

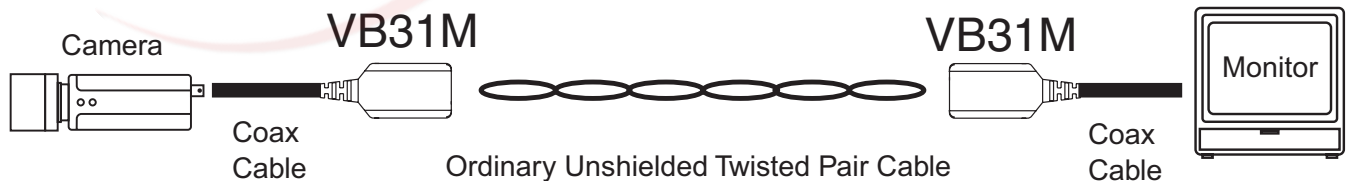


### Description

The **VB31M** is a video transmission device which converts coaxial signal into twisted pair signals. The unit provides a low cost means of sending live video over twisted pair, point-to-point wiring for distances up to 500 feet with other passive baluns, up to 1,500 feet with the TR515 and model 51 series hubs, and up to 3,000 feet with the TR560 and model 56 series hubs. The VB31M is compatible with all of the “up-the-coax” control systems. A basic system uses (2) video balun transceivers, one at each end of a twisted pair of wires. These units are intended for use over existing in-house wiring, category wiring or other twisted pair cable runs to provide a convenient, cost-effective alternative to coax. The VB31M is designed to provide superior immunity from noise and interference even when running next to line power! The VB31M also provides a unique mounted tab and strain relief.

### Features

- RJ45 jack connection for twisted pair
- Quality video over ordinary twisted pair cable
- Immunity to noise and interference
- Passive device—does not require power
- Mini-coax pigtail for in-camera or dome mounting
- Weather resistant design
- Easier to install than coax
- Compatible with all twisted pair equipped cameras, enclosures and domes



Basic Twisted Pair Video Transmission System



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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

## 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.

## 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	RJ45 jack
Transient Immunity	Built-in
Shipping Weight	1 lb