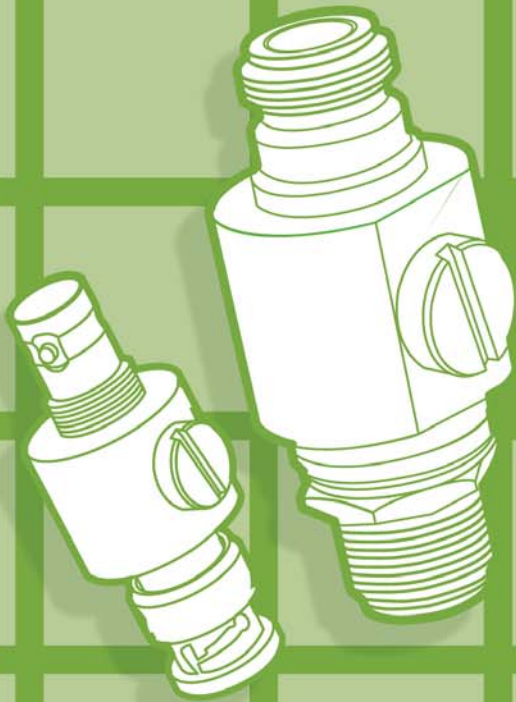
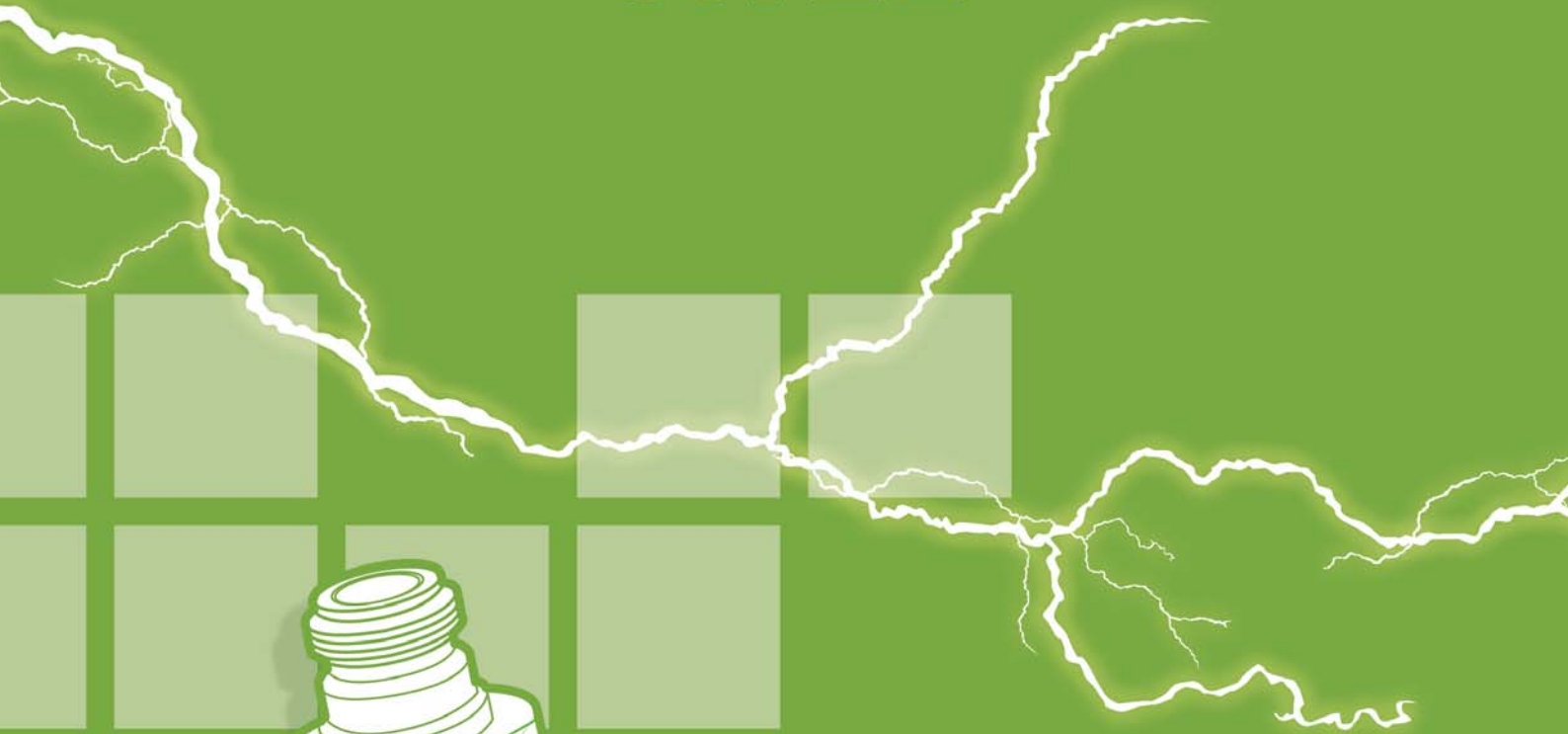
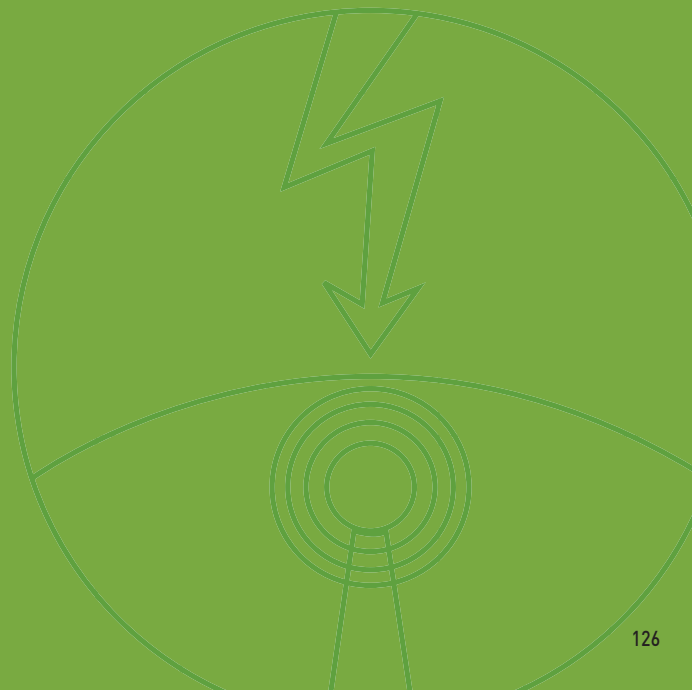




