

RF Surge Protection for RTCA DO-160 Applications

A family of high-performance lightning protection devices designed to protect Coaxial/RF lines against RTCA DO-160G test requirements, as laid out within Section 22. Available in various pass bands, DC pass ratings, and connector types...NexTek can offer high performance, reliable, and proven standard products to meet your most demanding Avionics Protection requirements.

- ☑ Meet DO-160G Section 22, Indirect Lightning
- ☑ Including All Waveforms and Test Levels
- ☑ High-Speed Protection Designs
- ☑ Ultra-Low Let-Through Energy
- ☑ Type N, TNC, SMA, 2.92
- ☑ Bands from DC to 6GHz
- ☑ Tested and Verified Designs
- ☑ Meet MIL-STD Environmental Requirements
- ☑ IPC-610 and J-STD 001 Compliant
- ☑ Material Traceability and Certification



Transient Specs

RTCA/DO-160 Waveforms – Pin or Cable Bundle	1, 2, 3, 4, 5, and 5A
RTCA/DO-160 Current Levels	Up to 2000A Input Current
RTCA/DO-160 Voltage Levels	Up to 3200V Input Voltage
RTCA/DO-160 Let thru Voltages:	<60V*
Max Surge Current IEC 61000-4-5 8x20usec:	5k-50kA+ (housing and circuit dependent)
Protection let-thru voltages (8x20usec):	<60V* @3kA

* Varies by model

Pass Band Options

Frequency Identifier	Frequency Range	Max VSWR	Max IL	DC Pass
HA	DC, 5MHz-100MHz; 950-2200MHz	1.2	0.2	Y
HB	50MHz-2GHz	1.2	0.2	N
HC	4GHz-6GHz	1.2	0.5	N
HD	1.1GHz – 1.7GHz	1.2	0.2	Y
HE	10-100MHz, 900-2200MHz	1.2	0.2	N

Additional Specifications

DC Voltage Options (+/- polarities @ 2Amp)*:	6, 12, 24, 48
RF Power (Max)*:	37dBm (5W)

*Varies by Model

Mechanicals:	5 Housing Configurations (-A, -B, -C, -D, -E)
Body Material	Aluminum w/ Conversion Coating
Connector	Stainless Steel w/Nickel Finish (-B Brass/Nickel)
Center pins	BeCu with Gold Plate Finish

Environmental Ratings

Temperature Range	-50°C to +85°C
Salt Fog	MIL-STD-202 Method 101D / Condition B (35°C/96 hrs)
Immersion	MIL-STD-202 Method 104A / Condition A (65°C to 25°C w/NaCl – 2 cycles)
Moisture Resistance	MIL-STD-202 Method 106E (65°C/98% RH condensing/240 hrs)
Temperature Shock	MIL-STD-202 Method 107D / Condition B-1 (25 cycles -55°C to +100°C)
Life (Elevated Temperature)	MIL-STD-202 Method 108A / Condition A (96 hours at 100°C)
Dust and Waterproof Rating	IEC529 IP68 (dust-tight and water proof 24 hrs / 1 m)
Vibration	MIL-STD-202 Method 204D / Condition D (10Hz-2kHz 0.06"DA/20g)
Mechanical Shock	MIL-STD-202 Method 213 / Condition A (50g/11ms ~24")

Package Options (See Drawings on Pages 3-5)

	-A	-B	-C	-D	-E
Body Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Body Finish	Conversion Coating	Conversion Coating	Conversion Coating	Conversion Coating	Conversion Coating
Connectors Material	Stainless steel	Brass	Stainless steel	Stainless steel	Stainless steel
Connector Finish	Nickel	Nickel	Nickel	Nickel	Nickel
Center Pin Material	BeCu	BeCu	BeCu	BeCu	BeCu
Center Pin Finish	Gold	Gold	Gold	Gold	Gold
Watertight	IP67	IP68	IP67	IP67	IP67

P/N Configuration & Example P/Ns

Conn Code	Conn Types (F=Female, M=Male)
S	SMA
R	SMA Right Angle (Package D)
T	TNC
N	N-Type (Package B)
K	2.92mm

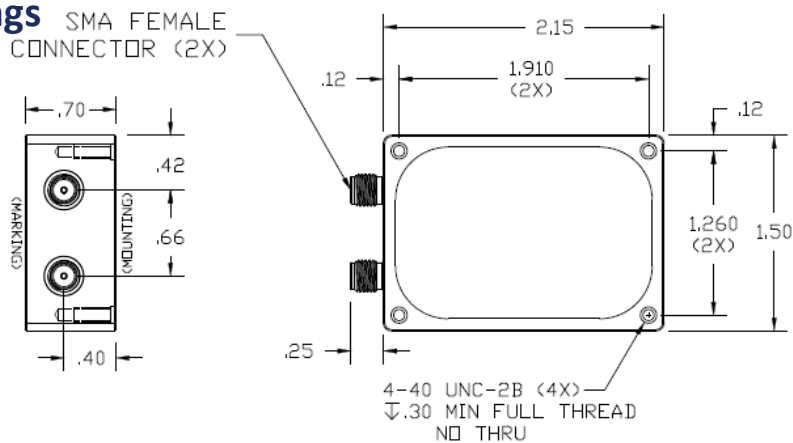
Polarity Code	Voltage Polarity
P	Positive
N	Negative
0	No DC Pass

