

Vi1416VPD

16-Channel Powered VPD Combiner

Features

- Supports up to 16 cameras by providing video, class II power and data on a single Category 5 cable per camera
- 16 isolated camera power individually selectable 24 or 28 VAC at 1 A max per channel, 12 A aggregated
- A glass fuse per channel, accessible from front panel
- Use with the Vi1053VPD transceiver at the camera
- Power present and fault indicator LEDs for each camera
- 1U high wall or rack mountable
- Designed for structured wiring applications
- Limited lifetime warranty



Applications

- Security and surveillance
- Department store security
- Casino security
- Hospitals and airports
- Structured wiring applications

Power Distance Chart

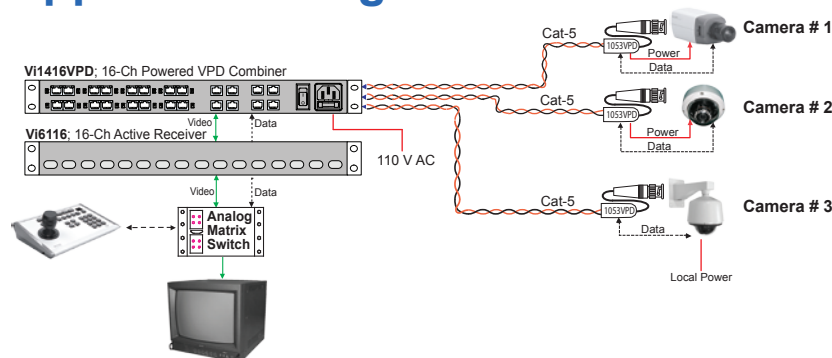
Power Supply Voltage		12 VDC	24 VAC	28 VAC
Voltage at the camera		10.8 VDC	21.6 VAC	21.6 VAC
100 mA Camera	Dual 24 AWG	448 ft. 137 m	896 ft. 273 m	2,388 ft. 728 m
	Dual 23 AWG	564 ft. 172 m	1,130 ft. 345 m	3,010 ft. 918 m
300 mA Camera	Dual 24 AWG	150 ft. 46 m	300 ft. 92 m	796 ft. 243 m
	Dual 23 AWG	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 Vi1416VPD is an advanced 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 placed at a location between the cameras and control room to extend the video up to 3,000 ft. (915 m). The Vi1416VPD has a 16-channel fully isolated class II built-in 28/24 VAC power supply. Each camera power output is equipped with a glass fuse for extra protection. All fuses are easily accessible from front.

At the camera end the Vi1053VPD video balun/combiner provides video, power and data on separate outputs. The Vi1416VPD can be installed at the "head end" or "mid-span". The video signals are connected through 4 RJ45 and Category-5 cables to passive or active UTP receivers at the control room. The data connections to the DVR are through 4-pair RJ-45 cables. There is a separate data connection for each camera. All equipment follows industry-standard EIA/TIA 568B pinouts. The Vi1416VPD is an ideal CCTV component for structured cabling environments.

Application Diagram



The Smart Choice for Quality Video

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Technical Specification

Electrical

Input Voltage 110 VAC or 220 VAC, externally switch selectable
 Input Current 4.8 A (110 VAC) / 2.4 A (220 VAC)
 Camera Power Voltage: Isolated class II, switch selectable
 24 VAC, off, or 28 VAC
 Current: 1 A maximum per camera, 12 A maximum aggregated
 Total power: 340 VA
 Fault Protection 2 A glass fuse (front access) per camera
 Twisted Pair (UTP) 100 Ohms +/- 20%, 24 AWG minimum, Category 2-7
 Diagnostics LEDs No load or shut down: 16 red LEDs, one per channel
 Power present: 16 green LEDs, one per channel
 Connectors Camera connection: RJ-45 connector
 Data: RJ-45 connector
 Control room video: RJ-45 connector
 Transient Immunity per ANSI 587 C62.41

