

## Three-Element Gas Tube Protector Modules

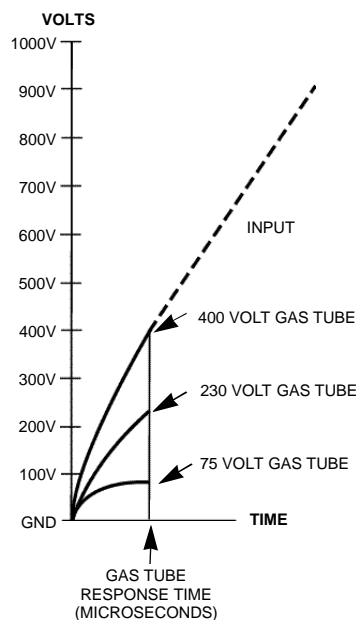
Porta Systems gas tube modules are dependable plug-in devices that guard sensitive telecommunications systems from dangerous voltage surges.

The gas tubes utilize a three-element design which prevents destructive line-to-line metallic overvoltages protecting PBXs and key systems as conventional two-element gas tubes cannot.

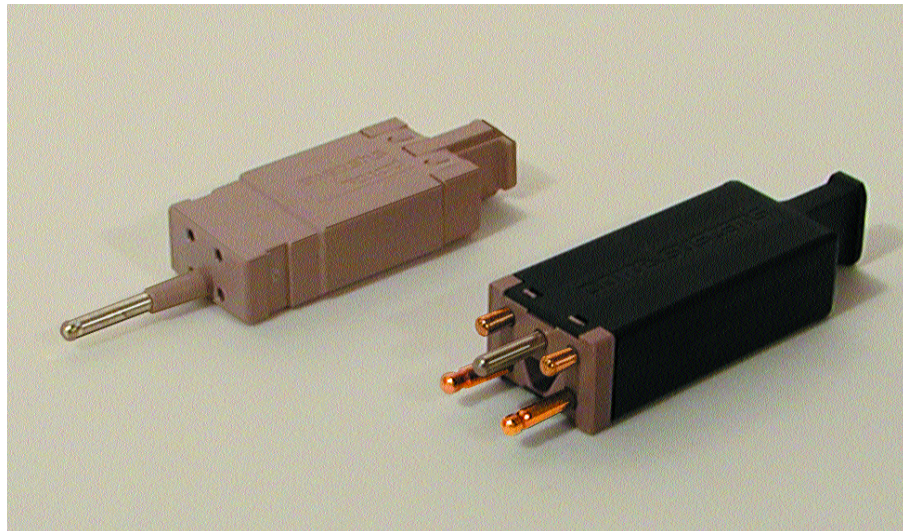
The modules include a heat-activated fail-safe mechanism that provides additional protection against power crosses. Internal test points allow easy test access to the outside plant.

Modules are also equipped with a secondary air gap for backup protection.

### PROTECTION INPUT & OUTPUT WAVEFORM



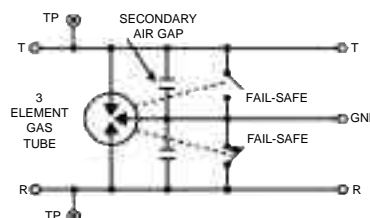
## Proven Protection for PBXs and Key Telephone Systems



### Features & Benefits

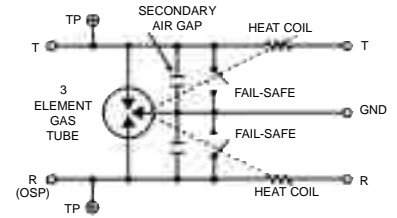
- UL 497 listed for Primary as well as Secondary protection
- Balanced three-electrode design
- Secondary air gap
- Test point contacts
- Detent position to facilitate testing
- Fail-safe mechanism
- Heat Coil (on selected models)
- Prevents costly damage to circuitry
- Extends equipment life
- Protects personnel
- Five-pin configuration compatible with other manufacturers' equipment