Voltage Code	Voltage Rating (nominal)
06	5V
12	12V
24	24V
48	48V
00	No DC Pass

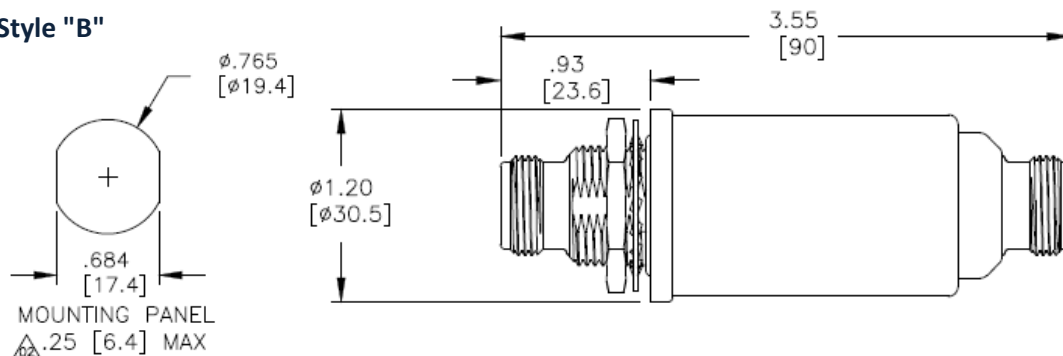
Series	Type	Surge Conn	Surge Gender	Protected Conn	Protected Gender	Freq	Polarity	Voltage	Package
FP	D	S	F	S	F	HA	P	24	-A
FP	D	N	F	N	F	HD	P	05	-B
FP	D	T	F	S	F	HB	0	00	-C
FP	D	N	F	N	F	HC	0	00	-C
FP	D	K	F	K	F	HE	0	00	-D
FP	D	R	F	R	F	HE	0	00	-D
FP	D	S	F	S	F	HE	0	00	-E

Outline Drawings

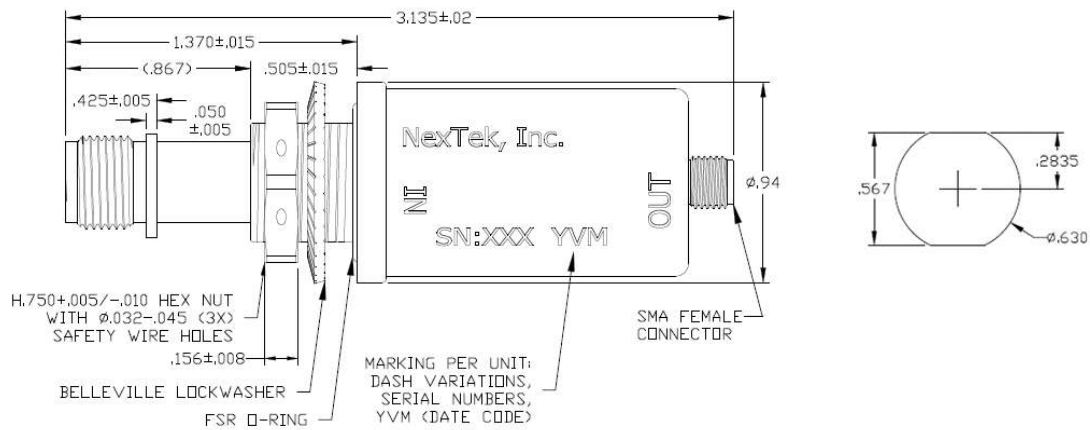
Package Style "A"



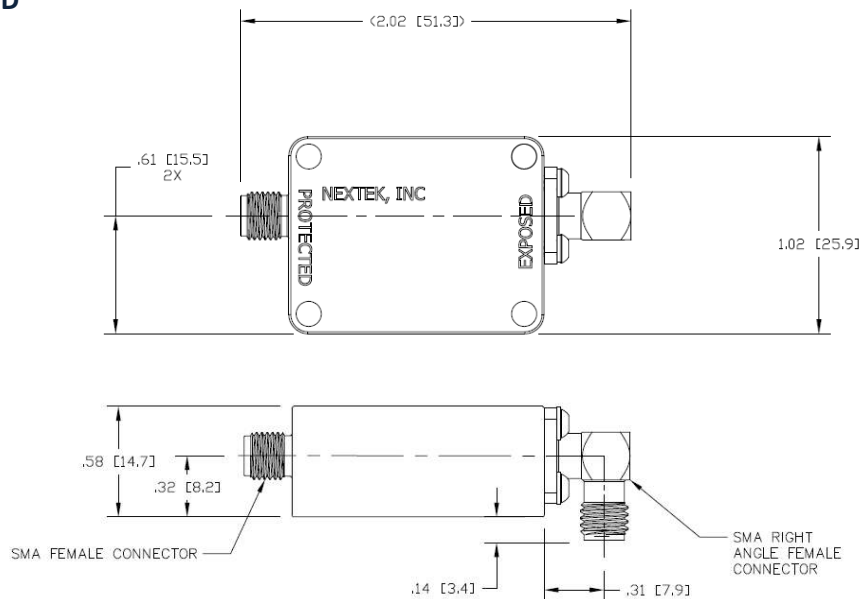
Package Style "B"



Package Style "C"



Package Style "D"



Package Style "E"