Environmental

Humidity 0 to 95%, non-condensing
 Temperature Operating: -20°C to +50°C
 Storage: -30°C to +70°C
 Minimum Airflow 5 cft./min
 Heat 1300 BTU/hour

Mechanical

Dimensions 1.75x17x12 in., 4.3x43x30.5 cm (HxWxL)
 Weight 22 lb, 10 kg
 Material Steel sheet metal

Included Accessories

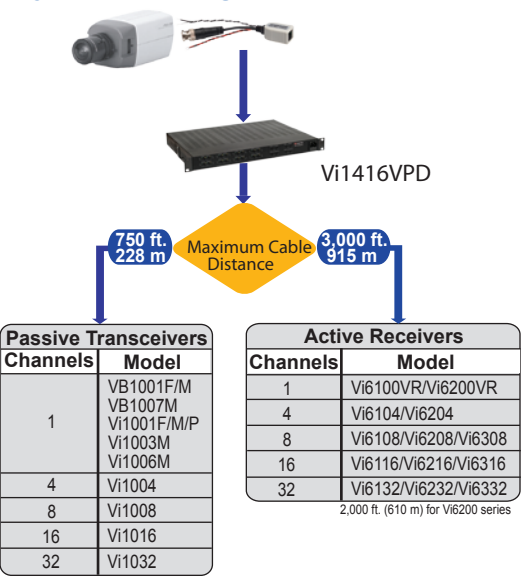
Mounting brackets for front, rear or wall installations
 Rubber feet for desk applications
 Moulded IEC 7-ft. (200 cm) power cord

*Specifications are subject to change without notice.

Ordering Information

PART No.	Description
Vi1408VPD	8-Ch Powered VPD Combiner
Vi1416VPD	16-Ch Powered VPD Combiner

System Configuration



Camera Connections:

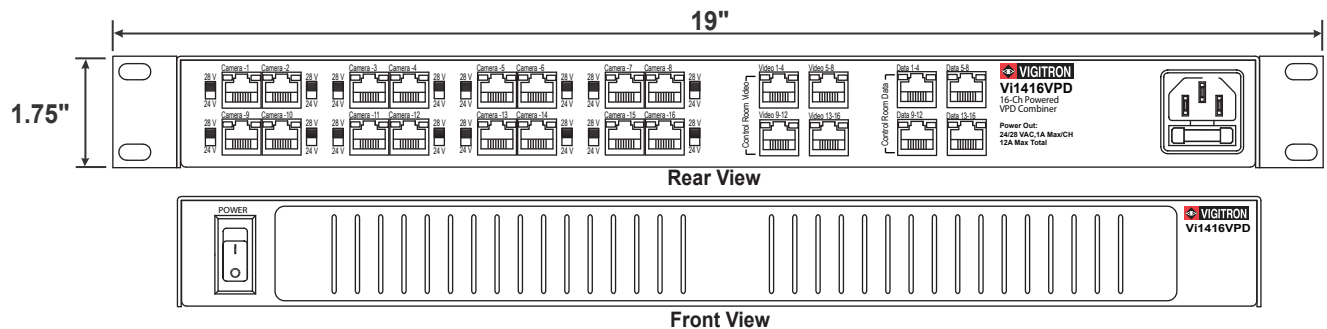
Pin#	VPD
1	Video +
2	Video -
3	Data +
4	Power -
5	Power +
6	Data -
7	Power +
8	Power -

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-2 -	Data-6 -	Data-10 -	Data-14 -
5	Data-3 +	Data-7 +	Data-11 +	Data-15 +
6	Data-3 -	Data-7 -	Data-11 -	Data-15 -
7	Data-4 +	Data-8 +	Data-12 +	Data-16 +
8	Data-4 -	Data-8 -	Data-12 -	Data-16 -

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-2-	Video-6-	Video-10-	Video-14-
5	Video-3+	Video-7+	Video-11+	Video-15+
6	Video-3-	Video-7-	Video-11-	Video-15-
7	Video-4+	Video-8+	Video-12+	Video-16+
8	Video-4-	Video-8-	Video-12-	Video-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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