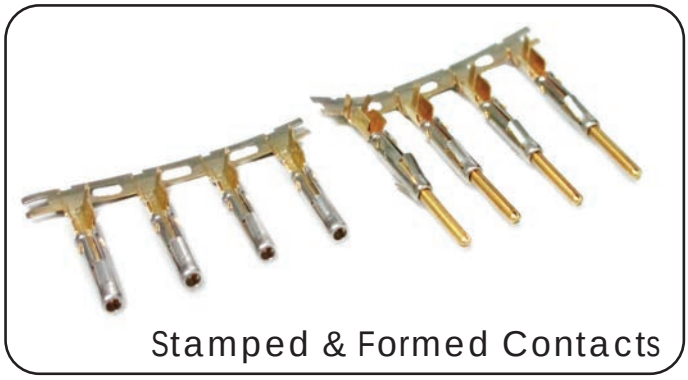
MFX-3959

Pneumatic Crimp Tool for Machined Contact

MFX-3960

Shell Size: 18 **Number of Contacts: 32** **Contact Size: 20**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed (5A Max)

PART NUMBER		AWG	Wire Range (mm²)	Plating
MALE	FEMALE			
SP20W2F	SS20W2F	22-20	.34-.50	Gold Flash
SP20W2G5	SS20W2G5	22-20	.34-.50	Gold 5µ"
SP20W2G10	SS20W2G10	22-20	.34-.50	Gold 10µ"
SP20W2G15	SS20W2G15	22-20	.34-.50	Gold 15µ"
SP20W2G30	SS20W2G30	22-20	.34-.50	Gold 30µ"
SP24W2F	SS24W2F	26-24	.14-.25	Gold Flash
SP24W2G5	SS24W2G5	26-24	.14-.25	Gold 5µ"
SP24W2G10	SS24W2G10	26-24	.14-.25	Gold 10µ"
SP24W2G15	SS24W2G15	26-24	.14-.25	Gold 15µ"
SP24W2G30	SS24W2G30	26-24	.14-.25	Gold 30µ"
SP28W2F	SS28W2F	30-28	.05-.08	Gold Flash
SP28W2G5	SS28W2G5	30-28	.05-.08	Gold 5µ"
SP28W2G10	SS28W2G10	30-28	.05-.08	Gold 10µ"
SP28W2G15	SS28W2G15	30-28	.05-.08	Gold 15µ"
SP28W2G30	SS28W2G30	30-28	.05-.08	Gold 30µ"

Tools

Contact Extraction Tool, #20 (Ø 1.0) Contact


QXRT20

Hand Tool, Stamped & Formed Contact, Size 20, 20-28AWG


MFX-3958

Crimp Die for Stamped & Formed Contact


MFX-3957

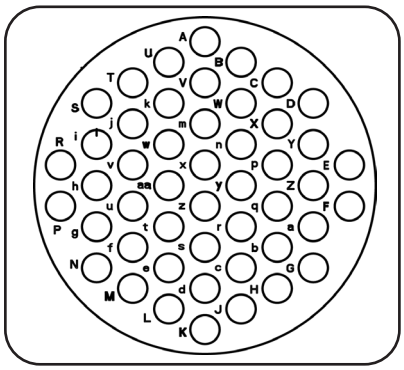
Shell Size: 24 **Number of Contacts: 48** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

eco|mate® rm Standard Products

- Suitable For Indoor and Outdoor Applications
- EMI/RMI Shielding Capability with Appropriate Backshell
- Operating Temperature: -40°C to +105°C
- 500 Mating Cycles
- Contacts and Cord Grips Ordered Separately
- UL ECBT2 Certified*

An upgraded silicone seal is available for all connector parts. Please add "03" to the end of the part number when ordering. Operating Temperature: -40°C to +125°C. Not available in kits.



Insert Arrangement
Pin (Male) Faceview

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

Square Flange Receptacles

RT002448PNH

RT002448SNH

Plug

RT062448PNH

RT062448SNH

Accessories

Sealing Plug, Size 16

CA-4016-59

Square Flange Receptacle Gaskets, Thickness 1.0mm (±0.2)

RTFD24B

Locking Clip with Lanyard

NEW! See Page 16

108039122

Connector Part Numbers

Part Number		Connector Type	Figure Drawings	
Male	Female		Male	Female
RT062448PNH	RT062448SNH	Plug	1	2
RT002448PNH	RT002448SNH	Square Flange Receptacle	3,5	4,5

Contacts supplied separately see page 176

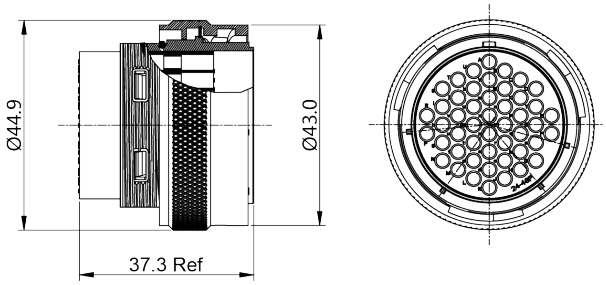
CONTACTS SOLD SEPARATELY SEE PAGE 176

Shell Size: 24 **Number of Contacts: 48** **Contact Size: 16**

Sealing: IP67 Salt Spray: 48h

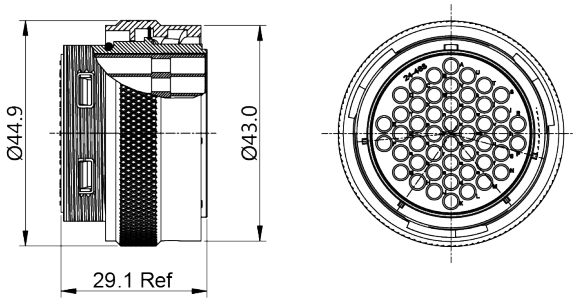
Dimensions Plug

Plug



Male Figure 1 RT062448PNH

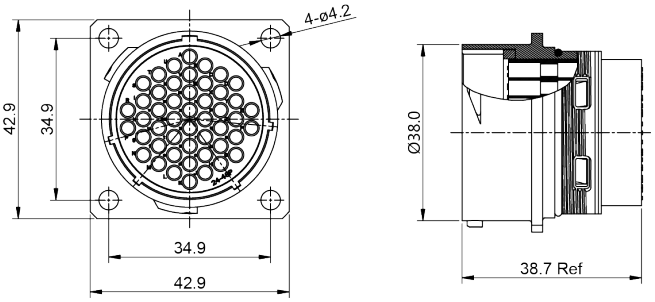
Plug



Female Figure 2 RT062448SNH

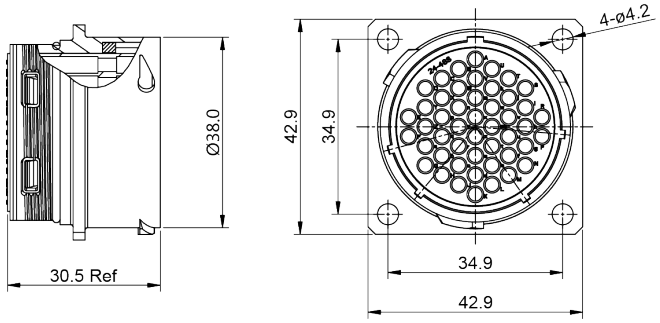
Dimensions Square Flange Receptacle

Square Flange Receptacle



Male Figure 3 RT002448PNH

Square Flange Receptacle



Female Figure 4 RT002448SNH

Square Flange Receptacle Panel Cutout

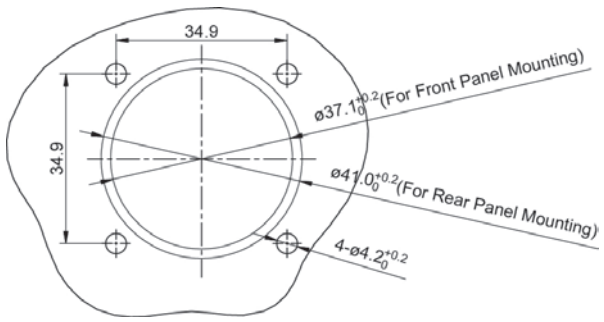
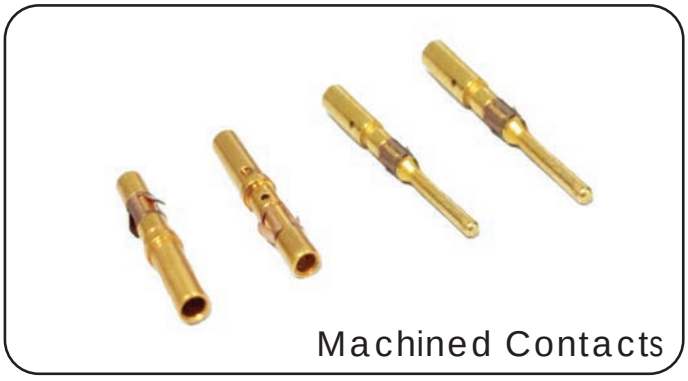


Figure 5

Shell Size: 24 **Number of Contacts: 48** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts


Machined Contacts

Crimp Contacts, Machined

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
MP14M23F	MS14M23F	14	2.0-2.5	Gold Flash
MP14M23G5	MS14M23G5	14	2.0-2.5	Gold 5µ"
MP14M23G10	MS14M23G10	14	2.0-2.5	Gold 10µ"
MP14M23G15	MS14M23G15	14	2.0-2.5	Gold 15µ"
MP14M23G30	MS14M23G30	14	2.0-2.5	Gold 30µ"
MP16M23F	MS16M23F	18-16	.75-1.5	Gold Flash
MP16M23G5	MS16M23G5	18-16	.75-1.5	Gold 5µ"
MP16M23G10	MS16M23G10	18-16	.75-1.5	Gold 10µ"
MP16M23G15	MS16M23G15	18-16	.75-1.5	Gold 15µ"
MP16M23G30	MS16M23G30	18-16	.75-1.5	Gold 30µ"
MP20M23F	MS20M23F	22-20	.34-.50	Gold Flash
MP20M23G5	MS20M23G5	22-20	.34-.50	Gold 5µ"
MP20M23G10	MS20M23G10	22-20	.34-.50	Gold 10µ"
MP20M23G15	MS20M23G15	22-20	.34-.50	Gold 15µ"
MP20M23G30	MS20M23G30	22-20	.34-.50	Gold 30µ"
MP24M23F	MS24M23F	26-24	.14-.25	Gold Flash
MP24M23G5	MS24M23G5	26-24	.14-.25	Gold 5µ"
MP24M23G10	MS24M23G10	26-24	.14-.25	Gold 10µ"
MP24M23G15	MS24M23G15	26-24	.14-.25	Gold 15µ"
MP24M23G30	MS24M23G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Crimp Tool for Machined Contacts

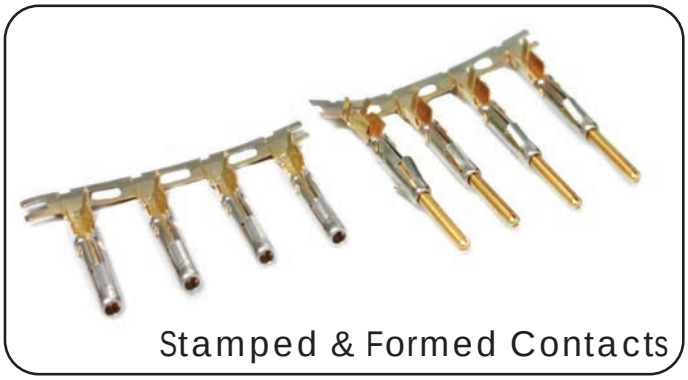

MFX-3959

Pneumatic Crimp Tool for Machined Contacts


MFX-3960

Shell Size: 24 **Number of Contacts: 48** **Contact Size: 16**
Sealing: IP67 Salt Spray: 48h

Contacts (con't)


Stamped & Formed Contacts

Crimp Contacts, Stamped & Formed

Part Number		AWG	Wire Range (mm²)	Plating
Male	Female			
SP14M2F	SS14M2F	14	2.0-2.5	Gold Flash
SP14M2G5	SS14M2G5	14	2.0-2.5	Gold 5µ"
SP14M2G10	SS14M2G10	14	2.0-2.5	Gold 10µ"
SP14M2G15	SS14M2G15	14	2.0-2.5	Gold 15µ"
SP14M2G30	SS14M2G30	14	2.0-2.5	Gold 30µ"
SP16M2F	SS16M2F	18-16	.75-1.5	Gold Flash
SP16M2G5	SS16M2G5	18-16	.75-1.5	Gold 5µ"
SP16M2G10	SS16M2G10	18-16	.75-1.5	Gold 10µ"
SP16M2G10	SS16M2G15	18-16	.75-1.5	Gold 15µ"
SP16M2G30	SS16M2G30	18-16	.75-1.5	Gold 30µ"
SP20M2F	SS20M2F	22-20	.34-.50	Gold Flash
SP20M2G5	SS20M2G5	22-20	.34-.50	Gold 5µ"
SP20M2G10	SS20M2G10	22-20	.34-.50	Gold 10µ"
SP20M2G15	SS20M2G15	22-20	.34-.50	Gold 15µ"
SP20M2G30	SS20M2G30	22-20	.34-.50	Gold 30µ"
SP24M2F	SS24M2F	22-20	.14-.25	Gold Flash
SP24M2G5	SS24M2G5	26-24	.14-.25	Gold 5µ"
SP24M2G10	SS24M2G10	26-24	.14-.25	Gold 10µ"
SP24M2G15	SS24M2G15	26-24	.14-.25	Gold 15µ"
SP24M2G30	SS24M2G30	26-24	.14-.25	Gold 30µ"

Tools

Contact Extraction Tool, #16 (Ø 1.6) Contact


QXRT16

Hand Tool, Stamped & Formed Contact, Size 16, 20-14AWG


MFX-3954

Crimp Die for Stamped & Formed Contact


MFX-3957

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS INCLUDED SEE PAGE 179

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

Square Flange Receptacles

RTHP0121PN-16C

RTHP0121PN-H1

Plug

RTHP6121SNH-16S2

RTHP6121SNH16-BS2

Crimp Barrel Contact

Flat Hole Tail Contact
(receptacle only)

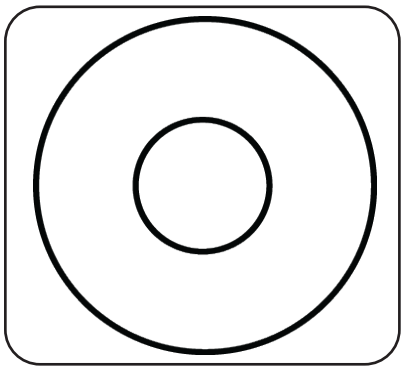
Screw Tail Contact
(receptacle only)

Shell Size: 12 **Number of Contacts: 1** **Contact Size: 3.6mm**

Sealing: IP67 Salt Spray: 48h

High Amperage eco|mate® rm with RADSOK® Technology

- Single Pole High Power Arrangements
- 3.6mm Contact Size
- Operating Temperature: -40°C to +125°C
- RoHS Compliant
- Operating Voltage: 630V
- Current Rating at 25°C: 86A
- Flammability Rating: UL94-V0
- High Reliability
- Low Contact Engagement / Separation Forces
- Low Contact Resistance
- High Mating Cycle Durability



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Connector Part Number	Connector Type	Wire Range (mm²)	Amps	Contact				Figure Drawings
				Part Number	Type	AWG	Plating	
RTHP6121SNH-16S2	Female Plug Straight, Crimp, with Long Shielded Backshell	10-16	86	MS6ARS8S	Crimp Barrel, Female	8	Silver	1
RTHP6121SNH16-BS2	Female Plug with 90° Shielded Backshell	10-16	86	MS6ARS8S	Crimp Barrel, Female	8	Silver	2
RTHP0121PN-16C	Male Square Flange Receptacle Crimp	10-16	86	MP6ARS8S	Crimp Barrel, Male	8	Silver	3,5
RTHP0121PN-H1	Male Square Flange Receptacle Flat Tail	N/A	86	HPAHS	Flathole Tail, Male	8	Silver	3,5

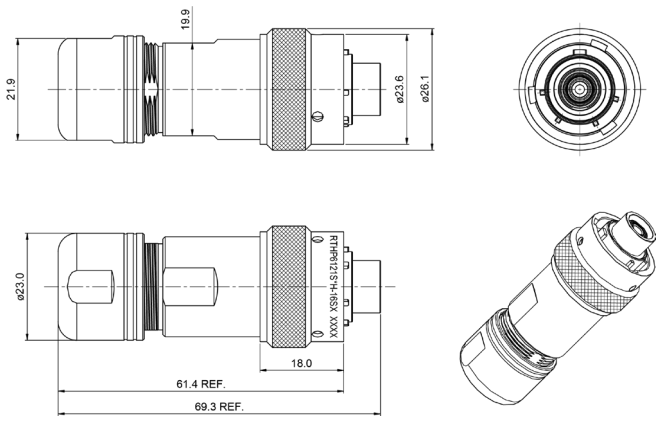
Contacts included. See chart for specific requirements

Shell Size: 12 **Number of Contacts: 1** **Contact Size: 3.6mm**

Sealing: IP67 Salt Spray: 48h

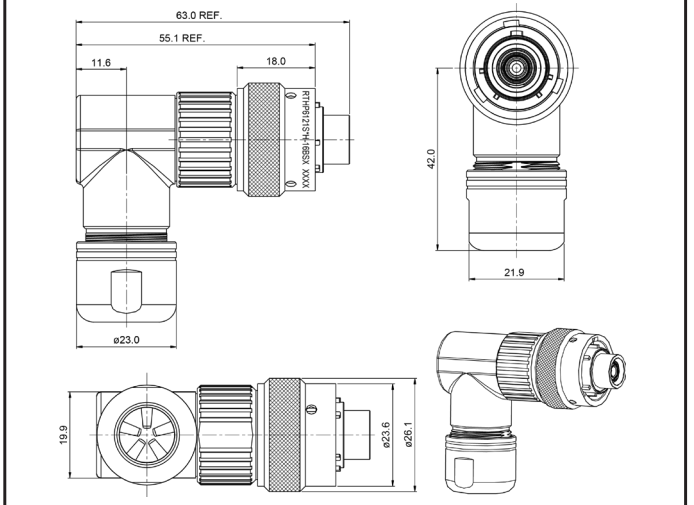
Dimensions Plug

Plug Straight, Crimp, Long Shielded Backshell



Female Figure 1 RTHP6121SNH-16S2

Plug with 90° Shielded Backshell



Female Figure 2 RTHP6121SNH16-BS2

Tools

Contact Extraction Tool, 3.mm RTHP Contact

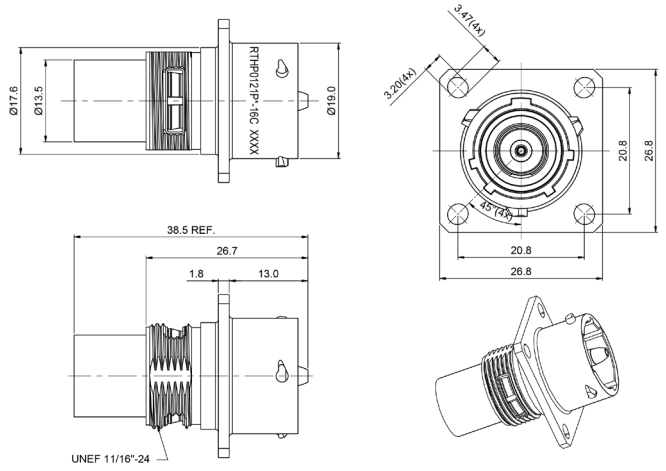
QXRT08R

Shell Size: 12 **Number of Contacts: 1** **Contact Size: 3.6mm**

Sealing: IP67 Salt Spray: 48h

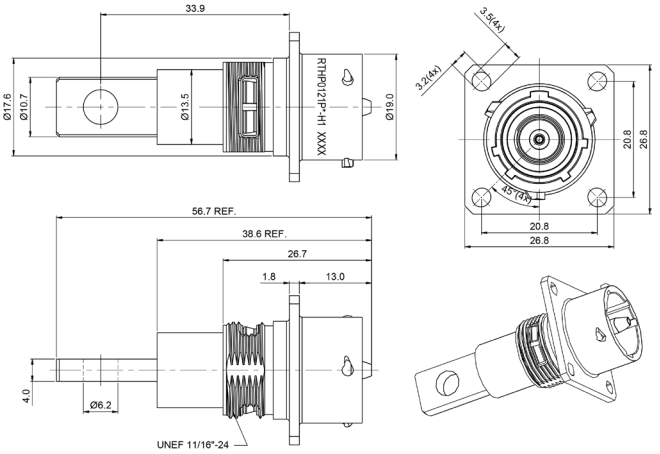
Dimensions Square Flange Receptacle

Square Flange Receptacle Crimp



Male Figure 3 RTHP0121PN1-6C

Square Flange Receptacle Flat Tail



Male Figure 4 RTHP0121PN-H1

Square Flange Receptacle Panel Cutout

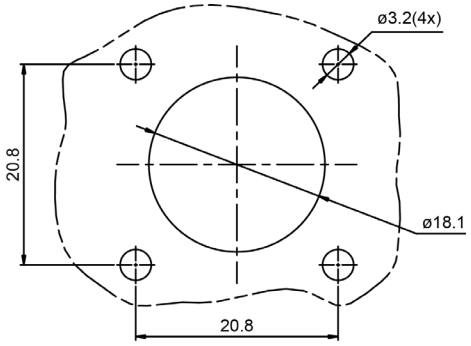


Figure 5

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS INCLUDED SEE PAGE 183

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

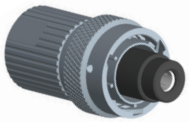
Square Flange Receptacles

RTHP0141PN-25C

RTHP0141PN-H1

RTHP0141PN-M1

Plug



RTHP6141SNH25-EC

RTHP6141SNH25-PS2

RTHP6141SNH-25S2

RTHP6141SNH25-BS2

Crimp Barrel Contact

Flat Hole Tail Contact
(receptacle only)

