

AL5DM-PSA



7-16 DIN Male Positive Stop™ for 7/8 in AL5-50 and AVA5-50 cable

Product Classification

| | |
|---------------------|----------------------------------|
| Brand | HELIAX® Positive Stop™ |
| Product Type | Wireless and radiating connector |

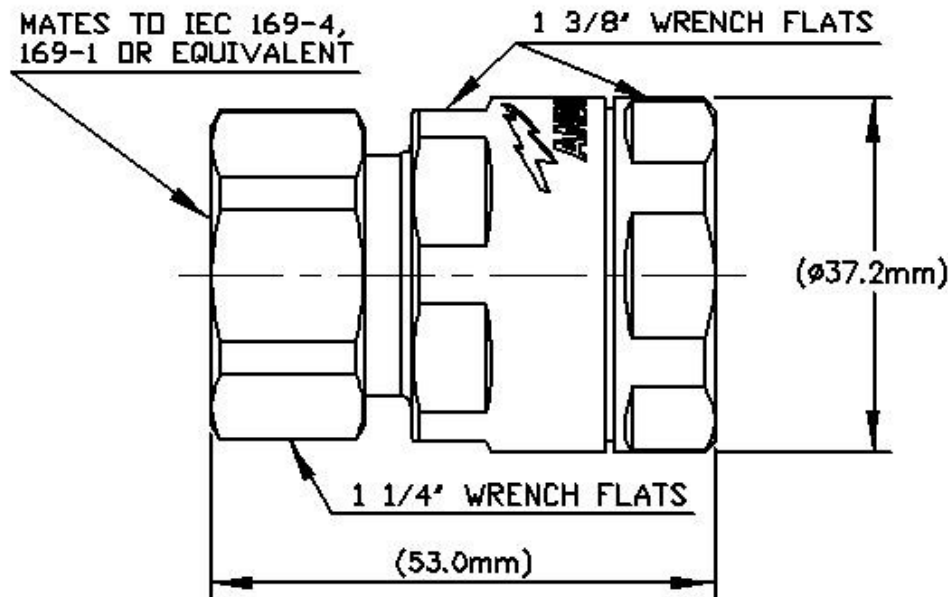
General Specifications

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|-----------------------|---------------|
| Interface | 7-16 DIN Male |
| Body Style | Straight |
| Mounting Angle | Straight |

Electrical Specifications

| | |
|---|----------------------|
| Connector Impedance | 50 ohm |
| Operating Frequency Band | 0 – 5200 MHz |
| Cable Impedance | 50 ohm |
| 3rd Order IMD, typical | -120 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| RF Operating Voltage, maximum (vrms) | 1415.00 V |
| dc Test Voltage | 4000 V |
| Outer Contact Resistance, maximum | 1.50 mOhm |
| Inner Contact Resistance, maximum | 0.40 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Average Power | 3.0 kW @ 900 MHz |
| Peak Power, maximum | 40.00 kW |
| Insertion Loss, typical | 0.05 dB |
| Shielding Effectiveness | -130 dB |

Outline Drawing



Mechanical Specifications

| | |
|--|---------------------------|
| Outer Contact Attachment Method | Ring-flare |
| Inner Contact Attachment Method | Captivated |
| Outer Contact Plating | Trimetal |
| Inner Contact Plating | Silver |
| Attachment Durability | 25 cycles |
| Interface Durability | 500 cycles |
| Interface Durability Method | IEC 61169-4:9.5 |
| Connector Retention Tensile Force | 1334 N 300 lbf |
| Connector Retention Torque | 8.13 N-m 72.00 in lb |
| Insertion Force | 200.17 N 45.00 lbf |
| Insertion Force Method | IEC 61169-1:15.2.4 |
| Pressurizable | No |
| Coupling Nut Proof Torque | 24.86 N-m 220.00 in lb |
| Coupling Nut Retention Force | 1000.85 N 225.00 lbf |
| Coupling Nut Retention Force Method | MIL-C-39012C-3.25, 4.6.22 |

Dimensions

Nominal Size 7/8 in

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| | |
|-----------------|--------------------|
| Diameter | 37.20 mm 1.46 in |
| Length | 52.95 mm 2.08 in |
| Weight | 151.61 g 0.33 lb |

Environmental Specifications

| | |
|--|---|
| Operating Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Storage Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Immersion Depth | 1 m |
| Immersion Test Mating | Unmated |
| Immersion Test Method | IEC 60529:2001, IP68 |
| Water Jetting Test Mating | Unmated |
| Water Jetting Test Method | IEC 60529:2001, IP66 |
| Moisture Resistance Test Method | MIL-STD-202F, Method 106F |
| Mechanical Shock Test Method | MIL-STD-202F, Method 213B, Test Condition C |
| Thermal Shock Test Method | MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C |
| Vibration Test Method | IEC 60068-2-6 |
| Corrosion Test Method | MIL-STD-1344A, Method 1001.1, Test Condition A |

Standard Conditions

| | |
|---|----------------|
| Attenuation, Ambient Temperature | 20 °C 68 °F |
| Average Power, Ambient Temperature | 40 °C 104 °F |

Return Loss/VSWR

| Frequency Band | VSWR | Return Loss (dB) |
|-----------------------|-------------|-------------------------|
| 45–1000 MHz | 1.02 | 39.00 |
| 1010–2200 MHz | 1.03 | 37.50 |
| 2210–3000 MHz | 1.03 | 35.60 |
| 3010–5200 MHz | 1.08 | 28.00 |

Regulatory Compliance/Certifications

| Agency | Classification |
|----------------------------|--|
| RoHS 2011/65/EU | Compliant by Exemption |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| China RoHS SJ/T 11364-2014 | Above Maximum Concentration Value (MCV) |



* Footnotes

AL5DM-PSA

| | |
|--------------------------------|--|
| Immersion Depth | Immersion at specified depth for 24 hours |
| Insertion Loss, typical | $0.05\sqrt{\text{freq}}$ (GHz) (not applicable for elliptical waveguide) |