

## 7/16 and Composite 7/16 series

R185 / R187



**Pages**

**7/16**

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**Composite 7/16**

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## INTRODUCTION



50Ω

DC - 7.5 GHz

### GENERAL

- Standard coaxial connectors
- Screw-on coupling
- High power rating
- Excellent RF performance

### APPLICABLE STANDARDS

- IEC 169-4
- DIN 47223
- CECC 22 190

### APPLICATIONS

- Mobile communication infrastructure networks: combiner, diplexer, filter...
- Jumper and feeder cables assemblies
- Radio links
- Indoor and outdoor applications

Radiall's 7/16 series has been developed using the latest technology advances in connector design. These connectors are easy to use, highly reliable, innovative and are designed to meet the needs of the telecommunications market. The complete connector series feature the following characteristics:

- An extensive range, with optimized component part design.
- An upgraded cross-knurled coupling nut allowing better manual tightening.

## New Eco series

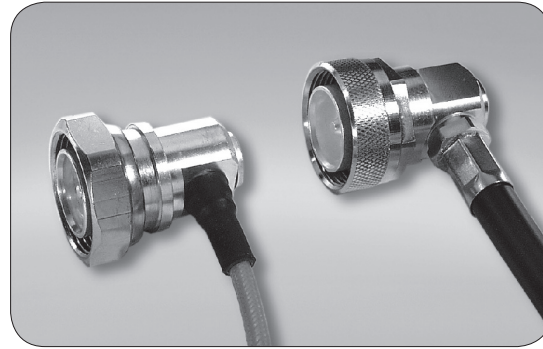
Radiall introduced a complete range of Eco 7/16 connectors designed to be installed in telecommunications equipment such as remote radio heads, antennas, and filters. The modular design of these Eco 7/16 connectors offers multiple termination possibilities to fit numerous additional applications. There are more than 20 different connector variations currently available.

## New Composite 7/16

Radiall expanded its line of innovative 7/16 composite connectors with new plugs, jacks and receptacles as a lightweight, low cost, alternative to brass connectors. Manufactured with corrosion-proof, composite materials, these new single-piece connectors are UV resistant, meeting IEC 68-2-5 and IEC-68-2-9 to withstand all environments, including harsh outdoor installations. Radiall now offers over 20 different variations. The selection of the composite materials is a result of an in-depth competitive analysis of creeping speeds of zinc and aluminum alloys. Not only do the composite materials offer considerable performance advantages guaranteeing up to 500 matings; but with more than a 50% reduction in weight, this receptacle reduces the overall weight of the final module as well as transportation costs.

## High performance range

- Frequency range: DC - 7.5 GHz
- 2 types of coupling nut:
  - cross-knurled and 6 flats 27 mm wide coupling nut (3 000 N.cm),
  - 6 flats coupling nut (32 mm wide), allowing high coupling torque (3 500 N.cm), when used with a torque wrench.
- Intermodulation performance: 2 levels
  - 125 dBm cable assemblies
  - 110 dBm connectors and cable assemblies.



2 types of coupling nut

RADIALL has developed its intermodulation measurement

equipment following the IEC 46 D/292/NP standard proposal. It is aimed at third-order IMP measurements through the reflection method. The range of this test set-up is -132 dBm (-175 dBc) under 2 x 20 W.

- High performance non-magnetic material (brass) and plating (silver) with anti-tarnishing finish (strike of BBR).
- Non-slotted outer contact on standard products.
- The 7/16 connector series benefits from a complete easy-to-use range of tooling.

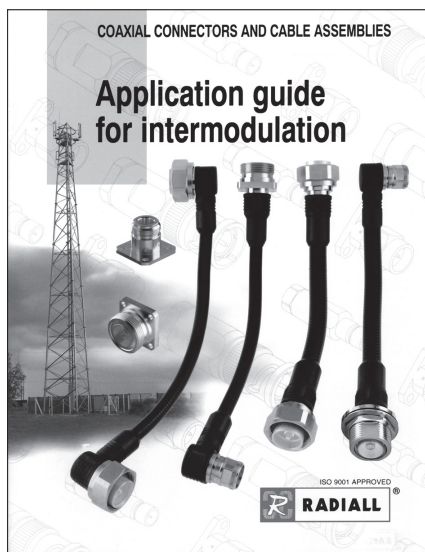


## Custom models

To fulfill customer requirements, Radiall offers complete design of custom connectors according to the 7/16 series standard.