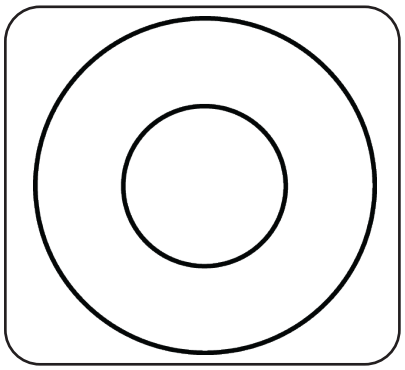
Screw Tail Contact
(receptacle only)

Shell Size: 14 **Number of Contacts: 1** **Contact Size: 6mm**

Sealing: IP67 Salt Spray: 48h

High Amperage eco|mate® rm with RADSOK® Technology

- Single Pole High Power Arrangements
- 6mm Contact Size
- Operating Temperature: -40°C to +125°C
- RoHS Compliant
- Operating Voltage: 630V
- Current Rating at 25°C: 120A
- Flammability Rating: UL94-V0
- High Reliability
- Low Contact Engagement / Separation Forces
- Low Contact Resistance
- High Mating Cycle Durability



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Connector Part Number	Connector Type	Wire Range (mm²)	Amps	Contact				Figure Drawings
				Part Number	Type	AWG	Plating	
RTHP6141SNH25-EC	Female Plug with Unshielded Short Backshell and End Cap with Individual Rear Wire Seal	20-25	120	HS25BCS	Crimp Barrel, Female	4	Silver	1
RTHP6141SNH25-PS2	Female Plug with Short Shielded Backshell	20-25	120	HS25BCS	Crimp Barrel, Female	4	Silver	2
RTHP6141SNH-25S2	Female Plug Straight, Crimp, Long Shielded Backshell	20-25	120	HS25BCS	Crimp Barrel, Female	4	Silver	3
RTHP6141SNH25-BS2	Female Plug with 90° Shielded Backshell	20-25	120	HS25BCS	Crimp Barrel, Female	4	Silver	4
RTHP0141PN-25C	Male Square Flange Receptacle Crimp	20-25	120	HP25BCS	Crimp Barrel, Male	4	Silver	5,8
RTHP0141PN-H1	Male Square Flange Receptacle Flat Tail	N/A	120	HPBHS	Flathole Tail, Male	4	Silver	6,8
RTHP0141PN-M1	Male Square Flange Receptacle with Screw Tail	N/A	120	HPBSS	Screw Tail, Male	4	Silver	7,8

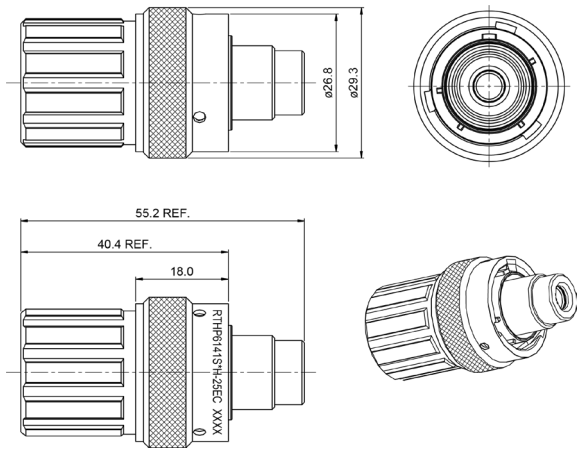
Contacts included. See chart for specific requirements

Shell Size: 14 **Number of Contacts: 1** **Contact Size: 6mm**

Sealing: IP67 Salt Spray: 48h

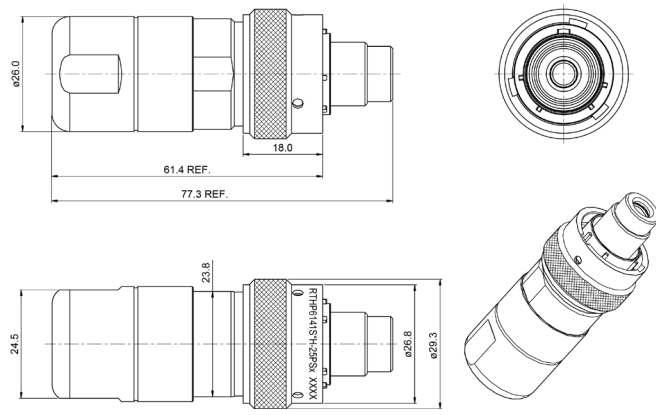
Dimensions Plug

Plug with Unshielded Backshell



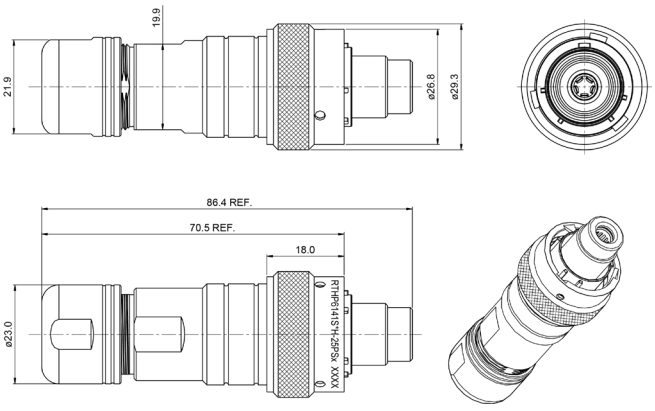
Female Figure 1 RTHP6141SNH25-EC

Plug with Short Shielded Backshell



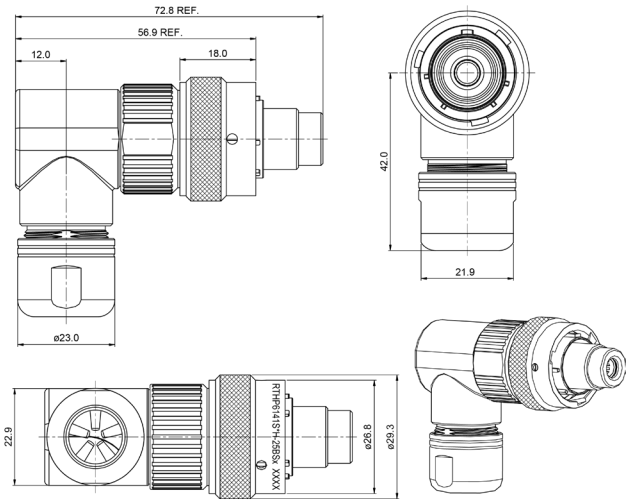
Female Figure 2 RTHP6141SNH25-PS2

Plug Straight, Crimp, Long Shielded Backshell



Female Figure 3 RTHP6141SNH-25S2

Plug with 90° Shielded Backshell



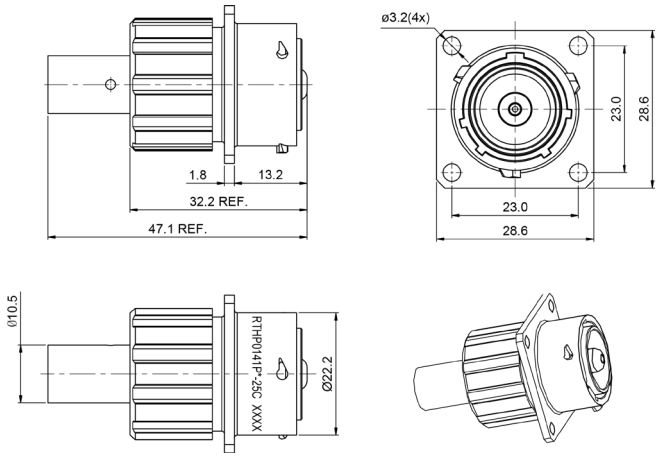
Female Figure 4 RTHP6141SNH25-BS2

Shell Size: 14 **Number of Contacts: 1** **Contact Size: 6mm**

Sealing: IP67 Salt Spray: 48h

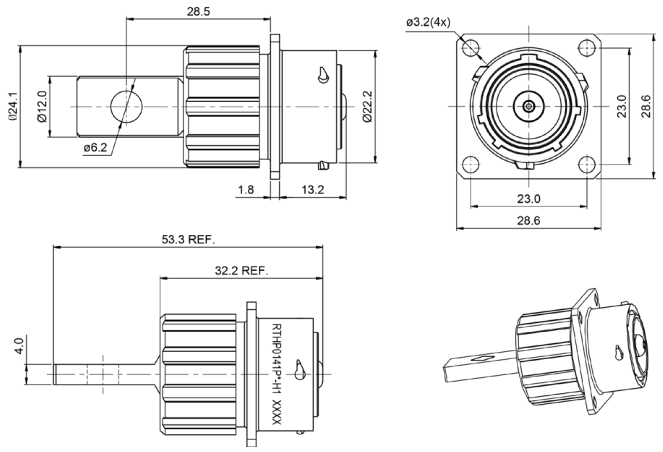
Dimensions Square Flange Receptacle

Square Flange Receptacle Crimp



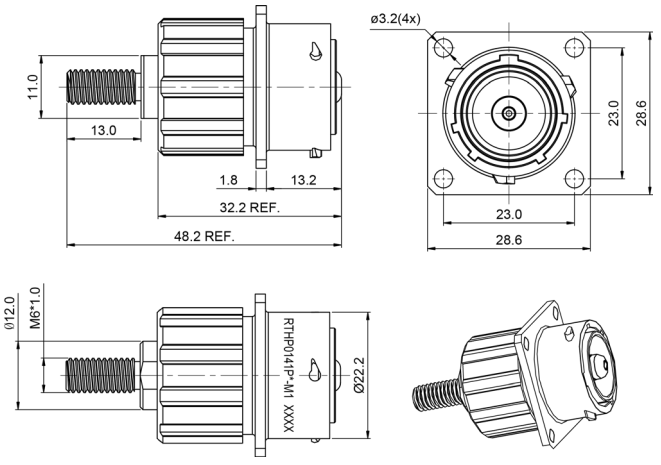
Male Figure 5 RTHP0141PN-25C

Square Flange Receptacle Flat Tail



Male Figure 6 RTHP0141PN-H1

Square Flange Receptacle with Screw Tail



Male Figure 7 RTHP0141PN-M1

Square Flange Receptacle Panel Cutout

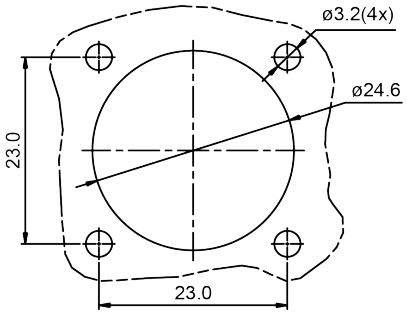


Figure 8

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS INCLUDED SEE PAGE 187

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

Square Flange Receptacles

RTHP0161PN-35C

RTHP0161PN-50C

RTHP0161PN-H1

RTHP0161PN-M1

Plug

RTHP6161SNH25-PS3

RTHP6161SNH35-PS2

RTHP6161SNH50-PS2

RTHP6161SNH-35S2

Crimp Barrel Contact

Flat Hole Tail Contact
(receptacle only)

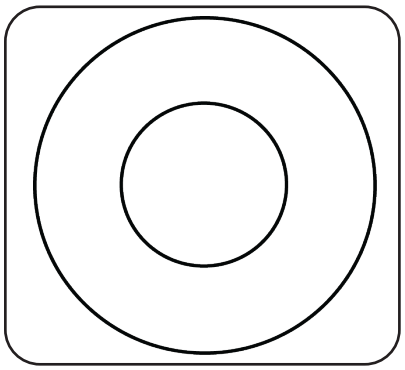
Screw Tail Contact
(receptacle only)

Shell Size: 16 **Number of Contacts: 1** **Contact Size: 8mm**

Sealing: IP67 Salt Spray: 48h

High Amperage eco|mate® rm with RADSOK® Technology

- Single Pole High Power Arrangements
- 8mm Contact Size
- Operating Temperature: -40°C to +125°C
- RoHS Compliant
- Operating Voltage: 630V
- Current Rating at 25°C: 180A
- Flammability Rating: UL94-V0
- High Reliability
- Low Contact Engagement / Separation Forces
- Low Contact Resistance
- High Mating Cycle Durability



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Connector Part Number	Connector Type	Wire Range (mm²)	Amps	Contact				Figure Drawings
				Part Number	Type	AWG	Plating	
RTHP6161SNH25-PS3	Female Plug with Short Shielded Backshell	20-25	120	HS25CCS	Crimp Barrel, Female	4	Silver	1
RTHP6161SNH35-PS2	Female Plug with Short Shielded Backshell	30-35	130	HS35CCS	Crimp Barrel, Female	2	Silver	2
RTHP6161SNH50-PS2	Female Plug with Short Shielded Backshell	45-50	180	HS50CCS	Crimp Barrel, Female	2	Silver	3
RTHP6161SNH-35S2	Female Plug Straight, Crimp, Long Shielded Backshell	30-35	130	HS35CCS	Crimp Barrel, Female	2	Silver	4
RTHP0161PN-35C	Male Square Flange Receptacle Crimp	30-35	130	HP35CCS	Crimp Barrel, Male	2	Silver	5,9
RTHP0161PN-50C	Male Square Flange Receptacle with Crimp	40-50	130	HP50CCS	Crimp Barrel, Male	2	Silver	6,9
RTHP0161PN-H1	Male Square Flange Receptacle Flat Tail	N/A	180	HPCHS	Flathole Tail, Male	N/A	Silver	7,9
RTHP0161PN-M1	Male Square Flange Receptacle with Screw Tail	N/A	180	HPCSS	Screw Tail, Male	N/A	Silver	8,9

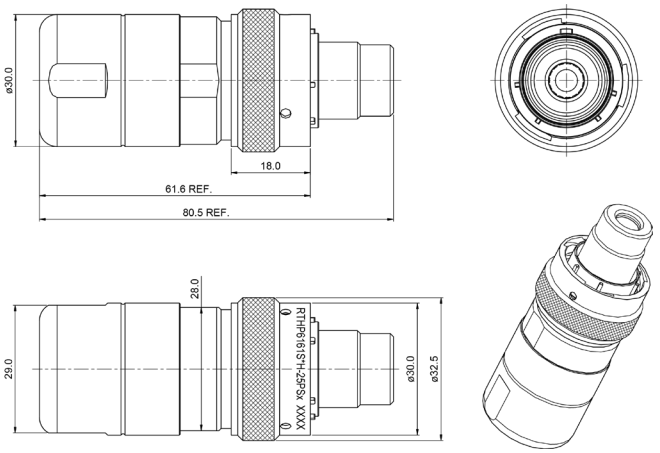
Contacts included. See chart for specific requirements

Shell Size: 16 **Number of Contacts: 1** **Contact Size: 8mm**

Sealing: IP67 Salt Spray: 48h

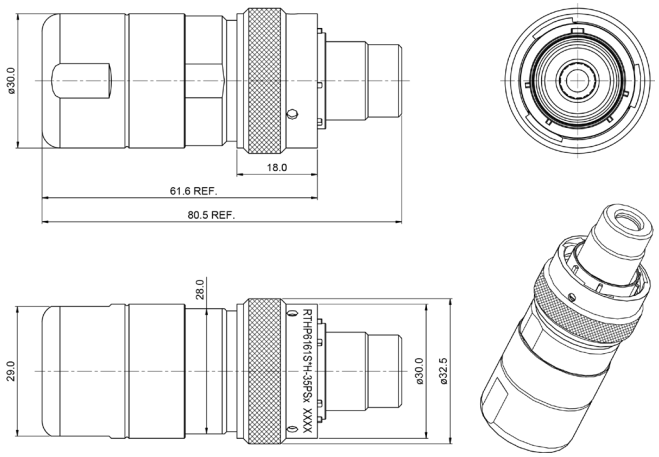
Dimensions Plug

Plug with Short Shield Backshell



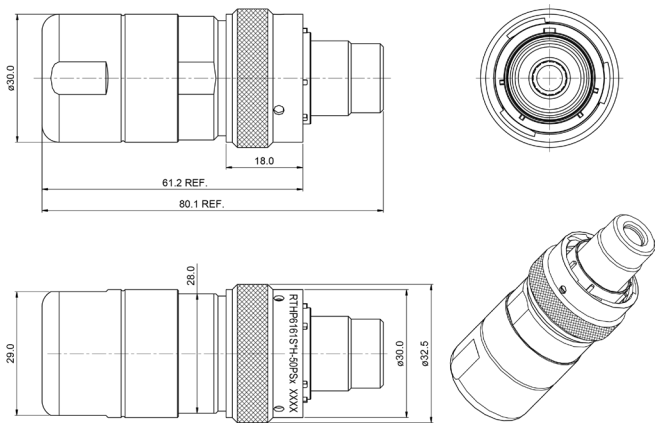
Female Figure 1 RTHP6161SNH25-PS3

Plug with Short Shielded Backshell



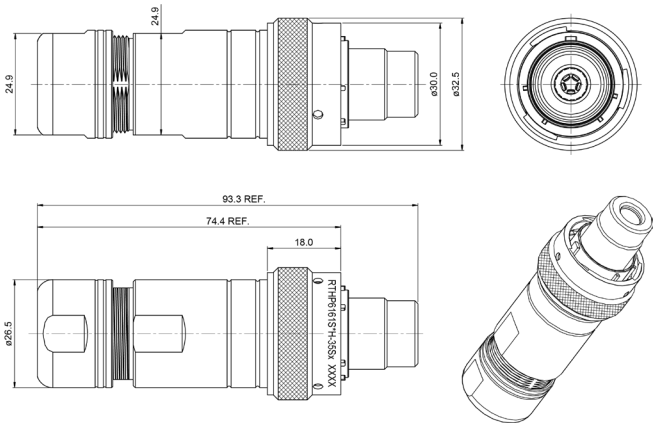
Female Figure 2 RTHP6161SNH35-PS2

Plug with Short Shielded Backshell



Female Figure 3 RTHP6161SNH50-PS2

Plug Straight, Crimp, Long Shielded Backshell



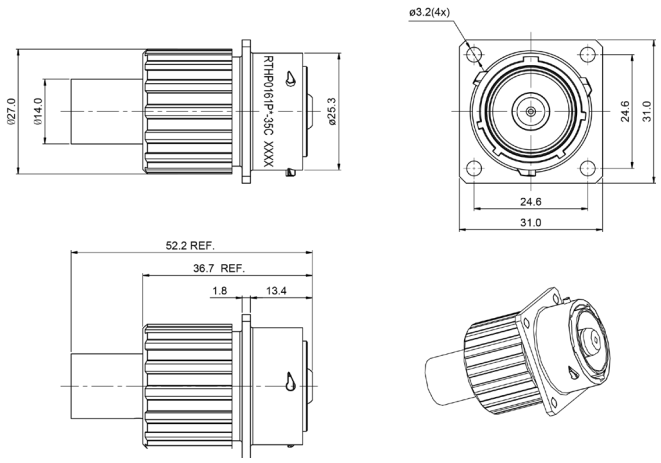
Female Figure 4 RTHP6161SNH-35S2

Shell Size: 16 **Number of Contacts: 1** **Contact Size: 8mm**

Sealing: IP67 Salt Spray: 48h

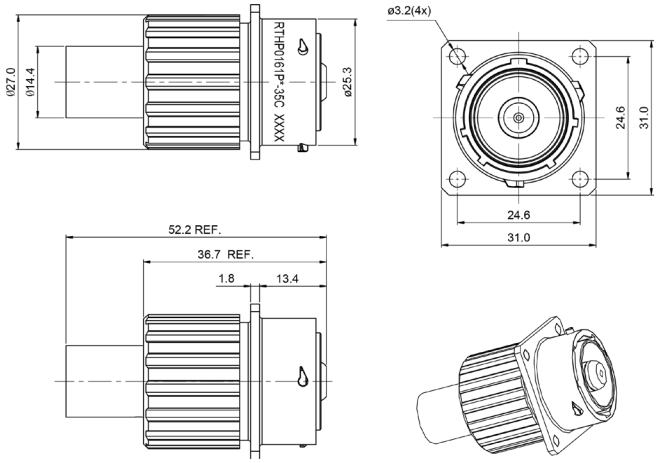
Dimensions Square Flange Receptacle

Square Flange Receptacle Crimp



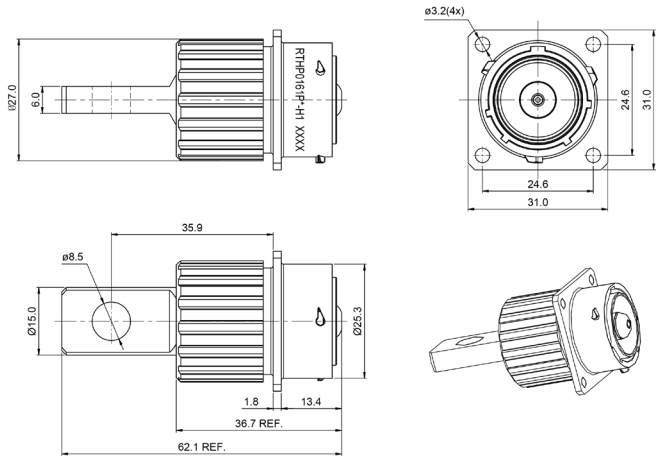
Male Figure 5 RTHP0161PN-35C

Square Flange Receptacle with Crimp



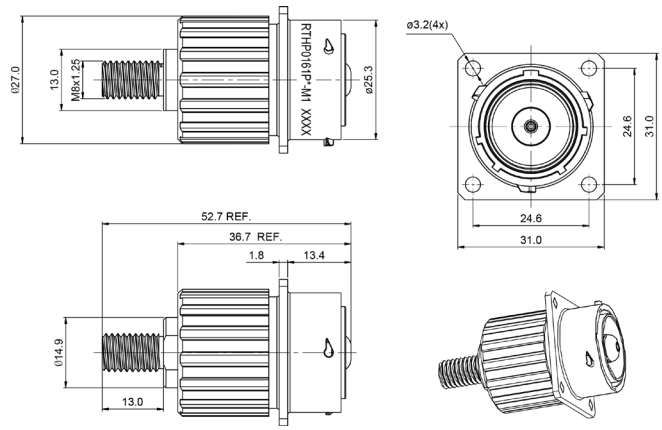
Male Figure 6 RTHP0161PN-50C

Square Flange Receptacle Flat Tail



Male Figure 7 RTHP0161PN-H1

Square Flange Receptacle with Screw Tail



Male Figure 8 RTHP0161PN-M1

Square Flange Receptacle Panel Cutout

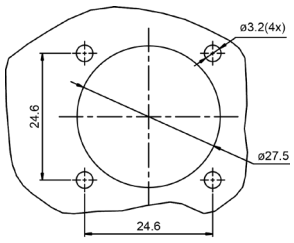


Figure 9

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

Square Flange Receptacles

RTHP0201PN-50C

RTHP0201PN-70C

RTHP0201PN-95C

RTHP0201PN-H1

RTHP0201PN-M1

Plug

RTHP6201SNH25-PS5

RTHP6201SNH35-PS2

RTHP6201SNH50-PS2

RTHP6201SNH70-PS1

RTHP6201SNH70-PS2

RTHP6201SNH95-PS2

SEE TABLE ON NEXT PAGE FOR PART DETAILS

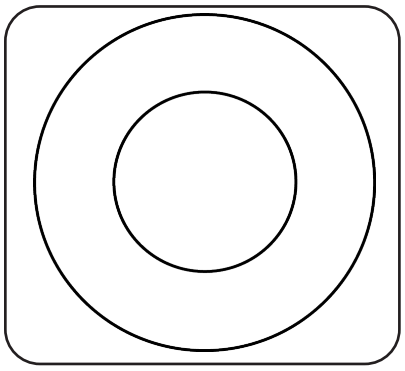
CONTACTS SOLD SEPARATELY SEE PAGE 191

Shell Size: 20 **Number of Contacts: 1** **Contact Size: 10mm**

Sealing: IP67 Salt Spray: 48h

High Amperage eco|mate® rm with RADSOK® Technology

- Single Pole High Power Arrangements
- 10mm Contact Size
- Operating Temperature: -40°C to +125°C
- RoHS Compliant
- Operating Voltage: 630V
- Current Rating at 25°C: 300A
- Flammability Rating: UL94-V0
- High Reliability
- Low Contact Engagement / Separation Forces
- Low Contact Resistance
- High Mating Cycle Durability



