

## Gas Tube Coaxial Surge Protector

### P8AX Series



The P8AX series coaxial surge protectors have been designed to protect antennas, microwaves, broadband applications, two-way radios, cellular equipment and GPS equipment against lightning surges and electrical transients. They are a first line of defense for your sensitive equipment.

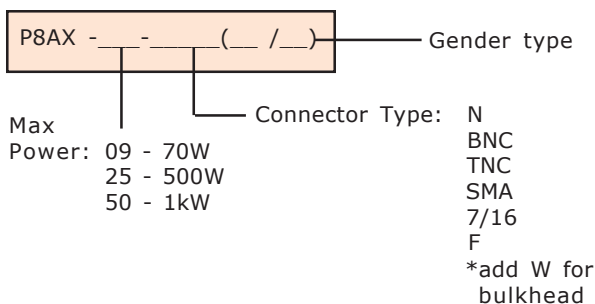
The P8AX series employ a patented gas tube and are available with three grounding options, M6 ground screw, bulkhead or optional mounting bracket.

#### Applications

- Tower Mounted Amplifiers (TMA)
- Global Positioning Systems (GPS)
- Antenna Systems
- Tower Top Electronics (TTE)
- Transmitters and Receivers
- WiFi
- Broadband Wireless

Connector	0.5Ghz	1Ghz	4Ghz
N	Return Loss <-25dB Insertion Loss <0.05dB	<-25dB <0.03dB	<-20dB <-0.29dB
BNC	Return Loss <-25dB Insertion Loss <0.05dB	<-25dB <0.03dB	<-20dB <-0.29dB

#### Ordering information



#### High-Frequency Surge Protection

- 20kA transient amps protection (8/20 $\mu$ s)
- 5kA transient amps protection (10/350 $\mu$ s)
- DC Pass to +/-48V
- VSWR < 1.2
- Insertion Loss < 0.1dB
- Bi-directional, series installed
- Removable GDT
- Mixed Connector Types Available, i.e N to SMA, etc...

#### Specifications

Citel Model	P8AX09	P8AX25	P8AX50
Max Power	70W	500W	1,000W
Insertion Loss	< 0.1dB	< 0.1dB	< 0.1dB
Ipeak (8/20 $\mu$ s x 10)	20kA	20kA	20kA
Breakdown V (100V/s)	90-130V	200-300V	400-600V
Residual V (1kV/ $\mu$ s)	< 600V	< 600V	< 1000V
VWSR	< 1.2	< 1.2	< 1.2
Impedance	50 Ohms <sup>1</sup>	50 Ohms <sup>1</sup>	50 Ohms <sup>1</sup>
Frequency Range	DC-5GHz	DC-5GHz	DC-5GHz
Housing Material	Copper Alloy with CuZnSn Finish		
Relative Humidity	0 to 100% condensing		
Operating Temp.	-40°C to +80°C		
Operating Altitude	13,000 ft (400m)		
Connection Method	Series		
Protection Type	GDT based		
Connectors	TNC, BNC, N, 7/16, SMA, F		
Earthing	M6 Screw, Bulkhead, Bracket		
Dimensions	42Wx80L (in mm)		

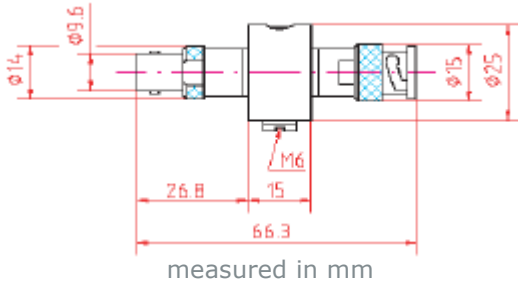
<sup>1</sup> Impedance for F-Type Connector is 75 Ohms.