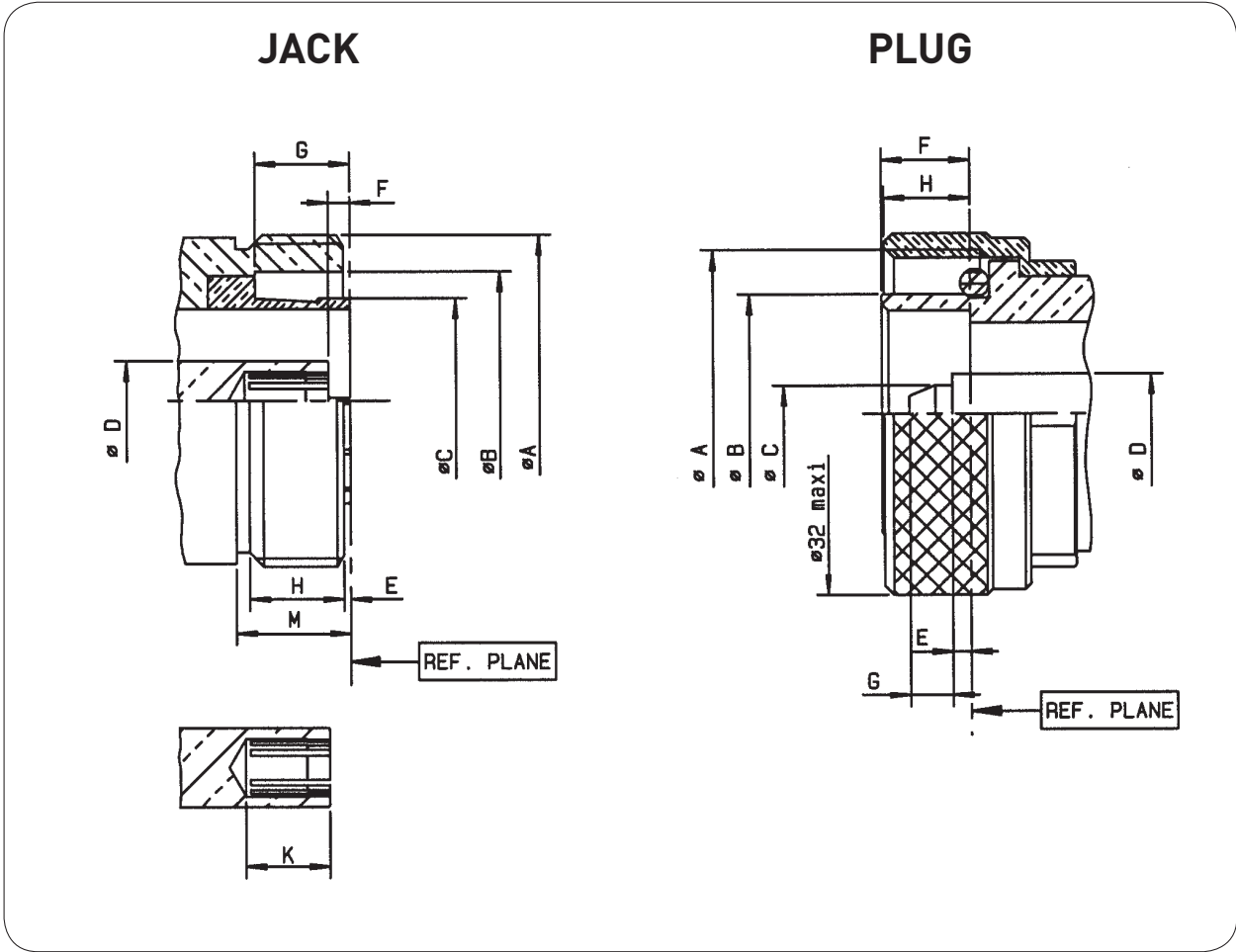
## What is INTERMODULATION ?

Intermodulation (IM) is an undesired modulation that leads to a distortion of the output high-frequency carrier. It is defined as the ratio of the 3rd order intermodulation products and the incident signal power because the most troublesome IM products are those of 3rd order.



For more detailed information, including our intermodulation measurement system and our product range, please visit [www.radiall.com](http://www.radiall.com)

**INTERFACE**



| Letter | mm        |       | inch      |      |
|--------|-----------|-------|-----------|------|
|        | min.      | max.  | min.      | max. |
| A DIA  | M29 X 1.5 |       | M29 X 1.5 |      |
| B DIA  | 22.5      | 22.7  | .885      | .893 |
| C DIA  | 17.9      | 17.96 | .704      | .707 |
| D DIA  | 6.95      | 7.00  | .273      | .275 |
| E      | 0.50      | 0.70  | .019      | .027 |
| F      | 1.77      | 2.07  | .069      | .081 |
| G      | 8.20      | 8.40  | .322      | .330 |
| H      | 8.25      | 8.75  | .324      | .344 |
| K      | 7.25      | 7.55  | .285      | .297 |

| Letter | mm        |      | inch      |      |
|--------|-----------|------|-----------|------|
|        | min.      | max. | min.      | max. |
| A DIA  | M29 X 1.5 |      | M29 X 1.5 |      |
| B DIA  | 20.8      | 21.0 | .818      | .826 |
| C DIA  | 4.97      | 5.03 | .195      | .198 |
| D DIA  | 6.95      | 7.00 | .273      | .275 |
| E      | 1.47      | 1.77 | .057      | .069 |
| F      | 7.40      | 7.80 | .291      | .307 |
| G      | 3.60      | 4.00 | .141      | .157 |
| H      | 7.30      | 7.80 | .287      | .307 |

| Test/characteristics | Standard reference | Values/remarks |
|----------------------|--------------------|----------------|
|----------------------|--------------------|----------------|

## ELECTRICAL CHARACTERISTICS

| Impedance                                      |      | 50Ω  |
|--|------|--|
| Frequency range                                |      | DC - 7.5 GHz   |
| Typical V.S.W.R.                               |      | 1 GHz    2.5 GHz    5 GHz    7.5 GHz                   |
| • Straight models                              |      | 1.10 max from DC to 3 GHz - 1.20 max from 3 to 7.5 GHz |
| RG213-RG214-RG393                              |      | 1.04    1.06    1.08    1.10                           |
| .141"  |      | 1.04    1.07    1.08    1.20                           |
| .250"  |      | 1.03    1.05    1.11    1.13                           |
| 1/2" superflexible corrugated                  |      | 1.02    1.04    1.05    1.05                           |
| 3/8" superflexible corrugated                  |      | 1.03    1.03    1.12    1.20                           |
| 1/4" superflexible corrugated                  |      | 1.01    1.02    1.09    1.17                           |
| • Right angle models                           |      | 1.15 max from DC to 3 GHz                              |
| RG213-RG214-RG393                              |      | 1.02    1.04    1.12    1.50                           |
| 1/2" superflexible corrugated                  |      | 1.04    1.04    1.14    1.60                           |
| 3/8" superflexible corrugated                  |      | 1.05    1.08    1.12    1.80                           |
| 1/4" superflexible corrugated                  |      | 1.02    1.06    1.13    1.60                           |
| Intermodulation product (IMP <sub>3</sub> )    |      |  |
| • Connectors                                   |      | -110 dBm typ. (- 153 dBc typ / 20 W)                   |
| • Home made cable assemblies                   |      | -125 dBm typ. (- 168 dBc typ. / 20 W)                  |
| Insertion loss (dB)                            | MIL  | 0.05 √F (GHz)  |
| Straight connectors and right-angle connectors |      |  |
| RF Leakage                                     | CECC | 130 dB at 1 GHz  |
| Insulation resistance                          | CECC | 10 000 MΩ min  |
| Contact resistance                             |      |  |
| • Center contact                               | CECC | < 0.4 mΩ   |
| • Outer contact                                |      | ≤ 1.5 mΩ   |
| Working voltage in VRMS at sea level           | CECC | 2 700  |
| Dielectric withstanding voltage in VRMS        |      |  |
| • at sea level                                 | CECC | 4 000  |
| (at 70, 000 feet)                              |      | 350  |