Insert Arrangement
Pin (Male) Faceview

Connector Part Numbers

Connector Part Number	Connector Type	Wire Range (mm²)	Amps	Contact				Figure Drawings
				Part Number	Type	AWG	Plating	
RTHP6201SNH25-PS5	Female Plug with Short Shielded Backshell	20-25	120	HS25DCS	Crimp Barrel, Female	4	Silver	1
RTHP6201SNH35-PS2	Female Plug with Short Shielded Backshell	30-35	130	HS35DCS	Crimp Barrel, Female	4	Silver	2
RTHP6201SNH50-PS2	Female Plug with Short Shielded Backshell	40-50	180	HS50DCS	Crimp Barrel, Female	1/0-0	Silver	3
RTHP6201SNH70-PS1	Female Plug with Short Shielded Backshell	60-70	250	HS70DCS	Crimp Barrel, Female	2/0-0	Silver	4
RTHP6201SNH70-PS2	Female Plug with Short Shielded Backshell	60-70	250	HS70DCS	Crimp Barrel, Female	2/0-0	Silver	5
RTHP6201SNH95-PS2	Female Plug with Short Shielded Backshell	85-95	300	HS95DCS	Crimp Barrel, Female	3/0-0	Silver	6
RTHP0201PNH-50C	Male Square Flange Receptacle Crimp	40-50	180	HP50DCS	Crimp Barrel, Male	1/0-0	Silver	7,12
RTHP0201PNH-70C	Male Square Flange Receptacle with Crimp	60-70	250	HP70DCS	Crimp Barrel, Male	2/0-0	Silver	8,12
RTHP0201PNH-95C	Male Square Flange Receptacle with Crimp	85-95	300	HP95DCS	Crimp Barrel, Male	3/0-0	Silver	9,12
RTHP0201PNH-H1	Male Square Flange Receptacle with Flat Tail	N/A	300	HPDHS	Flathole Tail, Male	N/A	Silver	10,12
RTHP0201PNH-M1	Male Square Flange Receptacle with Screw Tail	N/A	300	HPDSS	Screw Tail, Male	N/A	Silver	11,12

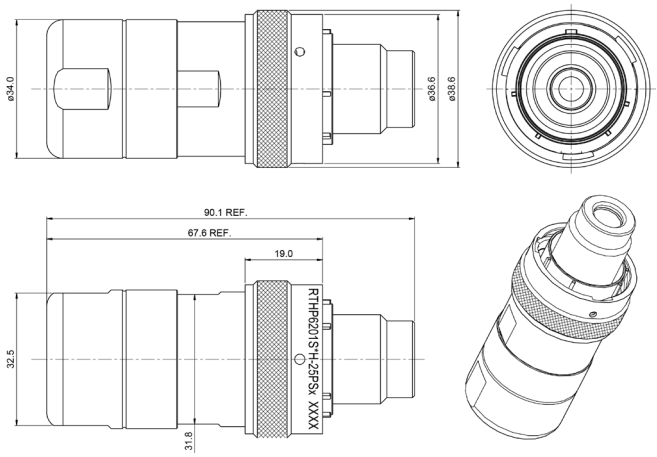
Contacts included. See chart for specific requirements

Shell Size: 20 **Number of Contacts: 1** **Contact Size: 10mm**

Sealing: IP67 Salt Spray: 48h

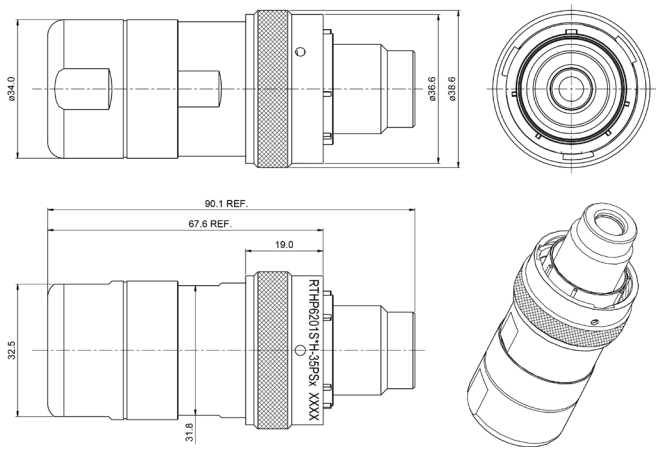
Dimensions Plug

Plug with Short Shielded Backshell



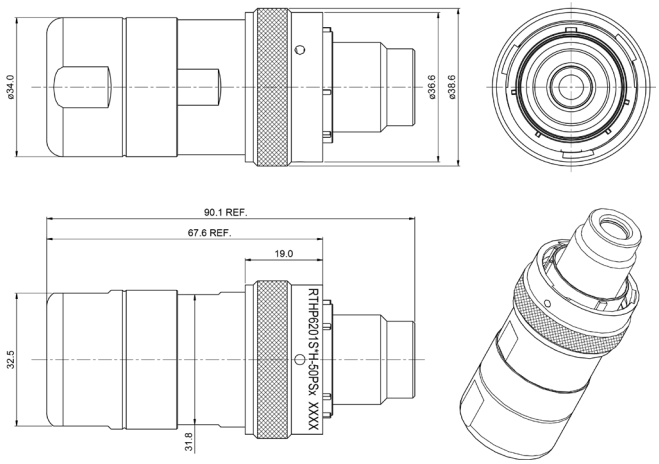
Female Figure 1 RTHP6201SNH25-PS5

Plug with Short Shielded Backshell



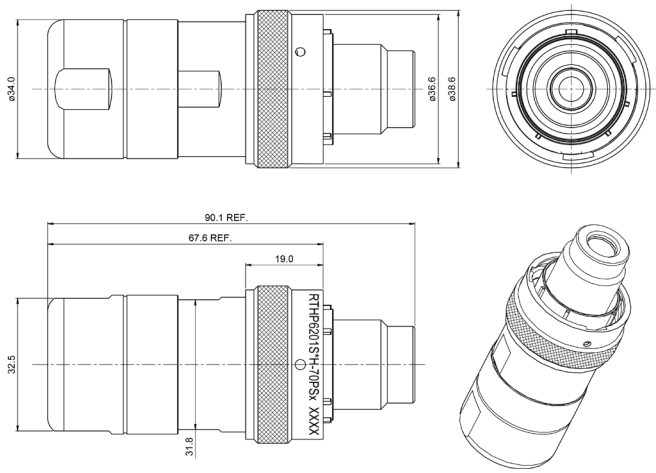
Female Figure 2 RTHP6201SNH35-PS2

Plug with Short Shielded Backshell



Female Figure 3 RTHP6201SNH50-PS2

Plug with Short Shielded Backshell



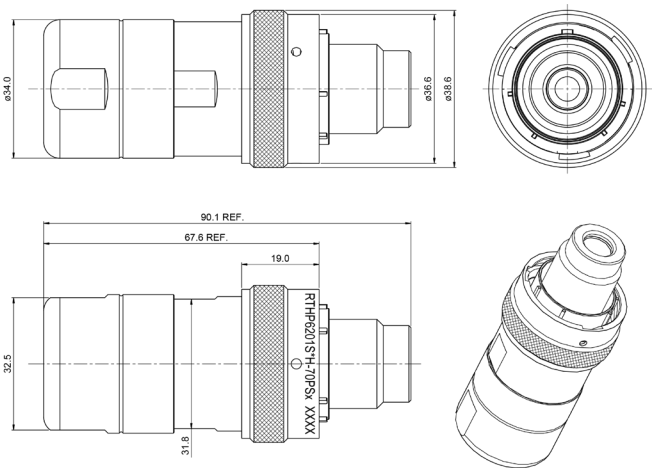
Female Figure 4 RTHP6201SNH70-PS1

Shell Size: 20 **Number of Contacts: 1** **Contact Size: 10mm**

Sealing: IP67 Salt Spray: 48h

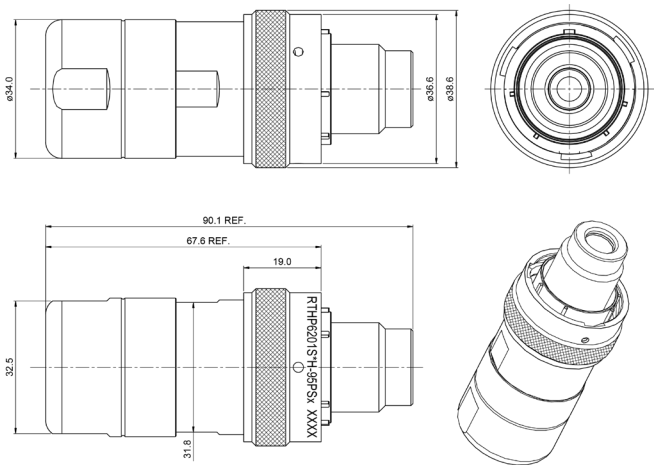
Dimensions Plug (con't)

Plug with Short Shielded Backshell



Female Figure 5 RTHP6201SNH70-PS2

Plug with Short Shielded Backshell



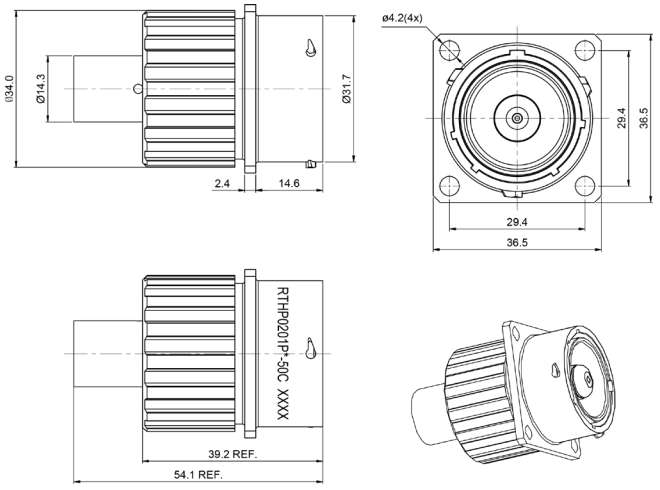
Female Figure 6 RTHP6201SNH95-PS2

Shell Size: 20 **Number of Contacts: 1** **Contact Size: 10mm**

Sealing: IP67 Salt Spray: 48h

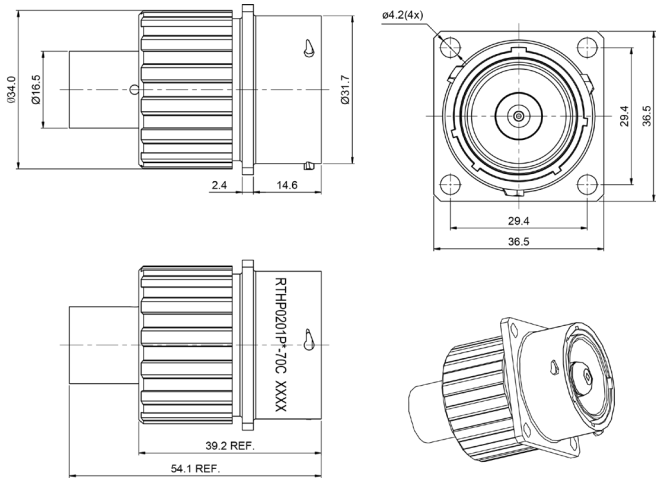
Dimensions Square Flange Receptacle

Square Flange Receptacle Crimp



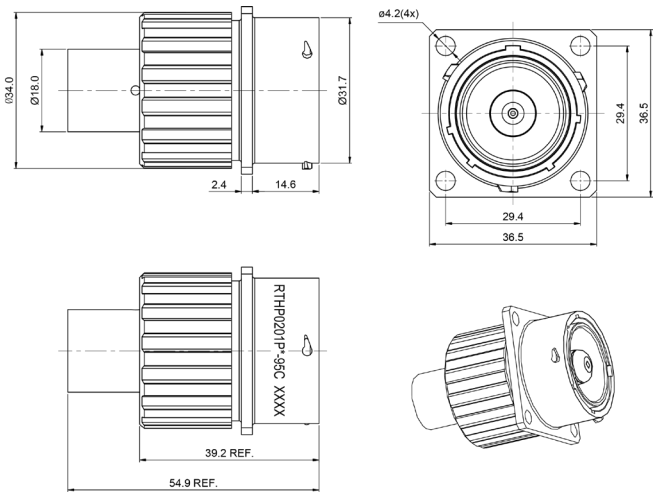
Male Figure 7 RTHP0201PN-50C

Square Flange Receptacle with Crimp



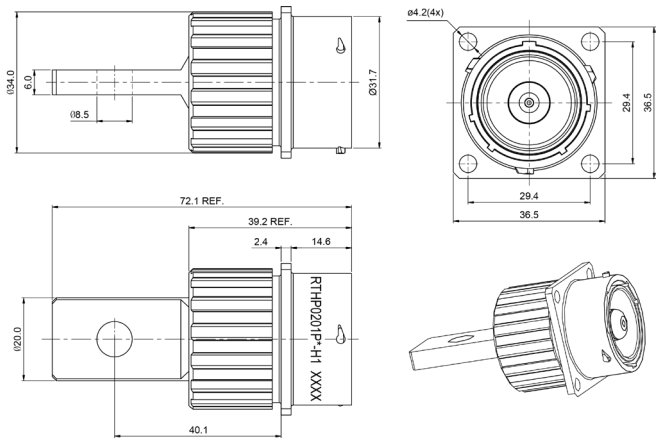
Male Figure 8 RTHP0201PN-70C

Square Flange Receptacle with Crimp



Male Figure 9 RTHP0201PN-95C

Square Flange Receptacle with Flat Tail



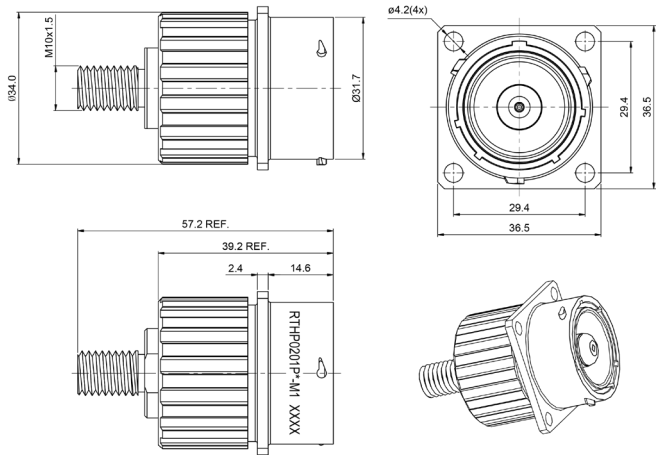
Male Figure 10 RTHP0201PN-H1

Shell Size: 20 **Number of Contacts: 1** **Contact Size: 10mm**

Sealing: IP67 Salt Spray: 48h

Dimensions Square Flange Receptacle (con't)

Square Flange Receptacle with Screw Tail



Male Figure 11 RTHP0201PN-M1

Square Flange Receptacle Panel Cutout

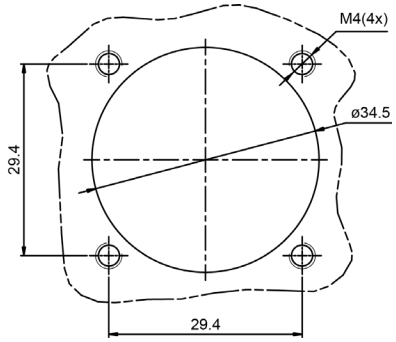


Figure 12

Contacts

Crimp Barrel Contact

Flat Hole Tail Contact (receptacle only)

Screw Tail Contact (receptacle only)

SEE TABLE ON NEXT PAGE FOR PART DETAILS

CONTACTS INCLUDED SEE PAGE 197

STEP 1
Choose Receptacle Style

STEP 2
Choose Plug Style

Square Flange Receptacles

RTHP0203PNH-16C

RTHP0203SNH-16C

Plug

RTHP6203PNH-16S2

RTHP6203SNH-16S2

Crimp Barrel Contact

Flat Hole Tail Contact
(receptacle only)

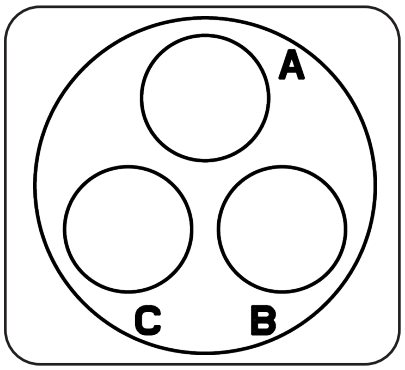
Screw Tail Contact
(receptacle only)

Shell Size: 20 **Number of Contacts: 3** **Contact Size: 3.6 mm**

Sealing: IP67 Salt Spray: 48h

High Amperage eco|mate® rm with RADSOK® Technology

- Single Pole High Power Arrangements
- 3.6mm Contact Size
- Operating Temperature: -40°C to +125°C
- RoHS Compliant
- Operating Voltage: 630V
- Current Rating at 25°C: 86A
- Flammability Rating: UL94-V0
- High Reliability
- Low Contact Engagement / Separation Forces
- Low Contact Resistance
- High Mating Cycle Durability



Insert Arrangement
Pin (Male) Faceview

Connector Part Number	Connector Type	Wire Range (mm²)	Amps	Contact				Figure Drawings
				Part Number	Type	AWG	Plating	
RTHP6203PNH-16S2	Male 3 Position Plug with Shielded Backshell	10-16	86	MP6ARS8S	Crimp Barrel, Male	8	Silver	1
RTHP6203SNH-16S2	Female 3 Position Plug with Shielded Backshell	10-16	86	MS6ARS8S	Crimp Barrel, Female	8	Silver	2
RTHP0203PNH-16C	Male Square Flange Receptacle with Crimp	10-16	86	MP6ARS8S	Crimp Barrel, Male		Silver	3,5
RTHP0203SNH-16C	Female Square Flange Receptacle with Crimp	10-16	86	MS6ARS8S	Crimp Barrel, Female		Silver	4,5

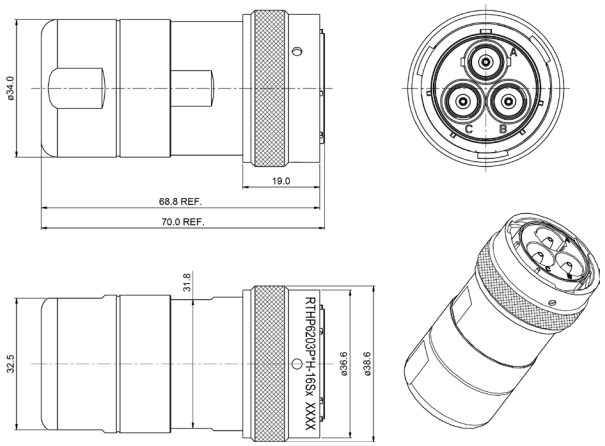
Contacts included. See chart for specific requirements

