



7-16 DIN Male Positive Lock for 1/4 in LDF1-50 cable

## Product Classification

<b>Brand</b>	HELIAX®
<b>Product Type</b>	Wireless and radiating connector

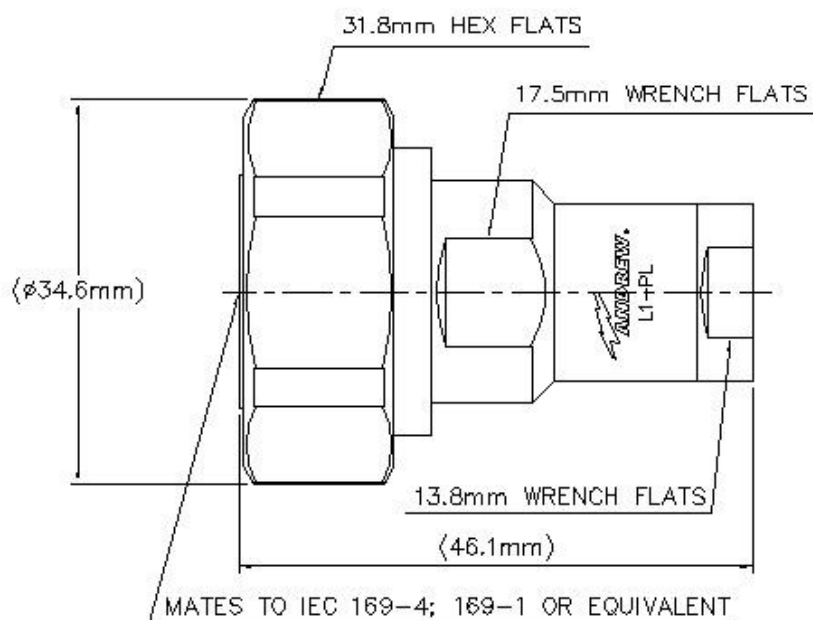
## General Specifications

<b>Interface</b>	7-16 DIN Male
<b>Body Style</b>	Straight
<b>Mounting Angle</b>	Straight

## Electrical Specifications

<b>Connector Impedance</b>	50 ohm
<b>Operating Frequency Band</b>	0 – 8000 MHz
<b>Average Power at Frequency</b>	0.6 kW @ 900 MHz
<b>Cable Impedance</b>	50 ohm
<b>3rd Order IMD, typical</b>	-107 dBm @ 910 MHz
<b>3rd Order IMD Test Method</b>	Two +43 dBm carriers
<b>RF Operating Voltage, maximum (vrms)</b>	778.00 V
<b>dc Test Voltage</b>	2200 V
<b>Outer Contact Resistance, maximum</b>	1.50 mOhm
<b>Inner Contact Resistance, maximum</b>	0.40 mOhm
<b>Insulation Resistance, minimum</b>	10000 MOhm
<b>Peak Power, maximum</b>	12.10 kW
<b>Insertion Loss, typical</b>	0.05 dB
<b>Shielding Effectiveness</b>	-110 dB

## Outline Drawing



## Mechanical Specifications

<b>Outer Contact Attachment Method</b>	Self-flare
<b>Inner Contact Attachment Method</b>	Captivated
<b>Outer Contact Plating</b>	Trimetal
<b>Inner Contact Plating</b>	Silver
<b>Attachment Durability</b>	25 cycles
<b>Interface Durability</b>	500 cycles
<b>Interface Durability Method</b>	IEC 61169-4:17
<b>Connector Retention Tensile Force</b>	450 N   101 lbf
<b>Insertion Force</b>	200.00 N   44.96 lbf
<b>Insertion Force Method</b>	IEC 61169-1:15.2.4
<b>Pressurizable</b>	No
<b>Coupling Nut Proof Torque</b>	35.00 N-m   25.81 ft lb
<b>Coupling Nut Retention Force</b>	1000.00 N   224.81 lbf
<b>Coupling Nut Retention Force Method</b>	MIL-C-39012C-3.25, 4.6.22

## Dimensions

<b>Nominal Size</b>	1/4 in
<b>Diameter</b>	34.60 mm   1.36 in

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<b>Height</b>	34.60 mm   1.36 in
<b>Length</b>	46.05 mm   1.81 in
<b>Weight</b>	109.66 g   0.24 lb
<b>Width</b>	34.60 mm   1.36 in

## Environmental Specifications

<b>Operating Temperature</b>	-55 °C to +85 °C (-67 °F to +185 °F)
<b>Storage Temperature</b>	-65 °C to +125 °C (-85 °F to +257 °F)
<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>	IEC 60068-2-3
<b>Mechanical Shock Test Method</b>	IEC 60068-2-27
<b>Thermal Shock Test Method</b>	IEC 60068-2-14
<b>Vibration Test Method</b>	IEC 60068-2-6
<b>Corrosion Test Method</b>	IEC 60068-2-11

## Standard Conditions

<b>Attenuation, Ambient Temperature</b>	20 °C   68 °F
<b>Average Power, Ambient Temperature</b>	40 °C   104 °F
<b>Average Power, Inner Conductor Temperature</b>	100 °C   212 °F

## Return Loss/VSWR

<b>Frequency Band</b>	<b>VSWR</b>	<b>Return Loss (dB)</b>
0–960 MHz	1.05	32.00
960–2200 MHz	1.08	28.80
2200–2700 MHz	1.08	28.20
2700–4000 MHz	1.08	28.00
4000–6000 MHz	1.25	19.00
6000–8000 MHz	1.43	15.00

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
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

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