## MECHANICAL CHARACTERISTICS

|                                   |      |  |
|-----------------------------------|------|--|
| Durability                        | CECC | 500 matings                                  |
| Force to engage and disengage     | CECC | 15 N   |
| Recommended coupling nut torque   |      |  |
| • Hex. coupling nut               |      | 3 500 Ncm (with torque wrench R 282 303 500) |
| • Hex. + cross knurl coupling nut |      | 3 000 Ncm (with torque wrench R 282 303 520) |
| Proof torque                      | CECC | 3 500 Ncm                                    |
| Coupling nut retention force      | CECC | 1 000 N                                      |
| Cable retention force             |      |  |
| Cable 5/50 & 10/50                |      | 250 N  |
| Cable 1/4"                        | CECC | 200 N  |
| Cable 3/8"                        |      | 250 N  |
| Cable 1/2"                        |      | 350 N  |
| Cable 7/8"                        |      | 500 N  |
| Center contact retention force    | CECC | 200 N  |

## ENVIRONMENTAL CHARACTERISTICS

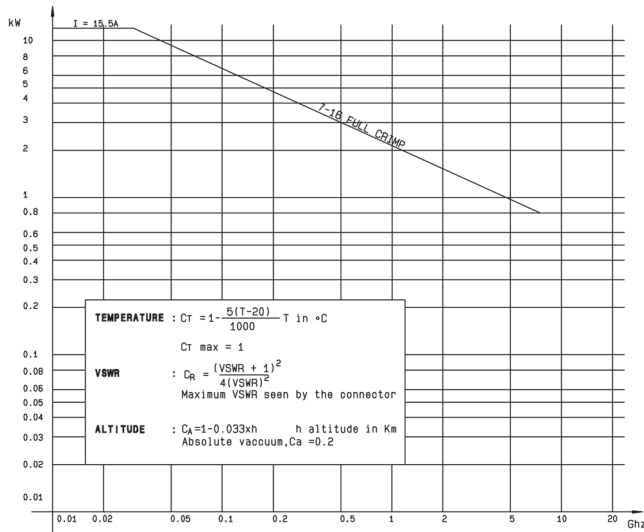
|   |         |                                       |
|---|---------|---------------------------------------|
| Temperature range                       |         |                                       |
| • flexible cables and corrugated cables | CECC    | - 55 °C + 155 °C                      |
| • semi-rigid cables                     |         | - 55 °C + 105 °C                      |
| Thermo cycling test                     | CECC    | - 55 °C / + 155 °C / 56 days          |
| Rapid change of temperature             | IEC     | - 55 °C / + 155 °C / 5 cycles         |
| High temperature test                   | CECC    | 1000 hours / 155 °C                   |
| Corrosion salt spray                    | IEC     | 48 hours / Na Cl 5% / 35 °C           |
| Vibration                               | CECC    | 98 m/s <sup>2</sup> - 10 Hz at 500 Hz |
| Moisture resistance                     |         |                                       |
| • clamp type                            | IEC 529 | IP67                                  |
| • crimp type                            |         | IP65 (with heatshrink sleeve)         |
| • home made cable assemblies            |         | IP68 (overmolding)                    |
| Hermetic test                           | IEC     | 5 Pa. cm <sup>3</sup> /s              |
| Leakage                                 | CECC    | 1 cm <sup>3</sup> /h max              |

# CHARACTERISTICS 7/16

## MATERIALS AND PLATINGS

|                |                | Materials                 | Plating      |
|----------------|----------------|---------------------------|--------------|
| Bodies         |                | Brass                     | Silver + BBR |
| Nut            |                | Brass                     | BBR          |
| Center contact | male<br>female | Brass<br>Beryllium copper | Silver       |
| Insulator      |                | PTFE                      |              |
| Gasket         |                | Silicon rubber            |              |

## POWER RANGE



# CHARACTERISTICS COMPOSITE 7/16

## ELECTRICAL CHARACTERISTICS

|                          |  |
|--------------------------|--|
| Frequency range          | DC-7.5 GHz   |
| VSWR                     | 1.06@DC-3 GHz - 1.10@DC-3-7.5 GHz                                      |
| High working voltage     | > 2700 V   |
| Very low intermodulation | IMP3 < -125 dBm under 2 carriers of +43dBm<br>And typically < -130 dBm |
| Power handling           | > 800 W@ 935 MHz   |

## MECHANICAL CHARACTERISTICS

|  |                         |
|--|-------------------------|
| Longlife duration                      | up to 500 mating cycles |
| Coupling torque                        | 35 Nm or less           |
| Coupling strength                      | 1000 N                  |
| Center contact retention / axial force | > 200 N                 |
| Center contact retention / torque      | > 80 Ncm                |

## ENVIRONMENTAL CHARACTERISTICS

|                     |                       |
|---------------------|-----------------------|
| Temperature range   | -40°C / +85°C         |
| Humidity            | Up to 100%@20°C       |
| Flammability rating | UL94-V0               |
| UV resistance       | IEC 68-2-5/IEC 68-2-9 |
| Waterproof          | IP67                  |

Some connectors may feature different performance depending on the application they have been designed for, or according to the applicable cable.