Shell Size: 20 **Number of Contacts: 3** **Contact Size: 3.6 mm**

Sealing: IP67 Salt Spray: 48h

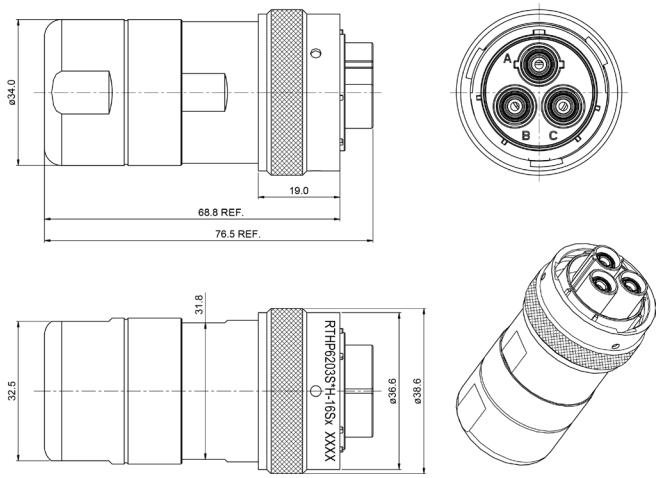
Dimensions Plug

3 Position Plug with Shielded Backshell



Male Figure 1 RTHP6203PNH-16S2

3 Position Plug with Shielded Backshell



Female Figure 2 RTHP6203SNH-16S2

Tools

Contact Extraction Tool, 3.mm RTHP Contact

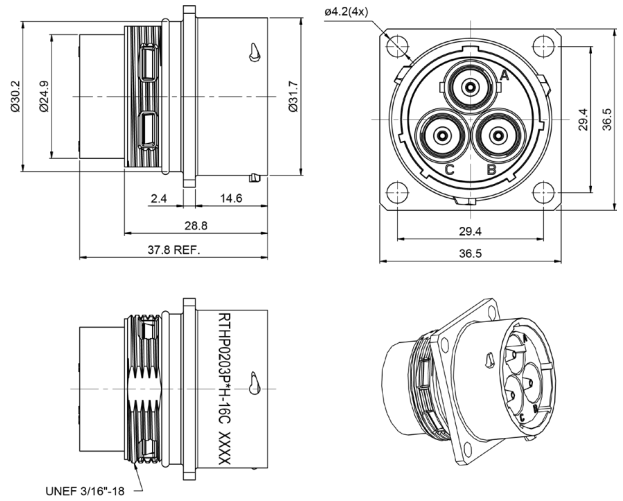
QXRT08R

Shell Size: 20 **Number of Contacts: 3** **Contact Size: 3.6 mm**

Sealing: IP67 Salt Spray: 48h

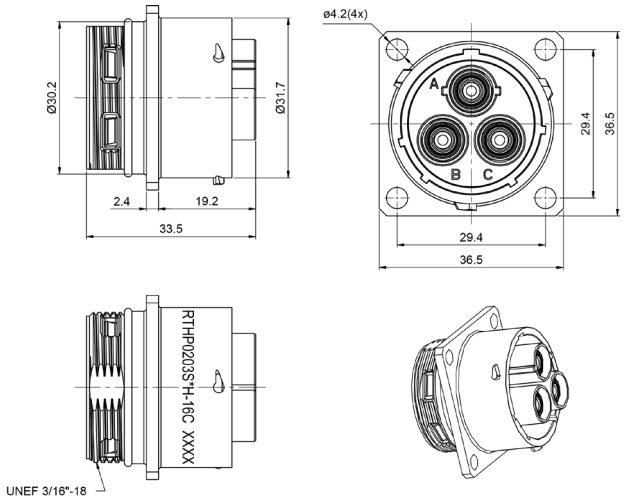
Dimensions Square Flange Receptacle

Square Flange Receptacle with Crimp



Male Figure 3 RTHP0203PNH-16C

Square Flange Receptacle with Crimp



Female Figure 4 RTHP0203SNH-16C

Square Flange Receptacle Panel Cutout

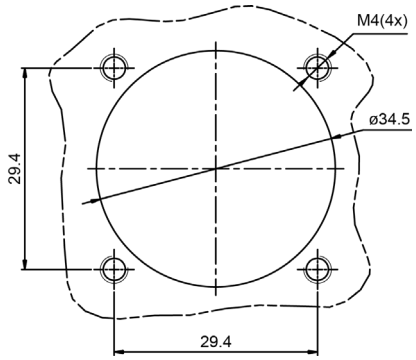


Figure 5

Contacts

Contact Overview

eco|mate® rm rugged metal shielded connectors and contacts are sold separately.

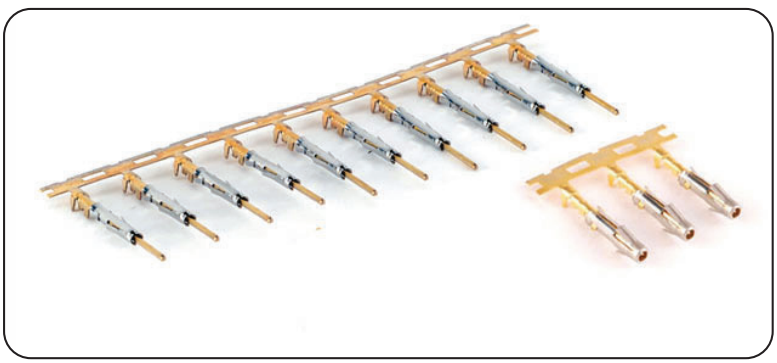
The contacts are offered in 2 types: machined and stamped & formed. The machined contacts are available in 3 styles: Standard, RADSOK®, and PCB.

eco|mate® rm contacts are offered in multiple sizes and are designed to be used in any connector with the same active part size regardless of shell size. See our **Connector Guide** starting at page 6 for matching parts and contacts.

Our customers can then choose to buy only one type of contact to equip all of their connectors, even if the shell sizes vary. Our standardized connector solutions makes it easy for our customers to reduce their costs and simplify assembly.

The eco|mate® rm rugged metal shielded connectors and contacts are easy to install and remove.

Machined contacts are generally chosen as a better solution for power applications or when lower quantities are needed.



Stamped & Formed contacts are available automatically crimped, making them ideal for high volume production applications.

Technical information about crimped contacts on page 233

Contacts

Plating and Bulk Order Options

Plating Options

Symbol	Plating
T	Tin Plated (For Stamped and Formed Contacts)
S	Silver Plated 5 Um (For Machined Contacts)
F	Gold Plated
G5	Gold Plated (Thickness 5µ")
G10	Gold Plated (Thickness 10µ")
G15	Gold Plated (Thickness 15µ")
G30	Gold Plated (Thickness 30µ")

Contacts supplied separately

Standard Quantity Order Options

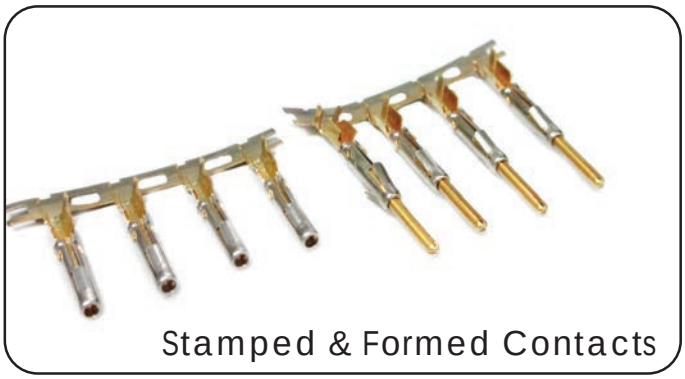
Stamped & Formed		Machined	
			
• 25 pieces • bulk package	• 3000 pieces • reel	• 25 pieces • bulk package	• 1000 pieces • bulk package

Amphenol offers two types of electrical contacts:

Machined

Contacts

Stamped & Formed Crimped Contact Part Numbers



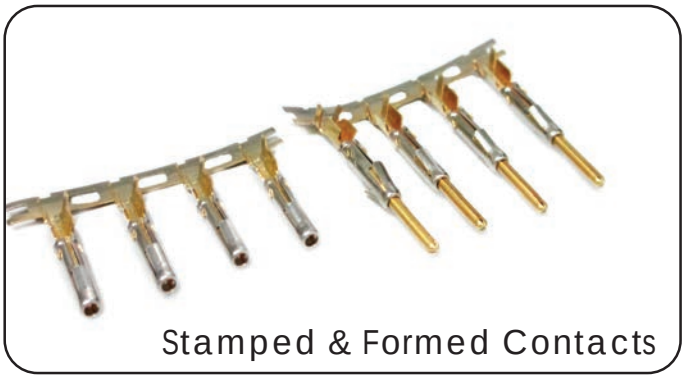
Stamped & Formed Contacts

Contact Size	AWG	Wire range mm ²	Current (A)	Electrical Resistance	Insulation Diameter (mm)	Plating	PART NUMBER	
							Male	Female
2.5mm	14-12	2.5-3.5	23	--	4.3	Tin	SP12A1T	SS12A1T
16 (Ø1.6mm)	14	2.0-2.5	13	<6mΩ	3.2	Gold Flash	SP14M2F	SS14M2F
16 (Ø1.6mm)	14	2.0-2.5	13	<6mΩ	3.2	Gold 5µ"	SP14M2G5	SS14M2G5
16 (Ø1.6mm)	14	2.0-2.5	13	<6mΩ	3.2	Gold 10µ"	SP14M2G10	SS14M2G10
16 (Ø1.6mm)	14	2.0-2.5	13	<6mΩ	3.2	Gold 15µ"	SP14M2G15	SS14M2G15
16 (Ø1.6mm)	14	2.0-2.5	13	<6mΩ	3.2	Gold 30µ"	SP14M2G30	SS14M2G30
16 (Ø1.6mm)	18-16	.75-1.5	13	<6mΩ	3.2	Gold Flash	SP16M2F	SS16M2F
16 (Ø1.6mm)	18-16	.75-1.5	13	<6mΩ	3.2	Gold 5µ"	SP16M2G5	SS16M2G5
16 (Ø1.6mm)	18-16	.75-1.5	13	<6mΩ	3.2	Gold 10µ"	SP16M2G10	SS16M2G10
16 (Ø1.6mm)	18-16	.75-1.5	13	<6mΩ	3.2	Gold 15µ"	SP16M2G10	SS16M2G15
16 (Ø1.6mm)	18-16	.75-1.5	13	<6mΩ	3.2	Gold 30µ"	SP16M2G30	SS16M2G30
16 (Ø1.6mm)	22-20	.34-.50	13	<6mΩ	3.2	Gold Flash	SP20M2F	SS20M2F
16 (Ø1.6mm)	22-20	.34-.50	13	<6mΩ	3.2	Gold 5µ"	SP20M2G5	SS20M2G5
16 (Ø1.6mm)	22-20	.34-.50	13	<6mΩ	3.2	Gold 10µ"	SP20M2G10	SS20M2G10
16 (Ø1.6mm)	22-20	.34-.50	13	<6mΩ	3.2	Gold 15µ"	SP20M2G15	SS20M2G15
16 (Ø1.6mm)	22-20	.34-.50	13	<6mΩ	3.2	Gold 30µ"	SP20M2G30	SS20M2G30
16 (Ø1.6mm)	26-24	.14-.25	13	<6mΩ	3.2	Gold Flash	SP24M2F	SS24M2F
16 (Ø1.6mm)	26-24	.14-.25	13	<6mΩ	3.2	Gold 5µ"	SP24M2G5	SS24M2G5

Available in Packages of 25 pieces or the Standard Reel Size of 3,000 pieces

Contacts

Stamped & Formed Contact Part Numbers (con't)



Stamped & Formed Contacts

Contact Size	AWG	Wire range mm ²	Current (A)	Electrical Resistance	Insulation Diameter (mm)	Plating	PART NUMBER	
							Male	Female
16 (Ø1.6mm)	26-24	.14-.25	13	<6mΩ	3.2	Gold 10µ"	SP24M2G10	SS24M2G10
16 (Ø1.6mm)	26-24	.14-.25	13	<6mΩ	3.2	Gold 15µ"	SP24M2G15	SS24M2G15
16 (Ø1.6mm)	26-24	.14-.25	13	<6mΩ	3.2	Gold 30µ"	SP24M2G30	SS24M2G30
20 (Ø1.mm)	22-20	.34-.50	5	<15mΩ	2.6	Gold Flash	SP20W2F	SS20W2F
20 (Ø1.mm)	22-20	.34-.50	5	<15mΩ	2.6	Gold 5µ"	SP20W2G5	SS20W2G5
20 (Ø1.mm)	22-20	.34-.50	5	<15mΩ	2.6	Gold 10µ"	SP20W2G10	SS20W2G10
20 (Ø1.mm)	22-20	.34-.50	5	<15mΩ	2.6	Gold 15µ"	SP20W2G15	SS20W2G15
20 (Ø1.mm)	22-20	.34-.50	5	<15mΩ	2.6	Gold 30µ"	SP20W2G30	SS20W2G30
20 (Ø1.mm)	26-24	.14-.25	5	<15mΩ	2.6	Gold Flash	SP24W2F	SS24W2F
20 (Ø1.mm)	26-24	.14-.25	5	<15mΩ	2.6	Gold 5µ"	SP24W2G5	SS24W2G5
20 (Ø1.mm)	26-24	.14-.25	5	<15mΩ	2.6	Gold 10µ"	SP24W2G10	SS24W2G10
20 (Ø1.mm)	26-24	.14-.25	5	<15mΩ	2.6	Gold 15µ"	SP24W2G15	SS24W2G15
20 (Ø1.mm)	26-24	.14-.25	5	<15mΩ	2.6	Gold 30µ"	SP24W2G30	SS24W2G30
20 (Ø1.mm)	30-28	.05-.08	5	<15mΩ	2.6	Gold Flash	SP28W2F	SS28W2F
20 (Ø1.mm)	30-28	.05-.08	5	<15mΩ	2.6	Gold 5µ"	SP28W2G5	SS28W2G5
20 (Ø1.mm)	30-28	.05-.08	5	<15mΩ	2.6	Gold 10µ"	SP28W2G10	SS28W2G10
20 (Ø1.mm)	30-28	.05-.08	5	<15mΩ	2.6	Gold 15µ"	SP28W2G15	SS28W2G15
20 (Ø1.mm)	30-28	.05-.08	5	<15mΩ	2.6	Gold 30µ"	SP28W2G30	SS28W2G30

Available in Packages of 25 pieces or the Standard Reel Size of 3,000 pieces

Contacts

PCB Contacts

PCB Machined Contact Part Numbers

Contact Size	Description	Plating	PART NUMBER	
			Male	Female
20	Short Version	Gold Flash	MP20W12E06F	MS20W12E06F
20	Short Version	Gold 5µ"	MP20W12E06G5	MS20W12E06G5
20	Short Version	Gold 10µ"	MP20W12E06G10	MS20W12E06G10
20	Short Version	Gold 15µ"	MP20W12E06G15	MS20W12E06G15
20	Short Version	Gold 30µ"	MP20W12E06G30	MS20W12E06G30
20	Long Version	Gold Flash	MP20W12E09F	MS20W12E09F
20	Long Version	Gold 5µ"	MP20W12E09G5	MS20W12E09G5
20	Long Version	Gold 10µ"	MP20W12E09G10	MS20W12E09G10
20	Long Version	Gold 15µ"	MP20W12E09G15	MS20W12E09G15
20	Long Version	Gold 30µ"	MP20W12E09G30	MS20W12E09G30
16	Short Version	Gold Flash	MP16M12E06F	MS16M12E06F
16	Short Version	Gold 5µ"	MP16M12E06G5	MS16M12E06G5
16	Short Version	Gold 10µ"	MP16M12E06G10	MS16M12E06G10
16	Short Version	Gold 15µ"	MP16M12E06G15	MS16M12E06G15
16	Short Version	Gold 30µ"	MP16M12E06G30	MS16M12E06G30
16	Long Version	Gold Flash	MP16M12E09F	MS16M12E09F

Contacts

PCB Machined Contact Part Numbers (con't)

Contact Size	Description	Plating	PART NUMBER	
			Male	Female
16	Long Version	Gold 5µ"	MP16M12E09G5	MS16M12E09G5
16	Long Version	Gold 10µ"	MP16M12E09G10	MS16M12E09G10
16	Long Version	Gold 15µ"	MP16M12E09G15	MS16M12E09G15
16	Long Version	Gold 30µ"	MP16M12E09G30	MS16M12E09G30
2.5 mm	Short Version	Gold Flash	MP10B12E05F	MS10B12E05F
2.5 mm	Short Version	Gold 5µ"	MP10B12E05G5	MS10B12E05G5
2.5 mm	Short Version	Gold 10µ"	MP10B12E05G10	MS10B12E05G10
2.5 mm	Short Version	Gold 15µ"	MP10B12E05G15	MS10B12E05G15
2.5 mm	Short Version	Gold 30µ"	MP10B12E05G30	MS10B12E05G30
2.5 mm	Long Version	Gold Flash	MP10B12E08F	MS10B12E08F
2.5 mm	Long Version	Gold 5µ"	MP10B12E08G5	MS10B12E08G5
2.5 mm	Long Version	Gold 10µ"	MP10B12E08G10	MS10B12E08G10
2.5 mm	Long Version	Gold 15µ"	MP10B12E08G15	MS10B12E08G15
2.5 mm	Long Version	Gold 30µ"	MP10B12E08G30	MS10B12E08G30

Available in Standard Package Sizes: 25 or 1,000 pieces

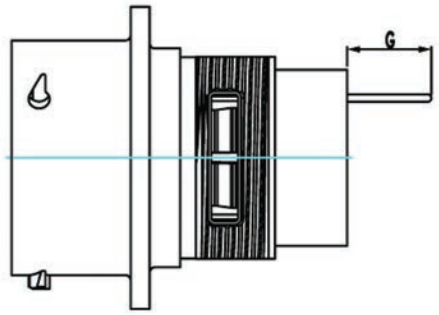
PCB Soldering

The PNPCF series can be used in a wave soldering process, but not in a reflow soldering process. All high temperature processes are prohibited.

