VB31AT

Video Balun Combiner for Twisted Pair

11/08

PRODUCT SPECIFICATION

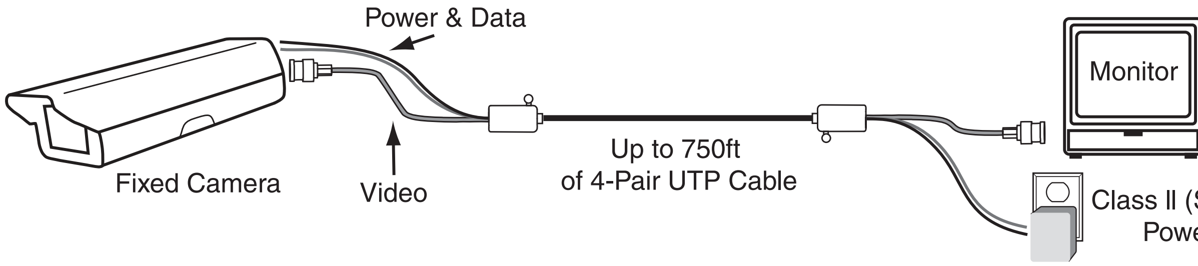
Description

The **VB31AT** is a unique transmission device which provides an economical means of sending video and camera power over a standard Category cable. Video is sent over one pair and camera power is sent over the two of the remaining pairs. A mini-coax pigtail with male BNC is used on the VB31AT. A pair of wires are provided for power connection. Connections to the Category cable are made via an RJ45 connector. The VB31AT video balun provides the same high immunity to noise and interference as all of the Nitek baluns.

This simplified wiring scheme provides a convenient method of powering the camera, allowing for quicker and easier installations. The RJ45 modular jack uses standard 568B wiring so spare network cable can be used

Features

- Superior video over ordinary twisted pair cable
- Immunity to noise and interference
- Lifetime warranty
- Built-in surge suppression
- Passive devices—do not require power
- Convenient connection to Category cable for video and power
- Easier to install than coax



UL LISTED CE RoHS COMPLIANT 2002/95/EC

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TECHNICAL SPECIFICATION

Combiner Unit

Size	0.9” H x 1.0” W x 2.0” D
Power Pass Through	250mA @ 1,000 feet on 24 AWG 1 Amp @ 100 feet on 24 AWG
Video Input	1 Vpp composite video Monochrome or Color
Output	Balanced low voltage current loop
Modular Jack	Standard RJ45

System (2 combiners required)

Video Format	PAL, SECAM, NTSC, RS170, CCIR (Color or B/W)
Video Input	1 Vpp composite video Monochrome or Color
Operating Frequency	DC to 10 MHz
Common Mode Rejection	>60 dB
Wire Size	26 to 18 AWG twisted pair
DC Loop Resistance	51 Ohms/1,000 ft (max)
Nominal Capacitance	17pF/ft
Impedance	100 Ohms +/- 20%
Category Wire	2 or better
Temperature Range	-10°C to +85°C
Humidity Range	0 to 98%, non-condensing
Twisted Pair Connection	Screw terminals
Transient Immunity	Built-in
Shipping Weight	1 lb

Wire and Cable Recommendations

We recommend using unshielded twisted pair wiring. The systems will operate over wire 26 to 18 AWG but are optimized for 24 AWG. Category cables may be used. Individually shielded pairs should be avoided, as they drastically reduce the operating range of the systems. Multi-pair cable with an overall shield is acceptable. Video can be operated in the same communication cable coexistent with telephone, computer, control signals, power voltages and other video signals. While video may be routed through telephone punch down block terminals, any bridge-taps, also called T-taps and any resistive, capacitive or inductive devices MUST BE removed from the pair.