## STRAIGHT PLUGS, CRIMP AND CLAMP TYPE, FOR FLEXIBLE CABLES

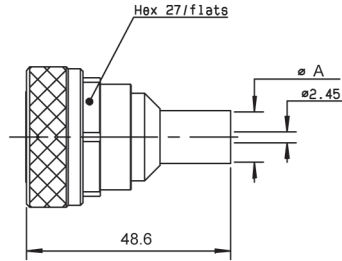
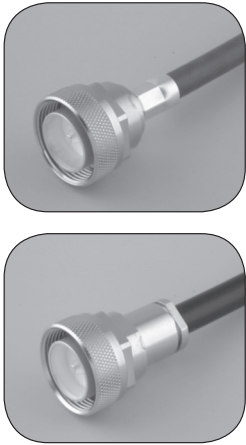


Fig. 1

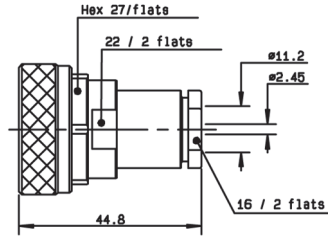


Fig. 2

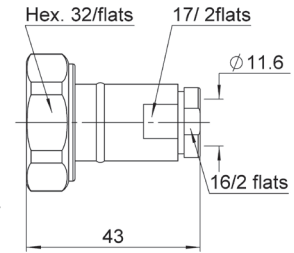


Fig. 3

| Cable group       | Cable group dia. | Part number   | Fig. | Dimensions (mm) | Captive center contact | Finish       | Note                   |
|-------------------|------------------|---------------|------|-----------------|------------------------|--------------|------------------------|
|                   |                  |               |      | A               |                        |              |                        |
| RG213/RG393       | 10/50/S + D      | R185 074 000  | 1    | 11.05           | yes                    | Silver + BBR | Crimp type             |
| RG214             | 11/50/D          | R185 077 000  |      | 11.4            |                        |              | Clamp type             |
| RG213/RG393/RG214 | 10 + 11/50/S + D | R185 010 000  | 3    |                 |                        | BBR          | Clamp type ECO version |
|                   |                  | R185A 010 000 |      |                 |                        |              |                        |

## STRAIGHT PLUGS EZ FIT TYPE FOR CORRUGATED CABLES

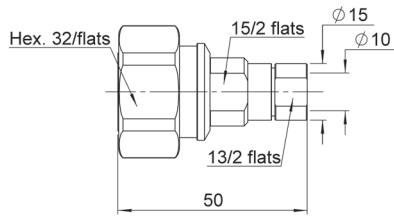


Fig. 1

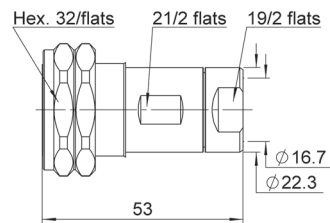


Fig. 2

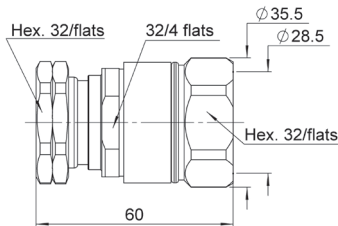


Fig. 3

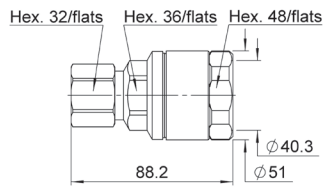


Fig. 4

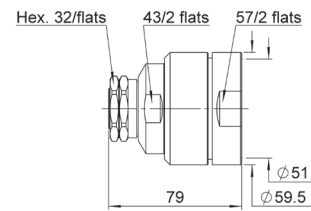


Fig. 5

| Cable groupe dia.             | Part number   | Fig. | Captive center contact | Finish | Note        |
|-------------------------------|---------------|------|------------------------|--------|-------------|
| 1/4" superflexible corrugated | R185A 030 200 | 1    | yes                    | BBR    | ECO version |
| 1/2" flexible corrugated      | R185A 031 020 | 2    |                        |        |             |
| 1/2" superflexible corrugated | R185A 031 200 | 2    |                        |        |             |
| 3/8" superflexible corrugated | R185A 032 200 | 1    |                        |        |             |
| 7/8" flexible corrugated      | R185A 033 020 | 3    |                        |        |             |
| 1 1/4" flexible corrugated    | R185A 035 020 | 4    |                        |        |             |
| 1 1/4" flexible corrugated    | R185A 035 020 | 4    |                        |        |             |
| 1 5/8" flexible corrugated    | R185A 037 020 | 5    |                        |        |             |

To download data sheets and assembly instructions, visit [www.radiall.com](http://www.radiall.com) & enter the part number in the Search box. **Bold** part numbers represent products typically in stock & available for immediate shipment. See page 8 and 9 for packaging information.

# RIGHT ANGLE PLUGS

## RIGHT ANGLE PLUGS CRIMP AND CLAMP TYPE FOR FLEXIBLE CABLES

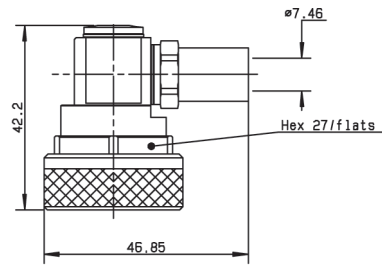
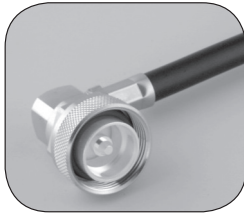


Fig. 1

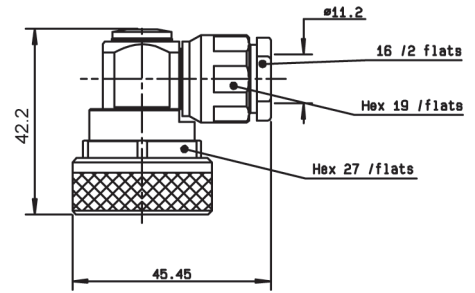


Fig. 2

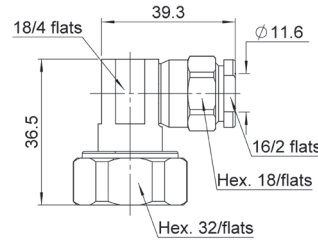


Fig. 3

| Cable group | Cable group dia. | Part number   | Fig. | Captive center contact | Finish       | Note                   |
|-------------|------------------|---------------|------|------------------------|--------------|------------------------|
| RG213       | 10/50/S          | R185 174 000  | 1    | yes                    | Silver + BBR | Crimp type             |
|             |                  | R185A 174 000 | 1    |                        |              | Crimp type ECO version |
| RG393/RG214 | 10+11/50/D       | R185 160 000  | 2    |                        |              | Clamp type             |
|             |                  | R185A 160 000 | 3    |                        |              | Clamp type ECO version |

