



## Model NV-16PS13-PVD Power Supply Passive Video Receiver Hub



Front



Rear



### Features:

- ▶ Provides 24VAC camera power while receiving video transmission and delivering P/T/Z telemetry all over a single 4-pair Cat5 cable.
- ▶ Standard telecom/datacom structured cabling pinouts per EIA/TIA 568B
- ▶ Independently selectable 24VAC-OFF-28VAC with 1 Amp per channel\*
- ▶ Automatic-reset fault protection; transient protection
- ▶ Individually floating outputs ensure total ground-loop immunity
- ▶ Diagnostic LEDs show load/no load, short-circuits, and overload conditions
- ▶ Use with the NV-216A-PV or the NV-218A-PVD transceiver at the camera
- ▶ Power cameras via UTP over significant distances (See power distance chart)
- ▶ 1U high; 30.5 cm deep; wall, desk, or rack-mountable
- ▶ Limited lifetime warranty

The 16-channel NV-16PS13-PVD is a key hybrid component that consolidates all CCTV system cabling using standard EIA/TIA 568B structured building wiring. Designed for installation in the IDF/Telecom Closet or MDF/Equipment Room, the Power Supply Passive Video Receiver Hub has independently selectable 24VAC-OFF-28VAC outputs that can support at-distance camera loads up to 1 Amp per channel (10 Amps, aggregate). Use with NVT's NV-216A-PV or NV-218A-PVD for cable runs under 100m. A built-in passive receiver hub allows connection to DVR or an encoder for IP transmission. Per-channel diagnostic LEDs display load/no-load, short-circuits, or fault condition: at a glance. Automatic-reset fault protection, transient protection, and ground loop free individually floating outputs. All NVT products are UL and cUL listed, and compliant with CE, RoHS, WEEE and come with NVT's lifetime warranty.

\* 10 Amps, aggregate

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# Model NV-16PS13-PVD

## Power Supply Passive Receiver Hub

### Technical Specifications

#### Video

Frequency response	DC to 5 MHz
Attenuation	0.5 dB typ
Common-mode / Differential-mode rejection	
15 KHz to 5 MHz	60 dB typ
Impedance	
Coax, female BNC	75 ohms
UTP, RJ45	100 ohms

Network Wiring One four-pair Cat5 or better per channel

#### Camera Power

Each camera is powered by a fully isolated (floating) Class 2 SELV output, individually switchable 24VAC-OFF-28 VAC at up to 1 Amp (10 Amps aggregate). Each output is individually thermistor protected for auto-reset after fault removal.

#### Power

Voltage	115 / 230 VAC
Current	2.5 / 1.25 Amps
Wattage	325 Watts
Heat	250 BTU/hour

#### Front-Panel LEDs

System Power Blue LED

Per-channel LED indicates:

Off	no load connected
Green	load connected & working
Amber	short-circuit detected
Red	overload fault condition

#### Environmental

Ambient Temperature	-20 to +50° C (0 to +140°F)
Minimum airflow	0.5m <sup>3</sup> /min (20 ft <sup>3</sup> /min)
Humidity (non-condensing)	0 to 95%
Transient Immunity	per ANSI 587 C62.41

#### Mechanical

Dimensions, including connectors	483 mm wide, 44 mm high, 305 mm deep
	19 in wide, 1.73 in high, 12 in deep
Weight	NV-16PS13-PVD 11.3kg (24.9 lb)

#### Accessories

Mounting	Rack mount "L" brackets for front, rear, or wall installations: rubber feet for desk installation
Cables	NV-16PS13-PVD Sixteen 60cm (2ft) coax jumpers