**Gas Tube Coaxial Surge Protector**

**P8AX Series - Dimensional Drawings**

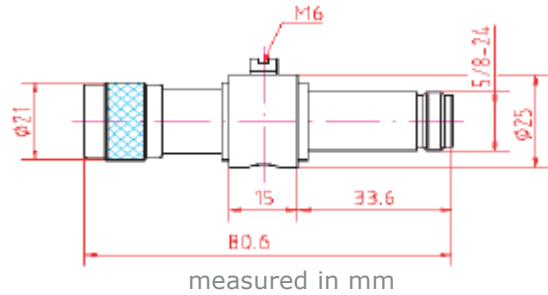
**P8AX-B-MF**

BNC Male to BNC Female



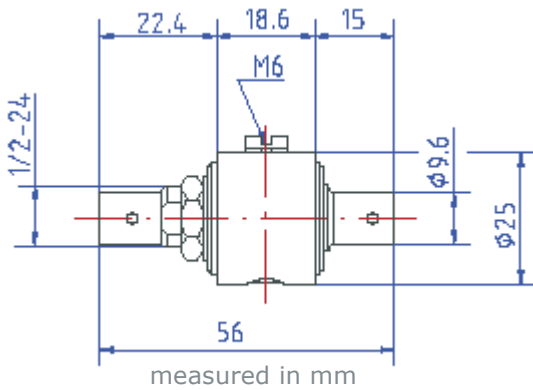
**P8AX-N-MF**

N Male to N Female



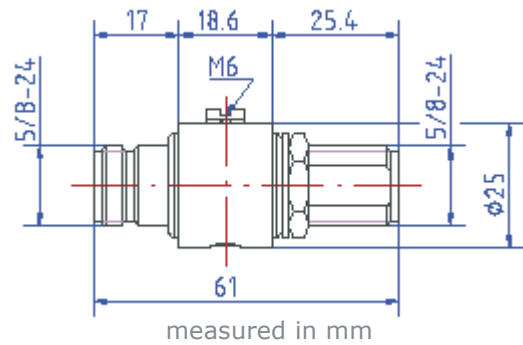
**P8AX-BW-FF**

BNC Bulkhead Female to BNC Female



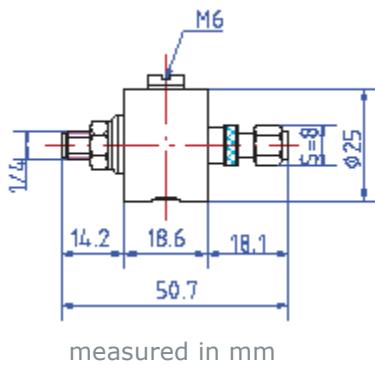
**P8AX-NW-FF**

N Bulkhead Female to N Female



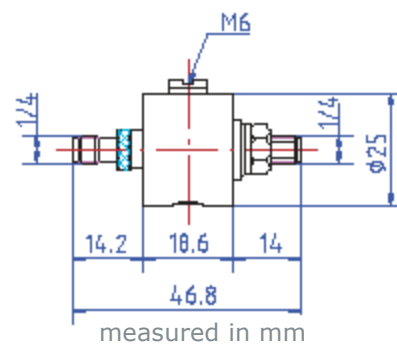
**P8AX-SMAW-MF**

SMA Bulkhead Male to SMA Female



**P8AX-SMAW-FF**

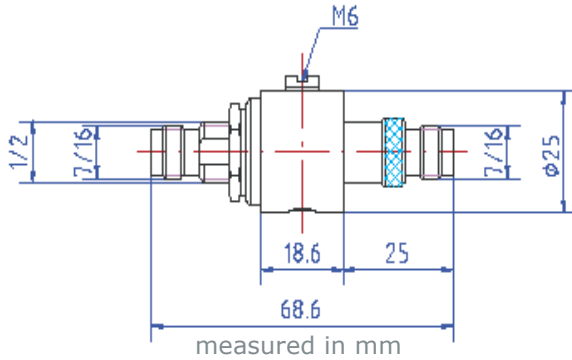
SMA Bulkhead Female to SMA Female



## Gas Tube Coaxial Surge Protector P8AX Series - Dimensional Drawings

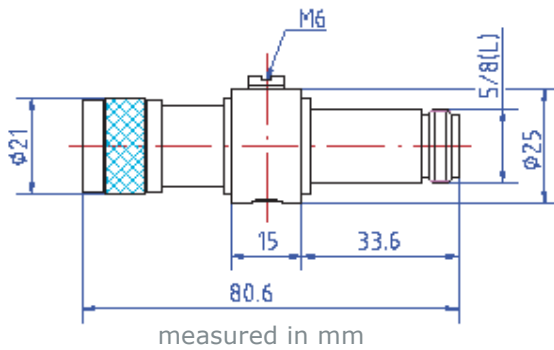
### P8AX-TW-FF

TNC Female to TNC Female



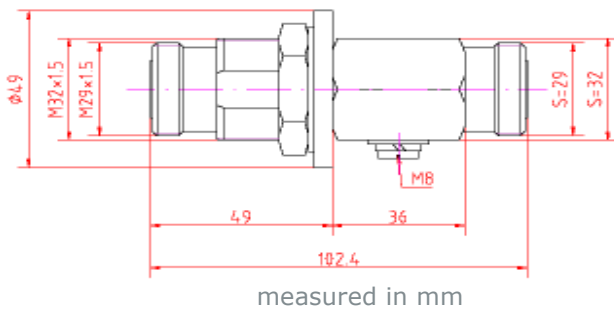