#### EQUIVALENT CIRCUIT



**75BCXN-230 3-ELEMENT PROTECTOR WITH GAS TUBE, HEAT SENSOR AND SECONDARY AIR GAP. 3-POINT PROTECTION (OVER VOLTAGE).**

#### EQUIVALENT CIRCUIT



**95BCXN-230 3-ELEMENT PROTECTOR WITH GAS TUBE, HEAT COIL AND SECONDARY AIR GAP. 5-POINT PROTECTION (OVER VOLTAGE PLUS OVER CURRENT)**

# THREE-ELEMENT GAS TUBE PROTECTOR MODULES

## SPECIFICATIONS:

### Electrical

	75BCXN 175BCXN 75 Volt	95BCXN 195BCXN 75 Volt	75BCXN 175BCXN 230 Volt	95BCXN 195BCXN 230 Volt	75BCXN 175BCXN 400 Volt	95BCXN 195BCXN 400 Volt	Test Parameters
DC Breakdown	63-95V	63-95V	200-275V	200-275V	300-500V	300-500V	2000V/Sec max
Impulse Breakdown	<700	<700	<800	<800	<1000V	<1000V	100V/μSec
Secondary Air Gap	<1500V	<1500V	<1500V	<1500V	<1500V	<1500V	100V/μSec
Capacitance	10 pF	10 pF	10 pF	10 pF	10 pF	10 pF	1 Vrms, 1MHz OVDC Bias
Fail-safe Operation	100 Sec @ 0.5A 50 Sec @ 1.0A 15 Sec @ 5.0A 10 Sec @ 20.0A	100 Sec @ 0.5A 50 Sec @ 1.0A 15 Sec @ 5.0A 10 Sec @ 20.0A	100 Sec @ 0.5A 50 Sec @ 1.0A 15 Sec @ 5.0A 10 Sec @ 20.0A	100 Sec @ 0.5A 50 Sec @ 1.0A 15 Sec @ 5.0A 10 Sec @ 20.0A	100 Sec @ 0.5A 50 Sec @ 1.0A 15 Sec @ 5.0A 10 Sec @ 20.0A	100 Sec @ 0.5A 50 Sec @ 1.0A 15 Sec @ 5.0A 10 Sec @ 20.0A	
Line Series Resistance*	N/A	4 ohms max	N/A	4 ohms max	N/A	4 ohms max	Line in/Line out
Maximum Single Surge	24kA	24kA	24kA	24kA	24kA	24kA	8/20 μSec surge
Insulation Resistance (min)	100 Mohms	100 Mohms	100 Mohms	100 Mohms	100 Mohms	100 Mohms	50 VDC 100VDC
DC holdover 52V	260mA	260mA	260mA	260mA	260mA	260mA	<150 mSec max to extinguish
135V	N/A	N/A	200mA	200mA	200mA	200mA	
150V	N/A	N/A	140mA	140mA	140mA	140mA	

\* High resistance heat coil available upon request.

Operating Temperature: - 13° to + 149°F ( - 25° to + 65°C)

### Heat Coil/Sneak Fuse specifications:

The device will conduct up to 360 mA indefinitely.

The device will short/open in less than 210 Sec when subjected to 540 mA.

The device will short/open in less than 10 Sec when subjected to 1A or more.

## ORDERING INFORMATION:

CONFIGURATION	TYPE	GENERIC	75 VOLT	230 VOLT	400 VOLT
Single-Pin	3-Point Protection		75BCXN-75	75BCXN-230	75BCXN-400
	5-Point Protection		95BCXN-75	95BCXN-230	95BCXN-400
Five-Pin	3-Point Protection	3B1E	175BCXN-75	175BCXN-230	175BCXN-400
	5-Point Protection	4B1E	195BCXN-75	195BCXN-230	195BCXN-400

Gold pins are available upon request.

FEATURES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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