

# APG-BNFM-090



Arrestor Plus® Gas Tube Surge Arrestor (90 V), 45–2170 MHz, with interface types N Female Bulkhead and N Male

## Product Classification

Product Type	Surge arrestor
Ordering Note	CommScope® non-standard product

## General Specifications

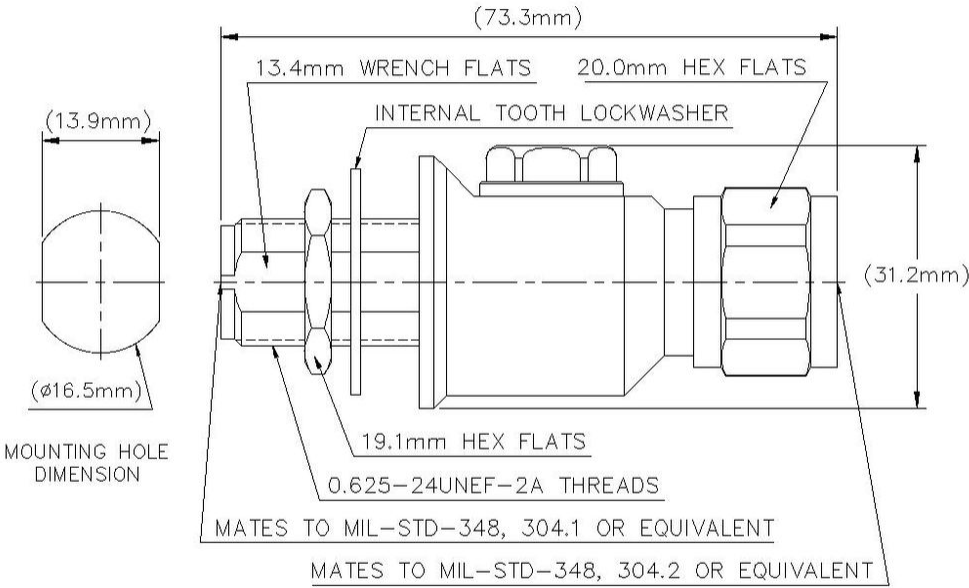
Device Type	dc Pass
Body Style	Bulkhead
Inner Contact Plating	Gold
Interface	N Female Bulkhead
Interface 2	N Male
Outer Contact Plating	Silver
Pressurizable	No

## Dimensions

Height	30.99 mm   1.22 in
Width	30.99 mm   1.22 in
Length	72.9 mm   2.87 in

## Outline Drawing

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## Electrical Specifications

Insertion Loss, typical	0.3 dB
Attenuation, Ambient Temperature	20 °C   68 °F
Average Power	30 W
Connector Impedance	50 ohm
Gas Tube Voltage	90 V
Lightning Surge Current	20 kA
Lightning Surge Current Waveform	8/20 waveform
Operating Frequency Band	1000 – 2000 MHz   2000 – 2170 MHz   45 – 1000 MHz

## VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
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45–1000 MHz	1.11	26.4
1000–2000 MHz	1.14	24
2000–2170 MHz	1.18	22

## Mechanical Specifications

Attachment Durability	25 cycles
Coupling Nut Proof Torque	4.52 N-m   40.005 in lb
Coupling Nut Retention Force	100 lbf   444.822 N
Coupling Nut Retention Force Method	MIL-C-39012C-3.25, 4.6.22
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-16:9.5
Mechanical Shock Test Method	MIL-STD-202F, Method 213B, Test Condition C

## Environmental Specifications

Operating Temperature	-40 °C to +100 °C (-40 °F to +212 °F)
Storage Temperature	-40 °C to +100 °C (-40 °F to +212 °F)
Average Power, Ambient Temperature	40 °C   104 °F
Corrosion Test Method	MIL-STD-202, Method 101, Test Condition B
Immersion Depth	1 m
Immersion Test Mating	Mated
Immersion Test Method	IEC 60529:2001, IP68
Moisture Resistance Test Method	MIL-STD-202, Method 106
Thermal Shock Test Method	MIL-STD-202, Method 107, Test Condition A-1, Low Temperature -55 °C
Vibration Test Method	GR 2846-CORE
Water Jetting Test Mating	Mated
Water Jetting Test Method	IEC 60529:2001, IP66

## Packaging and Weights

Weight, net	0.35 lb   0.159 kg
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## Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

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