## RIGHT ANGLE PLUGS EZ FIT TYPE

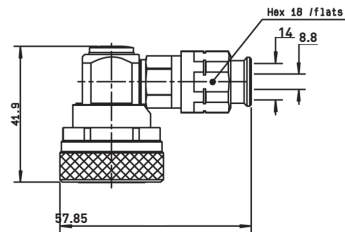


Fig. 1

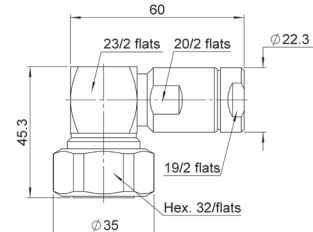


Fig. 2

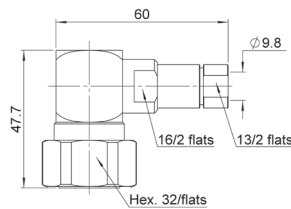


Fig. 3

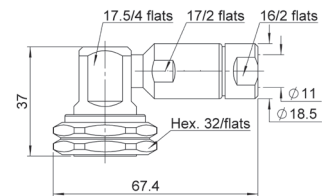


Fig. 4

| Cable group dia.              | Part number   | Fig. | Captive center contact | Finish       |
|-------------------------------|---------------|------|------------------------|--------------|
| 1/2" superflexible corrugated | R185 165 200  | 1    | yes                    | Silver + BBR |
| 1/2" superflexible corrugated | R185A 165 200 | 2    |                        | Silver + BBR |
| 1/4" superflexible corrugated | R185A 164 200 | 3    |                        | ECO version  |
| 3/8" superflexible corrugated | R185A 166 200 | 4    |                        |              |

# STRAIGHT AND SQUARE FLANGE JACKS

7/16

## STRAIGHT JACKS

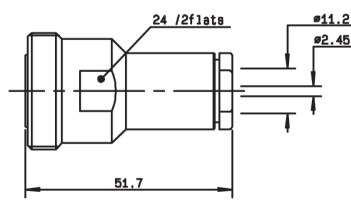


Fig. 1

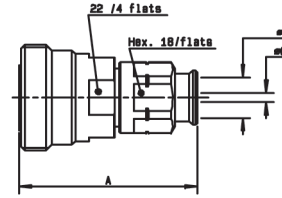


Fig. 2

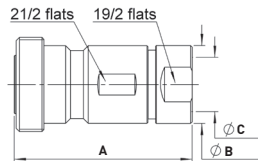


Fig. 3

| Cable group | Cable group dia.              | Part number   | Fig. | Dimensions (mm) |      |      | Captive center contact | Finish       | Note                       |
|-------------|-------------------------------|---------------|------|-----------------|------|------|------------------------|--------------|----------------------------|
|             |                               |               |      | A               | B    | C    |                        |              |                            |
| RG393/RG214 | 10 + 11/50 D                  | R185 210 000  | 1    |                 |      |      | yes                    | Silver + BBR | clamp type                 |
|             | 1/4" superflexible corrugated | R185 215 200  | 2    | 49.45           | 7.95 | 4.7  |                        |              |                            |
|             | 1/2" superflexible corrugated | R185 216 200  |      | 50              | 14   | 8.8  |                        |              |                            |
|             | 3/8" superflexible corrugated | R185 217 200  | 3    |                 | 11   | 7.1  |                        |              |                            |
|             | 1/2" flexible corrugated      | R185A 216 020 |      | 54.5            | 22.3 | 16.7 |                        |              |                            |
|             | 7/8" flexible corrugated      | R185A 218 020 |      | 55.5            | 35.5 | 28.5 |                        |              |                            |
|             | 1 1/4" flexible corrugated    | R185A 220 020 |      | 65.5            | 49   | 40.2 |                        |              |                            |
|             | 1 5/8" flexible corrugated    | R185A 222 020 |      | 76.5            | 59.5 | 51   |                        |              | Ez fit type<br>ECO version |

## STRAIGHT SQUARE FLANGE JACKS

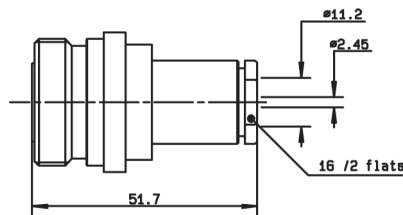


Fig. 1

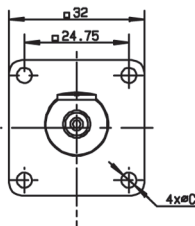
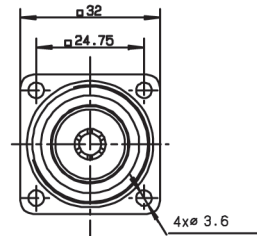
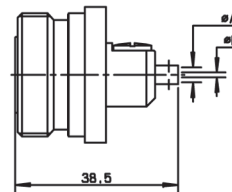


Fig. 2



| Cable group | Cable group dia. | Part number   | Fig. | Captive center contact | Dimensions (mm) |       |     | Panel drilling | Finish       | Note                                 |
|-------------|------------------|---------------|------|------------------------|-----------------|-------|-----|----------------|--------------|--------------------------------------|
|             |                  |               |      |                        | A               | B     | C   |                |              |                                      |
| RG393/RG214 | 10 + 11/50 D     | R185 260 000  | 1    | yes                    |                 |       |     | P01            |              | Clamp type<br>for flexible cables    |
| RG402       | .141"            | R185 252 000  | 2    | yes                    | 3.65            | 0.996 | 3.6 | P01            | Silver + BBR | Solder type for<br>semi-rigid cables |
| RG401       | .250"            | R185A 254 000 |      | yes                    | 6.45            | 1.68  | 3.6 |                |              |                                      |

