

AL7DF-PSA



7-16 DIN Female Positive Stop™ for 1-5/8 in cable

Product Classification

| | |
|-----------------------|--|
| Product Type | Wireless and radiating connector |
| Product Brand | HELIAX® Positive Stop™ |
| Product Series | AVA7-50 AVA7RK-50 |
| Ordering Note | CommScope® standard product in Europe, the Middle East, and Africa CommScope® standard product in the United States and Canada |

General Specifications

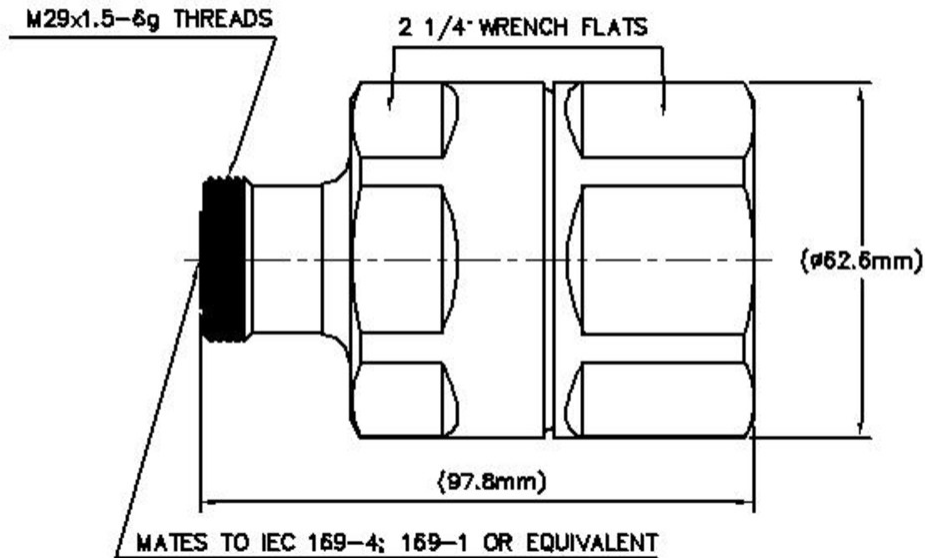
| | |
|--|-----------------|
| Body Style | Straight |
| Inner Contact Attachment Method | Captivated |
| Inner Contact Plating | Silver |
| Interface | 7-16 DIN Female |
| Mounting Angle | Straight |
| Outer Contact Attachment Method | Ring-flare |
| Outer Contact Plating | Trimetal |
| Pressurizable | No |

Dimensions

| | |
|---------------------|--------------------|
| Length | 97.79 mm 3.85 in |
| Diameter | 62.74 mm 2.47 in |
| Nominal Size | 1-5/8 in |

Outline Drawing

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Electrical Specifications

| | |
|---|----------------------|
| 3rd Order IMD at Frequency | -120 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| Insertion Loss Coefficient, typical | 0.05 |
| Average Power at Frequency | 3.0 kW @ 900 MHz |
| Cable Impedance | 50 ohm |
| Connector Impedance | 50 ohm |
| dc Test Voltage | 4000 V |
| Inner Contact Resistance, maximum | 0.8 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Operating Frequency Band | 0 – 2700 MHz |
| Outer Contact Resistance, maximum | 1.5 mOhm |
| Peak Power, maximum | 40 kW |
| RF Operating Voltage, maximum (vrms) | 1415 V |
| Shielding Effectiveness | -130 dB |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|-----------------------|-------------|-------------------------|
| 45–1000 MHz | 1.023 | 38.89 |

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| 1010–2200 MHz | 1.025 | 38.17 |
| 2210–2500 MHz | 1.036 | 35.05 |

Mechanical Specifications

| | |
|--|---|
| Attachment Durability | 25 cycles |
| Connector Retention Tensile Force | 2,224.11 N 500 lbf |
| Connector Retention Torque | 13.56 N-m 119.998 in lb |
| Insertion Force | 200.17 N 45 lbf |
| Insertion Force Method | IEC 61169-1:15.2.4 |
| Interface Durability | 50 cycles |
| Interface Durability Method | IEC 61169-4:9.5 |
| Mechanical Shock Test Method | MIL-STD-202F, Method 213B, Test Condition C |

Environmental Specifications

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|---|---|
| Operating Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Storage Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Attenuation, Ambient Temperature | 20 °C 68 °F |
| Average Power, Ambient Temperature | 40 °C 104 °F |
| Corrosion Test Method | MIL-STD-1344A, Method 1001.1, Test Condition A |
| Immersion Depth | 1 m |
| Immersion Test Mating | Unmated |
| Immersion Test Method | IEC 60529:2001, IP68 |
| Moisture Resistance Test Method | MIL-STD-202F, Method 106F |
| Thermal Shock Test Method | MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C |
| Vibration Test Method | IEC 60068-2-6 |
| Water Jetting Test Mating | Unmated |
| Water Jetting Test Method | IEC 60529:2001, IP66 |

Packaging and Weights

| | |
|--------------------|------------------|
| Weight, net | 722 g 1.592 lb |
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Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|-----------------------------------|
| CHINA-ROHS | Below maximum concentration value |

AL7DF-PSA

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|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| REACH-SVHC | Compliant as per SVHC revision on www.commscope.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |



* Footnotes

Insertion Loss Coefficient, typical 0.05√freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth Immersion at specified depth for 24 hours