



7-16 DIN Male EZfit® for 1-5/8 in FXL-1873 and AVA7-50 cable

## Product Classification

|                       |                                  |
|-----------------------|----------------------------------|
| <b>Product Type</b>   | Wireless and radiating connector |
| <b>Product Brand</b>  | EZfit®                           |
| <b>Product Series</b> | AVA7-50   AVA7RK-50              |
| <b>Ordering Note</b>  | CommScope® non-standard product  |

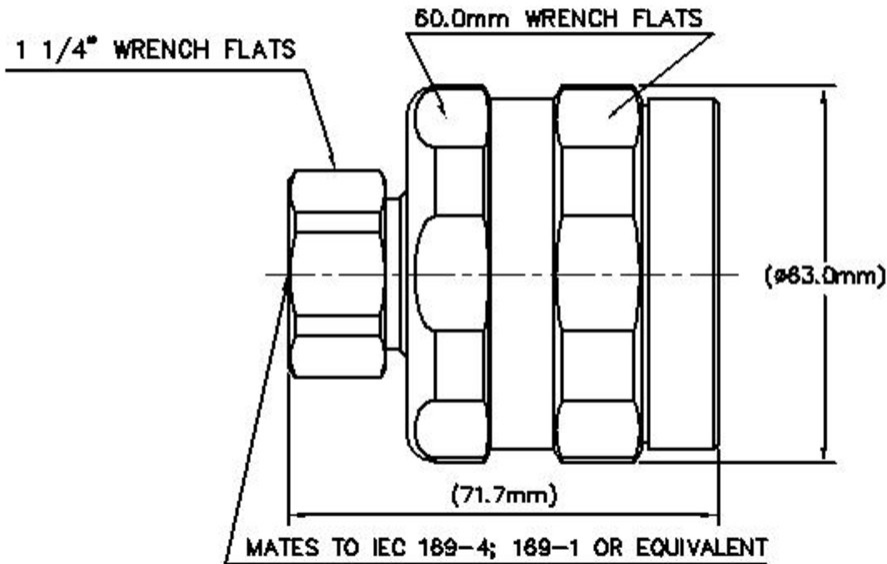
## General Specifications

|  |               |
|--|---------------|
| <b>Body Style</b>                      | Straight      |
| <b>Inner Contact Attachment Method</b> | Captivated    |
| <b>Inner Contact Plating</b>           | Silver        |
| <b>Interface</b>                       | 7-16 DIN Male |
| <b>Mounting Angle</b>                  | Straight      |
| <b>Outer Contact Attachment Method</b> | Clamp         |
| <b>Outer Contact Plating</b>           | Trimetal      |
| <b>Pressurizable</b>                   | No            |

## Dimensions

|                     |                    |
|---------------------|--------------------|
| <b>Length</b>       | 71.63 mm   2.82 in |
| <b>Diameter</b>     | 62.99 mm   2.48 in |
| <b>Nominal Size</b> | 1-5/8 in           |

## Outline Drawing



## Electrical Specifications

|   |                      |
|---|----------------------|
| <b>3rd Order IMD at Frequency</b>           | -116 dBm @ 1800 MHz  |
| <b>3rd Order IMD Test Method</b>            | Two +43 dBm carriers |
| <b>Insertion Loss, typical</b>              | 0.05 dB              |
| <b>Average Power at Frequency</b>           | 3.0 kW @ 900 MHz     |
| <b>Cable Impedance</b>                      | 50 ohm               |
| <b>Connector Impedance</b>                  | 50 ohm               |
| <b>dc Test Voltage</b>                      | 4000 V               |
| <b>Inner Contact Resistance, maximum</b>    | 1.5 mOhm             |
| <b>Insulation Resistance, minimum</b>       | 5000 MOhm            |
| <b>Operating Frequency Band</b>             | 0 – 2700 MHz         |
| <b>Outer Contact Resistance, maximum</b>    | 0.8 mOhm             |
| <b>Peak Power, maximum</b>                  | 40 kW                |
| <b>RF Operating Voltage, maximum (vrms)</b> | 1415 V               |
| <b>Shielding Effectiveness</b>              | -130 dB              |

## VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 45–400 MHz     | 1.02 | 41.7             |

|               |      |       |
|---------------|------|-------|
| 401–805 MHz   | 1.03 | 37    |
| 806–960 MHz   | 1.04 | 34.6  |
| 961–1709 MHz  | 1.04 | 34.16 |
| 1710–2170 MHz | 1.05 | 33.1  |
| 2170–2399 MHz | 1.05 | 33.1  |
| 2400–2700 MHz | 1.05 | 32.26 |

## Mechanical Specifications

|  |   |
|--|---|
| <b>Attachment Durability</b>               | 25 cycles                                   |
| <b>Connector Retention Tensile Force</b>   | 2,224.11 N   500 lbf                        |
| <b>Connector Retention Torque</b>          | 13.56 N-m   119.998 in lb                   |
| <b>Coupling Nut Proof Torque</b>           | 24.86 N-m   220.003 in lb                   |
| <b>Coupling Nut Retention Force</b>        | 1,000.85 N   225 lbf                        |
| <b>Coupling Nut Retention Force Method</b> | MIL-C-39012C-3.25, 4.6.22                   |
| <b>Insertion Force</b>                     | 200.17 N   45 lbf                           |
| <b>Insertion Force Method</b>              | IEC 61169-1:15.2.4                          |
| <b>Interface Durability</b>                | 500 cycles                                  |
| <b>Interface Durability Method</b>         | IEC 61169-4:9.5                             |
| <b>Mechanical Shock Test Method</b>        | MIL-STD-202F, Method 213B, Test Condition C |

## Environmental Specifications

|   |  |
|---|--|
| <b>Operating Temperature</b>              | -40 °C to +85 °C (-40 °F to +185 °F)           |
| <b>Storage Temperature</b>                | -55 °C to +85 °C (-67 °F to +185 °F)           |
| <b>Attenuation, Ambient Temperature</b>   | 20 °C   68 °F                                  |
| <b>Average Power, Ambient Temperature</b> | 40 °C   104 °F                                 |
| <b>Corrosion Test Method</b>              | MIL-STD-1344A, Method 1001.1, Test Condition A |
| <b>Immersion Depth</b>                    | 1 m  |
| <b>Immersion Test Mating</b>              | Mated  |
| <b>Immersion Test Method</b>              | IEC 60529:2001, IP68                           |
| <b>Moisture Resistance Test Method</b>    | MIL-STD-202F, Method 106F                      |
| <b>Vibration Test Method</b>              | IEC 60068-2-6                                  |
| <b>Water Jetting Test Mating</b>          | Mated  |
| <b>Water Jetting Test Method</b>          | IEC 60529:2001, IP66                           |

## Packaging and Weights

**Weight, net** 563.6 g | 1.243 lb

## Regulatory Compliance/Certifications

| Agency        | Classification   |
|---------------|--|
| CHINA-ROHS    | Below maximum concentration value  |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system   |
| REACH-SVHC    | Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a> |
| ROHS          | Compliant  |



## \* Footnotes

|                                |  |
|--------------------------------|--|
| <b>Insertion Loss, typical</b> | 0.05v̄freq (GHz) (not applicable for elliptical waveguide) |
| <b>Immersion Depth</b>         | Immersion at specified depth for 24 hours                  |