

# Vi1316VPD

## 16-Channel UTP Video, Data and Power Combiner

### Features

- Combines video, power and data into a single RJ-45 4-pair cable
- Supports up to 16 cameras
- Power present indicator for each camera
- Individual 1.5 A self-resetting power fuse for each channel
- 1U high rack mountable
- Can use any third party class II power supply
- 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

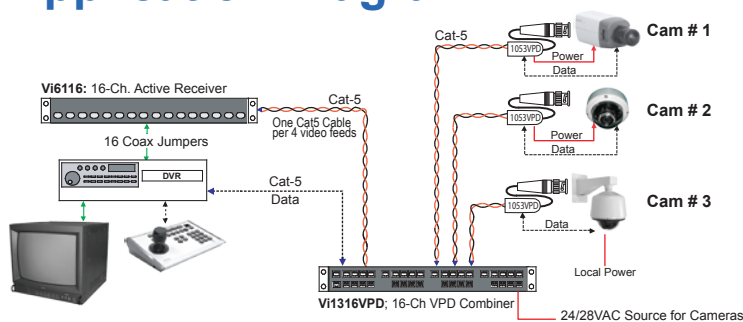
Power Supply Voltage		12 VDC	24 VAC	28 VAC
Voltage at the camera		10.8 VDC	21.6 VAC	21.6 VAC
100 mA Camera	Dual 24 AWG	448 ft. 137 m	896 ft. 273 m	2,388 ft. 728 m
	Dual 23 AWG	564 ft. 172 m	1,130 ft. 345 m	3,010 ft. 918 m
300 mA Camera	Dual 24 AWG	150 ft. 46 m	300 ft. 92 m	796 ft. 243 m
	Dual 23 AWG	190 ft. 58 m	378 ft. 115 m	1,004 ft. 306 m
1 Amp Camera	Dual 24 AWG	46 ft. 14 m	90 ft. 28 m	240 ft. 73 m
	Dual 23 AWG	58 ft. 18 m	114 ft. 35 m	300 ft. 92 m

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

The Vi1316VPD is a passive "pass-through" device that combines video, PTZ data and camera power over a single 4-pair UTP cable to simplify CCTV installations in a structured wiring environment. It supports up to 16 cameras and is designed to be installed in the wiring closet or control room. The Vi1316VPD receives low-voltage camera power from any third party multi output class II power supply. Each camera power output is equipped with a self-resetting fuse for extra protection.

At the camera end the Vi1053VPD video balun/combiner provides video, power and data on separate outputs. The Vi1316VPD can be installed at a mid-way location or at the "head end". The video and data connections to the control room are through 4-pair RJ-45 cables. Control room connections may be made using any Vigitron Passive or Active Receiver hubs with RJ-45 connections. All equipment follows industry standard EIA/TIA 568B pinouts. The Vi1316VPD 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, Category 2-7
Power Inputs	16 individually fused at 1.5 A
Power Indicators	16 green LEDs, one per channel
Connectors	Video and data: RJ-45 Power: Screw-less connectors

## Environmental

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

## Mechanical

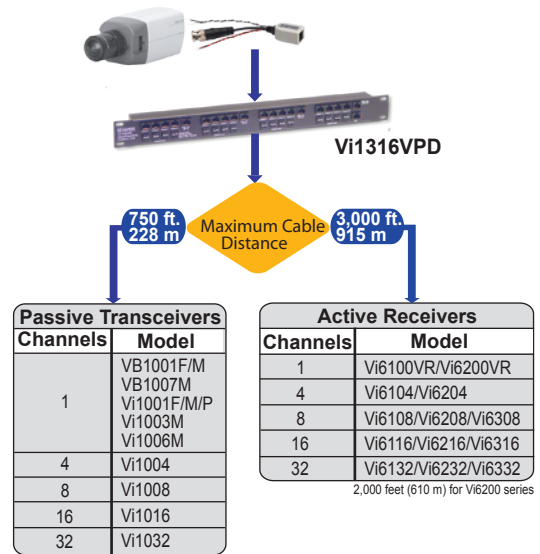
Dimensions	1.73x19x1 in., 4.4x48.2x2.5 cm (HxWxL)m
Weight	0.9 lb, 430 g
Material	Aluminum sheet metal

\*Specifications are subject to change without notice.

## Ordering Information

PART No.	Description
<b>Vi1316VPD</b>	<b>16-Ch VPD Combiner</b>
<b>Vi1304VPD</b>	<b>4-Ch VPD Combiner</b>

## System Configuration



### Camera Connections:

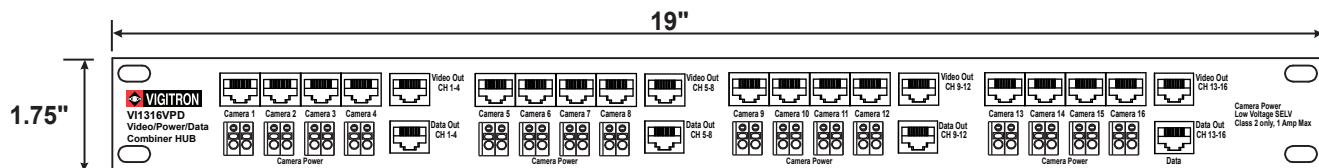
Pin#	VPD
1	Video +
2	Video -
3	Data +
4	Power -
5	Power +
6	Data -
7	Power +
8	Power -

### Control Room Video Connections:

Pin#	Camera 1-4	Camera 5-8	Camera 9-12	Camera 13-16
1	Video-1+	Video-5+	Video-9+	Video-13+
2	Video-1-	Video-5-	Video-9-	Video-13-
3	Video-2+	Video-6+	Video-10+	Video-14+
4	Video-3-	Video-7-	Video-11-	Video-15-
5	Video-3+	Video-7+	Video-11+	Video-15+
6	Video-2-	Video-6-	Video-10-	Video-14-
7	Video-4+	Video-8+	Video-12+	Video-16+
8	Video-4-	Video-8-	Video-12-	Video-16-

### Control Room Data Connections:

Pin#	Camera 1-4	Camera 5-8	Camera 9-12	Camera 13-16
1	Data-1+	Data-5+	Data-9+	Data-13+
2	Data-1-	Data-5-	Data-9-	Data-13-
3	Data-2+	Data-6+	Data-10+	Data-14+
4	Data-3-	Data-7-	Data-11-	Data-15-
5	Data-3+	Data-7+	Data-11+	Data-15+
6	Data-2-	Data-6-	Data-10-	Data-14-
7	Data-4+	Data-8+	Data-12+	Data-16+
8	Data-4-	Data-8-	Data-12-	Data-16-



## 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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