

Coaxial SPD for Analog Video Surveillance Systems

RayCox BNC Series

C1 • C2 • C3

ZV-BNC Series



IEC/EN Category: C1/C2/C3

Protection: Impedance Matched

Voltages: 10, 24 VDC

Maximum Operating

Voltage: 12, 24 VDC

Frequency Range: 100 MHz

Surge Discharge Ratings: I_n : 10 kA, I_{max} : 20 kA

Series Load Current: 100 mA

Enclosure: In-line Installation

Termination: BNC Connectors

Housing: Shielded Enclosure

Compliance: IEC/EN 61643-21

The RayCox BNC Series is intended to protect Arcnet computer networks and CCTV coaxial video signals.

Both coarse and fine protection is provided in a shielded, impedance matched, compact in-line enclosure.

Protection is provided by core-shield and shield-protective ground.

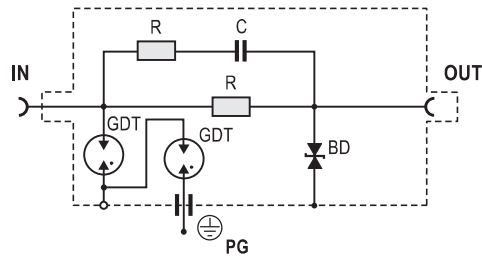
The design ensures minimum of capacitance loading, thereby ensuring a high operating bandwidth while providing efficient clamping against transient voltages.

Technical Data

BNC		BNC 5	BNC 12
Electrical			
Nominal Operating Voltage (DC)	U_n	10V	24V
Maximum Continuous Operating Voltage (DC)	U_c	12V	28V
Rated Operating Current at 25°C	I_L		100 mA
C2 Nominal Discharge Current (8/20 μ s)	I_n		10 kA
Maximum Discharge Current (8/20 μ s)	I_{max}		20 kA
Residual Voltage at 5 kA (8/20 μ s)	(Wire-Shield) U_{res}	< 35V	< 65V
Rated Spark Overvoltage	(Wire-Shield)	13.5V – 16.5V	30V – 36V
	(Shield-Ground)	72V – 108V	72V – 108V
Response Time Overvoltage Protection	(Wire-Shield) t_A		< 10 ns
	(Shield-Ground)		< 100 ns
Insulation Resistance of Protection	(Wire-Shield) R_{iso}	$\geq 10 M\Omega$	$\geq 28 M\Omega$
	(Shield-Ground)		$\geq 1 G\Omega$
Serial Resistance per Path	R		9 – 11 Ω
Transverse Capacitance	(Wire-Shield) C		30 pF
	(Shield-Ground)		1 pF
Cut-off Frequency	f_G		100 MHz
Transmission Rate			16 Mbit/s
Mechanical			
Temperature Range			-40 °C to +80 °C
Connection			BNC Connector
Degree of Protection IEC/EN 60529			IP 20
Housing Material			Metal
Order Information			
Order Code		BNC 5	BNC 12
BNC xx		7050.22	7050.13

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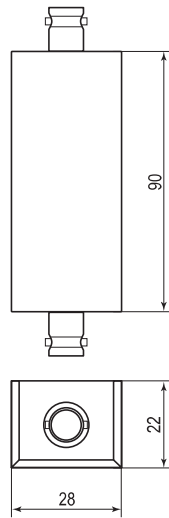
Internal Configuration



Legend

- BD Bi-directional TVS Diode
- C Capacitor
- D Diode
- GDT Gas Discharge Tube
- PG Protective Grounding
- R Resistor

Dimensions & Packaging



BNC	BNC 5	BNC 12
Dimensions		
Weight per Unit	58g	
Packaging Dimensions (Single Unit)	140 x 200	