Contacts

PCB Contacts Dimensions

Nominal Length G (mm)



Dimensions of dipsolder contacts out of connector (contacts to be ordered separately)

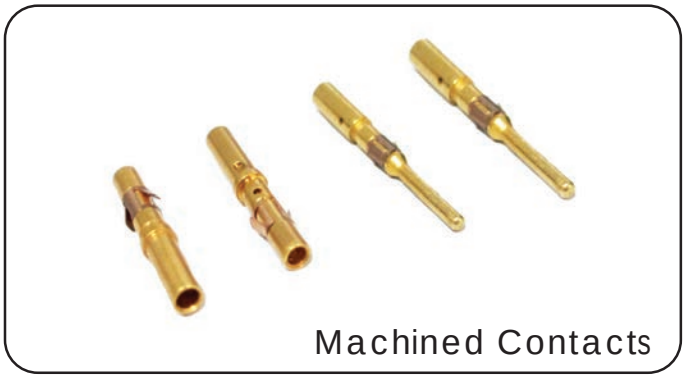
All dimensions are in mm
xx=plating options

Shell Size	Pin Contact					
	MP20W12E06xx	MP20W12E09xx	MP16M12E04xx	MP16M12E06xx	MP10B12E05xx	MP10B12E08xx
10	4.0	9.5	4.0	8.0	--	--
12	4.0	9.5	4.0	8.0	5.0	--
14	4.0	9.5	4.0	8.0	5.2	--
16	4.0	9.5	4.0	8.0	--	--
18	--	9.5	4.0	8.0	--	--
20	--	9.5	4.0	8.0	--	--
24	--	--	--	3.9	--	--

Shell Size	Socket Contact					
	MS20W12E06xx	MS20W12E09xx	MS16M12E04xx	MS16M12E06xx	MS10B12E05xx	MS10B12E08xx
10	3.3	8.5	2.4	3.0	--	--
12	3.3	8.5	2.4	3.0	--	--
14	3.3	8.5	2.4	3.0	--	--
16	3.3	8.5	2.4	3.0	--	--
18	--	8.5	2.4	--	--	--
20	--	8.5	2.4	--	--	--
24	--	--	--	--	--	--

Contacts

Machined Standard Crimp Contact Part Numbers



Machined Contacts

Contact Size	AWG	Wire Range mm ²	Plating	Electrical Resistance	Part Number	
					Male	Female
8 (Ø3.6mm)	12-10	3.0-6.0	Silver	<5mΩ	MP10A23S	MS10A23S
16 (Ø1.6mm)	14	2.0-2.5	Gold Flash	<6mΩ	MP14M23F	MS14M23F
16 (Ø1.6mm)	14	2.0-2.5	Gold 5µ"	<6mΩ	MP14M23G5	MS14M23G5
16 (Ø1.6mm)	14	2.0-2.5	Gold 10µ"	<6mΩ	MP14M23G10	MS14M23G10
16 (Ø1.6mm)	14	2.0-2.5	Gold 15µ"	<6mΩ	MP14M23G15	MS14M23G15
16 (Ø1.6mm)	14	2.0-2.5	Gold 30µ"	<6mΩ	MP14M23G30	MS14M23G30
16 (Ø1.6mm)	18-16	.75-1.5	Gold Flash	<6mΩ	MP16M23F	MS16M23F
16 (Ø1.6mm)	18-16	.75-1.5	Gold 5µ"	<6mΩ	MP16M23G5	MS16M23G5
16 (Ø1.6mm)	18-16	.75-1.5	Gold 10µ"	<6mΩ	MP16M23G10	MS16M23G10
16 (Ø1.6mm)	18-16	.75-1.5	Gold 15µ"	<6mΩ	MP16M23G15	MS16M23G15
16 (Ø1.6mm)	18-16	.75-1.5	Gold 30µ"	<6mΩ	MP16M23G30	MS16M23G30
16 (Ø1.6mm)	22-20	.34-.50	Gold Flash	<6mΩ	MP20M23F	MS20M23F
16 (Ø1.6mm)	22-20	.34-.50	Gold 5µ"	<6mΩ	MP20M23G5	MS20M23G5
16 (Ø1.6mm)	22-20	.34-.50	Gold 10µ"	<6mΩ	MP20M23G10	MS20M23G10
16 (Ø1.6mm)	22-20	.34-.50	Gold 15µ"	<6mΩ	MP20M23G15	MS20M23G15
16 (Ø1.6mm)	22-20	.34-.50	Gold 30µ"	<6mΩ	MP20M23G30	MS20M23G30

continued on next page

Contacts

Machined Standard Crimp Contact Part Numbers(con't)

Contact Size	AWG	Wire Range mm ²	Plating	Electrical Resistance	Part Number	
					Male	Female
16 (Ø1.6mm)	26-24	.14-.25	Gold Flash	<6mΩ	MP24M23F	MS24M23F
16 (Ø1.6mm)	26-24	.14-.25	Gold 5µ"	<6mΩ	MP24M23G5	MS24M23G5
16 (Ø1.6mm)	26-24	.14-.25	Gold 10µ"	<6mΩ	MP24M23G10	MS24M23G10
16 (Ø1.6mm)	26-24	.14-.25	Gold15µ"	<6mΩ	MP24M23G15	MS24M23G15
16 (Ø1.6mm)	26-24	.14-.25	Gold 30µ"	<6mΩ	MP24M23G30	MS24M23G30
20 (Ø1.mm)	22-20	.34-.50	Gold Flash	<15mΩ	MP20W23F	MS20W23F
20 (Ø1.mm)	22-20	.34-.50	Gold 5µ"	<15mΩ	MP20W23G5	MS20W23G5
20 (Ø1.mm)	22-20	.34-.50	Gold 10µ"	<15mΩ	MP20W23G10	MS20W23G10
20 (Ø1.mm)	22-20	.34-.50	Gold 15µ"	<15mΩ	MP20W23G15	MS20W23G15
20 (Ø1.mm)	22-20	.34-.50	Gold 30µ"	<15mΩ	MP20W23G30	MS20W23G30
20 (Ø1.mm)	26-24	.13-.25	Gold Flash	<15mΩ	MP24W23F	MS24W23F
20 (Ø1.mm)	26-24	.13-.25	Gold 5µ"	<15mΩ	MP24W23G5	MS24W23G5
20 (Ø1.mm)	26-24	.13-.25	Gold 10µ""	<15mΩ	MP24W23G10	MS24W23G10
20 (Ø1.mm)	26-24	.13-.25	Gold 15µ"	<15mΩ	MP24W23G15	MS24W23G15
20 (Ø1.mm)	26-24	.13-.25	Gold 30µ"	<15mΩ	MP24W23G30	MS24W23G30
20 (Ø1.mm)	30-28	.05-.08	Gold Flash	<15mΩ	MP28W23F	MS28W23F
20 (Ø1.mm)	30-28	.05-.08	Gold 5µ"	<15mΩ	MP28W23G5	MS28W23G5
20 (Ø1.mm)	30-28	.05-.08	Gold 10µ"	<15mΩ	MP28W23G10	MS28W23G10
20 (Ø1.mm)	30-28	.05-.08	Gold 15µ"	<15mΩ	MP28W23G15	MS28W23G15
20 (Ø1.mm)	30-28	.05-.08	Gold 30µ"	<15mΩ	MP28W23G30	MS28W23G30

Available in Standard Package Sizes: 25 or 1,000 pieces

Contacts

RADSOK® Contacts

RADSOK® Benefits at a Glance

- Cost effective production using stamp & form technology
- Fully automated production for full press capability
- Low insertion and extraction forces
- High number of mating cycles
- Reduced assembly effort
- Contact coverage up to 65%
- Long lasting contact normal forces guaranteed through optimal grid technology
- Self cleaning effect during the mating process
- No torque resistance required of electrical housing - allowing for easier designs
- Absorption of vibrations

RADSOK® Technical Data

High Reliability

Unique RADSOK® design and construction technology creates an electrical contact interface that exceeds typical interconnect requirements. Applications in Aerospace, Medical, Industrial, Automotive, Mining, Offshore and other harsh environments depend on the high reliability of 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 10,000 mating cycles. 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.

Crimp Barrel Contact

Flat Hole Tail Contact

Screw Tail Contact

For more technical information about RADSOK® see page 226

Contacts

RADSOK® Machined Contact Part Numbers

Contact Size	Description	Wire Range AWG	Wire range mm ²	Plating	Electrical Resistance	PART NUMBER	
						Male	Female
3.6mm	Crimp Barrel	8	10-16	Silver	<1.0mΩ	MP6ARS8S	MS6ARS8S
3.6mm	Crimp Barrel	8	8-10	Silver	<1.0mΩ	HP10ACS	HS10ACS
3.6mm	Screw Tail	N/A	N/A	Silver	<1.0mΩ	HPASS	HSASS
3.6mm	Flathole Tail	N/A	N/A	Silver	<1.0mΩ	HPAHS	HSAHS
6mm	Crimp Barrel	4	20-25	Silver	<1.0mΩ	HP25BCS	HS25BCS
6mm	Screw Tail	N/A	N/A	Silver	<1.0mΩ	HPBSS	HSBSS
6mm	Flathole Tail	N/A	N/A	Silver	<1.0mΩ	HPBHS	HSBHS
8mm	Crimp Barrel	4	20-25	Silver	<1.0mΩ	--	HS25CCS
8mm	Crimp Barrel	2	30-35	Silver	<1.0mΩ	HP35CCS	HS35CCS
8mm	Crimp Barrel	2	30-35	Silver	<1.0mΩ	HP50CCS	HS50CCS
8mm	Screw Tail	N/A	N/A	Silver	<1.0mΩ	HPCSS	HSCSS
8mm	Flathole Tail	N/A	N/A	Silver	<1.0mΩ	HPCHS	HSCHS
10mm	Crimp Barrel	4	20-25	Silver	<1.0mΩ	--	HS25DCS
10mm	Crimp Barrel	2	30-35	Silver	<1.0mΩ	--	HS35DCS
10mm	Crimp Barrel	1/0-1	40-50	Silver	<1.0mΩ	HP50DCS	HS50DCS
10mm	Crimp Barrel	2/0-1	60-70	Silver	<1.0mΩ	HP70DCS	HS70DCS
10mm	Crimp Barrel	3/0-1	85-95	Silver	<1.0mΩ	HP95DCS	HS95DCS
10mm	Screw Tail	N/A	N/A	Silver	<1.0mΩ	HPDSS	HSDSS
10mm	Flathole Tail	N/A	N/A	Silver	<1.0mΩ	HPDHS	HSDHS

Available in Standard Package Size: 25 or 1,000 pieces

Field of Application Amperage for RADSOK® Machined Contacts

RTHP / RADSOK® Connectors
starting at page 181

	Contact Size	25° C
Amperage	3.6mm	86 A
	6mm	120A
	8mm	180 A
	10mm	300 A

eco|mate® rm
Rugged Metal Shielded Connectors

Technical Information

Tooling

Assembly Instructions

Technical Data

Tooling

Machined

Hand Crimp Tool for Machine Contacts

MFX-3959

Pneumatic Crimp Tool for Machined Contacts

MFX-3960

Stamped & Formed

Crimp Die for Stamped & Form Contact

MFX-3957

Hand Tool, Stamped & Form Contact, 2.5 mm

MFX-3962

Hand Tool, Stamped & Form Contact, 16 AWG

MFX-3954

Hand Tool, Stamped & Form Contact, 20 AWG

MFX-3958

Contact Extraction Tool

Contact Extraction Tool

Part Number	Description
QRT08	3.6 mm contacts
QXRT08R	3.6 mm contacts (eco|mate® rm High Amperage)
QXRT12S	2.5 mm contacts
QXRT16	#16 contacts
QXRT20	#20 contacts

Tooling

Contact Extraction Tool Table

Contact Size	Contact Part Number		Extraction Tool
	Male	Female	
2.5 mm	SP12A1T	SS12A1T	QXRT12S
3.6mm	HP10ACS	HS10ACS	QRT0BR
	HP10AHS	HS10AHS	
	HP10ASS	HS10ASS	
6 mm	HP25BCS	HS25BCS	N/A
	HP25BHS	HS25BHS	
	HP25BSS	HS25BSS	
8 mm	HP35CSS	HS35CSS	N/A
	HP35CCS	HS35CCS	
	HP35CHS	HS35CHS	
10 mm	HP50DCS	HS50DCS	N/A
	HP50DHS	HS50DHS	
	HP50DSS	HS50DSS	
8	MP10A23S	MS10A23S	N/A

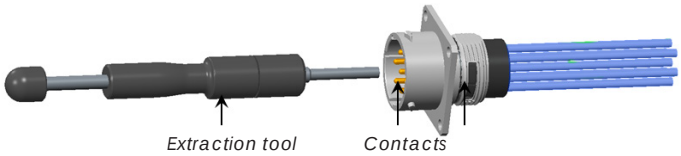
Contact Size 16	
Extraction Tool QXRT16	
Contact Part Number	
Male	Female
MP14M23F	MS14M23F
SP14M2F	SS14M2F
MP14M23FG5	MS14M23G5
SP14M2G5	SS14M2G5
SP14M2G10	SS14M2G10
MP14M23FG10	MS14M23G10
SP14M2G15	SS14M2G15
MP14M23FG15	MS14M23G15
MP14M23G30	MS14M23G30
SP14M2G30	SS14M2G30
MP16M23F	MS16M23F
SP16M2F	SS16M2F
MP16M23G5	MS16M23G5
SP16M2G5	SS16M2G5
SP16M2G10	SS16M2G10
MP16M23G10	MS16M23G10
SP16M2G10	SS16M2G15
MP16M23G15	MS16M23G15
SP16M2G30	SS16M2G30
MP16M23G30	MS16M23G30

Contact Size 16 (con't)	
Extraction Tool QXRT16	
Contact Part Number	
Male	Female
SP20M2F	SS20M2F
MP20M23F	MS20M23F
SP20M2G5	SS20M2G5
MP20M23G5	MS20M23G5
SP20M2G10	SS20M2G10
MP20M23G10	MS20M23G10
SP20M2G15	SS20M2G15
MP20M23G15	MS20M23G15
SP20M2G30	SS20M2G30
MP20M23G30	MS20M23G30
SP24M2F	SS24M2F
MP24M23F	MS24M23F
SP24M2G5	SS24M2G5
MP24M23G5	MS24M23G5
MP24M23G10	MS24M23G10
SP24M2G10	SS24M2G10
MP24M23G15	MS24M23G15
SP24M2G15	SS24M2G15
MP24M23G30	MS24M23G30
SP24M2G30	SS24M2G30

Contact Size 20	
Extraction Tool QXRT20	
Contact Part Number	
Male	Female
MP20W23F	MS20W23F
SP20W2F	SS20W2F
SP20W2G5	SS20W2G5
MP20W23G5	MS20W23G5
SP20W2G10	SS20W2G10
MP20W23G10	MS20W23G10
MP20W23G15	MS20W23G15
SP20W2G15	SS20W2G15
MP20W23G30	MS20W23G30
SP20W2G30	SS20W2G30
MP24W23F	MS24W23F
SP24W2F	SS24W2F
SP24W2G5	SS24W2G5
MP24W23G5	MS24W23G5
SP24W2G10	SS24W2G10
MP24W23G10	MS24W23G10
MP24W23G15	MS24W23G15
SP24W2G15	SS24W2G15
SP24W2G30	SS24W2G30
MP24W23G30	MS24W23G30
MP28W23F	MS28W23F
SP28W2F	SS28W2F
SP28W2G5	SS28W2G5
MP28W23G5	MS28W23G5
SP28W2G10	SS28W2G10
MP28W23G10	MS28W23G10
MP28W23G15	MS28W23G15
SP28W2G15	SS28W2G15
SP28W2G30	SS28W2G30
MP28W23G30	MS28W23G30

Tooling

Contact Extraction Tool Instruction



Step 1 Put extraction tool into insert

Step 2 Push the handle to take out the contacts

Step 3

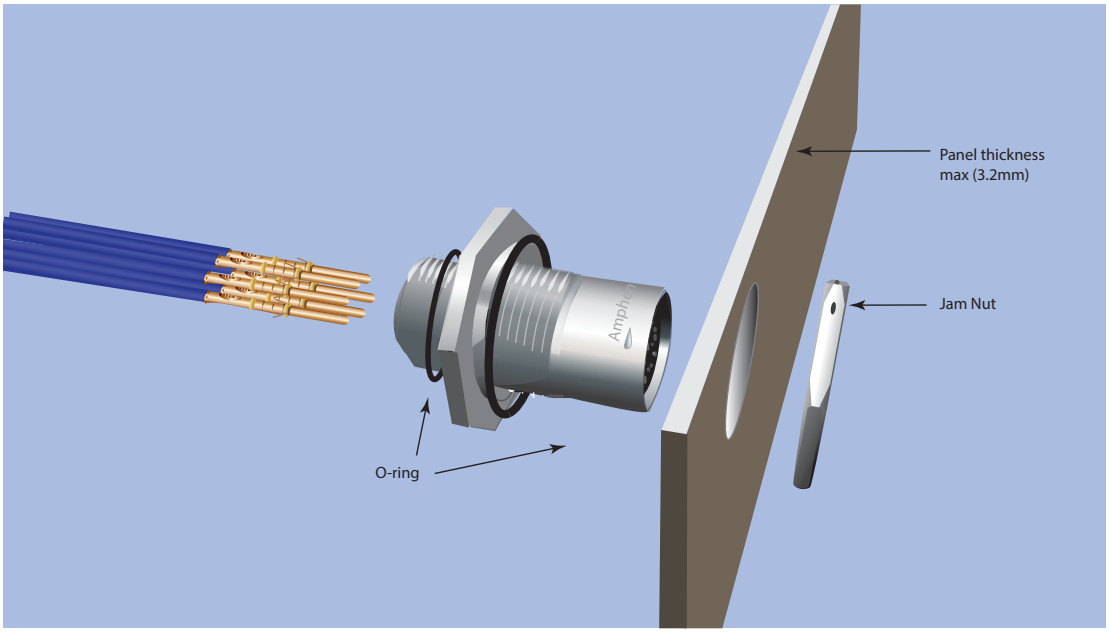
Step 4

Connector

Assembly Instructions

Jam Nut Assembly and Installation Instructions

1. Remove insulation from wires and terminate contacts
2. Push contacts into connector insert
3. Seat o-ring, install and fasten receptacle in the panel cut-out
4. Tighten jam nut

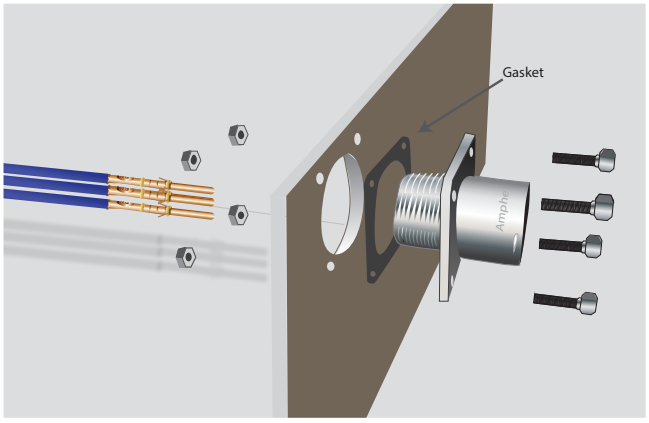


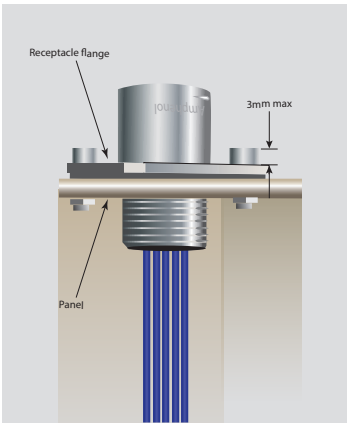
Shell Size	Jam Nut torque (Nm)	Exterior jam nut dim. (min)	Ø Wire max (mm)	Panel thickness max (mm)
10	3.4-4.1	22.2	3.2	3.2
12	5.2-5.6	27.0	3.2	3.2
14	6.2-6.8	32.0	3.2	3.2
16	7.9-8.5	33.3	3.2	3.2
18	9.0-9.6	36.5	3.2	3.2
20	10.2-10.7	39.7	3.2	3.2
22	11.3-12.4	42.9	3.2	3.2
24	12.4-13.6	46.0	3.2	3.2

Assembly Instructions

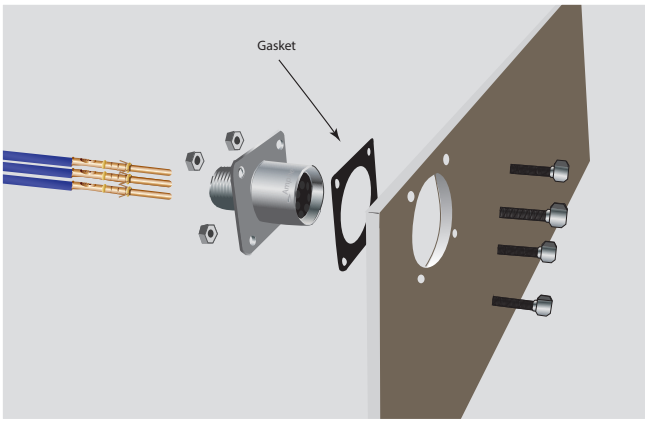
Flange Assembly and Installation Instructions

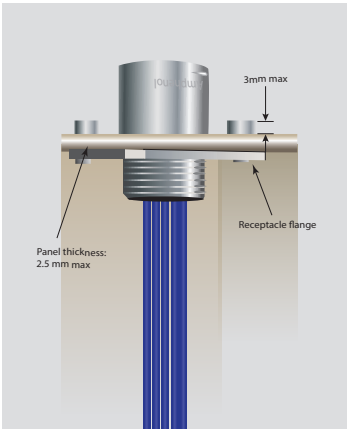
Front Assembly





Rear Assembly





Shell Size	Screw tightening torque (Nm)
10	0.30/0.40
12	0.30/0.40
14	0.30/0.40
16	0.30/0.40
18	0.35/0.45
20	0.50/0.60
22	0.55/0.65
24	0.55/0.65

1. Remove insulation from wires and terminate contacts
2. Push contacts into connector insert
3. Install and fasten receptacle in the panel cutout
4. For increased sealing of the system, use optional gasket

Assembly Instructions

eco|mate® rm Straight Plug and Receptacle Cable Assembly

Step 1: Slide parts onto cable

Table 1		
Shell Size	L1 (long back shell)	L1 (short back shell)
10	25~30 mm	20~25 mm
12	30~35 mm	25~30 mm
14	30~35 mm	25~30 mm
16	35~40 mm	30~35 mm
18	35~40 mm	30~35 mm

Step 2: Strip jacket

** Make sure exposed shielding is not nickedor cut*

Step 3: Attach tie-wrap

Dimensions are for reference only

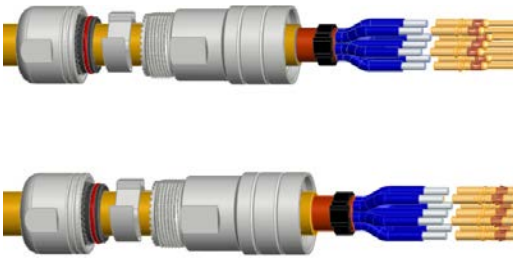
Table 2		
Contact Size	L2 (stamped)	L2 (machined)
8#	NA	7.5~8.5 mm
12#	8.2~9.2 mm	8.5~9.5 mm
16#	5.0~5.5 mm	7.5~8.5 mm
20#	5.5~6.0 mm	7.0~8.0 mm

Step 4: Trim tie-wrap

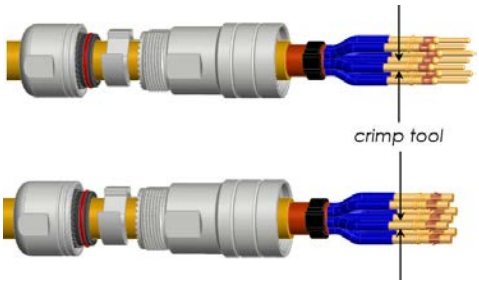
Step 5: Trim braided shield flush to edge of tie-wrap

Step 6: Strip to conductor

Step 7: Attach contacts to wire leads



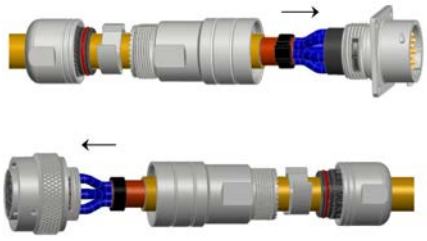
Step 8: Crimp contacts



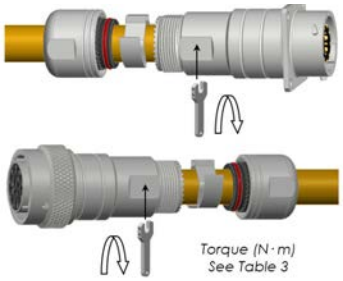
Assembly Instructions

eco | mate® rm Straight Plug and Receptacle Cable Assembly (con't)