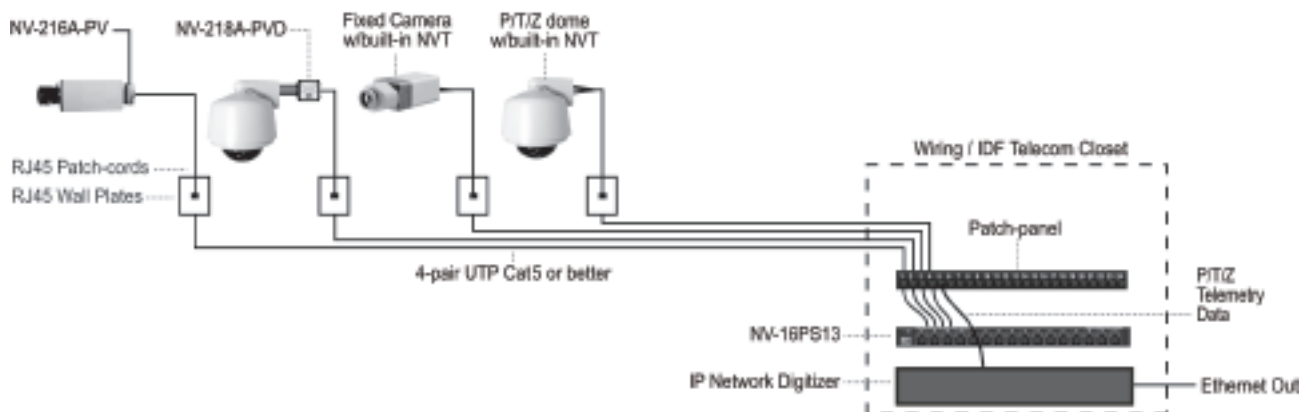
#### Optional Equipment

Mounting	NV-RMBK2 Rear Mount Support Kit (designed for use with thinner metal equipment racks) NV-WMBK2 Wall Mount Bracket Kit (heavy duty)
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#### Regulatory



Specifications subject to change without notice.



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# NV-16PS13-PVD

## Power Supply Passive Receiver Hub

### Technical Specifications

#### Wire Distance

Supply voltage, wire resistance and minimum camera operating voltage determine the maximum camera distance. Examples assume a minimum 21VAC at the camera:

Power Supply Voltage	28 VAC	24 VAC
<b>100 mA Camera</b>		
2-pair 24 AWG 0.51mm	650m*	280m*
2-pair 23 AWG 0.57mm (Cat6)	823m*	354m*
<b>300 mA Camera</b>		
2-pair 24 AWG 0.51mm	216m*	91m*
2-pair 23 AWG 0.57mm (Cat6)	274m*	116m*
<b>1 Amp Camera</b>		
2-pair 24 AWG 0.51mm	64m*	27m*
2-pair 23 AWG 0.57mm (Cat6)	82m*	33m*

\*Actual distance will depend on the camera's inrush & operating current, minimum operating voltage, and the wire's environmental temperature. Please consult NVT Customer Support for further information.

**Note:** UTP wire should be Cat5 or better. Low-voltage camera power, video and RS-422 or RS-485 data may reside within the same wire bundle, however do not run 24VAC or 28VAC within the same wire bundle as other telecom or datacom signals.

#### Camera Power-Video-Data Connections

Sixteen front-panel RJ45 outputs support up to sixteen fixed or P/T/Z telemetry cameras over 4-pair UTP Cat5 or better.



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

#### Control Room Data

RS-422 or RS-485 type P/T/Z telemetry / data signals are paralleled together in groups of four, and passed through the unit and delivered to the control room via a rear-panel RJ45 connector:



- 1 Data B +
- 2 Data B -
- 3 Data C +
- 4 Data A -
- 5 Data A +
- 6 Data C -
- 7 Data C +
- 8 Data D -

Specifications subject to change without notice.