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13-11

# BULKHEAD JACKS AND RECEPTACLES

## STRAIGHT BULKHEAD JACKS FOR FLEXIBLE CABLES AND CORRUGATED CABLES

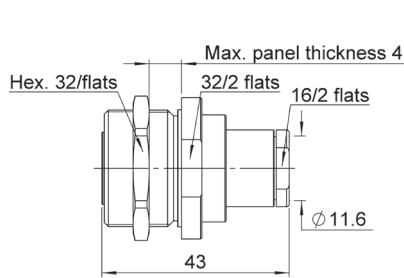
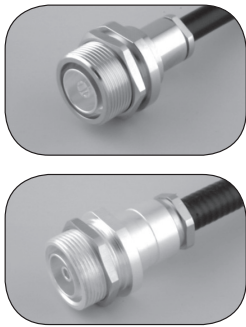


Fig. 1

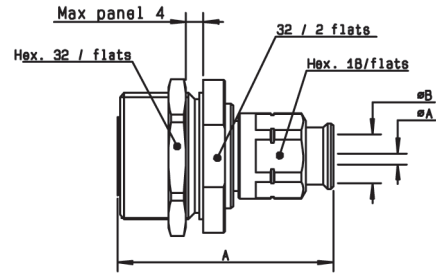


Fig. 2

| Cable group                   | Cable group dia. | Part number   | Fig.  | Captive center contact | Panel drilling | Finish       | Note  |
|-------------------------------|------------------|---------------|---|------------------------|----------------|--------------|---|
| RG213/RG216/<br>Eco393/RG214  | 10+11/S+D        | R185A 310 000 | 1   | yes                    | P02            | Silver + BBR | Clamp type for flexible cables<br>ECO version |
| 1/4" superflexible corrugated | R185A 315 200    | 2             | EZ FIT type<br>for corrugated cables<br>ECO version |                        |                |              |   |
| 1/2" superflexible corrugated | R185A 316 200    |               |   |                        |                |              |   |
| 3/8" superflexible corrugated | R185A 317 200    |               |   |                        |                |              |   |

## STRAIGHT FLANGE FEMALE RECEPTACLES

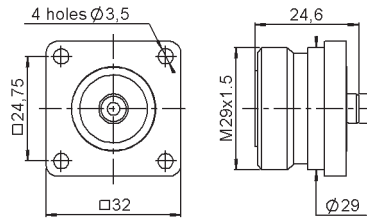
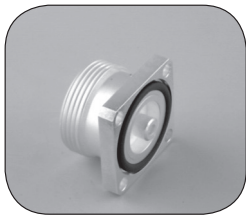


Fig. 1

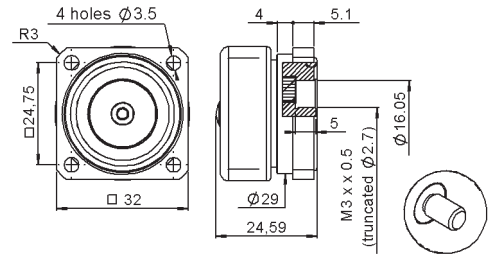


Fig. 2

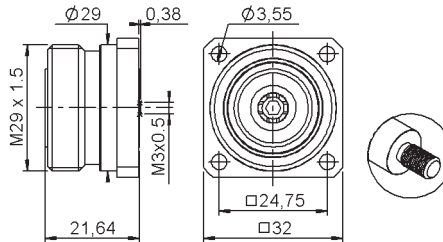


Fig. 3

| Part number  | Fig. | Captive center contact | Panel drilling | Finish          | Slotted outer contact | Packaging | Note                    |
|--------------|------|------------------------|----------------|-----------------|-----------------------|-----------|-------------------------|
| R185 403 547 | 1    | yes                    | P03            | BBR             | no                    | 20        | With solder pot contact |
| R185 405 200 | 2    |                        | P05            | Silver + Copper | yes                   |           | Panel seal flange mount |
| R185 406 090 | 3    |                        |                | BBR             | no                    | 50        | M3                      |

To download data sheets and assembly instructions, visit [www.radiall.com](http://www.radiall.com) & enter the part number in the Search box. **Bold** part numbers represent products typically in stock & available for immediate shipment. See page 8 and 9 for packaging information.