Step 9: **Insert contacts into connector cavities**



Step 10: **Assemble back shell**



Step 11: **Push shielding clip into backshell**

Table 3	
Size	Torque=T1 (N.m)
10	1.5~2.5 N.m
12	2.5~4.0 N.m
14	2.5~4.0 N.m
16	3.0~4.5 N.m
18	3.0~4.5N.m

Step 12: **Push cable grommet into backshell**

Step 13: **Tighten metal nut**

Table 4	
Size	Torque=T2 (N.m)
10	2.0~3.0 N.m
12	3.0~5.0 N.m
14	3.5~5.5 N.m
16	4.0~6.0 N.m
18	5.0~8.0 N.m

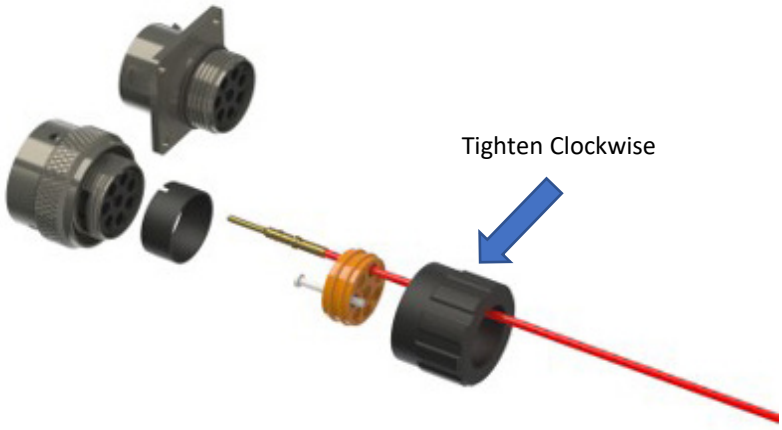
Step 14 Mate receptacle & plug (align the master key)

Assembled Dimensions

Shell Size	Plug with socket match with long cord grip	Plug with socket match with short cord grip	Plug with pin match with long cord grip	Plug with pin match and short cord grip
10	43.0mm	33.0mm	38.0mm	28.0mm
12	45.0mm	35.0mm	35.0mm	25.0mm
14	45.0mm	35.0mm	35.0mm	25.0mm
16	45.0mm	35.0mm	40.0mm	30.0mm
18	48.0mm	39.0mm	40.0mm	32.0mm

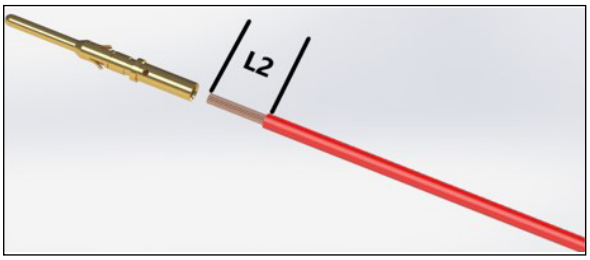
Assembly Instructions

eco|mate® rm Straight Plug and Receptacle with End Cap



Step 1: Slide accessories onto the wire

Step 2: Strip per chart (Table 1)



Step 3: Crimp contacts on wire

Step 4: Insert first contact in the grommet through required cavity. Then insert the contact into the insulator matching cavity.

Step 5: Place the grommet and compression ring on the connector

Step 6: Insert the remaining contacts, insert wire seals behind unwired contacts, push wire seal large end first until seated, trim length if needed

Step 7 Itighten nut to recommended torque (Table 2)

Table 1		
Contact Size	L2 (stamped)	L2 (machined)
6#	N/A	1.5-15.5mm
8#	NA	7.5~8.5 mm
12#	8.2~9.2 mm	8.5~9.5 mm
16#	5.0~5.5 mm	7.5~8.5 mm
20#	5.5~6.0 mm	7.0~8.0 mm

Table 2	
Shell Size	Torque
10	0.80
12	1.20
14	1.70
16	2.40
18	2.40
20	3.00
22	3.60
24	4.20

Assembly Instructions

eco|mate® rm Right Angle Plug and Receptacle Cable Assembly

Step 1: Slide parts onto cable

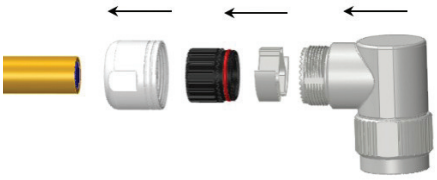
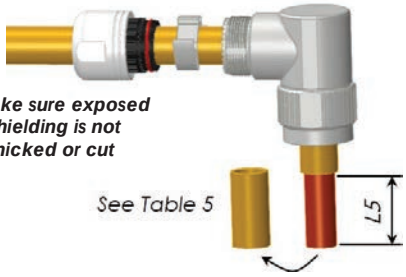


Table 5	
Size	L5 (90° cord grip)
10	NA
12	60~65 mm
14	60~65 mm
16	65~70 mm
18	NA

Dimensions are for reference only

Step 2: Strip jacket



Step 3: Attach tie-wrap

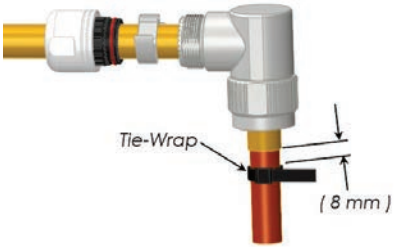
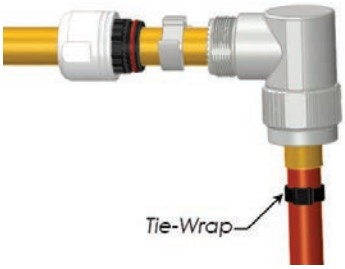


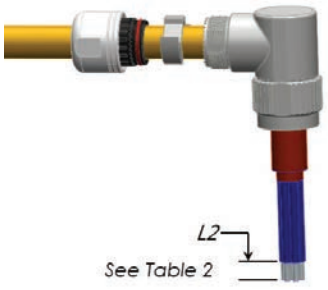
Table 2		
Contact Size	L2 (stamped)	L2 (machined)
8#	NA	7.5~8.5 mm
12#	8.2~9.2 mm	8.5~9.5 mm
16#	5.0~5.5 mm	7.5~8.5 mm
20#	5.5~6.0 mm	7.0~8.0 mm

Step 4: Trim tie-wrap



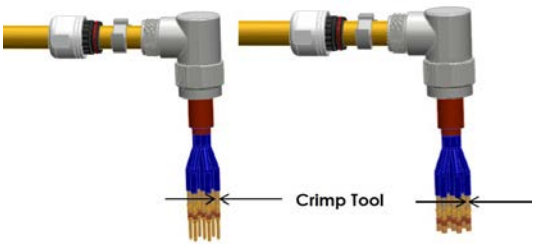
Step 5: Trim braided shield flush to edge of tie-wrap

Step 6: Strip to conductor



Step 7: Attach contacts to wire leads

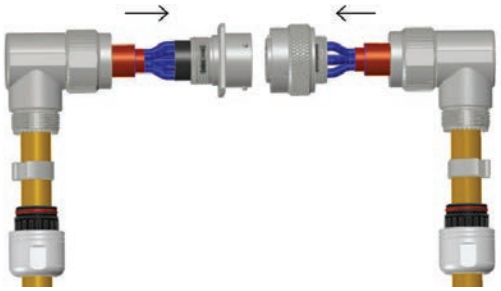
Step 8: Crimp contacts



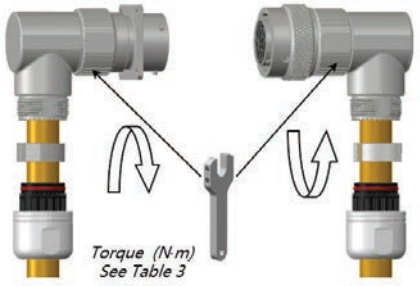
Assembly Instructions

eco|mate® rm Right Angle Plug and Receptacle Cable Assembly (cont.)

Step 9: Insert contacts into connector cavities



Step 10: Assemble back shell



Step 11: Push shielding clip into backshell

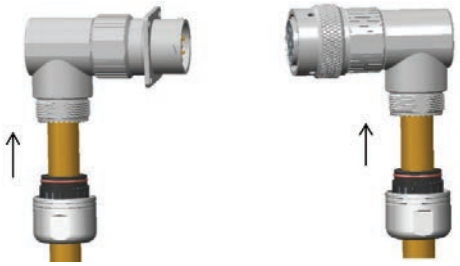
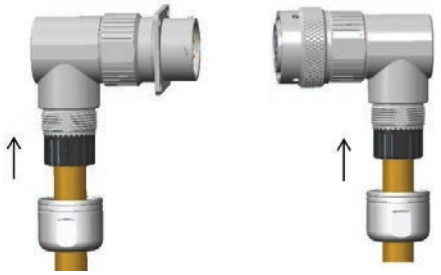
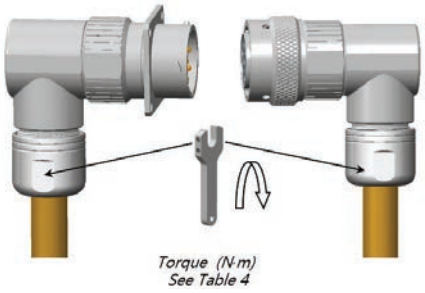


Table 4	
Size	Torque= T2 (N.m)
10	2.0-3.0 N.m
12	3.0-5.0 N.m
14	3.5-5.5 N.m
16	4.0-6.0 N.m
18	5.0-8.0 N.m

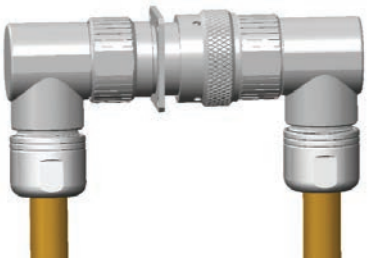
Step 12 Push cable grommet into backshell



Step 13: Tighen metal nut

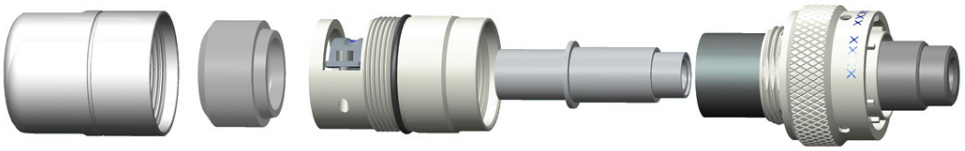


Step 14: Male receptacle & plug (align the master key)

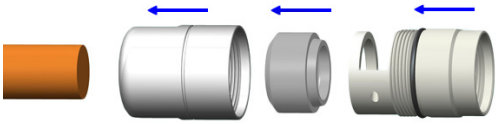


Assembly Instructions

eco|mate® rm High Amperage Straight Plug Cable Assembly

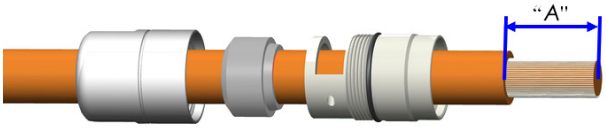


Step 1: Slide components onto cable

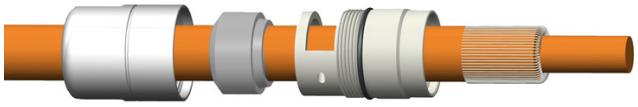


Step 2: Strip jacket

** Make sure exposed shielding is not nicked or cut*

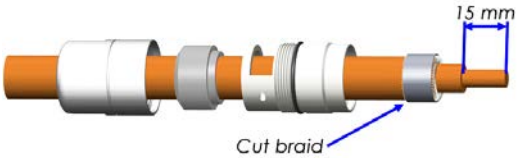


Step 3: Fold braided shielding over jacket



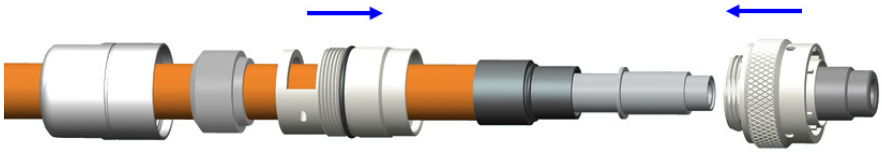
Step 4: Wrap foil over braided shielding

Step 5: Strip to conductor

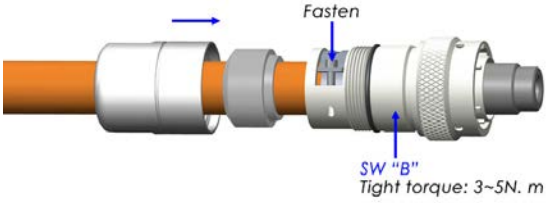


Step 6: Slide onto conductor and crimp

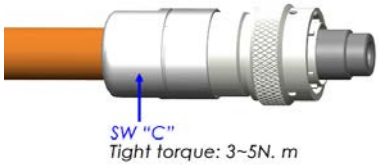
Step 7: Slide plug onto barrel



Step 8: Attach and tighten plug as shown



Step 9: Attach and tighten backshell as shown



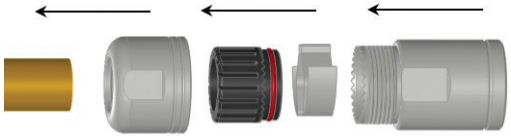
Data Chart

Instruction	Shell 14	Shell 16	Shell 20
Dimension "A"	25 mm	25 mm	30 mm
SW "B"	24 mm	28 mm	32 mm
SW "C"	24.5 mm	29 mm	32.5 mm

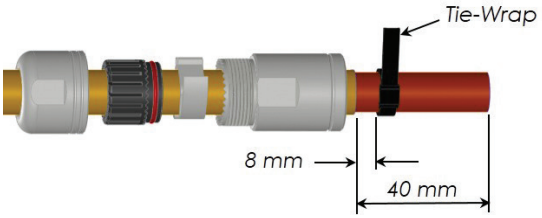
Assembly Instructions

RTHP SERIES™ Straight Plug - Shell Size 12 Cable Assembly

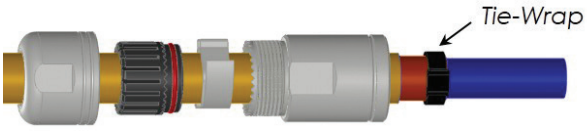
Step1: Slide parts onto cable



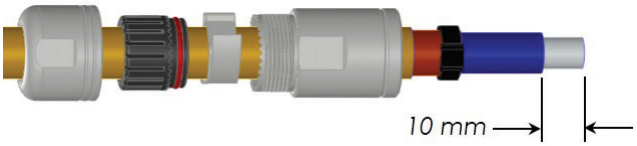
Step 2: Strip jacket to braided shielding and attach tie wrap



Step 3: Cut tie wrap to remove excessive material. Trim shielding flush to edge of tie wrap

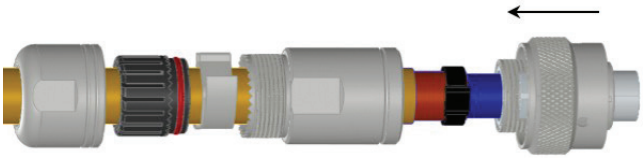


Step 4: Strip to conductor

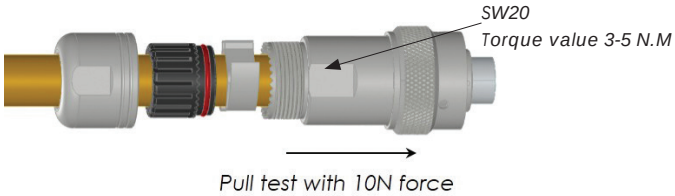


Step 5: Crimp terminal to conductor

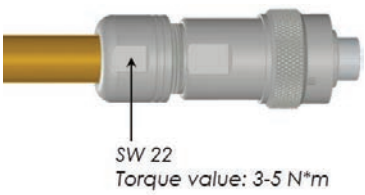
Step 6: Slide plug onto crimped terminal assembly



Step 7: Tighten plug to backhell. Perform pull test to assure correct contact assembly

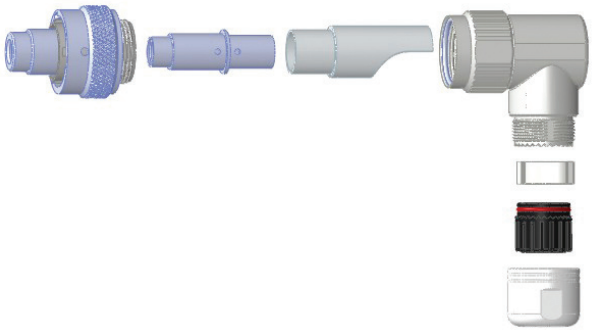


Step 8: Insert shielding clip and cable grommet. Attach and tighten back-nut to backshelll

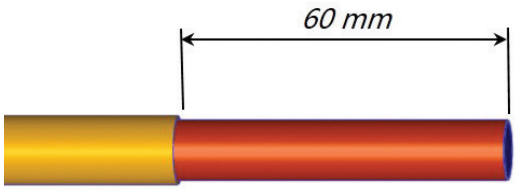


Assembly Instructions

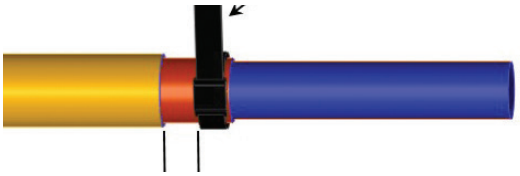
eco|mate® rm High Amperage 90° Plug Cable Assembly



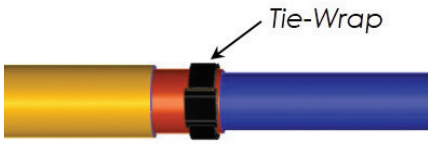
Step 1: Strip jacket to metal braiding



Step 2: Attach tie wrap and trim braiding flush to edge of tie-wrap

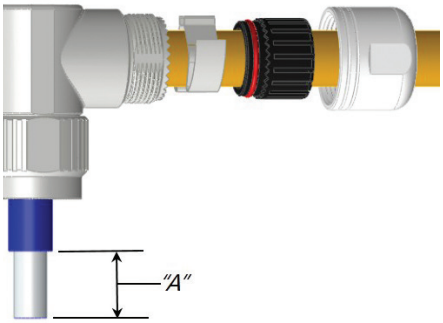


Step 3: Trim tie-wrap

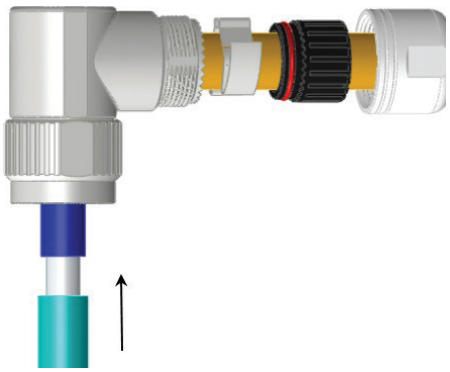


Step 4: Push cable into backshell. Slide components onto cable

Step 5: Trim jacket to conductor



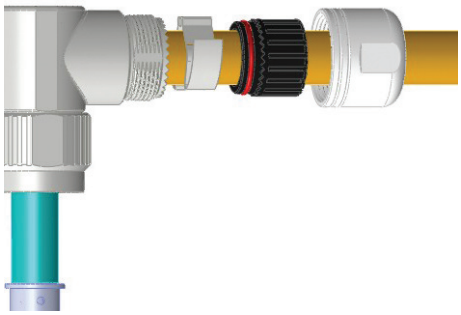
Step 6: Slide heat shrink tubing onto cable



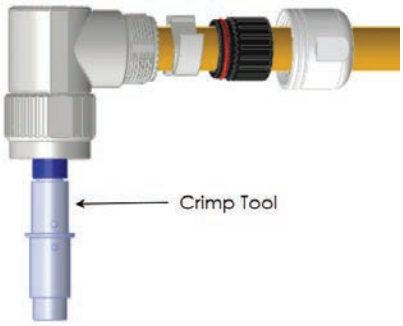
Assembly Instructions

eco|mate® rm High Amperage 90° Plug Cable Assembly (cont.)