#### Camera Connections

<b>Channel 1</b> 1 Video 1 + 2 Video 1 - 3 Data A + 4 Power 1 - 5 Power 1 + 6 Data A - 7 Power 1 + 8 Power 1 -	<b>Channel 2</b> 1 Video 2 + 2 Video 2 - 3 Data A + 4 Power 2 - 5 Power 2 + 6 Data A - 7 Power 2 + 8 Power 2 -	<b>Channel 3</b> 1 Video 3 + 2 Video 3 - 3 Data A + 4 Power 3 - 5 Power 3 + 6 Data A - 7 Power 3 + 8 Power 3 -	<b>Channel 4</b> 1 Video 4 + 2 Video 4 - 3 Data A + 4 Power 4 - 5 Power 4 + 6 Data A - 7 Power 4 + 8 Power 4 -	<b>Channel 5</b> 1 Video 5 + 2 Video 5 - 3 Data B + 4 Power 5 - 5 Power 5 + 6 Data B - 7 Power 5 + 8 Power 5 -	<b>Channel 6</b> 1 Video 6 + 2 Video 6 - 3 Data B + 4 Power 6 - 5 Power 6 + 6 Data B - 7 Power 6 + 8 Power 6 -	<b>Channel 7</b> 1 Video 7 + 2 Video 7 - 3 Data B + 4 Power 7 - 5 Power 7 + 6 Data B - 7 Power 7 + 8 Power 7 -	<b>Channel 8</b> 1 Video 8 + 2 Video 8 - 3 Data B + 4 Power 8 - 5 Power 8 + 6 Data B - 7 Power 8 + 8 Power 8 -
<b>Channel 9</b> 1 Video 9 + 2 Video 9 - 3 Data C + 4 Power 9 - 5 Power 9 + 6 Data C - 7 Power 9 + 8 Power 9 -	<b>Channel 10</b> 1 Video 10 + 2 Video 10 - 3 Data C + 4 Power 10 - 5 Power 10 + 6 Data C - 7 Power 10 + 8 Power 10 -	<b>Channel 11</b> 1 Video 11 + 2 Video 11 - 3 Data C + 4 Power 11 - 5 Power 11 + 6 Data C - 7 Power 11 + 8 Power 11 -	<b>Channel 12</b> 1 Video 12 + 2 Video 12 - 3 Data C + 4 Power 12 - 5 Power 12 + 6 Data C - 7 Power 12 + 8 Power 12 -	<b>Channel 13</b> 1 Video 13 + 2 Video 13 - 3 Data D + 4 Power 13 - 5 Power 13 + 6 Data D - 7 Power 13 + 8 Power 13 -	<b>Channel 14</b> 1 Video 14 + 2 Video 14 - 3 Data D + 4 Power 14 - 5 Power 14 + 6 Data D - 7 Power 14 + 8 Power 14 -	<b>Channel 15</b> 1 Video 15 + 2 Video 15 - 3 Data D + 4 Power 15 - 5 Power 15 + 6 Data D - 7 Power 15 + 8 Power 15 -	<b>Channel 16</b> 1 Video 16 + 2 Video 16 - 3 Data D + 4 Power 16 - 5 Power 16 + 6 Data D - 7 Power 16 + 8 Power 16 -

#### Control Room Connections

<b>Channels 1-4</b> 1 Video 2 + 2 Video 2 - 3 Video 3 + 4 Video 1 - 5 Video 1 + 6 Video 3 - 7 Video 4 + 8 Video 4 -	<b>Channels 5-8</b> 1 Video 6 + 2 Video 6 - 3 Video 7 + 4 Video 5 - 5 Video 5 + 6 Video 7 - 7 Video 8 + 8 Video 8 -	<b>Channels 9-12</b> 1 Video 10 + 2 Video 10 - 3 Video 11 + 4 Video 9 - 5 Video 9 + 6 Video 11 - 7 Video 12 + 8 Video 12 -	<b>Channels 13-16</b> 1 Video 14 + 2 Video 14 - 3 Video 15 + 4 Video 13 - 5 Video 13 + 6 Video 15 - 7 Video 16 + 8 Video 16 -	<b>Telemetry / Data</b> 1 Data B + 2 Data B - 3 Data C + 4 Data A - 5 Data A + 6 Data C - 7 Data D + 8 Data D -
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# PVD™ transmission know-how from NVT. Knowledge is power.

Enjoy high performance, proven reliability and huge savings with camera Power, Video reception & Data transmission (PVD™).

Take a look at the impressive new **NV-8PS13-PVD & NV-16PS13-PVD Power Supply Video Receiver Hubs** from NVT. Effectively three products in one, these incredibly compact units offer either an 8 or 16 channel camera power supply, each with a built-in UTP video transceiver.

They provide independently selectable 24VAC-OFF-28VAC camera power with 1 amp per channel\*, while receiving video transmission. And, by powering from a central location, you make everything simple, saving stacks of time and a fortune in cabling infrastructure costs.

You can consolidate all CCTV system cabling using standard structured building cabling, allowing transmission choice flexibility and delivering P/T/Z telemetry – all over a single 4-pair Cat5 cable. Even smarter, the built-in UTP passive transceiver allows easy connection to a DVR or an A/D encoder for IP transmission.

It all adds up to some extremely powerful reasons why you should get to know more, today.



**PVD™ from**

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