



Model NV-16PS10-PVD Power Supply Cable Integrator Hub



Front



Rear



Features:

- Provides Class 2 SELV camera power and pass-through video and telemetry data connectivity for up to 16 cameras, each via a single RJ45 4-pair UTP cable
- Standard telecom/datacom structured cabling pinouts per EIA/TIA 568B
- Independently selectable 24 or 28VAC with 1 Amp max per channel
- Automatic-reset fault protection; transient protection
- Individually floating outputs ensure total ground-loop immunity
- Frequency response DC to 10MHz (see Recommended Distance Chart)
- Diagnostic LEDs show load/no load, miswires, and overload conditions
- Use with the NV-216A-PV or NV-218A-PVD transceivers or the NV-226J-PV transmitter at the camera
- Power cameras via UTP over significant distances (see Power Distance Chart)
- 1 U high; 12" deep; wall, desk, or rack-mountable
- Limited lifetime warranty

The NVT model NV-16PS10-PVD combines a 1 Amp/channel power supply with pass through video and telemetry data, for up to 16 cameras, all over UTP wire. Designed for installation in the wiring/IDF telecom closet, or at the Control/MDF room, the NV-16PS10-PVD consolidates connectivity via standard 4-pair RJ45 EIA/TIA 568B compliant premises wiring and pinouts.

At the camera, Power, Video and Data connections are made using a PVD™ transceiver via an RJ45 connector and a single 4-pair cable. Control/MDF room connections are achieved with a single 4-pair RJ45 cable for each group of four cameras. Consolidated P/T/Z telemetry data, if required, passes through the NV-16PS10-PVD's data path, and is connected to the controller via another 4-pair RJ45 cable.

Network Video Technologies

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Technical Specifications

WIRE DISTANCE (Power Distance Charts)

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

Fixed Camera 24VAC only, used with NV-216A-PV		
Power Supply Voltage	24 VAC	28 VAC
Minimum Voltage at Camera	21 VAC	21 VAC
B&W Camera, 2.4 W		
2-pair 24 AWG	789ft (240m)	1,840ft (561m)
2-pair 23 AWG	994ft (303m)	2,320ft (707m)
Color Camera, 4.8 W		
2-pair 24 AWG	393ft (120m)	916ft (279m)
2-pair 23 AWG	495ft (151m)	1,155ft (352m)
Color Camera, 7.2 W		
2-pair 24 AWG	262ft (80m)	612ft (186m)
2-pair 23 AWG	331ft (101m)	771ft (235m)

Fixed Dual Voltage 24VAC12VDC Camera with NV-216A-PV		
Power Supply Voltage	24 VAC	28 VAC
Minimum Voltage at Camera	14 VAC	14 VAC
B&W Camera 100 mA, 2.4 W		
2-pair 24 AWG	1,753ft (534m)	2,454ft (748m)
2-pair 23 AWG	2,210ft (674m)	3,000ft (915m)
Color Camera 200 mA, 4.8 W		
2-pair 24 AWG	874ft (266m)	1,223ft (373m)
2-pair 23 AWG	1,102ft (336m)	1,542ft (470m)
Color Camera 300 mA, 7.2 W		
2-pair 24 AWG	583ft (173m)	815ft (250m)
2-pair 23 AWG	735ft (224m)	1,025ft (310m)

P/T/Z 24VAC Camera	NV-218A-PVD	
Power Supply Voltage	24 VAC	28 VAC
Minimum Voltage at Camera	21 VAC	21 VAC
P/T/Z Camera 1,000 mA, 21 W		
2-pair 24 AWG	90ft (27m)	210ft (64m)
2-pair 23 AWG	113ft (35m)	265ft (81m)

Fixed 12VDC Camera used with NV-226J-PV		
Power Supply Voltage	24 VAC	28 VAC
B&W Camera, 2.4 W		
2-pair 24 AWG	1,586ft (482m)	2,220ft (677m)
2-pair 23 AWG	1,999ft (609m)	2,799ft (853m)
Color Camera 4.8 W		
2-pair 24 AWG	795ft (242m)	1,113ft (339m)
2-pair 23 AWG	1,002ft (306m)	1,403ft (428m)

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

Wire should be category rated Unshielded Twisted-Pair (UTP) cable. Low voltage camera power, video, and RS-422 or RS-485 telemetry may be sent within the same wire bundle. Do not run 24VAC or 28VAC in the same wire bundle with analog telecom signals. However you may share the same wire/cable tray.

An online wire Power Distance Calculator is available at www.nvt.com under Product Support.

VIDEO

Frequency response	DC to 10 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. Each output is individually thermistor protected for auto-reset after fault removal.