### P8AX-N-MFRP

Reverse Polarity N Male to N Female



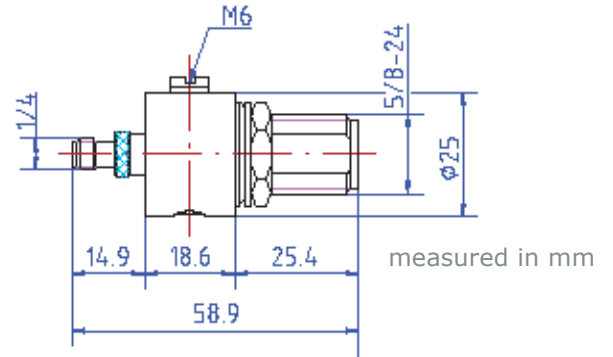
### P8AX-7/16W-FF

7/16 Female to 7/16 Female



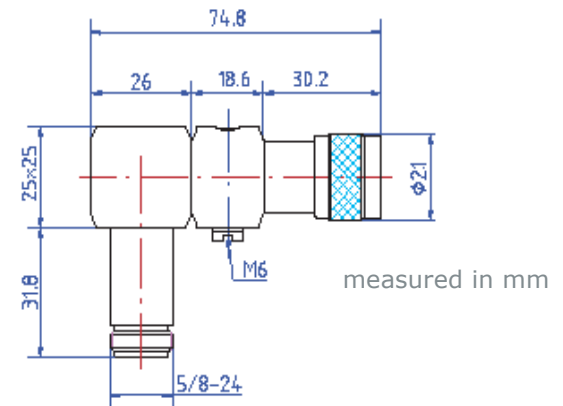
### P8AX-NWSMA-FF

N Bulkhead Female to SMA Female



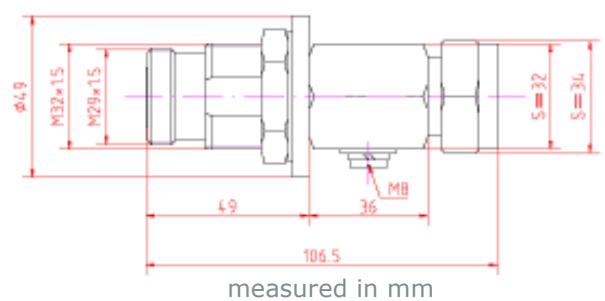
### P8AX-E-N-MF

Right Angle N Male to N Female



### P8AX-7/16W-MF

7/16 Male to 7/16 Female

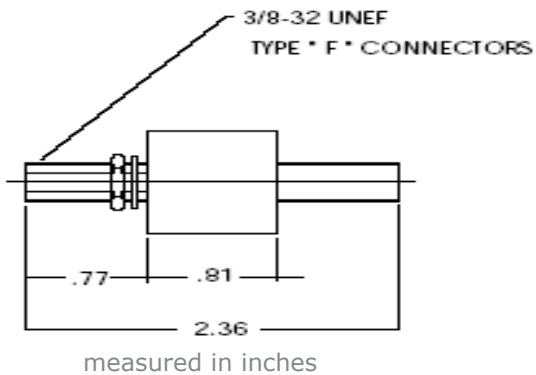


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### P8AX Series - Dimensional Drawings

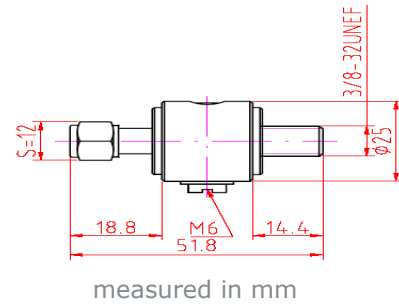
#### P8AX-FW-FF

F Bulkhead Female to Female



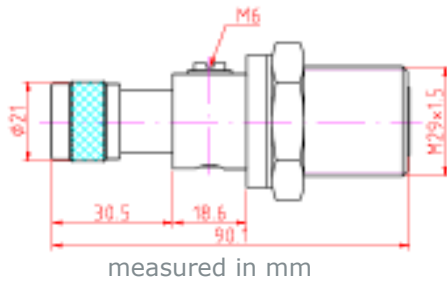
#### P8AX-F-MF

F Male to Female



#### P8AX-NM/716WF

N Male to 7/16 Bulkhead Female



Outer Dimension Tolerance: +/- 0.2mm  
Grounding Screw Tolerance: -0.05mm