## IN SERIES ADAPTERS

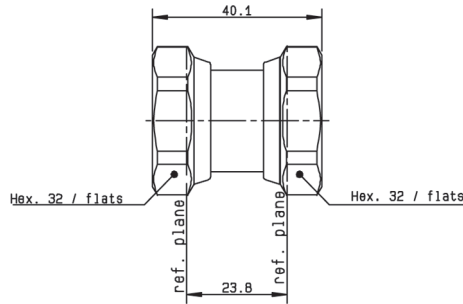


Fig. 1

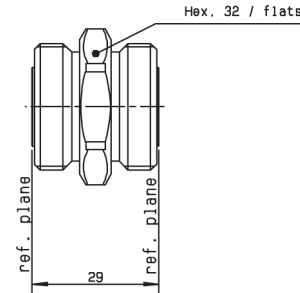


Fig. 2

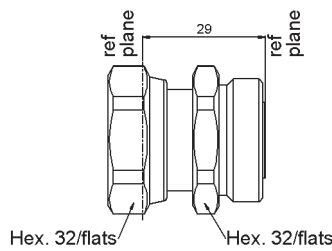


Fig. 3

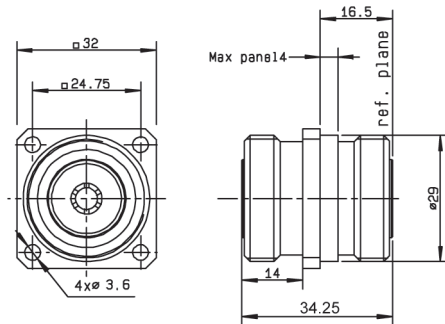


Fig. 4

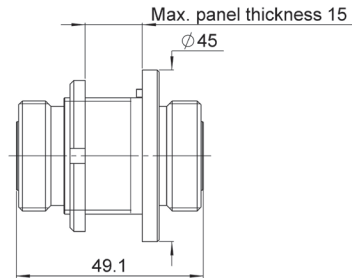


Fig. 5

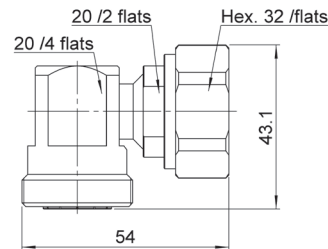


Fig. 6

| Part number   | Fig. | Captive center contact | Panel drilling | Finish          | Note                         |
|---------------|------|------------------------|----------------|-----------------|------------------------------|
| R185 703 000  | 1    | yes                    |                | Silver + Copper | male - male                  |
| R185 705 000  | 2    |                        |                |                 | female - female              |
| R185 707 000  | 3    |                        |                |                 | male - female                |
| R185 710 000  | 4    |                        | P01            |                 | female - female flange mount |
| R185 730 020  | 5    |                        | P06            | Silver + BBR    | female - female              |
| R185A 770 000 | 6    |                        |                | BBR             | ECO version                  |

To download data sheets and assembly instructions, visit [www.radiall.com](http://www.radiall.com) & enter the part number in the Search box. **Bold** part numbers represent products typically in stock & available for immediate shipment. See page 8 and 9 for packaging information.

JACKS AND PLUGS

STRAIGHT BULKHEAD JACKS PANEL SEAL

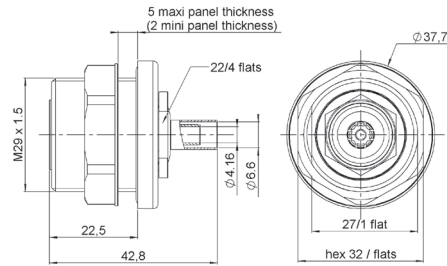


Fig. 1

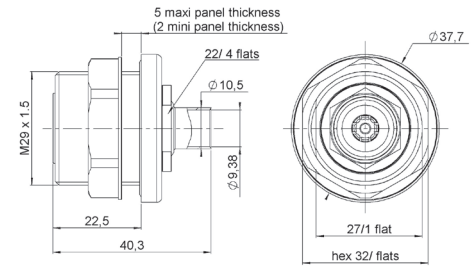


Fig. 2

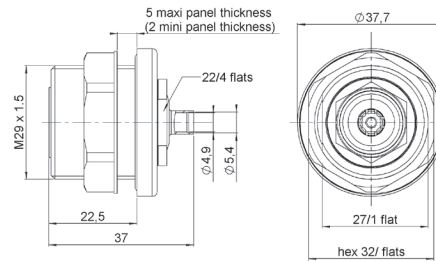


Fig. 3

| Cable group | Cable group dia.              | Part number  | Fig. | Panel drilling | Note        |
|-------------|-------------------------------|--------------|------|----------------|-------------|
| ECO230      | 6/50/D                        | R187 100 000 | 1    | P07            | Crimp type  |
|             | 3/8" superflexible corrugated | R187 110 010 | 2    | P07            | Solder type |
|             | SHF 5LI                       | R187 110 020 | 3    | P07            | Solder type |

RIGHT ANGLE PLUGS

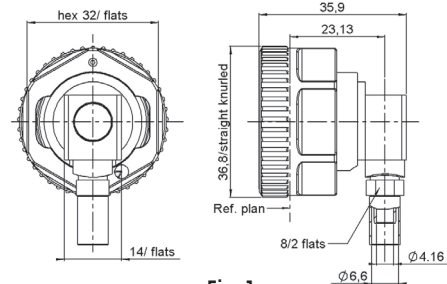
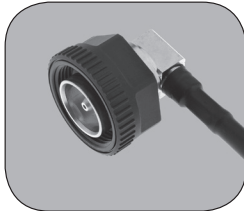


Fig. 1

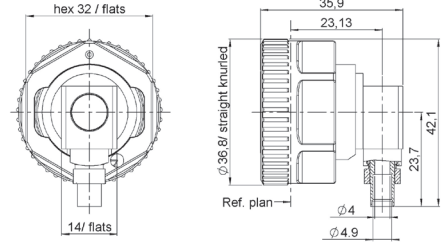


Fig. 2

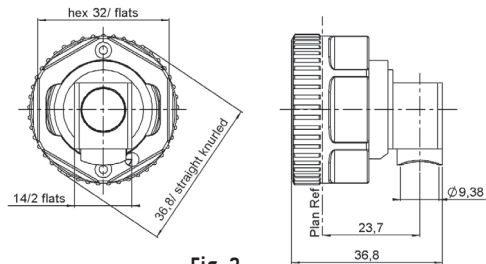


Fig. 3

| Cable group | Cable group dia.              | Part number  | Fig. | Note        |
|-------------|-------------------------------|--------------|------|-------------|
| ECO230      | 6/50/D                        | R187 700 200 | 1    | Crimp type  |
|             | SHF 5LI                       | R187 710 200 | 2    | Solder type |
|             | 3/8" superflexible corrugated | R187 710 210 | 3    | Solder type |

To download data sheets and assembly instructions, visit [www.radiall.com](http://www.radiall.com) & enter the part number in the Search box. **Bold** part numbers represent products typically in stock & available for immediate shipment. See page 8 and 9 for packaging information.