POWER INPUT

Power inlet:	IEC with molded power cord (included)
On-Off Switch	Rear panel
Voltage	115 / 230 VAC
Current	3.0 / 1.5 Amps
Frequency	50 / 60 Hz
Protection	5A slo-blo 8 x 20mm fuse and thermal shutdown
Wattage	325 Watts
Heat	(power supply only) 125 BTU / hour
	(power supply with cameras) 1,200 BTU / hour

FRONT-PANEL LEDs

Blue LED	System power on
Per-channel LED indicates:	Off No load connected
Green	Load connected and working
Amber	Mis-wiring detected
Red	Overload shutdown condition

ENVIRONMENTAL

Ambient Temperature	-4 to +122 °F (-20 to +50 °C)
Minimum airflow	4 ft ³ /min (0.1m ³ /min)
Humidity (non-condensing)	0 to 95%
Transient Immunity	per ANSI 587 C62.41

MECHANICAL

Dimensions including connectors:	19in wide, 1.73in high, 12in deep (483mm wide, 44mm high, 305mm deep)
Weight	22lb (10kg)
Mounting	Wall, desk, or rack mount, brackets

ACCESSORIES (included)

Mounting	Rack mount "L" brackets for front, rear, or wall installations; rubber feet for desk applications
Cables	Molded IEC power inlet cord 7ft (200cm)

REGULATORY



Specifications subject to change without notice.

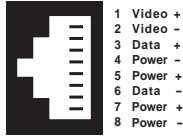


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CAMERA PVD CONNECTIONS

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

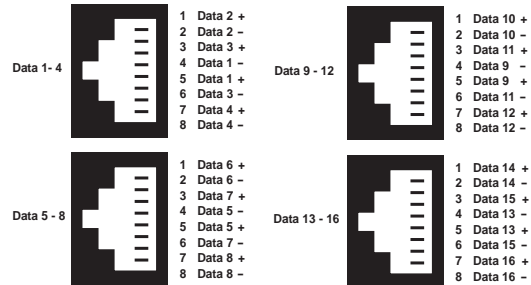
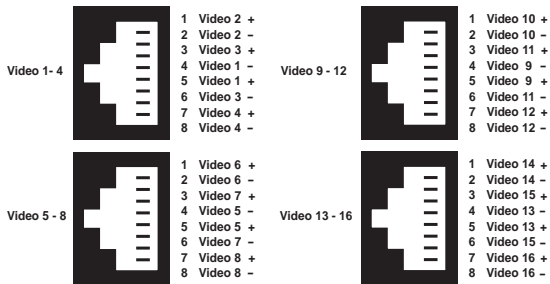


CONTROL ROOM VIDEO

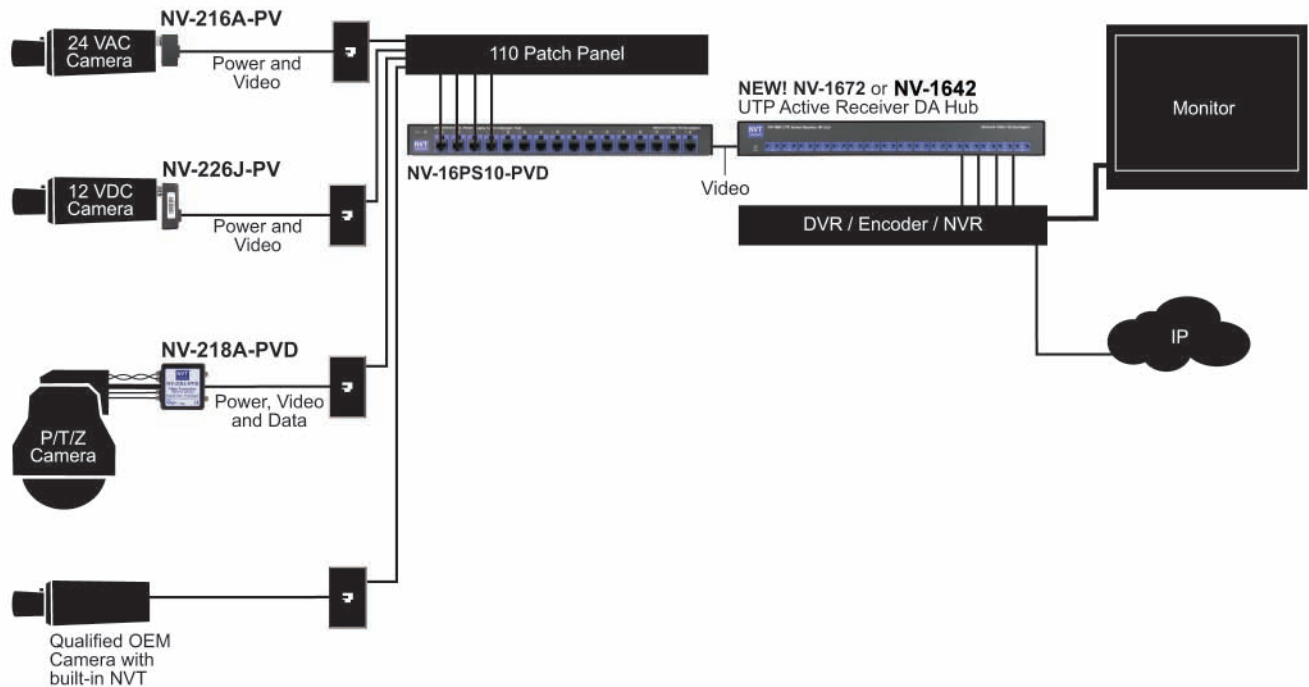
UTP video signals are passed through the unit and delivered to the control / MDF room via rear-panel RJ45 connectors.

CONTROL ROOM DATA

RS-422 or RS-485 type P/T/Z telemetry / data signals are passed through the unit and delivered to the control room via a rear-panel RJ45 connector.



Typical Application



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