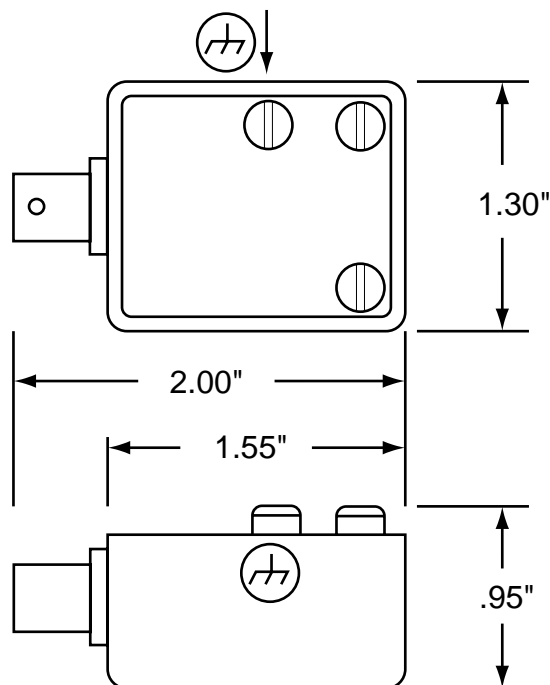


# PRODUCT SPECIFICATION

DOCUMENT NUMBER VB3739	MODEL <b>VB37F</b> with Female BNC; <b>VB37M</b> with Male BNC <i>Video Balun Transceivers for Twisted Pair up to 1,000 feet (305 meters)</i>
REVISION NUMBER 022601	<b>VB39F</b> with Female BNC; <b>VB39M</b> with Male BNC <i>Video Balun Transceivers with Surge Protection for Twisted Pair up to 1,000 feet</i>



\*Earth Ground omitted on VB37

## Description

**Video Balun Transceivers for twisted pair up to 1,000 feet. Two types are available. The basic VB37 model and the VB39 with built-in surge arresting for added equipment protection.**

**Video Balun Transceiver** is a video transmission device that provides a low cost means of sending live video over unshielded twisted pair, point-to-point wiring for distances of up to 1,000 feet. The VB37 and VB39 are compatible with all of the up the coax control systems. A basic system uses (2) VB37 or (2) VB39 units, one at each end of a twisted pair of wires. These units are intended for use over existing in house telephone wiring, category 5 wiring or other twisted pair cable runs to provide a convenient, cost-effective alternative to coax. The VB37 and VB39 are designed to provide superior immunity from noise and interference even when running next to line power!

## Features

- Quality video over ordinary twisted pair cable
- Immunity to noise and interference
- Built-in surge protection on VB39 models
- Passive devices - do not require power
- Video & P/T/Z over a single pair (with up-the-coax systems)
- M - version mounts directly to camera or video source
- Weather resistant design
- Easier to install than coax

## Applications

- Intra-building CCTV installations (instead of coaxial cable)
- Structured cabling (CAT5) environments
- To eliminate requirement for Plenum Coax
- Multi-camera applications through conduit (more cameras through a smaller diameter)

**VB37F VB37M VB39F VB39M**

# NITEK®

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# TECHNICAL SPECIFICATION

## Transceiver Unit

Size	1.3"H x 2.0"W x .95"D
Power Requirements	NONE REQUIRED
Input	1 vpp composite video Monochrome or Color
Output	Balanced low voltage current loop

## System (2 transceivers required)

Video Format	RS170, NTSC, PAL, SECAM, 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 typ.
Wire Size	12 to 26 AWG Unshielded Twisted Pair
UTP Category	Unshielded Category 2 or better
Temperature Range	-40 degrees C to +85 degrees C
Humidity Range	0 to 98%, non-condensing
Transient Immunity	6,000 V 1.2uS x 50 uS per ANSI / IEE 587 C62.41 B3 3,000 A 8uS x 20 uS when ground screw terminal is connected to earth-ground
Enclosure Material	Black ABS Flame Retardant Plastic
Twisted Pair Connection	Screw Terminals

## Ordering Information

PART	DESCRIPTION
<b>VB37F</b> Female BNC Connector	for up to 1,000 feet
<b>VB37M</b> Male BNC Connector	for up to 1,000 feet
<b>VB39F</b> Female BNC w/Surge Protection	for up to 1,000 feet
<b>VB39M</b> Male BNC w/Surge Protection	for up to 1,000 feet

## SYSTEM COMPONENTS

Two VB37 or VB39 devices M or F in any combination are required for transmission over a single UTP.

## Wire and Cable Recommendations

The VB37 and VB39 are recommended for use with **unshielded twisted pair** (UTP) wiring. The systems will operate over wire gauges from 26AWG through 12AWG. Category 2, 3, 4 or 5 cable 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. For more specific information regarding wire types, gauges and proper installation techniques, please call 800-528-4343 for technical assistance. More information is also available on the CCTV System Design Guide Sheet.

