

RF Coaxial Protectors

P8AX - PRC - CXP



PRC



P8AX



CXP

CITEL offers a comprehensive range of surge protectors designed for RF coaxial lines. Various technologies are available to comply the different uses and requirements.

P8AX series

The P8AX series is based on gas discharge tube (GDT) and designed for RF line surge protection. Available for different power and with coaxial connectors (N, BNC, TNC, UHF, SMA, 7/16, 7/8 cable), P8AX units could be provide in feedthrough mounting version (P8AX...W) and with various impedance (50 or 75 ohms).

Main characteristics :

- Insertion losses < 0,2 dB
- VSWR < 1,2
- I_{max} : 20 kA (8/20 μ s)
- Bandwidth : 0 to several GHz
- Connectors: N, BNC, TNC, 7/16, F, SMA, UHF, 7/8 cable.

PRC series

PRC protectors are based on «Quarter-Wave» technology and are available in more than 30 versions : various connectors (7/16, N, TNC, 7/8 cable, BNC) and bandwidth (from 450 MHz to 6 GHz). These devices provide a very low residual voltage and are maintenance free.

Main characteristics :

- Insertion losses < 0,2 dB
- VSWR < 1,2
- Bandwidth :
 - 430-460 MHz
 - 870-950 MHz
 - 1700-1950 MHz
 - 1700-2200 MHz
- I_{max} : 100 kA (8/20 μ s)
- Connectors : 7/16, N, BNC, TNC, 7/8 cable.

CXP and CXP-DCB series

CXP protectors are based on GDT to provide high discharge current capability without destruction. Its particular mounting allows good adaptation to radio and TV system. Typical applications include radio terminals and TV sets (antenna, cable or satellite)

CXP-DCB version is built-in with an extra «DC block» stage in order to reduce low frequency disturbances (DC and lightning voltages) and decrease significantly the residual voltage.

Main characteristics (CXP) :

- Insertion losses < 0,5 dB
- VSWR < 1,3
- I_{max} : 20 kA (8/20 μ s)
- Bandwidth : DC - 1000 MHz
- Connectors : F, BNC, SE, N ..

Main characteristics (CXP-DCB) :

- «DC Block» feature
- Insertion losses < 0,15 dB
- VSWR < 1,2
- I_{max} : 10 kA (8/20 μ s)
- Bandwidth : 125 - 1000 MHz
- Connectors : N, BNC

● 3 technologies of coaxial protectors :

- Gas tube : P8AX series
- Quarter wave : PRC series
- Gas tube + Filter : CXP-DCB series

● Various types of coaxial connectors

● Low insertion losses

RF Coaxial Protectors

P8AX - PRC - CXP

Characteristics*

CITEL series	P8AX	PRC	CXP	CXP-DCB
Technology	Gas tube	Quarter wave	Gas tube	Gas tube + Filter
Typical application	RF transmission, DC supply	UMTS, GPS, GSM	TV, Satellite	RF transmission
Bandwidth (fmax)	0 to several GHz	PRC450.. : 420-480 MHz PRC900.. : 870-960 MHz PRC1800 : 1700-1950 MHz PRC822 : 800-2200 MHz	0-1000 MHz	125-1000 MHz
Insertion losses @ fmax	< 0.2 dB	< 0.2 dB	< 0.5 dB	< 0.15 dB
VSWR @ fmax	< 1.2	< 1.2	< 1.3	< 1.2
Maximum peak power	25 W : P8AX09.. 190 W : P8AX25..	1500 W (related to connector type)	25 W : CXP09.. 190 W : CXP25..	25 W : CXP09..DCB 190 W : CXP25..DCB
Protection level (Up) @ In (8/20 μs)	< 600 V	< 20 V	< 600 V	< 100 V
Maximal discharge current (Imax) 8/20μs - 1 impulse	20 kA	~ 100 kA (related to connector type)	20 kA	10 kA
Mechanical specifications	- Material: brass CuZnSn - Amagnetic surface coating - Mounting : on cable or feedthrough («W» option)	- Material: brass CuZnSn - Amagnetic surface coating - Mounting : on cable or feedthrough («W» option)	- Material: brass - Amagnetic surface coating - Mounting : on frame	- Material: brass - Amagnetic surface coating - Mounting : on frame
Operating temperature	-40/+80°C	40/+80°C	80°C	40/+80°C

* For complete technical information, refer to the dedicated catalog : «Surge Protective Protection for coaxial lines».

Part numbers*

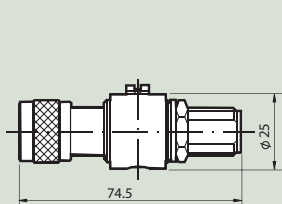
Référence CITEL	P8AX	PRC	CXP	CXP-DCB
F connector	P8AX..-F/MF P8AX..-F/FF	-	CXP..-F/MF CXP..-F/FF	-
N connector	P8AX..-N/MF P8AX..-N/FF	PRC..-N/MF PRC..-N/FF	CXP..-N/MF CXP..-N/FF	CXP..-N/MF-DCB CXP..-N/FM-DCB CXP..-N/FF-DCB
BNC connector	P8AX..-B/MF P8AX..-B/FF	PRC..-B/MF PRC..-B/FF	CXP..-B/MF CXP..-B/FF	CXP..-B/MF-DCB CXP..-B/FM-DCB CXP..-B/FF-DCB
7/16 connector	P8AX..-7-16/MF P8AX..-7-16/FF	PRC..-7-16/MF PRC..-7-16/FF	-	-
SMA connector	P8AX..-SMA/MF P8AX..-SMA/FF	-	-	-
TNC connector	P8AX..-T/MF P8AX..-T/FF	PRC..-T/MF PRC..-T/FF	-	-
UHF connector	P8AX..-U/MF P8AX..-U/FF	-	-	-

* For complete list of part numbers, refer to the dedicated catalog : «Surge Protective Protection for coaxial lines».

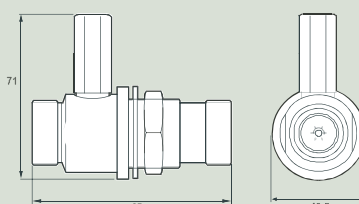
Note: P8AX and PRC series are available in «feedthrough» version (expect UHF connector) : «W» option (i.e.: P8AX09W-F/FF)

Dimensions*

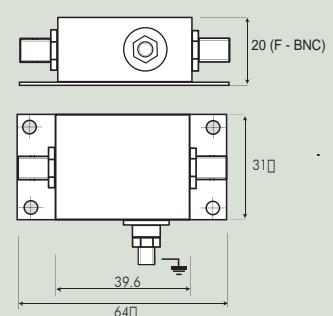
P8AX09-NW/MF
(example)



PRC822-716W/FF
(example)



CXP06-F/FF-DCB
(example)



* For complete information on mechanical dimensions, refer to the dedicated catalog : «Surge Protective Protection for coaxial lines».