# CITEL



## **COAXIAL RF** Surge Protectors



## Installation

The efficiency of coaxial protectors is highly dependent on proper installation, in particular their connection to the earthing network of the installation.

The following installations rules must be strictly observed to ensure the efficiency :

- Equipotential bonding network : all the bonding conductors of the installation must be interconnected and connected to the installation earthing network.
- Optimized connection of the protector to the bonding network : to reduce the residual voltages during lightning discharge currents, the connection of the protector to the bonding network must be as short as possible (less than 50 cm) and has a proper cross section (at least 4 mm<sup>2</sup>).  
The «feedthrough mounting» versions meet perfectly all these requirements.  
Warning : for good contact, remove carefully all paintings or insulating coatings.
- Location of the protectors : they should preferably be placed at the entrance of the installation (to limit the penetration of lightning currents) and also near sensitive equipment (to enhance protection).

## 2 types of mounting

### ● Feedthrough mounting

Direct mounting of the surge protector on the grounded frame at the installation entrance (or on specific bracket see p. 136) :

- perfect connection to the bonding network
- best location (conduction of the surge currents at the entrance of the installation)
- good mechanical withstand.

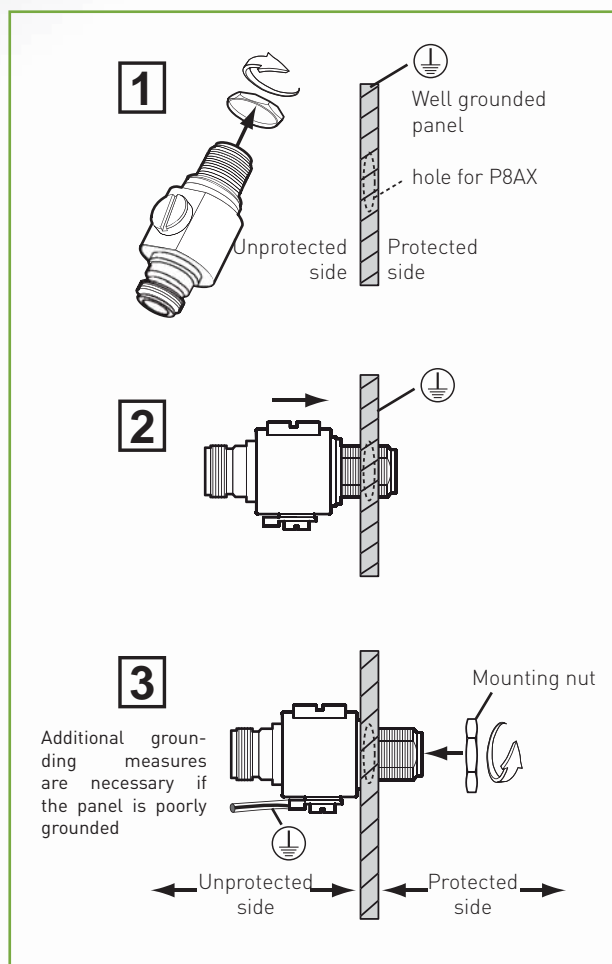
### ● Alternative mounting

- connection to the bonding network by wire (4 mm<sup>2</sup> minimum and shortest length possible).