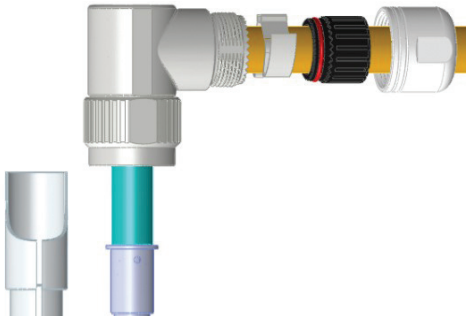
Step 7: Crimp barrel to conductor



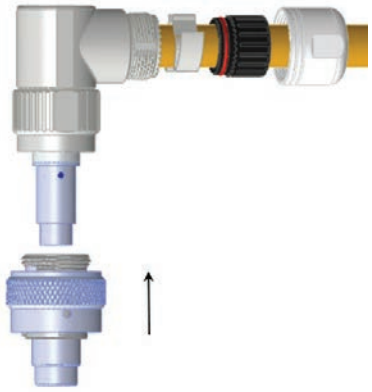
Step 8: Heat shrink tube over crimp



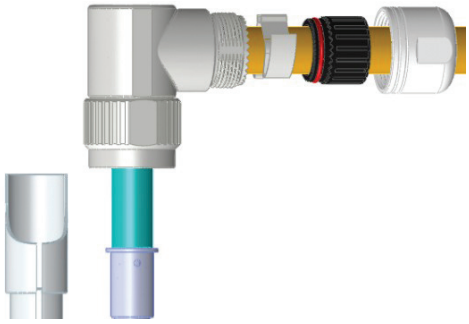
Step 9:



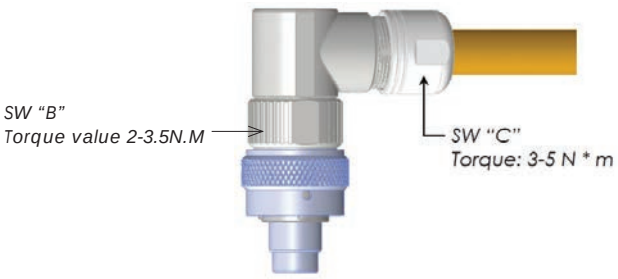
Step 10: Attach plug to backshell



Step 11: Insert shielding clip and cable grommet. Tighten connector to backshell as shown



Step 12: Attach cable-nut to backshell and tighten as shown

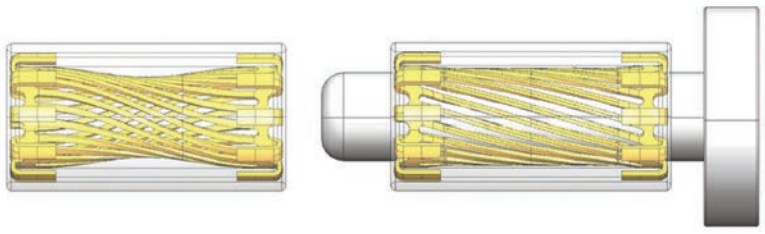


Data Chart

Instruction	Shell 12	Shell 14	Shell 16
Dimension "A"	10 mm	15 mm	15 mm
SW "B"	22 mm	25 mm	28 mm
SW "C"	22 mm	22 mm	25 mm

Technical Data

RADSOK® Product Overview



The RADSOK® Design

- Socket cylinder within female contact has several equally spaced longitudinal beams twisted into a hyperbolic shape
- As a male pin is inserted, axial members in the female half deflect, imparting high current flow across the connection with minimal voltage loss
- The hyperbolic, stamped grid configuration ensures a large, coaxial, face-to-face surface area engagement
- Ideal for crimp termination applications requiring repeated mating cycles and high current with a low multi-volt drop

RADSOK® technology is based upon a stamped and formed flat grid, uniquely twisted into a hyperbolic geometry to provide robust, high density contact to the mating pin contact. Most pin and socket technologies rely on spring (beam element) properties of the contact elements, which tend to weaken over time. Unlike most other pin and socket solutions, the RADSOK®contact also utilizes the tensile strength properties of the flat, high conductivity alloy grid. This provides the high normal forces required for conductivity while also providing a large conductive surface area. Correspondingly low voltage drop and low temperature rise are also achieved while maintaining low insertion forces.

RADSOK® Contact (Max. current carrying capacity meet DIN EN 60512 specification.)

Shell size	Applicable Cable	Contact Plating	current (AC)
			temperature
12 (3.6mm)	10mm², 16mm²	Silver Plated	65A (10mm²), 86A (16mm²)
14 (6.0mm)	25mm²	Silver Plated	120A (25mm²)
16 (8.0mm)	35mm², 50mm²	Silver Plated	130A (35mm²), 180A (50mm²)
20 (10.0mm)	50mm², 70mm², 95mm²	Silver Plated	180A (50mm²), 250A (70mm²), 300A (95mm²)

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.

Technical Data

RADSOK® Advantages and Custom Developed Solutions

RADSOK® Technology Advantages

- **High Reliability** - Unique design and construction technology create an electrical contact interface that exceeds typical interconnect requirements.
- **Low Contact Engagement/Separation Forces** - The hyperbolic lamella socket contact construction distributes normal forces over a high percentage of the mating pin 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 area 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 matings or higher. Even with continuous exposure to harsh environmental abuse, RADSOK® contacts have been tested to maintain low contact resistance beyond 10,000 mating cycles.

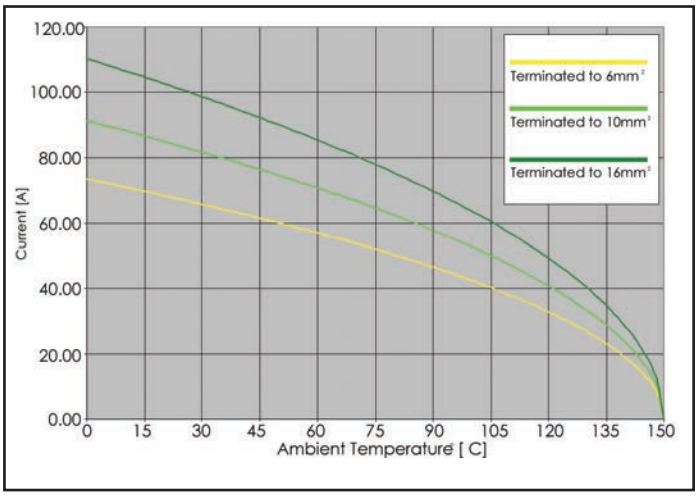
Standard and Custom-Developed Solutions

- In addition to the various standard sizes of RADSOK® components, custom-developed solutions are also available. Amphenol has the global design, engineering and manufacturing resources to provide RADSOK® sockets pressed into basbars, crimped to cables, assembled into connectors, assembled into customer or Amphenol designed specialized electrical devices, or as stand-alone components. Amphenol also manufactures a full compliment of mating pin contacts for any application.
- Steady-state current capacities for RADSOK® products range from 50 amps to over 1000 amps.
- Amphenol connectors with RADSOK® contacts are offered with a variety of positive locking features (HiLok® and SurLok®) that insure and maintain fully mated connections.
- Sealing (Sealtac™) and high voltage hot break options are available within the RADSOK® itself or within a very wide range of IP rated connector housings to provide environmental protection to the contact area.

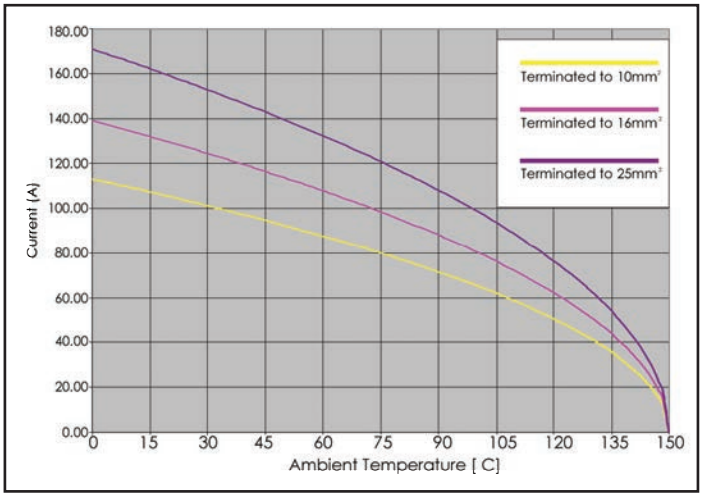
Technical Data

RADSOK® Series Rated Current and Working Voltage
Contact Current Carrying Capacity

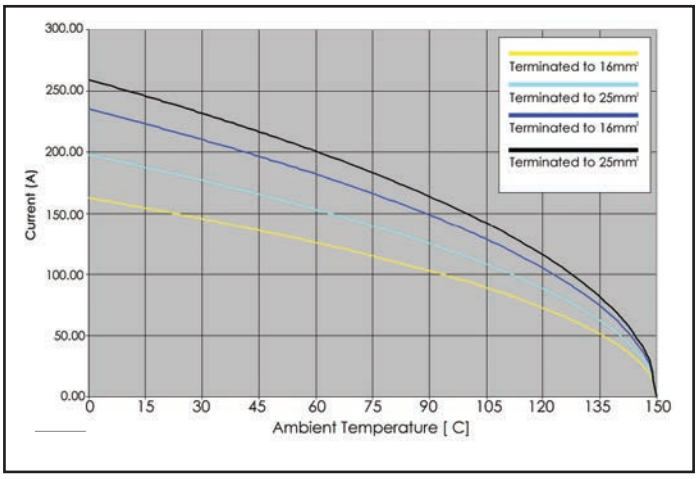
Derating 3.6mm



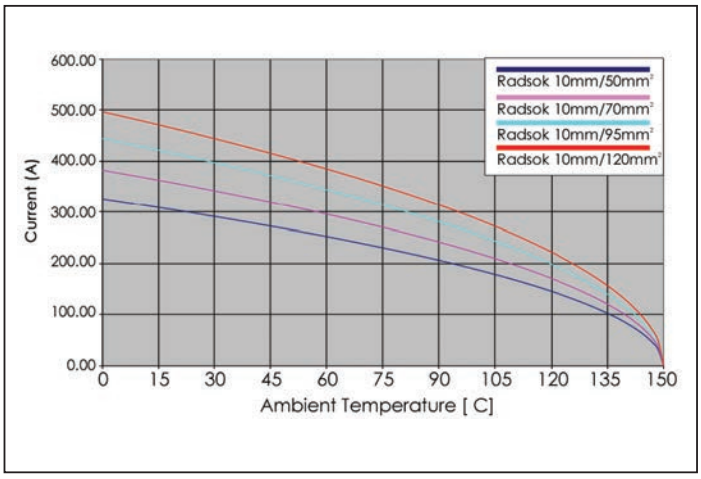
Derating 6mm



Derating 8mm



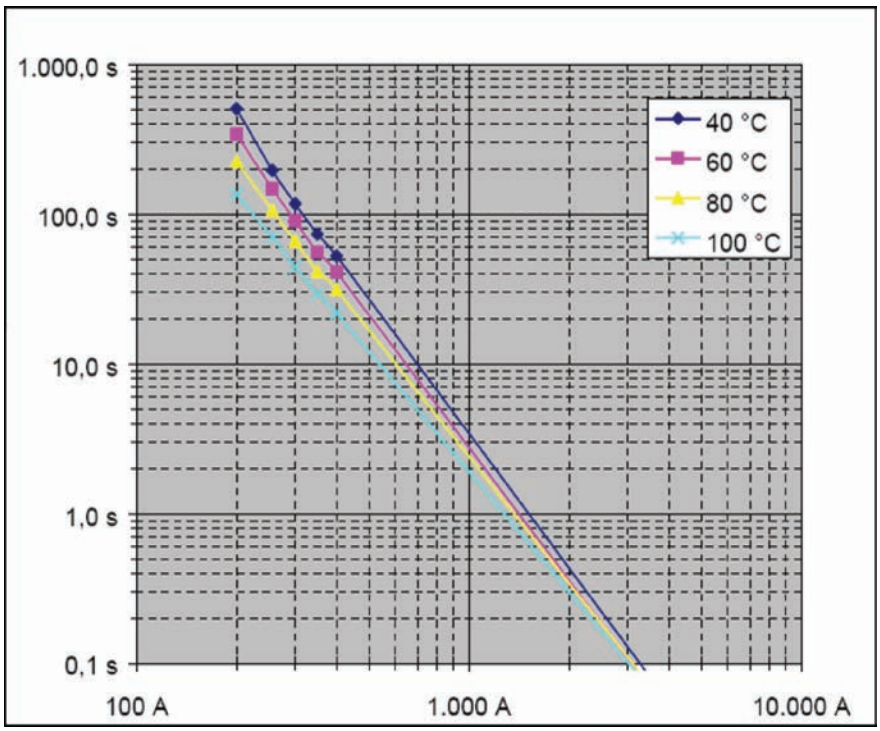
Derating 10mm



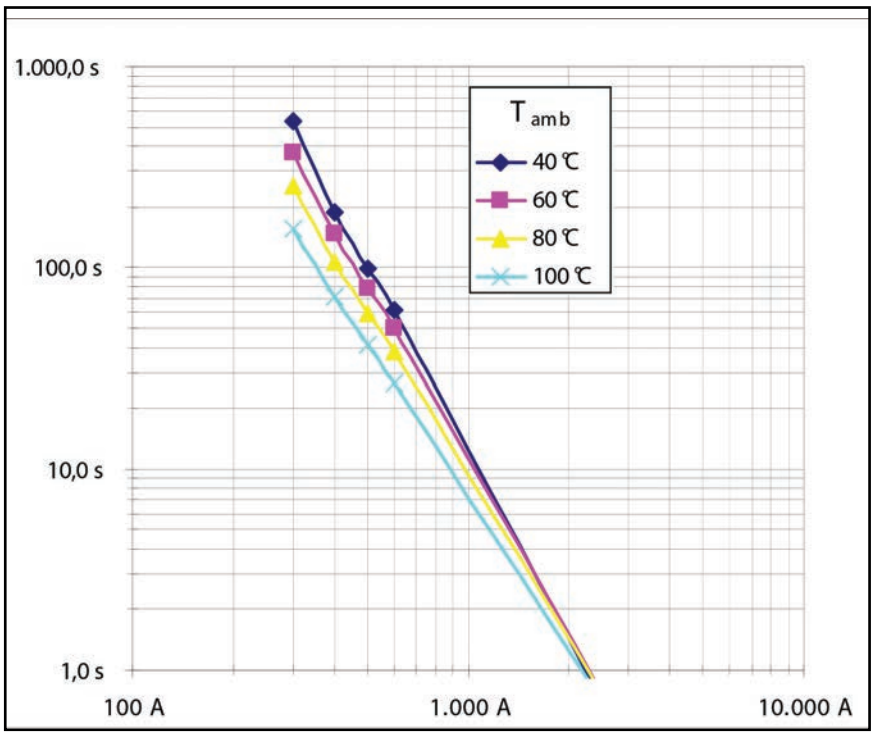
Technical Data

RADSOK® Series Dynamic Overload Tests at Different Temperatures

6mm RADSOK®

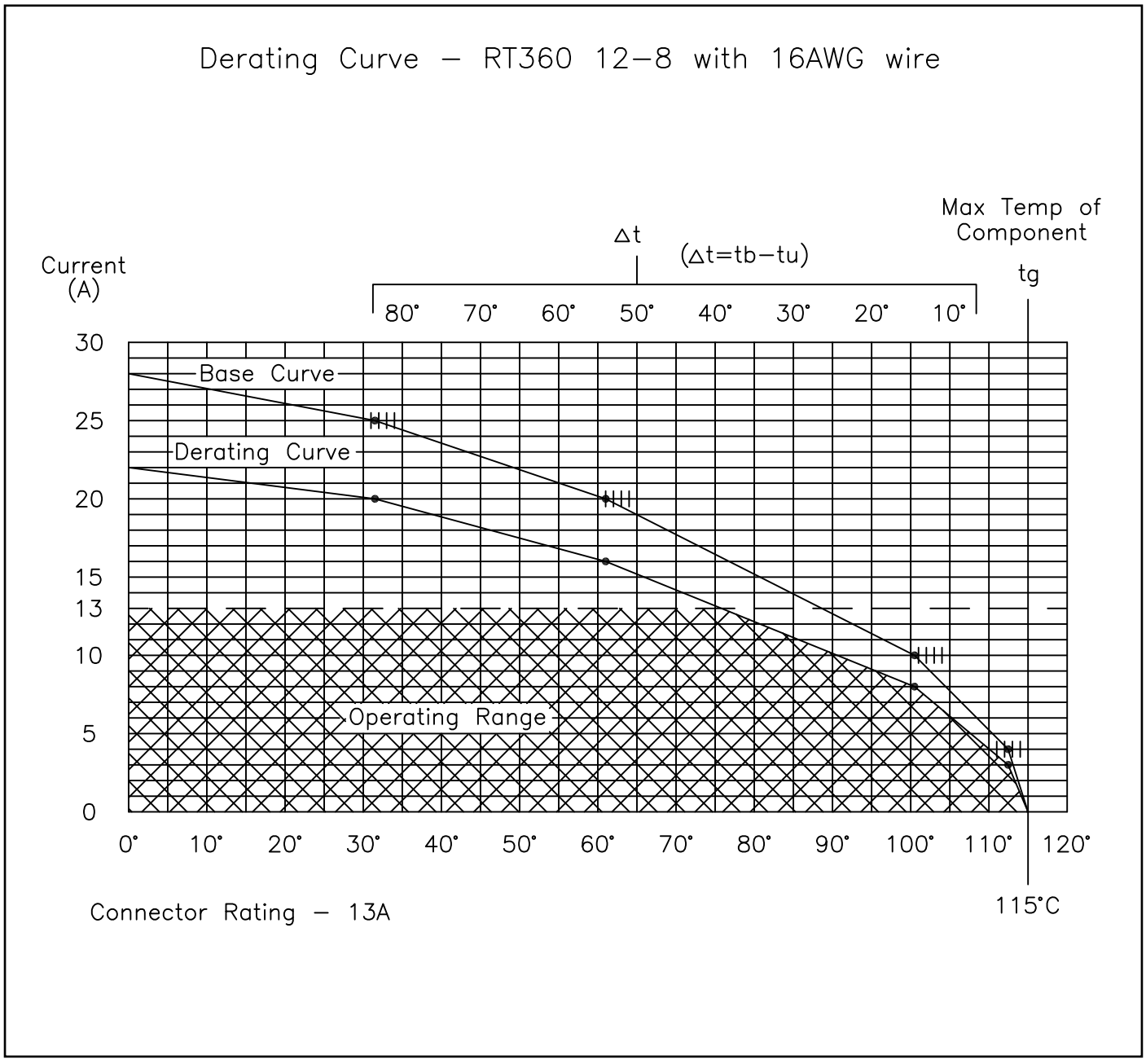


8mm RADSOK®



Technical Data

eco|mate® rm Rated Current and Working Voltage
Current Carrying Capacity



Technical Data

UL94 + UL1977 Industry Standards

There are two main standards for electrical conductors: UL94 and UL1977.

UL94 - The standard for safety of flammability of plastic material for parts in devices and appliance testing.

The eco|mate® rm series has been rated at V-0

The Test Program: Specimen is orientated in a vertical position and is subjected to a flame for ten seconds, then removed. Once the specimen has stopped burning, the flame is then reapplied for another ten seconds and then removed.

V-0 Vertical Burning

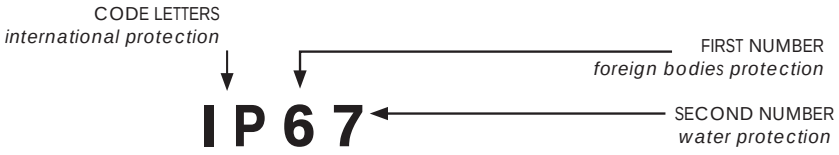
- Specimen self extinguishes within 10 seconds after each test flame application
- Specimen must not drip flaming particles that ignite the cotton indicator

UL1977 - The standard for connectors used in data, signal, control and power applications-component.

ECBT2 - A standard of UL1977 covering single and multi-pole connectors. Intended for factory assembly, includes devices that are incomplete in certain constructional features or are restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL.

Technical Data

IP Codes



1st digit	Brief description	Definition	2nd digit	Brief Description	Definition
0	Non-protected	--	0	Non-protected	--
1	Protected against access to hazardous parts with the back of a hand. Protected against solid foreign objects of ≥50mm Ø.	The probe, sphere of 50mm Ø, shall not fully penetrate and shall have adequate clearance from hazardous parts.	1	Protected against vertically falling water drops	Vertically falling drops shall have no harmful effects.
2	Protected against access to hazardous parts with a finger. Protected against solid foreign objects of ≥12,5mm Ø.	The jointed test finger of 12mm Ø, 80mm length, shall have adequate clearance from hazardous parts. The probe, sphere of 12,5mm Ø, shall not fully penetrate.	2	Protected against vertically falling water drops when enclosure tilted up to 15°	Vertically falling drops shall have no harmful effects when the enclosure is tilted at any angel up to 15° .
3	Protected against access to hazardous parts with a tool. Protected against solid foreign objects of ≥2,5mm Ø.	The probe of 2,5mm Ø shall not penetrate at all.	3	Protected against spraying water	Water sprayed at any angle up to 60° shall have no harmful effects.
4	Protected against access to hazardous parts with a wire.	The probe of 1mm Ø shall not penetrate at all.	4	Protected against splashing water	Water splashed against the enclosure from any direction shall have no harmful effects.
5	Protected against access to hazardous parts with a wire. Dust-protected.	The probe of 1mm Ø shall not penetrate. Intrusion of dust is not totally prevented, but dust shall not penetrate in a quantity to interfere with satisfactory operation of the device or to impair safety.	5	Protected against water jets	Water projected in jets against the enclosure from any direction shall have no harmful effects.
6	Protected against access to hazardous parts with a wire Dust-tight.	The probe of 1mm Ø shall not penetrate. No intrusion of dust.	6	Protected against powerful water jets	Water projected in powerful jets against the enclosure from any direction shall have no harmful effects.
			7	Protected against the effects of temporary immersion in water	Intrusion of water in quantities causing harmful effects shall not be possible when the enclosure is temporarily immersed in water for 30 min. in 1m depth.
			8	Protected against the effects of continuous immersion in water	Intrusion of water in quantities causing harmful effects shall not be possible when the enclosure is continuously immersed in water under conditions which shall be agreed between manufacturer and user but which are more severe than for numeral 7.
			9K[1)]	Protected against water during high pressure/steam jet cleaning	Water projected in powerful jets with high pressure and heat against the enclosure from any direction shall have no harmful effects.

Electrical connector devices have to be protected for safety reasons from outside influences like dust, foreign objects, direct contact, moisture and water. This protection is provided on industrial connectors by the housing latching devices and sealed cable entries. The degree of protection depends on the type of intended use. The standard IEC 60529 and/or DIN EN 60529 has specified the degree of protection and divided them into several classes. The attached charts gives an overview of all of the protection degrees.

