

Vi1054VPD

UTP Combiner Transceiver with 12 VDC Converter

Features

- Combines video and power into a single RJ-45 4-pair cable
- Up to 3,000 ft. (930 m) with Vigitron Active Receiver Hubs
- Up to 750 ft. (225 m) with Vigitron Passive Receiver Hubs
- Built-in passive transceiver
- Built-in surge protection for video
- Support for "up-the-coax" type signals
- 60 dB cross talk and noise immunity
- Compact size and easy installation
- Designed for structured wiring applications
- Limited lifetime warranty



Applications

- Security and surveillance
- Department store security
- Casino security
- Hospitals and airports
- School campuses

Power Distance Chart

Power Supply Voltage		24 VAC	28 VAC
Voltage at Vi1054VP		16 VAC	16 VAC
100 mA Camera	Dual 24 AWG	2,980 ft. 908 m	4,475 ft. 1,364 m
	Dual 23 AWG	3,760 ft. 1,146 m	5,640 ft. 1,719 m
300 mA Camera	Dual 24 AWG	995 ft. 303 m	1,490 ft. 454 m
	Dual 23 AWG	1,254 ft. 382 m	1,880 ft. 573 m
600 mA Camera	Dual 24 AWG	500 ft. 152 m	745 ft. 227 m
	Dual 23 AWG	627 ft. 191 m	940 ft. 286 m

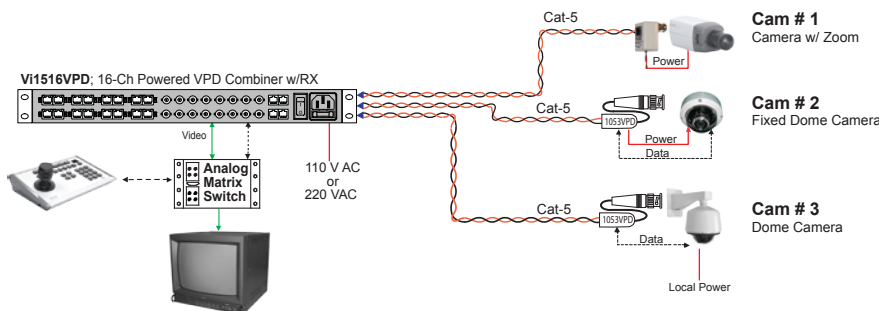
Cat-5 : 24 AWG, Cat-6 : 23 AWG

The Vi1054VPD is a passive video transmitter (non-amplified) device that includes a 24 VAC to 12 VDC converter to power cameras for distances up to 3,000 feet (930 m) over a single Cat-5 cable. Its compact size makes it easy to be mounted directly in the back cameras for a variety of applications. The power distribution from the control room over UTP will be 24 or 28 VAC. The Vi1054VPD makes it possible to use 12 VDC cameras in a 24 VAC power system.

For shorter runs, it can be used with Vigitron Vi1200 or Vi1500 series combiner-receivers. While longer distances can be achieved by using it with Vi1300 or Vi1400 series combiners and Vigitron active UTP receivers. It connects to cat-5 cable via its RJ-45 connector and its 12 VDC power output is available on a 9 in. pigtail wire.

The Vi1054VPD has built-in surge suppression to protect video equipment against damaging voltage spikes. Its exceptional noise immunity ensures quality video signals. The Vi1054VP is an ideal CCTV component for a structured cabling environment.

Application Diagram



The Smart Choice for Quality Video

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Technical Specification

Electrical

Video Format	NTSC, PAL, SECAM
Frequency	DC to 10 MHz
Coax	75 Ohm
Twisted Pair	100 Ohms +/- 20%, 24 AWG minimum up to 3,000 ft. (930 m) unshielded Category 2-7
CMRR	60 dB
Insertion Loss	0.3 dB
Input Voltage	30 -16 VAC/DC, Class II SELV
Output Voltage	12 VDC, regulated, 30 mV ripple maximum
Output Power	600 mA maximum
Connectors	UTP: RJ-45 Video: Male BNC Power: 9 in. twisted pair
Transient Immunity	ANSI / IEEE 587 C62.41

Environmental

Humidity	0 to 95%, non-condensing
Temperature	Operating: -10°C to +50°C Storage: -30°C to +70°C

Mechanical

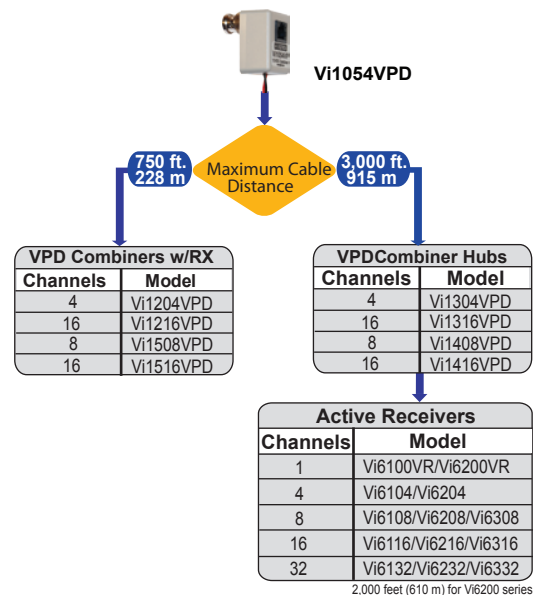
Dimensions	1.5x1.25x0.8 in., 3.8x7.1x2 cm (HxWxL)
Weight	0.06 lb (25 g)
Material	Grey ABS plastic, UL rating of 94V-0

*Specifications subject to change without notice.

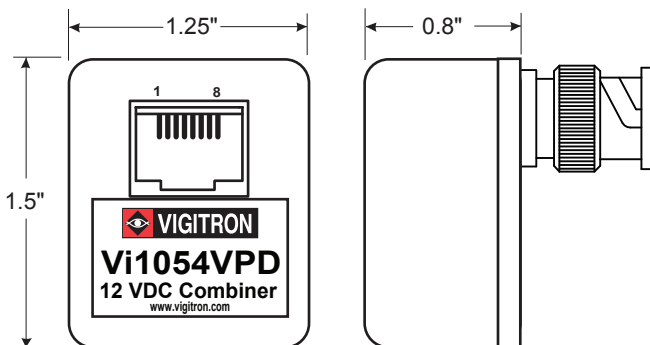
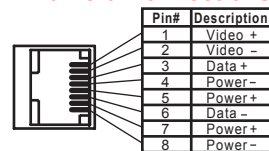
Ordering Information

PART No.	Description
Vi1054VPD	12 VDC Video-Power Combiner

System Configuration



Camera Connections:



Wire and Cable Recommendations

The Vigitron products are designed to be used with unshielded twisted pair (UTP) wiring. The UTP wire must be 24AWG - 12AWG or Category 2-7 cable. Multi pair cable with an overall shield is acceptable, however individually shielded pairs should be avoided. Multiple UTP video feeds can be operated in the same communication cable along with telephone, computer, control signals and low power voltages. While UTP video may be routed through punch-down block terminals, any resistive, capacitive or inductive devices (such as T-taps or MOV's) must not be used. Please contact Vigitron for more specific information regarding wire types and proper installation techniques.



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