## SQUARE FLANGE JACK RECEPTACLE SOLDER TYPE, PANEL SEAL

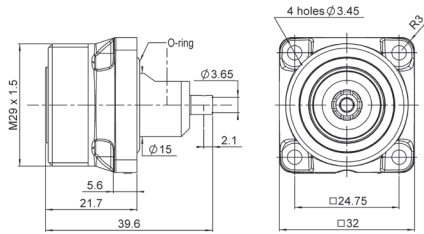


Fig. 1

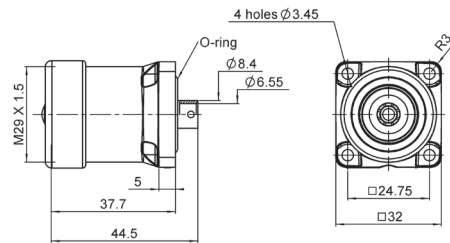


Fig. 2

| Cable group | Cable group dia. | Part number  | Fig. | Panel drilling |
|-------------|------------------|--------------|------|----------------|
| RG402       | .141"            | R187 403 010 | 1    | P08            |
| RG401       | .250"            | R187 130 000 | 2    | P08            |

## SQUARE FLANGE JACK RECEPTACLE PANEL SEAL

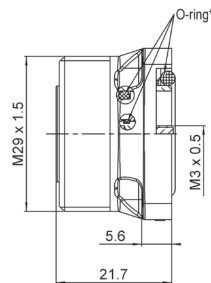
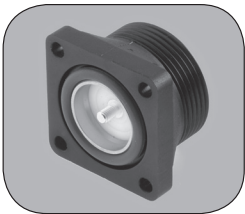


Fig. 1

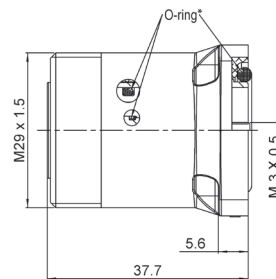


Fig. 2

| Part number  | Fig. | Captive center contact | Waterproof interface | Color | Panel drilling |
|--------------|------|------------------------|----------------------|-------|----------------|
| R187 403 000 | 1    | no                     | no                   | black | P08            |
| R187 403 100 |      |                        | yes                  |       |                |
| R187 406 000 |      | yes                    | no                   |       |                |
| R187 406 100 |      |                        | yes                  |       |                |
| R187 413 000 | 2    | no                     | no                   |       |                |
| R187 413 100 |      |                        | yes                  |       |                |
| R187 416 000 |      | yes                    | no                   |       |                |
| R187 416 100 |      |                        | yes                  |       |                |

Standard color is black however, other colors are proposed upon request. Packaging 20 pieces.

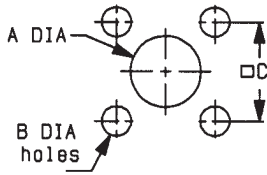
Other specific demands can be proceeded according to customer needs.

\* O-ring inside, only on the waterproof models.

To download data sheets and assembly instructions, visit [www.radiall.com](http://www.radiall.com) & enter the part number in the Search box. **Bold** part numbers represent products typically in stock & available for immediate shipment. See page 8 and 9 for packaging information.

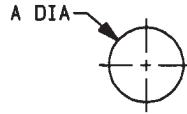
**PANEL DRILLING**

**P01**



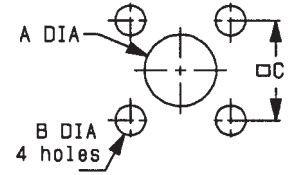
|   | MM   |      | INCH  |       |
|---|------|------|-------|-------|
|   | maxi | mini | maxi  | mini  |
| A | 29.2 | 29.1 | 1.15  | 1.146 |
| B | 3.7  | 3.6  | 0.146 | 0.142 |
| C | 24.8 | 24.7 | 0.976 | 0.972 |

**P02**



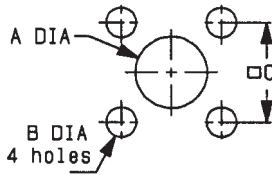
|   | MM   |      | INCH |       |
|---|------|------|------|-------|
|   | maxi | mini | maxi | mini  |
| A | 29.2 | 29.1 | 1.15 | 1.146 |

**P03**



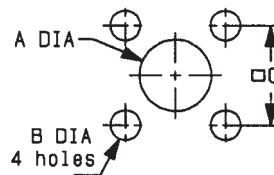
|              | MM   |      | INCH  |       |
|--------------|------|------|-------|-------|
|              | maxi | mini | maxi  | mini  |
| A (R. Mount) | 16.2 | 16   | 0.638 | 0.63  |
| A (F. Mount) | 29.3 | 29.1 | 1.154 | 1.146 |
| B            | 3.7  | 3.6  | 0.146 | 0.142 |
| C            | 24.8 | 24.7 | 0.976 | 0.972 |

**P04**



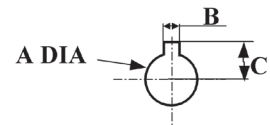
|   | MM   |      | INCH  |       |
|---|------|------|-------|-------|
|   | maxi | mini | maxi  | mini  |
| A | 12.3 | 12.1 | 0.484 | 0.476 |
| B | 3.8  | 3.7  | 0.15  | 0.146 |
| C | 24.8 | 24.7 | 0.976 | 0.972 |

**P05**



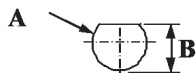
|   | MM   |      | INCH  |       |
|---|------|------|-------|-------|
|   | maxi | mini | maxi  | mini  |
| A | 16.2 | 16   | 0.638 | 0.63  |
| B | 3.7  | 3.6  | 0.146 | 0.142 |
| C | 24.8 | 24.7 | 0.976 | 0.972 |

**P06**



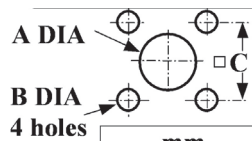
|   | mm    |       |
|---|-------|-------|
|   | Maxi  | mini  |
| A | 30.55 | 30.45 |
| B | 3.3   | 3.2   |
| C | 17.6  | 17.5  |

**P07**



|   | mm   |      |
|---|------|------|
|   | Maxi | mini |
| A | 29.4 | 29.2 |
| B | 27.5 | 27.3 |

**P08**



|   | mm   |      |
|---|------|------|
|   | Maxi | mini |
| A | 16.2 | 16   |
| B | 3.7  | 3.6  |
| C | 24.8 | 24.7 |





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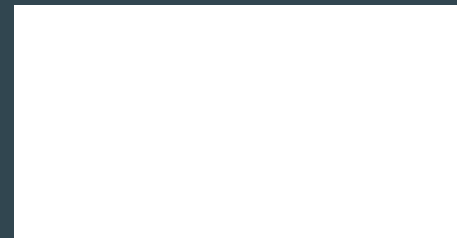
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