Technical Data

Crimp Connection

Crimp connection

A crimp connection is a non-detachable electrical connection between a wire and a crimp contact produced with the crimp technology. Precise crimping dies are matched to the crimp barrel and the wire size and a defined deformation results in a reliable electrical connection. There are open barrels (stamped contacts) and closed crimp barrels (turned contacts).

The main advantages of crimp connections are:
- Efficient termination of contacts.
- Reproducible electrical and mechanical figures by a constant crimp quality.

The requirements for crimp connections are defined in DIN EN 60352-2.

An important point for the quality of a crimp connection is the achieved tensile strength of the termination. Measuring the tensile strength is a practical means for quality control purposes. Chart 2 below shows the required minimum tensile strength for open and closed barrels according to the wire size.

Chart 2: Tensile strength for crimp connections

Wire size		Tensile strength
mm²	AWG [1)]	N
0.05	30	6
0.08	28	11
0.12	26	15
0.14		18
0.22	24	28
0.25		32
0.32	22	40
0.5	20	60
0.75		85
0.82	18	90
1.0		108
1.3	16	135
1.5		150
2.1	14	200
2.5		230
3.3	12	275
4.0		310
5.3	10	355
6.0		360
8.4	8	370
10.0		380

Cross reference AWG - mm2

The chart below allows a cross reference between American Wire Gauge (AWG) and metric wire sizes (mm2).

Chart 3

AWG	Wire composition	Leiter-Ø	Wire size	AWG	Wire composition	Leiter-Ø	Wire size
30	1 x 0.25	0.25 mm	0.05 mm2	20	1 x 0.81	0.81 mm	0.52 mm2
	7 x 0.10	0.36 mm	0.06 mm2		7 x 0.32	0.97 mm	0.56 mm2
28	1 x 0.32	0.32 mm	0.08 mm2		19 x 0.20	1.02 mm	0.62 mm2
	7 x 0.13	0.38 mm	0.09 mm2	18	1 x 1.02	1.02 mm	0.79 mm2
26	1 x 0.40	0.40 mm	0.13 mm2		19 x 0.25	1.27 mm	0.96 mm2
	7 x 0.16	0.48 mm	0.14 mm2	16	19 x 0.29	1.44 mm	1.23 mm2
	19 x 0.10	0.51 mm	0.15 mm2	14	19 x 0.36	1.80 mm	1.95 mm2
24	1 x 0.51	0.51 mm	0.21 mm2	12	19 x 0.46	2.29 mm	3.09 mm2
	7 x 0.20	0.61 mm	0.23 mm2	10	37 x 0.40	3.10 mm	4.60 mm2
	19 x 0.13	0.64 mm	0.24 mm2	8	133 x 0.29	4.0 mm	8.80 mm2
22	1 x 0.64	0.64 mm	0.33 mm2	6	133 x 0.36	5.5 mm	
	7 x 0.25	0.76 mm	0.36 mm2				
	19 x 0.16	0.81 mm	0.38 mm2				

It has to be noted that wires of the same AWG number but with different composition have slightly different mm2.

Technical Data

Composition and Dimensions of Copper Wires

Chart 4: Composition and Dimensions of Copper Wires

Wire Size	Wire Composition	Wire diameter
0.09 mm^2	12 x 0.10	0.48 mm
0.14 mm^2	18 x 0.10	0.50 mm
0.25 mm^2	14 x 0.15	0.70 mm
0.34 mm^2	7 x 0.25	0.78 mm
0.5 mm^2	16 x 0.20	1.0 mm
0.75 mm^2	24 x 0.20	1.2 mm
1.0 mm^2	32 x 0.20	1.4 mm
1.5 mm^2	30 x 0.25	1.6 mm
2.5 mm^2	35 x 0.30	2.2 mm
4.0 mm^2	56 x 0.30	2.8 mm
6.0 mm^2	19 x 0.64	3.4 mm
10 mm^2	19 x 0.80	4.3 mm

Current carrying capacity

The current carrying capacity of a connector is shown by a derating curve. The curve shows the currents that the connector can carry continuously and simultaneously through all its contacts. The curve is determined by testing following the standard DIN EN 60512. The upper temperature is limited by the contact and insulation material used . The sum of the ambient temperature and the temperature created by the current flow may not exceed the upper temperature. This means that the current carrying capacity has no fixed value but decreases with increasing ambient temperatures.

As a general example it can be said that a given connector which can carry 16A through all its contacts at 40°C ambient temperature can carry less, e.g. 12A, at an ambient temperature of 80°C.
On the other hand it is often the case that not all contacts carry the whole rated current, which means that some single contacts may carry a higher current than that according to the derating curve. These currents have to be defined by testing.

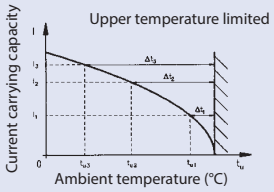
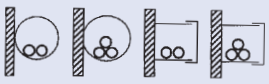
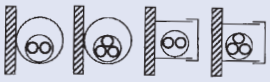


Chart 5: Current carrying capacity of copper wires in (A)

Installation type / Wire size (mm^2)	0.25	0.34	0.5	0.75	1	1.5	2.5	4	6	10
 B1 Wires in conduits and installation channels	-	-	-	7.6	10.4	13.5	18.3	25	32	44
 B2 Cables and conductors in conduits or installation channels	-	-	-	-	9.6	12	16.5	23	29	40
 C Cables and conductors along walls	4.0	5.0	7.1	9.1	11.7	15.2	21	28	36	50
 E Cables and conductors on plank	4.0	5.0	7.1	9.1	11.5	16.1	22	30	37	52

Description according to DIN EN 60204 for PVC insulated copper wires with a working temperature of +40C. For other requirements, such as for other temperatures, mountings, or wires corresponding correction factors are used (see next page).

Technical Data

Reduction Values

Reduction values	Chart 6	
The values in chart 5 are based on an ambient temperature of 40 °C. For other ambient temperatures the values have to be adjusted using the correction values of chart 6 below. For installations with many cables and conductors under load the current carrying capacity is reduced according to the two following charts 7 and 8.	Ambient temperature (°C)	Correction value
	30	1.15
	35	1.03
	40	1.00
	45	0.91
	50	0.82
	55	0.71
	60	0.58

Chart 7: Reduction values for accumulated conductors

Installation type	Number of cables and conductors / pairs under load			
	2	4	6	9
Three phase cable and conductor				
B1 and B2	0.80	0.85	0.87	0.86
C	0.65	0.75	0.78	0.76
E-one row	0.57	0.72	0.75	0.72
E-multi row	0.50	0.70	0.73	0.88
DC conductor (pair), independent of installation type	1.0	0.76	0.64	0.43

Chart 8: Reduction values for multicore cable and conductors up to 10mm^2

Number of conductors (pairs) under load	AC (conductor > 1 mm2)	DC (Pairs 0,2 to 0,75 mm2)
5	0.75	0.52
7	0.65	0.45
10	0.55	0.39
24	0.40	0.27

Conductors of control circuits generally do not need a reduction.

Impulse current carrying capacity

A surge can happen to a connector and its contacts by an impulse current, e.g. through a short circuit in the system or by switching operations. The short-timed high current heat cannot be transferred outside fast enough so the contacts are stressed by the high temperature which in the worst case can lead to a local weld. The robust design of our connectors prevents most damage by impulse currents.

Voltage grading of connectors

General

Clearances and creepage distances are the base for voltage grading of connectors. Valuation and dimensioning of clearances and creepage distances have changed since the introduction of insulation coordination.

Insulation coordination comprises the selection of the electrical insulation performances of the equipment, taking into account the expected use and its environment.

The following standards apply for this:

IEC 60664-1/10.92
Insulation coordination for equipment within low-voltage systems

DIN VDE 0110-1/4.97
Isolationskoordination für elektrische Betriebsmittel in Niederspannungsanlagen

Technical Data

Voltage Grading of Connectors

Clearances

The clearance is the shortest distance in air between two conductive parts. An important point for the dimensioning of clearances is the determination of the overvoltage category. The above standard specifies the possible overvoltages into the four following categories:

Overvoltage category I
Equipment intended for the use in appliances or parts of installations in which no overvoltage can occur.
Examples are low-voltage equipment.

Overvoltage category II
Equipment intended for the use in installations or parts of it in which lightning overvoltages do not need to be considered, but switching overvoltages generated by the equipment do need to be considered.
Examples are household appliances.

Once the overvoltage category has been defined the rated impulse withstand voltage can be selected for the equipment based on the nominal voltage of the supply system and the overvoltage category using chart 9 below:

Overvoltage category III
Equipment intended for the use in installations or parts of it in which lightning overvoltages do not need to be considered, however switching overvoltages generated by the equipment, and for cases where the reliability and the availability of the equipment or its dependent circuits are subject to special requirements.
Examples are protecting means, switches and sockets.

Overvoltage category IV
Equipment intended for the use in installations or parts of it in which lightning overvoltage has to be considered.
Examples are electricity meters, overcurrent protection switches.

Chart 9

Nominal voltage of the supply system in V (based on IEC 60038)	Rated impulse voltage in kV for overvoltage category			
Three phase systems	IV	III	II	I
230/400 277/480	6	4	2,5	1,5
400/690	8	6	4	2,5
1000	12	8	6	4

After the rated impulse withstand voltage has been selected the pollution degree must be defined taking the expected pollution around the equipment into account. The following four degrees of pollution are established:
After the rated impulse withstand voltage has been selected the pollution degree must be defined taking the expected pollution around the equipment into account. The following four degrees of pollution are established:

Pollution degree 1
No pollution or only dry, non-conductive pollution occurs. The pollution has no influence.

Pollution degree 2
Only non-conductive pollution occurs except occasionally a temporary conductivity caused by condensation is to be expected.

Pollution degree 3
Conductive pollution occurs or dry non-conductive pollution occurs which becomes conductive due to condensation which is to be expected.

Pollution degree 4
The pollution generates persistent conductivity caused by conductive dust or by rain or snow.

It has to be noted that for a connector or plug and socket devise with a degree of protection of min. IP 54 the parts inside the enclosure may be dimensioned for a lower pollution degree. This also applies to mated connectors which enclosure is ensured through the connector housing and which may only be disengaged for test and maintenance purposes.
When impulse withstand voltage and the pollution degree are defined the minimum clearances can be selected from chart 10.

Technical Data

Voltage Grading of Connectors (cont.)

Chart 10

Impulse withstand voltage in kV	Minimum clearances in air in mm up to 2000 m above sea level							
	Case A (non homogeneous field)				Case B (homogeneous field)			
	Pollution degree				Pollution degree			
	1	2	3	4	1	2	3	4
0.33	0.01	0.2	0.8	1.6	0.01	0.2	0.8	1.6
0.40	0.02				0.02			
0.50	0.04				0.04			
0.60	0.06				0.06			
0.80	0.10				0.1			
1.0	0.15				0.15			
1.2	0.25	0.25			0.2			
1.5	0.5	0.5			0.3	0.3		
2.0	1.0	1.0	1.0		0.45	0.45		
2.5	1.5	1.5	1.5		0.6	0.6		
3.0	2	2	2	2	0.8	0.8		
4.0	3	3	3	3	1.2	1,2	1.2	
5.0	4	4	4	4	1.5	1.5	1.5	
6.0	5.5	5.5	5.5	5.5	2	2	2	2
8.0	8	8	8	8	3	3	3	3
10	11	11	11	11	3.5	3.5	3.5	3.5
12	14	14	14	14	4.5	4.5	4.5	4.5
15	18	18	18	18	5.5	5.5	5.5	5.5
20	25	25	25	25	8	8	8	8
25	33	33	33	33	10	10	10	10
30	40	40	40	40	12.5	12.5	12.5	12,5
40	60	60	60	60	17	17	17	17
50	75	75	75	75	22	22	22	22
60	90	90	90	90	27	27	27	27
80	130	130	130	130	35	35	35	35
100	170	170	170	170	45	45	45	45

When defining the minimum clearances for connectors generally the values of the inhomogeneous field can be chosen or the required clearance has to be defined by a voltage test.

Creepage distances

The creepage distance is the shortest distance along the surface of the insulating material between two conductive parts.
For the dimensioning of the creepage distance the following factors are taken into account: the rated voltage, the pollution degree and the tracking formation of the insulating material.

The materials are separated into four groups according to their CTI values (Comparative Tracking Index):

Material group I	600 ≤ CTI
Material group II	400 ≤ CTI < 600
Material group IIIa	175 ≤ CTI < 400
Material group IIIb	100 ≤ CTI < 175

The minimum creepage distances can be selected from chart 11 .

Technical Data

Creepage Distance

Chart 11

U-eff Rated voltage U in V	Min. creepage distance in mm													
	Printed circuits		Other devices											
	Pollution degree		Pollution degree											
	1	2	1	2				3				4		
			Material group					Material group				Material group		
	2)	3)	2)	I	II	IIIa	IIIb	I	II	IIIa	IIIb	I	II	IIIa	IIIb
10	0.025	0.04	0.08	0.4		0.4	0.4	1	1	1		1.6	1.6	1.6	
12.5	0.025	0.04	0.09	0.42		0.42	0.42	1.05	1.05	1.05		1.6	1.6	1.6	
16	0.025	0.04	0.1	0.45		0.45	0.45	1.1	1.1	1,1		1.6	1.6	1.6	
20	0,025	0.04	0.11	0.48		0.48	0.48	1.2	1.2	1.2		1.6	1.6	1,6	
25	0,025	0.04	0.125	0.5		0.5	0.5	1.25	1.25	1.25		1.7	1.7	1.7	
32	0.025	0.04	0.14	0.53		0.53	0.53	1.3	1.3	1.3		1.8	1.8	1.8	
40	0.025	0.04	0.16	0.56		0.8	1.1	1.4	1.6	1.8		1.9	2.4	3	
50	0.025	0.04	0.18	0.6		0.85	1.2	1.5	1.7	1.9		2	2.5	3.2	
63	0.04	0.063	0.2	0.63		0.9	1.25	1,6	1.8	2		2.1	2.6	3.4	
80	0.063	0.1	0.22	0.67		0.95	1.3	1.7	1.9	2.1		2.2	2.8	3.6	
100	0.1	0.16	0.25	0.71		1	1.4	1.8	2	2.2		2.4	3.0	3.8	
125	0.16	0.25	0.28	0.75		1.05	1.5	1.9	2.1	2.4		2.5	3.2	4	
160	0.25	0.4	0.32	0.8		1.1	1.6	2	2.2	2.5		3.2	4	5	
200	0.4	0.63	0.42	1		1.4	2	2.5	2.8	3.2		4	5	6.3	
250	0.56	1	0.56	1.25		1.8	2.5	3.2	3.6	4		5	6.3	8	
320	0.75	1.6	0.75	1.6		2.2	3.2	4	4.5	5		6.3	8	10	
400	1	2	1	2		2.8	4	5	5.6	6.3		8	10	12.5	
500	1.3	2.5	1.3	2.5		3.6	5	6.3	7.1	8.0		10	12.5	16	
630	1.8	3.2	1.8	3.2		4.5	6.3	8	9	10		12.5	16	20	
800	2.4	4	2.4	4		5.6	8	10	11	12.5		16	20	25	
1000	3.2	5	3.2	5		7.1	10	12.5	14	16		20	25	32	
1250			4.2	6.3		9	12.5	16	18	20		25	32	40	
1600			5.6	8		11	16	20	22	25		32	40	50	
2000			7.5	10		14	20	25	28	32		40	50	63	
2500			10	12.5		18	25	32	36	40		50	63	80	
3200			12.5	16		22	32	40	45	50		63	80	100	
4000			16	20		28	40	50	56	63		80	100	125	
5000			20	25		36	50	63	71	80		100	125	160	
6300			25	32		45	63	80	90	100		125	160	200	
8000			32	40		56	80	100	110	125		160	200	250	
10000			40	50		71	100	125	140	160		200	250	320	

Connectors in this catalogue are allocated to fixed rated voltages which apply to the machine building industry. In case of other applications the above chart can be used to determine other rated voltages.

Appendix

Glossary of Terms

American Wire Gauge (AWG)
System of numerical designations for wire sizes, based on specified ranges of cross-sectional areas. Starts with 4/0 (000) at the largest size, going to 3/0, 2/0, 1/0, 1, 2, and up to 40 and beyond for the smallest size. A step of one AWG number corresponds to a reduction of cross-sectional area of appr. 20 %.
Attenuation
A reduction of power. Occurs naturally when waves travel through lines, wave guides, or media such as air or water. Is produced additionally by imperfections in electrical or optical connections (attenuation in fibre optics), e. g. contact resistance, mismatch, etc.
Bulkhead connector
Connector designed to be inserted into a panel cutout from the rear of the panel, thus forming part of the barrier between two spaces. Back-mounted.
Clearance
The shortest distance in air between two conductive parts, see IEC 60664.
Climatic stability
General term describing the behavior of components under various climatic conditions, e. g. high and low temperatures, tropical climate, high humidity, moist heat, fungus, atmospheric conditions (industial atmosphere), reduced air pressure, etc. Climatic conditions for test purposes are explained in IEC 60068, DIN 46 040.
Connector
A component which terminates conductors for the purpose of providing connection and disconnection to a suitable mating component which shall not be engaged or disengaged when live. Depending on the fastening to a cabinet, panel, rack etc. or a cable, they are classified as fixed or free connectors. A connector comprises one or more contacts and a housing which may have a separate connector insert and a separate outer housing or shell.
Connector housing
The part of a connector into which the insert and the contacts are assembled. It may function as part of the locking mechanism.
Connector insert
An insulating element designed to support and position contacts in a connector housing. In connectors electromagnetic interference is prevented by shielding. Shielded connectors normally provide means to connect the screens of attached cables.

Connector life
The number of mating cycles prior to abrasion of the conductive contact surface and which does not result in a significant rise of the contact resistance. Tests according to test 9a of ICE 60512-5 / DIN EN 60512 Part 5.
Contact
The conductive element in a connector which mates with a corresponding element to provide an electrical path.
Contact resistance
The electrical resistance of a mated set of contacts under specified conditions. Tested according to tests 2a, 2b, 2c, of IEC 60 512 -2/ DIN EN 60 512-2.
Contact size
The designation used to differentiate one contact from another. It may be denoted by one of the following numbering systems:
Creepage distance
The shortest distance along the surface of the insulating material between two conductive parts. The longer the distance, the less the risk of arc damage or tracking. Minimum creepage distances are specified according to the rated voltage and the applicable pollution degree and Comperative Tracking Index.
Crimped connection
A solderless connection made by crimping. IEC 60352-2 / DIN IEC 60352 Part 2.
Derating curve
The method for determining derating is specified in IEC 60 512-3. Here the combination of ambient temperature (Tu) and the current (J) leading to the same maximum allowable temperature (Tb) at the hottest point of the connector are plotted.
DIN
Deutsches Institut für Normung. A German standards organization.
Electromagnetic interference (EMI)
General term describing the undesirable effects of the immission or emission of radio frequency fields.
Funnel entry (restricted entry C146 D series)
Flared or widened entrance to a conductor barrel permitting easier insertion of the conductor.
Insertion or withdrawal force
The force required to fully insert or withdraw a set of mated connectors without the effect of coupling, locking or similar devices. The insertion force is usually greater than the withdrawal force.

Appendix

Connector Glossary

Insulation grip
The area of a crimp contact that has been reshaped around the insulation of the conductor by compression during the crimping operation.
Insulation resistance
The resistance of the insulation between two conductive elements, in particular, the resistance between two contacts or between a contact and a metallic housing or shield. Tested according to test 3a of IEC 60512-2 / DIN IEC 60512 Part 2.
Intermateable
Two connectors are intermateable when they are capable of being connected electrically and mechanically but without regard to their performance and intermountability.
Locator
In a crimping tool the device used for positioning a crimp contact or terminal end.
Locking lever
A mechanical locking device operated by actuating a lever, designed to hold two mated connectors together. Typically the lever can only be fully locked if the two connectors are correctly mated.
Mating cycle
One mating cycle comprises one insertion and one withdrawal operation. Term used in the definition of connector life.
Material group
Classification of insulation materials according to their CTI values (CTI = Comperative Tracking Index)
Overvoltage category
A numeral defining a transient overvoltage condition. Overvoltage categories I, II, III and IV are used.
Connector with braking capacity (CBC)
A component which may be engaged or disengaged in normal use, when live or under load. Note: In the sense of this document the term - live- is used if contacts are under voltage not necessarily with a current flowing across the contacts. The term - load - is used if a current is flowing across the contacts.
Rated current
A current value assigned by the manufacturer which the connector or PSD can carry continuously (without interruption) and simultaneously through all its contacts wired with the largest conductor preferrably at an ambient temperature of 40 °C without the upper temperature being exceeded.

Shield, shielding
Shielding of internal or external electric fields by means of a plane with a uniform electric potential, formed by metal shells or metallic layers on the inside or outside of plastic shells. The shield is normally connected to the shielding braid of the cable and/or chassis ground.
Terminal block
An assembly of terminals in a housing or body of insulating material to facilitate interconnection between multiple conductors. Also called terminal strip or barrier blocks if the terminals are separated by an insulation barrier.
Wire range
The range of wire cross sections which is compatible with the dimensions the terminals of the contact (wire barrel). The wire range is expressed in mm2 or in AWG numbers.

Appendix

Part Number Index (1-MS)

Appendix

Part Number Index (MS -RT0W)

Appendix

Part Number Index (RT0W -RT0)

Appendix

Part Number Index (RT0-SP)

Appendix

Part Number Index (SP-SS)

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