

# AL7DF-PSA

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

## Product Classification

<b>Product Type</b>	Wireless and radiating connector
<b>Product Brand</b>	HELIAX®   Positive Stop™
<b>Ordering Note</b>	CommScope® standard product in Europe, the Middle East, and Africa   CommScope® standard product in the United States and Canada

## General Specifications

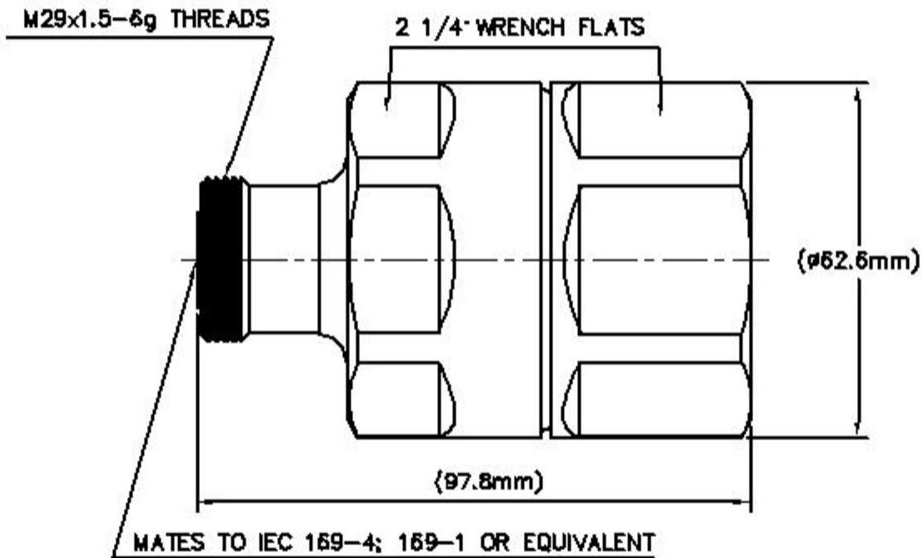
<b>Body Style</b>	Straight
<b>Inner Contact Attachment Method</b>	Captivated
<b>Inner Contact Plating</b>	Silver
<b>Interface</b>	7-16 DIN Female
<b>Mounting Angle</b>	Straight
<b>Outer Contact Attachment Method</b>	Ring-flare
<b>Outer Contact Plating</b>	Trimetal
<b>Pressurizable</b>	No

## Dimensions

<b>Length</b>	3.85 in   97.79 mm
<b>Diameter</b>	2.47 in   62.738 mm
<b>Nominal Size</b>	1-5/8 in

## Outline Drawing

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## Electrical Specifications

<b>3rd Order IMD at Frequency</b>	-120 dBm @ 910 MHz
<b>3rd Order IMD Test Method</b>	Two +43 dBm carriers
<b>Insertion Loss, typical</b>	0.05 dB
<b>Attenuation, Ambient Temperature</b>	20 °C   68 °F
<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>	0.8 mOhm
<b>Insulation Resistance, minimum</b>	5000 MOhm
<b>Operating Frequency Band</b>	0 – 2700 MHz

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<b>Outer Contact Resistance, maximum</b>	1.5 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

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
<b>45–1000 MHz</b>	1.03	39
<b>1010–2200 MHz</b>	1.03	38
<b>2210–2500 MHz</b>	1.04	35

## Mechanical Specifications

<b>Attachment Durability</b>	25 cycles
<b>Connector Retention Tensile Force</b>	500 lbf   2,224.11 N
<b>Connector Retention Torque</b>	120 in lb   13.558 N-m
<b>Insertion Force</b>	45 lbf   200.17 N
<b>Insertion Force Method</b>	IEC 61169-1:15.2.4
<b>Interface Durability</b>	50 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>	-55 °C to +85 °C (-67 °F to +185 °F)
<b>Storage Temperature</b>	-55 °C to +85 °C (-67 °F to +185 °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>	Unmated
<b>Immersion Test Method</b>	IEC 60529:2001, IP68
<b>Moisture Resistance Test Method</b>	MIL-STD-202F, Method 106F
<b>Thermal Shock Test Method</b>	MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C
<b>Vibration Test Method</b>	IEC 60068-2-6
<b>Water Jetting Test Mating</b>	Unmated

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**Water Jetting Test Method**

IEC 60529:2001, IP66

## Packaging and Weights

**Weight, net**

722 g | 1.592 lb

## Regulatory Compliance/Certifications

### Agency

CHINA-ROHS

ISO 9001:2015

REACH-SVHC

ROHS

### Classification

Below maximum concentration value

Designed, manufactured and/or distributed under this quality management system

Compliant as per SVHC revision on [www.commscope.com/ProductCompliance](http://www.commscope.com/ProductCompliance)

Compliant



## \* Footnotes

**Immersion Depth**

Immersion at specified depth for 24 hours

**Insertion Loss, typical**

$0.05\sqrt{\text{freq (GHz)}}$  (not applicable for elliptical waveguide)