## Standards

IEC 61643-21  
UL497C  
UL497E

## Mounting coaxial surge protectors in feedthrough



## Reference system

CITEL part number	Max. peak power
P8AX09	25 W
P8AX15	70W
P8AX25	190 W
P8AX35	380 W
P8AX50	780 W

CITEL part number	Connectors
P8AX -N	N
P8AX -B	BNC
P8AX - T	TNC
P8AX -716	7/16
P8AX -F	F
P8AX -SMA	SMA

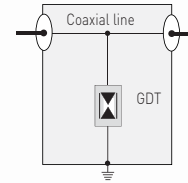
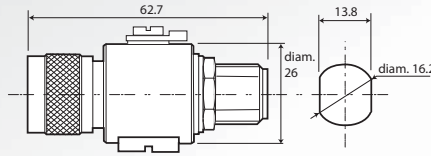
# RF Coaxial Protectors - 4 GHz

## P8AX series



P8AX09-N/MF

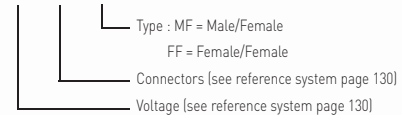
P8AX09-N/MF  
(example)



GDT: 2-electrode gas discharge tube

- Coaxial surge protector 4 GHz
- Low insertion losses
- Waterproof
- Removable GDT
- DC-pass
- Bi-directional protection

P8AX



## Characteristics

CITEL Model	P8AX09*	P8AX25*	P8AX50*			
Description	RF coaxial protector - 4 GHz	Parafoudre coaxial HF- 4 GHz	RF coaxial protector - 4 GHz			
Technology	Gas discharge tube	Gas discharge tube	Gas discharge tube			
Max. frequency	f DC-4GHz	DC-4GHz	DC-4GHz			
Max Power	P 25 W	190 W	780 W			
Impedance	Z 50 ohms	50 ohms	50 ohms			
Insertion loss	< 0.2dB	< 0.2dB	< 0.2dB			
Return loss	> 20 dB	> 20 dB	> 20 dB			
VSWR	<1.2:1	<1.2:1	<1.2:1			
Max. Load current	IL 10A	10A	10A			
Nominal discharge current - 8/20µs test x 10 - C2 category	In 5 kA	5 kA	5 kA			
Max. discharge current - max. withstand @ 8/20 µs	Imax 20 kA	20 kA	20 kA			
Impulse current - 2 x 10/350µs Test - D1 Category	Iimp 2.5 kA	2.5 kA	2.5 kA			
Protection level	Up < 650 V	< 800 V	<1200 V			
Failsafe behavior	Short-circuit	Short-circuit	Short-circuit			
<b>Mechanical characteristics</b>						
Dimensions	see diagram					
Connection to Network	N . TNC. SMA. F. BNC. 7/16					
Disconnection indicator	transmission interrupt					
Mounting	Feedthrough					
Operating temperature	-40/+85°C					
Protection rating	IP65					
Housing material	Brass/Surface plating : Cu Zn Sn					
Contacts	Bronze/Surface Au-Ag					
Insulation material	PTFE					
RohS compliance	yes					
Spare unit	BBHF-90V	BBHF-250V	BBHF-500V			
Standards compliance	IEC 61643-21 / EN 61643-21 / UL497C / UL497E					
<b>Part number</b>						
BNC connector Female/Female	P8AX09-B/FF	60111	P8AX25-B/FF	60114	P8AX50-B/FF	60117
BNC connector Male/Female	P8AX09-B/MF	60101	P8AX25-B/MF	60104	P8AX50-B/MF	60107
N connector Female/Female	P8AX09-N/FF	60011	P8AX25-N/FF	60014	P8AX50-N/FF	60017
N connector Male/Female	P8AX09-N/MF	60001	P8AX25-N/MF	60004	P8AX50-N/MF	60007
F connector Female/Female	P8AX09-F/FF	60211	P8AX25-F/FF	60214	-	-
F connector Male/Female	P8AX09-F/MF	60201	P8AX25-F/MF	60204	-	-
SMA connector Female/Female	P8AX09-SMA/FF	60511	P8AX25-SMA/FF	60514	P8AX50-SMA/FF	-
SMA connector Male/Female	P8AX09-SMA/MF	60501	P8AX25-SMA/MF	60504	P8AX50-SMA/MF	-
7/16 connector Female/Female	P8AX09-716/MF	60401	P8AX25-716/MF	60404	P8AX50-716/MF	60407
7/16 connector Male/Female	P8AX09-716/FF	60411	P8AX25-716/FF	60414	P8AX50-716/FF	60417

\*Max. frequency type F : 2 GHz

<sup>2</sup>Impedance for F type connector is 75 ohms